Consolidated Financial Statements December 31, 2017 and 2016

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December 31, 2017 and 2016

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Independent Auditor's Report

(English Translation of a Report Originally Issued in Korean)

To the Board of Directors and Shareholders of LG Electronics Inc.

We have audited the accompanying consolidated financial statements of LG Electronics Inc. and its subsidiaries (collectively referred to as the "Group"), which comprise the consolidated statements of financial position as of December 31, 2017 and 2016, and the consolidated statements of profit or loss, consolidated statements of comprehensive income, consolidated statements of changes in equity and consolidated statements of cash flows for the years then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies and other explanatory information.

Management's responsibilities for the financial statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with International Financial Reporting Standards as adopted by the Republic of Korea (Korean IFRS), and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's responsibilities

Our responsibility is to express an opinion on the consolidated financial statements based on our audits. We conducted our audits in accordance with Korean Standards on Auditing. Those standards require that we comply with ethical requirements, and plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.



Opinion

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of LG Electronics Inc. and its subsidiaries as of December 31, 2017 and 2016, and its consolidated financial performance and its consolidated cash flows for the years then ended in accordance with Korean IFRS.

Other Matter

Auditing standards and their application in practice vary among countries. The procedures and practices used in the Republic of Korea to audit such financial statements may differ from those generally accepted and applied in other countries.

Seoul, Korea March 8, 2018

This report is effective as of March 8, 2018, the audit report date. Certain subsequent events or circumstances, which may occur between the audit report date and the time of reading this report, could have a material impact on the accompanying consolidated financial statements and notes thereto. Accordingly, the readers of the audit report should understand that there is a possibility that the above audit report may have to be revised to reflect the impact of such subsequent events or circumstances, if any.

Consolidated Statements of Financial Position

December 31, 2017 and 2016

(in millions of Korean won)	Note	2017	2016
Assets			
Current assets			
Cash and cash equivalents	5,6,37	3,350,597	3,015,137
Deposits held by financial institutions	5,6,37	80,515	80,559
Trade receivables	5,7,37	8,178,213	7,059,889
Loans and other receivables	5,7,37	467,427	545,766
Other financial assets	5,8,37	3,534	30,650
Inventories Current income tax assets	9	5,908,437 134,159	5,171,015 147,221
Other current assets	10	1,050,651	931,420
Assets held for sale	39	21,436	8,906
Accord field for date		19,194,969	16,990,563
Non-current assets			-,,-
Deposits held by financial institutions	5,6,37	52,775	58,195
Loans and other receivables	5,7,37	470,216	490,178
Other financial assets	5,8,37	52,981	66,147
Property, plant and equipment	11	11,800,782	11,222,428
Intangible assets	12	1,854,620	1,571,087
Deferred income tax assets	17	1,365,367	1,554,594
Investments in associates and joint ventures	13	5,620,331	5,104,558
Investment properties	14	95,712	97,031
Net defined benefit assets	18	684	730
Other non-current assets	10	712,522	699,758
		22,025,990	20,864,706
Total assets		41,220,959	37,855,269
Liabilities			
Current liabilities			
Trade payables	5,37	8,137,526	6,746,361
Borrowings	5,15,37	1,360,756	1,650,511
Other payables	5,16,37	3,522,839	3,196,735
Other financial liabilities	5,8,37	2,280	21,115
Current income tax liabilities		100,353	74,263
Provisions	19	649,555	770,967
Other current liabilities	20	3,763,161	3,284,412
Non-current liabilities		17,536,470	15,744,364
Borrowings	5,15,37	8,089,724	7,008,500
Other payables	5,16,37	6,490	7,008,300
Other financial liabilities	5,8,37	68,610	73,226
Deferred income tax liabilities	3,8,3 <i>1</i> 17	8,759	9,586
Net defined benefit liabilities	18	326,699	511,252
Provisions	19	298,121	
	20	212,402	1,028,298
Other non-current liabilities			115,530 8,754,163
Total liabilities		9,010,805 26,547,275	24,498,527
Equity		20,041,210	24,430,327
Paid-in capital:	21		
Share capital	21	904,169	904,169
Share premium		3,088,179	3,088,179
Retained earnings	22	10,964,155	9,233,416
Accumulated other comprehensive income	23	(1,522,478)	(1,028,962)
Other components of equity	23 24	(209,764)	(209,708)
OTHER COMPONENTS OF EMAILS		13,224,261	11,987,094
		13.44.401	11,507,054
Equity attributable to owners of the Parent Comp	any		
Equity attributable to owners of the Parent Comp Non-controlling interests	 	1,449,423	1,369,648
Equity attributable to owners of the Parent Comp	any 		

LG Electronics Consolidated Statements of Profit or Loss Years ended December 31, 2017 and 2016

(in millions of Korean won, except per share amounts)	Note	2017	2016
Not calca	0.5	04 000 004	55,007,000
Net sales	25	61,396,284	55,367,033
Cost of sales	26	46,737,563	41,630,293
Gross profit		14,658,721	13,736,740
Selling and marketing expenses	26,27	7,125,664	6,689,714
Administrative expenses	26,27	1,345,606	1,347,677
Research and development expenses	26,27	2,386,876	2,468,628
Service costs	26,27	1,332,026	1,892,958
Operating profit		2,468,549	1,337,763
Financial income	28	483,665	490,593
Financial expenses	29	831,114	884,051
Gain from equity method valuation	13	667,475	268,738
Other non-operating income	30	1,346,607	1,894,584
Other non-operating expenses	31	1,577,070	2,385,910
Profit before income tax		2,558,112	721,717
Income tax expense	17	688,594	595,402
Profit for the year		1,869,518	126,315
Profit for the year attributable to:			
Owners of the Parent Company		1,725,774	76,879
Non-controlling interests		143,744	49,436
		1,869,518	126,315
Earnings per share attributable to Owners of the Parent Company during the year (in won)	: 32		
Earnings per ordinary share Earnings per preferred share		9,579 9,629	422 472

LG Electronics Consolidated Statements of Comprehensive Income Years ended December 31, 2017 and 2016

(in millions of Korean won)	Note	2017	2016
Profit for the year		1,869,518	126,315
Other comprehensive income, net of tax			
Items that will not be reclassified subsequently to profit or loss			
Remeasurements of the net defined benefit liability	18	96,514	182,022
Share of remeasurements of associates	13	(1,020)	44,871
Items that will be reclassified subsequently to profit or loss			
Share of other comprehensive income (excluding remeasurements)			
of associates and joint ventures	13	(98,852)	(40,011)
Cash flow hedges	37	29,462	(2,946)
Available-for-sale financial assets	8	(1,180)	(377)
Exchange differences on translation of foreign operations		(460,746)	174,625
Other comprehensive income (loss) for the year, net of tax	_	(435,822)	358,184
Total comprehensive income for the year, net of tax	_	1,433,696	484,499
Comprehensive income for the year, net of tax, attributable to:			
Owners of the Parent Company		1,310,108	432,772
Non-controlling interests		123,588	51,727
Total comprehensive income for the year, net of tax	_	1,433,696	484,499

			Attributable t					
(in millions of Korean won)	Note	Paid-in Capital	Retained Earnings	Accumulated Other Comprehensive Income	Other Components of Equity	Total	Non-controlling Interests	Total Equity
Balance at January 1, 2016	-	3,992,348	9.016.546	(1,171,979)	(210,343)	11,626,572	1.356.915	12,983,487
Total comprehensive income:		2,222,232	0,010,010	(1,111,111)	(=:=,=:=)	,		,,
Profit for the year		-	76,879	-	-	76,879	49,436	126,315
Remeasurements of the net defined benefit liability	18	-	168,005	-	-	168,005	14,017	182,022
Share of remeasurements of associates	13	-	44,871	-	-	44,871	-	44,871
Share of other comprehensive income								
(excluding remeasurements) of								
associates and joint ventures	13	-	-	(40,011)	-	(40,011)	-	(40,011)
Cash flow hedges	37	-	-	(2,946)	-	(2,946)	-	(2,946)
Available-for-sale financial assets	8	-	-	(377)	-	(377)	-	(377)
Exchange differences								
on translation of foreign operations			-	186,351		186,351	(11,726)	174,625
Total comprehensive income		<u>-</u>	289,755	143,017		432,772	51,727	484,499
Transactions with owners:								
Dividends	22	-	(72,885)	-	-	(72,885)	(39,414)	(112,299)
Changes in controlling interests in subsidiaries					635	635	420	1,055
Total transactions with owners		<u>-</u>	(72,885)		635	(72,250)	(38,994)	(111,244)
Balance at December 31, 2016		3,992,348	9,233,416	(1,028,962)	(209,708)	11,987,094	1,369,648	13,356,742
Balance at January 1, 2017		3,992,348	9,233,416	(1,028,962)	(209,708)	11,987,094	1,369,648	13,356,742
Total comprehensive income:								
Profit for the year		-	1,725,774	-	-	1,725,774	143,744	1,869,518
Remeasurements of the net defined benefit liability	18	-	78,870	-	-	78,870	17,644	96,514
Share of remeasurements of associates	13	-	(1,020)	-	-	(1,020)	-	(1,020)
Share of other comprehensive loss								
(excluding remeasurements) of								
associates and joint ventures	13	-	-	(98,852)	-	(98,852)	-	(98,852)
Cash flow hedges	37	-	-	29,462	-	29,462	-	29,462
Available-for-sale financial assets	8	-	-	(1,180)	-	(1,180)	-	(1,180)
Exchange differences								
on translation of foreign operations			-	(422,946)		(422,946)	(37,800)	(460,746)
Total comprehensive income			1,803,624	(493,516)		1,310,108	123,588	1,433,696
Transactions with owners:								
Dividends	22	-	(72,885)	-	-	(72,885)	(43,626)	(116,511)
Changes in controlling interests in subsidiaries			-		(56)	(56)	(187)	(243)
Total transactions with owners			(72,885)		(56)	(72,941)	(43,813)	(116,754)
Balance at December 31, 2017		3,992,348	10,964,155	(1,522,478)	(209,764)	13,224,261	1,449,423	14,673,684

