

Samsung Electronics Co., Ltd. and its Subsidiaries

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

1. General Information

1.1 Company Overview

Samsung Electronics Co., Ltd. (the “Company”) was incorporated under the laws of the Republic of Korea in 1969 and listed its shares on the Korea Stock Exchange in 1975. SEC and its subsidiaries (collectively referred to as the “Company”) operate four business divisions: Consumer Electronics (“CE”), Information technology & Mobile communications (“IM”), Device Solutions (“DS”) and Harman. The CE division includes digital TVs, monitors, air conditioners and refrigerators and the IM division includes mobile phones, communication systems, and computers. The DS division includes products such as Memory, Foundry and System LSI in the semiconductor business (“Semiconductor”), and LCD and OLED panels in the display business (“DP”). The 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 the address of its registered office is 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 270 subsidiaries including Samsung Display and Samsung Electronics America. The Company also applies the equity method of accounting for its 41 associates, including Samsung Electro-Mechanics.

1.2 Consolidated Subsidiaries

(A) The consolidated subsidiaries as at December 31, 2017 are as follows:

Area	Subsidiaries	Industry	Percentage of ownership ¹
	Samsung Display (SDC)	Manufacture and sale of display panels	84.8
	SU Materials	Manufacture of display components	50.0
	STECO	Manufacture of semiconductor components	70.0
	SEMES	Manufacture of semiconductor/FPD	91.5
	Samsung Electronics Service	Repair services for electronic devices	99.3
	Samsung Electronics Sales	Sale of electronic devices	100.0
	Samsung Electronics Logitech	General logistics agency	100.0
	Samsung Medison	Manufacture and sale of medical equipment	68.5
	Samsung Venture Capital Union #21	Technology business, Venture capital investments	99.0
	Samsung Venture Capital Union #22	Technology business, Venture capital investments	99.0
	Samsung Venture Capital Union #23	Technology business, Venture capital investments	99.0
Domestic	Samsung Venture Capital Union #26	Technology business, Venture capital investments	99.0
	Samsung Venture Capital Union #27	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
	Mirero System	Development and supply of semiconductor process defect and quality control software	99.9
	Growth type private equity trust specialized in semiconductors	Investment on semiconductor industry	66.7
	Harman International Korea	Software development and supply, etc.	100.0
	Red Bend Software Korea	Software development and supply	100.0

¹ Ownership represents the Company’s ownership of voting rights in each entity.

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Area	Subsidiaries	Industry	Percentage of ownership ¹
	Samsung Electronics America (SEA)	Sale of electronic devices	100.0
	NexusDX (Nexus)	Medical equipment	100.0
	NeuroLogica	Medical equipment	100.0
	Samsung Semiconductor (SSI)	Sale of semiconductor/display panels	100.0
	Samsung Electronics Canada (SECA)	Sale of electronic devices	100.0
	Samsung Research America (SRA)	R&D	100.0
	Samsung Mexicana (SAMEX)	Manufacture of electronic devices	100.0
	Samsung International (SII)	Manufacture of TV/monitors	100.0
	Samsung Austin Semiconductor (SAS)	Manufacture of semiconductor	100.0
	Samsung Electronics Mexico (SEM)	Sale of electronic devices	99.9
	SEMES America (SEMESA)	Semiconductor equipment	100.0
	Samsung Electronics Digital Appliance Mexico (SEDAM)	Manufacture of electronic devices	99.9
	Samsung Electronics Latinoamerica Miami (SEMI)	Sale of electronic devices	100.0
	Samsung Electronics Latinoamerica (SELA)	Sale of electronic devices	100.0
	Samsung Electronics Venezuela (SEVEN)	Marketing and services	100.0
	Samsung Electronica Colombia (SAMCOL)	Sale of electronic devices	100.0
	Samsung Electronics Panama (SEPA)	Consulting	100.0
	Samsung Electronica da Amazonia (SEDA)	Manufacture and sale of electronic devices	100.0
America	Samsung Electronics Argentina (SEASA)	Marketing and services	100.0
	Samsung Electronics Chile (SECH)	Sale of electronic devices	100.0
	Samsung Electronics Peru (SEPR)	Sale of electronic devices	100.0
	RT SV CO-INVEST (RT-SV)	Venture capital investments	99.9
	Samsung HVAC (formerly Quietside)	Sale of heating and cooling products	100.0
	SmartThings	Sale of smart home electronics	100.0
	Samsung Pay	Develop and provide mobile payment service	100.0
	Prismview	Manufacture and sale of LED displays	100.0
	Beijing Integrated Circuit Industry International Fund (Beijing Fund)	Venture capital investments	61.4
	Stellus Technologies	Manufacture and sale of server semiconductor storage system	100.0
	Samsung Oak Holdings (SHI)	Holding company	100.0
	AdGear Technologies	Digital advertising platforms	100.0
	Joyent	Cloud Services	100.0
	Samsung Next	Holding Company	100.0
	Samsung Next Fund	Technology business, Venture capital investments	100.0
	Dacor Holdings	Holding Company	100.0
	Dacor	Manufacture and sale of Home appliances	100.0
	Dacor Canada	Sale of Home appliances	100.0
	EverythingDacor.com	Sale of Home appliances	100.0
	Distinctive Appliances of California	Sale of Home appliances	100.0
	Viv Labs	Research of AI technology	100.0

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Area	Subsidiaries	Industry	Percentage of ownership ¹
America	SigMast Communications (formerly NewNet Communication Technologies (Canada))	RCS (Rich Communication Service)	100.0
	AMX Holding Corporation	Holding Company	100.0
	AMX LLC	Holding Company	100.0
	Harman Becker Automotive Systems	Manufacture and sale of audio products, R&D	100.0
	Harman Connected Services Engineering	Connected Service Provider	100.0
	Harman Connected Services Holding	Connected Service Provider	100.0
	Harman Connected Services, Inc.	Connected Service Provider	100.0
	Harman Connected Services South America	Connected Service Provider	100.0
	Harman da Amazonia Industria Electronica e Participacoes	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 Electronica e Participacoes.	Sale of audio products, R&D	100.0
	Harman Financial Group	Management Company	100.0
	Harman International Industries Canada	Sale of audio products	100.0
	Harman International Industries, Inc.	Holding Company	100.0
	Harman International Mexico S de RL de CV	Sale of audio products	100.0
	Harman Investment Group, LLC	Financing Company	100.0
	Harman KG Holding, LLC	Holding Company	100.0
	Harman Professional	Sale of audio products, R&D	100.0
	Red Bend Software	Software design	100.0
	S1NN USA	R&D	100.0
	Southern Vision Systems	Development of image sensing device	100.0
	Triple Play Integration	Connected Service Provider	100.0
	Samsung Electronics Home Appliances America(SEHA)	Manufacture of home appliances	100.0
	China Materialia	Venture capital investments	98.0

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Area	Subsidiaries	Industry	Percentage of ownership ¹
Europe/CIS	Samsung Electronics (UK) (SEUK)	Sale of electronic devices	100.0
	Samsung Electronics Holding (SEHG)	Holding Company	100.0
	Samsung Semiconductor Europe GmbH (SSEG)	Sale of semiconductor/display panels	100.0
	Samsung Electronics GmbH (SEG)	Sale of electronic devices	100.0
	Samsung Electronics Iberia (SESA)	Sale of electronic devices	100.0
	Samsung Electronics France (SEF)	Sale of electronic devices	100.0
	Samsung Electronics Hungarian (SEH)	Manufacture and sale of electronic devices	100.0
	Samsung Electronics Czech and Slovak (SECZ)	Sale of electronic devices	100.0
	Samsung Electronics Italia (SEI)	Sale of electronic devices	100.0
	Samsung Electronics Europe Logistics (SELS)	Logistics	100.0
	Samsung Electronics Benelux (SEBN)	Sale of electronic devices	100.0
	Samsung Display Slovakia (SDSK)	Toll processing of display panels	100.0

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Area	Subsidiaries	Industry	Percentage of ownership ¹
	Samsung Electronics Romania (SEROM)	Sale of electronic devices	100.0
	Samsung Electronics Overseas (SEO)	Sale of electronic devices	100.0
	Samsung Electronics Polska (SEPOL)	Sale of electronic devices	100.0
	Samsung Electronics Portuguesa (SEP)	Sale of electronic devices	100.0
	Samsung Electronics Nordic (SENA)	Sale of electronic devices	100.0
	Samsung Semiconductor Europe (SSEL)	Sale of semiconductor/display panels	100.0
	Samsung Electronics Austria (SEAG)	Sale of electronic devices	100.0
	Samsung Electronics Slovakia (SESK)	Manufacture of TV/monitors	100.0
	Samsung Electronics Europe Holding (SEEH)	Holding Company	100.0
	Samsung Electronics Poland Manufacturing (SEPM)	Manufacture of home appliances	100.0
	Samsung Electronics Greece (SEGR)	Sale of electronic devices	100.0
	Samsung Nanoradio Design Center (SNDC)	R&D	100.0
	Samsung Electronics Air Conditioner Europe B.V.(SEACE)	Sale of heating and cooling products	100.0
	Samsung Electronics Rus Company (SERC)	Sale of electronic devices	100.0
	Samsung Electronics Baltics (SEB)	Sale of electronic devices	100.0
	Samsung Electronics Ukraine Company (SEUC)	Sale of electronic devices	100.0
	Samsung R&D Institute Rus (SRR)	R&D	100.0
	Samsung Electronics Central Eurasia (SECE)	Sale of electronic devices	100.0
Europe/CIS	Samsung Electronics Rus Kaluga (SERK)	Manufacture of TV	100.0
	Samsung Electronics (London) Limited (SEL)	Holding Company	100.0
	Samsung Denmark Research Center (SDRC)	R&D	100.0
	Samsung France Research Center (SFRC)	R&D	100.0
	Samsung Cambridge Solution Centre (SCSC)	R&D	100.0
	Samsung Electronics Switzerland GmbH (SESG)	Sale of electronic devices	100.0
	Samsung Electronics Caucasus (SECC)	Marketing	100.0
	Joyent (UK)	Cloud services	100.0
	Harman Connected Services OOO	Connected Service Provider	100.0
	Harman RUS CIS LLC	Sale of audio products	100.0
	Aditi Technologies Europe	Sale of audio products, etc.	100.0
	AKG Acoustics	Manufacture and sale of audio products	100.0
	AMX (Germany)	Sale of audio products	100.0
	AMX UK	Sale of audio products	100.0
	Duran Audio B.V.	Sale of audio products, R&D	100.0
	Duran Audio Iberia Espana	Sale of audio products	100.0
	Endeleo	Sale of audio products, R&D	100.0
	Harman Automotive UK	Manufacture of audio products	100.0
	Harman Becker Automotive Systems (Germany)	Manufacture and sale of audio products, R&D	100.0

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Area	Subsidiaries	Industry	Percentage of ownership ¹
Europe/CIS	Harman Becker Automotive Systems Italy	Sale of audio products	100.0
	Harman Becker Automotive Systems Manufacturing Kft	Manufacture of audio products, R&D	100.0
	Harman Belgium	Sale of audio products	100.0
	Harman Connected Services AB.	Connected Service Provider	100.0
	Harman Connected Services Finland OY	Connected Service Provider	100.0
	Harman Connected Services (Germany)	Connected Service Provider	100.0
	Harman Connected Services	Connected Service Provider	100.0
	Harman Connected Services Poland Sp.zoo	Connected Service Provider	100.0
	Harman Connected Services UK	Connected Service Provider	100.0
	Harman Consumer Division Nordic A/S	Sale of audio products	100.0
	Harman Consumer Finland OY	Sale of audio products	100.0
	Harman Consumer Nederland B.V.	Sale of audio products	100.0
	Harman Deutschland	Sale of audio products	100.0
	Harman Finance International GP S.a.r.l	Holding Company	100.0
	Harman Finance International SCA	Financing Company	100.0
	Harman France SNC	Sale of audio products	100.0
	Harman Holding & Co. KG	Management Company	100.0
	Harman Hungary Financing	Financing Company	100.0
	Harman Inc. & Co. KG	Holding Company	100.0
	Harman International Estonia OU	R&D	100.0
	Harman International Industries (UK)	Sale of audio products, etc.	100.0
	Harman International Romania SRL	R&D	100.0
	Harman International s.r.o	Manufacture of audio products	100.0
	Harman International SNC	Sale of audio products	100.0
	Harman Management	Holding Company	100.0
	Harman Professional Kft	Manufacture of audio products, R&D	100.0
	Inspiration Matters	Sale of audio products, R&D	100.0
	Knight Image	Sale of audio products, R&D	100.0
	Martin Manufacturing (UK)	Manufacture of audio products	100.0
	Harman Professional Denmark ApS (formerly Martin Professional ApS)	Sale of audio products, R&D	100.0
	Harman Professional France SAS (formerly Martin Professional France)	Sale of audio products	100.0
	Harman Professional Germany GmbH (formerly Martin Professional GmbH)	Sale of audio products	100.0
	R&D International	Manufacture of audio products	100.0
	Red Bend Software (UK)	Software design	100.0
	Red Bend Software SAS	Software design	100.0
	Studer Professional Audio	Sale of audio products, R&D	100.0
	Innoetics E.P.E.	Software development	100.0
	ARCAM	Holding Company	100.0
	A&R Cambridge	Sale of audio products	100.0

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Area	Subsidiaries	Industry	Percentage of ownership ¹
	Samsung Electronics West Africa (SEWA)	Marketing	100.0
	Samsung Electronics East Africa (SEEA)	Marketing	100.0
	Samsung Gulf Electronics (SGE)	Sale of electronic devices	100.0
	Samsung Electronics Egypt (SEEG)	Manufacture and sale of electronic devices	100.0
	Samsung Electronics Israel (SEIL)	Marketing	100.0
	Samsung Electronics Tunisia (SETN)	Marketing	100.0
	Samsung Electronics Pakistan (SEPAK)	Marketing	100.0
	Samsung Electronics South Africa (SSA)	Sale of electronic devices	100.0
	Samsung Electronics Turkey (SETK)	Sale of electronic devices	100.0
Middle East and Africa	Samsung Semiconductor Israel R&D Center (SIRC)	R&D	100.0
	Samsung Electronics Levant (SELV)	Sale of electronic devices	100.0
	Samsung Electronics Maghreb Arab (SEMAG)	Sale of electronic devices	100.0
	Samsung Electronics South Africa Production (SSAP)	Manufacture of TV/monitors	100.0
	Broadsense	Service	100.0
	Global Symphony Technology Group	Holding Company	100.0
	Harman Connected Services Morocco	Connected Service Provider	100.0
	Harman Industries Holdings Mauritius	Holding Company	100.0
	iOnRoad	R&D	100.0
	iOnRoad Technologies	R&D	100.0
	Red Bend	Manufacture of audio products	100.0
	Towersec (Israel)	R&D	100.0

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Area	Subsidiaries	Industry	Percentage of ownership ¹
	Samsung Japan (SJC)	Sale of electronic devices	100.0
	Samsung R&D Institute Japan (SRJ)	R&D	100.0
	Samsung Electronics Japan (SEJ)	Sale of electronic devices	100.0
	Samsung Electronics Display (M) (SDMA)	Manufacture of electronic devices	100.0
	Samsung Electronics (M) (SEMA)	Manufacture of home appliances	100.0
	Samsung Vina Electronics (SAVINA)	Sale of electronic devices	100.0
	Samsung Asia Private (SAPL)	Sale of electronic devices	100.0
	Samsung India Electronics (SIEL)	Manufacture and sale of electronic devices	100.0
	Samsung R&D Institute India-Bangalore (SRI-B)	R&D	100.0
	Samsung Nepal Services(SNSL)	Service	100.0
	Samsung Electronics Australia (SEAU)	Sale of electronic devices	100.0
	Samsung Electronics Indonesia (SEIN)	Manufacture and sale of electronic devices	100.0
	Samsung Telecommunications Indonesia (STIN)	Sale and service of electronic devices	100.0
	Thai Samsung Electronics (TSE)	Manufacture and sale of electronic devices	91.8
	Samsung Electronics Philippines (SEPCO)	Sale of electronic devices	100.0
	Samsung Malaysia Electronics (SME)	Sale of electronic devices	100.0
	Samsung R&D Institute Bangladesh (SRBD)	R&D	100.0
Asia (Except China)	Samsung Electronics Vietnam (SEV)	Manufacture of electronic devices	100.0
	Samsung Electronics Vietnam THAINGUYEN (SEVT)	Manufacture and sale of communication equipment	100.0
	Samsung Medison India (SMIN)	Medical equipment	100.0
	Samsung Electronics New Zealand (SENZ)	Sale of electronic devices	100.0
	Samsung Display Vietnam (SDV)	Manufacture of display panels	100.0
	Samsung Electronics HCMC CE Complex (SEHC)	Manufacture and sale of electronic devices	100.0
	Laos Samsung Electronics Sole (LSE)	Marketing	100.0
	AMX Products and Solutions Private	Sale of audio products	100.0
	Harman Connected Services India	Connected Service Provider	100.0
	Harman Connected Services Technologies	Connected Service Provider	100.0
	Harman International (India) Private	Sale of audio products, R&D	100.0
	Harman International Industries PTY	Holding Company	100.0
	Harman International Singapore	Sale of audio products	100.0
	Harman Malaysia Sdn. Bhd.	Sale of audio products	100.0
	Harman Professional Singapore Pte.	Sale of audio products	100.0
	INSP India Software Development Pvt.	Software development and supply	100.0
	Martin Professional Pte.	Sale of audio products	100.0
	Harman Connected Services Japan	Connected Service Provider	100.0
	Harman International Japan	Sale of audio products, R&D	100.0
	Red Bend Software Japan	Software design	100.0
	Studer Japan	Holding Company	100.0

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Area	Subsidiaries	Industry	Percentage of ownership ¹
	Samsung Display Dongguan (SDD)	Manufacture of display panels	100.0
	Samsung Display Tianjin (SDT)	Manufacture of display panels	95.0
	Samsung Electronics Hong Kong (SEHK)	Sale of electronic devices	100.0
	Suzhou Samsung Electronics (SSEC)	Manufacture of home appliances	88.3
	Samsung Suzhou Electronics Export (SSEC-E)	Manufacture of home appliances	100.0
	Samsung (China) Investment (SCIC)	Sale of electronic devices	100.0
	Samsung Mobile R&D Center China-Guangzhou (SRC-Guangzhou)	R&D	100.0
	Samsung Tianjin Mobile Development Center (STMC)	R&D	100.0
	Samsung R&D Institute China-Shenzhen(SRC-Shenzhen)	R&D	100.0
	Samsung Electronics Suzhou Semiconductor (SESS)	Toll processing of semiconductor	100.0
	Samsung Electronics Huizhou (SEHZ)	Manufacture of electronic devices	99.9
	Tianjin Samsung Electronics (TSEC)	Manufacture of TV/monitors	91.2
	Samsung Electronics Taiwan (SET)	Sale of electronic devices	100.0
	Beijing Samsung Telecom R&D Center (BST)	R&D	100.0
	Tianjin Samsung Telecom Technology (TSTC)	Manufacture of communication equipment	90.0
	Shanghai Samsung Semiconductor (SSS)	Sale of semiconductor/display panels	100.0
	Samsung Electronics Suzhou Computer (SESC)	Manufacture of electronic devices	100.0
	Samsung Suzhou Module (SSM)	Toll processing of display panels	100.0
	Samsung Suzhou LCD (SSL)	Manufacture of display panels	60.0
China	Shenzhen Samsung Electronics Telecommunication (SSET)	Manufacture of communication equipment	95.0
	Samsung Semiconductor (China) R&D (SSCR)	R&D	100.0
	Samsung Electronics China R&D Center (SCRC)	R&D	100.0
	Samsung (China) Semiconductor (SCS)	Manufacture of semiconductor	100.0
	Samsung Electronics (Beijing) Service (SBSC)	Services	100.0
	Tianjin Samsung LED (TSLED)	Manufacture of LED	100.0
	SEMES (Xian)	Semiconductor equipment	100.0
	Samsung Semiconductor Xian (SSCX)	Sale of semiconductor/display panels	100.0
	Harman (China) Technologies	Manufacture of audio products	100.0
	Harman (Suzhou) Audio and Infotainment Systems	Sale of audio products	100.0
	Harman Automotive Electronic Systems (Suzhou)	Manufacture of audio products, R&D	100.0
	Harman Commercial (Shanghai)	Sale of audio products	100.0
	Harman Connected Services Taiwan	Connected Service Provider	100.0
	Harman Holding	Sale of audio products	100.0
	Harman International (China) Holdings	Sale of audio products, R&D	100.0
	Harman Automotive InfoTech (Dalian) (formerly Harman Neusoft Automotive Infotech (Dalian))	Software development and supply	100.0
	Harman Technology (Shenzhen)	Sale of audio products, R&D	100.0
	Harman Connected Services Solutions (Beijing)	Connected Service Provider	100.0
	Harman Connected Services Solutions (Chengdu)	Connected Service Provider	100.0

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(B) A summary of financial data of major consolidated subsidiaries is as follows:

(1) 2017

<i>(In millions of Korean won)</i>	2017			
	Assets	Liabilities	Sales	Net Income (Loss)
Samsung Display (SDC)	50,723,199	12,243,688	30,111,427	3,352,802
Samsung Electronics America (SEA)	26,266,636	8,980,828	33,329,340	(70,198)
Harman and its subsidiaries ¹	14,676,715	5,391,669	7,103,437	209,015
Samsung (China) Investment (SCIC)	13,409,281	11,297,307	5,133,676	268,481
Samsung Display Vietnam (SDV)	10,460,755	9,495,803	18,193,257	1,257,300
Samsung Semiconductor (SSI)	10,125,193	5,376,696	28,870,987	83,113
Samsung Electronics Vietnam THAINGUYEN (SEVT)	10,044,337	2,325,221	28,323,302	3,043,210
Samsung Electronics Vietnam (SEV)	9,592,074	1,875,105	19,344,045	2,007,876
Samsung Electronics Europe Holding (SEEH)	9,474,960	7,241,753	-	18,294
Samsung (China) Semiconductor (SCS)	8,076,107	1,499,220	4,513,291	1,359,007
Samsung Electronics Huizhou (SEHZ)	6,440,564	980,064	13,521,077	689,594
Samsung India Electronics (SIEL)	6,200,351	3,406,484	10,393,877	654,408
Samsung Asia Private (SAPL)	6,138,652	481,546	1,848,905	1,293,924
Samsung Electronica da Amazonia (SEDA)	5,838,533	1,514,891	7,108,691	1,449,426
Shanghai Samsung Semiconductor (SSS)	5,169,438	4,182,832	24,198,255	236,410
Samsung Austin Semiconductor (SAS)	4,943,576	448,772	3,473,545	197,729
Thai Samsung Electronics (TSE)	2,191,519	371,379	4,594,861	164,627
Samsung Electronics Slovakia (SESK)	2,019,572	1,051,361	3,237,384	100,617
Samsung Suzhou LCD (SSL)	2,019,262	852,618	1,802,543	107,677
Samsung Electronics Europe Logistics (SELS)	1,927,321	1,810,014	14,060,511	6,718
Samsung Electronics Hungarian (SEH)	1,823,278	238,383	2,768,150	459,848
Samsung Electronics HCMC CE Complex (SEHC)	1,784,883	1,282,489	3,940,762	302,674
Samsung Electronics GmbH (SEG)	1,743,138	1,685,252	6,536,684	530
Samsung Electronics (UK) (SEUK)	1,615,723	1,094,995	4,843,150	99,024
Samsung Electronics Indonesia (SEIN)	1,562,037	1,002,213	3,025,611	77,149

¹ Consolidated financial data of an intermediate company that includes Harman International Industries, Inc. and its subsidiaries.

