NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

As of December 31, 2022 and 2021, and For the years ended December 31, 2022 and 2021

1. General Information

1.1 Company Overview

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

These consolidated financial statements have been prepared in accordance with Korean International Financial Reporting Standards ("Korean IFRS") 1110, Consolidated Financial Statements. SEC, as the controlling company, consolidates its 232 subsidiaries, including Samsung Display and Samsung Electronics America. The Company also applies the equity method of accounting for its 37 associates and joint ventures, including Samsung Electro-Mechanics Co., Ltd.

1.2 Consolidated Subsidiaries

The consolidated subsidiaries as of December 31, 2022 are as follows:

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

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

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

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

Area	Subsidiaries	Industry	Percentage of ownership (%) ¹
	Samsung Electronics (UK) Ltd. (SEUK)	Sale of electronic devices	100.0
	Samsung Electronics Ltd. (SEL)	Management of overseas subsidiaries	100.0
	Samsung Semiconductor Europe Limited (SSEL)	Sale of semiconductor and display panels	100.0
	Samsung Electronics GmbH (SEG)	Sale of electronic devices	100.0
	Samsung Electronics Holding GmbH (SEHG)	Management of overseas subsidiaries	100.0
	Samsung Semiconductor Europe GmbH (SSEG)	Sale of semiconductor and display panels	100.0
	Samsung Electronics France S.A.S (SEF)	Sale of electronic devices	100.0
	Samsung Electronics Italia S.P.A. (SEI)	Sale of electronic devices	100.0
	Samsung Electronics Iberia, S.A. (SESA)	Sale of electronic devices	100.0
	Samsung Electronics Portuguesa, Unipessoal, Lda. (SEP)	Sale of electronic devices	100.0
	Samsung Electronics Hungarian Private Co., Ltd. (SEH)	Manufacture and sale of electronic devices	100.0
	Samsung Electronics Europe Logistics B.V. (SELS)	Logistics	100.0
	Samsung Electronics Benelux B.V. (SEBN)	Sale of electronic devices	100.0
	Samsung Electronics Europe Holding Cooperatief U.A. (SEEH)	Management of overseas subsidiaries	100.0
	Samsung Electronics Nordic Aktiebolag (SENA)	Sale of electronic devices	100.0
	Samsung Electronics Slovakia s.r.o. (SESK)	Manufacture of TV and monitors	100.0
	Samsung Display Slovakia, s.r.o. (SDSK)	Toll processing of display panels	100.0
	Samsung Electronics Polska, SP.Zo.o (SEPOL)	Sale of electronic devices	100.0
	Samsung Electronics Poland Manufacturing SP.Zo.o (SEPM)	Manufacture of home appliances	100.0
Europe &	Samsung Electronics Romania LLC (SEROM)	Sale of electronic devices	100.0
CIS	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
	Samsung Electronics Rus Company LLC (SERC)	Sale of electronic devices	100.0
	Samsung Electronics Rus Kaluga LLC (SERK)	Manufacture of TV	100.0
	Samsung Electronics Ukraine Company LLC (SEUC)	Sale of electronic devices	100.0
	Samsung R&D Institute Ukraine (SRUKR)	R&D	100.0
	Samsung Electronics Central Eurasia LLP (SECE)	Sale of electronic devices	100.0
	Samsung Electronics Overseas B.V. (SEO)	Sale of electronic devices	100.0
	Samsung R&D Institute Rus LLC (SRR)	R&D	100.0
	Samsung Electronics Caucasus Co., Ltd. (SECC)	Marketing	100.0
	Samsung Electronics Uzbekistan Ltd. (SEUZ)	Marketing	100.0

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

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

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Area	Subsidiaries	Industry	Percentage of ownership (%) ¹
	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
Middle East	Samsung Electronics Saudi Arabia Ltd. (SESAR)	Sale of electronic devices	100.0
& Africa	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
	DOWOOINSYS VINA COMPANY LIMITED	Manufacture of display components	100.0
Asia	PT Samsung Electronics Indonesia (SEIN)	Manufacture and sale of electronic devices	100.0
(Excluding	PT Samsung Telecommunications Indonesia (STIN)	Sale of electronic devices and services	100.0
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-B)	R&D	100.0
	Samsung R&D Institute BanglaDesh Limited (SRBD)	R&D	100.0
	Samsung Nepal Services Pvt, Ltd. (SNSL)	Service	100.0
	Samsung Japan Corporation (SJC)	Sale of semiconductor and display panels	100.0

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

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

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

Area	Subsidiaries	Industry	Percentage of ownership (%) ¹
	Samsung Display Co., Ltd.	Manufacture and sale of display panels	84.8
	SU Materials	Manufacture of display components	50.0
	STECO Co., Ltd.	Manufacture of semiconductor components	70.0
	SEMES Co., Ltd.	Manufacture and sale of semiconductor/FPD	91.5
	Samsung Electronics Service Co., Ltd.	Repair services for electronic devices	99.3
	Samsung Electronics Service Customer Satisfaction Co., Ltd.	Call center for repair services for electronic devices	100.0
	Samsung Electronics Sales Co., Ltd.	Sale of electronic devices	100.0
	Samsung Electronics Logitech Co., Ltd.	General logistics agency	100.0
	Samsung Medison Co., Ltd.	Manufacture and sale of medical equipment	68.5
	Stella Forest of Hope	Manufacture of food	100.0
	Mirero System Co., Ltd.	Development and supply of semiconductor process defect and quality control software	99.9
	Dowooinssys Co., Ltd.	Manufacture of display components	69.0
	Gf-System Co., Ltd.	Manufacture of display components	100.0
	Harman International Korea	Software development and supply, etc.	100.0
	Samsung Venture Capital Union #21	Technology business, Venture capital investments	99.0
	Samsung Venture Capital Union #22	Technology business, Venture capital investments	99.0
Domestic	Samsung Venture Capital Union #26	Technology business, Venture capital investments	99.0
	Samsung Venture Capital Union #28	Technology business, Venture capital investments	99.0
	Samsung Venture Capital Union #29	Technology business, Venture capital investments	99.0
	Samsung Venture Capital Union #32	Technology business, Venture capital investments	99.0
	Samsung Venture Capital Union #33	Technology business, Venture capital investments	99.0
	Samsung Venture Capital Union #37	Technology business, Venture capital investments	99.0
	Samsung Venture Capital Union #40	Technology business, Venture capital investments	99.0
	Samsung Venture Capital Union #42	Technology business, Venture capital investments	99.0
	Samsung Venture Capital Union #43	Technology business, Venture capital investments	99.0
	Samsung Venture Capital Union #45	Technology business, Venture capital investments	99.0
	Samsung Venture Capital Union #48	Technology business, Venture capital investments	99.0
	Samsung Venture Capital Union #52	Technology business, Venture capital investments	99.0
	Samsung Venture Capital Union #55	Technology business, Venture capital investments	99.0
	Samsung Venture Capital Union #56	Technology business, Venture capital investments	99.0
	Samsung Venture Capital Union #57	Technology business, Venture capital investments	99.0
	Growth type private equity trust specialized in semiconductors	Investment on semiconductor industry	66.7
	System LSI Mutual benefit private equity trust	Investment on semiconductor industry	62.5

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

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

1.3 Summary of Financial Data of Major Consolidated Subsidiaries

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

(1) 2022

(In millions of Korean won)	As of Decemb	er 31, 2022	For the year ended I	December 31, 2022
Major subsidiaries ¹	Assets	Liabilities	Sales	Profit (loss) for the year
Samsung Display	57,302,567	7,282,718	30,779,405	4,365,588
Samsung Electronics America, Inc. (SEA)	37,883,156	12,258,315	46,738,920	219,670
Samsung Asia Pte. Ltd. (SAPL)	26,894,611	2,678,285	-	8,699,679
Harman and its subsidiaries ²	17,102,324	6,380,456	13,211,151	631,019
Samsung (China) Semiconductor Co., Ltd. (SCS)	17,095,000	2,970,835	9,679,757	638,385
Samsung Electronics Vietnam THAINGUYEN Co., Ltd. (SEVT)	15,718,299	2,358,140	36,336,963	2,721,701
Samsung (CHINA) Investment Co., Ltd. (SCIC)	13,830,988	9,764,636	2,865,831	257,878
Samsung Semiconductor, Inc. (SSI)	12,199,102	5,930,369	43,009,331	88,467
Samsung Electronics Vietnam Co., Ltd. (SEV)	10,931,037	1,408,387	23,667,565	1,646,165
Samsung Electronics Europe Holding Cooperatief U.A. (SEEH)	10,841,515	6,272,800	-	57,997
Samsung Austin Semiconductor LLC. (SAS)	9,301,017	828,494	3,663,909	208,879
Samsung Display Vietnam Co., Ltd. (SDV)	7,471,680	1,608,448	25,773,970	1,301,926
Samsung India Electronics Private Ltd. (SIEL)	6,772,537	3,571,863	16,180,492	508,510
Shanghai Samsung Semiconductor Co., Ltd. (SSS)	5,067,891	2,858,382	21,370,622	318,578
Samsung Eletronica da Amazonia Ltda. (SEDA)	4,600,508	1,342,517	7,485,104	(38,490)
Samsung Electronics HCMC CE Complex Co., Ltd. (SEHC)	3,732,057	980,448	6,253,401	386,119
Thai Samsung Electronics Co., Ltd. (TSE)	3,263,473	486,820	4,824,734	168,524
Samsung Electronics (UK) Ltd. (SEUK)	2,819,792	1,708,064	5,929,357	243,396
Samsung Electronics Benelux B.V. (SEBN)	2,377,730	597,044	2,834,008	25,411
Samsung Electronics Hungarian Private Co. Ltd. (SEH)	2,374,317	452,628	3,935,745	199,742
Samsung Electronics Europe Logistics B.V. (SELS)	2,194,975	2,021,491	15,409,984	20,347
Samsung Display Dongguan Co., Ltd. (SDD)	2,135,132	265,835	2,556,608	111,643
SEMES Co., Ltd.	2,065,558	602,323	2,889,238	185,762
Samsung Electronics GmbH (SEG)	1,968,273	1,907,132	6,567,011	3,695
Samsung Electronics Mexico S.A. De C.V. (SEM)	1,816,895	996,002	3,270,016	110,386

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

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

(2) 2021

(In millions of Korean won)	As of Decemb	As of December 31, 2021		For the year ended December 31, 2021	
Major subsidiaries ¹	Assets	Liabilities	Sales	Profit (loss) for the year	
Samsung Display	54,967,156	9,081,737	28,755,975	2,770,060	
Samsung Electronics America, Inc. (SEA)	42,982,054	19,246,751	42,325,524	823,914	
Samsung (China) Semiconductor Co., Ltd. (SCS)	19,049,536	5,168,738	7,341,018	1,708,832	
Samsung Electronics Vietnam THAINGUYEN Co., Ltd. (SEVT)	17,521,446	3,425,127	32,184,024	2,298,273	
Harman and its subsidiaries ²	15,887,380	6,104,012	10,015,092	357,612	
Samsung Asia Pte. Ltd. (SAPL)	14,683,789	58,381	-	4,668,478	
Samsung Electronics Europe Holding Cooperatief U.A. (SEEH)	14,651,496	8,998,502	-	24,527	
Samsung Semiconductor, Inc. (SSI)	13,744,799	7,955,060	33,895,805	74,531	
Samsung (CHINA) Investment Co., Ltd. (SCIC)	13,599,093	9,685,278	2,615,685	451,062	
Samsung Electronics Vietnam Co., Ltd. (SEV)	13,023,272	2,085,411	21,583,038	1,455,704	
Samsung Austin Semiconductor LLC (SAS)	8,705,085	958,537	3,703,472	759,206	
Shanghai Samsung Semiconductor Co., Ltd. (SSS)	7,765,126	5,799,690	31,326,186	325,397	
Samsung India Electronics Private Ltd. (SIEL)	7,765,019	3,236,745	12,222,643	522,672	
Samsung Display Vietnam Co., Ltd. (SDV)	6,821,066	2,486,703	21,722,446	981,311	
Samsung Eletronica da Amazonia Ltda. (SEDA)	4,589,505	1,671,097	6,020,523	490,202	
Samsung Electronics HCMC CE Complex Co., Ltd. (SEHC)	3,129,104	919,721	6,551,242	472,666	
Thai Samsung Electronics Co., Ltd. (TSE)	3,018,358	474,223	4,443,031	142,191	
Samsung Electronics (UK) Ltd. (SEUK)	2,925,062	1,992,367	5,621,922	241,403	
Samsung Electronics Benelux B.V. (SEBN)	2,612,357	766,034	2,569,603	284,816	
Samsung Electronics Hungarian Private Co., Ltd. (SEH)	2,504,075	641,004	4,357,137	157,616	
Samsung Electronics Europe Logistics B.V. (SELS)	2,305,275	2,144,805	14,700,517	13,943	
Samsung Electronics GmbH (SEG)	2,289,391	2,228,650	6,385,080	2,158	
Samsung Display Dongguan Co., Ltd. (SDD)	2,149,277	339,425	3,987,674	163,637	
Samsung International, Inc. (SII)	2,125,719	1,041,168	7,948,982	105,444	
Samsung Electronics Taiwan Co., Ltd. (SET)	2,033,992	1,459,353	5,638,204	50,966	

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

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

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

1.4 Changes in Consolidation Scope

Changes in consolidation scope during the year ended December 31, 2022 are as follows:

Change	Area	Subsidiary	Description
		Samsung R&D Institute Ukraine (SRUKR)	Establishment
	Europa & CIC	Samsung Electronics Uzbekistan Ltd. (SEUZ)	Establishment
	Europe & CIS	Apostera GmbH	Acquisition
To also de d		Apostera UA, LLC	Acquisition
Included	Asia	DOWOOINSYS VINA COMPANY LIMITED	Establishment
	(Excluding China)	Red Brick Lane Marketing Solutions Pvt. Ltd.	Acquisition
	Domestic	Samsung Venture Capital Union #57	Establishment
		Stella Forest of Hope	Establishment
	America	Dacor Canada Co.	Liquidation
Excluded		AMX UK Limited	Liquidation
Excluded	Europe & CIS	Harman International s.r.o	Liquidation
		Apostera GmbH	Merger

2. Significant Accounting Policies

2.1 Basis of Presentation

The principal accounting policies used to prepare the consolidated financial statements are set out below. Except for the effect of the amendments to the Korean IFRS and new interpretations set out below, the principal accounting policies used to prepare the consolidated financial statements as of and for the year ended December 31, 2022 are consistent with those used to prepare the consolidated financial statements as of and for the year ended December 31, 2021.

The Company maintains its accounting records in Korean won and prepares the statutory financial statements in Korean language (Hangul) in accordance with International Financial Reporting Standards as adopted by the Republic of Korea ("Korean IFRS"). The accompanying consolidated financial statements have been restructured, and translated into English from the Korean language financial statements.

Certain information attached to the Korean language financial statements that are not required for a fair presentation of the Company's financial position, financial performance or cash flows, are not presented in the accompanying consolidated financial statements.

The consolidated financial statements of the Company have been prepared in accordance with Korean IFRS. These are the standards, subsequent amendments and related interpretations issued by the International Accounting Standards Board (IASB) that have been adopted by the Republic of Korea.

Korean IFRS permits the use of critical accounting estimates in the preparation of the consolidated financial statements and requires management judgments in applying the accounting policies. The areas involving a higher degree of judgment or complexity, or areas where assumptions and estimates are significant to the consolidated financial statements, are disclosed in Note 3.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

2.2 Changes in Accounting Policies and Disclosures

(A) New and amended standards adopted by the Company

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

Amendments to Korean IFRS 1116, Lease

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

Amendments to Korean IFRS 1103, Business Combinations

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

Amendments to Korean IFRS 1016, Property, Plant and Equipment

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

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

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

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

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

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

Amendments to Korean IFRS 1001 Presentation of Financial Statements

The amendments clarify that the classification of liabilities as current or non-current is based on the rights that are in existence at the end of the reporting period, specify that classification is unaffected by expectations about whether an entity will exercise its right to defer settlement of a liability, and elucidate that settlement refers to the transfer to the counterparty of cash, equity instruments, other assets or services. The amendments are effective for annual reporting periods beginning on or after January 1, 2023, with earlier application permitted.