LG Electronics Consolidated Statements of Cash Flows Years ended December 31, 2017 and 2016

(in millions of Korean won)	Note	2017	2016
Cash flows from operating activities			
Cash generated from operations	33	2,937,550	3,979,344
Interest received		81,268	77,639
Interest paid		(384,446)	(433,709)
Dividend received		68,471	71,919
Income tax paid		(536,573)	(537,203)
Net cash inflow from operating activities		2,166,270	3,157,990
Cash flows from investing activities			
Decrease in deposits held by financial institutions		22,062	32,663
Decrease in loans and other receivables		159,885	139,949
Proceeds from redemption and disposal of other financial assets		27,532	42,892
Proceeds from disposal of property, plant and equipment		628,342	103,824
Proceeds from disposal of intangible assets		2,043	2,523
Proceeds from disposal of and recovery of investments in			
associates and joint ventures		51,676	25,000
Proceeds from disposal of investment properties		-	21,853
Proceeds from disposal of assets held for sale		12,710	4,328
Transfer of business	33	13,942	6,535
Decrease in others		47	133
Increase in deposits held by financial institutions		(17,976)	(15,315)
Increase in loans and other receivables		(130,915)	(123,181)
Acquisition of other financial assets		(49,759)	(77,623)
Acquisition of property, plant and equipment		(2,575,542)	(2,019,014)
Acquisition of intangible assets		(643,772)	(457,077)
Acquisition of investments in associates and joint ventures		(79,665)	(66,526)
Business combination	38	(3,482)	(11,684)
Net cash outflow from investing activities		(2,582,872)	(2,390,720)
Cash flows from financing activities			
Proceeds from borrowings		2,224,377	1,750,751
Issuance of ordinary shares of subsidiaries		-	6,422
Repayments of borrowings		(1,266,787)	(1,918,592)
Dividends paid	22	(116,754)	(117,414)
Net cash inflow (outflow) from financing activities		840,836	(278,833)
Effects of exchange rate changes on cash and cash equivalents		(88,774)	(183,456)
Net increase in cash and cash equivalents		335,460	304,981
Cash and cash equivalents at the beginning of the year		3,015,137	2,710,156
Cash and cash equivalents at the end of the year		3,350,597	3,015,137

1. General Information

LG Electronics Inc. (the "Company" or "Parent Company") was spun off from LG Electronics Investment Ltd. on April 1, 2002. The Parent Company's shares were listed on the Korea Exchange on April 22, 2002, and some of its preferred shares, in the form of global depositary receipts ("GDRs"), are listed on the London Stock Exchange at the end of the reporting period. The Parent Company is domiciled in Korea at Yeoui-daero, Yeongdeungpo-gu, Seoul.

As of December 31, 2017, LG Corp. owns 33.7% of the Parent Company's total shares, excluding preferred shares, while financial institutions, foreign investors and others own the rest.

The Parent Company and its subsidiaries (the "Group") operate following major business segments: Home Appliance & Air Solution segment manufactures and sells refrigerators, washing machines, vacuum cleaners and residential and commercial air conditioners; Home Entertainment segment manufactures and sells TVs, monitors, and digital media products; Mobile Communications segment manufactures and sells mobile communications equipment; Vehicle Components segment designs and manufactures automobile parts; and LG Innotek Co., Ltd. operates LED, optics solutions, substrate materials, and automotive components businesses. As of December 31, 2017, the Parent Company has 123 subsidiaries (Note 1 (a)), 14 associates and joint ventures (Note 13).

(a) Consolidated subsidiaries as of December 31, 2017 and 2016, are as follows:

			December 31, 2017 December 31, 2016						
			Percentage	of ownership	Percentage of	of ownership			
Territory	Location	Subsidiary	Controlling interest	Non- controlling interest	Controlling interest	Non- controlling interest	Closing month	Major business	Basis of control
The Republic of Korea	Korea	Hiplaza Co., Ltd.	100.0%	-	100.0%	-	December	Wholesales and Retails of Electronic products	More than half of voting rights
	Korea	Hi Entech Co., Ltd.	100.0%	-	100.0%	-	December	Water engineering	More than half of voting rights
	Korea	LG Hitachi Water Solution Co., Ltd.	51.0%	49.0%	51.0%	49.0%	December	Water treatment	More than half of voting rights
	Korea	ACE R&A Co., Ltd.	100.0%	-	100.0%	-	December	Production and Sales of Air conditioner	More than half of voting rights
	Korea	Hi M Solutek Co., Ltd.	100.0%	-	100.0%	-	December	Maintenance	More than half of voting rights
	Korea	Hi Teleservice Co., Ltd.	100.0%	-	100.0%	-	December	Marketing Services	More than half of voting rights
	Korea	LGE Alliance Fund	96.2%	3.8%	96.2%	3.8%	December	Investment	More than half of voting rights
	Korea	LG Innotek Co., Ltd. ¹	40.8%	59.2%	40.8%	59.2%	December	Production and Sales of Electrical/Electronic materials	De-facto control
	Korea	LG Innotek Alliance Fund ¹	40.4%	59.6%	40.4%	59.6%	December	Investment	De-facto control
	Korea	Innowith Co., Ltd. ¹	40.8%	59.2%	40.8%	59.2%	December	Services	De-facto control
	Korea	Hanuri Co., Ltd.	100.0%	-	100.0%	-	December	Business facility maintenance	More than half of voting rights
	Korea	LGE Alliance Fund ${\mathbb I}$	98.7%	1.3%	98.7%	1.3%	December	Investment	More than half of voting rights
China	China	Inspur LG Digital Mobile Communications Co., Ltd.(LGEYT)	70.0%	30.0%	70.0%	30.0%	December	Production of Electronic products	More than half of voting rights

			December 31, 2017		Decembe	r 31, 2016			
			Percentage	of ownership	Percentage of	of ownership			
Territory	Location	Subsidiary	Controlling interest	Non- controlling interest	Controlling interest	Non- controlling interest	Closing month	Major business	Basis of control
	China	LG Electronics (China) Co., Ltd.(LGECH)	100.0%	-	100.0%	-	December	Sales of Electronic products	More than half of voting rights
	China	LG Electronics (China) Research and Development Center Co., Ltd.(LGERD)	100.0%	-	100.0%	-	December	R&D	More than half of voting rights
	China	LG Electronics (Hangzhou) Co., Ltd.(LGEHN)	70.0%	30.0%	70.0%	30.0%	December	Production of Electronic products	More than half of voting rights
	China	LG Electronics (Kunshan) Co.,Ltd.(LGEKS)	100.0%	-	100.0%	-	December	Production of Electronic products	More than half of voting rights
	China	LG Electronics (Shanghai) Research and Development Center Co., Ltd.(LGCRC)	100.0%	-	100.0%	-	December	R&D	More than half of voting rights
	China	LG Electronics Air- Conditioning(Shandong) Co., Ltd.(LGEQA)	100.0%	-	100.0%	-	December	Production and Sales of Electronic products	More than half of voting rights
	China	LG Electronics HK Ltd.(LGEHK)	100.0%	-	100.0%	-	December	Sales of Electronic products	More than half of voting rights
	China	LG Electronics Huizhou Ltd.(LGEHZ)	80.0%	20.0%	80.0%	20.0%	December	Production of Electronic products	More than half of voting rights
	China	LG Electronics Nanjing Battery Pack Co.,Ltd.(LGENB) ²	50.0%	50.0%	50.0%	50.0%	December	Production of Electronic products	De-facto control
	China	LG Electronics Nanjing New Technology co.,LTD(LGENT)	70.0%	30.0%	70.0%	30.0%	December	Production of Electronic products	More than half of voting rights
	China	LG Electronics Nanjing Vehicle Components Co.,Ltd.(LGENV)	100.0%	-	100.0%	-	December	Production of Electronic products	More than half of voting rights
	China	LG Electronics Qinhuangdao Inc.(LGEQH)	100.0%	-	100.0%	-	December	Production of Casting	More than half of voting rights
	China	LG Electronics Shenyang Inc.(LGESY)	78.9%	21.1%	78.9%	21.1%	December	Production of Electronic products	More than half of voting rights
	China	LG Electronics Tianjin Appliances Co., Ltd.(LGETA)	80.0%	20.0%	80.0%	20.0%	December	Production of Electronic products	More than half of voting rights

