NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

1. General Information

1.1 Company Overview

Samsung Electronics Co., Ltd. ("SEC") was incorporated under the laws of the Republic of Korea in 1969 and listed its shares on the Korea Stock Exchange in 1975.

SEC and its subsidiaries (collectively referred to as the "Group") operate three business divisions: Consumer Electronics ("CE"), Information technology & Mobile communications ("IM"), and Device Solution ("DS"). The CE division includes digital TVs, monitors, printers, air conditioners and refrigerators and the IM division includes mobile phones, communication systems, and computers. The DS division includes products such as memory and system LSI in the semiconductor business ("Semiconductor"), and LCD and OLED panels in the display business ("DP"). SEC 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 the Korean International Financial Reporting Standards ("Korean IFRS") 1110, *Consolidated Financial Statements*. SEC, as the controlling company, consolidates its 159 subsidiaries, including Samsung Display and Samsung Electronics America (Note 1.2). The Group also applies the equity method of accounting to its 32 affiliates, including Samsung Electro-Mechanics.

1.2 Consolidated Subsidiaries

			Percentage of
Area	Subsidiaries	Industry	ownership ¹
	Samsung Display (SDC)	Manufacture and sale of display panels	84.8
	SU Materials	Manufacture of LCD 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
Demotio	Samsung Electronics Logitech	General logistics agency	100.0
Domestic	Samsung Medison	Medical equipment	68.5
	Samsung Venture Capital Union #14	Technology business, Venture capital investments	99.0
	Samsung Venture Capital Union #20	Technology business, Venture capital investments	99.0
	Samsung Venture Capital Union #21	Technology business, Venture capital investments	99.0
	Samsung Venture Capital Union #22	Technology business, Venture capital investments	99.0
	Samsung Venture Capital Union #23	Technology business, Venture capital investments	99.0
	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

(A) The consolidated subsidiaries as at December 31, 2015 are as follows:

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

			Percentag of
Area	Subsidiaries	Industry	ownership
	Samsung Electronics America (SEA)	Sale of electronic devices	100.
	NexusDX (Nexus)	Medical equipment	100.
	Samsung Receivables (SRC)	Credit management	100.
	NeuroLogica	Medical equipment	100.
	Samsung Semiconductor (SSI)	Sale of semiconductor/LCD	100.
	Samsung Electronics Canada (SECA)	Sale of electronic devices	100.
	Samsung Research America (SRA)	R&D	100.
	Grandis	R&D	100.
	Samsung Mexicana (SAMEX)	Manufacture of electronic devices	100.
	Samsung International (SII)	Manufacture of TV/monitors	100
	Samsung Austin Semiconductor (SAS)	Manufacture of semiconductor	100
	Samsung Electronics Mexico (SEM)	Sale of electronic devices	99
	SEMES America (SEMESA)	Semiconductor equipment	100
	Samsung Electronics Digital Appliance	Manufacture of electronic devices	99
	Mexico (SEDAM) Samsung Electronics Latinoamerica Miami	Sale of electronic devices	100
	(SEMI) Samsung Electronics Latinoamerica	Sale of electronic devices	100
. ·	(SELA)		100
America	Samsung Electronics Venezuela (SEVEN)	Marketing and services	100
	Samsung Electronica Colombia (SAMCOL)	Sale of electronic devices	100
	Samsung Electronics Panama (SEPA)	Consulting	100
	Samsung Electronica da Amazonia (SEDA)	Manufacture and sale of electronic devices	100
	Samsung Electronics Argentina (SEASA)	Marketing and services	100
	Samsung Electronics Chile (SECH)	Sale of electronic devices	100
	Samsung Electronics Peru (SEPR)	Sale of electronic devices	100
	RT SV CO-INVEST (RT-SV)	Technology business, Venture capital investments	99
	Quietside	Sale of heating and cooling products	100
	SmartThings	Sale of meaning and cooring products Sale of smart home electronics	100
	PrinterOn		100
	PrinterOn America	Sale of printing solutions	
		Sale of printing solutions	100
	Simpress	Sale of printing solutions	100
	Samsung Pay(formerly LoopPay)	Develop and provide mobile payment service	100
	YESCO Electronics	Manufacture and sale of LED displays	100
	Beijing Integrated Circuit Industry International Fund (Beijing Fund)	Venture capital investments	99
	Stellus Technologies	Manufacture and sale of server semiconductor storage system	100
	Samsung Electronics (UK) (SEUK)	Sale of electronic devices	100
	Samsung Electronics Holding (SEHG)	Holding Company	100
	Samsung Semiconductor Europe GmbH	Sale of semiconductor/LCD	100
	(SSEG) Samsung Electronics GmbH (SEG)	Sale of electronic devices	100
	Samsung Electronics Iberia (SESA)	Sale of electronic devices	100
	Samsung Electronics France (SEF)	Sale of electronic devices	100
	Samsung Electronics Hungarian (SEH)	Manufacture and sale of electronic devices	100
urope/CIS	Samsung Electronics Czech and Slovak (SECZ)	Sale of electronic devices	100
	Samsung Electronics Italia (SEI)	Sale of electronic devices	100
	Samsung Electronics Europe Logistics	Logistics	100
	(SELS)	Sala of electronic devices	100
	Samsung Electronics Benelux (SEBN)	Sale of electronic devices	100
	Samsung Display Slovakia (SDSK)	Toll processing of LCD	100
	Samsung Electronics Romania (SEROM)	Sale of electronic devices	100
	Samsung Electronics Overseas (SEO)	Sale of electronic devices	100
	Samsung Electronics Polska (SEPOL)	Sale of electronic devices	100

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

			Percentage of
Area	Subsidiaries	Industry	ownership
	Samsung Electronics Portuguesa (SEP)	Sale of electronic devices	100.
	Samsung Electronics Nordic (SENA)	Sale of electronic devices	100.
	Samsung Semiconductor Europe (SSEL)	Sale of semiconductor/LCD	100.
	Samsung Electronics Austria (SEAG)	Sale of electronic devices	100.
	Samsung Electronics Slovakia (SESK)	Manufacture of TV/monitors	100.
	Samsung Electronics Europe Holding (SEEH)	Holding Company	100.
	Samsung Electronics Poland Manufacturing (SEPM)	Manufacture of home appliances	100.
	Samsung Electronics Greece (SEGR)	Sale of electronic devices	100.
	Samsung Nanoradio Design Center (SNDC)	R&D	100.
	SonoAce Deutschland (SMDE)	Medical equipment	100.
	Samsung Electronics Rus (SER)	Marketing	100.
	Samsung Electronics Rus Company (SERC)	Sale of electronic devices	100.
	Samsung Electronics Ukraine (SEU)	Marketing	100
	Samsung Electronics Baltics (SEB)	Sale of electronic devices	100.
Europe/CIS (Cont.)	Samsung Electronics Ukraine Company (SEUC)	Sale of electronic devices	100
	Samsung R&D Institute Rus (SRR)	R&D	100
	Samsung Electronics Kazakhstan (SEK)	Marketing	100
	Samsung Electronics Central Eurasia (SECE)	Sale of electronic devices	100
	Samsung Electronics Rus Kaluga (SERK)	Manufacture of TV	100
	Samsung Russia Service Centre (SRSC)	Services	100
	Samsung Electronics (London) Limited (SEL)	Holding Company	100
	Samsung Denmark Research Center (SDRC)	R&D	100
	Samsung France Research Center (SFRC)	R&D	100
	Samsung Cambridge Solution Centre (SCSC)	R&D	100
	Samsung Electronics Switzerland GmbH (SESG)	Sale of electronic devices	100
	PrinterOn Europe	Sale of printing solutions	100
	Samsung Electronics Caucasus (SECC)	Marketing	100
	Samsung Electronics West Africa (SEWA)	Marketing	100
	Samsung Electronics East Africa (SEEA)	Marketing	100
	Samsung Gulf Electronics (SGE)	Sale of electronic devices	100
	Samsung Electronics Egypt (SEEG)	Manufacture and sale of electronic devices	100
	Samsung Electronics Israel (SEIL)	Marketing	100
	Samsung Electronics Tunisia (SETN)	Marketing	100
	Samsung Electronics Pakistan (SEPAK)	Marketing	100
Middle East	Samsung Electronics South Africa (SSA)	Sale of electronic devices	100
and Africa	Samsung Electronics Turkey (SETK)	Sale of electronic devices	100
	Samsung Semiconductor Israel R&D Center (SIRC)	R&D	100
	Samsung Electronics Levant (SELV)	Sale of electronic devices	100
	Samsung Electronics Maghred Arab (SEMAG)	Sale of electronic devices	100
	Samsung Electronics South Africa Production (SSAP)	Manufacture of TV/monitors	100

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

			Percentage of
Area	Subsidiaries	Industry	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 and sale of electronic devices	100.0
	Samsung Electronics (M) (SEMA)	Manufacture of home appliances	100.0
	Samsung Vina Electronics (SAVINA)	Manufacture and 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
Asia	Samsung Electronics Australia (SEAU)	Sale of electronic devices	100.0
(Except	Samsung Electronics Indonesia (SEIN)	Manufacture and sale of electronic devices	100.0
(Except China)	Samsung Telecommunications Indonesia (STIN)	Sale and services of communication systems	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
	Samsung Electronics Vietnam (SEV)	Manufacture of electronic devices	100.0
	Samsung Telecommunications Malaysia (STM)	Communication system services	100.0
	Samsung Electronics Vietnam THAINGUYEN (SEVT)	Manufacture 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 LCD	100.0
	Samsung Electronics HCMC CE Complex (SEHC)	Manufacture of CE	100.0
	Future Technology & Service	Semiconductor design	100.0
	Samsung Display Dongguan (SDD)	Manufacture of LCD	100.0
	Samsung Display Tianjin (SDT)	Manufacture of LCD	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
China	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 (Shandong) Digital Printing (SSDP)	Manufacture of printers	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

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

Area	Subsidiaries	Industry	Percentage of ownership ¹
	Shanghai Samsung Semiconductor (SSS)	Sale of semiconductor/LCD	100.0
	Samsung Electronics Suzhou Computer (SESC)	Manufacture of electronic devices	100.0
	Samsung Suzhou Module (SSM)	Toll processing of LCD	100.0
	Samsung Suzhou LCD (SSL)	Manufacture of LCD	60.0
	Shenzhen Samsung Electronics Telecommunication (SSET)	Manufacture of communication equipment	95.0
	Samsung Electronics Shanghai Telecommunication (SSTC)	Sale of mobile communication and network equipment	100.0
China	Samsung Semiconductor (China) R&D (SSCR)	R&D	100.0
(Cont.)	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
	Tianjin Samsung Opto-Electronics (TSOE)	Manufacture of cameras/camcorders	90.0
	Samsung R&D Institute China-Xian (SRC-Xian)	R&D	100.0
	SEMES (Xian)	Semiconductor equipment	100.0

¹ Ownership represents the Group's ownership of voting rights in each entity.

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

(1) 2015

2015				
				Net Income
(In millions of Korean won)	Assets	Liabilities	Sales	(Loss)
Samsung Display (SDC)	₩ 39,225,460	₩ 6,586,259	₩ 26,397,111	₩ 1,673,165
Samsung Electronics America (SEA)	14,875,687	7,562,099	35,766,374	268,083
Samsung (China) Investment (SCIC)	12,748,395	11,040,055	11,461,304	(77,629)
Samsung (China) Semiconductor (SCS)	9,742,388	5,537,446	2,610,462	171,644
Samsung Semiconductor (SSI)	8,288,391	4,379,980	21,724,671	(32,056)
Samsung Electronics Vietnam (SEV)	7,829,507	1,155,075	18,431,838	1,948,071
Samsung Electronics Europe Holding (SEEH)	6,989,207	5,223,523	-	(31,925)
Samsung Electronics Vietnam THAINGUYEN				
(SEVT)	6,571,798	3,940,926	19,379,347	1,592,920
Samsung Electronics Huizhou (SEHZ)	6,192,974	1,738,095	17,949,623	722,700
Samsung Austin Semiconductor (SAS)	6,179,289	2,746,852	3,045,453	94,698
Samsung Asia Private (SAPL)	4,227,798	504,256	1,392,926	957,734
Shanghai Samsung Semiconductor (SSS)	3,792,437	3,207,942	14,372,358	141,232
Samsung India Electronics (SIEL)	3,723,127	2,204,333	8,008,884	326,462
Samsung Electronica da Amazonia (SEDA)	3,114,334	1,021,869	5,634,385	322,939
Samsung Suzhou LCD (SSL)	2,784,122	1,634,304	1,024,881	76,099
Tianjin Samsung Telecom Technology (TSTC)	2,075,123	778,133	6,963,943	146,972
Samsung Electronics Europe Logistics (SELS)	1,894,614	1,793,917	12,943,676	(7,745)
Thai Samsung Electronics (TSE)	1,889,410	416,382	3,949,756	179,527
Samsung Electronics Slovakia (SESK)	1,888,341	373,886	3,480,848	107,968
Samsung Electronics GmbH (SEG)	1,820,922	1,762,978	6,047,305	(1,630)
Samsung Display Dongguan (SDD)	1,276,263	384,963	4,649,277	130,635
Samsung Electronics Benelux (SEBN)	1,264,497	291,332	2,148,502	42,790
Samsung Electronics Hungarian (SEH)	1,254,673	231,785	3,029,047	97,474
Samsung Electronics Taiwan (SET)	1,253,480	918,482	4,258,650	44,025
Samsung Electronics (UK) (SEUK)	1,133,512	745,126	4,656,990	106,413

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(2) 2014

(2) 2014	2014				
		20	17	Net Income	
(In millions of Korean won)	Assets	Liabilities	Sales	(Loss)	
Samsung Display (SDC)	₩ 37,939,965	₩ 6,728,991	₩ 24,980,628	₩ 1,698,239	
Samsung Electronics America (SEA)	10,697,787	5,409,749	14,076,007	(80,403)	
Samsung (China) Investment (SCIC)	9,603,679	7,830,941	16,451,983	162,677	
Samsung Semiconductor (SSI)	7,577,935	3,883,673	19,105,338	194,713	
Samsung Electronics Europe Holding (SEEH)	7,022,746	5,062,988	-	93,605	
Samsung (China) Semiconductor (SCS)	6,765,278	3,911,166	877,508	166,754	
Samsung Electronics Vietnam (SEV)	6,553,628	1,251,667	19,811,537	2,012,173	
Samsung Austin Semiconductor (SAS)	6,503,003	3,375,099	2,423,230	78,747	
Samsung Telecommunications America (STA)	5,321,014	4,573,413	23,002,379	66,255	
Samsung Electronics Huizhou (SEHZ)	4,966,486	1,258,635	17,166,345	829,880	
Samsung Electronics Vietnam THAINGUYEN					
(SEVT)	3,957,700	3,042,402	8,265,414	772,450	
Samsung Electronica da Amazonia (SEDA)	3,797,166	1,330,302	7,936,105	887,715	
Samsung Asia Private (SAPL)	3,110,433	671,729	1,423,212	1,057,873	
Samsung India Electronics (SIEL)	2,949,605	1,776,936	6,849,389	428,757	
Shanghai Samsung Semiconductor (SSS)	2,560,852	2,120,738	13,331,324	125,239	
Tianjin Samsung Telecom Technology (TSTC)	2,316,054	789,395	11,413,234	510,357	
Samsung Electronics Slovakia (SESK)	1,869,697	405,089	4,248,232	142,416	
Samsung Suzhou LCD (SSL)	1,831,794	768,230	815,705	(38,931)	
Thai Samsung Electronics (TSE)	1,654,988	307,109	4,442,707	202,647	
Samsung Electronics Europe Logistics (SELS)	1,621,583	1,524,468	13,320,129	38,209	
Samsung Electronics Taiwan (SET)	1,583,027	1,299,330	4,472,432	44,559	
Samsung Electronics Hungarian (SEH)	1,287,972	323,972	3,113,297	109,549	
Samsung Electronics (UK) (SEUK)	1,235,239	964,058	4,304,335	72,231	
Samsung Electronics Benelux (SEBN)	1,207,723	245,237	2,394,375	30,404	
Samsung Electronics GmbH (SEG)	1,142,897	1,082,420	6,377,894	(17,881)	