Amendments to Korean IFRS 1001 Presentation of Financial Statements

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

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

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

Amendments to Korean IFRS 1012, Income Taxes

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

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

2.3 Consolidation

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

(A) Subsidiaries

Subsidiaries are all entities (including the special purpose entities) over which the Company has control. The Company controls the corresponding investee when it is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee. Consolidation of a subsidiary begins from the date the Company obtains control of a subsidiary and ceases when the Company loses control of the subsidiary.

The Company applies the acquisition method to account for business combinations. The consideration transferred is measured at the fair values of the assets transferred, and identifiable assets acquired and liabilities and contingent liabilities assumed in a business combination are initially measured at their fair values at the acquisition date. The Company recognizes any non-controlling interest in the acquiree on an acquisition-by-acquisition basis in the event of liquidation at the non-controlling interest's proportionate share of the recognized amounts of acquiree's identifiable net assets. Acquisition-related costs are expensed as incurred.

The excess of consideration transferred, of any non-controlling interest in the acquired entity, and acquisition-date fair value of any previous equity interest in the acquired entity over the fair value of the net identifiable assets acquired is recorded as goodwill. If those amounts are less than the fair value of the net identifiable assets of the business acquired, the difference is recognized directly in the profit or loss as a bargain purchase.

Balances of receivables and payables, income and expenses and unrealized gains or losses on transactions between the entities within the Company are eliminated. Accounting policies of subsidiaries are changed where necessary to ensure consistency with the policies adopted by the Company.

(B) Changes in ownership interests in subsidiaries without change of control

Transactions with non-controlling interests that do not result in loss of control are accounted for as equity transactions – that is, as transactions with the owners in their capacity as owners. The difference between the fair value of any consideration paid and the relevant share acquired of the carrying value of net assets of the subsidiary is recorded in equity. Gains or losses on disposals of non-controlling interests are also recorded in equity.

(C) Disposal of subsidiaries

If the Company loses control of a subsidiary, any investment continuously retained in the subsidiary is re-measured at its fair value at the date when control is lost and any resulting differences are recognized in profit or loss. Such fair value becomes the initial carrying amount for the subsequent measurement of the retained interest accounted for as an associate, joint venture, or financial asset. In addition, any amounts previously recognized in other comprehensive income in respect of such entity are accounted as if the Company had directly disposed of the related assets or liabilities. As a result, the previously recognized other comprehensive income are reclassified into profit or loss or equity.

(D) Non-controlling interests

Each component of profit or loss and other comprehensive income is attributed to owners of the parent and to non-controlling interests. Total comprehensive income is attributed to owners of the parent and to non-controlling interests even if this results in a negative balance of non-controlling interests.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(E) Associates

Associates are all entities over which the Company has significant influence but does not have control, generally investees of which from 20% to 50% voting shares are owned by the Company. Investments in associates are accounted for using the equity method of accounting, after initially being recognized at cost. Unrealized gains on transactions between the Company and its associates are eliminated to the extent of the Company's interest in the associates. If the Company's share of losses of an associate equals or exceeds its interest in the associate (including long-term interests that, in substance, form part of the Company's net investment in the associate), the Company discontinues recognizing its share of further losses. After the Company's interest is reduced to zero, additional losses are provided for, and a liability is recognized, only to the extent that the Company has incurred legal or constructive obligations or made payments on behalf of the associate. If there is objective evidence of impairment for the investment in the associate, the Company recognizes the difference between the recoverable amount of the associate and its carrying amount as an impairment loss. If an associate uses accounting policies other than those of the Company for like transactions and events in similar circumstances, adjustments shall be made, if necessary, to make the associate's accounting policies conform to those of the Company when the associate's financial statements are used by the entity in applying the equity method.

(F) Joint arrangements

A joint arrangement of which two or more parties have joint control is classified as either a joint operation or a joint venture. A joint operator has rights to the assets, and obligations for the liabilities, relating to the joint operation and recognizes the assets, liabilities, revenues and expenses relating to its interest in a joint operation. A joint venturer has rights to the net assets relating to the joint venture and accounts for that investment using the equity method.

2.4 Foreign Currency Translation

(A) Functional and presentation currency

Items included in the consolidated financial statements of each of the Company's entities are measured using the currency of the primary economic environment in which each entity operates (the "functional currency"). The consolidated financial statements are presented in Korean won, which is the parent company's functional and presentation currency.

(B) Transactions and balances

Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transactions or valuation where items are re-measured. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at year-end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognized in profit or loss. Exchange differences arising on non-monetary financial assets and liabilities such as equity instruments at fair value through profit or loss and equity instruments at fair value through other comprehensive income are recognized in profit or loss and other comprehensive income, respectively, as part of the fair value gain or loss.

(C) Translation into the presentation currency

The results and financial position of all the foreign entities that have a functional currency different from the presentation currency of the Company are translated into the presentation currency as follows:

- · Assets and liabilities for each consolidated statement of financial position presented are translated at the closing rate at the end of the reporting date.
- Income and expenses for each consolidated statement of profit or loss are translated at average exchange rates, unless this average is not a reasonable approximation of the cumulative effect of the rates prevailing on the transaction dates, in which case income and expenses are translated at the as-of rate on the dates of the transactions.
- · All resulting exchange differences are recognized in other comprehensive income.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

2.5 Cash and Cash Equivalents

Cash and cash equivalents include cash on hand, deposits held at call with banks, and other short-term investment assets with high liquidity that are readily convertible to a known amount of cash and are subject to an insignificant risk of change in value.

2.6 Financial Assets

(A) Classification

From January 1, 2018, the initial application date for Korean IFRS 1109 *Financial Instruments*, the Company classifies its financial assets in the following measurement categories:

- Financial assets measured at fair value (changes in fair value recognized in either other comprehensive income, or profit or loss)
- Financial assets measured at amortized cost.

The classification depends on the Company's business model for managing the financial assets and the contractual terms of the cash flows.

For financial assets measured at fair value, gains and losses will either be recorded in profit or loss or other comprehensive income. For investments in debt instruments, this will depend on the business model in which the investment is held. The Company reclassifies debt investments only when its business model for managing those assets changes.

For investments in equity instruments that are not held for trading, classification will depend on whether the Company has made an irrevocable election at the time of initial recognition to account for the equity investment at fair value through other comprehensive income. Changes in fair value of the investments in equity instruments that are not elected to be accounted for as other comprehensive income are recognized in profit or loss.

(B) Measurement

At initial recognition, the Company measures a financial asset at its fair value. In the case of financial asset not measured at fair value through profit or loss, transaction costs that are directly attributable to the acquisition of the financial asset or the issuance of the financial liabilities are added to its fair value. Transaction costs of financial assets carried at fair value through profit or loss are expensed in profit or loss.

Hybrid (combined) contracts with embedded derivatives are considered in their entirety when determining whether their cash flows solely consist of the payments of principal and interest.

a) Debt instruments

Subsequent measurement of debt instruments depends on the Company's business model for managing the asset and the cash flow characteristics of the asset. The Company classifies its debt instruments into one of the following three measurement categories:

① Financial assets measured at amortized cost

Assets that are held for collection of contractual cash flows where those cash flows represent solely the payments of principal and interest are measured at amortized cost. A gain or loss on a debt investment that is subsequently measured at amortized cost and is not part of a hedging relationship is recognized in profit or loss when the asset is derecognized or impaired. Interest income from these financial assets is included in 'financial income' using the effective interest rate method.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

② Financial assets measured at fair value through other comprehensive income

Assets that are held for collection of contractual cash flows and for selling the financial assets, where the assets' cash flows represent solely the payments of principal and interest, are measured at fair value through other comprehensive income. Movements in the carrying amount are taken through other comprehensive income, except for the recognition of impairment loss (reversal of impairment loss), interest income and foreign exchange gains and losses which are recognized in profit or loss. When the financial assets are derecognized, the cumulative gain or loss previously recognized in other comprehensive income is reclassified from equity to profit or loss. Interest income from these financial assets is included in 'financial income' using the effective interest rate method. Foreign exchange gains and losses are presented in 'financial income' or 'financial expenses' and impairment losses are presented in 'other non-operating expenses'.

③ Financial assets measured at fair value through profit or loss

Assets that do not meet the criteria for amortized cost or fair value through other comprehensive income are measured at fair value through profit or loss. A gain or loss on a debt investment that is subsequently measured at fair value through profit or loss and is not part of a hedging relationship is recognized in profit or loss and presented in the consolidated statement of profit or loss within 'other non-operating income' or 'other non-operating expenses' in the year in which it arises.

b) Equity instruments

The Company subsequently measures all equity investments at fair value. Where the Company's management has elected to present fair value gains and losses on equity investments in other comprehensive income, there is no subsequent reclassification of fair value gains and losses to profit or loss following the derecognition of the investment. When the financial asset is derecognized, the cumulative gain or loss on valuation of financial assets at fair value through other comprehensive income recognized in equity is reclassified to retained earnings. Dividend income from such investments continue to be recognized in profit or loss as 'other non-operating income' when the right to receive the payments is established.

Changes in the fair value of financial assets at fair value through profit or loss are recognized in 'other non-operating income' or 'other non-operating expenses' in the consolidated statements of profit or loss as applicable.

(C) Impairment

The Company assesses on a forward-looking basis the expected credit losses associated with its debt instruments carried at amortized cost and fair value through other comprehensive income. The impairment methodology applied depends on whether there has been a significant increase in credit risk. For trade receivables, the Company applies the simplified approach, which requires expected lifetime losses to be recognized from initial recognition of the receivables.

(D) Recognition and derecognition

Regular way purchases and sales of financial assets are recognized or derecognized on a trade date basis. Financial assets are derecognized when the rights to receive cash flows from the financial assets have expired or have been transferred and the Company has transferred substantially all the risks and rewards of ownership. If a transfer does not result in derecognition because the Company has retained substantially all the risks and rewards of ownership of the transferred asset, the Company continues to recognize the transferred asset in its entirety and recognizes a financial liability for the consideration received. The Company classifies the financial liability as 'borrowings' in the consolidated statement of financial position.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(E) Offsetting of financial instruments

Financial assets and liabilities are offset and the net amount is reported in the statements of financial position when there is a legally enforceable right to offset the recognized amounts and there is an intention to settle on a net basis or realize the assets and settle the liability simultaneously. The legally enforceable right must not be contingent on future events and must be enforceable in the normal course of business, even in the event of default, insolvency or bankruptcy of the Company or the counterparty.

2.7 Trade Receivables

Trade receivables are amounts due from customers for inventories sold or services performed in the ordinary course of business. If collection is expected within one year or less, they are classified as current assets. If collection is expected beyond one year, they are presented as non-current assets. Trade receivables are recognized initially at transaction price and subsequently measured at amortized cost using the effective interest method, less loss allowance, unless the trade receivables bear significant financial component.

2.8 Inventories

Inventories are stated at the lower of cost and net realizable value. Cost is determined using the average cost method, except for materials in transit. 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). It excludes costs of idle plant and abnormal waste. Net realizable value is the estimated selling price in the ordinary course of business, less applicable variable selling expenses.

The Company regularly estimates the changes in future customer demand in the products that may cause a significant change in the valuation allowance and recognizes the valuation allowance if there is any case such as excess, obsolescence and decline in market value. Loss on valuation of inventories is recorded as cost of sales.

2.9 Property, Plant and Equipment

Property, plant and equipment are stated at cost less accumulated depreciation and accumulated impairment losses. Historical cost includes expenditures that are directly attributable to the acquisition. Subsequent costs are included in the asset's carrying amount or recognized as a separate asset, as appropriate, only when it is probable that future economic benefits associated with the cost will flow to the Company and the cost can be measured reliably. The carrying amounts of the replaced parts are derecognized and the repairs and maintenance expenses are recognized in profit or loss in the period they are incurred.

Depreciation on tangible assets is calculated using the straight-line method to allocate the difference between their cost and their residual values over their estimated useful lives. Land is not depreciated. Costs that are directly attributable to the acquisition, construction or production of a qualifying asset, including capitalized interest costs, form part of the cost of that asset and are amortized over the estimated useful lives.

The Company's policy is that property, plant and equipment should be depreciated over the following estimated useful lives:

	Estimated useful lives
Buildings and structures	15, 30 years
Machinery and equipment	5 years
Other	5 years

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

The depreciation method, residual values and useful lives of property, plant and equipment are reviewed, and adjusted if appropriate, at the end of each reporting period. An asset's carrying amount is written down immediately to its recoverable amount if the asset's carrying amount is greater than its estimated recoverable amount. Gains and losses on disposals are determined by comparing the proceeds with the carrying amount and are recognized within the consolidated statement of profit or loss as 'other non-operating income' or 'other non-operating expenses'.

2.10 Borrowing Costs

General and specific borrowing costs that are directly attributable to the acquisition, construction or production of a qualifying asset are capitalized during the period of time that is required to complete and prepare the asset for its intended use. Investment income earned on the temporary investment of specific borrowings pending their expenditure on qualifying assets is deducted from the borrowing costs eligible for capitalization. Other borrowing costs are expensed in the period in which they are incurred.

2.11 Intangible Assets

Goodwill represents the excess of the cost of acquisition over the fair value of the Company's share of the net identifiable assets of the acquired subsidiaries, associates, joint ventures and businesses at the date of acquisition. Goodwill on an acquisition of businesses is included in intangible assets and goodwill on an acquisition of associates and joint ventures' shares is included in the investments in associates and joint ventures.

Intangible assets, except for goodwill, are initially recognized at their historical cost and carried at cost less accumulated amortization and accumulated impairment losses.

Internally generated development costs are the aggregate costs recognized after meeting the asset recognition criteria, including technical feasibility, and determined to have future economic benefits. Membership rights and certain trademarks are regarded as intangible assets with an indefinite useful life and not amortized because there is no foreseeable limit to the period over which the assets are expected to be utilized. However, the Company records impairment based on its reasonable estimation of the benefits associated with the membership rights and assessment of impairment indicators, such as a decline in the market value. Intangible assets with definite useful lives such as trademarks, licenses, and other intangible assets, are amortized using the straight-line method over their estimated useful lives.

The Company's policy is that intangible assets should be amortized over the following estimated useful lives:

	Estimated useful lives
Development costs	2 years
Trademarks, licenses and other intangible assets	3 - 25 years

2.12 Impairment of Non-Financial Assets

Goodwill or intangible assets with indefinite useful lives are not subject to amortization and are tested annually for impairment. Assets that are subject to amortization are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognized for the amount by which the asset's carrying amount exceeds its recoverable amount. The recoverable amount is the higher of an asset's fair value less costs to sell and value in use. For the purposes of assessing impairment, assets are grouped at the lowest level for which there are separately identifiable cash flows (cash-generating units). Non-financial assets other than goodwill that suffered an impairment are reviewed for possible reversal of the impairment at the end of each reporting period.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

2.13 Assets Held-for-Sale (Disposal Group)

Non-current assets (or disposal groups) are classified as assets held-for-sale when their carrying amount is to be recovered principally through a sale transaction and the sale is considered highly probable. The assets are measured at the lower of their carrying amount and the fair value less costs to sell. Gain or loss on disposal is determined by comparing the proceeds with the carrying amount of relevant assets, and is recognized in the statements of profit or loss as 'other non-operating income' or 'other non-operating expenses'.

2.14 Financial Liabilities

(A) Classification and measurement

The Company shall classify all financial liabilities as financial liabilities measured subsequently at amortized cost, except for the following:

- Financial liabilities at fair value through profit or loss. Such liabilities, including derivatives that are liabilities, shall be subsequently measured at fair value.
- Financial liabilities that arise when a transfer of a financial asset does not qualify for derecognition or when the continuing involvement approach applies. Such financial liabilities are measured based on the methodology described in Note 2.6 Financial Assets.
- Financial guarantee contracts. After the initial recognition, an issuer of such a contract shall subsequently measure it at the higher of:
 - (a) The amount of the loss allowance determined based on the expected credit losses.
 - (b) The amount initially recognized less the cumulative amount of income recognized in accordance with the principles of Korean IFRS 1115 *Revenue from Contracts with Customers*, when appropriate.
- Commitments to provide loan at below-market interest rate. An issuer of such a commitment shall subsequently measure it at the higher of:
 - (a) The amount of the loss allowance determined based on the expected credit losses.
 - (b) The amount initially recognized less the cumulative amount of income recognized in accordance with the principles of Korean IFRS 1115 *Revenue from Contracts with Customers*, when appropriate.
- Contingent consideration recognized by an acquirer in a business combination to which Korean IFRS 1103 Business
 Combinations applies. Such contingent consideration shall subsequently be measured at fair value with changes
 recognized in profit or loss.