			December 31, 2017 December 31, 2016						
			Percentage	of ownership	Percentage of	of ownership			
Territory	Location	Subsidiary	Controlling interest	Non- controlling interest	Controlling interest	Non- controlling interest	Closing month	Major business	Basis of control
	China	NanJing LG-Panda Appliances Co., Ltd.(LGEPN)	70.0%	30.0%	70.0%	30.0%	December	Production of Electronic products	More than half of voting rights
	China	Qingdao LG Inspur Digital Communication Co., Ltd.(LGEQD)	70.0%	30.0%	70.0%	30.0%	December	Production of Electronic products	More than half of voting rights
	China	Taizhou LG Electronics Refrigeration Co., Ltd.(LGETR)	100.0%	-	100.0%	-	December	Production of Electronic products	More than half of voting rights
	China	Tianjin Lijie cartridge heater Co., Ltd.(LGETL)	100.0%	-	66.7%	33.3%	December	Production of Heater	More than half of voting rights
	China	LG Innotek Yantai Co.,Ltd.(LGITYT) 1	40.8%	59.2%	40.8%	59.2%	December	Production and Sales of Electrical/Electronic materials	De-facto control
	China	LG Innotek Huizhou Co.,Ltd.(LGITHZ) ¹	40.8%	59.2%	40.8%	59.2%	December	Production and Sales of Electrical/Electronic materials	De-facto control
	China	LG Innotek Trading (Shanghai) Co.,Ltd.(LGITSH) ¹	40.8%	59.2%	40.8%	59.2%	December	Sales of Electrical/Electronic materials	De-facto control
	China	HiEntech (Tianjin) Co., LTD.	80.0%	20.0%	80.0%	20.0%	December	Water engineering	More than half of voting rights
Asia	Australia	LG Electronics Australia Pty, Ltd.(LGEAP)	100.0%	-	100.0%	-	December	Sales of Electronic products	More than half of voting rights
	India	LG Electronics India Pvt. Ltd.(LGEIL) ⁴	100.0%	-	100.0%	-	March	Production and Sales of Electronic products	More than half of voting rights
	Japan	LG Electronics Japan Lab. Inc.(LGJL) ⁵	100.0%	-	100.0%	-	December	R&D	More than half of voting rights
	Japan	LG Electronics Japan, Inc.(LGEJP)	100.0%	-	100.0%	-	December	Sales of Electronic products	More than half of voting rights
	Malaysia	LG Electronics Malaysia SDN. BHD(LGEML)	100.0%	-	100.0%	-	December	Sales of Electronic products	More than half of voting rights

			December 31, 2017 December 3		r 31, 2016				
			Percentage	of ownership	Percentage of	of ownership			
Territory	Location	Subsidiary	Controlling interest	Non- controlling interest	Controlling interest	Non- controlling interest	Closing month	Major business	Basis of control
	Philippines	LG Electronics Philippines Inc.(LGEPH)	100.0%	-	100.0%	-	December	Sales of Electronic products	More than half of voting rights
	Singapore	LG Electronics Singapore PTE LTD.(LGESL)	100.0%	-	100.0%	-	December	Sales of Electronic products	More than half of voting rights
	Taiwan	LG Electronics Taiwan Taipei Co., Ltd.(LGETT)	100.0%	-	100.0%	-	December	Sales of Electronic products	More than half of voting rights
	Thailand	LG Electronics Thailand Co., Ltd.(LGETH)	100.0%	-	100.0%	-	December	Production and Sales of Electronic products	More than half of voting rights
	India	LG Soft India Private Limited.(LGSI) ⁴	100.0%	-	100.0%	-	March	R&D	More than half of voting rights
	Indonesia	P.T. LG Electronics Indonesia(LGEIN)	100.0%	-	100.0%	-	December	Production and Sales of Electronic products	More than half of voting rights
	Philippines	LG Electronics Pasig Inc.3	38.0%	62.0%	38.0%	62.0%	December	Real estates	De-facto control
	Indonesia	PT. LG Innotek Indonesia(LGITIN) ¹	40.8%	59.2%	40.8%	59.2%	December	Production and Sales of Electrical/Electronic materials	De-facto control
	Taiwan	LG Innotek (Taiwan) Co., Ltd.(LGITTW) ¹	40.8%	59.2%	40.8%	59.2%	December	Sales of Electrical/Electronic materials	De-facto control
	Vietnam	LG Innotek Vietnam Hai Phong Co.,Ltd.(LGITVH) ¹	40.8%	59.2%	40.8%	59.2%	December	Production and Sales of Electrical/Electronic materials	De-facto control
	Malaysia	V-ENS (M) Sdn. Bhd.	100.0%	-	100.0%	-	December	Automotive engineering	More than half of voting rights
	Vietnam	LG Electronics Vietnam Haiphong Co., Ltd.(LGEVH)	100.0%	-	100.0%	-	December	Production and Sales of Electronic products	More than half of voting rights
	Indonesia	PT.LG Electronics Service Indonesia(LGEID)	99.8%	0.2%	99.8%	0.2%	December	Services	More than half of voting rights
	Philippines	HI-M SOLUTEK PHILIPPINES INC.	100.0%	-	100.0%	-	December	Services	More than half of voting rights

			December 31, 2017		December 31, 2016				
			Percentage	of ownership	Percentage of	of ownership			
Territory	Location	Subsidiary	Controlling interest	Non- controlling interest	Controlling interest	Non- controlling interest	Closing month	Major business	Basis of control
	Vietnam	HI-M SOLUTEK VIETNAM CO., LTD.	100.0%	-	-	-	December	Services	More than half of voting rights
Europe	Netherlands	LG Electronics Benelux Sales B.V.(LGEBN)	100.0%	-	100.0%	-	December	Sales of Electronic products	More than half of voting rights
	Germany	LG Electronics Deutschland GmbH(LGEDG)	100.0%	-	100.0%	-	December	Sales of Electronic products	More than half of voting rights
	Spain	LG Electronics Espana S.A.(LGEES)	100.0%	-	100.0%	-	December	Sales of Electronic products	More than half of voting rights
	Netherlands	LG Electronics European Holdings B.V.(LGEEH)	100.0%	-	100.0%	-	December	European Holding	More than half of voting rights
	Netherlands	LG Electronics European Shared Service Center B.V. (LGESC)	100.0%	-	100.0%	-	December	Services	More than half of voting rights
	France	LG Electronics France S.A.S.(LGEFS)	100.0%	-	100.0%	-	December	Sales of Electronic products	More than half of voting rights
	Greece	LG Electronics Hellas S.A.(LGEHS)	100.0%	-	100.0%	-	December	Sales of Electronic products	More than half of voting rights
	Italy	LG Electronics Italia S.P.A.(LGEIS)	100.0%	-	100.0%	-	December	Sales of Electronic products	More than half of voting rights
	Latvia	LG ELECTRONICS LATVIA, LLC(LGELA)	100.0%	-	100.0%	-	December	Sales of Electronic products	More than half of voting rights
	Hungary	LG Electronics Magyar K.F.T.(LGEMK)	100.0%	-	100.0%	-	December	Sales of Electronic products	More than half of voting rights
	Poland	LG Electronics Mlawa Sp. z.O.O.(LGEMA)	100.0%	-	100.0%	-	December	Production of Electronic products	More than half of voting rights
	Sweden	LG Electronics Nordic AB(LGESW)	100.0%	-	100.0%	-	December	Sales of Electronic products	More than half of voting rights
	Poland	LG Electronics Polska Sp. Z.O.O(LGEPL)	100.0%	-	100.0%	-	December	Sales of Electronic products	More than half of voting rights
	Portugal	LG Electronics Portugal S.A.(LGEPT)	100.0%	-	100.0%	-	December	Sales of Electronic products	More than half of voting rights

			December 31, 2017 December 31, 2016						
			Percentage	of ownership	Percentage of	of ownership			
Territory	Location	Subsidiary	Controlling interest	Non- controlling interest	Controlling interest	Non- controlling interest	Closing month	Major business	Basis of control
	UK	LG Electronics United Kingdom Ltd.(LGEUK)	100.0%	-	100.0%	-	December	Sales of Electronic products	More than half of voting rights
	Poland	LG Electronics Wroclaw Sp. z.O.O.(LGEWR)	100.0%	-	100.0%	-	December	Production of Electronic products	More than half of voting rights
	Finland	LG Electronics Finland Lab Oy(LGEFL)	100.0%	-	100.0%	-	December	R&D	More than half of voting rights
	Poland	LG Innotek Poland Sp. z.o. o.(LGITPO) ¹	40.8%	59.2%	40.8%	59.2%	December	Production and Sales of Electrical/Electronic materials	De-facto control
North America	USA	LG Electronics Miami Inc.(LGEMI)	100.0%	-	100.0%	-	December	Sales of Electronic products	More than half of voting rights
	USA	LG Electronics Alabama Inc.(LGEAI)	100.0%	-	100.0%	-	December	Services	More than half of voting rights
	Canada	LG Electronics Canada, Inc.(LGECI)	100.0%	-	100.0%	-	December	Sales of Electronic products	More than half of voting rights
	Mexico	LG Electronics Mexicalli, S.A. DE C.V.(LGEMX)	100.0%	-	100.0%	-	December	Production of Electronic products	More than half of voting rights
	Mexico	LG Electronics Mexico S.A. DE C.V.(LGEMS)	100.0%	-	100.0%	-	December	Sales of Electronic products	More than half of voting rights
	USA	LG Electronics Mobile Research U.S.A., L.L.C. (LGEMR)	100.0%	-	100.0%	-	December	R&D	More than half of voting rights
	USA	LG Electronics Mobilecomm U.S.A., Inc.(LGEMU)	100.0%	-	100.0%	-	December	Sales of Electronic products	More than half of voting rights
	Mexico	LG Electronics Monterrey Mexico S.A.de C.V.(LGEMM)	100.0%	-	100.0%	-	December	Production of Electronic products	More than half of voting rights
	Mexico	LG Electronics Reynosa S.A. DE C.V.(LGERS)	100.0%	-	100.0%	-	December	Production of Electronic products	More than half of voting rights
	USA	LG Electronics U.S.A., Inc.(LGEUS)	100.0%	-	100.0%	-	December	Sales of Electronic products	More than half of voting rights