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(2) 2016

	2016			
<i>(In millions of Korean won)</i>	Assets	Liabilities	Sales	Net Income (Loss)
Samsung Display (SDC)	43,305,405	8,361,256	24,658,814	1,498,628
Samsung Electronics America (SEA)	21,810,492	9,496,649	34,521,654	246,141
Samsung (China) Investment (SCIC)	13,632,938	11,672,755	8,792,750	298,373
Samsung (China) Semiconductor (SCS)	9,749,448	4,564,793	4,152,137	1,113,218
Samsung Electronics Vietnam (SEV)	9,134,023	1,258,948	19,426,334	2,046,280
Samsung Electronics Europe Holding (SEEH)	8,643,308	6,661,092	-	350,974
Samsung Semiconductor (SSI)	7,804,698	3,746,687	19,911,135	30,247
Samsung Electronics Vietnam THAINGUYEN (SEVT)	7,646,828	2,179,023	23,563,736	2,641,418
Samsung Electronics Huizhou (SEHZ)	6,174,579	1,106,633	12,971,475	764,426
Shanghai Samsung Semiconductor (SSS)	5,862,409	5,166,385	20,983,314	181,041
Samsung Asia Private (SAPL)	5,528,472	592,320	1,458,176	1,056,956
Samsung Electronica da Amazonia (SEDA)	5,200,799	1,510,972	6,092,245	966,821
Samsung Austin Semiconductor (SAS)	4,940,748	1,293,458	3,586,127	104,747
Samsung India Electronics (SIEL)	4,563,407	2,256,194	8,827,028	753,164
Samsung Display Vietnam (SDV)	3,165,239	3,437,791	5,230,581	(98,102)
Samsung Electronics Europe Logistics (SELS)	2,887,230	2,779,296	13,157,455	36,768
Samsung Suzhou LCD (SSL)	2,499,917	1,376,439	1,494,787	1,091
Thai Samsung Electronics (TSE)	2,079,865	364,518	4,069,078	198,980
Samsung Electronics Slovakia (SESK)	2,053,467	440,402	3,634,166	115,387
Samsung Electronics Taiwan (SET)	1,857,017	1,540,478	3,533,924	(36,178)
Samsung Electronics HCMC CE Complex (SEHC)	1,814,566	1,572,982	2,010,442	118,091
Samsung Electronics Hungarian (SEH)	1,743,979	633,975	2,441,881	89,712
Samsung Electronics GmbH (SEG)	1,621,827	1,618,305	6,257,480	2,187
Samsung Display Dongguan (SDD)	1,584,504	518,511	5,187,954	199,922
Samsung Electronics (UK) (SEUK)	1,526,879	1,103,579	4,731,464	107,243

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(C) Changes in scope for consolidation

(1) Subsidiaries excluded from the consolidation for the year ended December 31, 2017:

Area	Subsidiary	Description
Domestic	Samsung Venture Capital Union #20	Liquidation
	S-Printing Solution	Sale of Business
America	Samsung Receivables(SRC)	Liquidation
	TowerSec	Merger ¹
	Kngine	Merger ²
	PrinterOn	Sale of Business
	PrinterOn America	Sale of Business
	Simpress	Sale of Business
Europe/CIS	Samsung Electronics Rus(SER)	Merger ³
	Samsung Electronics Ukraine(SEU)	Liquidation
	AMX LLC (Russia)	Liquidation
	Surfkitchen	Liquidation
	Martin Professional	Liquidation
	PrinterOn Europe	Sale of Business
Asia	I.P.S.G. International Product Solution Group PTY.	Liquidation
	VFX Systems PTY	Liquidation
China	Samsung Electronics (Shandong) Digital Printing(SSDP)	Sale of Business
	Tianjin Samsung Opto-Electronics(TSOE)	Liquidation
	Martin Trading Zhuhai	Liquidation

¹ TowerSec merged into Harman International Industries, Inc., a subsidiary of the Company, in May 2017.

² Kngine merged into Samsung Research America (SRA), a subsidiary of the Company, in October 2017.

³ Samsung Electronics Rus (SER) merged into Samsung R&D Institute Rus (SRR), a subsidiary of the Company, in January 2017.

(2) Subsidiaries newly included in the consolidation for the year ended December 31, 2017:

Area	Subsidiary	Description
Domestic	Growth type private equity trust specialized in semiconductors	Incorporation
	Harman International Korea	Acquisition of shares
	Red Bend Software Korea	Acquisition of shares
	Samsung Venture Capital Union #37	Incorporation
America	Kngine	Acquisition of shares
	AMX Holding Corporation	Acquisition of shares
	AMX LLC	Acquisition of shares
	Harman Becker Automotive Systems	Acquisition of shares
	Harman Connected Services Engineering	Acquisition of shares
	Harman Connected Services Holding	Acquisition of shares
	Harman Connected Services	Acquisition of shares
	Harman Connected Services South America	Acquisition of shares
	Harman da Amazonia Industria Electronica e Participacoes	Acquisition of shares
	Harman de Mexico S. de R.L. de C.V.	Acquisition of shares
	Harman do Brasil Industria Electronica e Participacoes.	Acquisition of shares
Harman Financial Group	Acquisition of shares	

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Area	Subsidiary	Description
America	Harman International Industries Canada	Acquisition of shares
	Harman International Industries, Inc.	Acquisition of shares
	Harman International Mexico S de RL de CV	Acquisition of shares
	Harman Investment Group, LLC	Acquisition of shares
	Harman KG Holding, LLC	Acquisition of shares
	Harman Professional	Acquisition of shares
	Red Bend Software	Acquisition of shares
	SINN USA	Acquisition of shares
	Southern Vision Systems	Acquisition of shares
	TowerSec	Acquisition of shares
	Triple Play Integration	Acquisition of shares
	Samsung Electronics Home Appliances America(SEHA)	Incorporation
China Materialia	Incorporation	
Europe/CIS	AMX LLC (Russia)	Acquisition of shares
	Harman Connected Services OOO	Acquisition of shares
	Harman RUS CIS LLC	Acquisition of shares
	Aditi Technologies Europe	Acquisition of shares
	AKG Acoustics	Acquisition of shares
	AMX (Germany)	Acquisition of shares
	AMX UK	Acquisition of shares
	Duran Audio B.V.	Acquisition of shares
	Duran Audio Iberia Espana	Acquisition of shares
	Endeleo	Acquisition of shares
	Harman Automotive UK	Acquisition of shares
	Harman Becker Automotive Systems (Germany)	Acquisition of shares
	Harman Becker Automotive Systems Italy	Acquisition of shares
	Harman Becker Automotive Systems Manufacturing Kft	Acquisition of shares
	Harman Belgium	Acquisition of shares
	Harman Connected Services AB.	Acquisition of shares
	Harman Connected Services Finland OY	Acquisition of shares
	Harman Connected Services (Germany)	Acquisition of shares
	Harman Connected Services	Acquisition of shares
	Harman Connected Services Poland Sp.zoo	Acquisition of shares
	Harman Connected Services UK	Acquisition of shares
	Harman Consumer Division Nordic A/S	Acquisition of shares
	Harman Consumer Finland OY	Acquisition of shares
	Harman Consumer Nederland B.V.	Acquisition of shares
	Harman Deutschland	Acquisition of shares
	Harman Finance International GP S.a.r.l	Acquisition of shares
	Harman Finance International SCA	Acquisition of shares
	Harman France SNC	Acquisition of shares
	Harman Holding & Co. KG	Acquisition of shares
	Harman Hungary Financing	Acquisition of shares
	Harman Inc. & Co. KG	Acquisition of shares
	Harman International Estonia OU	Acquisition of shares
	Harman International Industries (UK)	Acquisition of shares
Harman International Romania SRL	Acquisition of shares	
Harman International s.r.o	Acquisition of shares	
Harman International SNC	Acquisition of shares	

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Area	Subsidiary	Description
Europe/CIS	Harman Management	Acquisition of shares
	Harman Professional Kft	Acquisition of shares
	Inspiration Matters	Acquisition of shares
	Knight Image	Acquisition of shares
	Martin Manufacturing (UK)	Acquisition of shares
	Harman Professional Denmark ApS (formerly Martin Professional ApS)	Acquisition of shares
	Harman Professional France SAS (formerly Martin Professional France)	Acquisition of shares
	Harman Professional Germany GmbH (formerly Martin Professional GmbH)	Acquisition of shares
	Martin Professional	Acquisition of shares
	R&D International	Acquisition of shares
	Red Bend Software (UK)	Acquisition of shares
	Red Bend Software SAS	Acquisition of shares
	Samsung Electronics Air Conditioner Europe B.V. (SEACE)	Incorporation
	Studer Professional Audio	Acquisition of shares
Surfkitchen	Acquisition of shares	
Innoetics E.P.E.	Acquisition of shares	
ARCAM	Acquisition of shares	
A&R Cambridge	Acquisition of shares	
Middle East and Africa	Broadsense	Acquisition of shares
	Global Symphony Technology Group	Acquisition of shares
	Harman Connected Services Morocco	Acquisition of shares
	Harman Industries Holdings Mauritius	Acquisition of shares
	iOnRoad	Acquisition of shares
	iOnRoad Technologies	Acquisition of shares
	Red Bend	Acquisition of shares
TowerSec (Israel)	Acquisition of shares	
Asia (Except China)	AMX Products and Solutions Private	Acquisition of shares
	Harman Connected Services India	Acquisition of shares
	Harman Connected Services Technologies	Acquisition of shares
	Harman International (India) Private	Acquisition of shares
	Harman International Industries PTY	Acquisition of shares
	Harman International Singapore	Acquisition of shares
	Harman Malaysia Sdn. Bhd.	Acquisition of shares
	Harman Professional Singapore Pte.	Acquisition of shares
	I.P.S.G. International Product Solution Group PTY.	Acquisition of shares
	INSP India Software Development Pvt.	Acquisition of shares
	Martin Professional Pte.	Acquisition of shares
	VFX Systems PTY	Acquisition of shares
	Harman Connected Services Japan	Acquisition of shares
Harman International Japan	Acquisition of shares	
Red Bend Software Japan	Acquisition of shares	
Studer Japan	Acquisition of shares	
Samsung Nepal Services (SNSL)	Incorporation	
China	Harman (China) Technologies	Acquisition of shares
	Harman (Suzhou) Audio and Infotainment Systems	Acquisition of shares
	Harman Automotive Electronic Systems (Suzhou)	Acquisition of shares
	Harman Commercial (Shanghai)	Acquisition of shares
	Harman Connected Services Taiwan	Acquisition of shares

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Area	Subsidiary	Description
	Harman Holding	Acquisition of shares
	Harman International (China) Holdings	Acquisition of shares
	Harman Automotive InfoTech (Dalian) (formerly Harman Neusoft automotive infotech (Dalian))	Acquisition of shares
China	Harman Technology (Shenzhen)	Acquisition of shares
	Martin Trading Zhuhai	Acquisition of shares
	Harman Connected Services Solutions (Beijing)	Acquisition of shares
	Harman Connected Services Solutions (Chengdu)	Acquisition of shares

2. Summary of Significant Accounting Policies

The principal accounting policies applied in the preparation of these consolidated financial statements are set out below. These policies have been consistently applied to all the years presented, unless otherwise stated.

2.1 Basis of Presentation

The Company maintains its accounting records in Korean won and prepares statutory financial statements in the Korean language (Hangul) in accordance with *Korean IFRS*. The accompanying consolidated financial statements have been condensed, restructured and translated into English from the Korean language financial statements.

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

The consolidated financial statements of the Company presented have been prepared in accordance with *Korean IFRS*. International Financial Reporting Standards ("IFRS") have been adopted by the Korean Accounting Standards Board as *Korean IFRS* based on standards and interpretations published by the International Accounting Standards Board.

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

2.2 Changes in Accounting Policy and Disclosures

(A) New and amended standards adopted by the Company

The Company applied the following amended and enacted standards for the annual period beginning on January 1, 2017:

Amendment to Korean IFRS 1007, Statement of Cash Flows

Amendments to *Korean IFRS 1007 Statement of Cash flows* require disclosures that enable users of financial statements to evaluate changes in liabilities arising from financing activities, including both changes arising from cash flows and non-cash changes.

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

New standards, amendments and interpretations issued but not effective for the annual period beginning on January 1, 2017, and not early adopted by the Company, are as follows:

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Korean IFRIC 2122, Foreign Currency Transaction and Advance Consideration

According to these enactments, the date of the transaction for the purpose of determining the exchange rate to use on initial recognition of the related asset, expense or income (or part of it) is the date on which an entity initially recognizes the non-monetary asset or non-monetary liability arising from the payment or receipt of advance consideration. If there are multiple payments or receipts in advance, the entity shall determine a date of the transaction for each payment or receipt of advance consideration. These enactments will be effective for annual periods beginning on or after January 1, 2018, with early adoption permitted. The Company does not expect the enactments to have a significant impact on the financial statements.

Korean IFRS 1109, Financial Instruments

The new standard for financial instruments issued on September 25, 2015 is effective for annual periods beginning on or after January 1, 2018 with early application permitted. This standard will replace *Korean IFRS 1039 Financial Instruments: Recognition and Measurement*. The Company will apply the standard for the annual periods beginning on or after January 1, 2018.

The standard requires retrospective application with some exceptions. For example, the entity is not required to restate prior periods in relation to classification, measurement and impairment of financial instruments. The standard requires prospective application of its hedge accounting requirements for all hedging relationships except the accounting for time value of options and other exceptions.

Korean IFRS 1109 Financial Instruments requires all financial assets to be classified and measured on the basis of the entity's business model for managing financial assets and the contractual cash flow characteristics of the financial assets. A new impairment model, an expected credit loss model, is introduced and any subsequent changes in expected credit losses will be recognized in profit or loss. Also, hedge accounting rules were amended to extend the hedging relationship, which consists only of eligible hedging instruments and hedged items, for determining what qualifies for hedge accounting.

An effective implementation of *Korean IFRS 1109* requires preparation processes including financial impact assessment, accounting policy establishment, accounting system development and system stabilization. The impact on the Company's financial statements due to the application of the standard is dependent on judgements made in applying the standard, financial instruments held by the Company and macroeconomic variables.

With the implementation of *Korea IFRS 1109*, the Company prepared for changes to internal management processes and completed modification of its accounting system for financial instruments reporting. The Company performed an impact assessment to identify potential financial impacts of applying Korean IFRS 1109. The assessment was performed based on available information as at December 31, 2017, and the results of the assessment are explained as below.

(a) Classification and Measurement of Financial Assets

When implementing *Korean IFRS 1109*, the classification of financial assets will be driven by the Company's business model for managing the financial assets and contractual terms of cash flow. The following table shows the classification of financial assets measured subsequently at amortized cost, at fair value through other comprehensive income and at fair value through profit or loss. If a hybrid contract contains a host that is a financial asset, the classification of the hybrid contract shall be determined for the entire contract without separating the embedded derivative.

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Business model for the contractual cash flows characteristics	Solely represent payments of principal and interest	All other
Hold the financial asset for the collection of the contractual cash flows	Measured at amortized cost ¹	
Hold the financial asset for the collection of the contractual cash flows and trading	Recognized at fair value through other comprehensive income ¹	Recognized at fair value through profit or loss ²
Hold the financial asset for trading	Recognized at fair value through profit or loss	

¹ A designation at fair value through profit or loss is allowed only if such designation mitigates an accounting mismatch (irrevocable).

² A designation at fair value through other comprehensive income is allowed only if the financial instrument is an equity investment not held for trading (irrevocable).

With the implementation of *Korean IFRS 1109*, the criteria to classify the financial assets at amortized cost or at fair value through other comprehensive income are more strictly applied than the criteria applied with *Korean IFRS 1039*. Accordingly, the financial assets at fair value through profit or loss may increase by implementing *Korean IFRS 1109* and may result an extended fluctuation in profit or loss.

As at December 31, 2017, the Company owns loan and trade receivables amounting to ₩113,901,548 million, financial assets held-to-maturity amounting to ₩106,751 million, and financial assets available-for-sale amounting to ₩10,943,555 million.

According to *Korean IFRS 1109*, debt investments are measured at amortized cost if: a) the objective of the business model is to hold the financial asset for the collection of the contractual cash flows, and b) the contractual terms of cash flows solely represent payments of principal and interest. As at December 31, 2017, the Company measured loan and trade receivables amounting to ₩113,901,548 million and financial assets held-to-maturity amounting to ₩106,751 million at amortized costs.

When applying *Korean IFRS 1109* to the above financial assets as at December 31, 2017, as most of the financial assets are held within a business model with the objective to hold the financial assets in order to collect contractual cash flows and the contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding, the Company shall classify the financial assets as subsequently measured at amortized cost. It is expected that the financial impact of this change on the financial statements will be immaterial.

Korean IFRS 1109 measures debt investments at fair value through other comprehensive income for which terms of cash flows solely represent payment of the principal and interest on a due date, where the purpose of holding the debt investment is to collect contractual cash flows and trade. As at December 31, 2017, the Company has debt investments classified as available-for-sale financial assets amounting to ₩3,305,850 million

As at December 31, 2017, based on the result from the impact assessment of *Korean IFRS 1109*, it is expected that the financial impact on the financial statements will be immaterial, because debt instruments classified as available-for-sale financial assets will be classified as amortized cost.

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According to *Korean IFRS 1109*, equity investments not being held for trading may be given an irrevocable election to be classified as financial instruments measured at fair value through other comprehensive income at initial recognition and the cumulative gain or loss previously recognized in other comprehensive income is not subsequently recycled from equity to profit or loss as a reclassification adjustment. As at December 31, 2017, the Company's equity investments classified as available-for-sale financial assets amount to ₩7,637,705 million and the cumulative unrealized profit or loss on available-for-sale equity investments amounting to ₩3,199 million was recycled from equity to profit or loss as a reclassification adjustment for the year ended December 31, 2017.

The Company plans to designate long-term equity instruments held for long-term investment purposes, which account for most of the available-for-sale equity instruments, as financial instruments measured at fair value through other comprehensive income. Therefore, the Company expects the application of *Korean IFRS 1109* on these financial assets will not have a material impact on the financial statements. However, the Company has identified that some available-for-sale equity instruments will have increased profit or loss variability, as they are classified as fair value through profit or loss.

According to *Korean IFRS 1109*, debt investments for which the contractual terms of cash flows are not solely representing payments of principal and interest, or which are held for trading, are classified as fair value through profit or loss. Equity investments not designated at fair value through comprehensive income are also measured at fair value through profit or loss. As at December 31, 2017, the Company did not have debt or equity investments classified as financial instruments at fair value through profit or loss.

(b) Classification and Measurement of Financial Liabilities

Korean IFRS 1109 requires the change in the liability's fair value attributable to changes in the credit risk to be recognized in other comprehensive income, unless this treatment of the credit risk component creates or enlarges a measurement mismatch. Amounts presented in other comprehensive income are not subsequently transferred to profit or loss.

Under *Korean IFRS 1039*, all the fair value movements for financial liabilities designated to be measured at fair value through profit or loss, were recognized through profit or loss. However, under *Korean IFRS 1109*, certain fair value movements will be recognized in other comprehensive income thus profit or loss from fair value movements may decrease.

As at December 31, 2017, total financial liabilities account for ₩52,705,258 million of which ₩525,579 million are designated to be measured at fair value through profit or loss.