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

- (C) Changes in scope of consolidation
- (1) Subsidiaries newly included in the consolidation for the year ended December 31, 2015:

Area	Subsidiary	Description
Domestic	Samsung Venture Capital Union #28	Incorporation
	Samsung Venture Capital Union #29	Incorporation
America	Simpress	Acquisition of shares
	Samsung Pay (formerly LoopPay)	Acquisition of shares
	YESCO Electronics	Acquisition of shares
	Beijing Integrated Circuit Industry International Fund (Beijing Fund)	Acquisition of shares
	Paymate Global	Acquisition of shares
	Stellus Technologies	Incorporation
Asia	Samsung Electronics HCMC CE Complex (SEHC)	Incorporation
(Except China)	Future Technology & Service	Acquisition of shares

(2) Subsidiaries excluded from the consolidation for the year ended December 31, 2015:

Area	Subsidiary	Description
	Ray	Disposal
Domestic	High Pioneer Private Investment Trust #1	Liquidation
	Samsung Venture Capital Union #6	Liquidation
	Samsung Telecommunications America (STA)	Merger ¹
America	Paymate Global	Liquidation
	Nvelo	Liquidation
Europe/CIS	Nanoradio Hellas	Disposal
China	Samsung Electronics Hainan Fiberoptics (SEHF)	Disposal
Clilla	Samsung Medison Shanghai Medical Instrument (SMS1)	Liquidation

¹ Samsung Electronics America (SEA), a subsidiary of the Group, merged with Samsung Telecommunications America (STA) on January 1, 2015.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

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

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

The consolidated financial statements of the Group 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 Group

The Group applied the following amended and enacted standards for the annual period beginning on January 1, 2015:

Amendment to Korean IFRS 1019, Employee Benefits

According to the amendment of *Korean IFRS 1019, Employee Benefits*, a practical expedient is allowed for a participant in a defined benefit plan when it receives contributions from employees or third parties. The adoption of this standard did not have a material impact on the consolidated financial statements.

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

The Group expects that new standards, amendments and interpretations issued but not effective for the financial year beginning January 1, 2015, and not early adopted, would not have a material impact on its consolidated financial statements.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

Amendment to Korean IFRS 1001, Presentation of Financial Statements

The amendment made clear that materiality applies to the whole of the financial statements and companies should use professional judgement in determining where and in what order information is presented in the financial disclosures. Also the amendment clarifies that entities are required to present the share of other comprehensive income of associates and joint ventures accounted for using the equity method, separated into the share of items that (i) will not be reclassified subsequently to profit or loss; and (ii) will be reclassified subsequently to profit or loss; when specific conditions are met. The new amendments are effective for the financial year initially beginning on or after January 1, 2016, but early adoption is permitted.

Amendment to Korean IFRS 1109, Financial Instruments

The new Standard issued in December 2015 regarding financial instruments replaces Korean IFRS 1039, Financial Instruments: Recognition and Measurement. Korean IFRS 1109, Financial Instruments, requires financial assets to be classified and measured on the basis of the holder's business model and the instrument's contractual cash flow characteristics. The Standard requires a financial instrument to be classified and measured at amortized cost, fair value through other comprehensive income, or fair value through profit or loss, and provides guidance on accounting for related gains and losses. The impairment model is changed into an expected credit loss model, and changes in expected credit losses are recognized in profit or loss. The new Standard is effective for the financial year beginning on or after January 1, 2018, but early adoption is allowed. Early adoption of only the requirements related to financial liabilities designated at fair value through profit or loss is also permitted. The Group is in the process of determining the effects resulting from the adoption of the new Standard.

Amendment to Korean IFRS 1115, Revenue from Contracts with Customers

The new Standard for the recognition of revenue issued in December 2015 will replace Korean IFRS 1018, Revenue, Korean IFRS 1011, Construction Contracts, and related Interpretations. Korean IFRS 1115, Revenue from Contracts with Customers, will replace the risk-and-reward model under the current standards and is based on the principle that revenue is recognized when control of goods or services transfer to the customer by applying the five-step process. Key changes to current practices include guidance on separate recognition of distinct goods or services in any bundled arrangement, constraint on recognizing variable consideration, criteria on recognizing revenue over time, and increased disclosures. The new Standard is effective for annual reporting beginning on or after January 1, 2018, but early application is permitted. The Group is in the process of determining the effects resulting from the adoption of the new Standard.

2.3 Consolidation

The Group 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 Group has control. The Group 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 Group obtains control of a subsidiary and ceases when the Group loses control of the subsidiary.

The Group 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 Group 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.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

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 Group'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.

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

(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 Group 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 Group 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 noncontrolling 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 Group has significant influence but does not have control, generally investees of which from 20% to 50% of voting stock is owned by the Group. Investments in associates are initially recognized at acquisition cost using the equity method. Unrealized gains on transactions between the Group and its associates are eliminated to the extent of the Group's interest in the associates. If there is any objective evidence that the investment in the associate is impaired, the Group 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.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

2.4 Foreign Currency Translation

(A) Functional and presentation currency

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

(B) Transactions and balances

Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transactions or valuation where items are re-measured. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at year-end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognized in profit or loss.

Exchange differences arising on non-monetary financial assets and liabilities such as equity instruments at fair value through profit or loss and 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 Group 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 Group 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.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(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.

(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 Group'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.

(D) Derecognition of financial assets

If the Group transfers a financial asset and the transfer does not result in derecognition because the Group 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 Group 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.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

2.7 Impairment of Financial Assets

The Group 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 Group writes off financial assets when the assets are determined to no longer be recoverable.

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.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

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

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

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.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

2.12 Intangible Assets

Goodwill represents the excess of the cost of an acquisition over the fair value of the Group'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 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 Group's policy is that intangible assets should be amortized over the following estimated useful lives:

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

2.13 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.

2.14 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 Group 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.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

2.15 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.

2.16 Borrowings

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

2.17 Provisions

A provision is recognized when the Group has a present legal or constructive obligation as a result of a past event, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation, and a reliable estimate can be made of the amount of the obligation. 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.

2.18 Net Defined Benefit Liabilities

The Group 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 Group pays fixed contributions into a separate entity. The Group 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 Group pays contributions to annuity plans that are managed either publicly or privately on a mandatory, contractual or voluntary basis. The Group 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.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

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.

2.19 Financial Guarantee Contract

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

2.20 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 Group 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 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 assets 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.

2.21 Derivative Instruments

All derivative instruments are accounted for at their fair value according to the rights and obligations associated with the derivative contracts. The resulting changes are recognized in profit or loss in the year in which they are incurred. Certain derivatives that qualify as cash flow hedges and hedges on net investments in foreign operations are recognized under equity.

2.22 Dividend

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

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

2.23 Share Capital

Common shares and preferred shares with no repayment obligations are classified as equity. When the Group purchases its common 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.

2.24 Revenue Recognition

Revenue mainly comprises the fair value of the consideration received or receivable for the sale of goods in the ordinary course of the Group's activities. Revenue is shown net of value-added tax, returns, sales incentives and discounts and after eliminating intercompany transactions.

The Group 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 Group's activities, as described below. The Group 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.

(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 Group 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.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

2.25 Government Grants

Government grants are recognized at their fair values when there is reasonable assurance that the grant will be received and the Group 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.

2.26 Earnings per Share

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

2.27 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.

2.28 Convenience Translation into United States Dollar Amounts

The Group 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 \forall 1131.30 to US \$1, the average exchange rate for the year ended December 31, 2015. 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.

2.29 Approval of the Consolidated Financial Statements

These consolidated financial statements were approved by the Board of Directors on January 28, 2016.

3. Critical Accounting Estimates and Assumptions

The Group makes estimates and assumptions concerning the future. The estimates and assumptions are continuously assessed, considering historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances. 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 Group uses the percentage-of-completion method in accounting for its fixed-price contracts to deliver installation services. Use of the percentage-of-completion method requires the Group to estimate the services

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

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 Group recognizes provision for warranty on products sold. The Group 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.

(C) Fair value of derivatives and other 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

The net defined benefit liability depends on a number of factors that are determined on an actuarial basis using a number of assumptions. Any changes in these assumptions will impact the carrying amount of the net defined benefit liability. The Group, 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 liability. The principal actuarial assumptions associated with the net defined benefit liability are based on the current market expectations.

(E) Impairment of goodwill

At the end of each reporting period, the Group 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 Group'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 Group 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.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

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, 2015 and 2014, consist of the following:

(In millions of Korean won)	2015	2014	
Cash on hand	₩ 40,337	₩	15,550
Bank deposits and others	22,596,407		16,825,216
Total	₩ 22,636,744	₩	16,840,766

5. Financial Assets Subject to Withdrawal Restrictions

Financial instruments subject to withdrawal restrictions as at December 31, 2015 and 2014, consist of the following:

(In millions of Korean won)	2015		2014			
Short-term financial instruments	₩ 14,032	₩	13,919			
Other non-current assets	23,015		202			

6. Financial Instruments by Category

(A) Categorizations of financial assets and liabilities as at December 31, 2015 and 2014, are as follows:

(1) As at December 31, 2015

(In millions of Korean won)	value t	Assets at fair value through Loans and profit or loss receivables		Available-for- sale financial assets		Total	
Assets							
Cash and cash equivalents	₩	-	₩	22,636,744	₩ -	₩	22,636,744
Short-term financial instruments		-		44,228,800	-		44,228,800
Short-term available-for-sale financial assets		-		-	4,627,530		4,627,530
Trade receivables		-		25,168,026	-		25,168,026
Long-term available-for-sale financial assets		-		-	8,332,480		8,332,480
Other		63,177		3,483,257	-		3,546,434
Total	₩	63,177	₩	95,516,827	₩ 12,960,010	₩	108,540,014

(In millions of Korean won)	fair throug	ities at value h profit loss	lue liabilities profit measured at		liabilities Other measured at financial		Total	
Liabilities								
Trade payables	₩	-	₩	6,187,291	₩	-	₩	6,187,291
Short-term borrowings		-		2,416,977		8,738,448		11,155,425
Other payables		-		7,625,490		-		7,625,490
Current portion of long-term liabilities		-		221,548		-		221,548
Debentures		-		1,230,448		-		1,230,448
Long-term borrowings		-		266,542		-		266,542
Long-term other payables		312,738		2,406,936		-		2,719,674
Other		38,829		7,908,569		-		7,947,398
Total	₩	351,567	₩	28,263,801	₩	8,738,448	₩	37,353,816

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(2) As at December 31, 2014

(In millions of Korean won)	value	Assets at fair value through Loans and profit or loss receivables					Total		
Assets									
Cash and cash equivalents	₩	-	₩	16,840,766	₩	-	₩	16,840,766	
Short-term financial instruments		-		41,689,776		-		41,689,776	
Short-term available-for-sale financial assets		-		-		3,286,798		3,286,798	
Trade receivables		-		24,694,610		-		24,694,610	
Long-term available-for-sale financial assets		-		-		12,667,509		12,667,509	
Other		48,360		4,614,560		100,051		4,762,971	
Total	₩	48,360	₩	87,839,712	₩	16,054,358	₩	103,942,430	

(In millions of Korean won)	Liabilities at Financial fair value liabilities through profit measured at or loss amortized cost		iabilities easured at	Other financial liabilities		Total		
Liabilities								
Trade payables	₩	-	₩	7,914,704	₩	-	₩	7,914,704
Short-term borrowings		-		3,367,915		4,661,384		8,029,299
Other payables		-		9,258,344		-		9,258,344
Current portion of long-term liabilities		-		1,778,667		-		1,778,667
Debentures		-		1,355,882		-		1,355,882
Long-term borrowings		-		101,671		-		101,671
Long-term other payables		-		2,520,277		-		2,520,277
Other		78,348		11,395,781		-		11,474,129
Total	₩	78,348	₩	37,693,241	₩	4,661,384	₩	42,432,973

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(B) Net gains or net losses on each category of financial instruments for the years ended December 31, 2015 and 2014, are as follows:

(1) As at December 31, 2015

(In millions of Korean won)

Financial Assets		s at fair through t or loss	Loans and receivables				Total
Loss on valuation (other comprehensive income)	₩	-	₩ -	₩	(906,547)	₩	(906,547)
Gain/(loss) on valuation/disposal (profit or loss)		4,168	(14,980)		132,223		121,411
Reclassification from other comprehensive income to		,			,		,
profit or loss		-	-		491,586		491,586
Interest income		-	1,665,521		95,636		1,761,157
Foreign exchange differences (profit or loss)		-	147,455		-		147,455
Foreign exchange differences							
(other comprehensive income)		-	-		(161,511)		(161,511)
Dividend income		-	-		183,730		183,730
Impairment/reversal (profit or loss)		-	(65,051)		(11,323)		(76,374)

(In millions of Korean won)

	fa thro	bilities at ir value ugh profit	li me	inancial abilities asured at		financial		
Financial Liabilities		or loss	amo	rtized cost	lia	bilities		Total
Gain on valuation/disposal (profit or loss)	₩	315,873	₩	-	₩	-	₩	315,873
Interest expense		-		567,181		209,330		776,511
Foreign exchange differences (profit or loss)		-		(436,676)		33,695		(402,981)

(2) As at December 31, 2014

(In millions of Korean won)

Financial Assets	Assets at fair value through profit or loss		ue through Loans and		Available-for- sale financial assets			Total
Loss on valuation (other comprehensive income)	₩	-	₩	-	₩	(117,455)	₩	(117,455)
Gain/(loss) on valuation/disposal (profit or loss)		(8,755)		(23,522)		168,869		136,592
Reclassification from other comprehensive income to								
profit or loss		-		-		(153,693)		(153,693)
Interest income		-		1,734,963		98,398		1,833,361
Foreign exchange differences (profit or loss)		-		(59,125)		-		(59,125)
Foreign exchange differences								
(other comprehensive income)		-		-		(127,288)		(127,288)
Dividend income		-		-		1,436,235		1,436,235
Impairment/reversal (profit or loss)		-		12,387		(67,636)		(55,249)