(B) Derecognition

Financial liabilities are removed from the consolidated statements of financial position when it is extinguished; for example, when the obligation specified in the contract is discharged or cancelled or expired or when the terms of an existing financial liability are substantially modified. The difference between the carrying amount of a financial liability extinguished or transferred to another party and the consideration paid (including any non-cash assets transferred or liabilities assumed) is recognized in profit or loss.

2.15 Trade Payables

Trade payables are amounts due to suppliers for inventories purchased or services received in the ordinary course of business. If payment is expected to be made within 12 months, they are classified as current liabilities. If not, they are presented as non-current liabilities. Non-current trade payables are recognized initially at fair value and subsequently measured at amortized cost using the effective interest method.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

2.16 Borrowings

Borrowings are recognized initially at fair value, net of transaction costs, and are subsequently measured at amortized cost. Any difference between cost and the redemption value is recognized in the consolidated statement of profit or loss over the period of the borrowings using the effective interest method. If the Company has an indefinite right to defer payment for a period longer than 12 months after the end of the reporting date, such liabilities are recorded as non-current liabilities, otherwise, they are recorded as current liabilities.

2.17 Provisions and Contingent Liabilities

A provision is recognized when the Company has present legal or constructive obligation as a result of a past event, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation, and a reliable estimate can be made of the amount of the obligation. Provisions are not recognized for future operating losses.

Provisions are measured at present value of the expenditures expected to be required to settle the obligation using a pre-tax rate that reflects the current market assessments of the time value of money and the risks specific to the obligation. The increase in the provision due to the passage of time is recognized as interest expense.

The Company discloses a contingent liability if there is a possible obligation from past events in which the existence may only be identified through the occurrence of uncertain future events; or there is a present obligations that the possibility on the outflow of economic resources is uncertain; or the amount of economic resources required to settle the present obligation cannot be reasonably estimated.

2.18 Employee Benefits

The Company has a variety of retirement pension plans including a defined benefit plan and a defined contribution plan.

A defined contribution plan is a pension plan under which the Company pays fixed contributions into a separate fund. The Company has no legal or constructive obligation to pay further contributions if the fund does not hold sufficient assets to pay all employees the benefits relating to employee service received in the current and prior periods. For a defined contribution plans, the Company pays contributions to annuity plans that are managed either publicly or privately on a mandatory, contractual or voluntary basis. The Company has no further future payment obligations once the contributions have been paid. The contributions are recognized as employee benefit expense when they are due. Prepaid contributions are recognized as an asset to the extent that a cash refund or a reduction in the future payments is available.

A defined benefit plan is a pension plan that is not a defined contribution plan. Typically, a defined benefit plan establishes an amount of pension benefit that an employee will receive upon retirement, usually dependent on one or more factors such as age, years of service and compensation. The liability (asset) recognized in the consolidated statement of financial position with respect to the defined benefit pension plan is the present value of the defined benefit obligation at the end of the reporting period less the fair value of plan assets. The defined benefit obligation is calculated annually by independent actuaries using the projected unit credit method. The present value of the defined benefit obligation is determined by discounting the estimated future cash outflows using the interest rates of high-quality corporate bonds that are denominated in the currency in which the benefits will be paid and that have the terms to maturity approximating to the terms of the related pension obligation.

Actuarial gains and losses resulting from the changes in actuarial assumptions, and the differences between the previous actuarial assumptions and what has actually occurred, are recognized in other comprehensive income in the period in which they were incurred. When plan amendments, curtailments and settlements occur, past service costs or gain or loss from settlements are immediately recognized in profit or loss.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

2.19 Financial Guarantee Contract

Financial guarantee contracts are contracts that require the issuer to make specified payments to reimburse the holder for a loss it incurs because a specified debtor fails to make payments when due.

The liability is initially measured at fair value and then subsequently measured at the higher of the following, and is recognized in the consolidated statements of financial position within 'other financial liabilities':

- the amount determined in accordance with the expected credit loss model and
- the amount initially recognized less the cumulative amount of income recognized in accordance with Korean IFRS 1115 *Revenue from Contracts with Customers*, where appropriate.

2.20 Current and Deferred Tax

The tax expense for the year comprises current and deferred tax. Current and deferred tax is recognized in profit or loss, except to the extent that it relates to the items recognized in other comprehensive income or directly in equity. The tax expense is calculated on the basis of the tax laws enacted or substantively enacted at the end of the reporting period.

Deferred tax is recognized for temporary differences arising between the tax bases of assets and liabilities and their carrying amounts as expected tax consequences at the recovery or settlement of the carrying amounts of those assets and liabilities. However, deferred tax assets and liabilities are not recognized if they arise from initial recognition of an asset or liability in a transaction other than a business combination that, at the time of the transaction, affects neither the accounting nor taxable profit. Deferred tax assets are recognized only to the extent that it is probable that a future taxable profit will be available against which the temporary differences can be utilized.

A deferred tax liability is recognized for taxable temporary differences associated with investments in subsidiaries, associates, and interests in joint ventures, except to the extent that 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. In addition, a deferred tax asset is recognized for deductible temporary differences arising from such investments to the extent that it is probable the temporary difference will reverse in the foreseeable future and taxable profit will be available against which the temporary difference can be utilized.

Deferred tax assets and liabilities are offset when there is a legally enforceable right to offset the current tax assets against the current tax liabilities and when the deferred income tax assets and liabilities relate to income taxes levied by the same taxation authority on either the same taxable entity or different taxable entities with an intention to settle the balances on a net basis.

2.21 Derivative Instruments

The Company initially recognizes rights and obligations from derivative contracts as assets and liabilities at fair value. Gain or loss arising from these contracts are recognized in profit or loss. Qualified hedged amount from cash flow hedge and hedge of a net investment in a foreign operation is deferred in equity.

The Company applies cash flow hedge accounting to hedge the price risk associated with inventory purchase and other. The effective portion of changes in fair value of derivatives that are designated and qualify as cash flow hedges is recognized in other comprehensive income, and the ineffective portion is recognized in financial income or expenses.

2.22 Dividend

Dividend is recognized as a liability when approved by the Company's shareholders.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

2.23 Share Capital

Ordinary shares and preference shares with no repayment obligations are classified as equity. When the Company or a subsidiary acquires the Company's ordinary shares, the acquisition costs, including direct transaction costs, are deducted from equity until the redemption or reissuance as treasury shares. Consideration received on the reissuance of treasury shares is credited to equity attributable to owners of the parent company.

2.24 Revenue Recognition

Revenue mainly comprises 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 shown net of value-added tax, returns, sales incentives and discounts and after eliminating intercompany transactions.

The Company applied Korean IFRS 1115 Revenue from Contracts with Customers to the annual period beginning January 1, 2018. The Company shall recognize revenue in accordance with Korean IFRS 1115 Revenue from Contracts with Customers by applying the following 5 steps: ① Identify the contracts with the customers, ② Identify the separate performance obligations, ③ Determine the transaction price of the contract, ④ Allocate the transaction price to each of the separate performance obligations, and ⑤ Recognize the revenue as each performance obligation is satisfied.

(A) Identification of performance obligations

The Company exports various products and merchandise in accordance with Incoterms Group C trading conditions (Incoterms CIF and other). Since the seller provides the shipping service after the control of the product or merchandise has been transferred to the customer, the shipping service (including insurance) is recognized as a separate performance obligation.

(B) Performance obligations satisfied over time

The Company delivers products to customers and installs them in accordance with the system air conditioner contracts awarded by the Public Procurement Service. According to Korean IFRS 1115 *Revenue from Contracts with Customers* the Company should recognize revenue over time if the Company creates or enhances an asset (for example, work in progress) that the customer controls as the asset is created or enhanced. The Company recognizes the revenue from system air conditioner installation over time as the customer controls the outcome of the service.

(C) Variable consideration

The Company estimates amount of variable consideration by using the 'expected value method' or the 'most likely amount method', depending on which method the Company expects to better predict the amount of consideration. The Company recognizes revenue only to the extent that it is highly probable that a significant reversal in the amount of cumulative revenue recognized will not occur, and classifies the amount which the Company does not expect to be entitled as contract liabilities.

The Company measures refund liability at the amount of consideration received for which the Company does not expect to be entitled. The Company has a right to recover the product from the customer when the customer exercises his right of return and recognizes an asset and a corresponding adjustment to cost of sales. The asset is measured with reference to the former carrying amount of the product less the costs to recover the products.

(D) Allocation of the transaction price

The transaction price in an arrangement must be allocated to each separate performance obligation based on the relative standalone selling prices of the goods or services being provided to a customer. The Company determines the standalone selling price for each separate performance obligation by using methods such as the 'adjusted market assessment approach'.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

2.25 Leases

A lease is a contract, whereby the lessor conveys to the lessee, the right to control the use of an identified asset for a period of time in exchange for consideration.

At inception of a contract, the Company assesses whether the contract is, or contains, a lease. However, the Company did not reassess all contracts at initial application of Korean IFRS 1116 *Leases* because the Company applied the practical expedient to contracts entered into before January 1, 2019.

For a contract that is, or contains, a lease, both lessee and lessor account for each lease component within the contract as a lease separately from the non-lease components of the contract. In lessee accounting, however, the Company does not account for them separately but instead applies the practical expedient to account for each lease component and any associated non-lease components as a single lease component.

(A) Lessee accounting

The Company recognizes a right-of-use asset representing its right to use the underlying leased asset and a lease liability representing its obligation to make lease payments at the commencement date of the lease.

The right-of-use asset is initially measured at cost and subsequently measured at cost less accumulated depreciation and accumulated impairment losses, adjusted for the remeasurement of lease liability. The right-of-use asset is depreciated over the shorter of the asset's useful life and the lease term from the commencement date of the lease and is classified as 'property, plant and equipment' in the consolidated financial statements.

At the commencement date, the lease liability is measured at the present value of the lease payments that are not paid at that date. When measuring the present value, the lease payments are discounted using the interest rate implicit in the lease. If such implicit rate cannot be readily determined, the Company uses the Company's incremental borrowing rate. The lease liability is subsequently increased by the amount of interest expenses recognized on the lease liability and reduced by the lease payments made. Lease liabilities are remeasured when the future lease payments are changed due to the following:

- · Changes in an index or rate
- · Changes in amounts expected to be payable by the lessee under the residual value guarantees
- · Changes in the assessment of whether a purchase option or an option to renew is reasonably certain to be exercised, or
- Changes in the assessment of whether it is reasonably certain that an option to terminate the lease will not be exercised.

Lease liabilities are classified as 'current portion of long-term liabilities' and/or 'long-term borrowings' in the consolidated financial statements.

The Company elected the practical expedient for short-term leases (leases that have a lease term of 12 months or less at the commencement date) and leases of low-value assets (leases for which the underlying asset is valued at USD 5,000 or less), and the lease payments are recognized as an expense on a straight-line basis over the lease term.

(B) Lessor accounting

The accounting treatment as a lessor did not change significantly from the Korean IFRS 1116 *Leases* initially applied on January 1, 2019.

The Company classifies a lease as a finance lease if it transfers substantially all the risks and rewards incidental to ownership at the inception of the lease. A lease other than a finance lease is classified as an operating lease. Lease income from operating leases is recognized in income on a straight-line basis over the lease term. Initial direct costs incurred by the lessor in negotiating and arranging an operating lease are added to the carrying amount of the leased asset and recognized as an expense over the lease term on the same basis as the lease income.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

2.26 Government Grants

Government grants are recognized at their fair values when there is reasonable assurance that the grant will be received and the Company will comply with the conditions attached to it. Government grants relating to costs are deferred and recognized in the consolidated statements of profit or loss over the period necessary to match the costs they are intended to compensate. Government grants relating to assets are recognized in liabilities as deferred income government grants, and depreciated over the expected lives of the related assets, and are credited to the consolidated statements of profit or loss.

2.27 Earnings per Share

Basic earnings per share is calculated by dividing the net profit for the period available to the ordinary shareholders by the weighted-average number of ordinary shares outstanding during the year.

Diluted earnings per share is calculated by dividing the profit for the year attributable to owners of the parent company from the consolidated statements of profit or loss by the weighted-average number of ordinary shares outstanding and potential dilutive shares. Potential dilutive shares are used in the calculation of dilutive earnings per share only when they have dilutive effects.

2.28 Reportable Segments

Reportable segments are disclosed in a manner consistent with the reporting provided to the chief operating decision-maker. The chief operating decision-maker is responsible for making strategic decisions on resource allocation and assessing performance of the reportable segments. The Management Committee, which makes strategic decisions, is regarded as the chief operating decision-maker.

2.29 Convenience Translation into United States Dollar Amounts

The Company operates primarily in Korean won and its official accounting records are maintained in Korean won. The US dollar amounts provided in the consolidated financial statements represent supplementary information solely for the convenience of the reader. All Korean won amounts are expressed in US dollar at the rate of Ψ 1,291.1 to USD 1, the average exchange rate for the year ended December 31, 2022. Such presentation is not in accordance with generally accepted accounting principles, and should not be construed as a representation that the Korean won amounts shown could be readily converted, realized or settled in US dollar at this or at any other rate.

2.30 Approval of the Consolidated Financial Statements

These consolidated financial statements were approved by the Board of Directors on January 31, 2023, and may be modified and approved at the Annual General Shareholders' Meetings.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

3. Critical Accounting Estimates and Assumptions

The Company makes estimates and assumptions concerning the future. The estimates and assumptions are continuously assessed, considering historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances. The resulting accounting estimates will, by definition, seldom equal the related actual results. In particular, the spread of COVID-19 in the year ended December 31, 2020 may result in changes to the Company's assumptions and estimates but its potential financial impact cannot be reasonably estimated as of the reporting date.

The estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are addressed below.

(A) Revenue recognition

A refund liability and a right to the returned goods are recognized for the products expected to be returned at the time of sale. Accumulative experience is used to estimate such returns at the time of sale at a portfolio level (through expected value method), and the Company's revenue is affected by the changes in expected return rate.

Sales of goods are recognized based on the considerations specified in the contract, net of sales incentives, when control of the products has transferred. The sales deduction, which affects the Company's revenue, is reasonably estimated based on the historical experience and past contracts.

(B) Provision for warranty

The Company recognizes provision for warranty on products sold. The Company accrues provision for warranty based on the best estimate of amounts necessary to settle future and existing claims at the end of each reporting period. The amounts are estimated based on the past 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 a variety of methods and assumptions that are mainly based on market conditions existing at the end of each reporting period.

(D) Impairment of financial assets

The loss allowance for financial assets are based on assumptions about risk of default and expected loss rates. The Company uses judgement in making these assumptions and selecting the inputs to the impairment calculation based on the Company's past history, existing market conditions as well as forward looking estimates at the end of each reporting period.

(E) Lease

In determining the lease term, the Company considers all facts and circumstances that create an economic incentive to exercise an extension option, or not to exercise a termination option. Extension options (or periods after termination options) are only included in the lease term if the lease is reasonably certain to be extended (or not terminated).

The lease term is reassessed if an option is actually exercised (or not exercised) or the Company becomes obliged to exercise (or not exercise) it. The Company reassesses whether it is reasonably certain to exercise an extension option (or not to exercise such option) upon the occurrence of either a significant event or a significant change in circumstances that is within the control of the lessee.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(F) Net defined benefit liabilities (assets)

The net defined benefit liabilities (assets) depend on a number of factors that are determined on an actuarial basis using a number of assumptions including the discount rate. Any changes in these assumptions will impact the carrying amount of the net defined benefit liability. The Company, in consideration of the interest rates of high-quality corporate bonds, determines the appropriate discount rate at the end of each year. This is the interest rate that is used to determine the present value of estimated future cash outflows expected to be required to settle the net defined benefit liabilities (assets). The principal actuarial assumptions associated with the net defined benefit liabilities (assets) are based on the current market expectations.