According to the result of the impact assessment, financial liabilities measured at fair value through profit and loss for the current terms as at December 31, 2017 have mostly short maturities and the credit risk fluctuation of financial liabilities is insignificant. Therefore, it is expected that the impact of adopting *Korean IFRS 1109* will not be significant.

(c) Impairment: Financial Assets and Contract Assets

The new impairment model requires the recognition of impairment provisions based on expected credit losses (ECL) rather than only incurred credit losses as is the case under *Korean IFRS 1039*. It applies to financial assets classified at amortized cost, debt instruments measured at fair value through other comprehensive income, lease receivables, contract assets, loan commitments and certain financial guarantee contracts.

Under *Korean IFRS 1109*, a credit event (or impairment 'trigger') no longer has to occur before credit losses are recognized. The Company will always recognize (at a minimum) 12-month expected credit losses in profit or loss. Lifetime expected credit losses will be recognized on assets for which there is a significant increase in credit risk

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after initial recognition.

Stage ¹	Loss allowance
1	No significant increase in credit risk after initial recognition ²
2	Significant increase in credit risk after initial recognition
3	Objective evidence of credit-impaired

¹ The Company shall measure the loss allowance at an amount equal to Lifetime expected credit losses for contract assets or trade receivables under the standard, *Korean IFRS 1115 Revenue from Contracts with Customers*, which do not contain a significant financing component. However, the Company can elect to measure the loss allowance at an amount equal to Lifetime expected credit losses for all contract assets or all trade receivables which contain a significant financing component in accordance with *Korean IFRS 1115*. The Company can also elect to measure the loss allowance at an amount equal to Lifetime expected credit losses for lease receivables.

² If the financial instrument has low credit risk at the reporting date, the Company may assume that the credit risk has not increased significantly since initial recognition.

Under *Korean IFRS 1109*, an asset that is credit-impaired at initial recognition would recognize all changes in lifetime expected credit losses since the initial recognition as a loss allowance with any changes recognized in profit or loss.

As at December 31, 2017, the Company owns debt investments measured at amortized cost of ₩114,673,402 million (loans and receivables of ₩114,566,651 million, financial assets held-to-maturity of ₩106,751 million), which is classified as available-for-sale and measured at fair value through other comprehensive income, of ₩3,305,850 million. The Company has recognized a loss allowance of ₩665,103 million for these assets.

When applying *Korean IFRS 1109*, the Company will measure the loss allowance at an amount equal to lifetime expected credit losses for trade receivables which contain a significant financing component, contract assets, and lease receivables, and the Company may use a simplified approach which assumes the credit risk on a financial instrument has not increased significantly since initial recognition if the financial instrument is determined to have low credit risk at the reporting date. It is expected that the impact of adopting *Korean IFRS 1109* will not be significant.

(d) Hedge Accounting

Hedge accounting mechanics (fair value hedges, cash flow hedges and hedges of net investments in foreign operations) required by *Korean IFRS 1039* remains unchanged in *Korean IFRS 1109*, however, the new hedge accounting rules will align the accounting for hedging instruments more closely with the Company's risk management practices. As a general rule, more hedge relationships may be eligible for hedge accounting, as the standard introduces a more principles-based approach. *Korean IFRS 1109* allows more hedging instruments and hedged items to qualify for hedge accounting, and relaxes the hedge accounting requirement by removing two hedge effectiveness tests: the prospective test to ensure that the hedging relationship is expected to be highly effective and the quantitative retrospective test (within range of 80~125%) to ensure that the hedging relationship has been highly effective throughout the reporting period.

With the implementation of *Korean IFRS 1109*, volatility in profit or loss may be reduced as some items that were not eligible as hedged items or hedging instruments under *Korean IFRS 1039* are now eligible under *Korean IFRS 1109*.

When the Company first applies *Korean IFRS 1109*, it may choose its accounting policy to continue to apply all of

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the hedge accounting requirements of *Korean IFRS 1039* instead of the requirements of *Korean IFRS 1109*.

With the implementation of *Korean IFRS 1109*, the Company has aligned the application of hedge accounting requirements more closely with risk management practices. It is expected that the impact of adopting *Korean IFRS 1109* will not be significant.

Korean IFRS 1115, Revenue from Contracts with Customers

Korean IFRS 1115, Revenue from Contracts with Customers issued on November 6, 2015 is effective for annual periods beginning on or after January 1, 2018 with early adoption permitted. This standard replaces *Korean IFRS 1018 Revenue*, *Korean IFRS 1011 Construction Contracts*, *Interpretation 2031 Revenue-Barter Transactions Involving Advertising Services*, *Interpretation 2113 Customer Loyalty Programs*, *Interpretation 2115 Agreements for the Construction of Real Estate* and *Interpretation 2118 Transfers of assets from customers*.

The Company will apply *Korean IFRS 1115* to the annual period beginning January 1, 2018 and will recognize the cumulative impact of initially applying the standard as an adjustment to retained earnings (or other component of equity, as appropriate) as at January 1, 2018, the period of initial application. Under this transition method, the Company will elect to apply this standard retrospectively only to contracts that are not completed at the date of initial application.

Korean IFRS 1018 and other current revenue standards identify revenue as income that arises in the course of ordinary activities of an entity and provides guidance on a variety of different types of revenue, such as sale of goods, rendering of services, interest, dividends, royalties and construction contracts. However, the Company shall recognize revenue in accordance with the new standard by applying the following 5 steps: ①Identify the contract with the customer, ②Identify the separate performance obligations, ③Determine the transaction price of the contract, ④Allocate the transaction price to each of the separate performance obligations, and ⑤Recognize the revenue as each performance obligation is satisfied.

As at December 31, 2017, for the preparation of implementing *Korean IFRS 1115*, the Company formed a task force team which consists of members of the accounting department, the accounting firm which serves as an external advisor, and also other practical departments such as the IT department, if necessary. An assessment was performed, by revenue stream, and the Company has subsequently aligned certain internal management processes and modified part of its accounting system based on the results of the assessment.

Korean IFRS 1115 will affect overall business practices including accounting treatment, sales strategy and operations. Therefore, the Company provides training for changes due to the application of the new standard to employees, and periodically reports the plans and progress of the implementation to the management team.

(a) Identification of performance obligations

The Company exports various products and merchandise in accordance with Incoterms Group C trading conditions (Incoterms CIF, etc.). According to *Korean IFRS 1115*, since the seller provides the shipping service after control of the product or merchandise has been transferred to the customer, the shipping service (including insurance) must be recognized as a separate performance obligation.

As a result of analyzing Incoterms Group C trading condition (Incoterms CIF, etc.) contracts, the Company considers it appropriate to recognize the transportation service after the control has been transferred as a separate performance obligation apart from the sale of the goods. The adoption of *Korean IFRS 1115* for these arrangements is not expected to have a material impact on the financial statements.

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(b) A performance obligation is satisfied over time: CE Operating Segment

The CE segment of 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*, the Company can recognize revenue over time if the Company's performance creates or enhances an asset (for example, work in progress) that the customer controls as the asset is created or enhanced.

As a result of the analysis of the contract terms, the Company considers that it should recognize the revenue from system air conditioner installation over time as the customer controls the outcome of the service. The adoption of *Korean IFRS 1115* for these arrangements is not expected to have a material impact on the financial statements.

(c) A performance obligation is satisfied over time - custom-order semiconductor supply contracts: DS Operating Segment

The DS segment of the Company supplies semiconductor products according to customer orders. According to *Korean IFRS 1115*, the Company can recognize revenue over time if the Company's performance does not create an asset with an alternative use to the entity and the entity has an enforceable right to payment for performance completed to date.

As a result of analyzing the agreement terms, the Company considers the revenue from custom-order semiconductor supply contracts with no alternative use and an enforceable right to payment should be recognized over time. The adoption of *Korean IFRS 1115* is not expected to have a material impact on the financial statements.

(d) Variable consideration

According to *Korean IFRS 1115*, the Company shall recognize a refund liability if the entity receives consideration from a customer and expects to refund some or all of the consideration to the customer. The Company recognizes an asset (refund asset) for the Company's right to recover the products from the customer when the refund liability is paid.

The Company considers that the refund asset should be classified and presented separately from the refund liability. The adoption of *Korean IFRS 1115* is not expected to have a material impact on the financial statements.

Enactment of Korean IFRS 1116, Leases

Korean IFRS 1116 Leases issued on May 22, 2017 is effective for annual periods beginning on or after January 1, 2019, with early adoption permitted. This standard will replace *Korean IFRS 1017 Leases, Interpretation 2104 Determining whether an Arrangement contains a Lease, Interpretation 2015 Operating Leases-Incentives, and Interpretation 2027 Evaluating the Substance of Transactions Involving the Legal Form of a Lease*.

At inception of a contract, the Company shall assess whether the contract is, or contains, a lease. Also, at the date of initial application, the Company shall assess whether the contract is, or contains, a lease in accordance with the standard. However, the Company will not need to reassess all contracts with applying the practical expedient because the Company elected to apply the practical expedient only to contracts entered before the date of initial application.

For a contract that is, or contains, a lease, the Company shall account for each lease component within the contract as a lease separately from non-lease components of the contract. A lessee is required to recognize a right-of-use asset representing its right to use the underlying leased asset and a lease liability representing its obligation to make lease

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payments. The lessee may elect not to apply the requirements to short-term leases (a lease term of 12 months or less at the commencement date) and low value assets (e.g. underlying assets below \$5,000). In addition, as a practical expedient, the lessee may elect, by class of underlying asset, not to separate non-lease components from lease components, and instead account for each lease component and any associated non-lease components as a single lease component.

The accounting standard as a lessor did not change significantly from *Korean IFRS 1017 Leases*.

(a) Lessee accounting

A lessee shall apply this standard to its leases either: a) retrospectively to each prior reporting period presented applying *Korean IFRS 1008 Accounting Policies, Changes in Accounting Estimates and Errors* (Full retrospective application) or b) retrospectively with the cumulative effect of initially applying the standard recognized at the date of initial application. The Company has not yet elected an adoption method.

The Company is in the process of performing a preliminary assessment of potential financial impact of applying *Korean IFRS 1116* to the 2017 financial statements.

(b) Lessor accounting

When applying *Korean IFRS 1116*, the Company does not expect the enactments to have a significant impact on the financial statements as the accounting standard as a lessor did not change significantly from *IFRS 1017*.

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 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.

Goodwill is recognized as the excess of (1) the aggregate of i) the consideration transferred, ii) the amount of any non-controlling interest in the acquiree and iii) the acquisition-date fair value of the Company's previously held equity interest in the acquiree over (2) the net identifiable assets acquired. If this consideration (1) is lower than the fair value of the acquiree's net assets in (2), the difference is recognized in profit or loss.

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Balances of receivables and payables, income and expenses and unrealized gains or losses on transactions between the Company subsidiaries 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 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 for 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.

(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.

(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% of voting stock is owned by the Company. Investments in associates are initially recognized at acquisition cost using the equity method. Unrealized gains on transactions between the Company and its associates are eliminated to the extent of the Company's interest in the associates. If there is any objective evidence that the investment in the associate is impaired, the Company recognizes the difference between the recoverable amount of the associate and its book value as impairment loss.

(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 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.

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(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 available-for-sale equity instruments 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 statement of financial position presented are translated at the closing rate at the end of the reporting date.
- Income and expenses for each statement of income 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 rate on the dates of the transactions.
- All resulting exchange differences are recognized in other comprehensive income.

2.5 Cash and Cash Equivalents

Cash and cash equivalents include cash on hand, deposits held at call with banks, and other short-term highly liquid investments 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

The Company classifies its financial assets in the following categories: financial assets at fair value through profit or loss, loans and receivables, available-for-sale financial assets, and held-to-maturity financial assets. The classification depends on the terms of the instruments and purpose for which the financial assets were acquired. Management determines the classification of its financial assets at initial recognition.

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

Financial assets at fair value through profit or loss are financial assets held for trading. A financial asset is classified in this category if acquired principally for the purpose of selling in the short-term. Derivatives not subject to hedge accounting and derivatives separated from financial instruments, such as embedded derivatives, are also categorized as held for trading. Assets in this category are classified as current assets.

(2) Loans and receivables

Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. They are included in current assets, except for those with maturities greater than 12 months after the end of the reporting period which are classified as non-current assets.

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(3) Available-for-sale financial assets

Available-for-sale financial assets are non-derivative financial assets that are either designated in this category or not classified in any of the other categories. They are included in non-current assets unless an investment matures or management intends to dispose of it within 12 months of the end of the reporting period.

(B) Recognition and measurement

Regular purchases and sales of financial assets are recognized on the trade date. At initial recognition, financial assets are measured at fair value plus, in the case of financial assets not carried at fair value through profit or loss, transaction costs. Transaction costs of financial assets carried at fair value through profit or loss are expensed in the statement of income. After the initial recognition, available-for-sale financial assets and financial assets at fair value through profit or loss are subsequently carried at fair value. Loans and receivables and held-to-maturity investments are subsequently carried at amortized cost using the effective interest method.

Changes in fair value of financial assets at fair value through profit or loss are recognized in profit or loss and changes in fair value of available-for-sale financial assets are recognized in other comprehensive income. When the available-for-sale financial assets are sold or impaired, the fair value adjustments recorded in equity are reclassified into profit or loss.

Interest on available-for-sale financial assets and held-to-maturity financial assets calculated using the effective interest method is recognized in the statement of income as part of financial income. Dividends on available-for-sale financial assets are recognized in the statement of income as part of other non-operating income when the Company's right to receive payments is established.

(C) Offsetting financial instruments

Financial assets and liabilities are offset, and the net amount reported in the statement 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 asset 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 and in the event of default, insolvency or bankruptcy of the Company or the counterparty.

(D) Derecognition of financial assets

If the Company transfers a financial asset and the transfer does not result in derecognition because the Company has retained substantially all of the risks and rewards of ownership of the transferred asset due to a recourse in the event the debtor defaults, the Company continues to recognize the transferred asset in its entirety and recognizes a financial liability for the consideration received. The related financial liability is classified as 'borrowings' in the statement of financial position.

2.7 Impairment of Financial Assets

The Company assesses at the end of each reporting period whether there is objective evidence that a financial asset or group of financial assets is impaired. A financial asset or a group of financial assets is impaired and impairment loss is recognized only if there is objective evidence and that loss event (or events) has an impact on the estimated future cash flows of the financial asset or group of financial assets that can be reliably estimated.

Impairment of loans and receivables is presented as a deduction in an allowance account. Impairment of other financial assets is directly deducted from their carrying amount. The Company writes off financial assets when the assets are determined to no longer be recoverable.

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The objective evidence that a financial asset is impaired includes significant financial difficulty of the issuer or obligor, a delinquency in interest or principal payments, or the disappearance of an active market for that financial asset because of financial difficulties. A significant and prolonged decline below its cost in the fair value of an available-for-sale equity instrument is also objective evidence of impairment.

2.8 Trade Receivables

Trade receivables are amounts due from customers for merchandise sold or services performed in the ordinary course of business. If collection is expected in 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 fair value and subsequently measured at amortized cost using the effective interest method, less provision for impairment.

2.9 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.

Inventories are reduced for the estimated losses arising from excess, obsolescence, and decline in value. This reduction is determined by estimating market value based on future customer demand. The losses on inventory obsolescence are recorded as a part of cost of sales.

2.10 Disposal Group Held-for-Sale

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 a sale is considered highly probable. The assets are measured at the lower of their carrying amount and the fair value less costs to sell.

2.11 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 of the items. 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 item will flow to the Company and the cost of the item can be measured reliably. The carrying amount of those parts that are replaced is derecognized and 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:

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

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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 statement of income as part of other non-operating income and expenses.

2.12 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 or sale. 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.

2.13 Intangible Assets

Goodwill represents the excess of the cost of an acquisition over the fair value of the Company's share of the net identifiable assets of the acquired subsidiary, associates, joint ventures and businesses at the date of acquisition. Goodwill on acquisitions of subsidiaries and businesses is included in intangible assets and goodwill on acquisition of associates and joint ventures 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. Intangible assets with definite useful lives such as trademarks and licenses, 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:

	<u>Estimated useful lives</u>
Development costs	2 years
Trademarks, licenses and other intangible assets	5 - 10 years

2.14 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 levels for which there are separately identifiable cash flows (cash-generating units). Non-financial assets other than goodwill for which an impairment charge was previously recorded are reviewed for possible reversal of the impairment at each reporting date.

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2.15 Financial Liabilities

(A) Classification and measurement

Financial liabilities at fair value through profit or loss are financial instruments held for trading. Financial liabilities are classified in this category if incurred principally for the purpose of repurchasing them in the near term. Derivatives that are not designated as hedges or bifurcated from financial instruments containing embedded derivatives are also categorized as held-for-trading.

The Company classifies non-derivative financial liabilities, except for financial liabilities at fair value through profit or loss, financial guarantee contracts and financial liabilities that arise when a transfer of financial assets does not qualify for derecognition, as financial liabilities carried at amortized cost and presented as 'trade payables', 'borrowings', and 'other financial liabilities' in the statement of financial position.

(B) Derecognition

Financial liabilities are removed from the statement of financial position when they are extinguished, for example, when the obligation specified in the contract is discharged, cancelled or expires or when the terms of an existing financial liability are substantially modified.

2.16 Trade Payables

Trade payables are amounts due to suppliers for merchandise purchased or services received in the ordinary course of business. If payment is expected in one year or less, they are classified as current liabilities. If payment is expected beyond one year, 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.

2.17 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 statement of income 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.

2.18 Provisions

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

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

When it is probable that an outflow of economic benefits will occur due to a present obligation resulting from a past event, and the amount is reasonably estimable, a corresponding provision is recognized in the financial statements. However, when such outflow is dependent upon a future event that is not certain to occur, or cannot be reliably estimated, a disclosure regarding the contingent liability is made in the notes to the financial statements.

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2.19 Employee Benefits

The Company has a variety of retirement pension plans including defined benefit and defined contribution plans. A defined contribution plan is a pension plan under which the Company pays fixed contributions into a separate entity. The Company has no legal or constructive obligations to pay further contributions if the fund does not hold sufficient assets to pay all employees the benefits relating to employee service in the current and prior periods. For 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 defined benefit plans define an amount of pension benefit that an employee will receive on retirement, usually dependent on one or more factors such as age, years of service and compensation. The liability recognized in the statement of financial position in respect to defined benefit pension plans 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 interest rates of high-quality corporate bonds that are denominated in the currency in which the benefits will be paid and that have 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. Past service costs are immediately recognized in profit or loss.

2.20 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. Financial guarantees are initially recognized in the financial statements at fair value on the date the guarantee was given. If the amount measured in subsequent periods exceeds the unamortized balance of the amount initially recognized, the excess is classified as other financial liability.

2.21 Current and Deferred Tax

The tax expense for the period comprises current and deferred tax. Tax is recognized on the profit for the period in the statement of income, except to the extent that it relates to items recognized in other comprehensive income or directly in equity, in which case the tax is also recognized in other comprehensive income or directly in equity, respectively. 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 the 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 accounting nor taxable profit or loss. Deferred tax assets are recognized only to the extent that it is probable that 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 differences 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

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

2.22 Derivative Instruments

Derivatives are initially recognized at fair value on the date when a derivative contract is entered into and are subsequently remeasured at their fair value at the end of each reporting period. Changes in the fair value of any derivative instrument that does not qualify for hedge accounting are recognized immediately in profit or loss.

The Company applies cash flow hedge accounting to hedge the foreign currency risk of forecasted transactions including hedging the price risk associated with forecast inventory purchase. 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 cost.

2.23 Dividend

Dividend distribution to the Company's shareholders is recognized as a liability when the dividends are approved.

2.24 Share Capital

Ordinary shares and preference shares with no repayment obligations are classified as equity. When the Company purchases its 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 subsequent sale or issuance of treasury shares is credited to equity.

2.25 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 recognizes revenue when the amount of revenue can be reliably measured; when it is probable that future economic benefits will flow to the entity; and when specific criteria have been met for each of the Company's activities, as described below. The Company measures revenue by reliably estimating the contingencies associated with revenue based on historical results, taking into consideration the type of customer, the type of transaction and the specifics of each arrangement.

Where multiple-element arrangements exist, the fair values of each element are determined based on the current market price of each of the elements when sold separately. When the fair values of each element are indeterminable, the fair values of deliverables which have already been provided are calculated in such way that the fair values of elements which are yet to be provided are subtracted from total contract value of the arrangement.

(A) Sales of goods

Sales of products and merchandise are recognized upon delivery when the significant risks and rewards of ownership of goods have transferred to the buyer. Revenue is recognized net of discounts and returns, estimated at the time of sale based on past experience.

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(B) Sales of services

Revenues from rendering services are generally recognized using the percentage-of-completion method based on the percentage of costs to date compared to the total estimated costs, contractual milestones or performance.

(C) Interest income

Interest income is recognized using the effective interest method according to the time passed. When a loan or receivable is impaired, the Company reduces the carrying amount to its recoverable amount and continues unwinding the discount as interest income. Interest income on impaired loans and receivables is recognized using the original effective interest rate.

(D) Royalty income

Royalty income is recognized on an accrual basis in accordance with the substance of the relevant agreements.

(E) Dividend income

Dividend income is recognized when the right to receive payment is established.

2.26 Leases

A lease is an agreement, whereby the lessor conveys to the lessee, in return for a payment or series of payments, the right to use an asset for an agreed period of time. Leases in which a significant portion of the risks and rewards of ownership are not transferred to the Company are classified as operating leases. Payments made under operating leases are charge to profit or loss on a straight-line basis over the period of lease.