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(In millions of Korean won)

Financial Liabilities	fa thro	bilities at ir value ugh profit or loss	l me	Financial iabilities easured at ortized cost		er financial abilities		Total
Loss on valuation/disposal (profit or loss) Interest expense Foreign exchange differences (profit or loss)	₩	(15,153)	₩	466,371 (343,865)	₩	- 126,569 61,644	₩	(15,153) 592,940 (282,221)

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, 2015 and 2014, 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

(In millions of Korean won)	2015	2014
Counterparties with external credit rating:		
Superior ability to repay	₩ 3,346,722	₩ 2,368,544
Strong ability to repay	3,337,397	3,926,159
Acceptable ability to repay	3,285,587	2,812,165
Currently having the ability to repay	3,576,405	3,572,935
Subtotal	13,546,111	12,679,803
Counterparties without external credit rating:		
Group 1	9,341,473	8,978,175
Group 2	137,973	223,596
Subtotal	9,479,446	9,201,771
Total	₩ 23,025,557	₩ 21,881,574

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(B) Cash equivalents and short-term financial instruments

(In millions of Korean won)		2015	2	2014		
Superior ability to repay	₩	6,283,532	₩	3,808,656		
Strong ability to repay		57,377,674		52,949,611		
Acceptable ability to repay		3,112,954		1,726,291		
Currently having the ability to repay		17,293		4,311		
Other ¹		33,754		26,123		
Total	\mathbb{W}	66,825,207	₩	58,514,992		

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

8. Transfer of Financial Assets

Trade receivables of the Group have been discounted through factoring agreements with banks in 2015 and 2014. 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, 2015 and 2014:

(In millions of Korean won)	2015			2014
Carrying amount of the discounted trade receivables ¹	W	8,738,448	₩	4,661,384
Carrying amount of the related borrowings		8,738,448		4,661,384

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, 2015 and 2014, are as follows:

(In millions of Korean won)		2015		2014
Balance as at January 1	₩	15,954,307	₩	7,726,907
Acquisitions		8,213,756		9,304,021
Disposals		(9,746,482)		(2,521,342)
Valuation of available-for-sale financial assets		(1,218,782)		(117,455)
Impairment		(11,323)		(63,600)
Foreign exchange differences		(161,511)		(127,288)
Other ¹		(69,955)		1,753,064
Balance as at December 31	₩	12,960,010	₩	15,954,307
(A) Current portion		4,627,530		3,286,798
(B) Non-current portion		8,332,480		12,667,509

¹ During the year ended December 31, 2014, the Group's ownership interest in Samsung SDI decreased. Consequently, fair value of investment in associate is recognized in available-for-sale financial assets.

Changes in valuation gains (losses) recognized in equity (other comprehensive income) on available-for-sale financial assets for the years ended December 31, 2015 and 2014, are as follows:

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(In millions of Korean won)	2015		2014
Balance as at January 1	₩ 2,582,037	₩	2,853,185
Fair value gains	(1,218,782)		(117,455)
Net gains transferred from equity	644,968		(153,693)
Balance as at December 31	2,008,223		2,582,037
Deferred income tax	(506,096)		(707,092)
Total	₩ 1,502,127	₩	1,874,945

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

Details of short-term available-for-sale financial assets as at December 31, 2015 and 2014, are as follows:

(In millions of Korean won)		2015		2014
Beneficiary certificates ¹	₩	1,606,320	₩	2,166,143
Government bonds		271,373		50,256
Bank debentures		2,749,837		1,070,399
Total	\mathbb{W}	4,627,530	₩	3,286,798

¹ Details of beneficiary certificates as at December 31, 2015 and 2014, are as follows:

(In millions of Korean won)	2015			2014	
Bonds	₩	-	₩	952,931	
Time deposits and others		1,606,320		1,213,212	
Total	₩	1,606,320	₩	2,166,143	

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

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

Details of long-term available-for-sale financial assets as at December 31, 2015 and 2014, are as follows:

(In millions of Korean won)		2015		2014
Equity securities - Listed	₩	4,674,753	₩	5,776,836
Equity securities - Non-listed		3,498,655		3,746,393
Debt securities ¹		159,072		3,144,280
Total	₩	8,332,480	₩	12,667,509

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

(1) Equity securities - Listed

Details of listed equity securities as at December 31, 2015 and 2014, are as follows:

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

		2014			
	Number of Shares Owned	Percentage of Ownership (%)	Acquisition Cost	Book Value (Market Value)	Book Value (Market Value)
Samsung SDI ¹	13,462,673	19.6	₩ 2,180,953	₩ 1,534,745	₩ 1,561,670
Samsung Heavy Industries	40,675,641	17.6	258,299	441,331	811,479
Samsung Fine Chemicals ²	-	-	-	-	70,795
Hotel Shilla	2,004,717	5.1	13,957	154,965	183,231
Cheil Worldwide	14,498,725	12.6	223,941	300,124	249,378
iMarket Korea	647,320	1.8	324	16,377	18,384
SFA	1,822,000	10.2	38,262	90,098	90,462
Wonik IPS	7,220,216	9.0	63,249	81,949	100,722
ASML	12,595,575	2.9	726,024	1,331,450	1,506,664
Rambus	4,788,125	4.1	92,682	65,039	58,368
Seagate Technology	12,539,490	4.2	218,544	538,766	916,597
Sharp ¹	35,804,000	2.1	122,535	43,502	88,292
SunEdison Semiconductor ³	-	-	-	-	49,511
Wacom ¹	8,398,400	5.1	62,013	39,330	36,084
Other ¹			48,022	37,077	35,199
Total			₩ 4,048,805	₩ 4,674,753	₩ 5,776,836

¹Impairment losses on listed equity securities resulting from the decline in realizable value below acquisition cost amounted to 732,542 million for the years ended December 31, 2015.

² During the year ended December 31, 2015, the Group entered into an agreement with Lotte Chemical to sell all of its Samsung Fine Chemicals General Co., Ltd. As a result, the shares are reclassified as assets held-for-sale (Note 37).

³ During the year ended December 31, 2015, the Group disposed its entire stake in SunEdison Semiconductor.

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 and the current fair value, after income tax effects, is recorded within other components of equity (unrealized gains or losses on available-for-sale financial assets).

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(2) Equity securities - Non-listed

Details of non-listed equity securities as at December 31, 2015 and 2014, are as follows:

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

		2014			
-	Number of	Percentage of	Acquisition		
	Shares Owned	Ownership (%)	Cost	Book Value	Book Value
Kihyup Technology	1,000,000	17.2	₩ 5,000	₩ 5,000	₩ 5,000
Pusan Newport	1,135,307	1.0	5,677	5,677	5,677
Samsung Venture Investment	980,000	16.3	4,900	7,207	6,586
Taewon Electric	45,000	15.0	16,544	15,860	17,094
Corning Inc.	2,300	7.4	2,434,320	2,745,574	3,106,332
CSOT	-	9.2	278,130	278,557	278,130
Nanosys	15,950,462	13.1	27,323	28,985	21,786
Other ¹			449,610	411,795	305,788
Total			₩ 3,221,504	₩ 3,498,655	₩ 3,746,393

¹Nonmarketable 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.

(3) Debt securities

Details of debt securities as at December 31, 2015 and 2014, are as follows:

(In millions of Korean won)		2015		2014
Corporate bonds	W	159,072	₩	108,275
Government bonds		-		272,526
Bank debentures		-		2,763,479
Total	₩	159,072	₩	3,144,280

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

10. Trade and Other Receivables

(A) Trade and other receivables as at December 31, 2015 and 2014, are as follows:

	20	015	2014		
(In millions of Korean won)	Trade	Non-Trade	Trade	Non-Trade	
Receivables	₩ 25,520,385	₩ 3,585,895	₩ 25,008,013	₩ 3,559,111	
Less: Provisions for impairment	(326,861)	(49,291)	(277,788)	(9,894)	
Receivables, net	25,193,524	3,536,604	24,730,225	3,549,217	
Less: Non-current portion	(25,498)	(183,941)	(35,615)	(9,342)	
Current portion	₩ 25,168,026	₩ 3,352,663	₩ 24,694,610	₩ 3,539,875	

The Group transferred receivable balances to financial institutions in exchange for cash during the years ended December 31, 2015 and 2014. The outstanding balances of transferred receivables, amounting to \mathbb{W} 8,738,448 million and \mathbb{W} 4,661,384 million, have been accounted for as collateralized borrowings as at December 31, 2015 and 2014, respectively (Note 15).

(B) Movements in the provisions for impairment of receivables for the years ended December 31, 2015 and 2014, are as follows:

	20	15	2014		
(In millions of Korean won)	Trade	Non-Trade	Trade	Non-Trade	
Balance as at January 1	₩ 277,788	₩ 9,894	₩ 267,675	₩ 20,046	
Provisions for impaired receivables / (reversals					
of unused amounts)	58,513	41,195	17,475	(5,700)	
Receivables written off during the year as					
uncollectible	(2,963)	(3,235)	(6,017)	(1,491)	
Other	(6,477)	1,437	(1,345)	(2,961)	
Balance as at December 31	₩ 326,861	₩ 49,291	₩ 277,788	₩ 9,894	

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(C) The aging analysis of trade and other receivables as at December 31, 2015 and 2014, is as follows:

(In millions of Korean won)		2015		2014
Receivables not past due	₩	26,052,236	₩	25,271,779
Past due but not impaired ¹ :				
Less than 31 days overdue		1,986,756		2,333,812
Impaired ² :				
31 days to 90 days overdue		405,310		378,242
Over 90 days overdue		661,978		583,291
Total	\mathbb{W}	29,106,280	₩	28,567,124

¹ The Group does not consider receivables that are overdue for less than or equal to 31 days as impaired.

² Bad debt allowances amount to \# 376,152 million as at December 31, 2015 (2014: \# 287,682 million).

(D) The maximum exposure to current credit risk is equivalent to the carrying amount of receivables as of December 31, 2015. The Group has in place insurance contracts covering the Group'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, 2015 and 2014, are as follows:

		2015			2014	
	Gross	Valuation		Gross	Valuation	
(In millions of Korean won)	Amount	Allowance	Book Value	Amount	Allowance	Book Value
Finished goods	₩ 5,956,413	₩ (186,953)	₩ 5,769,460	₩ 6,011,078	₩ (237,630)	₩ 5,773,448
Work in process	6,142,964	(363,661)	5,779,303	5,018,416	(553,345)	4,465,071
Raw materials and supplies	6,082,185	(222,923)	5,859,262	6,244,161	(287,155)	5,957,006
Materials in transit	1,403,769	-	1,403,769	1,121,979	-	1,121,979
Total	₩19,585,331	₩ (773,537)	₩18,811,794	₩18,395,634	₩(1,078,130)	₩17,317,504

The cost of inventories recognized as expense and included in 'cost of sales' for the year ended December 31, 2015, amounts to \$122,679,069 million (2014: \$127,584,292 million). The amount includes inventory valuation losses.

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, 2015 and 2014, are as follows:

in millions of Korean won) 2015				2014		
Balance as at January 1	\mathbb{W}	5,232,461	₩	6,422,292		
Acquisition		137,917		721,299		
Disposal		(19,323)		(38,450)		
Share of profit		1,101,932		342,516		
Other ¹		(1,176,639)		(2,215,196)		
Balance as at December 31	\mathbf{W}	5,276,348	₩	5,232,461		

¹Other consists of dividends, impairment, and effects of changes in foreign exchange rates. And, due to decrease in shareholding ratio during 2014, the Group reclassified investment in Samsung SDI as available-for-sale financial assets. Impairment losses on Samsung Card resulting from the decline in recoverable value below the book value amounted to W1,126,958 million for the year ended December 31, 2015.

(B) Major investments in associates and joint ventures as at December 31, 2015, are as follows:

(1) Investments in associates

Investee	Nature of Relationship with Associate	Percentage of Ownership ¹ (%)	Principal Business Location
Samsung Card	Business alliance	37.5	Korea
Samsung Electro-Mechanics	Manufacture and supply electronic components including passive components, circuit boards, and modules	23.7	Korea
Samsung SDS	Provide IT services including computer programming, system integration and management	22.6	Korea

¹ Ownership represents the Group's ownership of common stock in each entity.

(2) Investments in joint ventures

Investee	Nature of Relationship with Joint Venture	Percentage of Ownership ¹ (%)	Principal Business Location
Samsung Corning Advanced Glass	Manufacture and supply industrial glass devices	50.0	Korea

¹ Ownership represents the Group's ownership of common stock in each entity.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(C) Details of investments in associates and joint ventures as at December 31, 2015 and 2014, are as follows:

(1) Investments in associates

(In millions of Korean won)				2015					
Investee		Net asset value of							
	Acqui	sition cost	equit	y shares ¹	Boo	k value			
Samsung Card	₩	1,538,540	₩	2,504,778	₩	1,338,679			
Samsung Electro-Mechanics		359,237		987,695		994,489			
Samsung SDS		147,963		1,036,142		1,060,396			
Other		1,129,421		1,491,457		1,633,715			
Total	\overline{W}	3,175,161	₩	6,020,072	₩	5,027,279			

(In millions of Korean won)		2014							
Investee	A	• • • • • • • • • • • •		set value of	D	1			
	Acqui	sition cost	equit	y shares ¹	B00	k value			
Samsung Card	\mathbf{W}	1,538,540	₩	2,393,185	₩	2,354,026			
Samsung Electro-Mechanics		359,237		1,038,184		1,040,404			
Samsung SDS		147,963		928,548		951,776			
Other		745,568		485,330		623,480			
Total	₩	2,791,308	₩	4,845,247	₩	4,969,686			

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

(2) Investments in joint ventures

(In millions of Korean won)	2015						
Investee			Net asset	t value of			
	Acquisi	tion cost	equity shares ¹		Book value		
Samsung Corning Advanced Glass	₩	215,000	₩	188,431	₩	188,371	
Other		259,977		104,440		60,698	
Total	\mathbb{W}	474,977	₩	292,871	₩	249,069	

(In millions of Korean won)	2014						
Investee			Net asset	t value of			
	Acquisi	tion cost	equity shares ¹		Book value		
Samsung Corning Advanced Glass	₩	215,000	₩	196,015	₩	195,930	
Other		527,204		100,948		66,845	
Total	₩	742,204	₩	296,963	₩	262,775	

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

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(D) Details of the valuations of investments in associates and joint ventures under the equity method for the years ended December 31, 2015 and 2014, are as follows:

(In millions of Korean won)			2015		
Investee	Balance as at January 1	Gain/loss on valuation	Other comprehensive income/loss	Other ¹	Balance as at December 31
Samsung Card	₩ 2,354,026	₩ 124,999	₩ 29,831	₩ (1,170,177)	₩ 1,338,679
Samsung Electro-Mechanics	1,040,404	(2,877)	(28,954)	(14,084)	994,489
Samsung SDS	951,776	100,156	17,196	(8,732)	1,060,396
Samsung Corning Advanced Glass	195,930	(7,785)	226	-	188,371
Other ¹	690,325	887,439	(5,442)	122,091	1,694,413
Total	₩ 5,232,461	₩1,101,932	₩ 12,857	₩ (1,070,902)	₩ 5,276,348

¹ Other consists of acquisitions, disposals, dividends, impairment, effects of changes in foreign exchange rates.