			December 31, 2017 December 31, 2016						
			Percentage	ercentage of ownership Percentage of ownership					
Territory	Location	Subsidiary	Controlling interest	Non- controlling interest	Controlling interest	Non- controlling interest	Closing month	Major business	Basis of control
	Mexico	Servicios Integrales LG S.A DE C.V	100.0%	-	100.0%	-	December	Services	More than half of voting rights
	Mexico	Servicios LG Monterrey Mexico S.A. de C.V.	100.0%	-	100.0%	-	December	Services	More than half of voting rights
	USA	Zenith Electronics Corporation of Pennsylvania	100.0%	-	100.0%	-	December	Production of Electronic products	More than half of voting rights
	USA	Zenith Electronics Corporation(Zenith)	100.0%	-	100.0%	-	December	R&D	More than half of voting rights
	USA	LG Innotek USA, Inc.(LGITUS) ¹	40.8%	59.2%	40.8%	59.2%	December	Sales of Electrical/Electronic materials	De-facto control
	Mexico	LG Innotek Mexico SA DE CV(LGITMX) ¹	40.8%	59.2%	40.8%	59.2%	December	Production and Sales of Electrical/Electronic materials	De-facto control
	USA	LG Electronics Vehicle Components U.S.A., LLC(LGEVU)	100.0%	-	-	-	December	Production and Sales of Electronic products	More than half of voting rights
	USA	LGEUS Power, LLC	100.0%	-	-	-	December	Investment of Solar Power Plant	More than half of voting rights
South America	Argentina	LG Electronics Argentina S.A.(LGEAR)	100.0%	-	100.0%	-	December	Sales of Electronic products	More than half of voting rights
	Colombia	LG Electronics Colombia Ltda.(LGECB)	100.0%	-	100.0%	-	December	Sales of Electronic products	More than half of voting rights
	Brazil	LG Electronics do Brasil Ltda.(LGEBR)	100.0%	-	100.0%	-	December	Production and Sales of Electronic products	More than half of voting rights
	Honduras	LG Electronics Honduras S.de R.L. ²	20.0%	80.0%	20.0%	80.0%	December	Sales of Electronic products	De-facto control
	Chile	LG Electronics Inc Chile Ltda.(LGECL)	100.0%	-	100.0%	-	December	Sales of Electronic products	More than half of voting rights
	Panama	LG Electronics Panama, S.A.(LGEPS)	100.0%	-	100.0%	-	December	Sales of Electronic products	More than half of voting rights

			December 31, 2017 December 31, 2016						
			Percentage	of ownership	Percentage of	of ownership			
Territory	Location	Subsidiary	Controlling interest	Non- controlling interest	Controlling interest	Non- controlling interest	Closing month	Major business	Basis of control
	Peru	LG Electronics Peru S.A.(LGEPR)	100.0%	-	100.0%	-	December	Sales of Electronic products	More than half of voting rights
	Venezuela	LG Electronics Venezuela S.A.(LGEVZ)	100.0%	-	100.0%	-	December	Sales of Electronic products	More than half of voting rights
	Panama	LG Consulting corp.	100.0%	-	100.0%	-	December	Services	More than half of voting rights
	Guatemala	LG Electronics Guatemala S.A.	100.0%	-	100.0%	-	December	Sales of Electronic products	More than half of voting rights
Middle East and Africa	Nigeria	EASYTEC GLOBAL SERVICES INNOVATION LIMITED	100.0%	-	100.0%	-	December	Services	More than half of voting rights
	Angola	LG Electronics Angola Limitada(LGEAO)	100.0%	-	100.0%	-	December	Sales and Services of Electronic products	More than half of voting rights
	Jordan	LG Electronics (Levant) Jordan(LGELF)	100.0%	-	100.0%	-	December	Sales of Electronic products	More than half of voting rights
	UAE	LG Electronics Africa Logistics FZE(LGEAF)	100.0%	-	100.0%	-	December	Sales of Electronic products	More than half of voting rights
	Algeria	LG Electronics Algeria SARL(LGEAS)	70.0%	30.0%	70.0%	30.0%	December	Sales of Electronic products	More than half of voting rights
	UAE	LG Electronics Dubai FZE(LGEDF)	100.0%	-	100.0%	-	December	Sales of Electronic products	More than half of voting rights
	Egypt	LG Electronics Egypt S.A.E(LGEEG)	100.0%	-	100.0%	-	December	Production and Sales of Electronic products	More than half of voting rights
	UAE	LG Electronics Gulf FZE(LGEGF)	100.0%	-	100.0%	-	December	Sales of Electronic products	More than half of voting rights
	UAE	LG Electronics Middle East Co., Ltd.(LGEME)	100.0%	-	100.0%	-	December	Services	More than half of voting rights
	Morocco	LG Electronics Morocco S.A.R.L.(LGEMC)	100.0%	-	100.0%	-	December	Sales of Electronic products	More than half of voting rights
	Nigeria	LG Electronics Nigeria Limited(LGENI)	100.0%	-	100.0%	-	December	Sales of Electronic products	More than half of voting rights

			December 31, 2017		December 31, 2016				
			Percentage	of ownership	Percentage of	of ownership			
Territory	Location	Subsidiary	Controlling interest	Non- controlling interest	Controlling interest	Non- controlling interest	Closing month	Major business	Basis of control
	Tunisia	LG Electronics North Africa Service Company S.A.R.L	100.0%	-	100.0%	-	December	Sales of Electronic products	More than half of voting rights
	UAE	LG Electronics Overseas Trading FZE(LGEOT)	100.0%	-	100.0%	-	December	Sales of Electronic products	More than half of voting rights
	South Africa	LG Electronics S.A. (Pty) Ltd.(LGESA)	100.0%	-	100.0%	-	December	Production and Sales of Electronic products	More than half of voting rights
	Turkey	LG Electronics Ticaret A.S.(LGETK)	100.0%	-	100.0%	-	December	Sales of Electronic products	More than half of voting rights
	Saudi Arabia	LG-Shaker Co., Ltd.(LGESR)	51.0%	49.0%	51.0%	49.0%	December	Production of Electronic products	More than half of voting rights
	Kenya	LG Electronics Service Kenya Limited(LGESK)	100.0%	-	100.0%	-	December	Services	More than half of voting rights
	Saudi Arabia	LG Electronics Saudi Arabia Limited	100.0%	-	100.0%	-	December	Services	More than half of voting rights
	UAE	HI M SOLUTEK HVAC SERVICE AND MAINTENANCE LLC	100.0%	-	100.0%	-	December	Services	More than half of voting rights
Other	Kazakhstan	LG Electronics Almaty Kazakhstan(LGEAK)	100.0%	-	100.0%	-	December	Production and Sales of Electronic products	More than half of voting rights
	Russia	LG Electronics RUS, LLC(LGERA)	100.0%	-	100.0%	-	December	Production and Sales of Electronic products	More than half of voting rights
	Ukraine	LG Electronics Ukraine Inc.(LGEUR)	100.0%	-	100.0%	-	December	Sales of Electronic products	More than half of voting rights

¹ Although the Group owns less than half of the voting rights of LG Innotek Co., Ltd. which is an intermediate parent company of its subsidiaries, the Group is deemed to have control over LG Innotek Co., Ltd. due to the size and dispersion of holdings of the other shareholders and their voting patterns at previous shareholders' meetings (Note 3).

² Although the Group owns less than 50% of the effective percentage of ownership of the entity, the Group has concluded that the Group controls the entity. This is because the Group has a right to appoint or dismiss the majority of its Board of Directors by virtue of an agreement with the other investors.

³ Although the Group owns less than 50% of the effective percentage of ownership of the entity, the Group has concluded that the Group controls the entity. This is because the Group has the substantial power to direct the relevant activities and is exposed to variable returns.

⁴ In the preparation of the consolidated financial statements, the financial statements for the 12-month period ended December 31, 2017 were used for those subsidiaries with different fiscal year ends.

⁵ Name of the subsidiary was changed from LG Electronics Japan Lab. Inc. to LG Japan Lab. Inc. during the year ended December 31, 2017.