Leases where the Company, as lessee, has substantially all the risks and rewards of ownership are classified as finance leases. Finance leases are capitalized at the lease's inception at the fair value of the leased property or, if lower, the present value of the minimum lease payments. The corresponding rental obligations, net of finance charges, are included in other short-term and long-term payables. Each lease payment is allocated between the liability and financial expense.

If the Company is a lessor, a lease is classified 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 is added to the carrying amount of the leased asset and recognized as an expense over the lease term on the same basis as the lease income.

2.27 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 income statement over the period necessary to match them with the costs that they are intended to compensate. Government grants relating to assets are recognized in liabilities as deferred income government grants and are credited to the income statement on a straight-line basis over the expected lives of the related assets.

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2.28 Earnings per Share

Basic earnings per share is calculated by dividing net profit for the period available to ordinary shareholders by the weighted-average number of ordinary shares outstanding during the year. Diluted earnings per share is calculated using the weighted-average number of ordinary shares outstanding adjusted to include the potentially dilutive effect of common equivalent shares outstanding.

2.29 Operating Segments

Operating segments are disclosed in the manner reported to the chief operating decision-maker. The chief operating decision-maker is responsible for making strategic decisions on resource allocation and performance assessment of the operating segments. The Management Committee, which makes strategic decisions, is regarded as the chief operating decision-maker.

2.30 Convenience Translation into United States Dollar Amounts

The Company operates primarily in Korean won and its official accounting records are maintained in Korean won. The US dollar amounts provided in the financial statements represent supplementary information solely for the convenience of the reader. All Korean won amounts are expressed in U.S. dollars at the rate of ₩1131.08 to US \$1, the average exchange rate for the year ended December 31, 2017. Such presentation is not in accordance with generally accepted accounting principles, and should not be construed as a representation that the Korean won amounts shown could be readily converted, realized or settled in US dollars at this or at any other rate.

2.31 Approval of the Consolidated Financial Statements

These consolidated financial statements were approved by the Board of Directors on January 31, 2018.

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. 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

The Company uses the percentage-of-completion method in accounting for its contracts to deliver installation services. Use of the percentage-of-completion method requires the Company to estimate the services performed to date as a proportion of the total services to be performed. Revenues and earnings are subject to significant change, effected by early steps in a long-term projects, change in scope of a project, cost, period, and plans of the customers.

(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. The amounts are estimated based on past experience.

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(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) 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.

(E) Impairment of goodwill

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

(F) 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 estimation 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.

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4. Cash and Cash Equivalents

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

Cash and cash equivalents as at December 31, 2017 and 2016 consist of the following:

<i>(In millions of Korean won)</i>	December 31, 2017		December 31, 2016	
Cash on hand	₩	37,521	₩	51,770
Bank deposits and others		30,507,609		32,059,672
Total	₩	30,545,130	₩	32,111,442

5. Financial Assets Subject to Withdrawal Restrictions

Financial instruments subject to withdrawal restrictions as at December 31, 2017 and 2016 consist of the following:

<i>(In millions of Korean won)</i>	December 31, 2017		December 31, 2016	
Short-term financial instruments	₩	30,377	₩	21,541
Other non-current assets		3,507		28,828
Total	₩	33,884	₩	50,369

Samsung Electronics Co., Ltd. and its Subsidiaries

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

6. Financial Instruments by Category

(A) Categorizations of financial assets and liabilities as at December 31, 2017 and 2016 are as follows:

(1) As at December 31, 2017

<i>(In millions of Korean won)</i>	Assets at fair value through profit or loss	Loans and receivables	Available-for- sale financial assets	Held-to- maturity financial assets	Other financial assets¹	Total
Financial Assets						
Cash and cash equivalents	₩ -	₩ 30,545,130	₩ -	₩ -	₩ -	₩ 30,545,130
Short-term financial instruments	-	49,447,696	-	-	-	49,447,696
Short-term available-for-sale financial assets	-	-	3,191,375	-	-	3,191,375
Trade receivables	-	27,695,995	-	-	-	27,695,995
Long-term available-for-sale financial assets	-	-	7,752,180	-	-	7,752,180
Held-to-maturity financial assets	-	-	-	106,751	-	106,751
Others	67,702	6,212,727	-	-	45,396	6,325,825
Total	₩ 67,702	₩113,901,548	₩ 10,943,555	₩ 106,751	₩ 45,396	₩125,064,952

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

<i>(In millions of Korean won)</i>	Liabilities at fair value through profit or loss	Financial liabilities measured at amortized cost	Other financial liabilities¹	Total
Financial Liabilities				
Trade payables	₩ -	₩ 9,083,907	₩ -	₩ 9,083,907
Short-term borrowings	-	1,497,417	14,270,202	15,767,619
Other payables	316,928	11,789,681	-	12,106,609
Current portion of long-term liabilities	-	278,619	-	278,619
Debentures	-	953,361	-	953,361
Long-term borrowings	-	1,814,446	-	1,814,446
Long-term other payables	28,285	1,717,899	-	1,746,184
Others	180,366	10,732,501	41,646	10,954,513
Total	₩ 525,579	₩ 37,867,831	₩ 14,311,848	₩ 52,705,258

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

Samsung Electronics Co., Ltd. and its Subsidiaries

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(2) As at December 31, 2016

<i>(In millions of Korean won)</i>	Assets at fair value through profit or loss	Loans and receivables	Available-for- sale financial assets	Total
Financial Assets				
Cash and cash equivalents	₩ -	₩ 32,111,442	₩ -	₩ 32,111,442
Short-term financial instruments	-	52,432,411	-	52,432,411
Short-term available-for-sale financial assets	-	-	3,638,460	3,638,460
Trade receivables	-	24,279,211	-	24,279,211
Long-term available-for-sale financial assets	-	-	6,804,276	6,804,276
Others	63,208	3,396,655	-	3,459,863
Total	₩ 63,208	₩112,219,719	₩ 10,442,736	₩122,725,663

<i>(In millions of Korean won)</i>	Liabilities at fair value through profit or loss	Financial liabilities measured at amortized cost	Other financial liabilities¹	Total
Financial Liabilities				
Trade payables	₩ -	₩ 6,485,039	₩ -	₩ 6,485,039
Short-term borrowings	-	1,817,021	10,929,768	12,746,789
Other payables	-	10,225,271	-	10,225,271
Current portion of long-term liabilities	-	1,232,817	-	1,232,817
Debentures	-	58,542	-	58,542
Long-term borrowings	-	1,244,238	-	1,244,238
Long-term other payables	342,702	2,666,957	-	3,009,659
Others	74,697	11,867,772	-	11,942,469
Total	₩ 417,399	₩ 35,597,657	₩ 10,929,768	₩ 46,944,824

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

Samsung Electronics Co., Ltd. and its Subsidiaries

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(B) Net gains or net losses on each category of financial assets and liabilities for the years ended December 31, 2017 and 2016 are as follows:

(1) For the year ended December 31, 2017

<i>(In millions of Korean won)</i>	Assets at fair value through profit or loss	Loans and receivables	Available-for-sale financial assets	Held-to-maturity financial assets	Other financial assets	Total
Financial Assets						
Gain (loss) on valuation (other comprehensive income)	₩ -	₩ -	₩ 513,434	₩ -	₩ (47,048)	₩ 466,386
Gain (loss) on valuation/disposal (profit or loss)	(40,218)	(20,163)	161,848	-	(3,022)	98,445
Reclassification from other comprehensive income to profit or loss	-	-	(2,227)	-	15,612	13,385
Interest income	-	1,613,010	1,157	56	-	1,614,223
Foreign exchange differences (profit or loss)	-	(913,989)	-	-	-	(913,989)
Dividend income	-	-	128,946	-	-	128,946
Impairment/reversal (profit or loss)	-	(215,349)	(13,538)	-	-	(228,887)

<i>(In millions of Korean won)</i>	Liabilities at fair value through profit or loss	Financial liabilities measured at amortized cost	Other financial liabilities	Total
Financial Liabilities				
Gain on valuation (other comprehensive income)	₩ -	₩ -	₩ (16,751)	₩ (16,751)
Gain (loss) on valuation/disposal (profit or loss)	(130,684)	-	(1,918)	(132,602)
Reclassification from other comprehensive income to profit or loss	-	-	5,559	5,559
Interest expense	-	358,911	296,491	655,402
Foreign exchange differences (profit or loss)	-	772,975	137,168	910,143

Samsung Electronics Co., Ltd. and its Subsidiaries

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(2) For the year ended December 31, 2016

<i>(In millions of Korean won)</i>	Assets at fair value through profit or loss	Loans and receivables	Available-for-sale financial assets	Total
Financial Assets				
Gain on valuation (other comprehensive income)	₩ -	₩ -	₩ 607,762	₩ 607,762
Gain (loss) on valuation/disposal (profit or loss)	(24,573)	(5,648)	953,416	923,195
Reclassification from other comprehensive income to profit or loss	-	-	(631,601)	(631,601)
Interest income	-	1,475,357	28,961	1,504,318
Foreign exchange differences (profit or loss)	-	772,552	-	772,552
Dividend income	-	-	239,899	239,899
Impairment/reversal (profit or loss)	-	(135,046)	(341,790)	(476,836)

<i>(In millions of Korean won)</i>	Liabilities at fair value through profit or loss	Financial liabilities measured at amortized cost	Other financial liabilities	Total
Financial Liabilities				
Gain (loss) on valuation/disposal (profit or loss)	₩ (61,221)	₩ -	₩ -	₩ (61,221)
Interest expense	-	351,009	236,822	587,831
Foreign exchange differences (profit or loss)	-	(623,777)	(212,788)	(836,565)

Samsung Electronics Co., Ltd. and its Subsidiaries

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

7. Credit Quality of Financial Assets

The credit quality of financial assets that are neither past due nor impaired is assessed by reference to external credit ratings as at December 31, 2017 and 2016 as follows:

- Superior ability to repay: Aaa~Aa (Moody's), AAA~AA (S&P, Fitch), A1 (Credit rating agencies in Korea)
- Strong ability to repay: A (Moody's, S&P, Fitch), A2 (Credit rating agencies in Korea)
- Acceptable ability to repay: Baa (Moody's), BBB (S&P, Fitch), A3 (Credit rating agencies in Korea)
- Currently having the ability to repay: Ba or below (Moody's), BB or below (S&P, Fitch), B or below (Credit rating agencies in Korea)
- Group 1: Customers not having experienced capital erosion or default risk
- Group 2: Customers having experienced capital erosion or default risk, where all default risk is relieved as the trade payables are guaranteed by credit insurance or collateral.

(A) Trade receivables

<i>(In millions of Korean won)</i>	December 31, 2017	December 31, 2016
Counterparties managed by external credit rating:		
Superior ability to repay	₩ 4,772,359	₩ 2,743,633
Strong ability to repay	2,642,998	3,170,573
Acceptable ability to repay	3,810,177	3,839,674
Currently having the ability to repay	1,812,583	2,744,783
Subtotal	13,038,117	12,498,663
Counterparties managed by internal credit rating:		
Group 1	13,990,823	8,465,341
Group 2	178,452	239,626
Subtotal	14,169,275	8,704,967
Total	₩ 27,207,392	₩ 21,203,630

(B) Cash equivalents and short-term financial instruments

<i>(In millions of Korean won)</i>	December 31, 2017	December 31, 2016
Superior ability to repay	₩ 5,596,487	₩ 9,319,341
Strong ability to repay	72,204,793	70,916,126
Acceptable ability to repay	1,983,351	4,040,000
Currently having the ability to repay	66,139	171,393
Other ¹	104,534	45,223
Total	₩ 79,955,304	₩ 84,492,083

¹ Short-term financial instruments held at financial institutions (such as credit unions) without an external credit rating.

Samsung Electronics Co., Ltd. and its Subsidiaries

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

8. Transfer of Financial Assets

Trade receivables of the Company have been discounted through factoring agreements with banks in 2017 and 2016. Collateral (trade receivables and other) provided in such factoring transactions do not meet the requirements for asset derecognition as risks and rewards are not substantially transferred in the event the debtor defaults. Financial liabilities recognized in relation to these transactions are included as short-term borrowings on the statement of financial position (Note 15).

The following table presents a breakdown of discounted trade receivables as at December 31, 2017 and 2016:

<i>(In millions of Korean won)</i>	December 31, 2017		December 31, 2016	
Carrying amount of the discounted trade receivables ¹	₩	14,270,202	₩	10,929,768
Carrying amount of the related borrowings		14,270,202		10,929,768

¹ The discounted trade receivables include intercompany balances.

9. Available-for-Sale Financial Assets

Changes in available-for-sale financial assets for the years ended December 31, 2017 and 2016 are as follows:

<i>(In millions of Korean won)</i>	2017		2016	
Balance as at January 1	₩	10,442,736	₩	12,960,010
Acquisitions		15,529,275		17,804,905
Disposals		(15,562,233)		(18,896,371)
Valuation of available-for-sale financial assets		721,730		798,698
Impairment		(8,083)		(326,672)
Foreign exchange differences		(254,693)		(156,050)
Other ¹		74,823		(1,741,784)
Balance as at December 31	₩	10,943,555	₩	10,442,736
(A) Current portion		3,191,375		3,638,460
(B) Non-current portion		7,752,180		6,804,276

¹ Due to increase in shareholding ratio for the year ended December 31, 2016, Samsung SDI and Cheil Worldwide were reclassified from available-for-sale financial assets to investments in associates.

As at the end of the reporting period, the above available-for-sale financial assets are measured at fair value, and changes in valuation gains (losses) recognized in equity (other comprehensive income) on available-for-sale financial assets for the years ended December 31, 2017 and 2016 are as follows:

<i>(In millions of Korean won)</i>	2017		2016	
Balance as at January 1	₩	1,969,833	₩	2,008,223
Fair value gains		721,730		798,698
Net gains transferred from equity		(3,199)		(837,088)
Balance as at December 31		2,688,364		1,969,833
Deferred income tax and non-controlling interests		(808,590)		(579,209)
Total	₩	1,879,774	₩	1,390,624

Samsung Electronics Co., Ltd. and its Subsidiaries

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(A) Short-term available-for-sale financial assets

Details of short-term available-for-sale financial assets as at December 31, 2017 and 2016 are as follows:

<i>(In millions of Korean won)</i>	December 31, 2017	December 31, 2016
Beneficiary certificates ¹	₩ 3,191,375	₩ 3,638,460

¹ Beneficiary certificates are comprised of time deposits and others.

(B) Long-term available-for-sale financial assets

Details of long-term available-for-sale financial assets as at December 31, 2017 and 2016 are as follows:

<i>(In millions of Korean won)</i>	December 31, 2017	December 31, 2016
Equity securities - Listed	₩ 2,908,581	₩ 2,362,235
Equity securities - Non-listed	4,729,124	4,337,328
Debt securities ¹	114,475	104,713
Total	₩ 7,752,180	₩ 6,804,276

¹ The maximum exposure to credit risk of available-for-sale debt securities is the carrying amount at the reporting date.

(1) Equity securities - Listed

Details of listed equity securities as at December 31, 2017 and 2016 are as follows:

(In millions of Korean won, number of shares and percentage)

	December 31, 2017			December 31, 2016	
	Number of Shares Owned	Percentage of Ownership (%)¹	Acquisition Cost	Book Value (Market Value)	Book Value (Market Value)
Samsung Heavy Industries	65,930,982	16.9	473,727	483,274	609,862
Hotel Shilla	2,004,717	5.1	13,957	170,200	96,527
iMarket Korea	647,320	1.8	324	5,832	6,732
SFA ²	3,644,000	10.2	38,262	141,205	117,519
Wonik Holdings	3,518,342	4.6	30,821	27,760	23,714
Wonik IPS	3,701,872	9.0	32,428	123,643	96,989
ASML	6,297,787	1.4	363,012	1,169,393	851,395
Wacom	8,398,400	5.0	62,013	48,631	26,647
BYD	52,264,808	1.9	528,665	556,381	449,872
Other			158,688	182,262	82,978
Total			₩ 1,701,897	₩ 2,908,581	₩ 2,362,235

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

² As SFA executed a capital increase without consideration, the Company's number of SFA shares owned increased.

Acquisition cost includes impairment loss on available-for-sale financial assets recognized due to the decline in realizable value below acquisition cost. The difference between the acquisition cost, net of impairment loss and the current fair value is recorded within other components of equity, net of tax effects (unrealized gains or losses on available-for-sale financial assets).

Samsung Electronics Co., Ltd. and its Subsidiaries

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(2) Equity securities – Non-listed

Details of non-listed equity securities as at December 31, 2017 and 2016 are as follows:

	December 31, 2017			December 31, 2016	
	Number of Shares Owned	Percentage of Ownership (%)	Acquisition Cost	Book Value ¹	Book Value
Kihyup Technology	1,000,000	17.2	₩ 5,000	₩ 5,000	₩ 5,000
Samsung Venture Investment	980,000	16.3	4,900	7,784	7,515
Maltani	45,000	15.0	16,544	15,137	16,270
Corning Inc.	2,300	7.4	2,434,320	3,629,653	3,440,487
CSOSDT	-	9.8	357,315	357,315	357,315
Nanosys	22,500,681	17.5	35,814	37,475	28,985
Other			721,252	676,760	481,756
Total			₩ 3,575,145	₩ 4,729,124	₩ 4,337,328

¹ Nonmarketable shares are measured at cost as the variability of estimated cash flow is significant and the probability of various estimates, including discount rate, cannot be reasonably assessed.

Acquisition cost includes impairment loss on available-for-sale financial assets recognized due to the decline in realizable value below acquisition cost. The difference between the acquisition cost, net of impairment loss and the current fair value is recorded within other components of equity, net of tax effects (unrealized gains or losses on available-for-sale financial assets).

(3) Debt securities

Details of debt securities as at December 31, 2017 and 2016 are as follows:

<i>(In millions of Korean won)</i>	December 31, 2017		December 31, 2016	
Corporate bonds	₩	114,475	₩	104,713
Total	₩	114,475	₩	104,713

10. Trade and Other Receivables

(A) Trade and other receivables as at December 31, 2017 and 2016 are as follows:

<i>(In millions of Korean won)</i>	December 31, 2017		December 31, 2016	
	Trade	Non-Trade	Trade	Non-Trade
Receivables	₩ 30,316,958	₩ 4,275,407	₩ 24,704,524	₩ 3,582,229
Less: Provisions for impairment	(639,223)	(27,305)	(420,889)	(25,503)
Receivables, net	29,677,735	4,248,102	24,283,635	3,556,726
Less: Non-current portion	(1,981,740)	(139,141)	(4,424)	(35,529)
Current portion	₩ 27,695,995	₩ 4,108,961	₩ 24,279,211	₩ 3,521,197

Samsung Electronics Co., Ltd. and its Subsidiaries

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(B) Movements in the provisions for impairment of receivables for the years ended December 31, 2017 and 2016 are as follows:

<i>(In millions of Korean won)</i>	2017		2016	
	Trade	Non-Trade	Trade	Non-Trade
Balance as at January 1	₩ 420,889	₩ 25,503	₩ 326,861	₩ 49,291
Provisions for impaired receivables / (reversals of unused amounts)	206,561	8,277	117,207	(19,209)
Receivables written off during the year as uncollectible	(14,367)	(1,133)	(20,421)	(3,978)
Other	26,140	(5,342)	(2,758)	(601)
Balance as at December 31	₩ 639,223	₩ 27,305	₩ 420,889	₩ 25,503

(C) The aging analysis of trade and other receivables as at December 31, 2017 and 2016 is as follows:

<i>(In millions of Korean won)</i>	December 31, 2017		December 31, 2016	
Receivables not past due	₩	31,113,883	₩	24,598,074
Past due but not impaired ¹ :				
Less than 31 days overdue		2,435,133		2,281,693
Impaired:				
31 days to 90 days overdue		473,009		881,736
Over 90 days overdue		570,340		525,250
Total	₩	34,592,365	₩	28,286,753

¹ The Company does not consider 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 at December 31, 2017. The Company has in place insurance contracts covering the Company's major receivables, and has accrued provisions against receivables in accordance with the overdue payment history for those receivables not covered by insurance contracts.

11. Inventories

Inventories as at December 31, 2017 and 2016 are as follows:

<i>(In millions of Korean won)</i>	December 31, 2017			December 31, 2016		
	Gross Amount	Valuation Allowance ¹	Carrying Amount	Gross Amount	Valuation Allowance ¹	Carrying Amount
Finished goods	₩ 8,201,526	₩ (897,089)	₩ 7,304,437	₩ 7,982,850	₩(2,077,511)	₩ 5,905,339
Work in process	7,331,394	(217,493)	7,113,901	5,334,607	(317,223)	5,017,384
Raw materials and supplies	10,196,123	(782,906)	9,413,217	7,526,608	(1,032,442)	6,494,166
Materials in transit	1,151,800	-	1,151,800	936,614	-	936,614
Total	₩26,880,843	₩(1,897,488)	₩24,983,355	₩21,780,679	₩(3,427,176)	₩18,353,503

¹ Inventories for which the Company has suspended sales or production, are evaluated based on net realizable value. Valuation allowance is recorded if the net realizable value is less than the carrying amount.

The cost of inventories recognized as expense and included in 'cost of sales' for the year ended December 31, 2017, amounts to ₩128,823,788 million (2016: ₩119,611,006 million). The amount includes inventory valuation losses.