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

At the end of each reporting period, the Company tests whether goodwill and intangible assets that have an indefinite useful life have become impaired by comparing the carrying amounts of assets or cash-generating units to the recoverable amounts. The recoverable amounts of assets or cash-generating units have been determined based on value-in-use calculations, and these calculations are based on estimates.

(H) Income taxes

Income taxes on the Company's taxable income from operating activities are subject to various tax laws and determinations of each tax authority across various countries throughout the world. There is uncertainty in determining the eventual tax effects on the taxable income from operating activities. The Company has recognized current tax and deferred tax at the end of the fiscal year based on the best estimate of future taxes payable as a result of operating activities. However, the resulting deferred income tax assets and liabilities may not equal the actual future taxes payable and such difference may impact the current tax and deferred income tax assets and liabilities upon the determination of eventual tax effects.

Regarding taxes payable in Korea, if a certain portion of taxable income is not used for investments or for increases in wages or dividends, in accordance with the *Tax System For Recirculation of Corporate Income*, the Company is liable to pay additional income tax calculated based on the Korean tax law. The current and deferred taxes at the end of the fiscal year are based on the best estimate of future taxes payable, which can differ from the actual future taxes payable as a result of changes in investments, wages and dividends; this results in an additional uncertainty in measuring the final tax effects.

The Company assesses uncertainty over a tax treatment. When the Company concludes it is not probable that the taxation authority will accept an uncertain tax treatment, the Company will reflect the effect of uncertainty for each uncertain tax treatment by using either of the following methods, depending on which method the Company expects to better predict the resolution of the uncertainty:

- The most likely amount: the single most likely amount in a range of possible outcomes.
- The expected value: the sum of the probability-weighted amounts in a range of possible outcomes.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

4. Financial Instruments by Category

- (A) Categorizations of financial assets and liabilities as of December 31, 2022 and 2021 are as follows:
- (1) As of December 31, 2022

	Financial assets measured at	Financial assets measured at fair value through other comprehensive	Financial assets measured at fair value through	Other	
(In millions of Korean won)	amortized cost	income	profit or loss	financial assets ¹	Total
Financial assets					
Cash and cash equivalents	49,680,710	-	-	-	49,680,710
Short-term financial instruments	65,102,886	-	-	-	65,102,886
Short-term financial assets at amortized cost Short-term financial assets at	414,610	-	-	-	414,610
fair value through profit or loss	-	-	29,080	-	29,080
Trade receivables	35,721,563	-	-	-	35,721,563
Financial assets at fair value through other comprehensive income	-	11,397,012	-	-	11,397,012
Financial assets at fair value through profit or loss	-	-	1,405,468	-	1,405,468
Other	9,945,209	-	334,263	61,404	10,340,876
Total	160,864,978	11,397,012	1,768,811	61,404	174,092,205

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

(In millions of Korean won)	Financial liabilities measured at amortized cost	Financial liabilities measured at fair value through profit or loss	Other financial liabilities ¹	Total
Financial liabilities				
Trade payables	10,644,686	-	-	10,644,686
Short-term borrowings	1,577,958	-	3,569,357	5,147,315
Other payables	16,328,237	-	-	16,328,237
Current portion of long-term liabilities	215,143	-	874,019	1,089,162
Debentures	536,093	-	-	536,093
Long-term borrowings	33,846	-	3,526,826	3,560,672
Long-term other payables	2,289,236	-	-	2,289,236
Other	12,047,761	334,415	27,353	12,409,529
Total	43,672,960	334,415	7,997,555	52,004,930

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

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(2) As of December 31, 2021

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

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

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

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

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(B) Net gains or losses on each category of financial assets and liabilities for the years ended December 31, 2022 and 2021 are as follows:

(1) 2022

(In millions of Korean won)	Financial assets measured at amortized cost	Financial assets measured at fair value through other comprehensive income	Financial assets measured at fair value through profit or loss	Other financial assets ¹	Total
Financial assets					
Gain (loss) on valuation (other comprehensive income)	-	(1,969,498)	-	53,180	(1,916,318)
Gain (loss) on valuation/disposal (profit or loss)	(36,550)	-	83,332	474	47,256
Reclassification from other comprehensive income				310	310
to profit or loss Interest income	2,720,213	_	266	-	2,720,479
Foreign exchange differences (profit or loss)	(822,011)	-	-	-	(822,011)
Dividend income	-	413,467	1,134	-	414,601
Impairment/reversal (profit or loss)	(19,124)	-	-	-	(19,124)

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

(In millions of Korean won) Financial liabilities	Financial liabilities measured at amortized cost	Financial liabilities measured at fair value through profit or loss	Other financial liabilities ¹	Total
Gain (loss) on valuation				
(other comprehensive income)	-	-	(10,621)	(10,621)
Gain (loss) on valuation/disposal				
(profit or loss)	-	(91,056)	(45)	(91,101)
Reclassification from				
other comprehensive income	_		59	59
to profit or loss		-		
Interest expense	(322,529)	-	(440,486)	(763,015)
Foreign exchange differences				
(profit or loss)	574,771	-	155,952	730,723

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

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(2) 2021

(In millions of Korean won)	Financial assets measured at amortized cost	Financial assets measured at fair value through other comprehensive income	Financial assets measured at fair value through profit or loss	Other financial assets ¹	Total
Financial assets					
Gain (loss) on valuation (other comprehensive income)	-	2,980,896	-	27,715	3,008,611
Gain (loss) on valuation/disposal (profit or loss)	(1,969)	-	420,100	437	418,568
Reclassification from other comprehensive income				440	(4.40)
to profit or loss	-	-	-	(148)	(148)
Interest income	1,278,051	-	227	-	1,278,278
Foreign exchange differences (profit or loss)	29,834	-	-	-	29,834
Dividend income	-	133,532	2,308	-	135,840
Impairment/reversal (profit or loss)	(27,194)	-	-	-	(27,194)

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

(In millions of Korean won)	Financial liabilities measured at amortized cost	Financial liabilities measured at fair value through profit or loss	Other financial liabilities ¹	Total
Financial liabilities				
Gain on valuation (other comprehensive loss) Gain (loss) on valuation/disposal (profit or loss)	-	(65,368)	22,695	22,695 (65,368)
Reclassification from other comprehensive income to profit or loss	-	-	(121)	(121)
Interest expense	(213,477)	-	(218,063)	(431,540)
Foreign exchange differences (profit or loss)	362,820	-	3,447	366,267

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

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

5. Transfer of Financial Assets

Trade receivables of the Company have been discounted through factoring agreements with banks during the years ended December 31, 2022 and 2021. Trade receivables provided as collaterals in such factoring transactions do not meet the requirements for asset derecognition as risks and rewards are not substantially transferred in the event of a debtor default due to the recourse obligation, etc. Financial liabilities recognized in relation to these transactions are included as 'short-term borrowings' on the consolidated statements of financial position (refer to Note 12).

The following table presents a breakdown of discounted trade receivables as of December 31, 2022 and 2021:

(In millions of Korean won)	December 31, 2022	December 31, 2021	
Carrying amount of the discounted trade receivables ¹	3,569,357	11,556,101	
Carrying amount of the related borrowings	3,569,357	11,556,101	

¹ The discounted trade receivables include the intercompany balances.

6. Financial Assets at Fair Value

- (A) Details of financial assets at fair value as of December 31, 2022 and 2021 are as follows:
- (1) Financial assets at fair value through other comprehensive income

(In millions of Korean won)	December 31, 2022	December 31, 2021
Non-current portion		
Equity instruments	11,397,012	13,965,839

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

(In millions of Korean won)	December 31, 2022	December 31, 2021
Current portion		
Debt instruments	29,080	40,757
Non-current portion		
Equity instruments	773,063	905,094
Debt instruments	632,405	620,250
Subtotal	1,405,468	1,525,344
Total	1,434,548	1,566,101

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

- (B) Changes in financial assets at fair value for the years ended December 31, 2022 and 2021 are as follows:
 - (1) Financial assets at fair value through other comprehensive income

(In millions of Korean won)	2022	2021
D	10.077.020	12.555.214
Balance as of January 1	13,965,839	12,575,216
Acquisition	35,013	1,146,868
Disposal	(20,913)	(3,551,604)
Fair value valuation gain (loss)	(2,636,448)	3,653,253
Other	53,521	142,106
Balance as of December 31	11,397,012	13,965,839

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

(In millions of Korean won)	2022	2021
Balance as of January 1	1,525,344	1,202,969
Acquisition	158,244	208,262
Disposal	(80,718)	(142,406)
Fair value valuation gain (loss)	(198,594)	275,447
Other	1,192	(18,928)
Balance as of December 31	1,405,468	1,525,344

(C) Changes in gain (loss) on valuation of financial assets at fair value through other comprehensive income for the years ended December 31, 2022 and 2021 are as follows:

(In millions of Korean won)	2022	2021
Balance as of January 1	6,222,980	7,071,415
Fair value valuation gain (loss)	(2,636,448)	3,653,253
Reclassification to retained earnings due to disposals	49,946	(4,501,688)
Balance as of December 31	3,636,478	6,222,980
Income tax effects on equity and non-controlling interests	(887,369)	(1,606,341)
Total	2,749,109	4,616,639

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

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

	December 31, 2022				December 31, 2021
(In millions of Korean won, number of shares and percentage)	Number of shares owned	Percentage of ownership ¹ (%)	Acquisition cost	Carrying amount (Market value)	Carrying amount (Market value)
Samsung Heavy Industries	134,027,281	15.2	932,158	684,879	759,935
Hotel Shilla	2,004,717	5.1	13,957	166,592	156,368
iMarket Korea	647,320	1.9	324	6,538	6,926
SFA	3,644,000	10.2	38,262	132,642	131,366
Wonik Holdings	3,518,342	4.6	30,821	13,536	17,521
Wonik IPS	3,701,872	7.5	32,428	91,621	156,589
ASML Holding N.V.	6,297,787	1.5	363,012	4,287,121	5,974,280
Wacom Co., Ltd.	8,398,400	5.1	62,013	46,750	79,256
BYD Company Limited	2,380,100	0.1	79,049	110,971	118,862
Corning Incorporated	80,000,000	9.5	3,980,636	3,238,205	3,530,893
Other			563,635	742,890	1,155,113
Total			6,096,295	9,521,745	12,087,109

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

7. Trade and Non-Trade Receivables

(A) Trade and non-trade receivables as of December 31, 2022 and 2021 are as follows:

	December 3	31, 2022	December 3	31, 2021
(In millions of Korean won)	Trade	Non-trade	Trade	Non-trade
Receivables	36,238,032	7,051,536	41,250,034	5,572,176
Less: Loss allowance	(312,221)	(78,101)	(310,880)	(72,805)
Subtotal	35,925,811	6,973,435	40,939,154	5,499,371
Less: Non-current portion	(204,248)	(824,226)	(225,739)	(1,002,114)
Current portion	35,721,563	6,149,209	40,713,415	4,497,257

(B) Movements in the loss allowance for receivables for the years ended December 31, 2022 and 2021 are as follows:

	2022		202	1
(In millions of Korean won)	Trade	Non-trade	Trade	Non-trade
Balance as of January 1	310,880	72,805	318,731	59,487
Bad debt expense (reversal)	8,784	7,312	17,990	9,009
Write-off	(3,557)	(6,154)	(19,095)	(2,424)
Other	(3,886)	4,138	(6,746)	6,733
Balance as of December 31	312,221	78,101	310,880	72,805

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(C) The details of trade and non-trade receivables classified by past due date to measure expected credit losses as of December 31, 2022 and 2021 are as follows:

<u>-</u>	December 31, 2022		December 3	, 2021
(In millions of Korean won)	Trade	Non-trade	Trade	Non-trade
Receivables not past due	33,177,298	5,890,018	39,677,264	5,125,414
Past due ¹ :				
Less than 31 days overdue	2,206,622	981,889	1,229,479	196,783
31 days to 90 days overdue	642,859	52,972	36,545	51,804
Over 90 days overdue	211,253	126,657	306,746	198,175
Subtotal	3,060,734	1,161,518	1,572,770	446,762
Total	36,238,032	7,051,536	41,250,034	5,572,176

¹ The Company does not consider trade and non-trade receivables that are overdue for less than or equal to 31 days as impaired.

(D) The maximum exposure to current credit risk is equivalent to the carrying amount of receivables as of December 31, 2022. The Company has in place insurance contracts covering the Company's major receivables.

8. Inventories

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

_	D	ecember 31, 2022		D	ecember 31, 2021	
(In millions of Korean	Gross	Valuation	Carrying	Gross	Valuation	Carrying
won)	amount	allowance	amount	amount	allowance	amount
Finished goods	17,526,178	(1,493,952)	16,032,226	13,000,200	(719,621)	12,280,579
Work in process	21,612,965	(1,535,446)	20,077,519	13,967,331	(493,713)	13,473,618
Raw materials and supplies	16,268,974	(1,289,694)	14,979,280	14,864,486	(679,645)	14,184,841
Materials in transit	1,098,841	-	1,098,841	1,445,366	-	1,445,366
Total	56,506,958	(4,319,092)	52,187,866	43,277,383	(1,892,979)	41,384,404

The inventories recognized as expense for the year ended December 31, 2022, amount to $\frac{1}{2}$ 186,396,549 million (2021: $\frac{1}{2}$ 164,319,031 million). The amount includes loss on valuation of inventories.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

9. Investments in Associates and Joint Ventures

(A) Changes in investments in associates and joint ventures for the years ended December 31, 2022 and 2021 are as follows:

(In millions of Korean won)	2022	2021
Balance as of January 1	8,932,251	8,076,779
Acquisition	1,006,998	47,090
Disposal	(20,894)	(34,664)
Share of profit	1,090,643	729,614
Other ¹	(115,129)	113,432
Balance as of December 31	10,893,869	8,932,251

¹ Other consists of dividends, impairment, and reclassification.