(b) Financial information of major subsidiaries as of December 31, 2017 and 2016, and for the years ended December 31, 2017 and 2016, is as follows (before elimination of intercompany transactions):

_			2017		
(in millions of Korean won)	Assets	Liabilities	Equity	Sales	Profit (loss) for the year
LG Innotek Co., Ltd.	5,391,209	3,598,255	1,792,954	7,149,756	180,414
LG Electronics U.S.A., Inc.(LGEUS)	2,720,187	2,570,696	149,491	9,048,529	(88,342)
LG Electronics European Shared Service Center B.V.(LGESC)	1,470,147	1,440,606	29,541	175,313	327
Zenith Electronics Corporation(Zenith)	1,054,901	19,192	1,035,709	38,816	(23,049)
LG Electronics do Brasil Ltda.(LGEBR)	1,100,403	630,893	469,510	2,408,221	214,676
LG Electronics Mobilecomm U.S.A., Inc.(LGEMU)	741,258	585,399	155,859	5,178,306	9,588
LG Electronics Mlawa Sp. z.O.O.(LGEMA)	892,918	501,255	391,663	2,514,411	7,399
LG Electronics Vietnam Haiphong Co., Ltd.(LGEVH)	823,062	597,951	225,111	2,646,928	99,978
LG Electronics RUS, LLC(LGERA)	761,958	239,485	522,473	1,487,647	114,250
LG Electronics Reynosa S.A. DE C.V.(LGERS)	848,503	341,584	506,919	2,656,817	107,763
LG Electronics India Pvt. Ltd.(LGEIL)	805,095	378,389	426,706	2,643,659	232,941
LG Electronics (China) Co. Ltd.(LGECH)	589,130	713,659	(124,529)	556,391	(50,761)
Inspur LG Digital Mobile Communications Co., Ltd.(LGEYT)	552,785	442,525	110,260	2,621,882	42,990
LG Electronics Tianjin Appliances Co., Ltd.(LGETA)	587,622	355,434	232,188	1,059,033	19,040
P.T. LG Electronics Indonesia(LGEIN)	401,577	161,600	239,977	1,019,999	31,256
Hiplaza Co., Ltd.	541,414	373,645	167,769	2,088,093	9,424
LG Electronics Nanjing New Technology co.,LTD(LGENT)	427,972	243,335	184,637	1,309,835	34,636
NanJing LG-Panda Appliances Co., Ltd.(LGEPN)	417,220	277,426	139,794	802,766	23,839
Taizhou LG Electronics Refrigeration Co., Ltd.(LGETR)	459,006	328,216	130,790	991,017	8,419
LG Electronics Thailand Co., Ltd.(LGETH)	459,853	226,723	233,130	1,098,433	12,537

			2016		
(in millions of Korean won)	Assets	Liabilities	Equity	Sales	Profit (loss) for the year
LG Innotek Co., Ltd.	4,022,157	2,433,816	1,588,341	5,321,758	12,166
LG Electronics U.S.A., Inc.(LGEUS)	2,633,459	2,366,409	267,050	7,847,480	(118,205)
LG Electronics European Shared Service Center B.V.(LGESC)	1,444,398	1,415,672	28,726	264,935	1,803
Zenith Electronics Corporation(Zenith)	1,212,373	20,036	1,192,337	127,388	23,032
LG Electronics do Brasil Ltda.(LGEBR)	1,034,097	717,671	316,426	1,881,633	140,225
LG Electronics Mobilecomm U.S.A., Inc.(LGEMU)	986,534	820,799	165,735	6,001,261	33,998
LG Electronics Mlawa Sp. z.O.O.(LGEMA)	940,710	579,077	361,633	1,736,727	26,079
LG Electronics Vietnam Haiphong Co., Ltd.(LGEVH)	937,172	790,124	147,048	1,952,214	67,093
LG Electronics RUS, LLC(LGERA)	812,850	306,224	506,626	1,447,545	119,408
LG Electronics Reynosa S.A. DE C.V.(LGERS)	773,673	319,772	453,901	2,381,007	156,734
LG Electronics India Pvt. Ltd.(LGEIL)	695,674	333,974	361,700	2,428,741	222,972

			2016		
(in millions of Korean won)	Assets	Liabilities	Equity	Sales	Profit (loss) for the year
LG Electronics (China) Co. Ltd.(LGECH)	641,967	720,244	(78,277)	767,890	(47,552)
Inspur LG Digital Mobile Communications Co., Ltd.(LGEYT)	593,009	482,014	110,995	2,969,420	43,477
LG Electronics Tianjin Appliances Co., Ltd.(LGETA)	522,949	280,595	242,354	928,264	25,008
P.T. LG Electronics Indonesia(LGEIN)	494,883	178,505	316,378	1,187,929	44,730
Hiplaza Co., Ltd.	472,980	313,725	159,255	1,719,510	7,462
LG Electronics Nanjing New Technology co.,LTD(LGENT)	426,337	246,416	179,921	1,224,749	36,126
NanJing LG-Panda Appliances Co., Ltd.(LGEPN)	421,504	284,497	137,007	983,928	23,611
Taizhou LG Electronics Refrigeration Co., Ltd.(LGETR)	416,489	286,817	129,672	792,488	12,559
LG Electronics Thailand Co., Ltd.(LGETH)	394,966	168,138	226,828	998,454	6,062

- (c) Information of subsidiaries with material non-controlling interests is as follows:
 - LG Innotek Co., Ltd. and its subsidiaries
 - i) Percentage of ownership of non-controlling interests and accumulated non-controlling interests

(in millions of Korean won)	December 31, 2017	December 31, 2016
Percentage of ownership in non-controlling interests	59.2%	59.2%
Accumulated non-controlling interests	1,155,402	1,051,632

ii) Profit and dividends attributable to non-controlling interests for the years ended December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	2017	2016
Profit to non-controlling interests	105,233	4,142
Dividends to non-controlling interests	3,503	4,904

iii) Summarized consolidated statements of financial position of subsidiaries with material noncontrolling interests, are as follows (before elimination of intercompany transactions):

(in millions of Korean won)	December 31, 2017	December 31, 2016
Current assets	2,734,484	2,084,431
Non-current assets	3,143,005	2,239,288
Total assets	5,877,489	4,323,719
Current liabilities	2,497,247	1,733,745
Non-current liabilities	1,429,459	811,498
Total liabilities	3,926,706	2,545,243
Owners of the Parent Company	1,950,781	1,778,474
Non-controlling interests	2	2
Total equity	1,950,783	1,778,476

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

iv) Summarized consolidated statements of comprehensive income of subsidiaries with material non-controlling interests for the years ended December 31, 2017 and 2016, are as follows (before elimination of intercompany transactions):

(in millions of Korean won)	2017	2016
Net sales	7,641,361	5,754,566
Profit for the year	174,778	4,953
Other comprehensive income, net of tax	3,445	16,751
Total comprehensive income, net of tax	178,223	21,704

v) Summarized consolidated statements of cash flows of subsidiaries with material noncontrolling interests for the years ended December 31, 2017 and 2016, are as follows (before elimination of intercompany transactions):

(in millions of Korean won)	2017	2016
Cash flows from operating activities	445,980	331,793
Cash flows from investing activities	(834,402)	(355,897)
Cash flows from financing activities	422,489	6,473
Effects of exchange rate changes on cash and cash equivalents	(5,812)	(1,377)
Net increase (decrease) in cash and cash equivalents	28,255	(19,008)
Cash and cash equivalents at the beginning of year	341,278	360,286
Cash and cash equivalents at the end of year	369,533	341,278

- (d) Significant restrictions on subsidiaries
 - i) Significant restrictions on ability to use the assets and settle the liabilities of the Group

Cash and other short-term financial instruments held by subsidiaries in Egypt, Algeria, Russia and Kazakhstan are subject to exchange control regulations of each relevant country. Accordingly, there are transfer limits on their cash and short-term financial instruments from these countries.

ii) The nature and extent to which the protective rights of non-controlling interest can restrict the use of the assets and settlement of the liabilities of the Group are as follows:

Subsidiary	The nature and extent of the protective rights for non-controlling interest
LG Hitachi Water Solution	For the following special resolutions of the Board of Directors,
Co., Ltd.	consents from directors who were appointed by non-controlling interest
	holder are required.
	- Acquisitions and disposals of assets over ₩1,000 million not
	included in the business plan
	- Borrowings and issues of debentures over ₩1,000 million not
	included in the business plan
	- Expenditures over ₩1,000 million not included in the business plan
	- Initial agreement, amendment and termination of significant
	contracts over ₩1,000 million
LG-Shaker Co., Ltd.(LGESR)	Unanimous approval is required for the confirmation of financial
	statements and dividend declaration.