Samsung Electronics Co., Ltd. and its Subsidiaries

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

12. Investments in Associates and Joint Ventures

(A) Changes in investments in associates and joint ventures for the years ended December 31, 2017 and 2016 are as follows:

<i>(In millions of Korean won)</i>	2017	2016
Balance as at January 1	₩ 5,837,884	₩ 5,276,348
Acquisition	25,293	84,306
Disposal ¹	(53,187)	(1,343,936)
Share of profit	201,442	19,501
Others ²	790,919	1,801,665
Balance as at December 31	₩ 6,802,351	₩ 5,837,884

¹ The Company sold its entire stake in Samsung Card for the year ended December 31, 2016.

² Others consist of dividends, impairment, reversal of impairment and reclassification.

(B) Major investments in associates and joint ventures as at December 31, 2017 are as follows:

(1) Investments in associates

Investee	Nature of Relationship with Associate	Percentage of Ownership¹ (%)	Principal Business Location	The End of Reporting Period
Samsung Electro-Mechanics	Manufacture and supply electronic components including passive components, circuit boards, and modules	23.7	Korea	December
Samsung SDS	Provide IT services including computer programming, system integration and management and logistical services	22.6	Korea	December
Samsung Biologics	New business investment	31.5	Korea	December
Samsung SDI ²	Manufacture and supply electronics including secondary cell batteries	19.6	Korea	December
Cheil Worldwide	Advertising agency	25.2	Korea	December

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

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

(2) Investments in joint ventures

Investee	Nature of Relationship with Joint Venture	Percentage of Ownership¹ (%)	Principal Business Location	The End of Reporting Period
Samsung Corning Advanced Glass	Manufacture and supply industrial glass devices	50.0	Korea	December

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

Samsung Electronics Co., Ltd. and its Subsidiaries

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(C) Details of investments in associates and joint ventures as at December 31, 2017, 2016 are as follows:

(1) Investments in associates

(In millions of Korean won)

Investee	Acquisition cost	December 31, 2017	
		Net asset value of equity shares ¹	Carrying amount
Samsung Electro-Mechanics	₩ 359,237	₩ 989,924	₩ 991,579
Samsung SDS	147,963	1,256,881	1,282,205
Samsung Biologics	443,193	1,251,292	1,254,937
Samsung SDI	1,242,605	2,266,451	2,126,244
Cheil Worldwide	506,162	241,335	540,114
Other	593,080	215,025	376,349
Total	₩ 3,292,240	₩ 6,220,908	₩ 6,571,428

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

(In millions of Korean won)

Investee	Acquisition cost	December 31, 2016	
		Net asset value of equity shares ¹	Carrying amount
Samsung Electro-Mechanics	₩ 359,237	₩ 993,031	₩ 997,022
Samsung SDS	147,963	1,161,197	1,185,703
Samsung Biologics	443,193	1,285,706	1,289,351
Samsung SDI	1,242,605	2,131,718	1,232,986
Cheil Worldwide	506,162	192,594	517,885
Other	642,536	182,279	390,438
Total	₩ 3,341,696	₩ 5,946,525	₩ 5,613,385

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

Samsung Electronics Co., Ltd. and its Subsidiaries

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(2) Investments in joint ventures

(In millions of Korean won)

		December 31, 2017			
Investee	Acquisition cost		Net asset value of equity shares¹		Carrying amount
Samsung Corning Advanced Glass	₩	215,000	₩	170,440	₩ 170,425
Others		259,994		65,106	60,498
Total	₩	474,994	₩	235,546	₩ 230,923

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

(In millions of Korean won)

		December 31, 2016			
Investee	Acquisition cost		Net asset value of equity shares¹		Carrying amount
Samsung Corning Advanced Glass	₩	215,000	₩	169,521	₩ 169,485
Others		259,977		59,342	55,014
Total	₩	474,977	₩	228,863	₩ 224,499

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

Samsung Electronics Co., Ltd. and its Subsidiaries

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

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

(1) For the year ended December 31, 2017

<i>(In millions of Korean won)</i>	Balance as at January 1	Gain/loss on valuation	Other comprehensive income/loss	Others¹	Balance as at December 31
Samsung Electro-Mechanics	₩ 997,022	₩ 34,353	₩ (30,949)	₩ (8,847)	₩ 991,579
Samsung SDS	1,185,703	121,968	(12,363)	(13,103)	1,282,205
Samsung Biologics	1,289,351	(31,546)	(2,868)	-	1,254,937
Samsung SDI	1,232,986	(50)	8,038	885,270	2,126,244
Cheil Worldwide	517,885	36,083	(5,142)	(8,712)	540,114
Samsung Corning Advanced Glass	169,485	1,039	(97)	(2)	170,425
Others	445,452	39,595	(11,043)	(37,157)	436,847
Total	₩ 5,837,884	₩ 201,442	₩ (54,424)	₩ 817,449	₩ 6,802,351

¹ Others consist of acquisitions, disposals, dividends, impairment, reversal of impairment and reclassification.

(2) For the year ended December 31, 2016

<i>(In millions of Korean won)</i>	Balance as at January 1	Gain/loss on valuation	Other comprehensive income/loss	Others¹	Balance as at December 31
Samsung Card	₩ 1,338,679	₩ -	₩ -	₩ (1,338,679)	₩ -
Samsung Electro-Mechanics	994,489	1,738	9,641	(8,846)	997,022
Samsung SDS	1,060,396	105,424	28,620	(8,737)	1,185,703
Samsung Biologics	1,310,202	(66,212)	(1,189)	46,550	1,289,351
Samsung SDI	-	(8,017)	(1,602)	1,242,605	1,232,986
Cheil Worldwide	-	4,375	7,348	506,162	517,885
Samsung Corning Advanced Glass	188,371	(18,742)	(144)	-	169,485
Others	384,211	935	(6,522)	66,828	445,452
Total	₩ 5,276,348	₩ 19,501	₩ 36,152	₩ 505,883	₩ 5,837,884

¹ Others consist of acquisitions, disposals, dividends, impairment and reclassification.

Samsung Electronics Co., Ltd. and its Subsidiaries

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

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

(1) A summary of condensed financial information of major associates and dividends received from associates as at December 31, 2017 and 2016, and for the years ended December 31, 2017 and 2016 is as follows:

<i>(In millions of Korean won)</i>	2017				
	Samsung Electro- Mechanics	Samsung SDS	Samsung Biologics	Samsung SDI	Cheil Worldwide
1. Condensed financial information					
Condensed statements of financial position:					
Current assets	₩ 2,478,798	₩ 5,117,499	₩ 620,995	₩ 3,605,076	₩ 1,889,096
Non-current assets	5,288,605	2,160,262	6,562,096	12,146,401	349,197
Current liabilities	2,454,110	1,324,862	2,287,442	2,670,360	1,281,293
Non-current liabilities	981,802	233,469	919,198	1,629,117	101,012
Non-controlling interests	99,848	161,151	-	194,698	9,927
Condensed statements of comprehensive income:					
Revenue	₩ 6,838,474	₩ 9,299,206	₩ 464,629	₩ 6,321,561	₩ 3,374,987
Profit or loss from continuing operations ¹	161,739	530,348	(96,972)	657,236	127,153
Other comprehensive income(loss) ¹	(132,298)	(63,585)	(8,957)	27,870	(25,115)
Total comprehensive income(loss) ¹	29,441	466,763	(105,929)	685,106	102,038
2. Details of adjustments from the book value of investments in associates					
Net assets (a)	4,231,643	5,558,279	3,976,451	11,257,302	846,061
Ownership percentage (b) ²	23.4%	22.6%	31.5%	20.1%	28.7%
Net assets of equity shares (a x b)	989,924	1,256,881	1,251,292	2,266,451	241,335
Goodwill	7,081	26,801	3,645	-	298,779
Intercompany transactions and others ³	(5,426)	(1,477)	-	(140,207)	-
Book value of associates	991,579	1,282,205	1,254,937	2,126,244	540,114
3. Dividends from associates					
Dividends	₩ 8,847	₩ 13,104	₩ -	₩ 13,463	₩ 8,711

¹ Income (loss) attributable to owners of the parent.

² Ownership percentage includes ordinary and preference shares.

³ Consists of unrealized gains and losses and other differences.

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

<i>(In millions of Korean won)</i>	2016				
	Samsung Electro- Mechanics	Samsung SDS	Samsung Biologics	Samsung SDI	Cheil Worldwide
1. Condensed financial information					
Condensed statements of financial position:					
Current assets	₩ 2,812,409	₩ 4,548,448	₩ 1,461,425	₩ 3,958,266	₩ 1,794,812
Non-current assets	4,850,220	2,293,556	6,071,580	10,942,046	356,619
Current liabilities	2,043,155	1,347,385	2,476,545	2,212,796	1,244,899
Non-current liabilities	1,281,889	203,495	974,089	1,723,405	130,248
Non-controlling interests	97,467	150,429	-	241,980	13,277
Condensed statements of comprehensive income:					
Revenue	₩ 6,033,040	₩ 8,180,187	₩ 294,622	₩ 5,200,823	₩ 3,232,594
Profit or loss from continuing operations ¹	14,707	463,858	(176,832)	(878,504)	88,263
Post-tax profit or loss from discontinued operations ¹	-	-	-	1,089,615	-
Other comprehensive income(loss) ¹	41,212	35,664	108	(222,175)	(13,711)
Total comprehensive income(loss) ¹	55,919	499,522	(176,724)	(11,064)	74,552
2. Details of adjustments from the book value of investments in associates					
Net assets (a)	₩ 4,240,118	₩ 5,140,695	₩ 4,082,371	₩ 10,722,131	₩ 763,007
Ownership percentage (b) ²	23.4%	22.6%	31.5%	19.9%	25.2%
Net assets of equity shares (a x b)	993,031	1,161,197	1,285,706	2,131,718	192,594
Goodwill	7,081	26,801	3,645	-	325,291
Intercompany transactions and others ³	(3,090)	(2,295)	-	(898,732)	-
Book value of associates	997,022	1,185,703	1,289,351	1,232,986	517,885
3. Dividends from associates					
Dividends	₩ 8,847	₩ 8,736	-	-	-

¹ Income (loss) attributable to owners of the parent.

² Ownership percentage includes ordinary and preference shares.

³ Consists of unrealized gains and losses and other differences.

Samsung Electronics Co., Ltd. and its Subsidiaries

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(2) A summary of the condensed financial information of major joint ventures and dividends received from joint ventures as at December 31, 2017 and 2016, and for the years ended December 31, 2017 and 2016 is as follows:

<i>(In millions of Korean won)</i>	Samsung Corning Advanced Glass	
	2017	2016
1. Condensed financial information		
Condensed statements of financial position:		
Current assets	₩ 128,499	₩ 170,614
- Cash and cash equivalent	11,035	16,021
Non-current assets	253,840	209,881
Current liabilities	41,325	41,076
- Current financial liabilities ¹	18,900	14,779
Non-current liabilities	134	377
Condensed statements of comprehensive income²:		
Revenue	₩ 242,452	₩ 257,041
Depreciation and amortization	1,356	2,202
Interest income	738	1,433
Income tax expense	129	(8,841)
Profit or loss from continuing operations ²	2,034	(37,531)
Other comprehensive income(loss) ²	-	-
Total comprehensive loss ²	2,034	(37,531)

¹ Trade payables, other payables, and provisions are excluded.

² Income(loss) attributable to owners of the parent.

<i>(In millions of Korean won)</i>	Samsung Corning Advanced Glass	
	2017	2016
2. Details of adjustments from the book value of investments in joint ventures		
Net assets(a)	₩ 340,880	₩ 339,042
Ownership percentage(b)	50.0%	50.0%
Net assets of equity shares(a x b)	170,440	169,521
Intercompany transactions and others ¹	(15)	(36)
Book value of joint ventures	170,425	169,485
3. Dividends from joint ventures		
Dividends	₩ -	₩ -

¹ Consists of unrealized gains and losses and other differences.

Samsung Electronics Co., Ltd. and its Subsidiaries

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(3) Income (loss) amounts attributable to owners of the parent from associates and joint ventures which are not individually material for the years ended December 31, 2017 and 2016 are as follows:

<i>(In millions of Korean won)</i>	2017		2016	
	Associates	Joint ventures	Associates	Joint ventures
Profit or loss from continuing operations	₩ 33,544	₩ 6,219	₩ 4,993	₩ (3,567)
Other comprehensive income (loss)	(9,386)	(1,661)	(2,042)	(4,505)
Total comprehensive income (loss)	₩ 24,158	₩ 4,558	₩ 2,951	₩ (8,072)

(F) Details of marketable investments in associates as at December 31, 2017 and 2016 is as follows:

<i>(In millions of Korean won and number of shares)</i>	December 31, 2017		December 31, 2016
	Number of shares held	Market value	Market value
Samsung Electro-Mechanics	17,693,084	₩ 1,769,308	₩ 898,809
Samsung SDS	17,472,110	3,494,422	2,437,359
Samsung Biologics	20,836,832	7,730,465	3,146,362
Samsung SDI	13,462,673	2,753,117	1,467,431
Cheil Worldwide	29,038,075	615,607	457,350

13. Property, Plant and Equipment

(A) Changes in property, plant and equipment for the years ended December 31, 2017 and 2016 are as follows:

<i>(In millions of Korean won)</i>	2017					
	Land	Buildings and Structures	Machinery and Equipment	Construction In Progress	Other	Total
Balance as at January 1	₩ 7,869,679	₩ 24,375,826	₩ 38,302,055	₩ 18,773,986	₩ 2,151,495	₩ 91,473,041
Acquisition cost	7,869,679	36,474,462	155,285,378	18,773,986	6,769,149	225,172,654
Accumulated depreciation and impairment	-	(12,098,636)	(116,983,323)	-	(4,617,654)	(133,699,613)
Acquisitions and capital expenditures ¹	1,589,162	6,424,994	38,547,588	(4,396,126)	1,251,342	43,416,960
Business combinations	13,643	184,845	419,927	90,958	149,425	858,798
Depreciation	-	(1,836,073)	(17,846,905)	-	(910,638)	(20,593,616)
Disposals/Scrap	(33,850)	(37,007)	(150,722)	(261)	(89,786)	(311,626)
Impairment	-	-	(146,930)	-	(461)	(147,391)
Other ²	(29,358)	(1,054,429)	(1,209,215)	(557,808)	(179,708)	(3,030,518)
Balance as at December 31	₩ 9,409,276	₩ 28,058,156	₩ 57,915,798	₩ 13,910,749	₩ 2,371,669	₩ 111,665,648
Acquisition cost	9,409,276	41,639,045	184,392,999	13,910,749	7,176,535	256,528,604
Accumulated depreciation and impairment	-	(13,580,889)	(126,477,201)	-	(4,804,866)	(144,862,956)

¹ The capitalized borrowing costs are ₩19,711million and the interest rate used to calculate the borrowing costs eligible for capitalization is 0.71%.

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

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2016

<i>(In millions of Korean won)</i>	2016					
	Land	Buildings and Structures	Machinery and Equipment	Construction In Progress	Other	Total
Balance as at January 1	₩ 7,848,432	₩ 22,453,296	₩ 43,077,879	₩ 10,970,052	₩2,127,451	₩ 86,477,110
Acquisition cost	7,848,432	32,850,110	147,315,096	10,970,052	6,303,834	205,287,524
Accumulated depreciation and impairment	-	(10,396,814)	(104,237,217)	-	(4,176,383)	(118,810,414)
Acquisitions and capital expenditures ¹	37,735	3,482,228	12,769,230	8,230,900	974,275	25,494,368
Business combinations	-	-	4,492	240	2,271	7,003
Depreciation	-	(1,631,089)	(16,814,751)	-	(866,680)	(19,312,520)
Disposals/Scrap	(28,331)	(26,384)	(80,552)	(5)	(66,684)	(201,956)
Impairment	-	(2,805)	(370,574)	-	(1,731)	(375,110)
Reclassification of assets held-for-sale	-	(11,922)	(20,131)	(7,660)	(45,156)	(84,869)
Other ²	11,843	112,502	(263,538)	(419,541)	27,749	(530,985)
Balance as at December 31	₩ 7,869,679	₩ 24,375,826	₩ 38,302,055	₩ 18,773,986	₩2,151,495	₩ 91,473,041
Acquisition cost	7,869,679	36,474,462	155,285,378	18,773,986	6,769,149	225,172,654
Accumulated depreciation and impairment	-	(12,098,636)	(116,983,323)	-	(4,617,654)	(133,699,613)

¹ The capitalized borrowing costs are ₩17,644 million and the interest rate used to calculate the borrowing costs eligible for capitalization is 0.95%.

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

(B) Details of depreciation of property, plant and equipment for the years ended December 31, 2017 and 2016 are as follows:

<i>(In millions of Korean won)</i>	2017	2016
Cost of sales	₩ 18,440,750	₩ 17,348,302
Selling and administrative expenses and others	2,152,866	1,964,218
Total	₩ 20,593,616	₩ 19,312,520

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14. Intangible Assets

(A) Changes in intangible assets for the years ended December 31, 2017 and 2016 are as follows:

<i>(In millions of Korean won)</i>	2017					
	Intellectual property rights	Development cost	Membership	Goodwill	Other	Total
Balance as at January 1	₩ 1,349,764	₩ 1,180,618	₩ 184,399	₩ 1,343,580	₩ 1,285,659	₩ 5,344,020
Internally generated (development costs)	-	447,541	-	-	-	447,541
External acquisitions	236,918	-	57,751	-	241,530	536,199
Business combinations	3,011,641	-	-	4,453,214	2,552,673	10,017,528
Amortization	(252,191)	(687,366)	-	-	(584,219)	(1,523,776)
Disposals/scrap	(27,123)	-	(1,162)	-	(587)	(28,872)
Impairment	-	(110,409)	(23,617)	-	(9,085)	(143,111)
Other ¹	(184,554)	-	5,598	(93,656)	383,567	110,955
Balance as at December 31	₩ 4,134,455	₩ 830,384	₩ 222,969	₩ 5,703,138	₩ 3,869,537	₩ 14,760,483

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

<i>(In millions of Korean won)</i>	2016					
	Intellectual property rights	Development cost	Membership	Goodwill	Other	Total
Balance as at January 1	₩ 1,342,104	₩ 1,697,545	₩ 184,915	₩ 910,539	₩ 1,261,208	₩ 5,396,311
Internally generated (development costs)	-	680,962	-	-	-	680,962
External acquisitions	275,288	-	802	4,922	85,694	366,706
Business combinations	70,199	-	-	503,045	63,674	636,918
Amortization	(234,666)	(748,573)	-	-	(417,206)	(1,400,445)
Disposals/scrap	(49,700)	-	(1,005)	-	(2,257)	(52,962)
Impairment	-	(449,297)	-	(15,143)	(9,054)	(473,494)
Reclassification of assets held- for-sale	(41,032)	-	(89)	(41,650)	(41,800)	(124,571)
Other ¹	(12,429)	(19)	(224)	(18,133)	345,400	314,595
Balance as at December 31	₩ 1,349,764	₩ 1,180,618	₩ 184,399	₩ 1,343,580	₩ 1,285,659	₩ 5,344,020

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

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(B) Goodwill

Goodwill is allocated to cash-generating units at the end of the reporting period. Details of goodwill as at December 31, 2017 and 2016 are as follows:

<i>(In millions of Korean won)</i>	December 31, 2017	December 31, 2016
CE	₩ 500,611	₩ 532,669
IM	600,633	644,468
Semiconductor	81,142	82,400
DP	80,299	80,299
Harman	4,436,715	-
Other	3,738	3,744
Total	₩ 5,703,138	₩ 1,343,580

Goodwill impairment reviews are undertaken annually, and the recoverable amounts of cash-generating units have been determined based on value-in-use calculations. These calculations use pre-tax cash flow projections based on financial budgets approved by management covering a five-year period. Cash flows beyond the five-year period are extrapolated using the estimated growth rates stated below. The growth rate does not exceed the long-term average growth rate for the industry. In addition, a constant growth rate assumption is used for perpetual cash flow calculation.

(C) Details of amortization of intangible assets for the years ended December 31, 2017 and 2016 are as follows:

<i>(In millions of Korean won)</i>	2017	2016
Cost of sales	₩ 894,529	₩ 959,545
Selling and administrative expenses and others	629,247	440,900
Total	₩ 1,523,776	₩ 1,400,445

Samsung Electronics Co., Ltd. and its Subsidiaries

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

15. Borrowings

(A) Details of the carrying amounts of borrowings as at December 31, 2017 and 2016 are as follows:

<i>(In millions of Korean won)</i>	Financial Institutions	Annual Interest Rates (%) as at December 31, 2017	December 31, 2017	December 31, 2016
Short-term borrowings				
Collateralized borrowings ¹	Woori Bank and others	0.1 ~ 11.1	₩ 14,270,202	₩ 10,929,768
Non-collateralized borrowings	Citibank and others	0.1 ~ 15.9	1,497,417	1,817,021
Total			₩ 15,767,619	₩ 12,746,789
Current portion of long-term borrowings				
Bank borrowings	BTMU	LIBOR+0.5	₩ 262,493	₩ 684
Financial lease liabilities ²	CSSD and others	1.1 ~ 15.7	10,925	18,599
Total			₩ 273,418	₩ 19,283
Long-term borrowings				
Bank borrowings	Citibank and others	LIBOR+0.4 ~ 3.5	₩ 1,756,908	₩ 1,179,111
Financial lease liabilities ²	CSSD and others	1.1 ~ 15.7	57,538	65,127
Total			₩ 1,814,446	₩ 1,244,238

¹ Collateralized borrowings are secured by trade receivables (refer to Note 8).