(B) Major investments in associates and joint ventures as of December 31, 2022 are as follows:

(1) Investments in associates

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

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

(2) Investments in joint ventures

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

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

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

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

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

(1) Investments in associates

(In millions of Korean won)

December 31, 2022

	Net asset value of			
Investee	Acquisition cost	equity shares ¹	Carrying amount	
	250 225	4 = 42 = 50=	4 = 44 0 40	
Samsung Electro-Mechanics	359,237	1,765,507	1,764,249	
Samsung SDS	147,963	1,857,481	1,870,338	
Samsung Biologics	1,424,358	2,804,547	2,808,673	
Samsung SDI	1,242,605	3,318,875	2,691,223	
Cheil Worldwide	506,162	347,510	649,161	
Other	645,255	718,801	907,333	
Total	4,325,580	10,812,721	10,690,977	

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

(In millions of Korean won)

December 31, 2021

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

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

(2) Investments in joint ventures

(In millions of Korean won)

December 31, 2022

	Net asset value of		
Investee	Acquisition cost	equity shares ¹	Carrying amount
Samsung Corning Advanced Glass	215,000	137,727	137,745
Other	259,994	67,632	65,147
Total	474,994	205,359	202,892

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

(In millions of Korean won)

December 31, 2021

Net asset value of		
215,000	135,584	135,580
259,994	67,517	65,776
474,994	203,101	201,356
	215,000 259,994	Acquisition cost equity shares 1 215,000 135,584 259,994 67,517

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

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

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

(1) For the year ended December 31, 2022

(In millions of Korean won)	Balance as of January 1	Share of profit (loss)	Share of other comprehensive income	Other ¹	Balance as of December 31
Samsung Electro-Mechanics	1,556,386	242,139	2,880	(37,156)	1,764,249
Samsung SDS	1,652,155	241,962	18,154	(41,933)	1,870,338
Samsung Biologics	1,577,664	250,028	(183)	981,164	2,808,673
Samsung SDI	2,529,650	194,242	(19,207)	(13,462)	2,691,223
Cheil Worldwide	621,292	55,476	1,140	(28,747)	649,161
Samsung Corning Advanced Glass	135,580	1,999	144	22	137,745
Other	859,524	104,797	(53,438)	61,597	972,480
Total	8,932,251	1,090,643	(50,510)	921,485	10,893,869

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

(2) For the year ended December 31, 2021

(In millions of Korean won)	Balance as of January 1	Share of profit	Share of other comprehensive income	Other ¹	Balance as of December 31
Samsung Electro-Mechanics	1,333,819	207.949	51,702	(37,084)	1,556,386
Samsung SDS	1,525,857	137,926	30,305	(41,933)	1,652,155
Samsung Biologics	1,453,012	124,979	(327)	-	1,577,664
Samsung SDI	2,326,037	128,483	88,594	(13,464)	2,529,650
Cheil Worldwide	586,057	47,619	12,008	(24,392)	621,292
Samsung Corning Advanced Glass	123,356	12,376	(129)	(23)	135,580
Other	728,641	70,282	29,826	30,775	859,524
Total	8,076,779	729,614	211,979	(86,121)	8,932,251

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

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

- (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, 2022 and 2021, and for the years ended December 31, 2022 and 2021 are as follows:

	2022				
(In millions of Korean won)	Samsung Electro- Mechanics	Samsung SDS	Samsung Biologics	Samsung SDI	Cheil Worldwide
1. Condensed financial information					
Condensed statements of financial position :					
Current assets	4,888,319	8,005,764	6,457,657	9,651,702	2,193,979
Non-current assets	6,108,852	3,946,660	10,124,394	20,605,823	557,466
Current liabilities	2,525,123	2,493,323	4,181,542	8,006,939	1,335,643
Non-current liabilities	778,563	992,132	3,416,034	5,033,084	194,373
Non-controlling interests	154,991	243,777	-	731,779	9,388
Condensed statements of comprehensive income	: :				
Revenue	9,441,276	17,234,750	3,001,295	20,124,070	4,253,367
Profit from continuing operations, net of tax ¹	993,519	1,099,745	798,056	1,952,149	193,732
Profit from discontinued operation, net of tax1	-	-	-	-	-
Other comprehensive income (loss) ¹	(9,601)	80,368	6,995	(139,877)	(1,122)
Total comprehensive income ¹	983,918	1,180,113	805,051	1,812,272	192,610
2. Details of adjustments from the carrying amo	ount of investmen	ts in associates			
Net assets (a)	7,538,494	8,223,192	8,984,475	16,485,723	1,212,041
Ownership percentage (b) ²	23.4%	22.6%	31.2%	20.1%	28.7%
Net assets of equity shares (a x b)	1,765,507	1,857,481	2,804,547	3,318,875	347,510
Goodwill	7,081	26,801	3,645	-	298,779
Intercompany transactions and other ³	(8,339)	(13,944)	481	(627,652)	2,872
Carrying amount of associates	1,764,249	1,870,338	2,808,673	2,691,223	649,161
3. Dividends from associates					
Dividends	37,155	41,933	-	13,463	28,748

¹ Profit (loss) attributable to owners of the investee

² Ownership percentage includes ordinary and preference shares.

³ Consists of unrealized gains and losses and other differences.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

			2021		
(In millions of Korean won)	Samsung Electro- Mechanics	Samsung SDS	Samsung Biologics	Samsung SDI	Cheil Worldwide
1. Condensed financial information					
Condensed statements of financial position:					
Current assets	4,598,269	7,575,968	2,823,175	7,444,907	2,018,598
Non-current assets	5,343,105	2,941,464	5,146,835	18,388,286	523,513
Current liabilities	2,234,657	2,370,290	1,107,295	6,461,286	1,224,222
Non-current liabilities	835,592	703,442	1,871,614	4,175,208	190,622
Non-controlling interests	152,177	214,980	-	492,435	10,125
Condensed statements of comprehensive incom	e:				
Revenue	9,675,036	13,630,002	1,568,007	13,553,220	3,325,712
Profit from continuing operations, net of tax 1	1,055,411	611,171	393,589	1,169,801	165,485
Loss from discontinued operation, net of tax1	(162,966)	-	-	-	-
Other comprehensive income (loss) ¹	151,809	134,163	(1,270)	623,792	32,535
Total comprehensive income ¹	1,044,254	745,334	392,319	1,793,593	198,020
2. Details of adjustments from the carrying amo	ount of investme	ents in associates			
Net assets (a)	6,718,948	7,228,720	4,991,101	14,704,264	1,117,142
Ownership percentage (b) ²	23.40%	22.60%	31.50%	20.10%	28.70%
Net assets of equity shares (a x b)	1,573,570	1,632,847	1,571,809	2,960,235	320,301
Goodwill	7,081	26,801	3,645	-	298,779
Intercompany transactions and other ³	(24,265)	(7,493)	2,210	(430,585)	2,212
Carrying amount of associates	1,556,386	1,652,155	1,577,664	2,529,650	621,292
3. Dividends from associates					
Dividends	24,770	41,933	-	13,463	24,392

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

²Ownership percentage includes ordinary and preference shares.

³ Consists of unrealized gains and losses and other differences.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(2) Summary of condensed financial information of major joint ventures and dividends received from joint ventures as of December 31, 2022 and 2021, and for the years ended December 31, 2022 and 2021 are as follows:

	Samsung Corning Advanced Glass			
(In millions of Korean won)	2022	2021		
1. Condensed financial information				
Condensed statements of financial position:				
Current assets	170,103	163,083		
Non-current assets	125,507	141,411		
Current liabilities	19,794	31,779		
Non-current liabilities	363	1,547		
Condensed statements of comprehensive income:				
Revenue	133,634	204,130		
Profit from continuing operations, net of tax ¹	3,998	24,753		
Profit (loss) from discontinued operations, net of tax ¹	-	-		
Other comprehensive income (loss) ¹	288	(305)		
Total comprehensive income ¹	4,286	24,448		
2. Details of adjustments from the carrying amount of inves	stments in joint ventures			
Net assets (a)	275,453	271,168		
Ownership percentage (b)	50.00%	50.00%		
Net assets of equity shares (a x b)	137,727	135,584		
Intercompany transactions and other ²	18	(4)		
Carrying amount of joint ventures	137,745	135,580		
3. Dividends from joint ventures				
Dividends	-	-		

¹ Profit (loss) attributable to owners of the parent company.

(3) 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, 2022 and 2021 are as follows:

	20	2022		21
(In millions of Korean won)	Associates	Joint ventures	Associates	Joint ventures
Profit from continuing operations	102,930	1,867	68,646	1,636
Other comprehensive income (loss)	(50,761)	(2,677)	29,258	568
Total comprehensive income (loss)	52,169	(810)	97,904	2,204

²Consists of unrealized gains and losses and other differences.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

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

(In millions of Korean won	December 3	December 31, 2021	
and number of shares)	Number of shares held	Market value	Market value
Samsung Electro-Mechanics	17,693,084	2,308,947	3,494,384
Samsung SDS	17,472,110	2,149,070	2,734,385
Samsung Biologics	22,217,309	18,240,411	18,815,659
Samsung SDI	13,462,673	7,956,440	8,818,051
Cheil Worldwide	29,038,075	669,328	663,520

(G) Other matters

On July 12, 2018, the Korea Securities and Futures Commission determined an initial measure following an investigation relating to Samsung Biologics Co., Ltd., an associate of the Company, and its accounting for its investment in Samsung Bioepis Co., Ltd, a joint venture between Biogen Therapeutics Inc. and Samsung Biologics Co., Ltd. This measure included a recommendation to dismiss the director in charge, prosecution charges, and external auditor designation by the regulator, on the basis that the Joint Venture Agreement was not disclosed in the notes to the financial statements. On November 14, 2018, the Korea Securities and Futures Commission determined a second measure which included a penalty of 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, 2021, the Seoul Administrative Court announced a decision to cancel the first measure charged by the Korea Securities and Futures Commission, and suspended its execution until the final rulings of the appeal. On October 16, 2021, the Korea Securities and Futures Commission appealed and the litigation is in progress at Seoul High Court. Samsung Biologics Co., Ltd. also filed for suspending the execution of the initial and second measures. On January 22, 2019 and February 19, 2019, the Seoul Administrative Court pronounced decisions to suspend the second and initial measure, respectively, until the final rulings. The Korea Securities and Futures Commission immediately appealed against the decisions but the appeals were dismissed by the Seoul High Court on May 13, 2019 and May 24, 2019, in relation to the second and first measures, respectively. On May 23, 2019 and June 10, 2019, the Korea Securities and Futures Commission re-appealed against the dismissals relating to the second and first measures, respectively. On September 6, 2019 and October 11, 2019, the Supreme Court of Korea dismissed the Korea Securities and Futures Commission's re-appeal relating to the second and first measures, respectively, and confirmed the decision to suspend 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 and onwards, and the profit on disposal of investment for the year ended December 31, 2016, may be impacted. Given the timing of completion and the final result of the administrative litigation between Samsung Biologics Co., Ltd. and the Korea Securities and Futures Commission is uncertain and cannot currently be estimated, it is not possible for the Company to recognize the effects of these proceedings in the current period consolidated financial statements.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

10. Property, Plant and Equipment

(A) Changes in property, plant and equipment for the years ended December 31, 2022 and 2021 are as follows:

_	2022						
(In millions of Korean won)	Land	Buildings and structures	Machinery and equipment	Construction in progress	Other	Total	
				r - 8			
Balance as of January 1	9,830,154	38,869,440	79,526,297	18,009,324	3,693,324	149,928,539	
Acquisition cost	9,943,570	62,651,459	274,909,571	18,009,324	11,958,070	377,471,994	
Accumulated depreciation and impairment	(113,416)	(23,782,019)	(195,383,274)	-	(8,264,746)	(227,543,455)	
Acquisitions and capital expenditures ¹	138,925	5,302,095	31,010,080	16,675,741	2,100,119	55,226,960	
Depreciation	(49,516)	(3,533,917)	(30,761,685)	-	(1,606,980)	(35,952,098)	
Disposals/scrap	(57,596)	(127,935)	(35,098)	(193)	(34,208)	(255,030)	
Impairment (reversal)	-	(2,255)	(11,815)	-	(12,323)	(26,393)	
Other ²	30,200	199,490	(13,148)	(1,077,308)	(15,824)	(876,590)	
Balance as of December 31	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)	

¹The capitalized borrowing costs are ₩ 41,634 million and interest rate used to calculate the borrowing costs eligible for capitalization is 2.1%~4.1%.

²Other includes effects of changes in foreign currency exchange rates and effects of the offset related to government grants.

	2021						
(In millions of Korean won)	Land	Buildings and structures	Machinery and equipment	Construction in progress	Other	Total	
Balance as of January 1	9,772,156	34,552,004	60,994,130	20,175,917	3,458,685	128,952,892	
Acquisition cost	9,850,942	55,026,369	233,056,501	20,175,917	10,496,584	328,606,313	
Accumulated depreciation and impairment	(78,786)	(20,474,365)	(172,062,371)	_	(7,037,899)	(199,653,421)	
Acquisitions and capital expenditures ¹	117,933	6,608,620	43,862,769	(2,320,520)	1,696,362	49,965,164	
Depreciation	(47,517)	(3,174,672)	(26,552,958)	-	(1,510,062)	(31,285,209)	
Disposals, scrap	(49,683)	(91,964)	(18,307)	(469)	(6,200)	(166,623)	
Impairment (reversal)	-	(12,135)	(131,985)	-	(7,082)	(151,202)	
Other ²	37,265	987,587	1,372,648	154,396	61,621	2,613,517	
Balance as of December 31	9,830,154	38,869,440	79,526,297	18,009,324	3,693,324	149,928,539	
Acquisition cost	9,943,570	62,651,459	274,909,571	18,009,324	11,958,070	377,471,994	
Accumulated depreciation and impairment	(113,416)	(23,782,019)	(195,383,274)		(8,264,746)	(227,543,455)	

¹The capitalized borrowing costs are \(\foat\) 24,908 million and interest rate used to calculate the borrowing costs eligible for capitalization is 0.3~1.1%.

²Other includes effects of changes in foreign currency exchange rates and effects of the offset related to government grants.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(B) Changes in the right-of-use assets included in the property, plant and equipment for the years ended December 31, 2022 and 2021 are as follows:

_			2022		
(In millions of Korean won)	Land	Buildings and structures	Machinery and equipment	Other	Total
Balance as of January 1	525,954	2,841,970	191,059	391,584	3,950,567
Acquisition	32,632	1,542,889	29,098	507,041	2,111,660
Depreciation	(49,516)	(823,543)	(58,000)	(116,287)	(1,047,346)
Cancellation of contracts	(13,741)	(111,145)	(263)	(4,220)	(129,369)
Other ¹	7,874	1,425	13,257	9,541	32,097
Balance as of December 31	503,203	3,451,596	175,151	787,659	4,917,609

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

_			2021		
(In millions of Korean won)	Land	Buildings and structures	Machinery and equipment	Other	Total
Balance as of January 1	441,603	2,105,360	109,372	313,538	2,969,873
Acquisition	112,419	1,326,322	136,680	173,490	1,748,911
Depreciation	(57,699)	(553,324)	(54,233)	(66,868)	(732,124)
Cancellation of contracts	(398)	(60,742)	(1,265)	(4,790)	(67,195)
Other ¹	30,029	24,354	505	(23,786)	31,102
Balance as of December 31	525,954	2,841,970	191,059	391,584	3,950,567

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

(C) Details of depreciation of property, plant and equipment for the years ended December 31, 2022 and 2021 are as follows:

(In millions of Korean won)	2022	2021
Cost of sales	32,285,800	27,868,090
Selling and administrative expenses, and etc.	3,666,298	3,417,119
Total	35,952,098	31,285,209

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

11. Intangible Assets

Other1

Balance as of December 31

(A) Changes in intangible assets for the years ended December 31, 2022 and 2021 are as follows:

2022 Intellectual Development (In millions of Korean won) Membership Goodwill Other Total property rights cost Balance as of January 1 4,153,236 236,910 241,219 5,844,259 9,760,620 20,236,244 External acquisitions 299,484 8,905 2,375,986 2,684,375 Internally generated/developed Amortization (151,892)(3,155,561)(268,070)(2,735,599)Disposals/scrap (50,979)(417)(402)(51,798)Impairment (reversal) (509)(5,753)(6,262)Other1 145,079 4,356 170,163 191,158 510,756 **Balance as of December 31** 253,554 20,217,754 4,278,750 85,018 6,014,422 9,586,010

Intellectual Development (In millions of Korean won) Goodwill Other Total property rights Membership 229,987 Balance as of January 1 4,033,904 371,391 5,673,642 8,159,578 18,468,502 External acquisitions 3,990,314 333,073 8,757 3,648,484 Internally generated/developed 193,708 193,708 Amortization (278,288)(321,608)(2,362,256)(2,962,152)Disposals/scrap (53,127) (51,236)(195)(1,696)Impairment (reversal) (52,101)(1,586)(53,687)

(6,581)

236,910

2021

4,256

241,219

170,617

5,844,259

316,510

9,760,620

652,686 20,236,244

167,884

4,153,236

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

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

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(B) Goodwill

Goodwill is allocated to each cash-generating unit. Details of goodwill as of December 31, 2022 and 2021 are as follows:

(In millions of Korean won)	December 31, 2022	December 31, 2021	
DX segment	1,249,290	1,214,730	
DS segment	159,359	160,026	
SDC segment	138,754	138,061	
Harman segment	4,466,339	4,330,139	
Other	680	1,303	
Total	6,014,422	5,844,259	

Goodwill impairment reviews are performed annually, and the recoverable amounts of cash-generating units have been determined based on the value-in-use calculations, etc. These calculations generally use the pre-tax cash flow projections based on the financial budgets approved by management covering a five-year period, unless it is reasonable to use long-term financial budgets longer than five years in the new technology business. Perpetual cash flows beyond the five-year period are extrapolated using a constant growth rate assumption. The growth rate applied was capped at the long-term average growth rate for the industry.