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

(e) Changes in the Parent Company's interest in the subsidiaries

Changes in the Parent Company's interest in the subsidiaries without loss of control for the years ended December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	2017	2016
LG Electronics Nanjing Battery Pack Co.,Ltd. (LGENB)		
Decrease in the Parent Company's interest by issuance of ordinary shares (A)	-	(5,787)
Consideration received from non-controlling interest (B)	<u>-</u>	6,422
Changes in the Parent Company's ownership interest (A+B)	-	635
Tianjin Lijie cartridge heater Co., Ltd. (LGETL)		
Increase in the Parent Company's interest by additional equity contribution in subsidiary (A)	(36)	-
Consideration paid to non-controlling interest (B)	(20)	-
Changes in the Parent Company's ownership interest (A+B)	(56)	-

(f) Subsidiaries newly included in the scope of preparation of consolidated financial statements for the year ended December 31, 2017, are:

Subsidiary	Reason	Country	Percentage of ownership	Closing month	Major business
HI-M SOLUTEK VIETNAM CO., LTD.	Newly established	Vietnam	100.0%	December	Services
LG Electronics Vehicle Component U.S.A., LLC(LGEVU)	Newly established	USA	100.0%	December	Production and Sales of Electrical/ Electronic Materials
LGEUS Power, LLC	Newly established	USA	100.0%	December	Investment of Solar Power Plant

(g) Subsidiaries excluded from the scope of preparation of consolidated financial statements for the year ended December 31, 2017, are:

Subsidiary	Reason	Country
LG Electronics Romania S.R.L.(LGERO)	Merger	Romania
LG Alina Electronics(LGERI)	Liquidation	Russia
LG Armagem Geral Ltda.	Liquidation	Brazil

(h) Gain or loss resulted from loss of control

During the year, losses amounting to \$3,090 million were recognized from liquidation of LG Alina Electronics, and no gain or loss incurred from the loss of control over LG Electronics Romania S.R.L. and the other.

2. Significant Accounting Policies

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

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

Basis of Preparation

The Group maintains its accounting records in Korean won and prepares statutory financial statements in the Korean language (Hangul) in accordance with International Financial Reporting Standards as adopted by the Republic of Korea (Korean IFRS). The accompanying 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 have been prepared in accordance with Korean IFRS. These are the standards, subsequent amendments and related interpretations issued by the International Accounting Standards Board (IASB) that have been adopted by the Republic of Korea.

The preparation of financial statements requires the use of critical accounting estimates. Management also needs to exercise judgment in applying the Group's 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.

Changes in Accounting Policies and Disclosures

- (a) New and amended standards effective for the financial year beginning January 1, 2017.
 - Amendments to Korean IFRS 1007 Statement of Cash Flows

Amendments to Korean IFRS 1007 *Statement of Cash flows* require to provide disclosures that enable users of financial statements to evaluate changes in liabilities arising from financing activities, including both changes arising from cash flows and non-cash changes. The disclosures required by this amendment are provided in Note 33(b) changes in liabilities from financing activities.

- Amendments to Korean IFRS 1012 Income Tax

When assessing whether there is sufficient future taxable profit to assess the probability of realizing a deferred tax asset, amendments clarify that the future taxable profit should exclude tax deductions resulting from the reversal of those deductible temporary differences. In addition, the Group is required to assess a deductible temporary difference separated by and in combination with other deductible temporary differences of the appropriate type depending on whether tax law restricts the source of taxable profit. The application of this amendment does not have a significant impact on the accompanying consolidated financial statements.

- Amendments to Korean IFRS 1112 Disclosures of Interests in Other Entities

Amendments to Korean IFRS 1112 clarify when an entity's interest in a subsidiary, a joint venture or an associate is classified as held for sales or discontinued operations in

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

accordance with Korean IFRS 1105, the entity is required to disclose other information except for summarized financial information in accordance with Korean IFRS 1112. The application of this amendment does not have a significant impact on the accompanying consolidated financial statements.

- (b) New and amended standards and interpretations issued, but not effective for December 31, 2017, and not early adopted by the Group
 - Korean IFRS 1109 Financial Instruments

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

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

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

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

For application of Korean IFRS 1109, the Group organized internal management process and completed accounting system adjustments, related to reporting of financial instruments. The Group performed an impact assessment to identify potential financial effects of applying Korean IFRS 1109. The assessment was performed based on current circumstances and available information as of December 31, 2017, and the results of the assessment are explained as below.

Classification and Measurement of Financial Assets

When implementing Korean IFRS 1109, the classification of financial assets will be driven by the Group's business model for managing the financial assets and contractual terms of cash flow. The following table shows the classification of financial assets measured subsequently at amortized cost, at fair value through other comprehensive income, and at fair value through profit or loss. If a hybrid contract contains a host that is a financial asset, an embedded

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

derivative is not separated from the host, and the Group classifies the financial assets based on the entire hybrid contract.

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

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

As of December 31, 2017, the Group owns loans and receivables of \(\psi 12,599,743\) million, available-for-sale financial assets of \(\psi 50,998\) million, and held-to-maturity financial assets of \(\psi 121\) million.

The effect of implementation of Korean IFRS 1109 on classification and measurement of financial assets (excluding derivatives) held by the Group as of December 31, 2017, is as follows:

(in millions of Korean won)	Classification in	accordance with	Amount in acc	cordance with
Account	Classification in accordance with Korean IFRS 1039 Korean IFRS 1109		Korean IFRS 1039	Korean IFRS 1109
Cash and cash equivalents	Loans and receivables	Measured at amortized cost	3,350,597	3,350,597
Deposits held by financial institutions	Loans and receivables	Measured at amortized cost	133,290	133,290
Trade receivables	Loans and receivables	Measured at amortized cost	8,178,213	7,378,453
Trade receivables	Loans and receivables	Measured at fair value through other comprehensive income	-	799,760
Other receivables	Loans and receivables	Measured at amortized cost	937,643	937,643
Other financial assets	Held-to-maturity financial assets	Measured at amortized cost	121	121
Other financial assets	Available-for-sale financial assets	Designated as financial assets at fair value through other comprehensive income	50,998	34,920
Other financial assets	Available-for-sale financial assets	Measured at fair value through profit or loss	-	16,078
Total financial assets excluding derivatives			12,650,862	12,650,862

² An equity investment that is not held for trading can be recorded in other comprehensive income (irrevocable).

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

With implementation of Korean IFRS 1109, \(\psi\)16,078 million of available-for-sale financial assets as of December 31, 2017, are classified as financial assets at fair value through profit or loss. However, the change in fair value of those financial assets will not have any significant impact on the consolidated financial statements.

Classification and Measurement of Financial Liabilities

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

As of December 31, 2017, the Group owns financial liabilities at fair value through profit or loss of \forall 2,166 million. However, there is no financial liabilities designated at fair value through profit or loss in accordance to Korean IFRS 1109.

Impairment of Financial Assets and Contract Assets

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

Under Korean IFRS 1109 'expected credit loss' model, the Group can recognize expected credit loss earlier than the incurred loss model under Korean IFRS 1039 because the Group shall measure a loss allowance for a financial instrument at the amount equal to the 12-month or lifetime expected credit loss. Korean IFRS 1109 clarifies an exception that a loss allowance for lifetime expected credit losses is required for a financial instrument if contract assets or trade receivables are not considered to contain a significant financing component.

For trade receivables, contract assets, and lease receivables that contain a significant financing component, the Group measures the loss allowance at an amount equal to lifetime expected credit losses at initial recognition. The Group plans to use the simplified approach assuming that the credit risk on a financial instrument has not increased significantly since initial recognition if the financial instrument is determined to have a low credit risk at the reporting date. Based on the estimation using the simplified approach, the Group expects the application of Korean IFRS 1109 will not have significant impact on the loss allowance as of December 31, 2017.

Hedge Accounting

Hedge accounting mechanics required by Korean IFRS 1039 remains unchanged in Korean IFRS 1109, however, it changes from the complex and rule-based requirement in Korean IFRS 1039 for hedge accounting to principles-based approach that focuses on the Group's risk management practices. Korean IFRS 1109 allows more hedging instruments and hedged items to qualify for hedge accounting, and relaxes the hedge accounting requirement by removing

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hedge effectiveness tests that are a quantitative (within range of 80-125%) prospective test and retrospective test to ensure that the hedging relationship has been highly effective throughout the reporting period and is expected to be highly effective.

When the Group first applies Korean IFRS 1109, the Group plans to choose as its accounting policy choice to continue to apply all of the hedge accounting requirements of Korean IFRS 1039. The Group expects the application of Korean IFRS 1109 will not have a significant impact on the accompanying consolidated financial statements.

- Korean IFRS 1115 Revenue from Contracts with Customers

Korean IFRS 1115 Revenue from Contracts with Customers issued in November, 2015 is effective for annual reporting periods beginning on or after January 1, 2018, and earlier application is permitted. This standard replaces Korean IFRS 1018 Revenue, Korean IFRS 1011 Construction Contracts, Interpretation 2031 Revenue-Barter Transactions Involving Advertising Services, Interpretation 2113 Customer Loyalty Programs, Interpretation 2115 Agreements for the Construction of Real Estate, and Interpretation 2118 Transfers of assets from customers. The Group must apply Korean IFRS 1115 Revenue from Contracts with Customers within annual reporting periods beginning on or after January 1, 2018, and will apply cumulative effect of the standard implementation by recognizing adjustments on the beginning balance of retained earnings (or other appropriate equity components) in the annual reporting period of implementation. In accordance with the standard, the Group will apply the standard retrospectively to prior reporting period for uncompleted contracts upon implementation date and apply the practical expedient with no restatement for completed contracts and other.