² Leased property, plant and equipment were pledged as collateral (refer to Note 19).

(B) Maturities of long-term borrowings outstanding as at December 31, 2017 are as follows:

<i>(In millions of Korean won)</i>		Long-term borrowings
Repayment terms		
2018	₩	273,418
2019		1,718,616
2020		57,812
2021		6,089
2022 and thereafter		31,929
Total	₩	2,087,864

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

16. Debentures

(A) Details of foreign currency denominated debentures as at December 31, 2017 and 2016 are as follows:

<i>(In millions of Korean Won)</i>	Issue Date	Due Date	Annual Interest Rates (%) as at December 31, 2017	2017	2016
US dollar denominated straight bonds ¹	1997.10.2	2027.10.1	7.7	₩ 53,570 (US\$50 million)	₩ 66,468 (US\$55 million)
US dollar denominated unsecured bonds ²	2012.4.10	2017.4.10	-	-	1,208,500 (US\$1,000 million)
US dollar denominated debenture bonds ³	2015.5.6	2025.5.15	4.2	428,560 (US\$400 million)	-
EURO denominated debenture bonds ⁴	2015.5.20	2022.5.27	2.0	447,739 (EUR€350 million)	-
Less: Current Portion				(5,357)	(1,214,543)
Less: Discounts				(1,405)	(1,883)
More: Premium				30,254	-
Total				₩ 953,361	₩ 58,542

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

² Samsung Electronics America issued dollar denominated unsecured bonds. The amount was repaid during 2017.

³ Harman International Industries issued dollar denominated debenture bonds. Repayment of these debentures is due on the date of maturity and interest is paid semi-annually.

⁴ Harman Finance International SCA issued euro denominated debenture bonds. Repayment of these debentures is due on the date of maturity and interest is paid annually.

(B) Maturities of debentures outstanding as at December 31, 2017 are as follows:

<i>(In millions of Korean won)</i>	Debentures	
Repayment Term		
2018	₩	5,357
2019		5,357
2020		5,357
2021		5,357
2022 and thereafter		908,441
Total	₩	929,869

Samsung Electronics Co., Ltd. and its Subsidiaries

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

17. Net Defined Benefit Liabilities (Assets)

(A) Details of net defined benefit liabilities(assets) recognized on the statements of financial position as at December 31, 2017 and 2016 are as follows:

<i>(In millions of Korean won)</i>	December 31, 2017	December 31, 2016
Present value of funded defined benefit obligations	₩ 7,302,621	₩ 7,167,929
Present value of unfunded defined benefit obligations	234,315	110,885
Subtotal	7,536,936	7,278,814
Fair value of plan assets	(7,972,906)	(7,662,249)
Total	₩ (435,970)	₩ (383,435)

(B) The amounts recognized in the statements of profit or loss for the years ended December 31, 2017 and 2016 related to defined benefit plans are as follows:

<i>(In millions of Korean won)</i>	2017	2016
Current service cost	₩ 885,101	₩ 1,077,511
Net interest cost (income)	(13,381)	11,221
Others	(2,206)	2,319
Total	₩ 869,514	₩ 1,091,051

(C) The amounts recognized as expense of defined contribution plans for the years ended December 31, 2017 and 2016 are ₩106,814 million and ₩105,971 million, respectively.

(D) The pension expenses related to defined benefit plans recognized on the statements of profit or loss for the years ended December 31, 2017 and 2016 are as follows:

<i>(In millions of Korean won)</i>	2017	2016
Cost of sales	₩ 353,539	₩ 469,172
Selling and administrative expenses and others	515,975	621,879
Total	₩ 869,514	₩ 1,091,051

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(E) Changes in the defined benefit obligations for the years ended December 31, 2017 and 2016 are as follows:

<i>(In millions of Korean won)</i>	2017	2016
Balance as at January 1	₩ 7,278,814	₩ 7,832,779
Current service cost	885,101	1,077,511
Interest cost	278,029	298,003
Remeasurement:		
Actuarial gains or losses arising from changes in demographic assumptions	(16,602)	(41,608)
Actuarial gains or losses arising from changes in financial assumptions	(494,523)	(1,062,656)
Other	(131,126)	(295,125)
Benefits paid	(505,689)	(474,112)
Foreign exchange differences	6,243	1,846
Other ¹	236,689	(57,824)
Balance as at December 31	₩ 7,536,936	₩ 7,278,814

¹ Other includes effects of business combinations.

(F) Changes in the fair value of plan assets for the years ended December 31, 2017 and 2016 are as follows:

<i>(In millions of Korean won)</i>	2017	2016
Balance as at January 1	₩ 7,662,249	₩ 7,473,959
Expected return on plan assets	291,410	286,782
Remeasurement factor of plan assets	(152,821)	(123,794)
Contributions by employer	422,680	498,504
Benefits paid	(250,341)	(422,249)
Other ¹	(271)	(50,953)
Balance as at December 31	₩ 7,972,906	₩ 7,662,249

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

Expected contributions to post-employment benefit plans for the year ending December 31, 2018 are ₩883,058 million.

(G) Plan assets as at December 31, 2017 and 2016 consist of the following:

<i>(In millions of Korean won)</i>	December 31, 2017	December 31, 2016
Debt instruments	₩ 7,945,391	₩ 7,635,150
Other	27,515	27,099
Total	₩ 7,972,906	₩ 7,662,249

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

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(H) The principal actuarial assumptions as at December 31, 2017 and 2016 are as follows:

	December 31, 2017	December 31, 2016
Discount rate	0.4 ~ 8.2 %	0.4 ~ 8.2 %
Salary growth rate (including the effects of inflation)	1.5 ~ 10.0 %	1.5 ~ 10.0 %

(I) The sensitivity of the defined benefit obligations as at December 31, 2017 and 2016 to changes in the weighted principal assumptions is as follows:

	December 31, 2017	December 31, 2016
Discount rate		
1% increase	92%	90%
1% decrease	110%	111%
Salary growth rate		
1% increase	110%	111%
1% decrease	92%	90%

(J) The weighted average maturity of the defined benefit obligations is 8.95 years.

18. Provisions

Changes in provisions for the year ended December 31, 2017 are as follows:

<i>(In millions of Korean won)</i>	Warranty (A)	Royalty expenses (B)	Long-term incentives (C)	Others (D, E)	Total
Balance as at January 1	₩ 1,747,857	₩ 1,588,037	₩ 716,252	₩ 903,397	₩ 4,955,543
Charged (credited) to					
the statement of profit or loss	2,032,311	741,497	478,507	61,745	3,314,060
Payment	(1,920,926)	(430,195)	(526,615)	(730,023)	(3,607,759)
Others ¹	152,336	(140,271)	4,509	80,726	97,300
Balance as at December 31	₩ 2,011,578	₩ 1,759,068	₩ 672,653	₩ 315,845	₩ 4,759,144

¹ Others include effects of changes in foreign currency exchange rates and business combinations.

- (A) The Company accrues warranty reserves for estimated costs of future service, repairs and recalls, 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 of payment depends 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 provisions for the estimated incentive cost for the accrued period.
- (D) The Company records provisions for the estimated expenses occurring from discontinuing production and sale of products.
- (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 at December 31, 2017 are as follows:

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- (1) Allocated amount of emission permits and estimated amount of emission as at December 31, 2017 are as follows:

<i>(In ten thousand metric tons)</i>	December 31, 2017
Allocated emission permits	1,225
Estimated volume of emission	1,271

- (2) Changes in the emission permits rights for the year ended December 31, 2017 are as follows:

<i>(In millions of Korean won)</i>	2017	
Balance as at January 1	₩	15,067
Acquisition		15,926
Disposal		(5,934)
Balance as at December 31	₩	25,059

- (3) Changes in the provisions for emissions liabilities for the year ended December 31, 2017 are as follows:

<i>(In millions of Korean won)</i>	2017	
Balance as at January 1	₩	12,692
Charged (credited) to the statement of profit or loss		424
Balance as at December 31	₩	13,116

19. Commitments and Contingencies

(A) Guarantees

Details of guarantees of debt provided by the Company as at December 31, 2017 and 2016 are as follows:

<i>(In millions of Korean won)</i>	December 31, 2017		December 31, 2016	
Guarantees of debt for housing rental ¹	₩	49,937	₩	56,752

¹ As at December 31, the maximum amount of debt guarantee, which was provided for employees who took debt from financial institutions in order to finance employee housing rental, is ₩167,470 million.

(B) Leases

(1) Finance leases

The Company leases certain property, plant and equipment under various finance lease arrangements and recognizes the related amounts as lease assets or liabilities. Assets with a net book value of ₩51,663 million (2016: ₩87,106 million) are treated as finance lease agreements and are included in property, plant and equipment. Depreciation expense for the finance lease assets amounted to ₩13,506 million for the year ended December 31, 2017 (2016: ₩13,495 million). Leased property, plant and equipment were pledged as collateral (Note 15).

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The minimum lease payments under finance lease agreements and their present value as at December 31, 2017 and 2016 are as follows:

<i>(In millions of Korean won)</i>	2017		2016	
	Minimum Lease payments	Present values	Minimum Lease payments	Present values
Within one year	₩ 18,348	₩ 10,925	₩ 25,928	₩ 18,645
Later than one year but not later than five years	51,861	28,801	56,732	31,461
More than five years	45,303	28,737	56,249	33,620
Total	₩ 115,512	₩ 68,463	₩ 138,909	₩ 83,726
Present value adjustment	(47,049)		(55,183)	
Finance lease payable	₩ 68,463		₩ 83,726	

(2) Operating leases as lessee

As at December 31, 2017, the Company is engaged in non-cancellable lease agreements of which future minimum lease payments amount to ₩412,787 million within one year, ₩814,608 million later than one year but not later than five years, and ₩168,515 million more than five years. The aggregate of future minimum lease payments under non-cancellable leases amounts to ₩1,395,910 million. For the year ended December 31, 2017, the lease payments recognized as expense resulting from operating leases amount to ₩485,695 million.

(3) Operating leases as lessor

As at December 31, 2017, the Company is engaged in non-cancellable lease agreements related to rentals of properties for which future minimum lease receipts amount to ₩60,793 million within one year, ₩16,428 million later than one year but not later than five years and ₩4,870 million more than five years. The aggregate of future minimum lease receipts under non-cancellable leases amounts to ₩82,091 million. For the year ended December 31, 2017, the lease receipts recognized as income resulting from operating leases amount to ₩114,312 million.

(C) Litigation

The litigation with Apple Inc. (“Apple”) is ongoing in the United States as at the reporting date. On August 24, 2012, the jury at the District Court for the Northern District of California determined that the Company partially infringed Apple’s design and utility patent and should pay damages to Apple. However, on March 1, 2013, the Judge ordered a new trial for a certain portion of the damages, ruling that it was originally miscalculated. On November 21, 2013 a jury verdict was rendered on the recalculated damages amount, and on March 6, 2014, the Judge made a final judgement to confirm the total damages and deny Apple’s bid for a permanent injunction against the Company. The Company appealed the decision on the damages amount on March 7, 2014, and a hearing on the appeal was held on December 4, 2014. On May 18, 2015, the appeals court affirmed in part and reversed in part a previous decision, and remanded it. On June 17, 2015, the Company petitioned for an en banc rehearing regarding the design infringement, and on August 13, 2015, the federal court dismissed the Company’s request. After the remand procedure, the Court of First Trial announced a partial final judgment on the appeals on September 18, 2015. On October 13, 2015, the immediate appeal was dismissed and on November 19, 2015, the Federal Circuit Court denied an en banc rehearing request. On December 11, 2015, the Company made payment for the damages. On December 14, 2015, the Company filed an appeal to the Supreme Court regarding the design patent infringement ruling. Thereafter, the two parties have submitted in writing to the District court details of supplemental damages incurred in connection with the ruling. On March 21, 2016, the Supreme Court granted the design-related appeals filed by the Company and on March 22, 2016, the Court of First Trial ordered all proceedings for review of damages scheduled to

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commence March 28, 2016 suspended until the sentence rendered by the Supreme Court was confirmed. On June 1, 2016, the Company submitted the draft document in the design-related appeal, and on June 8, 2016, several companies and organizations presented the document in support of the Company. Apple filed a dissenting document on July 29, 2016, and on August 5, 2016, several companies and organizations presented an advocative document. On August, 29, 2016, the Company submitted a rebuttal letter. Oral statements for the appeal were held at the Supreme Court on October 11, 2016. On December 6, 2016, the Supreme Court issued a ruling citing the Company appeal and returned the case to the Court of Appeals. On February 7, 2017, the Court of Appeals reversed the case to the Court of First Trial. On October 12, 2017, the Court of First Instance held a court hearing on the necessity of retrial and decided to proceed with a design retrial on October 22, 2017.

Additionally, on May 5, 2014, the jury at the District Court for the Northern District of California in another ongoing patent lawsuit determined that the Company partially infringed Apple's utility patent and should pay damages to Apple. On November 25, 2014, the first trial judgment was pronounced to confirm the jury's verdict. The Company appealed on November 25, 2014 and the rehearing was held on January 5, 2016. On August 27, 2014, the Judge denied Apple's request for a permanent injunction on the Company's product. However, on September 17, 2015, the appellate court reversed and remanded a previous decision and on December 16, 2015, the Federal Circuit Court denied an en banc hearing request of the Company. On January 18, 2016, the Court of First instance ordered a permanent injunction on the Company's product. On February 26, 2016, a panel of appellate court reversed the first trial judgment of November 25, 2014 and ruled that the Company had not infringed Apple's some patents and its remaining patents were invalid. On March 30, 2016, Apple filed a petition for an en banc rehearing about the rulings of the panel. On October 7, 2016, the en banc appellate court reversed the panel rulings, affirming the first trial judgment that the Company had infringed Apple's patent. On March 10, 2017, the Company appealed to the Supreme Court against the rulings of the en banc appellate Court. On October 4, 2017, the US Department of Justice filed with the Supreme Court a legal advice letter against the company's appeal. On November 6, 2017, the Supreme Court dismissed the appeal. On January 11, 2018, the Court of First Trial held a court hearing on whether to recognize additional damages.

The final conclusion and the effect of the patent lawsuits with Apple are uncertain as at the reporting date.

In August 2014, the Company and Apple reached an agreement to withdraw from ongoing litigation in all regions other than the United States, and the Company has withdrawn all non-United States based lawsuits.

- (2) The Company is involved in claims, disputes, and investigations conducted by regulatory bodies at the reporting date, including civil claims from some overseas buyers for price-fixing related to the sale of TFT-LCD. 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 condition of the Company.
- (3) In addition, during the normal course of business with numerous companies, the Company has been involved in various claims, disputes, and investigations conducted by regulatory bodies. 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 condition of the Company.

(D) Other commitments

As at December 31, 2017, the Company has trade financing agreements, trade notes receivable discounting facilities, and loan facilities with accounts receivable pledged as collateral with Woori Bank and 23 other financial institutions, with a combined limit of up to ₩19,810,202 million. In addition, the Company has a trade financing agreement (up to ₩13,514,808 million) with Shinhan Bank and 23 other financial institutions and loan facilities with accounts receivable pledged as collateral and other financial agreements (up to ₩6,833,388 million).

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Samsung Display Co., Ltd entered into a collaboration agreement with Corning Incorporated on October 23, 2013 that includes a condition relating to mutual loss preservation which can cause inflows or outflows of future economic benefits and the Company has recorded an estimated liability as a result of this commitment as at December 31, 2016 (Notes 6 and 31).

20. Share Capital

The Company's total number of authorized shares is 500,000,000 shares (₩5,000 per share). The Company has issued 129,098,494 ordinary shares and 18,250,580 preference shares as at December 31, 2017, excluding retired shares. Due to the retirement of shares, the total par value of the shares issued is ₩736,745 million (ordinary shares ₩645,492 million and preference shares ₩91,253 million), which does not agree with paid-in capital of ₩897,514 million.

Changes in the number of shares outstanding for the years ended December 31, 2017 and 2016 are as follows:

<i>(number of shares)</i>	Preference shares	Ordinary shares
Balance as at January 1, 2016	18,547,833	127,396,848
Acquisition of treasury stock	(1,264,099)	(4,699,197)
Balance as at December 31, 2016	17,283,734	122,697,651
Acquisition of treasury stock	(753,325)	(3,009,282)
Balance as at December 31, 2017	16,530,409	119,688,369

During the year ended December 31, 2017, the Company retired 11,580,843 ordinary shares and 2,262,847 preference shares of which acquisition cost is ₩11,872,563 million in total on the basis of the Board of Directors' approval on January 24, 2017, April 27, 2017, and July 27, 2017.

21. Retained Earnings

(A) Retained earnings as at December 31, 2017 and 2016 consist of the following:

<i>(In millions of Korean won)</i>	December 31, 2017	December 31, 2016
Appropriated	₩ 139,629,195	₩ 143,007,192
Unappropriated	76,182,005	50,079,125
Total	₩ 215,811,200	₩ 193,086,317

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22. Dividends

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

(A) Interim dividends (Record date: March 31, 2017, June 30, 2017, September 30, 2017 and June 30, 2016)

		2017		2016		
<i>(In millions of Korean won, number of shares)</i>						
1 st quarter	Number of shares eligible for dividends	Ordinary shares	121,840,851	-		
		Preference shares	17,069,534	-		
	Dividend rate (based on par value)		140%		-	
	Dividend amount	Ordinary shares	₩ 852,886	-		
Preference shares		119,487	-			
Total		₩ 972,373	-			
2 nd quarter	Number of shares eligible for dividends	Ordinary shares	121,038,051	123,958,561		
		Preference shares	16,868,834	17,580,920		
	Dividend rate (based on par value)		140%		20%	
	Dividend amount	Ordinary shares	₩ 847,266	₩	123,958	
Preference shares		118,082	17,581			
Total		₩ 965,348	₩	141,539		
3 rd quarter	Number of shares eligible for dividends	Ordinary shares	120,316,189	-		
		Preference shares	16,691,095	-		
	Dividend rate (based on par value)		140%		-	
	Dividend amount	Ordinary shares	₩ 842,213	-		
Preference shares		116,838	-			
Total		₩ 959,051	-			

(B) Year-end dividends (Record date: December 31, 2017 and 2016)

		2017		2016	
<i>(In millions of Korean won and number of shares)</i>					
Number of shares eligible for dividends	Ordinary shares	119,688,369 shares	122,697,651 shares		
	Preference shares	16,530,409 shares	17,283,734 shares		
Dividend rate(based on par value)	Ordinary shares	430%		550%	
	Preference shares	431%		551%	
Dividend amount	Ordinary shares	₩ 2,573,300	₩	3,374,185	
	Preference shares	356,230	476,167		
	Total	₩ 2,929,530	₩	3,850,352	

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23. Other Components of Equity

(A) Other components of equity as at December 31, 2017 and 2016 consist of the following:

<i>(In millions of Korean won)</i>	December 31, 2017	December 31, 2016
Treasury stock	₩ (6,228,187)	₩ (9,750,326)
Unrealized gains on available-for-sale financial assets	1,879,774	1,390,624
Share of other comprehensive income of associates and joint ventures	40,394	94,694
Foreign currency translation	(9,192,002)	(2,902,076)
Remeasurement of net defined benefit liabilities	(405,206)	(811,529)
Others	6,036	44,027
Total	₩ (13,899,191)	₩ (11,934,586)

(B) The Company repurchases registered ordinary shares and non-voting preference shares for the purpose of stock price stability and increase in shareholder value. The Company recognizes the repurchase amount in other components of equity. Treasury stock as at December 31, 2017 and 2016 consists of the following:

<i>(Number of shares and in millions of Korean won)</i>	December 31, 2017		December 31, 2016	
	Ordinary Shares	Preference Shares	Ordinary Shares	Preference Shares
Number of shares	9,410,125	1,720,171	17,981,686	3,229,693
Acquisition cost	₩ 5,560,506	₩ 667,681	₩ 8,871,509	₩ 878,817

24. Expenses by Nature

Expenses by nature for the years ended December 31, 2017 and 2016 are as follows:

<i>(In millions of Korean won)</i>	2017	2016
Changes in finished goods and work in process	₩ (3,495,615)	₩ 626,040
Raw materials used and merchandise purchased	79,647,552	73,512,658
Wages and salaries	22,380,595	19,269,035
Pension	976,328	1,197,022
Depreciation	20,593,616	19,312,520
Amortization	1,523,776	1,400,445
Welfare	3,812,521	3,495,336
Commission and service charges	7,703,111	8,002,513
Advertising	5,350,839	4,432,109
Sales promotion expenses	7,262,078	7,080,554
Other	40,175,537	34,297,841
Total¹	₩ 185,930,338	₩ 172,626,073

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

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25. Selling and Administrative Expenses

Selling and administrative expenses for the years ended December 31, 2017 and 2016 are as follows:

<i>(In millions of Korean won)</i>	2017	2016
1) Selling and Administrative Expenses		
Wages and salaries	₩ 6,540,715	₩ 5,687,494
Pension	256,448	288,767
Commissions and service charges	7,703,111	8,002,513
Depreciation	948,393	780,223
Amortization	388,227	221,593
Advertising	5,350,839	4,432,109
Sales promotion expenses	7,262,078	7,080,554
Transportation	3,602,838	3,334,693
Warranty	3,051,538	3,752,603
Other	5,179,878	4,656,428
2) Research and development expenses		
Total expenses	16,803,153	14,792,343
Capitalized expenses	(447,541)	(680,962)
Total	₩ 56,639,677	₩ 52,348,358