(C) Details of amortization of intangible assets for the years ended December 31, 2022 and 2021 are as follows:

(In millions of Korean won)	2022	2021
Cost of sales	2,211,481	2,136,937
Selling and administrative expenses and other	944,080	825,215
Total	3,155,561	2,962,152

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

12. Borrowings

(A) Details of the carrying amounts of borrowings as of December 31, 2022 and 2021 are as follows:

		Interest rates (%)		
(In millions of Korean won)	Financial institutions	as of Dec 31, 2022	December 31, 2022	December 31, 2021
Short-term borrowings				
Collateralized borrowings ¹	Woori Bank and others	0.1~16.7	3,569,357	11,556,101
Non-collateralized borrowings	Citibank and others	0.1~38.5	1,577,958	2,131,692
Total			5,147,315	13,687,793
Current portion of long-term born	rowings			
Bank borrowings	BNP and others	38.9~53.2	208,915	40,415
Lease liabilities ²	CSSD and others	3.5	874,019	811,902
Total			1,082,934	852,317
Long-term borrowings				
Bank borrowings	Industrial Bank of Korea and others	1.6~5.9	33,846	1,500
Lease liabilities ²	CSSD and others	3.5	3,526,826	2,864,656
Total			3,560,672	2,866,156

¹ Collateralized borrowings are secured by trade receivables.

(B) Maturities of long-term borrowings outstanding as of December 31, 2022 are as follows:

(In millions of Korean won)	Long-term borrowings		
Repayment terms			
2023	208,915		
2024	1,000		
2025	31,346		
2026	-		
2027 and thereafter	1,500		
Total	242,761		

(C) Maturities of lease liabilities outstanding as of December 31, 2022 are as follows:

(In millions of Korean won)	Lease liabilities		
Repayment terms			
2023	1,021,767		
2024	866,188		
2025	690,763		
2026	582,745		
2027 and thereafter	1,905,034		
Total	5,066,497		

² Interest expenses arising from the lease liabilities for the years ended December 31, 2022 and 2021 amount to \pm 140,111 million and \pm 106,877 million, respectively, which were determined using the weighted average incremental borrowing rate. The right-of-use assets are pledged as collateral to the lessor in the event of default. Short-term lease payments and low- valued asset lease payments that are not included in measurement of lease liabilities during the years ended December 31, 2022 and 2021 amount to \pm 211,283 million and \pm 129,686 million, respectively.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

13. Debentures

(A) Details of the carrying amounts of debentures as of December 31, 2022 and 2021 are as follows:

(In millions of Korean won)	Issue date	Due date	Interest rates (%) as of Dec 31, 2022	December 31, 2022	December 31, 2021
US dollar denominated straight bonds ¹	1997.10.2	2027.10.1	7.7	31,683	35,565
OS donai denominated straight bonds	1997.10.2	2027.10.1	7.7	(US\$ 25 million)	(US\$ 30 million)
US dollar denominated debenture bonds ²	2015.5.11	2025.5.15	4.2	506,920	474,200
OS donar denominated debenture bonds	2013.3.11	2023.3.13	4.2	(US\$ 400 million)	(US\$ 400 million)
EURO denominated debenture bonds ³	2015.5.27	2022.5.27	2.0	-	469,819
EURO denominated dependire bonds	2013.3.27	2022.3.27	2.0	-	(EUR 350 million)
Less: Discounts				(543)	(708)
Add: Premium				4,261	7,007
Less: Current portion				(6,228)	(477,651)
Total				536,093	508,232

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

(B) Maturities of debentures outstanding as of December 31, 2022 are as follows:

(In millions of Korean won)	Debentures	
Repayment terms		
2023	6,337	
2024	6,337	
2025	513,257	
2026	6,337	
2027 and thereafter	6,335	
Total	538,603	

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

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

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

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, 2022 and 2021 are as follows:

(In millions of Korean won)	December 31, 2022	December 31, 2021	
Present value of funded defined benefit obligations	13,639,460	14,391,209	
Present value of unfunded defined benefit obligations	370,848	266,976	
Subtotal	14,010,308	14,658,185	
Fair value of plan assets	(19,593,910)	(17,001,891)	
Total	(5,583,602)	(2,343,706)	

(B) The components of defined benefit costs recognized in profit or loss for the years ended December 31, 2022 and 2021 are as follows:

(In millions of Korean won)	2022	2021
Current service cost	1,365,600	1,247,857
Net interest income	(99,356)	(38,326)
Past service cost	(253)	2,718
Other	28,713	3,847
Total	1,294,704	1,216,096

The amount recognized as an expense of defined contribution plans for the years ended December 31, 2022 and 2021 are \$45,395 million and \$44,248 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, 2022 and 2021 are as follows:

(In millions of Korean won)	2022	2021
Cost of sales	514,589	480,331
Selling and administrative expenses and other	780,115	735,765
Total	1,294,704	1,216,096

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(D) Changes in the defined benefit obligations for the years ended December 31, 2022 and 2021 are as follows:

(In millions of Korean won)	2022	2021
Balance as of January 1	14,658,185	12,948,999
Current service cost	1,365,600	1,247,857
Interest cost	528,884	396,730
Past service cost	(253)	2,718
Remeasurement:		
Actuarial gains or losses arising from changes in demographic assumptions	34,917	(34,014)
Actuarial gains or losses arising from changes in financial assumptions	(2,496,879)	126,297
Other	521,452	473,668
Benefits paid	(630,019)	(519,043)
Other ¹	28,421	14,973
Balance as of December 31	14,010,308	14,658,185

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

(E) Changes in the fair value of plan assets for the years ended December 31, 2022 and 2021 are as follows:

(In millions of Korean won)	2022	2021
Balance as of January 1	17,001,891	13,840,043
Interest income on plan assets	628,240	435,056
Remeasurement of plan assets	(312,565)	(146,239)
Contributions by employer	2,741,417	3,263,765
Benefits paid	(498,246)	(397,678)
Other ¹	33,173	6,944
Balance as of December 31	19,593,910	17,001,891

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

Expected contributions to post-employment benefit plans to be paid in 2023 as of December 31, 2022 are \mathbf{W} 1,940,341 million.

(F) Plan assets as of December 31, 2022 and 2021 consist of the following:

(In millions of Korean won)	December 31, 2022	December 31, 2021	
Principal guaranteed fixed income financial instruments and other	18,766,006	16,935,143	
Other	827,904	66,748	
Total	19,593,910	17,001,891	

Plan assets are mostly invested in instruments which have a quoted price in active markets.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(G) The principal actuarial assumptions as of December 31, 2022 and 2021 are as follows:

(In percentage)	December 31, 2022	December 31, 2021
Discount rate	4.3~6.4	0.2~7.2
Salary growth rate (including the effects of inflation)	2.0~6.4	1.5~10.0

(H) The sensitivity analysis of the defined benefit obligations as of December 31, 2022 and 2021 to changes in the weighted principal assumptions is as follows:

(In percentage)	December 31, 2022	December 31, 2021	
Discount rate			
1% p increase	92	91	
1% p decrease	109	110	
Salary growth rate			
1% p increase	109	110	
1% p decrease	92	91	

⁽I) The weighted average maturity of the defined benefit obligations is 8.38 years as of December 31, 2022.

15. Provisions

Changes in provisions for the year ended December 31, 2022 are as follows:

(In millions of Korean won)	Warranty (A)	Royalty expenses (B)	Long-term incentives (C)	Other (D, E)	Total
Balance as of January 1	1,978,294	1,561,809	734,283	3,405,480	7,679,866
Charged to profit or loss	2,186,312	629,713	302,229	759,669	3,877,923
Payment	(1,873,519)	(712,635)	(255,658)	(1,070,410)	(3,912,222)
Other ¹	18,639	67,719	2,409	39,091	127,858
Balance as of December 31	2,309,726	1,546,606	783,263	3,133,830	7,773,425

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

- (A) The Company accrues warranty reserves for estimated costs of quality assurance, exchanges, repairs, recalls, and future services based on historical experience and terms of warranty programs.
- (B) The Company recognizes provisions for the estimated royalty expenses that are under negotiation with counterparties. The timing and amount of payment depend on the settlement of the negotiation.
- (C) The Company has a long-term incentive plan for its executives based on a three-year management performance criteria and recognizes a provision for the estimated incentive cost for the accrued period.
- (D) The Company records provisions for future expenses expected to be incurred for products that have been discontinued from manufacturing and sales.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

- (E) The Company makes provisions for the carrying amounts of emission rights held by the Company and the emission in excess of the emission rights for the applicable years. Details of emission rights and liabilities as of December 31, 2022 are as follows:
 - (1) The amount of emission rights allocated free of charge in the current commitment period and the estimated amount of emission as of December 31, 2022 are as follows:

(In ten thousand metric tons)	December 31, 2022	
Allocated emission permits ¹	1,754	
Estimated volume of emission	1,957	

¹As of December 31, 2022, emission permits allocated to the Company for the remaining plan periods are 4,905 ten thousand tons. (2023: 1,645 ten thousand, 2024: 1,630 ten thousand, 2025: 1,630 ten thousand)

(2) Changes in the emission rights for the year ended December 31, 2022 are as follows:

(In millions of Korean won)	2022	2021
Balance as of January 1	46,073	44,865
Increase	1,872	1,422
Decrease	(28,378)	(214)
Balance as of December 31 ¹	19,567	46,073

¹The quantity of emission right is 6,742 ten thousand ton and there is no emission rights provided as provision of collateral as of December 31, 2022.

(3) Changes in emissions liabilities for the year ended December 31, 2022 are as follows:

(In millions of Korean won)	2022	2021
Balance as of January 1	45,049	31,876
Charged to profit or loss	16,167	13,374
Submission	(28,378)	(201)
Balance as of December 31	32,838	45,049

16. Commitments and Contingencies

(A) Litigation

As of December 31, 2022, the Company is involved in various claims, disputes, and investigations conducted by regulatory bodies that arose during the normal course of business with numerous entities. Although the outflow of resources and timing of these matters are uncertain, the Company believes the outcome will not have a material impact on the financial position of the Company.

(B) Other commitments

- (1) As of December 31, 2022, the Company has trade financing agreements, trade notes receivable discounting facilities, and loan facilities with accounts receivable pledged as collateral with 26 financial institutions including Woori Bank, with a combined limit of up to ₩ 21,609,679 million. In addition, the Company has a trade financing agreement (up to ₩ 16,020,930 million) with 23 financial institutions including Shinhan Bank and loan facilities with accounts receivable pledged as collateral and other financial agreements (up to ₩ 1,589,717 million).
- (2) As of December 31, 2022, unfulfilled agreements relating to the acquisition of property, plant and equipment and intangible assets amount to \(\frac{\text{W}}{2}\) 8,553,336 million.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

17. Contract Liabilities

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

(In millions of Korean won)	December 31, 2022	December 31, 2021
Contract liabilities ¹	13,255,682	13,235,108

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

The revenue recognized during the year ended December 31, 2022 in relation to carried-forward contract liabilities as of January 1, 2022 amounts to $\frac{W}{1,051,027}$ million.

18. Share Capital

As of December 31, 2022, the Company's total number of authorized shares is 25,000,000,000 shares (\text{\psi} 100 per share). The Company has issued 5,969,782,550 shares of ordinary shares and 822,886,700 shares of preference shares as of December 31, 2022, excluding the retired shares. As of the December 31, 2022, the number of shares outstanding is the same as the number of shares issued above, and no changes were made to the number of shares outstanding during the years ended December 31, 2022 and 2021. Due to the retirement of shares, the total par value of the shares issued is \(\frac{\psi}{6}\) 679,267 million (ordinary shares of \(\frac{\psi}{5}\) 596,978 million and preference shares of \(\frac{\psi}{8}\) 82,289 million), which does not agree with paid-in capital of \(\frac{\psi}{8}\) 897,514 million.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

19. Retained Earnings

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

(In millions of Korean won) December 31, 2022		December 31, 2021	
Discretionary reserve, etc.	192,294,496	170,814,107	
Unappropriated retained earnings	145,651,911	122,250,656	
Total	337,946,407	293,064,763	

- (B) Details of interim and year-end dividends are as follows:
 - (1) Interim dividends (Record date: March 31, June 30 and September 30, 2022 and 2021)

(In millions of	Korean won and number of shares)		2022	2021
	No	Ordinary shares	5,969,782,550	5,969,782,550
	Number of shares eligible for dividends	Preference shares	822,886,700	822,886,700
1 St. Ot	Dividend rate (based on par value)		361%	361%
1 st Quarter		Ordinary shares	2,155,092	2,155,092
	Dividend amount	Preference shares	297,062	297,062
		Total	2,452,154	2,452,154
		Ordinary shares	5,969,782,550	5,969,782,550
	Number of shares eligible for dividends	Preference shares	822,886,700	822,886,700
and O	Dividend rate (based on par value)		361%	361%
2 nd Quarter	2 nd Quarter	Ordinary shares	2,155,092	2,155,092
	Dividend amount	Preference shares	297,062	297,062
		Total	2,452,154	2,452,154
	N 1 61 121 6 121 1	Ordinary shares	5,969,782,550	5,969,782,550
	Number of shares eligible for dividends	Preference shares	822,886,700	822,886,700
and o	Dividend rate (based on par value)		361%	361%
3 rd Quarter		Ordinary shares	2,155,092	2,155,092
	Dividend amount	Preference shares	297,062	297,062
		Total	2,452,154	2,452,154

(2) Year-end dividends (Record date: December 31, 2022 and 2021)

(In millions of Korean won and number of share	res)	2022	2021
Number of shares clinible for dividends	Ordinary shares	5,969,782,550	5,969,782,550
Number of shares eligible for dividends	Preference shares	822,886,700	822,886,700
Dividend and described	Ordinary shares	361%	361%
Dividend rate (based on par value)	Preference shares	362%	362%
	Ordinary shares	2,155,092	2,155,092
Dividend amount	Preference shares	297,884	297,884
	Total	2,452,976	2,452,976

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

20. Other Components of Equity

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

(In millions of Korean won)	December 31, 2022	December 31, 2021
Gain on valuation of financial assets at fair value through other comprehensive income	2,749,109	4,616,639
Share of other comprehensive income of associates and joint ventures	114,987	166,835
Gain (loss) on overseas business translation	1,039,197	(3,824,733)
Remeasurement of net defined benefit liabilities (assets)	(2,051,610)	(3,173,977)
Other	86,645	86,763
Total	1,938,328	(2,128,473)

21. Expenses by Nature

Expenses by nature for the years ended December 31, 2022 and 2021 consist of the following:

(In millions of Korean won)	2022	2021	
Changes in finished goods, work in process, and other	(10,355,548)	(4,517,560)	
Raw materials used, merchandise purchased, and other	112,591,917	95,625,437	
Wages and salaries	30,078,623	28,207,782	
Post-employment benefit	1,440,099	1,360,344	
Depreciation	35,952,098	31,285,209	
Amortization	3,155,561	2,962,152	
Welfare	6,091,626	5,073,002	
Utilities	6,142,317	4,928,929	
Outsourcing	6,597,467	5,594,602	
Advertising	6,112,951	5,376,015	
Sales promotion expenses	7,110,649	6,286,159	
Other	53,936,970	45,788,872	
Total ¹	258,854,730	227,970,943	

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

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

22. Selling and Administrative Expenses

Selling and administrative expenses for the years ended December 31, 2022 and 2021 are as follows:

(In millions of Korean won)	2022	2021
Selling and administrative expenses		
Wages and salaries	7,763,588	7,245,981
Post-employment benefit	330,115	310,823
Commissions and service charges	7,457,896	6,192,568
Depreciation	1,574,757	1,529,507
Amortization	664,346	543,544
Advertising	6,112,951	5,376,015
Sales promotion expenses	7,110,649	6,286,159
Transportation	3,214,301	2,792,690
Service charges	3,671,913	4,039,642
Other	5,993,246	4,840,946
Subtotal	43,893,762	39,157,875
Research and development expenses		
Total expenses	24,919,198	22,595,434
Capitalized expenses	-	(193,708)
Subtotal	24,919,198	22,401,726
Total	68,812,960	61,559,601

23. Other Non-Operating Income and Expenses

Details of other non-operating income and expenses for the years ended December 31, 2022 and 2021 are as follows:

2022	2021
414,601	135,840
140,908	132,801
159,123	340,400
1,247,439	1,596,654
1,962,071	2,205,695
2022	2021
61,256	75,586
305,941	270,927
1,422,979	1,709,458
1,790,176	2,055,971
	414,601 140,908 159,123 1,247,439 1,962,071 2022 61,256 305,941 1,422,979