(In millions of Korean won)			2014		
Investee	Balance as at January 1	Gain/loss on valuation	Other comprehensive income/loss	Other ¹	Balance as at December 31
Samsung Card	₩ 2,340,009	₩ 189,533	₩ (145,141)	₩ (30,375)	₩ 2,354,026
Samsung Electro-Mechanics	954,496	114,013	(14,834)	(13,271)	1,040,404
Samsung SDI	1,175,204	11,636	32,795	(1,219,635)	-
Samsung SDS	879,956	95,160	(18,971)	(4,369)	951,776
Samsung Techwin	402,745	(4,094)	19,502	(418,153)	-
Samsung Corning Advanced Glass	111,961	(14,937)	(986)	99,892	195,930
Other ¹	557,921	(48,795)	(1,297)	182,496	690,325
Total	₩ 6,422,292	₩ 342,516	₩ (128,932)	₩(1,403,415)	₩ 5,232,461

¹ Other consists of acquisitions, disposals, dividends, effects of changes in foreign exchange rates and reclassifications.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

- (E) Summary of the condensed financial information of major associates and joint ventures.
- A summary of condensed financial information of major associates, details of adjustments from the book value of investments in associates, and dividends received from associates as at and for the years ended December 31, 2015 and 2014, is as follows:

(In millions of Korean won)		2015							
	Samsung Electro-								
Investee	Sams	ung Card ¹	Mec	hanics	Sams	ung SDS			
1. Condensed financial information									
Condensed statement of financial position:									
Current assets	₩	10.070.007	₩	2,729,971	₩	3,845,289			
Non-current assets	VV	19,070,997		4,539,482		2,486,390			
Current liabilities	12,382,672		1,768,254		1,389,915				
Non-current liabilities		12,382,072		1,185,816		164,913			
Non-controlling interests		-		93,268		188,091			
Condensed statement of comprehensive income:									
Revenue		3,302,194		6,176,258		7,853,459			
Profit from continuing operations ²		333,724		312,773		439,020			
Profit after tax from discontinued operations ²		-		(301,585)		-			
Other comprehensive loss ²		79,656		(138,445)		70,670			
Total comprehensive income ²		413,380		(127,257)		509,690			
		• • .							
2. Details of adjustments from the book value of in	vestment			4 222 115		1 599 700			
Net assets (a) $(h)^3$		6,688,325 37.5%		4,222,115 23,4%		4,588,760			
Ownership percentage (b) 3		0.10,0				22.6%			
Net assets of equity shares (a x b) Goodwill		2,504,778		987,695 7.081		1,036,142			
		17,181		- 3		26,801			
Intercompany transactions		(56,322)		(287)		(2,547)			
Impairment		(1,126,958)		-		-			
Book value of associates		1,338,679		994,489		1,060,396			
3. Dividends from associates									
	₩	43,393	₩	13,270	₩				

¹ Samsung Card does not present current and non-current assets and liabilities as separate classifications in its statement of financial position.

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

³Ownership percentage includes common and preferred stock.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(In millions of Korean won)		2014						
	Samsung Electro-							
Investee	Sams	sung Card ¹	Me	chanics	Sams	ung SDS		
1. Condensed financial information								
Condensed statement of financial position:								
Current assets	₩	17 726 627	₩	3,553,987	₩	3,228,074		
Non-current assets	VV	17,736,627		4,164,625		2,317,971		
Current liabilities				2,151,002		1,117,969		
Non-current liabilities		11,346,281		924,814		214,051		
Non-controlling interests		-		89,390		101,766		
Condensed statement of comprehensive income:								
Revenue		3,521,846		7,143,746		7,897,748		
Profit from continuing operations ²		656,025		502,704		412,880		
Other comprehensive loss ²		(387,559)		(65,510)		(83,938)		
Total comprehensive income ²		268,466		437,194		328,942		
2. Details of adjustments from the book value of inv	estments	in associates						
Net assets (a)		6,390,346		4,553,406		4,112,259		
Ownership percentage (b) ³		37.5%		22.8%		22.6%		
Net assets of equity shares (a x b)		2,396,380		1,038,184		929,371		
Goodwill		17,181		-		26,801		
Intercompany transactions		(59,535)		2,220		(4,396)		
Book value of associates		2,354,026		1,040,404		951,776		
3. Dividends from associates								
Dividends	₩	30,375	₩	13,270	₩	4,368		

¹ Samsung Card does not present current and non-current assets and liabilities as separate classifications in its statement of financial position.

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

³Ownership percentage includes common and preferred stock.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(2) A summary of condensed financial information of major joint ventures, details of adjustments from the book value of investments in joint ventures, and dividends from joint ventures as at and for the years ended December 31, 2015 and 2014, is as follows:

(In millions of Korean won)	20	-	2014	
Investee	Samsung Advance	-	Samsung Corning Advanced Glass	
1. Condensed financial information				
Condensed statements of financial position				
Current assets	\mathbb{W}	226,720	₩	228,312
- Cash and cash equivalent		13,383		14,696
Non-current assets		183,313		200,105
Current liabilities		32,158		34,719
- Current financial liabilities ¹		14,111		18,718
Non-current liabilities		1,013		1,669
Condensed statements of comprehensive income				
Revenue		264,660		264,754
Depreciation and amortization		2,025		705
Interest income		1,182		912
Income tax expense		(2,100)		(6,133)
Loss from continuing operations ²		(15,619)		(29,922)
Other comprehensive income (loss) ²		452		(2,028)
Total comprehensive loss ²		(15,167)		(31,950)

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

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

(In millions of Korean won)	20	2015		2014	
	Samsung Corning Advanced Glass		Samsung Corning Advanced Glass		
Investee					
2. Details of adjustments from the book value of investments in joint ventures					
Net assets (a)	${\mathbb W}$	376,862	\mathbb{W}	392,029	
Ownership percentage (b)		50.0%		50.0%	
Net assets of equity shares (a x b)		188,431		196,015	
Intercompany transactions ¹		(60)		(85)	
Book value of joint ventures		188,371		195,930	
3. Dividends from joint ventures					
Dividends	\mathbf{W}	-	\mathbf{W}	-	

¹Consists of unrealized gains and losses and other differences.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(3) Profit (loss) amounts attributable to owners of the parent from associates and joint ventures which are not individually material for the years ended December 31, 2015 and 2014, are as follow:

(In millions of Korean won)	20	15	2014		
Investee	Associates	Joint ventures	Associates	Joint ventures	
Profit(Loss) from continuing operations ¹	₩ 886,612	₩ 1,834	₩ (32,436)	₩ (30,181)	
Other comprehensive income (loss) ¹	(3,192)	(233)	4,399	634	
Total comprehensive income (loss) ¹	₩ 883,420	₩ 1,601	₩ (28,037)	₩ (29,547)	

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

(F) Fair value of marketable investments in associates as at December 31, 2015 and 2014, is as follows:

(In millions of Korean won and	2015		2014
number of shares)	Number of shares held	Number of shares held Market value	
Samsung Card	43,393,170	₩ 1,338,679	₩ 1,917,978
Samsung Electro-Mechanics	17,693,084	1,112,895	967,812
Samsung SDS	17,472,110	4,437,916	5,128,064

13. Property, Plant and Equipment

(A) Changes in property, plant and equipment for the years ended December 31, 2015 and 2014, are as follows:

	2015					
-		Buildings and	Machinery	Construction		
(In millions of Korean won)	Land	Structures	and Equipment	In Progress	Other	Total
Balance as at January 1	₩ 7,710,352	₩17,598,547	₩ 37,751,890	₩15,832,307	₩ 1,979,854	₩ 80,872,950
Acquisition cost	7,710,352	26,474,937	127,603,897	15,832,307	5,664,513	183,286,006
Accumulated depreciation						
and impairment	-	(8,876,390)	(89,852,007)	-	(3,684,659)	(102,413,056)
Acquisitions and capital						
expenditures ¹	318,540	6,389,558	22,233,244	(4,471,883)	1,048,603	25,518,062
Business combinations	246	1,757	3,498	47	29,228	34,776
Depreciation	-	(1,557,234)	(17,191,280)	-	(914,027)	(19,662,541)
Disposals/Scrap	(78,449)	(60,697)	(208,505)	(39)	(226,004)	(573,694)
Impairment	-	-	(78,240)	-	(454)	(78,694)
Other ²	(102,257)	81,365	567,272	(390,380)	210,251	366,251
Balance as at December 31	₩ 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)

¹ The capitalized borrowing costs are $\mathbb{W}11,061$ million and the interest rate used to calculate the borrowing costs eligible for capitalization is 1.12%.

²Other includes effects of changes in foreign currency exchange rates.

			20	014		
		Buildings a	nd Machinery	Construction		
(In millions of Korean won)	Land	Structure	s and Equipment	In Progress	Other	Total
Balance as at January 1	₩ 7,429,28	37 ₩ 15,715,0	64 ₩ 36,498,478	₩ 13,840,172	₩ 2,013,387	₩ 75,496,388
Acquisition cost	7,429,28	23,375,0	118,621,699	13,840,172	5,518,351	168,784,544
Accumulated depreciation						
and impairment		- (7,659,9	(82,123,221)) –	(3,504,964)	(93,288,156)
Acquisitions and capital						
expenditures ¹	357,79	3,595,2	16,048,623	2,476,963	956,520	23,435,110
Business combinations		-			940	940
Depreciation		- (1,305,2	20) (14,729,718)) –	(875,088)	(16,910,026)
Disposals/Scrap	(67,00)	1) (457,6	(193,077)	(44,883)	(71,550)	(834,145)
Impairment		- (2,2	80) (173,140)) –	(6,710)	(182,130)
Other ²	(9,72	8) 53,4	07 300,724	(439,945)	(37,645)	(133,187)
Balance as at December 31	₩ 7,710,35	52 ₩ 17,598,5	547 ₩ 37,751,890	₩ 15,832,307	₩ 1,979,854	₩ 80,872,950
Acquisition cost	7,710,35	26,474,9	127,603,897	15,832,307	5,664,513	183,286,006
Accumulated depreciation						
and impairment		- (8,876,3	90) (89,852,007)) –	(3,684,659)	(102,413,056)

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

¹ The capitalized borrowing costs are #33,931 million and the interest rate used to calculate the borrowing costs eligible for capitalization is 2.06%.

² Other includes transfer to assets held-for-sale and effects of changes in foreign currency exchange rates.

(B) Details of depreciation of property, plant and equipment for the years ended December 31, 2015 and 2014, are as follows:

(In millions of Korean won)	201	15	20)14
Cost of sales	₩	17,877,592	₩	15,309,212
Selling and administrative expenses and others		1,784,949		1,600,814
Total	W	19,662,541	₩	16,910,026

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

14. Intangible Assets

(A) Changes in intangible assets for the years ended December 31, 2015 and 2014, are as follows:

			201	5		
	Intellectual	Development				
(In millions of Korean won)	property rights	cost	Membership	Goodwill	Other	Total
Balance as at January 1	W. 1 240 401	W. 1 220 022	W. 102.415		W. 1 202 0 CO	W. 4 505 452
Internally generated	₩ 1,340,481	₩ 1,239,933	₩ 182,415	₩ 739,576	₩ 1,283,068	₩ 4,785,473
(development costs)	-	1,143,059	-	-	-	1,143,059
External acquisitions	234,740	-	3,272	-	67,358	305,370
Business combinations	20,691	-	-	316,724	36,809	374,224
Amortization	(232,103)	(607,526)	-	-	(428,687)	(1,268,316)
Sales/disposals	(22,944)	-	(292)	-	(409)	(23,645)
Impairment	(21,957)	(76,703)	-	(178,696)	(7,275)	(284,631)
Other ¹	23,196	(1,218)	(480)	32,935	310,344	364,777
Balance as at December 31	₩ 1,342,104	₩ 1,697,545	₩ 184,915	₩ 910,539	₩ 1,261,208	₩ 5,396,311

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

				2014	4			
(In millions of Korean won)	Intellectual Development property rights cost		Men	Membership Goodwill		Other	Total	
Balance as at January 1	₩ 1,231,673	₩ 752,669	•₩	177,532	₩ 560,534	₩ 1,258,192	₩ 3,980,600	
Internally generated (development costs)	-	940,001		-	-	-	940,001	
External acquisitions	288,197			4,835	-	91,274	384,306	
Business combinations	50,429			-	175,885	18,498	244,812	
Amortization	(211,940)	(396,078))	-	-	(535,377)	(1,143,395)	
Sales/disposals	(40,666)			-	-	(27,838)	(68,504)	
Impairment	(547)	(56,659))	-	(7,838)	(845)	(65,889)	
Other ¹	23,335			48	10,995	479,164	513,542	
Balance as at December 31	₩ 1,340,481	₩ 1,239,933	₩	182,415	₩ 739,576	₩ 1,283,068	₩ 4,785,473	

¹ Other includes transfer to assets held-for-sale and effects of changes in foreign currency exchange rates.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(B) Goodwill

Goodwill is allocated to cash-generating units at the end of the reporting period, and consists of the following:

(In millions of Korean won)	2015	2014
CE	₩ 449,127	₩ 379,612
IM	290,338	15,028
Semiconductor	86,754	181,126
DP	80,299	80,299
Other	4,021	83,511
Total	₩ 910,539	₩ 739,576

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.

(1) For the year ended December 31, 2015, pursuant to the results of the goodwill impairment reviews performed, the Group recognized an impairment of \#79,277 million on goodwill recognized in LED division. The key assumptions used in calculating the value-in-use were as follows:

(In percentage, %)	Key assumptions
Sales growth rate	1.1
Perpetual growth rate	1.0
Pre-tax discount rate ¹	9.5

¹ Pre-tax discount rate applied to the cash flow projections.

(2) For the year ended December 31, 2014, pursuant to the results of the goodwill impairment reviews performed, the Group recognized an impairment of ₩7,838 million on goodwill recognized in Samsung France Research Center (SFRC). The key assumptions used in calculating the value-in-use were as follows:

(In percentage, %)	Key assumptions
Sales growth rate	-
Perpetual growth rate	-
Pre-tax discount rate ¹	23.7

¹ Pre-tax discount rate applied to the cash flow projections.