26. Other Non-Operating Income and Expense

Details of other non-operating income for the years ended December 31, 2017 and 2016 are as follows:

<i>(In millions of Korean won)</i>	2017	2016
Dividend income	₩ 128,946	₩ 239,899
Rental income	143,482	107,664
Gain on disposal of investments	199,311	2,053,744
Gain on disposal of property, plant and equipment	115,001	193,020
Other	2,423,917	643,934
Total	₩ 3,010,657	₩ 3,238,261

Details of other non-operating expense for the years ended December 31, 2017 and 2016 are as follows:

<i>(In millions of Korean won)</i>	2017	2016
Loss on disposal of property, plant and equipment	₩ 122,548	₩ 126,516
Donations	309,763	407,087
Impairment losses on investments	13,538	341,790
Impairment losses on intangible assets	143,401	473,494
Other	830,398	1,114,927
Total	₩ 1,419,648	₩ 2,463,814

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27. Financial Income and Expenses

(A) Details of financial income and expenses for the years ended December 31, 2017 and 2016 are as follows:

<i>(In millions of Korean won)</i>	2017	2016
Financial income		
Interest income:		
Interest income from loans and receivables	₩ 1,613,010	₩ 1,475,357
Interest income from available-for-sale financial assets	1,157	28,961
Interest income from held-to-maturity financial assets	56	-
Foreign exchange differences	7,278,888	9,052,485
Gains from derivatives	844,280	828,832
Total	₩ 9,737,391	₩ 11,385,645

<i>(In millions of Korean won)</i>	2017	2016
Financial expenses		
Interest expenses:		
Interest expense from financial liabilities measured at amortized cost	₩ 358,911	₩ 351,009
Other financial liabilities	296,491	236,822
Foreign exchange differences	7,269,465	9,232,249
Losses from derivatives	1,054,046	886,533
Total	₩ 8,978,913	₩ 10,706,613

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

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28. Income Tax Expense

(A) Income tax expense for the years ended December 31, 2017 and 2016, consists of the following:

<i>(In millions of Korean won)</i>	2017	2016
Current taxes:		
Current tax on profits for the year	₩ 10,642,009	₩ 6,161,609
Adjustments in respect to prior years	301,924	(244,791)
Deferred taxes:		
Changes in carryforward of unused tax credits	(50,413)	(166,206)
Changes in temporary differences	3,417,698	1,869,700
Changes in carryforward of unused tax losses	(309,604)	397,329
Other	7,606	(30,081)
Items charged directly to equity	-	-
Income tax expense	₩ 14,009,220	₩ 7,987,560

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

<i>(In millions of Korean won)</i>	2017	2016
Income before tax	₩ 56,195,967	₩ 30,713,652
Tax calculated at weighted average of applicable tax rates ¹	14,425,196	7,009,003
Tax effects of:		
Permanent differences	(239,050)	(687,901)
Temporary differences for which no deferred income tax was recognized	(24,156)	(12,825)
Tax credits	(3,194,533)	(608,218)
Results of interest in subsidiaries, associates and joint ventures	3,281,740	2,288,893
Impact of changes in tax rates	(532,165)	1,280
Other	292,188	(2,672)
Income tax expense	₩ 14,009,220	₩ 7,987,560

¹ The weighted average of statutory tax rates are applied to the respective profits of the Company applicable to each tax authority as at December 31, 2017 and 2016.

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(C) Changes in deferred income tax assets and liabilities resulting from the tax effect of temporary differences for the years ended December 31, 2017 and 2016 are as follows:

(1) 2017

<i>(In millions of Korean won)</i>	Temporary Differences			Deferred Income Tax Assets (Liabilities)		
	Balance as at January 1	Increase (Decrease)	Balance as at December 31	Balance as at January 1	Increase (Decrease)	Balance as at December 31
Deferred tax arising from temporary differences						
Special reserves appropriated for tax purposes	₩ (368)	₩ -	₩ (368)	₩ (89)	₩ (12)	₩ (101)
Revaluation of land	(3,444,254)	19,021	(3,425,233)	(833,510)	(108,429)	(941,939)
Investments in subsidiaries, associates and joint ventures ¹	(59,270,306)	(12,634,105)	(71,904,411)	(7,536,737)	(3,621,634)	(11,158,371)
Depreciation	2,908,546	(6,462,748)	(3,554,202)	644,126	(1,419,254)	(775,128)
Accrued income	(258,310)	66,156	(192,154)	(78,971)	32,186	(46,785)
Provisions and accrued expenses	13,458,781	(746,637)	12,712,144	3,232,788	168,637	3,401,425
Foreign currency translation	165,558	(401,645)	(236,087)	44,607	(107,490)	(62,883)
Asset impairment losses	1,227,353	537,407	1,764,760	301,206	185,953	487,159
Other	1,479,671	2,077,446	3,557,117	650,132	115,501	765,633
Subtotal	(43,733,329)	(17,545,105)	(61,278,434)	(3,576,448)	(4,754,542)	(8,330,990)
Deferred tax arising from carryforwards						
Unused tax losses	₩ 4,691,360	₩ 582,852	₩ 5,274,212	₩ 1,098,647	₩ 309,604	₩ 1,408,251
Unused tax credits	873,455	27,182	900,637	721,247	50,413	771,660
Deferred tax recognized in other comprehensive income						
Valuation of available-for-sale financial instruments	₩ (1,969,833)	₩ (718,531)	₩ (2,688,364)	₩ (446,756)	₩ (207,322)	₩ (654,078)
Actuarial valuation	1,023,559	(489,430)	534,129	231,246	(75,183)	156,063
Subtotal	₩ (946,274)	₩ (1,207,961)	₩ (2,154,235)	₩ (215,510)	₩ (282,505)	₩ (498,015)
Deferred tax assets						₩ 5,061,687
Deferred tax liabilities						(11,710,781)
Total						₩(6,649,094)

¹ Deferred tax assets were 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.

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(2) 2016

<i>(In millions of Korean won)</i>	Temporary Differences			Deferred Income Tax Assets (Liabilities)		
	Balance as at January 1	Increase (Decrease)	Balance as at December 31	Balance as at January 1	Increase (Decrease)	Balance as at December 31
Deferred tax arising from temporary differences						
Special reserves appropriated for tax purposes	₩ (7,368)	₩ 7,000	₩ (368)	₩ (1,783)	₩ 1,694	₩ (89)
Revaluation of land	(3,455,958)	11,704	(3,444,254)	(836,342)	2,832	(833,510)
Investments in subsidiaries, associates and joint ventures ¹	(41,729,872)	(17,540,434)	(59,270,306)	(5,173,897)	(2,362,840)	(7,536,737)
Depreciation	2,627,073	281,473	2,908,546	651,988	(7,862)	644,126
Accrued income	(309,545)	51,235	(258,310)	(71,086)	(7,885)	(78,971)
Provisions and accrued expenses	13,322,516	136,265	13,458,781	3,519,564	(286,776)	3,232,788
Foreign currency translation	221,793	(56,235)	165,558	58,567	(13,960)	44,607
Asset impairment losses	652,768	574,585	1,227,353	160,975	140,231	301,206
Other	(193,612)	1,673,283	1,479,671	(14,734)	664,866	650,132
Subtotal	(28,872,205)	(14,861,124)	(43,733,329)	(1,706,748)	(1,869,700)	(3,576,448)
Deferred tax arising from carryforwards						
Unused tax losses	₩ 6,178,327	₩(1,486,967)	₩ 4,691,360	₩ 1,495,976	₩ (397,329)	₩ 1,098,647
Unused tax credits	631,362	242,093	873,455	555,041	166,206	721,247
Deferred tax recognized in other comprehensive income						
Valuation of available-for-sale financial instruments	₩(1,976,829)	₩ 6,996	₩(1,969,833)	₩ (453,192)	₩ 6,436	₩ (446,756)
Actuarial valuation	2,299,154	(1,275,595)	1,023,559	543,239	(311,993)	231,246
Subtotal	322,325	(1,268,599)	(946,274)	90,047	(305,557)	(215,510)
Deferred tax assets						₩ 5,321,450
Deferred tax liabilities						(7,293,514)
Total						₩ (1,972,064)

¹ Deferred tax assets were 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 periodically assesses its ability to recover deferred tax assets. In the event of a significant uncertainty regarding the Company's ultimate ability to recover such assets, deferred tax assets are recognized only to the extent that it is probable that future taxable profit will be available against which the temporary differences can be utilized. Temporary differences whose deferred tax effects were not recognized due to uncertainty regarding the ultimate realizability of such assets as at December 31, 2017 and 2016, are as follows:

<i>(In millions of Korean won)</i>	2017	2016
Unused tax losses ¹	₩ 364,236	₩ 58,969
Unused tax credits ¹	69,800	31,205

¹ Expiry dates of unused tax losses and unused tax credits for which no deferred tax asset is recognized in the balance sheet are as follows:

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<i>(In millions of Korean won)</i>	2018	2019	2020	2021 and after
Undisposed accumulated deficit	₩ 233	₩ 85	₩ 85	₩ 363,833
Tax credit carryforwards	13,019	10,656	20,784	25,341

(D) The liquidity analysis of deferred tax assets and deferred tax liabilities for the years ended December 31, 2017 and 2016 is as follows:

<i>(In millions of Korean won)</i>	2017	2016
Deferred tax assets		
Deferred tax assets to be recovered within 12 months	₩ 2,279,651	₩ 3,066,577
Deferred tax assets to be recovered after more than 12 months	2,782,036	2,254,873
Subtotal	5,061,687	5,321,450
Deferred tax liabilities		
Deferred tax liabilities to be recovered after more than 12 months	(11,710,781)	(7,293,514)
Subtotal	(11,710,781)	(7,293,514)
Total	₩ (6,649,094)	₩ (1,972,064)

29. Earnings per Share

(A) Basic earnings per share

Basic earnings per share for the years ended December 31, 2017 and 2016 are calculated as follows:

(1) Ordinary shares

<i>(In millions of Korean won, thousands of number of shares)</i>	2017	2016
Profit or loss attributable to owners of the Parent company	₩ 41,344,569	₩ 22,415,655
Profit or loss available for ordinary shares	36,323,723	19,647,199
Weighted-average number of ordinary shares outstanding	121,132	124,375
Basic earnings per share(Korean won)	₩ 299,868	₩ 157,967

(2) Preference shares

<i>(In millions of Korean won, thousands of number of shares)</i>	2017	2016
Profit or loss attributable to owners of the Parent company	₩ 41,344,569	₩ 22,415,655
Profit or loss available for preference shares	5,020,846	2,768,456
Weighted-average number of preference shares outstanding	16,893	17,692
Basic earnings per preference share(Korean won)	₩ 297,217	₩ 156,480

(B) Diluted earnings per share

The Company does not have 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, 2017 and 2016.

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30. Cash Flows

(A) Adjustments and changes in assets and liabilities arising from operating activities for the years ended December 31, 2017 and 2016 are as follows:

- Adjustments

<i>(In millions of Korean won)</i>	2017	2016
Adjustments for:		
Income tax expense	₩ 14,009,220	₩ 7,987,560
Financial income	(3,447,029)	(3,521,050)
Financial expenses	2,590,683	2,500,020
Post-employment benefits	976,328	1,197,022
Depreciation	20,593,616	19,312,520
Amortization	1,523,776	1,400,445
Bad debt expenses (reversal)	206,561	117,207
Dividend income	(128,946)	(239,899)
Gain on valuation of equity method	(201,442)	(19,501)
Gain on disposal of property, plant and equipment	(115,001)	(193,020)
Loss on disposal of property, plant and equipment	122,548	126,516
Obsolescence and scrapping of inventories	1,296,366	2,959,042
Gain on disposal of investments	(199,311)	(2,053,744)
Impairment losses on investments	13,538	341,790
Impairment losses on intangible assets	143,401	473,494
Other income/expense	(1,173,076)	366,069
Total	₩ 36,211,232	₩ 30,754,471

- Changes in assets and liabilities arising from operating activities

<i>(In millions of Korean won)</i>	2017	2016
Changes in assets and liabilities :		
(Increase) decrease in trade receivables	₩ (6,597,339)	₩ 1,473,776
Increase in other receivables	(1,078,836)	(160,500)
(Increase) decrease in advance payments	(244,027)	145,053
Decrease (increase) in prepaid expenses	580,977	(46,026)
Increase in inventories	(8,444,506)	(2,830,602)
Increase in trade payables	4,006,410	200,240
Increase in other payables	1,096,019	1,144,756
Decrease in advances received	(73,214)	(105,460)
Increase (decrease) in withholdings	651,350	(302,901)
Increase in accrued expenses	1,292,420	1,136,440
Decrease in provisions	(106,064)	(1,604,824)
Payment of post-employment benefits	(582,711)	(474,112)
Increase in plan assets	(172,339)	(76,255)
Others	(948,687)	319,462
Total	₩ (10,620,547)	₩ (1,180,953)

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- (B) The Company's statements of cash flows are prepared using the indirect method. Significant transactions not affecting cash flows for the years ended December 31, 2017 and 2016 are as follows:

<i>(In millions of Korean won)</i>	2017	2016
Valuation of available-for-sale financial assets	₩ 721,730	₩ 798,698
Valuation of investments in associates, joint ventures	(54,424)	36,152
Reclassification of construction in progress and machinery in transit to property, plant and equipment	47,499,881	17,131,444
Reclassification of current maturities of long-term borrowings	273,418	19,283
Reclassification of current maturities of bonds	5,357	1,214,543
Reclassification of available-for-sale financial assets to investments in associates	-	1,742,242
Reclassification of Printing Solutions division to held-for-sale	-	508,228

- (C) The Company reported cash receipts and payments arising from transactions occurring frequently and short-term financial instruments and borrowings on a net basis.

- (D) Changes in liabilities arising from financial activities for the year ended December 31, 2017 are as follows:

<i>(In millions of Korean won)</i>	As at January 1, 2017	Cash flows	Non-cash changes			As at December 31, 2017
			Business Combination	Amortization	Others¹	
Short-Term Borrowings	₩ 12,746,789	₩ 2,730,676	₩ 558,396	₩ -	₩ (268,242)	₩ 15,767,619
Debentures & Long-Term Borrowings	2,535,596	(142,492)	1,001,537	332	(348,547)	3,046,426
Total	₩ 15,282,385	₩ 2,588,184	1,559,933	₩ 332	₩ (616,789)	₩ 18,814,045

¹ Others include effects of changes in foreign currency exchange rates.

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31. Financial Risk Management

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

The finance team mainly carries out the Company's financial risk management. With the cooperation of the Company's divisions, domestic and foreign subsidiaries, the finance team periodically measures, evaluates and hedges financial risk and also establishes and implements the global financial risk management policy.

The Company also operates local finance centers in accordance with global financial risk management across major regions including the United States, United Kingdom, Singapore, China, Brazil and Russia.

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

(A) Market risk

(1) Foreign exchange risk

Revenues and expenses arise from foreign currency transactions and exchange positions, and the most widely used currencies are the US Dollar, EU's Euro, Japanese Yen and Indian Rupee.

To minimize foreign exchange risk arising from operating activities, the Company's foreign exchange management policy requires normal business transactions to be in local currency or for the cash-in currency to be matched up with the cash-out currency. In addition, the Company makes use of derivatives to minimize uncertainty of cash flows and fluctuation of profit or loss occurring from foreign exchange risk. The Company's foreign exchange risk management policy also defines foreign exchange risk, measuring period, controlling responsibilities, management procedures, hedging period and hedge ratio.

The Company limits all speculative foreign exchange transactions and operates a system to manage receivables and payables denominated in foreign currency. It evaluates, manages and reports foreign currency exposures to receivables and payables.

As at December 31, 2017 and 2016, the foreign currency exposure to financial assets and liabilities of a 5% currency rate change against the Korean won are presented below:

<i>(In millions of Korean won)</i>	December 31, 2017		December 31, 2016	
	Increase	Decrease	Increase	Decrease
USD	₩ 278,140	₩ (278,140)	₩ 222,149	₩ (222,149)
EUR	79,760	(79,760)	138,084	(138,084)
JPY	(100,127)	100,127	(61,294)	61,294
INR	77,963	(77,963)	38,858	(38,858)

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(2) Price risk

The Company's investment portfolio consists of direct and indirect investments in equity securities classified as available-for-sale, which is in line with the Company's strategy.

As at December 31, 2017 and 2016, a price fluctuation in relation to marketable equity securities by 1% would result in changes in other comprehensive income (before income tax) of ₩29,086 million and ₩23,622 million, respectively.

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

In order to avoid interest rate risk, the Company maintains minimum external borrowings by facilitating cash pooling systems on a regional and global basis. The Company manages exposed interest rate risk via periodic monitoring and handling risk factors on a timely basis.

The sensitivity risk of the Company is determined based on the following assumption:

- Changes in market interest rates that could impact the interest income and expenses of floating interest rate financial instruments

Based on the above assumption, changes to profit and net equity as a result of a 1% change in interest rates on borrowings are presented below:

<i>(In millions of Korean won)</i>	December 31, 2017		December 31, 2016	
	Increase	Decrease	Increase	Decrease
Financial assets	₩ 49,117	₩ (49,117)	₩ 64,803	₩ (64,803)
Financial liabilities	(22,643)	22,643	(9,123)	9,123
Net effect	₩ 26,474	₩ (26,474)	₩ 55,680	₩ (55,680)

(B) Credit risk

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

Credit risk can arise from transactions with financial institutions which include financial instrument transactions such as cash and cash equivalents, savings, and derivative instruments. To minimize such risk, the Company transacts only with banks which have strong international credit rating (S&P A and above), and all new transactions with financial institutions with no prior transaction history are approved, managed and monitored by the Company's finance team and the local finance center. The Company requires separate approval for contracts with restrictions.

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As at December 31, 2017 and 2016 the Company estimates that its maximum exposure to credit risk is the carrying amount of its financial assets, net of impairment losses.

(C) Liquidity risk

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

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

In addition, the Company mitigates liquidity risk by contracting with financial institutions with respect to bank overdrafts and foreign trade finance, and by providing payment guarantees to subsidiaries. For large scale facility investments, liquidity risk is minimized by utilizing internal reserves and long term borrowings according to the capital injection schedule.

As at December 31, 2017 and 2016, the following table is an undiscounted cash flow analysis for financial liabilities that are presented on the statements of financial position according to their remaining contractual maturity.

<i>(In millions of Korean won)</i>	December 31, 2017				
	Less than 3 months	4-6 months	7-12 months	1-5 years	More than 5 years
Financial liabilities	₩ 45,323,281	₩ 927,746	₩ 1,144,922	₩ 4,633,210	₩ 875,283

<i>(In millions of Korean won)</i>	December 31, 2016				
	Less than 3 months	4-6 months	7-12 months	1-5 years	More than 5 years
Financial liabilities	₩ 40,918,912	₩ 1,588,798	₩ 150,744	₩ 4,346,200	₩ 50,073

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

The Company's trading portfolio of derivative instruments has been included at its fair value of ₩47,478 million (December 31, 2016: ₩74,697 million). These contracts are managed on a net-fair value basis rather than by 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 delivery of the underlying item, including derivatives for hedging, will be settled within the next 53 months from the end of the reporting period. These derivative are not included in the table above.

The maximum liquidity risk exposure from those other than the above financial liabilities (e.g., payment guarantees for affiliated companies and performance bonds) as at December 31, 2017 is ₩49,937 million (December 31, 2016: ₩59,016 million).

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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 forecast inventory purchases. Details of derivative financial instruments that qualify as cash flow hedges as at December 31, 2017 are as follows:

<i>(in millions of Korean won)</i>	December 31, 2017	
	Assets	Liabilities
Currency forward exchange contracts		
Current items	₩ 45,396	₩ 41,646
Non-current items	31,915	25,806
Total	₩ 13,481	₩ 15,840

As at December 31, 2016, the Company did not have derivative financial instruments designated as cash flow hedges.

During the year ended for December 31, 2017, The Company recognizes the gains or 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 ₩37,121 million (after tax), and recognizes the gains or losses relating to the ineffective portion in profit or loss, which amount to ₩4,940 million (before tax). Gains or losses reclassified directly from other comprehensive income to profit or loss amount to ₩3,413 million (after tax), and gains or losses reclassified from other comprehensive income to the carrying amount of inventory amount to ₩29,663 million (after tax).

(E) Capital risk management

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

The Company's capital risk management policy has not changed since the previous financial year. The Company has maintained an AA- and A1 credit rating from S&P and Moody's, respectively.