According to the current Korean IFRS 1018 revenue is recognized in the form of the sales of goods, the rendering of services, interest, royalties, dividends, construction contracts and others. However, according to Korean IFRS 1115, five-step model must be applied for revenue recognition:

- Identify the contracts with customers
- · Identify the performance obligations in the contract
- · Determine the transaction price
- Allocate the transaction price to the performance obligations, and
- · Recognize revenue when the entity satisfies a performance obligation

As of December 31, 2017, for the preparation of implementing Korean IFRS 1115, the Group formed a task force team consisting of members from Accounting Division, with support from Information Strategy Division and other practical departments if necessary. The team analyzed the Group's profit system, organized relevant internal management processes, and established accounting system. The team periodically reports plan and progress of the implementation to the management.

In order to assess the impact of applying Korean IFRS 1115, the Group estimated the financial effects on the accompanying consolidated financial statements based on current circumstances and available information as of December 31, 2017. Expected financial effects on the

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accompanying consolidated financial statements by the major areas of Korean IFRS 1115 are as follows.

Identification of performance obligation

The Group primarily operates in selling home appliances, mobile communication, TV, monitors, vehicle components and others.

Based on the analysis of the financial effects of applying Korean IFRS 1115 for the fiscal year 2017, the Group expects that identifying performance obligation will not have a significant impact on the accompanying consolidated financial statements because the Group separates contracts to recognize revenue from service rendered, apart from sales of goods or products.

Variable consideration

The Group may provide promotional incentive to enhance customer's revenue or allow sales returns, which may cause variable consideration.

With implementation of Korean IFRS 1115, the Group estimates an amount of variable consideration by using the expected value which the Group expects to better predict the amount of consideration. The Group recognize revenue with transaction price including variable consideration only to the extent that it is highly probable that a significant reversal in the amount of cumulative revenue recognized will not occur. The refund liability is measured at the amount of consideration received for which the Group does not expect to be entitled.

According to current Korean IFRS, the Group estimates an amount of promotional incentive and reverses sales and trade receivables. Instead, with implementation of Korean IFRS 1115, the Group will reverse sales but recognize a refund liability. The Group recognizes an amount of gross profit for products the Group expects to be returned as a return liability according to current Korean IFRS. While, with the implementation of Korean IFRS 1115, the Group will recognize expected amount of return as the refund liability and cost of sales as assets.

Based on the analysis of the financial effects of applying Korean IFRS 1115 for the fiscal year 2017, the Group's revenue is not expected to change when Korean IFRS 1115 is applied. Meanwhile, the Group's trade receivables, contract assets and contract liabilities are expected to increase by \$501,419 million, \$77,563 million and \$578,982 million, respectively.

Costs to fulfil a contract

The Group's Vehicle Components segment is contracted with car makers for a supply of auto parts and supplies the auto parts to the customers through research and development. If the costs incurred in fulfilling a contract are directly related to the contracts, generate or enhance resources of the entity that will be used in satisfying performance obligations in the future, are expected to be recovered, and are not within the scope of other standards, it is recognized as an asset. Recognized assets are amortized on a systematic basis consistent with the way in which the related goods or services are provided.

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Based on the analysis of the financial effects of applying Korean IFRS 1115 for the fiscal year 2017, the Group's contract assets and retained earnings are expected to increase by \$3,541 million and \$3,541 million, respectively, when Korean IFRS 1115 is applied, as the costs to fulfil a contract will be capitalized.

Warranties

The Group determines standard warranty coverage periods per product and country considering warranty periods required by law and others when entering into contracts with customers for the sales of products. If the Group provides an extended warranty beyond the standard warranty coverage period or a customer has the option to purchase an additional warranty separately, the warranty is considered as distinct service according to Korean IFRS 1115.

Based on the analysis of the financial effects of applying Korean IFRS 1115 for the fiscal year 2017, the Group will have no significant impact because extended warranties beyond standard terms have been recognized as separate revenue.

Others

The Group has decided to classify and disclose contract assets and contract liabilities separately and analyzed those accounts that qualify contract assets and contract liabilities as defined in Korean IFRS 1115. Based on the analysis of the financial effects of applying Korean IFRS 1115 for the fiscal year 2017, trade receivables of \(\pi\)356,554 million and other receivables of \(\pi\)920 million are expected to be reclassified to contract assets by applying Korean IFRS 1115. Provisions of \(\pi\)36,510 million and other liabilities of \(\pi\)354,796 million are expected to be reclassified to contract liabilities by applying Korean IFRS 1115.

The effect of applying Korean IFRS 1109 and 1115 on the accompanying financial statements as of December 31, 2017, is as shown in the table below.

(in millions of Korean won)

Account	Current standards	Korean IFRS 1109	Korean IFRS 1115	After application
Current assets:				
Trade receivables	8,178,213	-	144,865	8,323,078
Other receivables	467,427	-	(920)	466,507
Contract assets	-	-	435,037	435,037
Current assets without financial effect	10,549,329	-	-	10,549,329
Total current assets	19,194,969	-	578,982	19,773,951
Non-current assets:				
Contract assets	-	-	3,541	3,541
Non-current assets without financial effect	22,025,990	-	-	22,025,990
Total non-current assets	22,025,990	-	3,541	22,029,531
Total assets	41,220,959	-	582,523	41,803,482

(in millions of Korean won)				
Account	Current standards	Korean IFRS 1109	Korean IFRS 1115	After application
Current liabilities:				
Provisions	649,555	-	(36,510)	613,045
Contract liabilities	-	-	951,362	951,362
Other liabilities	3,763,161	-	(335,870)	3,427,291
Current liabilities without financial effect	13,123,754		-	13,123,754
Total current liabilities	17,536,470	<u> </u>	578,982	18,115,452
Non-current liabilities:				
Contract liabilities	-	-	18,926	18,926
Other liabilities	212,402	-	(18,926)	193,476
Non-current liabilities without financial effect	8,798,403		-	8,798,403
Total non-current liabilities	9,010,805	<u> </u>	<u>-</u>	9,010,805
Total liabilities	26,547,275		578,982	27,126,257
Equity:				
Retained earnings	10,964,155	20,328	3,541	10,988,024
Accumulated other comprehensive income	(1,522,478)	(20,328)	-	(1,542,806)
Equity without financial effect	3,782,584	<u>-</u>	-	3,782,584
Equity attributable to owners of the Parent Company	13,224,261	-	3,541	13,227,802
Non-controlling interests	1,449,423	<u> </u>		1,449,423
Total equity	14,673,684		3,541	14,677,225

- Amendments to Korean IFRS 1102 Share-based Payment

Amendments to Korean IFRS 1102 clarifies accounting for a modification to the terms and conditions of a share-based payment that changes the classification of the transaction from cash-settled to equity-settled. And also, clarifies that the measurement approach should treat the terms and conditions of a cash-settled award in the same way as for an equity-settled award. The Group will apply the amendments for annual periods beginning on or after January 1, 2018 with early application permitted. The Group does not expect the amendments to have a significant impact on the accompanying consolidated financial statements.

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

- Enactment of Interpretation 2122 Foreign Currency Transaction and Advance Consideration

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

- Enactment of Korean IFRS 1116 Leases

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

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

For a contract that is, or contains, a lease, the entity shall account for each lease component within the contract as a lease separately from non-lease components of the contract.

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

Lessor accounting treatment does not change significantly from Korean IFRS 1017 Leases.

Lessee accounting

A lessee shall apply this standard to its leases either:

retrospectively to each prior reporting period presented applying Korean IFRS 1008
 Accounting Policies, Changes in Accounting Estimates and Errors (Full retrospective application); or

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 retrospectively with the cumulative effect of initially applying the standard recognized at the date of initial application.

The Group plans to apply Korean IFRS 1116 retrospectively with the cumulative effect of initially applying the standard as of January 1, 2019. The Group will not restate any comparative information. Instead, the cumulative effect of applying the standard will be recognized as an adjustment to the opening balance of retained earnings (or another component of equity, as appropriate) at the date of initial application.

The Group performed an impact assessment to identify potential financial effects of applying Korean IFRS 1116. The assessment was performed based on available information as of December 31, 2017 to identify effects on 2017 financial statements. The Group is analyzing the effects on the financial statements; however, it is difficult to provide reasonable estimates of financial effects until the analyses is complete.

The total minimum lease payment expected to be paid by the Group in relation to operating leases before discounted to their present value is $\forall 733,337$ million. And, for a contract that is, or contains, a lease, the Group plans to account for each lease component within the contract as a lease separately from non-lease components of the contract.

Lessor accounting

The Group expects the impacts on the financial statements applying the new standard will not be significant as accounting for the Group, as a lessor, will not significantly change.

Intermediate lessor accounting

If the Group, as an intermediate lessor, classified the sublease as an operating lease before the date of initial application, the Group shall reclassify the sublease as a finance lease or an operating lease in accordance with Korean IFRS 1116. When the Group determines the sublease as a finance lease, the Group shall account the lease as a new lease entered on the date of initial application.

As of December 31, 2017, the sub-lease contract amounts to \forall 14,710 million and the Group is analyzing the effects on the financial statements including classification of the sublease as an operating lease or a finance lease. However, it is difficult to provide reasonable estimates of financial effects until the analyses is complete.