The sales growth rate was determined on the basis of past performance and expectations of market fluctuations. The discount rate reflects specific risks related to the division.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(C) Details of amortization of intangible assets by line item for the years ended December 31, 2015 and 2014, are as follows:

(In millions of Korean won)	2015	2014
Cost of sales	₩ 801.993	₩ 554,236
Selling and administrative expenses and others	466,323	589,159
Total	₩ 1,268,316	₩ 1,143,395

15. Borrowings

(A) Details of the carrying amounts of borrowings as at December 31, 2015 and 2014, are as follows:

(In millions of Korean won)	Financial Institutions	Annual Interest Rates (%) as at December 31, 2015	20	015	20	14
Short-term borrowings						
Collateralized borrowings ¹	Woori Bank and others	0.3 ~ 13.6	₩	8,738,448	₩ 4	4,661,384
Non-collateralized borrowings	Citibank and others	0.1 ~ 14.6		2,416,977		3,367,915
Total			₩1	1,155,425	₩ 8	8,029,299
Current portion of long-term borrowings						
Bank borrowings	SMBC and others	1.1 ~ 18.8	₩	454	₩	1,758,556
Financial lease liabilities ²	CSSD and others	1.1 ~ 15.7		15,652		14,807
Total			₩	16,106	₩	1,773,363
Long-term borrowings						
Bank borrowings	SMBC and others	1.1 ~ 19.8	₩	193,598	₩	23,989
Financial lease liabilities ²	CSSD and others	1.1 ~ 15.7		72,944		77,682
Total			₩	266,542	₩	101,671

¹Collateralized borrowings are secured by trade receivables (Note 8 and 10).

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

(B) Maturities of long-term borrowings outstanding as at December 31, 2015, are as follows:

(In millions of Korean won)	an won) Long-term borrowings	
For the Years Ending December 31		
2016	\mathbb{W}	16,106
2017		7,852
2018		201,851
2019		8,776
2020 and thereafter		48,063
Total	₩	282,648

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

16. Debentures

Details of the carrying amount of debentures as at December 31, 2015 and 2014, are as follows:

(In millions of Korean won)	2015	2014
Korean won denominated debentures (A)	₩ -	₩ 199,515
Foreign currency denominated debentures (B)	1,230,448	1,156,367
Total	₩ 1,230,448	₩ 1,355,882

(A) Details of Korean won denominated debentures as at December 31, 2015 and 2014, are as follows:

(In millions of Korean won)	Issue Date	Due Date	Annual Interest Rates (%) as at December 31, 2015		2015		2014
Unsecured debentures	2011.11.17	2016.11.17	4.2	₩	200,000	₩	200,000
Less: Current portion					(200,000)		-
Less: Discounts					-		(485)
Total				₩	-	₩	199,515

The debenture has been issued by Samsung Display and will be repaid upon maturity.

(B) Details of foreign currency denominated debentures as at December 31, 2015 and 2014, are as follows:

(In millions of Korean			Annual Interest Rates (%)		
won)	Issue Date	Due Date	as at December 31, 2015	2015	2014
US dollar denominated straight bonds ¹	1997.10.2	2027.10.1	7.7	₩ 70,320 (US\$60 million)	. , -
US dollar denominated unsecured bonds ²	2012.4.10	2017.4.10	1.8	1,172,000 (US\$1,000 million)	,,
Less: Current portion				(5,860)	(5,496)
Less: Discounts				(6,012)	(8,785)
Total				₩ 1,230,448	₩ 1,156,367

¹ US dollar 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. Repayment of these debentures is due on the date of maturity and interest is paid semi-annually.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(C) Maturities of debentures outstanding as at December 31, 2015, are as follows:

(In millions of Korean won) For the Years Ending December 31	Debentures
2016	₩ 205,860
2017	1,177,860
2018	5,860
2019	5,860
2020 and thereafter	46,880
Total	₩ 1,442,320

17. Net Defined Benefit Liabilities

(A) Details of net defined benefit liabilities recognized on the statements of financial position as at December 31, 2015 and 2014, are as follows:

(In millions of Korean won)	2015	2014
Present value of funded defined benefit obligations	₩ 7,693,919	₩ 7,404,205
Present value of unfunded defined benefit obligations	138,860	138,042
Subtotal	7,832,779	7,542,247
Fair value of plan assets	(7,473,959)	(7,340,905)
Total	₩ 358,820	₩ 201,342

(B) The amounts recognized in the statements of income for the years ended December 31, 2015 and 2014 relating to defined benefit plans are as follows:

(In millions of Korean won)	2015		2014
Current service cost	₩ 1,147,127	\mathbb{W}	959,182
Net interest cost	8,595		104,040
Past service cost	-		132,286
Other	3,324		29,995
Total	₩ 1,159,046	₩	1,225,503

- (C) The amounts recognized as expense of defined contribution plans for the years ended December 31, 2015 and 2014, are ₩96,611 million and ₩64,470 million, respectively.
- (D) The pension expenses related to defined benefit plans recognized on the statements of income for the years ended December 31, 2015 and 2014, are as follows:

(In millions of Korean won)		2015		2014
Cost of sales	W	500,660	W	518,401
Selling and administrative expenses and others		658,386		707,102
Total	₩	1,159,046	₩	1,225,503

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(E) Changes in the defined benefit obligations for the years ended December 31, 2015 and 2014, are as follows:

(In millions of Korean won)	2015	2014
Balance as at January 1	₩ 7,542,247	₩ 5,728,078
Current service cost	1,147,127	959,182
Interest cost	322,296	306,810
Past service cost	-	132,286
Remeasurement:		
Actuarial gains or losses arising from changes in		
demographic assumptions	2,428	57,355
Actuarial gains or losses arising from changes in		
financial assumptions	(315,630)	722,156
Other	(165,799)	54,586
Benefits paid	(700,205)	(407,517)
Foreign exchange differences	2,568	(3,178)
Other	(2,253)	(7,511)
Balance as at December 31	₩ 7,832,779	₩ 7,542,247

(F) Changes in the fair value of plan assets for the years ended December 31, 2015 and 2014, are as follows:

(In millions of Korean won)	2015	2014
Balance as at January 1	₩ 7,340,905	₩ 3,873,176
Expected return on plan assets	313,701	202,770
Remeasurement factor of plan assets	(137,262)	(88,342)
Contributions by employer	292,951	3,536,443
Benefits paid	(320,106)	(187,391)
Foreign exchange differences	1,228	(497)
Other	(17,458)	4,746
Balance as at December 31	₩ 7,473,959	₩ 7,340,905

Expected contributions to post-employment benefit plans for the year ending December 31, 2016, are \#1,477,944 million.

(G) Plan assets as at December 31, 2015 and 2014, consist of as follows:

(In millions of Korean won)	2015	2014
Debt instruments	₩ 7,445,277	₩ 7,317,174
Other	28,682	23,731
Total	₩ 7,473,959	₩ 7,340,905

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

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(H) The principal actuarial assumptions as at December 31, 2015 and 2014, are as follows:

	2015	2014
Discount rate	0.7 ~ 8.2 %	1.2 ~ 6.5 %
Salary growth rate (including the effects of inflation)	1.5 ~ 10.0 %	1.7 ~ 6.6 %

(I) The sensitivity of the defined benefit obligations as at December 31, 2015, to changes in the weighted principal assumptions is as follows:

	2015	2014
Discount rate		
1% increases	89%	89%
1% decreases	113%	113%
Salary growth rate		
1% increases	112%	113%
1% decreases	89%	89%

(J) The weighted average duration of the defined benefit obligations is 11.87 years.

18. Provisions

Changes in provisions for the year ended December 31, 2015, are as follows:

(In millions of Korean won)	Warranty (A)	Royalty expenses (B)	Long-term incentives (C)	Other(D)	Total
Balance as at January 1 Charged (credited) to the	₩ 1,829,068	₩ 3,917,792	₩ 730,464	₩ 13,476	₩ 6,490,800
statement of income	1,805,253	1,403,793	233,598	90,680	3,533,324
Payment	(1,918,849)	(980,274)	(210,509)	(24,135)	(3,133,767)
Other ¹	(50,946)	102,438	-	1,132	52,624
Balance as at December 31	₩ 1,664,526	₩ 4,443,749	₩ 753,553	₩ 81,153	₩ 6,942,981

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

- (A) The Group accrues warranty reserves for estimated costs of future service, repairs and recalls, based on historical experience and terms of warranty programs.
- (B) The Group recognizes provisions for the estimated royalty expenses that are under negotiation with counterparties. The timing of payment depends on the settlement of the negotiations.
- (C) The Group has a long-term incentive plan for its executives based on a three-year management performance criteria and recognizes a provision for the estimated incentive cost for the accrued period.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

- (D) The Group makes provisions for the estimated emission expense for emissions in excess of the permits held by the Group for the applicable years. Details of emission rights and liabilities as of December 31, 2015 are as follows:
 - (1) Allocated amount of emission permits and estimated amount of emission for the next three years as of December 31, 2015 are as follows:

(In metric tons)	2015	2016	2017
Allocated emission permits	5,876,732	5,764,037	5,647,947
Estimated volume of emission	6,594,207	7,425,322	8,004,394

(2) Changes in the certified emission reductions as of December 31, 2015 are as follows:

(In millions of Korean won)	2015	
Balance as of January 1	₩	-
Acquisition		7,260
Balance as of December 31	₩	7,260

(3) Changes in the provisions for emissions as of December 31, 2015 are as follows:

(In millions of Korean won)		2015
Balance as of January 1	₩	-
Charged to the statement of income		7,947
Balance as of December 31	₩	7,947

19. Commitments and Contingencies

(A) Guarantees

(In millions of Korean won)		2015	20	14
Guarantees of debt for housing rental ¹	₩	64,753	₩	76,558

¹ Represents the maximum amount of debt guarantee which was provided for employees who took debt from financial institutions in order to finance employee housing rental.

In addition to the guarantees described above, the Group provides guarantees for borrowings by Medicapital from Dime Investment and two other companies in the amount of \mathbb{W} 2,264 million.

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(B) Leases

The Group 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 \$96,216 million (2014: \$102,569 million) are treated as finance lease agreements and are included in property, plant and equipment. Depreciation expense for the finance lease assets amounted to \$12,916 million for the year ended December 31, 2015 (2014: \$11,787 million). Leased property, plant and equipment were pledged as collateral (Note 15).

The minimum lease payments under finance lease agreements and their present value as at December 31, 2015 and 2014, are as follows:

	2015			201	4			
	Minimur	n Lease			Minimu	m Lease		
	paym	ents	Present	t values	paym	ents	Present	values
Within one year	₩	23,391	₩	15,652	₩	22,691	₩	14,809
From one year to five years		60,405		32,895		59,123		30,577
More than five years		69,194		40,049		82,162		47,103
Total	\mathbb{W}	152,990	\mathbb{W}	88,596	₩	163,976	₩	92,489
Present value adjustment		(64,394)				(71,487)		
Finance lease payable	₩	88,596			₩	92,489		

(C) Litigation

(1) The litigation with Apple Inc. ("Apple") is ongoing in the United States as of the reporting date. On August 24, 2012, the jury determined that the Group 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 Group. The Group 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 Group petitioned for an en banc rehearing regarding the design infringement, and on August 13, 2015, the federal court dismissed the Group'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 Group made payment for the damages. On December 14, 2015, the Group 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. From March 28 to April 5, 2016, the District court will proceed with a re-trial for damages associated with the remaining ruling that was returned from the Appeal court.

Additionally, on May 5, 2014, the jury in another ongoing patent lawsuit determined that the Group 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 Group 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 Group'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 Group. On January 18, 2016, the court of first instance ordered a permanent injunction on the Group's product. The Group's product was designed around the patent and thus has not

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

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

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

- (2) The Group 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 Group believes the outcome will not have a material impact on the financial condition of the Group.
- (3) In addition, during the normal course of business with numerous companies, the Group 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 Group believes the outcome will not have a material impact on the financial condition of the Group.

(D) Other commitments

As at December 31, 2015, the Group has a trade financing agreement, trade notes receivable discounting facilities, and loan facilities with accounts receivable pledged as collateral with 15 financial institutions, including Woori Bank, with a combined limit of up to W14,071,860 million. In addition, the Group has a trade financing agreement and loan facilities with accounts receivable pledged as collateral with 22 financial institutions, including Shinhan Bank, for up to US\$6,543 million and W794,533 million.

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 Group has recorded an estimated liability as a result of this commitment as of December 31, 2015 (Notes 6 and 32).

SEA, a foreign subsidiary, has a contract for issuing ABS (Asset Backed Securities) backed by accounts receivable with BTMU and other financial institutions for up to US\$700 million.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

20. Share Capital

The Group's total number of authorized shares is 500,000,000 shares (\$5,000 per share). The Group has issued 147,299,337 shares of common stock and 22,833,427 shares of preferred stock as at December 31, 2015, excluding retired shares. Due to the retirement of shares, the total par value of the shares issued is \$850,664 million (common stock \$736,497 million, preferred stock \$114,167 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, 2015 and 2014, are as follows:

(In number of shares)	Preferred stock	Common stock	
Balance as at January 1, 2014	19,853,734	130,915,121	
Disposal of treasury stock through exercise			
of stock options	-	47,530	
Acquisition of treasury stock	(131,250)	(758,055)	
Balance as at December 31, 2014	19,722,484	130,204,596	
Disposal of treasury stock through exercise			
of stock options	-	5,000	
Acquisition of treasury stock ¹	(1,174,651)	(2,812,748)	
Balance as at December 31, 2015	18,547,833	127,396,848	

¹ During the year ended December 31, 2015, the Company acquired treasury stock (1,920,803 shares of common stock and 1,055,901 shares of preferred stock) for the purpose of retiring the shares.

21. Retained Earnings

Retained earnings as at December 31, 2015 and 2014, consist of:

(In millions of Korean won)		2015		2014
Appropriated	₩	131,539,594	₩	119,947,785
Unappropriated		53,592,420		49,581,819
Total	\overline{W}	185,132,014	₩	169,529,604

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

22. Dividends

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

(A) Interim dividends (Record date: June 30, 2015 and 2014)

(In millions of Korean won and number of shares)		2015	2014	
Number of shares eligible for dividends	Common stock	129,312,651 shares	130,962,651 shares	
Number of shares eligible for dividends	Preferred stock	19,603,734 shares	19,853,734 shares	
Dividend rate		20%	10%	
Dividend amount	Common stock	₩ 129,313	₩ 65,481	
Dividend amount	Preferred stock	19,603	9,927	
Total		₩ 148,916	₩ 75,408	

(B) Year-end dividends (Record date: December 31, 2015 and 2014)

(In millions of Korean won and number of shares)		2015	2014	
Number of shares slicible for dividends	Common stock	127,396,848 shares	130,204,596 shares	
Number of shares eligible for dividends	Preferred stock	18,547,833 shares	19,722,484 shares	
Dividend rate	Common stock	400%	390%	
Dividend fate	Preferred stock	401%	391%	
Dividend amount	Common stock	₩ 2,547,937	₩ 2,538,990	
	Preferred stock	371,884	385,574	
Total		₩ 2,919,821	₩ 2,924,564	

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

23. Other Components of Equity

Other components of equity as at December 31, 2015 and 2014, consist of:

(In millions of Korean won)		2015	2014
Treasury stock	₩	(13,442,379) ₹	₹ (8,429,313)
Stock options		-	806
Unrealized gains on available-for-sale financial assets		1,478,330	1,850,195
Share of other comprehensive income of associates and joint ventures		362,342	559,280
Foreign currency translation		(4,091,202)	(4,566,887)
Remeasurement of net defined benefit liabilities		(1,737,809)	(1,996,792)
Other		(149,733)	(146,676
Total	₩	(17,580,451) ₩	# (12,729,387

The Group repurchases registered common stock and non-voting preferred stock and recognizes the repurchase amount in other components of equity. Such stock will be distributed upon exercise of stock options. Treasury stock as at December 31, 2015 and 2014, consists of the following:

	20	15	2014			
(In millions of Korean won and number of shares)	Preferred Stock	Common Stock	Preferred Stock	Common Stock		
Number of shares	4,285,594 shares	19,902,489 shares	3,110,943 shares	17,094,741 shares		
Acquisition cost	₩ 2,064,840	₩ 11,377,539	₩ 755,764	₩ 7,673,549		

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

24. Share-Based Compensation

The Group has a stock option plan that provides for the granting of stock purchase options to employees or directors who have contributed, or are expected to contribute, to the management and technological innovation of the Group. No share-based compensation has been granted since December 20, 2005, and there are no outstanding stock options as at December 31, 2015.