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

24. Financial Income and Expenses

Details of financial income and expenses for the years ended December 31, 2022 and 2021 are as follows:

(In millions of Korean won)	2022	2021
Financial income		
Interest income	2,720,479	1,278,278
Interest income from financial assets measured at amortized cost	2,720,213	1,278,051
Interest income from financial assets measured at fair value through profit or loss	266	227
Foreign exchange differences	16,537,855	6,525,676
Gains from derivatives	1,570,661	739,233
Total	20,828,995	8,543,187

(In millions of Korean won)	2022	2021
Financial expenses		
Interest expenses	763,015	431,540
Interest expenses from financial liabilities measured at amortized cost	322,529	213,477
Other financial liabilities	440,486	218,063
Foreign exchange differences	16,809,703	6,486,093
Losses from derivatives	1,454,971	786,921
Total	19,027,689	7,704,554

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

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

25. Income Tax Expense

(A) Income tax expense for the years ended December 31, 2022 and 2021 consists of the following:

(In millions of Korean won)	2022	2021	
Current taxes			
Current tax on profits for the year	7,391,099	11,135,521	
Adjustments recognize in the current year	(501,683)	(195,237)	
Subtotal	6,889,416	10,940,284	
Deferred taxes			
Changes in deferred taxes arising from unused tax credits	(1,080,068)	(332,975)	
Changes in deferred taxes arising from temporary differences	(15,407,692)	2,172,312	
Changes in deferred taxes arising from unused tax losses	160,123	507,313	
Other	224,618	157,443	
Subtotal	(16,103,019)	2,504,093	
Items charged directly to equity	-	-	
Income tax expense	(9,213,603)	13,444,377	

(B) The tax on the Company's profit before income tax differs from the theoretical amount that would arise using the weighted-average statutory tax rate applicable to profits of the Company as follows:

(In millions of Korean won)	2022	2021
Profit before income tax	46,440,474	53,351,827
Tax calculated at weighted average of applicable tax rates ¹	13,652,900	15,760,775
Adjustments:		
Permanent differences	(2,090,031)	(464,839)
Temporary differences for which no deferred income tax was recognized	769,211	(80,250)
Tax credits and exemptions	(5,185,576)	(4,627,136)
Results of interest in subsidiaries, etc.	(16,186,745)	2,267,026
Impact of changes in tax rates	(376)	8,691
Other	(172,986)	580,110
Subtotal	(22,866,503)	(2,316,398)
Income tax expense	(9,213,603)	13,444,377

¹ The weighted average of statutory tax rates are applied to the respective profits of the Company applicable to each tax authority as of December 31, 2022 and 2021.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(C) The movement in deferred income tax assets and liabilities resulting from the tax effect of temporary differences for the years ended December 31, 2022 and 2021 are as follows:

(1) 2022

	Temporary differences					(liabilities)
(T. 1971)	Balance as of	Increase	Balance as of	Balance as of	Increase	Balance as of
(In millions of Korean won)	January 1	(Decrease)	December 31	January 1	(Decrease)	December 31
Deferred tax arising from temporary diff	erences					
Revaluation of land	(3,406,625)	3,195	(3,403,430)	(936,822)	38,317	(898,505)
Investments in subsidiaries, associates and joint ventures ¹	(126,816,779)	(18,391,837)	(145,208,616)	(20,614,554)	15,654,307	(4,960,247)
Accumulated depreciation and other	(3,814,598)	(3,782,747)	(7,597,345)	(1,771,793)	(794,742)	(2,566,535)
Accrued income	(22,153)	108,861	86,708	6,853	32,827	39,680
Provisions, accrued expenses and other	15,979,455	2,799,841	18,779,296	4,560,874	658,256	5,219,130
Foreign currency translation	62,615	670,489	733,104	12,076	173,824	185,900
Asset impairment losses	1,134,048	(69,523)	1,064,525	258,886	(24,152)	234,734
Other	(492,225)	(1,356,462)	(1,848,687)	(638,757)	(330,945)	(969,702)
Subtotal	(117,376,262)	(20,018,183)	(137,394,445)	(19,123,237)	15,407,692	(3,715,545)
Deferred tax arising from tax losses						
Unused tax losses	2,015,448	(520,129)	1,495,319	436,481	(160,123)	276,358
Deferred tax arising from tax credits						
Unused tax credits	1,687,065	1,243,873	2,930,938	1,666,362	1,080,068	2,746,430
Deferred tax recognized in equity						
Loss (gain) on valuation of financial assets at fair value through other						
comprehensive income and other	(3,575,094)	(61,384)	(3,636,478)	(3,155,310)	3,104,918	(50,392)
Remeasurement of net defined benefit liabilities (assets)	4,447,510	(1,627,945)	2,819,565	1,238,713	(505,578)	733,135
Subtotal	872,416	(1,689,329)	(816,913)	(1,916,597)	2,599,340	682,743
Deferred tax assets		<u> </u>	·	4,261,214	840,104	5,101,318
Deferred tax liabilities				(23,198,205)	18,086,873	(5,111,332)
Total				(18,936,991)	18,926,977	(10,014)

¹ 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.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(2) 2021

	Temporary differences		Deferred income tax assets (liabilities)			
	Balance as of	Increase	Balance as of	Balance as of	Increase	Balance as of
(In millions of Korean won)	January 1	(Decrease)	December 31	January 1	(Decrease)	December 31
Deferred tax arising from temporary diff	erences					
Revaluation of land	(3,420,886)	14,261	(3,406,625)	(940,744)	3,922	(936,822)
Investments in subsidiaries, associates and joint ventures ¹	(111,924,859)	(14,891,920)	(126,816,779)	(19,172,409)	(1,442,145)	(20,614,554)
Accumulated depreciation and other	(2,285,841)	(1,528,757)	(3,814,598)	(992,777)	(779,016)	(1,771,793)
Accrued income	(139,406)	117,253	(22,153)	(31,486)	38,339	6,853
Provisions, accrued expenses and other	13,121,416	2,858,039	15,979,455	3,764,808	796,066	4,560,874
Foreign currency translation	(24,683)	87,298	62,615	(10,077)	22,153	12,076
Asset impairment losses	1,855,765	(721,717)	1,134,048	453,486	(194,600)	258,886
Other	562,628	(1,054,853)	(492,225)	(21,726)	(617,031)	(638,757)
Subtotal	(102,255,866)	(15,120,396)	(117,376,262)	(16,950,925)	(2,172,312)	(19,123,237)
Deferred tax arising from tax losses						_
Unused tax losses	3,618,601	(1,603,153)	2,015,448	943,794	(507,313)	436,481
Deferred tax arising from tax credits						
Unused tax credits	1,328,527	358,538	1,687,065	1,333,387	332,975	1,666,362
Deferred tax recognized in equity						_
Loss on valuation of financial assets at fair value through other comprehensive income and other	(1,660,421)	(1,914,673)	(3,575,094)	(909,176)	(2,246,134)	(3,155,310)
Remeasurement of net defined benefit liabilities (assets)	3,735,320	712,190	4,447,510	1,047,075	191,638	1,238,713
Subtotal	2,074,899	(1,202,483)	872,416	137,899	(2,054,496)	(1,916,597)
Deferred tax assets				4,275,000	(13,786)	4,261,214
Deferred tax liabilities				(18,810,845)	(4,387,360)	(23,198,205)
Total				(14,535,845)	(4,401,146)	(18,936,991)

¹ 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 the deferred tax asset is realizable as the estimated average annual taxable income in future years exceeds the tax loss carry forwards and tax credit carry forwards to be reversed in each accounting period. Temporary differences in which deferred tax effects were not recognized due to uncertainty regarding the ultimate realizability of such assets as of December 31, 2022 and 2021 are as follows:

(In millions of Korean won)	2022	2021
Unused tax losses	594,798	706,512
Unused tax credits	46,550	47,929

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

(In millions of Korean won)	2022	2023	2024	2025 and after
Unused tax losses	69,464	1,776	-	523,558
Unused tax credits	7,466	4,157	29,972	4,955

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(D) Details of the period when the deferred tax assets (liabilities) are recovered (settled) as of December 31, 2022 and 2021 are as follows:

(In millions of Korean won)	December 31, 2022	December 31, 2021
Deferred tax assets		
Deferred tax assets to be recovered within 12 months	3,249,661	2,999,046
Deferred tax assets to be recovered after more than 12 months	1,851,657	1,262,168
Subtotal	5,101,318	4,261,214
Deferred tax liabilities		
Deferred tax liabilities to be settled after more than 12 months	(5,111,332)	(23,198,205)
Total	(10,014)	(18,936,991)

26. Earnings per Share

(A) Basic earnings per share

Basic earnings per share for the years ended December 31, 2022 and 2021 are calculated as follows:

(1) Ordinary shares

(In millions of Korean won, thousands of number of shares)	2022	2021
Profit for the year attributable to owners of the parent company	54,730,018	39,243,791
Profit for the year available for ordinary shares	48,099,117	34,488,944
Weighted-average number of ordinary shares outstanding	5,969,783	5,969,783
Basic earnings per ordinary share (in Korean won)	8,057	5,777

(2) Preference shares

(In millions of Korean won, thousands of number of shares)	2022	2021
Profit for the year attributable to owners of the parent company	54,730,018	39,243,791
Profit for the year available for preference shares	6,630,901	4,754,847
Weighted-average number of preference shares outstanding	822,887	822,887
Basic earnings per preference share (in Korean won)	8,058	5,778

(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, 2022 and 2021.

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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, 2022 and 2021 are as follows:

- Adjustments

(In millions of Korean won)	2022	2021
A discount of		
Adjustments:		
Income tax expense	(9,213,603)	13,444,377
Financial income	(5,778,279)	(2,485,679)
Financial expenses	4,336,254	1,917,705
Post-employment benefits	1,440,099	1,360,344
Depreciation	35,952,098	31,285,209
Amortization	3,155,561	2,962,152
Bad debt expenses	8,784	17,990
Dividend income	(414,601)	(135,840)
Share of profit of associates and joint ventures	(1,090,643)	(729,614)
Gain on disposal of property, plant and equipment	(159,123)	(340,400)
Loss on disposal of property, plant and equipment	61,256	75,586
Loss on valuation of inventories	4,408,767	1,735,741
Others	366,869	(51,938)
Total	33,073,439	49,055,633

- Changes in assets and liabilities arising from operating activities

(In millions of Korean won)	2022	2021
Changes in assets and liabilities:		
Decrease (increase) in trade receivables	7,856,258	(7,302,604)
Increase in non-trade receivables	(1,524,173)	(204,348)
Decrease (increase) in prepaid expenses	3,506	(204,971)
Increase in inventories	(13,311,072)	(9,712,379)
Increase (decrease) in trade payables	(5,298,547)	1,027,017
Increase (decrease) in other payables	(1,443,409)	1,516,076
Increase (decrease) in advances received	106,977	(24,371)
Increase in withholdings	25,392	275,998
Increase in accrued expenses	919,271	3,340,697
Increase (decrease) in provisions	(34,298)	1,862,320
Payment of post-employment benefits	(707,887)	(606,870)
Increase in plan assets	(2,243,171)	(2,866,087)
Other	(1,347,795)	(3,387,362)
Total	(16,998,948)	(16,286,884)

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(B) Significant non-cash investing and financing transactions for the years ended December 31, 2022 and 2021 are as follows:

(In millions of Korean won)	2022	2021
Valuation of financial assets at fair value through other comprehensive income	(2,636,448)	3,653,253
Valuation of investments in associates and joint ventures	(50,510)	211,979
Reclassification of construction in progress to property, plant and equipment	36,047,916	50,451,574
Acquisition of right-of-use assets (New lease contracts established)	2,111,660	1,748,911
Reclassification of current portion of debentures	6,228	477,651
Reclassification of current portion of long-term borrowings	1,082,934	852,317

(C) Changes in liabilities arising from financing activities for the years ended December 31, 2022 and 2021 are as follows:

(1) 2022

		Cash flows from	Non-cash tra	nsactions	As of
(In millions of Korean won)	As of January 1	financing activities	New lease contracts	Other ¹	December 31
Short-term borrowings	13,687,793	(8,339,149)	-	(201,329)	5,147,315
Debentures and long-term borrowings	4,704,356	(1,236,468)	2,111,660	(393,621)	5,185,927
Total	18,392,149	(9,575,617)	2,111,660	(594,950)	10,333,242

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

(2) 2021

		Cash flows from	Non-cash tra	ansactions	
(In millions of Korean won)	As of January 1	financing activities	New lease contracts	Other ¹	As of December 31
Short-term borrowings	16,553,429	(2,616,943)	_	(248,693)	13,687,793
Debentures and long-term borrowings	3,663,952	(836,470)	1,748,912	127,962	4,704,356
Total	20,217,381	(3,453,413)	1,748,912	(120,731)	18,392,149

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

For the years ended December 31, 2022 and 2021, cash outflows from principal repayment (financial activities) amount to \mathbb{W} 998,531 million and \mathbb{W} 876,437 million, respectively, and cash outflows due to interest expenses (operating activities) in relation to the lease liabilities amount to \mathbb{W} 140,111 million and \mathbb{W} 106,877 million, respectively.

(D) The Company reported cash receipts and payments arising from transactions occurring frequently, of large gross amounts, and with short-term maturities, such as short-term financial instruments, borrowings and other, on a net basis. As of December 31, 2022, most of the Company's cash and cash equivalents consist of bank deposits.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

28. Financial Risk Management

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

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

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

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

(A) Market risk

(1) Foreign exchange risk

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

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

As of December 31, 2022 and 2021, when the currency rates change by 5%, the impact on profit or loss (before income tax effects) arising from financial assets and liabilities denominated in foreign currencies other than the functional currency are as follows:

	December 3	51, 2022	December 3	1, 2021
(In millions of Korean won)	Increase	Decrease	Increase	Decrease
USD	258,655	(258,655)	250,489	(250,489)
EUR	92,546	(92,546)	107,519	(107,519)
INR	52,096	(52,096)	24,216	(24,216)

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(2) Interest rate risk

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

As of December 31, 2022 and 2021, changes in profit or loss (before income tax effects) as a result of a 1%p change in interest rates on floating interest rate financial assets and liabilities are presented below:

	December	December 31, 2022		31, 2021
(In millions of Korean won)	Increase	Decrease	Increase	Decrease
Financial assets	72,750	(72,750)	71,131	(71,131)
Financial liabilities	(8,427)	8,427	(18,779)	18,779
Net effect	64,323	(64,323)	52,352	(52,352)

(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, 2022 and 2021, price fluctuation of marketable equity securities (listed stocks) by 1% would result in changes in other comprehensive income (before income tax) of \(\mathbb{W}\) 92,073 million and \(\mathbb{W}\) 116,087 million, respectively, and changes in profit before tax of \(\mathbb{W}\) 3,144 million and \(\mathbb{W}\) 4,784 million, respectively.

(B) Credit risk

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

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

As of December 31, 2022 and 2021, the Company estimates that its maximum exposure to credit risk is the carrying amount of its financial assets, net of impairment losses.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(C) Liquidity risk

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

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

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

As of December 31, 2022 and 2021, the following table is an undiscounted cash flow analysis for financial liabilities according to their remaining contractual maturity.

			December 31, 2022		
(In millions of Korean won)	Less than 3 months	4 - 6 months	7 – 12 months	1 - 5 years	More than 5 years
Financial liabilities	42,990,570	733,984	1,925,448	5,402,672	1,562,274
	Less than		December 31, 2021		More than
(In millions of Korean won)	3 months	4 – 6 months	7 - 12 months	1 - 5 years	5 years

The table above shows the Company's financial liabilities based on the remaining period at the consolidated statements of financial position date until the contractual maturity date. The amounts disclosed in the table are the contractual undiscounted cash flows.

The Company's derivative financial liabilities of \(\preceq\) 119,061 million (December 31, 2021: \(\preceq\) 113,590 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 60 months from the end of the reporting period. These derivatives are not included in the table above.

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, 2022.