The total liabilities to equity ratios as at December 31, 2017 and 2016 are as follows:

<i>(In millions of Korean won)</i>	December 31, 2017	December 31, 2016
Total liabilities	₩ 87,260,662	₩ 69,211,291
Total equity	214,491,428	192,963,033
Total liabilities to equity ratio	40.7%	35.9%

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(F) Fair value estimation

- (1) Carrying amounts and fair values of financial instruments by category as at December 31, 2017 and 2016 are as follows:

<i>(In millions of Korean won)</i>	December 31, 2017		December 31, 2016	
	Carrying amount	Fair value	Carrying amount	Fair value
Financial assets				
Cash and cash equivalents	₩ 30,545,130	₩ 1	₩ 32,111,442	₩ 1
Short-term financial instruments	49,447,696	1	52,432,411	1
Short-term available-for-sale financial assets	3,191,375	3,191,375	3,638,460	3,638,460
Trade receivables	27,695,995	1	24,279,211	1
Long-term available-for-sale financial assets ²	7,752,180	6,561,155	6,804,276	5,826,507
Held-to-maturity financial assets	106,751	1	-	-
Others ³	6,325,825	113,098	3,459,863	919,071
Total financial assets	₩ 125,064,952		₩ 122,725,663	
Financial liabilities				
Trade payables	₩ 9,083,907	₩ 1	₩ 6,485,039	₩ 1
Short-term borrowings	15,767,619	1	12,746,789	1
Other payables ³	12,106,609	316,928	10,225,271	1
Current portion of long-term liabilities	278,619	1	1,232,817	1
Debentures	953,361	978,643	58,542	76,129
Long-term borrowings	1,814,446	1	1,244,238	1,225,455
Long-term other payables ³	1,746,184	28,285	3,009,659	3,022,821
Others ³	10,954,513	222,012	11,942,469	74,697
Total financial liabilities	₩ 52,705,258		₩ 46,944,824	

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

² Amounts measured at cost of ₩1,191,025 million (December 31, 2016: ₩977,769 million) are excluded as the range of reasonable fair value estimates is significant and the probabilities of the various estimates cannot be reasonably assessed.

³ Assets measured at cost of ₩6,212,727 million (December 31, 2016: ₩2,452,118 million) and liabilities measured at cost of ₩24,240,081 million (December 31, 2016: ₩11,867,772) are excluded as the carrying amount is a reasonable approximation of fair value.

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(2) Fair value hierarchy classifications of the financial instruments that are measured at fair value or its fair value is disclosed as at December 31, 2017 and 2016 are as follows :

		December 31, 2017			
<i>(In millions of Korean won)</i>	Level 1	Level 2	Level 3	Total	
1) Assets					
Short-term available-for-sale financial assets	₩ -	₩ 3,191,375	₩ -	₩ 3,191,375	
Long-term available-for-sale financial assets	2,908,581	-	3,652,574	6,561,155	
Others	-	113,098	-	113,098	
2) Liabilities					
Other payables	₩ -	₩ -	₩ 316,928	₩ 316,928	
Debentures	-	978,643	-	978,643	
Long-term other payables	-	-	28,285	28,285	
Others	-	215,307	6,705	222,012	

		December 31, 2016			
<i>(In millions of Korean won)</i>	Level 1	Level 2	Level 3	Total	
1) Assets					
Short-term available-for-sale financial assets	₩ -	₩ 3,638,460	₩ -	₩ 3,638,460	
Long-term available-for-sale financial assets	2,362,235	-	3,464,272	5,826,507	
Others	-	919,071	-	919,071	
2) Liabilities					
Debentures	₩ -	₩ 76,129	₩ -	₩ 76,129	
Long-term borrowings	-	1,225,455	-	1,225,455	
Long-term other payables	-	2,680,119	342,702	3,022,821	
Others	-	74,697	-	74,697	

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

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

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

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

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

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

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Specific valuation techniques used to value financial instruments include:

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

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

(3) Valuation technique and the inputs

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

The following table presents the valuation technique and the inputs used for major financial instruments classified as Level 3.

(In millions of Korean won)

Classification	Fair Value	Valuation Technique	Level 3 Inputs	Input Range (Weighted Average)
Long-term available-for-sale financial assets				
Maltani	₩ 15,137	Discounted cash flow	Permanent growth rate Weighted average cost of capital	-1.00% ~ 1.00% (0%) 7.69%~9.69% (8.69%)
Samsung Venture Investment	7,784	Discounted cash flow	Permanent growth rate Weighted average cost of capital	-1.00% ~ 1.00% (0%) 19.56%~21.56% (20.56%)
Corning Incorporated convertible preference shares	3,629,653	Trinomial model	Risk adjusted discount rate Price volatility	4.98%~6.98% (5.98%) 26.5%~32.5% (29.5%)
Other payables				
Contingent financial liability	316,928	Discounted cash flow	Discount rate	3.81%~4.65% (4.23%)
Long-term others payables				
Contingent financial liability	28,285	Monte Carlo simulation	Discount rate Risk free rate Asset volatility Credit spread	10.50% 0.97% 34.54% 2.12%
Others				
Contingent financial liability	4,982	Monte Carlo simulation	Discount rate Risk free rate Operational leverage ratio Gross margin discount rate	17.57% 0.86% 60.00% 6.68%
Contingent financial liability	1,723	Probability-weighted discounted cash flow	Weighted average cost of capital Credit risk	8.60% 2.12%

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(4) Changes in Level 3 instruments:

<i>(In millions of Korean won)</i>	2017	2016
Financial Assets		
Balance as at January 1	₩ 3,464,272	₩ 3,488,344
Disposals	-	(14,805)
Amount recognized in profit or loss	-	(795)
Amount recognized in other comprehensive income	188,302	695,631
Others	-	(704,103)
Balance as at December 31	₩ 3,652,574	₩ 3,464,272

<i>(In millions of Korean won)</i>	2017	2016
Financial Liabilities		
Balance as at January 1	₩ 342,702	₩ 312,738
Settled	(2,693)	-
Amount recognized in profit or loss	(24,372)	29,964
Acquisition in the business combination	39,083	-
Others	(2,802)	-
Balance as at December 31	₩ 351,918	₩ 342,702

(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 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 most 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:

<i>(In millions of Korean won)</i>	Favorable Changes		Unfavorable Changes	
	Profit or Loss	Equity	Profit or Loss	Equity
Long-term available-for-sale financial assets ¹	₩ -	₩ 189,757	₩ -	₩ (212,458)
Other payables ²	445	445	(446)	(446)
Total	₩ 445	₩ 190,202	₩ (446)	₩ (212,904)

¹ For equity securities, changes in fair value are calculated with the correlation among growth rate (-1%~1%), volatility (26.5%~32.5%) and discount rate, which are significant unobservable inputs.

² The fair value of other payables is calculated by increasing or decreasing the discount rate by 10%, which is the significant unobservable input.

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32. 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 operating profits of each operating segment in order to assess performance and to make strategic decisions regarding allocation of resources to the segment.

The operating segments are product-based and are identified based on the internal organization and revenue streams. As at the reporting date, the operating segments are comprised of CE, IM, Semiconductor, DP, Harman and others.

The segment information for each reporting period such as depreciation, amortization of intangible assets, and operating profit is prepared after the allocation of internal transaction adjustments. 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, 2017

<i>(In millions of Korean won)</i>	CE	IM	DS				Total ¹	Intercompany elimination within the Company	Consolidated
			Total ¹	Semi-conductor	DP	Harman			
Total segment revenue	102,788,437	226,004,156	218,781,719	141,819,969	72,108,721	9,171,835	561,861,438	(322,286,062)	239,575,376
Intercompany revenue	(57,679,518)	(119,335,838)	(110,614,239)	(67,564,374)	(37,643,358)	(2,069,206)	(322,286,062)	322,286,062	-
Net revenue ²	45,108,919	106,668,318	108,167,480	74,255,595	34,465,363	7,102,629	239,575,376	-	239,575,376
Depreciation	600,487	1,264,596	18,175,388	12,920,501	5,080,610	184,458	20,593,616	-	20,593,616
Amortization	62,935	152,939	935,022	797,630	122,300	172,324	1,523,776	-	1,523,776
Operating profit	1,653,300	11,827,324	40,327,933	35,204,143	5,398,401	57,421	53,645,038	-	53,645,038

¹ Includes other amounts not included in specific operating segments.

² Segment net revenue includes intersegment revenue.

(2) For the year ended December 31, 2016

<i>(In millions of Korean won)</i>	CE ³	IM	DS				Total ¹	Intercompany elimination within the Company	Consolidated
			Total ¹	Semi-conductor	DP	Total ¹			
Total segment revenue	104,870,428	211,523,973	159,473,455	99,527,926	55,884,739	482,046,125	(280,179,380)	201,866,745	
Intercompany revenue	(59,767,666)	(111,221,861)	(81,325,252)	(48,370,924)	(28,956,095)	(280,179,380)	280,179,380	-	
Net revenue ²	45,102,762	100,302,112	78,148,203	51,157,002	26,928,644	201,866,745	-	201,866,745	
Depreciation	547,956	1,303,509	17,041,961	12,548,152	4,271,617	19,312,520	-	19,312,520	
Amortization	60,596	175,351	960,611	812,652	130,398	1,400,445	-	1,400,445	
Operating profit	2,712,148	10,807,569	15,850,986	13,595,004	2,226,626	29,240,672	-	29,240,672	

¹ Includes other amounts not included in specific operating segments.

² Segment net revenue includes intersegment revenue.

³ CE is restated due to the reclassification of the Printing Solutions business segment, which has been changed from CE to Others.

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(B) Regional information

The regional segment information provided to the Management Committee for the reportable segments as at and for the years ended December 31, 2017 and 2016 is as follows:

(1) For the year ended December 31, 2017

<i>(In millions of Korean won)</i>	Korea	America	Europe	Asia and Africa	China	Intercompany elimination within the Company	Consolidated
Net segment revenue	31,545,181	81,019,556	44,418,914	44,247,994	38,343,731	-	239,575,376
Non-current assets ¹	89,156,726	10,545,297	6,081,926	11,980,235	9,361,317	(699,370)	126,426,131

¹ Total of non-current assets other than financial instruments, deferred tax assets, and investments in associates and joint ventures.

(2) For the year ended December 31, 2016

<i>(In millions of Korean won)</i>	Korea	America	Europe	Asia and Africa	China	Intercompany elimination within the Company	Consolidated
Net segment revenue	20,201,828	68,728,575	38,253,185	39,099,991	35,583,166	-	201,866,745
Non-current assets ¹	68,978,040	7,041,731	730,490	9,626,711	11,132,720	(483,191)	97,026,501

¹ Total of non-current assets other than financial instruments, deferred tax assets, and investments in associates and joint ventures.

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33. Related Party Transactions

(A) Sale and purchase transactions

Sale and purchase transactions with related parties for the years ended December 31, 2017 and 2016 are as follows:

<i>(In millions of Korean won)</i>	Name of Company ¹	2017			
		Sales	Disposal of fixed assets	Purchases	Purchases of fixed assets
Associates and joint ventures	Samsung SDS	₩ 57,662	₩ -	₩ 1,971,449	₩ 308,297
	Samsung Electro-Mechanics	49,308	-	2,085,917	302
	Samsung SDI	62,122	1,600	974,496	63,655
	Cheil Worldwide	12,570	-	782,530	1,079
	Other	612,726	-	9,069,864	174,199
	Total (Associates and joint ventures)	₩ 794,388	₩ 1,600	₩14,884,256	₩ 547,532
Other related parties	Samsung C&T	₩ 164,913	₩ 68	₩ 379,500	₩ 4,131,961
	Other	163,023	35	934,452	329,063
	Total (Other related parties)	₩ 327,936	₩ 103	₩ 1,313,952	₩ 4,461,024
Others ²	Samsung Engineering	₩ 8,980	₩ -	₩ 41,495	₩ 2,301,886
	S-1	42,355	-	362,748	84,281
	Other	73,878	3	205,680	406
	Total (Others)	₩ 125,213	₩ 3	₩ 609,923	₩ 2,386,573

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.

<i>(In millions of Korean won)</i>	Name of Company ¹	2016			
		Sales	Disposal of fixed assets	Purchases	Purchases of fixed assets
Associates and joint ventures	Samsung SDS	₩ 46,073	₩ -	₩ 1,585,089	₩ 199,728
	Samsung Electro-Mechanics	27,516	23	2,280,953	-
	Samsung SDI ²	59,322	397	1,072,830	32,576
	Cheil Worldwide ³	672	-	214,061	-
	Other	286,880	113	6,693,656	214,728
	Total (Associates and Joint ventures)	₩ 420,463	₩ 533	₩ 11,846,589	₩ 447,032
Other related parties	Samsung C&T	₩ 42,905	₩ 74	₩ 249,088	₩ 3,343,979
	Other	231,878	1,557,589	763,500	398,514
	Total (Other related parties)	₩ 274,783	₩ 1,557,663	₩ 1,012,588	₩ 3,742,493
Others ⁴	Samsung Engineering	15,677	-	17,627	2,485,027
	S-1	35,846	-	323,792	37,590
	Other	58,054	83,298	663,222	65
	Total (Others)	₩ 109,577	₩ 83,298	₩ 1,004,641	₩ 2,522,682

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

² For the year ended December 31, 2016, Samsung SDI was included in associates as the Company's ownership of common outstanding stock was increased.

³ For the year ended December 31, 2016, Cheil Worldwide was included in associates due to acquisition of shares.

⁴ 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.

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(B) Balances of receivables and payables

Balances of receivables and payables arising from sales and purchases of goods and services as at December 31, 2017 and December 31, 2016 are as follows:

<i>(In millions of Korean won)</i>		Name of Company ¹	December 31, 2017	
			Receivables	Payables
Associates and joint ventures		Samsung SDS	₩ 14,182	₩ 406,760
		Samsung Electro-Mechanics	7,052	197,364
		Samsung SDI	90,370	97,193
		Cheil Worldwide	369	500,706
		Other	250,059	954,537
		Total (Associates and joint ventures)	₩ 362,032	₩ 2,156,560
Other related parties		Samsung C&T	₩ 242,506	₩ 731,995
		Other ²	29,457	1,313,314
		Total (Other related parties)	₩ 271,963	₩ 2,045,309
Others ³		Samsung Engineering	2,518	₩ 652,519
		S-1	2,589	58,309
		Other	3,369	35,774
		Total (Others)	₩ 8,476	₩ 746,602

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

² Payables include the unsettled amount from purchasing cards with Samsung Card of ₩1,121,331 million. The Company has a purchasing card agreement with a limit of ₩2,343,000 million as at December 31, 2017. For the year ended December 31, 2017, the amounts used and reimbursed are ₩5,091,576 million and ₩5,279,430 million, respectively.

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

<i>(In millions of Korean won)</i>		Name of Company ¹	December 31, 2016	
			Receivables	Payables
Associates and joint ventures		Samsung SDS	₩ 5,709	₩ 362,062
		Samsung Electro-Mechanics	1,143	108,469
		Samsung SDI ²	89,721	76,211
		Cheil Worldwide ³	456	436,624
		Other	210,891	784,475
		Total (Associates and joint ventures)	₩ 307,920	₩ 1,767,841
Other related parties		Samsung C&T	₩ 231,089	₩ 435,505
		Other	31,752	1,932,924
		Total (Other related parties)	₩ 262,841	₩ 2,368,429
Others ⁴		Samsung Engineering	₩ 10,664	₩ 115,726
		S-1	4,160	47,098
		Other	3,058	28,841
		Total (Others)	₩ 17,882	₩ 191,665

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

² For the year ended December 31, 2016, Samsung SDI was included in associates as the Company's ownership of common outstanding stock was increased.

³ For the year ended December 31, 2016, Cheil Worldwide was included in associates due to acquisition of shares.

⁴ 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.

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- (C) For the year ended December 31, 2017, the Company invested ₩25,293 million (for the year ended December 31, 2016, ₩84,306 million) in associates and joint ventures. And for the year ended December 31, 2017, the Company recovered ₩53,085 million (for the year ended December 31, 2016, ₩4,931) from associates and joint ventures. Also, for the year ended December 31, 2016, the Company invested 181,081 million 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.
- (D) For the year ended December 31, 2017, the Company declared ₩1,165,659 million of dividends (for the year ended December 31, 2016, ₩505,296 million) to related parties. As at December 31, 2017 and 2016, there are no unpaid dividends to related parties. Also, for the year ended December 31, 2017, the Company declared ₩90,034 million of dividends (for the year ended December 31, 2016, ₩38,983 million) 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 at December 31, 2017 and 2016, there are no unpaid dividends to these entities.
- (E) Key management compensation

Key management includes directors (executive and non-executive) and members of the Executive Committee. The compensation paid or payable for employee services for the years ended December 31, 2017 and 2016 consists of:

<i>(In millions of Korean won)</i>	2017	2016
Short-term employee benefits	₩ 28,025	₩ 16,822
Post-employment benefits	792	640
Other long-term employee benefits	8,617	8,671

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34. Information about 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, 2017 and 2016 are as follows:

2017 <i>(In millions of Korean won)</i>	Percentage of Non-Controlling Interests	Balance as at January 1	Net Income	Dividends	Other	Balance as at December 31
Samsung Display and its subsidiaries	15.2%	₩ 5,981,454	₩ 790,480	₩ (1,582)	₩ 6,116	₩ 6,776,468

2016 <i>(In millions of Korean won)</i>	Percentage of Non-Controlling Interests	Balance as at January 1	Net Income	Dividends	Other	Balance as at December 31
Samsung Display and its subsidiaries	15.2%	₩ 5,642,413	₩ 253,296	₩(13,472)	₩ 99,217	₩ 5,981,454

(B) The summarized financial information for each subsidiary with non-controlling interests that are material to the Company before intercompany eliminations for the years December 31, 2017 and 2016 are as follows:

(1) Summarized consolidated statements of financial position

<i>(In millions of Korean won)</i>	Samsung Display and its subsidiaries	
	December 31, 2017	December 31, 2016
Current assets	₩ 21,316,244	₩ 17,208,126
Non-current assets	37,884,399	30,421,181
Current liabilities	12,279,301	7,957,076
Non-current liabilities	5,828,551	3,191,759
Equity attributable to:	41,092,791	36,480,472
Owners of the parent	40,573,072	35,982,390
Non-controlling interests	519,719	498,082

(2) Summarized consolidated statements of comprehensive income

<i>(In millions of Korean won)</i>	Samsung Display and its subsidiaries	
	2017	2016
Sales	₩ 34,293,155	₩ 26,816,450
Net income	4,645,695	1,618,023
Other comprehensive income(loss)	(25,171)	721,849
Total comprehensive income attributable to:	4,620,524	2,339,872
Owners of the parent	4,597,147	2,343,120
Non-controlling interests	23,377	(3,248)

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(3) Summarized consolidated statements of cash flows

<i>(In millions of Korean won)</i>	Samsung Display and its subsidiaries	
	2017	2016
Cash flows from operating activities	₩ 8,697,292	₩ 6,800,635
Cash flows from investing activities	(14,793,775)	(9,163,528)
Cash flows from financing activities	6,336,379	2,563,830
Effect of exchange rate changes on cash and cash equivalents	(18,642)	10,061
Increase in cash and cash equivalents	221,254	210,998
Cash and cash equivalents at beginning of period	596,861	385,863
Cash and cash equivalents at end of period	818,115	596,861

35. Business Combinations

Significant business combinations for the year ended December 31, 2017 are as follows:

To strengthen the Company's automotive electronics and audio businesses, Samsung Electronics America, the Company's subsidiary, acquired 100% of the equity shares of Harman and its subsidiaries on March 10, 2017.

(1) Overview of the acquired company

Name of the acquired company	Harman International Industries, Inc. and 109 subsidiaries
Headquarters location	Stamford, CT, USA
Representative director	Dinesh Paliwal
Industry	Design, development, manufacture and sale of audio and video system components

(2) Purchase price allocation

<i>(In millions of Korean Won)</i>	Amount
I. Consideration transferred	₩ 9,272,702
II. Identifiable assets and liabilities	
Cash and cash equivalents	647,729
Trade and other receivables	1,533,437
Inventory	1,068,865
Property, plant and equipment	858,790
Intangible assets	5,564,309
Other assets	902,824
Trade and other payables	3,436,020
Deferred tax liabilities	1,442,527
Other liabilities	873,637
Total net identifiable assets	4,823,770
III. Goodwill (I – II)	₩ 4,448,932

Had Harman and the subsidiaries been consolidated from January 1, 2017, the revenue and net income for the year ended December 31, 2017, would be ₩8,581,461 million and ₩213,287 million, respectively. The revenue and net income contributed by Harman and the subsidiaries since the acquisition amount to ₩7,103,437 million and ₩209,015 million, respectively.

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36. Non-Current Assets and Liabilities Held-for-Sale (Assets of disposal group)

(A) Summary

- Sale of Printing Solutions business segment

During the year ended December 31, 2017, the Company sold its Printing Solutions business unit to HP, Inc. The transaction was completed on November 1, 2017.

(B) Details of assets and liabilities reclassified as held-for-sale, as at December 31, 2016 are as follows:

<i>(In millions of Korean Won)</i>	December 31, 2016	
Assets held-for-sale		
Trade receivables	₩	182,738
Inventories		270,642
Other current assets		115,037
Property, plant and equipment		84,869
Intangible assets		124,571
Other non-current assets		57,949
Total	₩	835,806
Liabilities held-for-sale		
Current liabilities	₩	272,726
Non-current liabilities		83,662
Total	₩	356,388

(C) Details of cumulative income or expense recognized in other comprehensive income related to the disposal group classified as held-for-sale as at December 31, 2016 are as follows:

<i>(In millions of Korean won)</i>	December 31, 2016	
Foreign currency translation	₩	(28,810)

37. Events After the Reporting Period

According to the resolution of the Board of Directors on October 31, 2017, the Company repurchased 0.89 million shares (ordinary shares 0.712 million, preference shares 0.178 million) at a cost of ₩2,228,135 million from November 1, 2017 to January 26, 2018. All repurchased shares were retired in January 30, 2018.

In accordance with the resolution of the Board of Directors on January 31, 2018, the Company decided to split their ordinary and preference shares by lowering the par value from ₩5,000 to ₩100. The stock split is scheduled for May 16, 2018. If the effect of the stock split is reflected after the retirement of the repurchased shares as of January 30, 2018, the Company expects to issue 6,419,324,700 ordinary shares and 903,620,000 preference shares.