A summary of the terms and the number of outstanding stock options as at December 31, 2015, is as follows:

- Type of stock issued through stock options: registered common stock
- Granting method: Issuance of new common stock (use of treasury stock possible as well)
- Exercise conditions: 2 or more years of employee service from the date of the grant
- The number of shares and per-share exercise price of stock to be issued through stock options (after the exclusion of stock options expired due to termination)

	Date of the Grant		
	April 16, 2004	December 20, 2005	
Granted	590,000	10,000	
Expired	53,061	-	
Exercised prior to December 31, 2014	536,939	5,000	
Outstanding as at January 1, 2015	-	5,000	
Exercised during 2014	47,530	-	
Exercised during 2015	-	5,000	
Outstanding as at December 31, 2015	-	-	
Exercise price	₩ 580,300	₩ 606,700	
Weighted average share price at the date of exercise during 2015	₩ -	₩ 1,284,000	
Exercise period	2006.4.17~ 2014.4.16	2007.12.21~ 2015.12.20	

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

25. Expenses by Nature

Expenses by nature for the years ended December 31, 2015 and 2014, are as follows:

(In millions of Korean won)		2015		
Changes in finished goods and work in process	W	(1,310,244)	₩	1,261,097
Raw materials used and merchandise purchased		77,774,274		84,356,410
Wages and salaries		18,366,965		17,696,265
Pension		1,255,657		1,289,973
Depreciation		19,662,541		16,910,026
Amortization		1,268,316		1,143,395
Welfare		3,852,929		3,478,817
Commission and service charges		8,439,586		8,499,107
Other expenses		44,930,016		46,545,826
Total ¹	₩	174,240,040	₩	181,180,916

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

26. Selling and Administrative Expenses

Selling and administrative expenses for the years ended December 31, 2015 and 2014, are as follows:

(In millions of Korean won)	2015	2014
1) Selling and Administrative Expenses		
Wages and salaries	₩ 5,542,701	₩ 5,214,171
Pension	295,652	300,776
Commissions and service charges	8,439,586	8,499,107
Depreciation	714,883	670,709
Amortization	255,708	399,717
Advertising	3,852,478	3,773,649
Sales promotion	7,101,937	7,760,648
Transportation	3,433,215	3,733,045
Warranty	2,849,567	3,201,776
Other	4,566,500	4,963,012
2) Research and development expenses		
Total expenses	14,848,754	15,325,507
Capitalized expenses	(1,143,059)	(940,001)
Total	₩ 50,757,922	₩ 52,902,116

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

27. Other Non-Operating Income and Expense

Details of other non-operating income for the years ended December 31, 2015 and 2014, are as follows:

(In millions of Korean won)		2015		2014
Dividend income	₩	183,730	₩	1,436,235
Rental income		83,400		89,199
Gain on disposal of investments		262,073		152,281
Gain on disposal of property, plant and equipment		135,564		228,366
Loss on disposal of assets classified as held-for-sale		207,796		-
Other		813,384		1,895,276
Total	₩	1,685,947	₩	3,801,357

Details of other non-operating expense for the years ended December 31, 2015 and 2014, are as follows:

(In millions of Korean won)	2015	2014
Loss on disposal of property, plant and equipment	₩ 161,510	₩ 222,841
Donations	446,391	409,796
Loss on disposal of investments	1,890,097	111,191
Loss on disposal of intangible assets	284,631	65,889
Loss on disposal of assets classified as held-for-sale	-	723,869
Other	940,805	726,151
Total	₩ 3,723,434	₩ 2,259,737

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

28. Financial Income and Costs

Details of financial income and costs for the years ended December 31, 2015 and 2014, are as follows:

(In millions of Korean won)		2015		2014
Financial income				
Interest income				
Interest income from loans and receivables	₩	1,665,521	₩	1,734,963
Interest income from available-for-sale financial assets		95,636		98,398
Foreign exchange differences		7,765,797		5,766,640
Gains from derivatives		987,925		659,828
Total	₩	10,514,879	₩	8,259,829
(In millions of Korean won)		2015		2014
Financial costs				
Interest expense:				
Interest expense from financial liabilities measured at amortized cost	₩	567,181	₩	466,371
Other financial liabilities		209,330		126,569
Foreign exchange differences		8,275,571		6,016,728
Losses from derivatives		979,689		684,334
Total	₩	10,031,771	₩	7,294,002

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

29. Income Tax

(A) Income tax expense for the years ended December 31, 2015 and 2014, consists of:

(In millions of Korean won)	2015	2014
Current taxes:		
Current tax on profits for the year	₩ 5,707,937	₩ 5,953,438
Adjustments in respect to prior years	1,077,780	71,530
Deferred taxes:		
Changes in carryforward of unused tax credits	35,128	722,023
Changes in temporary differences	(282,458)	(483,290)
Changes in carryforward of unused tax losses	321,583	(1,792,553)
Other	41,369	(3,430)
Items charged directly to equity	(488)	12,958
Income tax expense	₩ 6,900,851	₩ 4,480,676

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

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

(In millions of Korean won)		2015	2014
Income before tax	₩	25,960,995	₩ 27,875,034
Tax calculated at weighted average of applicable tax rates ¹		6,880,212	6,880,857
Tax effects of:			
Permanent differences		25,886	(292,554)
Temporary differences for which no deferred income tax was			
recognized		(55,186)	(9,631)
Tax credits		(824,893)	(1,942,488)
Results of subsidiaries, associates and interests in joint ventures		560,668	201,835
Impact of changes in tax rates		6,291	1,756
Other		307,873	(359,099)
Income tax expense	₩	6,900,851	₩ 4,480,676

¹ The weighted average of statutory tax rates are applied to the respective profits of the Group applicable to each tax authority as at December 31, 2015 and 2014.

(C) Changes in deferred income tax assets and liabilities resulting from the tax effect of temporary differences for the years ended December 31, 2015 and 2014, are as follows:

	Temporary Differences						Deferred Income Tax Asset				Temporary Differences Deferred Income Tax Assets (Liabilities			iabilities)
	Ba	lance as at		Increase Balance as at Balance		alance as at Balance as at Increase Balance as		Balance as at Increase		alance as at				
(In millions of Korean won)	J	anuary 1		(Decrease)		December 31		January 1	(Decrease)	D	ecember 31		
Deferred tax arising from tempor	ary di	fferences												
Special reserves appropriated		(1.1.0.10)						(2, (==)				(1 - 0 0)		
for tax purposes	₩	(14,368)	₩	7,000	₩	(7,368)	₩	(3,477)	₩	1,694	₩	(1,783)		
Revaluation of land		(3,475,692)		19,734		(3,455,958)		(841,117)		4,775		(836,342)		
Investments in subsidiaries,														
associates and joint ventures ¹		(31,469,156)		(10,260,716)		(41,729,872)		(4,242,098)		(931,799)		(5,173,897)		
Depreciation		2,609,052		18,021		2,627,073		643,194		8,794		651,988		
Accrued income		(535,671)		226,126		(309,545)		(132,237)		61,151		(71,086)		
Provisions and accrued expenses		11,432,901		1,889,615		13,322,516		2,958,810		560,754		3,519,564		
Foreign currency translation		98,788		123,005		221,793		25,516		33,051		58,567		
Asset impairment losses		579,655		73,113		652,768		141,377		19,598		160,975		
Other		(2,233,868)		2,040,256		(193,612)		(539,174)		524,440		(14,734)		
Subtotal	₩	(23,008,359)	₩	^z (5,863,846)	₩	(28,872,205)	₩	(1,989,206)	₩	282,458	₩	(1,706,748)		
Deferred tax arising from carryfo	rward	s												
Unused tax losses	₩	7,465,339	₩	(1,287,012)	₩	6,178,327	₩	1,817,559	₩	(321,583)	₩	1,495,976		
Unused tax credits		739,448		(108,086)		631,362		590,169		(35,128)		555,041		
Deferred tax recognized in other	compr	ehensive incor	ne											
Valuation of available-for-sale	-													
financial instruments	₩	(2,549,385)	₩	572,556	₩	^t (1,976,829)	₩	(610,738)	₩	157,546	₩	(453,192)		
Actuarial valuation		2,640,893		(341,739)		2,299,154		621,000		(77,761)		543,239		
Subtotal	₩	91,508	₩	230,817	₩	322,325	₩		₩	79,785	₩	90,047		
Deferred tax assets											₩	5,589,108		
Deferred tax liabilities												(5,154,792)		
Total											₩	434,316		

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(2) 2014

	Ten	nporary Differer	Deferred Income Tax Assets (Liabilities)				
	Balance as at	Increase	Balance as at	Balance as at	Increase	Balance as at	
(In millions of Korean won)	January 1	(Decrease)	December 31	January 1	(Decrease)	December 31	
Deferred tax arising from temporary d	lifforoncos						
Special reserves appropriated	linerences						
for tax purposes	₩ (27,785)	₩ 13,417	₩ (14,368)	₩ (6,724)	₩ 3,247	₩ (3,477)	
Revaluation of land	(3,476,104)	412	(3,475,692)	(841,217)	100	(841,117)	
Investments in subsidiaries,	(3,470,104)	412	(3,473,092)	(041,217)	100	(041,117)	
associates and joint ventures ¹	(27,819,662)	(3,649,494)	(31,469,156)	(4,000,627)	(241,471)	(4,242,098)	
Depreciation	834,746	1,774,306	2,609,052	,	507,818	643,194	
Accrued income	(303,790)	(231,881)	(535,671)	(72,845)	(59,392)	(132,237)	
Provisions and accrued expenses	12,345,693	(912,792)	11,432,901	3,153,146	(194,336)	2,958,810	
Foreign currency translation	(181,302)	280,090	98,788		69,541	25,516	
Asset impairment losses	342,089	237,566	579,655		59,478	141,377	
Other	(4,185,045)	1,951,177	(2,233,868)	(877,479)	338,305	(539,174)	
Subtotal	₩ (22,471,160)	₩ (537,199)	₩ (23,008,359)	,		₩ (1,989,206)	
	(22,171,100)	(((((((((((((((()))))))))))))))))))))))	(23,000,337)		1003,200	(1,505,200)	
Deferred tax arising from carryforwar	ds						
Unused tax losses	₩ 107,228	₩ 7,358,111	₩ 7,465,339	₩ 25,006	₩ 1,792,553	₩ 1,817,559	
Unused tax credits	1,341,650	(602,202)	739,448	1,312,192	(722,023)	590,169	
Deferred tax recognized in other comp	rehensive income						
Valuation of available-for-sale financial							
instruments	₩ (2,887,880)	₩ 338,495	₩ (2,549,385)	₩ (664,172)	₩ 53,434	₩ (610,738)	
Actuarial valuation	1,718,454	922,439	2,640,893	,	212,121	621,000	
Subtotal	₩ (1,169,426)	₩ 1,260,934	₩ 91,508	₩ (255,293)	₩ 265,555	₩ 10,262	
Deferred tax assets						₩ 4,526,595	
Deferred tax liabilities						(4,097,811)	
Total						₩ 428,784	

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.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

The Group periodically assesses its ability to recover deferred tax assets. In the event of a significant uncertainty regarding the Group'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, 2015 and 2014, are as follows:

(In millions of Korean won)		2015		2014
Unused tax losses Unused tax credits	₩	34,899 22,584	₩	7,366 19,632

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:

(In millions of Korean won)	20	15	20	016	20)17	2018	and after
Undisposed accumulated deficit	₩	-	₩	-	₩	-	₩	34,899
Tax credit carryforwards	3	,121		-	,	7,298		12,165

(D) The liquidity analysis of deferred tax assets and deferred tax liabilities is as follows:

(In millions of Korean won)	2015	2014
Deferred tax asset (liability) to be recovered within 12 months	₩ 2,403,515	₩ 1,564,682
Deferred tax liability to be recovered after more than 12 months	(1,969,199)	(1,135,898)
Total	₩ 434,316	₩ 428,784

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

30. Earnings per Share

(A) Basic earnings per share

Basic earnings per share for the years ended December 31, 2015 and 2014, are calculated as follows:

(1) Common stock

(In millions of Korean won, except per share data, and thousands of number of shares)

Profit attributable to owners of the Parent company	₩	18,694,628	₩	23,082,499
Profit available for common stock		16,317,275		20,045,198
Weighted-average number of common shares outstanding		129,190		130,924
Basic earnings per share	₩	126,305	₩	153,105

2014

2015

(2) Preferred stock

(In millions of Korean won, except per share data, and thousands of number of shares)		2015		2014
Profit attributable to owners of the Parent company	₩	18.694.628	₩	23.082.499
Profit available for common stock	**	2,377,353	**	3,037,301
Weighted-average number of preferred shares outstanding		19,519		19,849
Basic earnings per preferred share	₩	121,798	₩	153,020

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(B) Diluted earnings per share

The Group has one category of potentially dilutive ordinary shares: stock options. Dilutive earnings per share is calculated by adjusting the weighted average number of ordinary shares outstanding to assume conversion of all dilutive potential ordinary shares.