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(D) Derivative financial instruments

The Company applies cash flow hedge accounting to hedge the foreign currency risk of forecasted transaction including hedging the price risk associated with inventory. Details of derivative financial instruments that qualify as cash flow hedges as of December 31, 2022 and 2021 are as follows:

	December 31, 2022		December 31, 2021	
(In millions of Korean won)	Assets	Liabilities	Assets	Liabilities
Currency forward exchange contracts				
Current items	44,567	11,035	34,075	11,090
Non-current items	15,703	15,813	16,790	3,280
Total	60,270	26,848	50,865	14,370

For the years ended December 31, 2022 and 2021, 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 \mathbb{W} 12,893 million (after tax) and gain of \mathbb{W} 50,410 million (after tax), respectively, and recognizes the gains and losses relating to the ineffective portion in profit or loss, which amount to the gain of \mathbb{W} 611 million (before tax) and loss of \mathbb{W} 451 million (before tax), respectively. For the years ended December 31, 2022 and 2021, gains and losses reclassified directly from other comprehensive income to profit or loss amount to the loss of \mathbb{W} 4,602 million (after tax) and the gain of \mathbb{W} 1,117 million (after tax), respectively and the gains reclassified from other comprehensive income to the carrying amount of inventory amount to the gain of \mathbb{W} 55,856 million (after tax) and the gain of \mathbb{W} 1,539 million (after tax), respectively.

(E) Capital risk management

The Group manages its capital to ensure that entities in the Group will be able to continue as going concerns while maximising the return to shareholders through the optimisation of the debt and equity balance.

The Company's capital risk management policy has not changed since the prior reporting periods. The Company has maintained an AA- and Aa2 credit ratings from S&P and Moody's, respectively.

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

(In millions of Korean won)	December 31, 2022	December 31, 2021
Total liabilities	93,674,903	121,721,227
Total equity	354,749,604	304,899,931
Debt ratio	26.4%	39.9%

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(F) Fair value estimation

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

	December 3	31, 2022	December 31, 2021		
(In millions of Korean won)	Carrying amount	Fair value	Carrying amount	Fair value	
Financial assets					
Cash and cash equivalents	49,680,710	(*1)	39,031,415	(*1)	
Short-term financial instruments	65,102,886	(*1)	81,708,986	(*1)	
Short-term financial assets at amortized cost	414,610	(*1)	3,369,034	(*1)	
Short-term financial assets at fair value through profit or loss	29,080	29,080	40,757	40,757	
Trade receivables	35,721,563	(*1)	40,713,415	(*1)	
Financial assets at fair value through other comprehensive income Financial assets at fair value through	11,397,012	11,397,012	13,965,839	13,965,839	
profit or loss	1,405,468	1,405,468	1,525,344	1,525,344	
Other ^(*2)	10,340,876	395,667	9,040,189	328,216	
Total financial assets	174,092,205		189,394,979		
Financial liabilities					
Trade payables	10,644,686	(*1)	13,453,351	(*1)	
Short-term borrowings	5,147,315	(*1)	13,687,793	(*1)	
Other payables	16,328,237	(*1)	14,126,970	(*1)	
Current portion of long-term liabilities	1,089,162	6,580	1,329,968	554,106	
- Current portion of long-term borrowing	1,082,934	(*1)(*3)	852,317	(*1)(*3)	
- Current portion of debentures	6,228	6,580	477,651	554,106	
Debentures	536,093	521,129	508,232	546,339	
Long-term borrowings	3,560,672	(*1)(*3)	2,866,156	(*1)(*3)	
Long-term other payables(*2)	2,289,236	(*1)	2,562,158	(*1)	
Other(*2)	12,409,529	361,768	10,781,684	337,394	
Total financial liabilities	52,004,930		59,316,312		

^(*1) Assets and liabilities whose carrying amount is a reasonable approximation of fair value are excluded from the fair value disclosures.

^(*2) Assets measured at the cost of \(\forall 9,945,209\) million (December 31, 2021: \(\forall 8,711,973\) million) and liabilities measured at the cost of \(\forall 12,047,761\) million (December 31, 2021: \(\forall 10,444,290\) million) are excluded as the carrying amount is a reasonable estimation of fair value.

^(*3) 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*.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

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

	December 31, 2022						
(In millions of Korean won)	Level 1	Level 2	Level 3	Total balance			
1) Assets							
Short-term financial assets at fair value through profit or loss	-	29,080	-	29,080			
Financial assets at fair value through other comprehensive income	9,207,295	-	2,189,717	11,397,012			
Financial assets at fair value through profit or loss	314,449	-	1,091,019	1,405,468			
Other	-	373,176	22,491	395,667			
2) Liabilities							
Current portion of debentures	-	6,580	-	6,580			
Debentures	-	521,129	-	521,129			
Other	-	354,364	7,404	361,768			

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

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

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

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

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

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

Specific valuation techniques used to value financial instruments include:

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

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

(3) Valuation technique and the inputs

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

The following table presents the valuation technique and the inputs used for major financial instruments classified as Level 3 as of December 31, 2022.

(In millions of Korean won and percentage)

Classification	Fair value	Valuation technique	Level 3 inputs	Input range (Weighted average)
Financial assets at fair value thro				
Carrana Mantana Larrantana	22.072	D:	Permanent growth rate	-1.0%~1.0%(0.0%)
Samsung Venture Investment	32,073	Discounted cash flow	Weighted average cost of capital	15.8%~17.8%(16.8%)
MiCo Coromico Co. Ltd	20.295	Discounted cash flow	Permanent growth rate	0.0%~1.0%(0.5%)
MiCo Ceramics Co., Ltd.	29,385	Discounted cash now	Weighted average cost of capital	13.1%~15.1%(14.1%)
TCL China Star Optoelectronics	1,244,889	Discounted cash flow	Permanent growth rate	-1.0%~1.0%(0.0%)
Technology Co., Ltd. (CSOT)	1,244,889	and others	Weighted average cost of capital	10.6%~12.6%(11.6%)
China Star Optoelectronics			Permanent growth rate	-1.0%~1.0%(0.0%)
Semiconductor Display Technology Ltd. (CSOSDT)	230,263	Discounted cash flow	Weighted average cost of capital	10.6%~12.6%(11.6%)
Others				
			Risk-free discount rate	4.0%~4.5%, 2.5%
Put option on equity instruments	22,491	Binomial model	Dui ao volotility	22.3%~32.3%(27.3%)
			Price volatility	25.3%~35.3%(30.3%)

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(4) Changes in Level 3 instruments for the years ended December 31, 2022 and 2021 are as follows:

(In millions of Korean won)	2022	2021
Financial assets		
Balance as of January 1	3,430,214	6,449,139
Acquisitions	207,730	1,075,389
Disposals	(207,252)	(402,782)
Amount recognized in profit or loss	73,782	463,818
Amount recognized in other comprehensive income (loss)	(197,830)	1,543,511
Other	(3,417)	(5,698,861)
Balance as of December 31	3,303,227	3,430,214
(In millions of Korean won)	2022	2021
Financial liabilities		
Balance as of January 1	5,438	9,248
Amount recognized in profit or loss	1,966	(784)
Other	-	(3,026)
Balance as of December 31	7,404	5,438

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

(In millions of Korean won)	Favorable ch	nanges	Unfavorable changes		
Classification	Profit or loss	Profit or loss Equity		Equity	
Financial assets at fair value through					
other comprehensive income ¹	<u> </u>	112,515		(79,168)	
Others ²	2,669	-	(3,750)	-	

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

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

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

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 units reported to the Management Committee. The Management Committee reviews the operating profits of each operating segment in order to assess the performance and to make strategic decisions regarding the allocation of resources to the segments.

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

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

(1) For the year ended December 31, 2022

(In millions of Korean won)	DX	DS SDC		Harman	Total ¹
Net revenue	182,489,720	98,455,270	34,382,619	13,213,694	302,231,360
Depreciation	2,520,708	28,196,959	4,768,498	331,342	35,952,098
Amortization	1,678,572	809,270	237,182	211,549	3,155,561
Operating profit	12,746,074	23,815,810	5,952,973	880,548	43,376,630

¹ Other operating segments are not separately disclosed.

Net revenue by major product for the year ended December 31, 2022 are as follows:

(In millions of Korean won)	Image devices	Mobile devices Memory		Display panels	Total ¹
Net revenue	33,279,488	115,425,375	68,534,930	34,382,619	302,231,360
Net revenue	33,279,488	115,425,575	08,534,930	34,382,019	

¹ Other products are not separately disclosed.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(2) For the year ended December 31, 2021

(In millions of Korean won)	DX	DS SDC		Harman	Total ¹
Net revenue	166,259,437	95,387,173	31,712,526	10,039,922	279,604,799
Depreciation	2,373,076	22,848,912	5,504,216	311,237	31,285,209
Amortization	1,435,220	939,922	239,821	229,772	2,962,152
Operating profit	17,386,554	29,192,021	4,457,365	599,097	51,633,856

¹ Other operating segments are not separately disclosed.

Net revenue by major product for the year ended December 31, 2021 are as follows:

(In millions of Korean won)	Image devices	Mobile devices	Memory	Display panels	$Total^1$
Net revenue	31,497,420	104,680,574	72,602,237	31,712,526	279,604,799

¹ Other products are not separately disclosed.

(B) Regional information

The regional segment information provided to the Management Committee for the reportable segments as of and for the years ended December 31, 2022 and 2021 are as follows:

(1) As of and for the year ended December 31, 2022

				Asia		Intercompany	
(In millions of Korean won)	Korea	America	Europe	and Africa	China	elimination	Consolidated
Net revenue	48,654,656	118,974,561	50,283,975	48,692,399	35,625,769	-	302,231,360
Non-current assets ¹	144,936,912	14,022,225	5,839,813	9,056,272	15,338,153	(930,233)	188,263,142

¹ 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, 2021

				Asia		Intercompany	
(In millions of Korean won)	Korea	America	Europe	and Africa	China	elimination	Consolidated
Net revenue	43,971,631	97,903,868	50,323,287	41,834,609	45,571,404	-	279,604,799
Non-current assets ¹	127,116,179	10,758,956	5,951,905	9,088,409	18,244,469	(995,135)	170,164,783

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

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

30. Related Party Transactions

(A) Sale and purchase transactions

Sale and purchase transactions with related parties for the years ended December 31, 2022 and 2021 are as follows:

2022

(In millions of Korean won)	Name of company ¹	Sales	Disposal of non-current assets	Purchases	Purchase of non-current assets
	Samsung SDS	214,105	-	1,865,588	378,770
	Samsung Electro-Mechanics	62,274	767	1,401,483	120
Associates and	Samsung SDI	82,062	-	803,556	24,926
joint ventures	Cheil Worldwide	31,782	-	964,096	361
	Other	1,353,769	-	15,158,969	125,053
	Total	1,743,992	767	20,193,692	529,230
	Samsung C&T	51,447	-	433,100	7,423,404
Other related parties	Other	345,901	188	1,595,487	1,910,813
parties	Total	397,348	188	2,028,587	9,334,217
	Samsung Engineering	1,666	-	53,793	3,249,254
0.1 2	S-1	13,634	-	510,311	54,069
Other ²	Other	166,052	-	550,757	746,749
	Total	181,352	-	1,114,861	4,050,072

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

2021

(In millions of Korean won)	Name of company ¹	Sales	Disposal of non-current assets	Purchases	Purchase of non-current assets
	Samsung SDS	142,435	-	1,732,273	569,840
	Samsung Electro-Mechanics	47,031	-	1,525,854	-
Associates and	Samsung SDI	76,160	269	671,169	36,180
joint ventures	Cheil Worldwide	27,740	-	758,877	16
	Other	1,288,094	68	12,361,130	118,099
	Total	1,581,460	337	17,049,303	724,135
	Samsung C&T	79,183	32,705	334,386	4,045,297
Other related parties	Other	352,919	-	1,608,435	633,109
parties	Total	432,102	32,705	1,942,821	4,678,406
Other ²	Samsung Engineering	787	-	48,284	2,404,314
	S-1	13,819	-	469,979	35,762
	Other	129,439	2,371	496,451	261,614
	Total	144,045	2,371	1,014,714	2,701,690

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.

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.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

Balances of receivables and payables

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

December 31, 2022

20,830

238,648

250,103

3,033,343

(In millions of Korean won)	Name of company ¹	Receivables	Payables ²
	Samsung SDS	49,792	512,022
	Samsung Electro-Mechanics	385	133,952
Associates and	Samsung SDI	121,605	92,452
joint ventures	Cheil Worldwide	223	453,545
	Other	371,575	1,236,016
	Total	543,580	2,427,987
	Samsung C&T	217,818	2,783,240

Other ³	Samsung Engineering	331	1,251,039
	S-1	3,839	73,102
	Other	15,647	545,684
	Total	19,817	1,869,825
1 Balances due from and	to senarate entities that are related parties of the Con	nnany	

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

Other

Total

Other related parties

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

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

² Payables and others include lease liabilities.

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.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

- (C) For the years ended December 31, 2022 and 2021, the Company invested \(\psi\) 907,958 million and \(\psi\) 47,090 million, respectively, in associates and joint ventures. In addition, the Company recovered \(\psi\) 13,087 million and \(\psi\) 19,169 million of investments in associates and joint ventures for the years ended December 31, 2022 and 2021.
- (D) For the year ended December 31, 2022, the Company declared \(\psi \) 1,663,149 million of dividends (\(\psi \) 3,527,449 million for the year ended December 31, 2021) to the related parties. In addition, for the year ended December 31, 2022, the Company declared \(\psi \) 128,232 million (\(\psi \) 267,738 million for the year ended December 31, 2021) of dividends 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, 2022 and 2021, there is no dividend payables to the entities that are not in scope of Korean IFRS 1024.
- (E) For the year ended December 31, 2022, the Company entered into lease agreements with its related parties amounted to \times 25,243 million (\times 12,602 million for the year ended December 31, 2021), and the lease payments made to the related parties for the years ended December 31, 2022 and 2021 amounted to \times 22,607 million and \times 31,893 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, 2022 and 2021 consists of:

(In millions of Korean won)	2022	2021
Short-term employee benefits	14,768	20,370
Post-employment benefits	612	886
Other long-term employee benefits	5,434	8,092

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

31. Information for Non-Controlling Interests

(A) Changes in accumulated 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, 2022 and 2021 are as follows:

	Samsung Display Co., Ltd. and its subsidiaries		
(In millions of Korean won)	2022	2021	
Percentage of non-controlling interests	15.2%	15.2%	
Balance as of January 1	8,028,555	7,723,784	
Profit for the year	853,290	580,164	
Dividends	(3,947)	(3,123)	
Other	(24,186)	(272,270)	
Balance as of December 31	8,853,712	8,028,555	

- (B) The summarized financial information for each subsidiary with non-controlling interests that are material to the Company before the intercompany eliminations for the years December 31, 2022 and 2021 are as follows:
 - (1) Summarized consolidated statements of financial position

	Samsung Display Co., Ltd. and its subsidiaries		
(In millions of Korean won)	December 31, 2022	December 31, 2021	
Current assets	42,082,412	35,220,985	
Non-current assets	23,070,658	24,773,119	
Current liabilities	6,294,310	7,539,403	
Non-current liabilities	1,220,097	1,359,478	
Equity attributable to:	57,638,663	51,095,223	
Owners of the parent company	57,552,528	51,012,895	
Non-controlling interests	86,135	82,328	

(2) Summarized consolidated statements of comprehensive income

	Samsung Display Co., Ltd. and its subsidiaries		
(In millions of Korean won)	2022	2021	
Sales	34,298,283	31,557,504	
Profit for the year	6,614,496	3,511,314	
Other comprehensive income (loss)	(67,942)	1,256,904	
Total comprehensive income attributable to:	6,546,554	4,768,218	
Owners of the parent company	6,539,633	4,752,963	
Non-controlling interests	6,921	15,255	

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(3) Summarized consolidated statements of cash flows

	Samsung Display Co., Ltd. and its subsidiaries		
(In millions of Korean won)	2022	2021	
Cash flows from operating activities	11,395,827	10,943,029	
Cash flows from investing activities	(8,654,933)	(9,927,110)	
Cash flows from financing activities	(1,146,117)	(1,284,749)	
Effect of exchange rate changes on cash and cash equivalents	(44,426)	52,154	
Increase (decrease) in cash and cash equivalents	1,550,351	(216,676)	
Cash and cash equivalents at beginning of the year	758,859	975,535	
Cash and cash equivalents at end of year	2,309,210	758,859	