2015

2014

Diluted earnings per share for the years ended December 31, 2015 and 2014, is calculated as follows:

(1) Common stock

(In millions of Korean won, except per share data, and thousands of number of shares)

Profit available for common stock and common stock equivalents	₩	16,317,276	₩	20,045,299
Weighted-average number of shares of common stock and dilutive potential				
common stock		129,192		130,933
Diluted earnings per share	₩	126,303	₩	153,096
(2) Preferred stock				
(In millions of Korean won, except per share data, and thousands of number of				
shares)		2015		2014
Net income available for preferred stock and preferred stock equivalents	₩	2,377,352	₩	3,037,200
Weighted-average number of shares of preferred stock and dilutive potential				
preferred stock		19,519		19,849
Diluted earnings per preferred share	₩	121,798	₩	153,015

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

31. Cash Generated from Operations

- (A) Adjustments and changes in assets and liabilities arising from operating activities for the years ended December 31, 2015 and 2014, are as follows:
- Adjustments

(In millions of Korean won)	2015	2014
Adjustments for:		
Income tax expense	₩ 6,900,851	₩ 4,480,676
Financial income	(3,339,267)	(3,094,422
Financial costs	2,466,042	1,933,56
Severance and retirement benefits	1,255,657	1,289,97
Depreciation	19,662,541	16,910,02
Amortization	1,268,316	1,143,39
Bad debt expenses	388,792	365,68
Dividend income	(183,730)	(1,436,235
Gain on valuation of equity method investments	(1,101,932)	(342,510
Gain on disposal of property, plant and equipment	(135,564)	(228,366
Loss on disposal of property, plant and equipment	161,510	222,84
Obsolescence and scrapping of inventories	963,637	1,354,40
Gain on disposal of investments	(262,073)	(152,28)
Gain on disposal of assets classified as held-for-sale	(207,796)	-
Loss on disposal of assets classified as held-for-sale	-	723,86
Impairment losses on investments	1,890,097	111,19
Impairment losses on intangible assets	284,631	65,88
Other income/expense	(400,741)	(1,023,926
Adjustments, total	₩ 29,610,971	₩ 22,323,76

- Changes in assets and liabilities arising from operating activities

(In millions of Korean won)	n millions of Korean won) 2015	
Changes in assets and liabilities:		
Decrease (increase) in trade receivables	₩ 207,676	₩ (177,409
Decrease (increase) in other receivables	206,245	(701,942
(Increase) decrease in advances	(40,938)	90,12
Decrease (increase) in prepaid expenses	611,089	(2,126,336
(Increase) decrease in inventories	(2,616,203)	266,96
Decrease in trade payables	(1,871,175)	(265,898
Increase in other payables	650,861	1,053,15
Decrease in advances received	(76,233)	(50,848
Decrease in withholdings	(163,124)	(10,687
(Decrease) increase in accrued expenses	(1,243,649)	1,586,21
Increase (decrease) in provisions	503,661	(702,672
Payment of severance benefits	(700,205)	(407,517
Decrease (increase) in plan assets	27,155	(3,349,052
Other	(177,192)	958,77
Changes in net working capital, total	₩ (4,682,032)	₩ (3,837,136

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(B) The Group's statements of cash flows are prepared using indirect method. Significant transactions not affecting cash flows for the years ended December 31, 2015 and 2014, are as follows:

(In millions of Korean won)	2015	2014
Valuation of available-for-sale financial assets	₩ (1,218,782)	₩ (117,455)
Reclassification of construction in progress and machinery in transit to property, plant and equipment	29,846,423	19,979,420
Reclassification of available-for-sale financial assets to assets held-for- sale	77,073	100,051
Reclassification of investment in associates to assets held-for-sale	-	411,390
Valuation of investments in associates and joint ventures	12,857	(128,932)
Reclassification of current maturities of long-term borrowings	16,106	1,773,363
Reclassification of current maturities of bonds	205,860	5,496

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

32. Financial Risk Management

The Group's financial risk management focuses on minimizing market risk, credit risk, and liquidity risk arising from operating activities. To mitigate these risks, the Group implements and operates a financial risk policy and program that closely monitors and manages such risks.

The finance team mainly carries out the Group's financial risk management. With the cooperation of the Group'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.

Also, financial risk management officers are dispatched to the regional headquarters of each area including the United States, United Kingdom, Singapore, China, Brazil and Russia to operate the local finance center in accordance with global financial risk management.

The Group'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 Group's financial liabilities under financial risk management are comprised of trade and other payables, borrowings, debentures, and other financial liabilities.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(A) Market risk

(1) Foreign exchange risk

The Group is exposed to foreign exchange risk arising from various currency exposures, primarily with respect to the United States, European Union, South America, Japan and other Asian countries. 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 Chinese Yuan. Foreign exchange risk management of the Group is carried out by both SEC and its subsidiaries. To minimize foreign exchange risk arising from operating activities, the Group'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. The Group's foreign exchange risk management policy also defines foreign exchange risk, measuring period, controlling responsibilities, management procedures, hedging period and hedge ratio.

The Group 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.

The foreign currency exposure to financial assets and liabilities of a 5% currency rate change against the Korean won are presented below:

	2015		2014			
(In millions of Korean won)	Increase	Decrease	Increase	Decrease		
USD	₩ 143,266	₩ (143,266)	₩ (171,265)	₩ 171,265		
EUR	19,626	(19,626)	(36,381)	36,381		
JPY	(15,120)	15,120	(42,529)	42,529		

(2) Price risk

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

As at December 31, 2015 and 2014, a price fluctuation in relation to marketable equity securities by 1% would result in changes in other comprehensive income (before income tax) of $\mathbb{W}46,748$ million and $\mathbb{W}57,768$ million, respectively.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(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 Group is exposed to interest rate risk mainly through interest bearing liabilities and assets. The Group's position with regard to interest rate risk exposure is mainly driven by its floating interest rate debt obligations and interest-bearing deposits. The Group implemented policies and operates to minimize uncertainty arising from changes in interest rates and finance costs.

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

The sensitivity risk of the Group is determined based on the following assumptions:

• 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 1% increases in interest rates on borrowings are presented below:

	20	2014			
(In millions of Korean won)	Increase	Decrease	Increase	Decrease	
Financial assets Financial liabilities	₩ 81,962 (22,314)	₩ (81,962) 22,314	₩ 52,977	₩ (52,977) 30,722	
Net effect	₩ 59,648	₩ (59,648)	₩ 22,255	₩ (22,255)	

(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 Group 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 Group 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 Group's finance team and the local finance center. The Group requires separate approval for contracts with restrictions.

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

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(C) Liquidity risk

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

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

In addition, the Group 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.

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.

			2015		
	Less than	4-6	7-12	1-5	More than
(In millions of Korean won)	3 months	months	months	years	5 years
Financial liabilities	₩ 32,275,387	₩ 412,196	₩ 1,331,166	₩ 3,057,099	₩ 476,432
			2014		
	Less than	4-6	7-12	1-5	More than
(In millions of Korean won)	3 months	months	months	years	5 years
Financial liabilities	₩ 34,502,783	₩ 706,077	₩ 3,528,699	₩ 3,994,862	₩ 106,857

The table above shows the Group'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 Group's trading portfolio of derivative instruments has been included at its fair value of #38,829 million (December 31, 2014: #78,348 million). These contracts are managed on a net-fair value basis rather than by maturity date. Net settled derivatives consist of forward exchange contracts used by the Group to manage the exchange rate profile.

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, 2015 is %67,017 million (December 31, 2014: %115,211 million).

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(D) Capital risk management

The purpose of capital management is to maintain a sound capital structure. The Group 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 consolidated financial statements.

The Group's capital risk management policy has not changed since the fiscal year ended December 31, 2014. As at December 31, 2015, the Group has maintained an A+ and A1 credit rating from S&P and Moody's, respectively, on its long term debt.

The total liabilities to equity ratios as at December 31, 2015 and 2014, are as follows:

(In millions of Korean won)		2015	2014
Total liabilities	₩	63,119,716	₩ 62,334,770
Total equity		179,059,805	168,088,188
Total liabilities to equity ratio		35.3%	37.1%

(E) Fair value estimation

(1) Carrying amounts and fair values of financial instruments by category as at December 31, 2015 and 2014 are as follows:

	2015				2014			
(In millions of Korean won)	Carrying amount Fair value		Carrying amount		Fair value			
Financial assets								
Cash and cash equivalents ¹	₩	22,636,744	₩ -	₩	16,840,766	₩ -		
Short-term financial instruments ¹		44,228,800	-		41,689,776	-		
Short-term available-for-sale financial assets		4,627,530	4,627,530		3,286,798	3,286,798		
Trade receivables ¹		25,168,026	-		24,694,610	-		
Long-term available-for-sale financial assets ²		8,332,480	8,225,687		12,667,509	12,272,756		
Other		3,546,434	3,420,292		4,762,971	4,725,263		
Total financial assets	₩	108,540,014		₩	103,942,430			
Financial liabilities								
Trade payables ¹	₩	6,187,291	₩ -	₩	7,914,704	₩ -		
Short-term borrowings ¹		11,155,425	-		8,029,299	-		
Other payables ¹		7,625,490	-		9,258,344	-		
Current portion of long-term liabilities ¹		221,548	-		1,778,667	-		
Debentures		1,230,448	1,261,783		1,355,882	1,377,113		
Long-term borrowings		266,542	242,603		101,671	82,271		
Long-term other payables		2,719,674	2,581,985		2,520,277	2,606,179		
Other ¹		7,947,398	-		11,474,129	-		
Total financial liabilities	₩	37,353,816		₩	42,432,973			

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

² Amount measured at cost (2015: #106,793 million, 2014: #394,753 million) is excluded as the range of reasonable fair value estimates is significant and the probabilities of the various estimates cannot be reasonably assessed.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(2) The following table presents the assets and liabilities, by level, that are measured at fair value:

		201	5	
(In millions of Korean won)	Level 1	Level 2	Level 3	Total balance
1) Assets				
Short-term available-for-sale financial assets	₩ -	₩ 4,627,530	₩ -	₩ 4,627,530
Long-term available-for-sale financial assets ¹	4,674,753	78,189	3,472,745	8,225,687
Other	-	47,578	15,599	63,177
2) Liabilities				
Long-term other payables	-	-	312,738	312,738
Derivatives	-	38,829	-	38,829
		201	4	
(In millions of Korean won)	Level 1	Level 2	Level 3	Total balance
1) Assets				
Short-term available-for-sale financial assets	₩ 1,016,878	₩ 2,269,920	₩ -	₩ 3,286,798
Long-term available-for-sale financial assets ¹	5,776,836	3,050,338	3,445,582	12,272,756
Other	-	45,898	102,513	148,411
2) Liabilities				
Derivatives	-	78,348	-	78,348

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 Group 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 Group 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 Group's quarterly reporting dates. The Group's policy is to recognize transfers between levels at the end of the reporting period, if corresponding events or changes in circumstances have occurred.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

Specific valuation techniques used to value financial instruments include:

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

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

(3) Valuation technique and the inputs

The Group utilizes a present value technique to discount future cash flows at 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)

	Fair	Valuation		Input Range	
Classification Val		Technique	Level 3 Inputs	(Weighted Average)	
Long-term available-for-sale fin	nancial assets				
Taawan Lighting	W. 15.000	Discounted	Permanent growth rate	-1.00% ~ 1.00% (0%)	
Taewon Lighting	₩ 15,860	cash flow	Weighted average cost of capital	$7.76\% \sim 9.76\% \; (8.76\%)$	
Company of Mantana Incompany	7.007	Discounted	Permanent growth rate	-1.00% ~ 1.00% (0%)	
Samsung Venture Investment	7,207	cash flow	Weighted average cost of capital	$7.74\% \sim 9.74\% \; (8.74\%)$	
Corning Incorporated	2,745,574	Trinomial	Risk adjusted discount rate	6.25% ~ 8.25% (7.25%)	
convertible preferred stock	2,743,374	model	Price volatility	29.8% ~ 35.8% (32.8%)	
China Star Optoelectronics	278,557	Discounted	Weighted average cost of conital	0 410/ 11 510/ (10 460/)	
Technology Co.,Ltd(CSOT)	278,337	cash flow	Weighted average cost of capital	9.41%~11.51% (10.46%)	
Derivatives					
Embedded derivatives	15,599	Binomial	Discount rate	$1.63\% \sim 7.25\% (4.20\%)$	
(convertible bonds)	15,599	model	Stock price volatility	16.02% ~ 22.44% (19.10%)	
Long-term other payables					
Contingent financial liability	312,738	Discounted	Weighted average cost of capital	2,910/ $4,650/$ $(4,020/)$	
Contingent maneral hability	512,758	cash flow	weighted average cost of capital	3.81% ~ 4.65% (4.23%)	

(4) Changes in Level 3 instruments:

(In millions of Korean won)		2015		2014
	117	2 5 40 005	117	102.270
Balance as at January 1	₩	3,548,095	₩	493,378
Purchases		119,297		2,586,120
Disposals		(55,986)		(97,487)
Amount recognized in profit or loss		(309,208)		(67,581)
Amount recognized in other comprehensive income		(304,012)		646,856
Other		177,420		(13,191)
Balance as at December 31	₩	3,175,606	₩	3,548,095

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

Sensitivity analysis of financial instruments is performed to measure favorable and unfavorable changes in the fair value of financial instruments which are affected by the unobservable parameters, using a statistical technique. When the fair value is affected by more than two input parameters, the amounts represent the most favorable or 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 each financial instrument which is categorized within Level 3 and subject to sensitivity analysis, are as follows:

(In millions of Korean won)	Favorable	Changes	Unfavorable Changes		
Classification	Profit or Loss	Equity	Profit or Loss	Equity	
Long-term available-for-sale financial assets ¹	₩ -	₩ 229,763	₩ -	₩ (222,599)	
Embedded derivatives (convertible bonds) ²	367	367	(361)	(361)	
Long-term other payables	3,060	3,060	(3,092)	(3.092)	
Total	₩ 3,427	₩ 233,190	₩ (3,453)	₩ (226,052)	

¹ Changes in fair value are calculated by increasing or decreasing the correlation between volatility (29.8% to 35.8%) and discount rate for convertible preferred stock. Similarly, for other equity securities, changes in fair value are calculated with the correlation between growth ratio (-1% to 1%) and discount rate, which are significant unobservable inputs.

² For equity derivatives, changes in their fair value are calculated by increasing or decreasing the correlation between stock prices and volatility by 10%.

³ The fair value long-term payables is calculated by increasing and decreasing the correlation between discount rate and volatility by 10% which are significant unobservable inputs.

(6) Fair value hierarchy classifications of the financial assets and financial liabilities that are measured at fair value as at December 31, 2015 and 2014, are as follows:

(In millions of Korean won)	2015							
Classification	Carrying amount	Level 1		Level 2	Level 3		Total	
Assets								
Other	₩ 3,483,257	₩	-	₩ 3,357,115	₩	-	₩ 3,357,115	
Liabilities								
Debentures	1,230,448		-	1,261,783		-	1,261,783	
Long-term borrowings	266,542		-	242,603		-	242,603	
Long-term other payables	2,406,936		-	2,269,247		-	2,269,247	

(In millions of Korean won)		2014						
Classification	Carrying amount	Level 1	Level 2	Level 3	Total			
Assets								
Other non-current assets	₩ 4,614,560	₩ -	₩ 4,576,852	₩ -	₩ 4,576,852			
Liabilities								
Debentures	1,355,882	-	1,377,113	-	1,377,113			
Long-term borrowings	101,671	-	82,271	-	82,271			
Long-term other payables	2,520,277	-	2,606,179	-	2,606,179			

As at December 31, 2015, assets and liabilities not measured at fair value but for which the fair value is disclosed

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

and categorized within Level 2 in the fair value hierarchy, are measured using the present value technique which discounts future cash flows with appropriate interest rates.

33. Segment Information

(A) Operating segment information

The chief operating decision maker has been identified as the Management Committee. The Management Committee is responsible for making strategic decisions based on review of the group's internal reporting. The Management Committee has determined the operating segments based on these reports.

The Management Committee reviews operating profits of each operating segment in order to assess performance and to make decisions about allocating resources to the segment. The operating segments are product based and include CE, IM, Semiconductor, DP and others.

Depreciation, amortization of intangible assets, and operating profit were 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.

2015				DS				
(In millions of Korean won)	CE	IM	Total ¹	Semi conductor	DP	 Total ¹	Intercompany elimination within the group	Consolidated
Total segment								
revenue	₩120,688,835	₩222,023,600	₩149,974,731	₩ 90,600,806	₩ 55,120,243	₩493,313,476	₩ (292,659,994)	₩200,653,482
Intercompany								
revenue	(73,793,424)	(118,469,345)	(74,948,617)	(43,014,054)	(27,633,382)	(292,659,994)	292,659,994	-
Net revenue ²	46,895,411	103,554,255	75,026,114	47,586,752	27,486,861	200,653,482	-	200,653,482
Depreciation	600,216	1,175,340	17,244,351	12,481,198	4,534,914	19,662,541	-	19,662,541
Amortization	98,154	182,661	790,369	646,110	130,416	1,268,316	-	1,268,316
Operating profit	1,254,187	10,142,022	14,887,262	12,787,297	2,295,367	26,413,442	-	26,413,442

(1) For the year ended December 31, 2015

¹ Includes other amounts not included in specific operating segments.

² Segment net revenue includes intersegment revenues.

(2) For the year ended December 31, 2014

2014				DS				
(In millions of Korean won)	СЕ	IM	Total ¹	Semi conductor	DP	— Total ¹	Intercompany elimination within the group	Consolidated
Korean won)	CE	INI	Total	conductor	DI	Total	group	Consolidated
Total segment								
revenue	₩124,916,892	₩236,438,979	₩131,459,756	₩ 75,058,071	₩ 52,227,615	₩494,576,550	₩(288,370,563)	₩206,205,987
Intercompany								
revenue	(74,733,757)	(124,674,435)	(65,669,950)	(35,328,169)	(26,500,446)	(288,370,563)	288,370,563	-
Net revenue ²	50,183,135	111,764,544	65,789,806	39,729,902	25,727,169	206,205,987	-	206,205,987
Depreciation	596,151	761,214	14,946,633	10,506,903	4,235,596	16,910,026	-	16,910,026
Amortization	98,165	186,471	534,487	402,862	117,139	1,143,395	-	1,143,395
Operating profit	1,184,325	14,562,885	9,430,915	8,776,442	660,181	25,025,071	-	25,025,071

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¹ Includes other amounts not included in specific operating segments.

² Segment net revenue includes intersegment revenues.

(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, 2015 and 2014, is as follows:

				2015			
(In millions of Korean won)	Korea	America	Europe	Asia and Africa	China	Intercompany elimination within the group	Consolidated
wony	Korea	America	Durope	Anta	Ciillia	group	Consolution
Net segment revenue	20,827,822	68,944,447	38,629,442	41,265,504	30,986,267	-	200,653,482
Non-current assets ¹	63,691,863	7,600,852	709,513	7,596,102	12,820,469	(545,378)	91,873,421

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

				2014			
(In millions of Korean				Asia and		Intercompany elimination within the	
won)	Korea	America	Europe	Africa	China	group	Consolidated
Net segment revenue	20,728,917	68,704,659	42,944,592	40,801,466	33,026,353	-	206,205,987
Non-current assets1	63,355,887	7,650,511	847,611	4,486,482	9,965,909	(647,977)	85,658,423

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

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

34. Related Party Transactions

(A) Sale and purchase transactions

Sales and purchases with related parties for the years ended December 31, 2015 and 2014, are as follows:

		2015			
			Disposal of		Purchase of
(In millions of Korean won)	Name of Company ¹	Sales	fixed assets	Purchases	fixed assets
	Samsung SDS	₩ 38,885	₩ -	₩1,615,824	₩ 201,748
A	Samsung Electro-Mechanics	27,437	-	2,806,123	2
Associates and Joint ventures	Samsung Card	49,552	-	36,246	-
ventures	Other	269,538	3,526	5,505,653	323,363
	Total (Associates and Joint ventures)	385,412	3,526	9,963,846	525,113
	Samsung C&T. ²	9,630	-	113,098	1,850,655
	Samsung SDI	59,879	326	1,518,575	24,606
Other related parties	Other	117,432	-	1,239,441	968,840
	Total (Other related parties)	186,941	326	2,871,114	2,844,101

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

² During the year ended December 31, 2015, Cheil Industries Inc. merged Samsung C&T and changed its name to Samsung C&T.

		2014			
	-		Disposal of		Purchase of
(In millions of Korean won)	Name of Company ¹	Sales	fixed assets	Purchases	fixed assets
	Samsung SDS	₩ 29,355	₩ -	₩1,886,282	₩ 228,515
	Samsung Electro-Mechanics	28,852	110	2,379,046	-
Associates and Joint ventures	Samsung Card	7,835	-	39,867	170,739
ventures	Other	413,950	11,080	5,521,232	431,640
	Total (Associates and Joint ventures)	479,992	11,190	9,826,427	830,894
	Samsung C&T. ²	6,485	-	104,377	524,048
	Samsung SDI	64,481	324,246	1,230,004	355,543
Other related parties	Other	229,384	-	1,900,435	117,597
	Total (Other related parties)	300,350	324,246	3,234,816	997,188

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

² During the year ended December 31, 2015, Cheil Industries Inc. merged Samsung C&T and changed its name to Samsung C&T.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(B) Balances of receivables and payables

Balances of receivables and payables arising from sales and purchases of goods and services as at December 31, 2015 and 2014, are as follows:

		2015	
(In millions of Korean won)	Name of Company ¹	Receivables	Payables
	Samsung SDS	₩ 3,578	₩ 311,648
Associates and Joint	Samsung Electro-Mechanics	608	216,869
ventures	Samsung Card	5,395	1,245,620
ventures	Other	60,638	476,895
	Total (Associates and Joint ventures)	70,219	2,251,032
	Samsung C&T ²	208,576	1,430,098
Other related parties	Samsung SDI	90,221	106,507
Other related parties	Other	19,456	161,048
	Total (Other related parties)	318,253	1,697,653

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

² During the year ended December 31, 2015, Cheil Industries Inc. merged with Samsung C&T and changed its name to Samsung C&T.

		2014	
(In millions of Korean won)	Name of Company ¹	Receivables	Payables
	Samsung SDS	₩ 3,353	₩ 359,001
Associates and Joint	Samsung Electro-Mechanics	1,431	237,816
ventures	Samsung Card	5,431	1,124,240
ventures	Other	82,873	463,647
	Total (Associates and Joint ventures)	93,088	2,184,704
	Samsung C&T ²	187,108	288,984
Other related marting	Samsung SDI	4,771	122,936
Other related parties	Other	18,052	126,422
	Total (Other related parties)	209,931	538,342

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

² During the year ended December 31, 2015, Cheil Industries Inc. merged with Samsung C&T and changed its name to Samsung C&T.

(C) The Group invested 137,917 million Korean won in associates and joint ventures including 133,600 million Korean won in Samsung Biologics during the year ended December 31, 2015 (721,299 million Korean won during the year ended December 31, 2014)

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(D) 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, 2015 and 2014, consists of:

(In millions of Korean won)				
	201	5	20)14
Salaries and other short-term employee benefits	\mathbf{W}	23,671	₩	26,969
Termination benefits		560		973
Other long-term benefits		8,316		7,137

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

35. 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 Group for the years ended December 31, 2015 and 2014, is as follows:

2015	Percentage of Non-Controlling	Balance as at	Net			Balance as at
(In millions of Korean won)	Interests	January 1	Income	Dividends	Other	December 31
Samsung Display and its						
subsidiaries	15.2%	₩ 5,360,192	₩ 314,078	₩ -	₩ (31,857)	₩ 5,642,413
2014	Percentage of					
	Non-Controlling	Balance as at	Net			Balance as at
(In millions of Korean won)	Interests	January 1	Income	Dividends	Other	December 31
Samsung Display and its						

(B) The summarized financial information for each subsidiary with non-controlling interests that are material to the Group before intercompany eliminations is as follows:

(1) Summarized consolidated statements of financial position

	Samsung Display and its subsidiaries					
(In millions of Korean won)	December 31, 201	5 December 31, 2014				
Current assets	₩ 16,947,1	32 ₩ 14,185,656				
Non-current assets	25,161,2	35 25,380,046				
Current liabilities	6,703,5	6,158,562				
Non-current liabilities	1,260,8	22 871,085				
Equity attributable to:	34,144,0	32,536,055				
Owners of the parent	33,639,3	32,073,951				
Non-controlling interests	504,6	462,104				

(2) Summarized consolidated statements of comprehensive income

	Samsung Display and its subsidiaries				
(In millions of Korean won)		2015			
Sales	\mathbb{W}	27,446,419	₩	25,646,109	
Net income		1,841,637		1,153,734	
Other comprehensive income		(233,527)		485,350	
Total comprehensive income attributable to:		1,608,110		1,639,084	
Owners of the parent		1,565,566		1,640,637	
Non-controlling interests		42,544		(1,553)	

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(3) Summarized consolidated statements of cash flows

	Samsung Display and its subsidiaries			
(In millions of Korean won)	2015	2014		
Cash flows from operating activities	₩ 7,458,783	₩ 4,722,526		
Cash flows from investing activities	(8,045,005)	(6,269,805)		
Cash flows from financing activities	653,266	416,556		
Effect of exchange rate changes on cash and cash equivalents	(2,563)	9,249		
Increase (Decrease) in cash and cash equivalents	64,481	(1,121,474)		
Cash and cash equivalents at beginning of period	321,382	1,442,856		
Cash and cash equivalents at end of period	385,863	321,382		

36. Business Combination

Significant business combinations for the year ended December 31, 2015 are as follow:

Samsung Electronics America, the Group's subsidiary, acquired 100% of the equity shares of Samsung Pay, Inc. (formerly LoopPay, Inc.) on February 23, 2015.

(A) Overview of the acquired company

Name of the acquired company	Samsung Pay, Inc. (formerly LoopPay, Inc.)
Headquarters location	Burlington, MA. USA
Representative director	Will Graylin
Industry	Mobile payments development and services
(B) Purchase price allocation	
(In millions of Korean Won)	Amount
I. Consideration transferred	₩ 275,325
II. Identifiable assets and liabilities	
Cash and cash equivalents	3,042
Short-term financial instruments	57
Trade and other receivables	17,559
Property, plant and equipment	122
Intangible assets	20,293
Other assets	22
Trade and other payables	(23,268)
Deferred income tax liabilities	(5,220)
Total net identifiable assets	12,607
III. Goodwill (I – II)	₩ 262,718

Had Samsung Pay (formerly LoopPay) been consolidated from January 1, 2015, revenues would increase by W85 million and net income would decrease by W2,151 million on the consolidated statement of income. The revenues and net loss contributed by Samsung Pay (formerly LoopPay) since acquisition amount to W4,871 million and W18,016 million, respectively.

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37. Non-current Assets Held-for-Sale (Assets of disposal group)

(A) Summary

(1) Sale of Samsung Techwin Co., Ltd.

During the year ended December 31, 2014, management of the Group decided to sell all its shares in Samsung Techwin Co., Ltd. to Hanwha Corporation. The contract was entered into on November 26, 2014, and the transaction was completed in June 2015.

(2) Sale of Samsung General Chemicals Co., Ltd.

During the year ended December 31, 2014, management of the Group decided to sell all its shares of Samsung General Chemicals Co., Ltd. to Hanwha Chemical and Hanwha Energy Corporation, and the transaction was completed in April 2015.

(3) Sale of Optical Materials business segment

During the year ended December 31, 2014, management of the Group decided to sell the Optical Materials business segment and accordingly, the related assets and liabilities are classified as held-for-sale. Since the business does not represent a separate major line of the Group, related profit or loss was not presented as profit or loss of discontinued operations. The contract was entered into on December 2, 2014, and the transaction was completed in March 2015.

(4) Sale of Samsung Fine Chemicals General Co., Ltd.

During the year ended December 2015, the Group entered into an agreement with Lotte Chemical to sell all of its shares in Samsung Fine Chemicals General Co., Ltd. The contract was entered into on October 30, 2015, and the transaction will be completed within the first half of 2016.

(5) Sale of Samsung Lions Co., Ltd.

During the year ended December 2015, the Group entered into an agreement with Cheil Industries Inc. to sell all of its shares in Samsung Lions Co., Ltd. The contract was entered into on December 11, 2015, and the transaction was completed in January, 2016.

(B) Details of assets and liabilities reclassified as held-for-sale, as of December 31, 2015 and December 31, 2014 are as follows:

(In millions of Korean Won)	December 31, 2015	December 31, 2014		
Assets held-for-sale				
Trade receivables	₩ -	₩ 60,173		
Inventories	-	9,703		
Other current assets	-	22,523		
Property, plant and equipment		37,955		
Investment	77,073	511,441		
Other non-current assets	-	3,696		
Total	77,073	645,491		

Liabilities held-for-sale				
Current liabilities		-		25,939
Non-current liabilities		-		2,377
Total	\mathbb{W}	-	₩	28,316

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(C) Details of cumulative income or expense recognized in other comprehensive income relating to the disposal group classified as held-for-sale as of December 31, 2015 and December 31, 2014 are as follows:

(In millions of Korean Won)	December 31, 2015		December 31, 2014	
Gain on valuation of available-for-sale securities	₩	23,797	₩	24,750
Changes in equity under the equity-method		-		54,118
Foreign exchange translation adjustment		-		1,233
Total	\mathbb{W}	23,797	₩	80,101

38. Events after the Reporting Period

(A) Share buyback and retirement

The Company acquired treasury stock (0.31 million shares of common stock and 0.18 million shares of preferred stock) after the balance sheet date. In January, 2016, the Company retired 3.47 million shares (common stock 2.23 million, preferred stock 1.24 million) which were repurchased at cost of $\mathbb{W}4,257,086$ million during December 2015 and January, 2016. In addition, on January 28, 2016, the board of directors approved the share buyback and retirement of common and preferred stock, with the estimated total number of shares to be repurchased of 2.63 million (common stock 2.10 million, preferred stock 0.53 million). All repurchased shares will be retired after the buyback is completed. The period of purchase will end on April 28, 2016.

(B) Sale of stake in Samsung Card Co., Ltd.

On January 28, 2016, the Group sold its entire stake in Samsung Card Co., Ltd. to Samsung Life Insurance Co., Ltd. following the approval of the board of directors.