- Amendments to Korean IFRS 1040 Investment Property

Korean IFRS 1040 clarifies that transfer to, or from, investment property, including property under construction, can only be made if there has been a change in use that is supported by evidence, and provides a list of circumstances as examples. These amendments will be effective for annual periods beginning on or after January 1, 2018, with early adoption permitted. The Group does not expect the amendment to have a significant impact on the accompanying consolidated financial statements.

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Consolidation

The Group has prepared the consolidated financial statements in accordance with Korean IFRS 1110 Consolidated Financial Statements.

(a) Subsidiaries

Subsidiaries are all entities over which the Parent Company has control. The Parent Company controls the corresponding investee when it is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee. Consolidation of a subsidiary begins from the date the Parent Company obtains control of a subsidiary and ceases when the Parent Company 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, either at fair value or at the non-controlling interest's proportionate share of the recognized amounts of acquiree's identifiable net assets. All other non-controlling interests are measured at their acquisition-date fair values, unless another measurement basis is required by IFRSs. Acquisition-related costs are expensed as incurred.

Goodwill is recognized as the excess of the aggregate of the consideration transferred, the amount of any non-controlling interest in the acquiree, and the acquisition-date fair value of the acquirer's previously held equity interest in the acquiree over the identifiable net assets acquired. If this consideration is lower than the fair value of the net assets of the subsidiary acquired, 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 have been changed where necessary to ensure consistency with the policies adopted by the Group.

In transactions with non-controlling interests, which do not result in loss of control, the Group recognizes directly in equity any difference between the amount by which the non-controlling interests are adjusted and the fair value of the consideration paid or received, and attribute it to the owners of the parent.

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.

(b) Associates

Associates are all entities over which the Group has significant influence but not control, generally accompanying a shareholding of between 20% and 50% of the voting rights. Investments in associates are accounted for using the equity method of accounting and are initially recognized at

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cost. The Group's investment in associates includes goodwill identified at acquisition, net of any accumulated impairment loss (Note 13).

The Group's share of its associates' post-acquisition profits or losses is recognized in the consolidated statements of profit or loss, and its share of post-acquisition movements in reserves is recognized in reserves. The cumulative post-acquisition movements are adjusted against the carrying amount of the investment. When the Group's share of losses in an associate equals or exceeds its interest in the associate, including any unsecured receivables, the Group does not recognize further losses, unless it has incurred obligations or made payments on behalf of the associate.

Unrealized gains on transactions between the Group and its associates are eliminated to the extent of the Group's interest in the associates. Unrealized losses are also eliminated unless the transaction provides evidence of an impairment of the asset transferred. Accounting policies of associates have been changed where necessary to ensure consistency with the policies adopted by the Group. Dilution gains and losses arising in investments in associates are recognized in the consolidated statements of profit or loss.

(c) 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 venture has rights to the net assets relating to the joint venture and accounts for that investment using the equity method.

(d) Transactions with non-controlling interests

The Group applies a policy of treating transactions with non-controlling interests as transactions with owners of the Group. The difference between any consideration paid and the relevant share of the carrying value of net assets of the subsidiary is recorded in equity. Gains and losses on disposal of non-controlling interests are also recognized in other components of equity.

(e) Business Combinations

The acquisition method of accounting is used to account for the acquisition of subsidiaries by the Group. The cost of an acquisition is measured as the fair value of the assets given, equity instruments issued and liabilities incurred or assumed at the date of exchange. The consideration transferred in a business combination includes fair values of the assets and liabilities from arrangements for contingent payments. Identifiable assets acquired and liabilities and contingent liabilities assumed in a business combination are measured initially at their fair values at the acquisition date. The Group measures non-controlling interests in the acquiree that entitle their holders to a proportionate share of the entity's net assets in the event of liquidation, on a case by case basis, at the proportionate share of the acquiree's identifiable net assets or fair value. All other components of non-controlling interests are measured at fair values, unless another measurement basis is required by IFRSs. Acquisition-related costs are recognized as expenses in the periods in

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

which the costs are incurred.

In case of business combination achieved in stages, previously held equity interest in the acquiree is re-measured to fair value and a gain or loss is recognized in the consolidated statements of profit or loss.

The excess of the aggregate of the consideration transferred, the amount of any non-controlling interest in the acquiree and the acquisition-date fair value of the Group's previously held equity interest in the acquire over the net identifiable assets at the date of acquisition is recorded as goodwill (Note 2). If the cost of the acquisition is less than the fair value of the net assets of the subsidiary acquired, the difference is recognized directly in the consolidated statements of profit or loss

Segment Reporting

Operating segments are established on the basis of business divisions whose internal reporting is provided to the chief operating decision-maker who is the chief executive officer. Segmental disclosures are disclosed in Note 4 in accordance with Korean IFRS 1108 *Operating Segment*.

Foreign Currency Translation

(a) Functional and presentation currency

Items included in the financial statements of each of the Group's companies are measured using the currency of the primary economic environment in which the 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 in case of items subject to re-measurement. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation of monetary assets and liabilities denominated in foreign currencies, are recognized in the consolidated statements of profit or loss, except cash flow hedges qualifying to be recognized in other comprehensive income.

Changes in the fair value of monetary securities denominated in foreign currency classified as available-for-sale are analysed between translation differences resulting from changes in the amortized cost of the security and other changes in the carrying amount of the security. Translation differences related to changes in amortized cost are recognized in profit or loss, and other changes in carrying amount are recognized in other comprehensive income.

Translation differences on non-monetary financial assets and liabilities, such as equities held at fair value through profit or loss, are recognized in the consolidated statements of profit or loss as part of the fair value gain or loss. Translation differences on non-monetary financial assets, such as equities classified as available-for-sale, are recognized in other comprehensive income.

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(c) Translation into presentation currency

The results and financial position of all Group companies whose functional currency is different from the presentation currency are translated into the presentation currency as follows:

- i) Assets and liabilities are translated at the closing rate at the end of the reporting period;
- ii) Income and expenses are translated at monthly average exchange rates; and
- iii) All resulting exchange differences from above i) and ii) are recognized in other comprehensive income.

When the Parent Company ceases to control a subsidiary, exchange differences that were recorded in equity are recognized in the consolidated statements of profit or loss as part of the gain or loss on sale.

Goodwill and fair value adjustments arising on the acquisition of a foreign entity are treated as assets and liabilities of the foreign entity and translated at the closing rate at the end of the reporting period.

Cash and Cash Equivalents

Cash and cash equivalents include cash on hand, deposits at banks, and other short-term highly liquid investments with original maturities of three months or less.

Financial Instruments

Classification

The Group classifies its financial instruments in the following categories: financial assets and liabilities at fair value through profit or loss, loans and receivables, available-for-sale financial assets, held-to-maturity investments, and other financial liabilities at amortized cost, derivatives for hedging purpose, and financial guarantee liabilities. The classification depends on the purpose for which the financial instruments were acquired and the nature of the instruments. The Group determines the classification of financial instruments at initial recognition.

(a) Financial assets and liabilities at fair value through profit or loss

Financial assets and liabilities at fair value through profit or loss are financial instruments held for trading. Financial assets and liabilities are classified in this category if acquired or incurred principally for the purpose of selling or repurchasing it in the near term. Derivatives that are not designated as hedges and financial instruments having embedded derivatives are also included in this category. Financial assets and liabilities at fair value through profit or loss of the Group are categorized in other financial assets and other financial liabilities on the consolidated statements of financial position, respectively.

(b) 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

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maturities greater than 12 months after the end of the reporting period. These are classified as non-current assets. The Group's loans and receivables comprise cash and cash equivalents, deposits held by financial institutions, trade receivables and other receivables.

(c) Available-for-sale financial assets

Available-for-sale financial assets are non-derivatives that are either designated in this category or not classified in any of the other categories. They are included in other financial assets as non-current assets unless their maturities are less than 12 months or management intends to dispose of them within 12 months of the end of the reporting period.

(d) Held-to-maturity financial assets

Held-to-maturity financial assets are non-derivative financial assets with fixed or determinable payments and fixed maturities that the Group's management has the positive intention and ability to hold to maturity and are classified as other financial assets in the consolidated statements of financial position. Held-to-maturity financial assets are included in non-current assets, except for those with maturities less than 12 months after the end of the reporting period, which are classified as current assets.

(e) Financial liabilities measured at amortized cost

Non-derivative financial liabilities are included in financial liabilities at amortized cost, except for financial liabilities at fair value through profit or loss. When a transfer of financial assets does not qualify for derecognition, associated financial liabilities are classified as the same category of the financial assets, and the transferred assets are continuously recognized and a financial liability is measured as the consideration received. Financial liabilities measured at amortized cost are included in non-current liabilities, except for maturities less than 12 months after the end of the reporting period, which are classified as current liabilities

(f) Other

Derivatives for hedging purpose and financial guarantee liabilities are grouped in other financial assets or other financial liabilities, and are accounted in accordance with Derivative Financial Instruments and Financial Guarantee Contracts in Note 2.

Recognition and Measurement

Regular purchases and sales of financial assets are recognized on the trade date. Investments are initially recognized at fair value plus transaction costs for all financial assets not carried at fair value through profit or loss. Financial assets carried at fair value through profit or loss is initially recognized at fair value, and transaction costs are expensed in the consolidated statements of profit or loss. Financial assets are derecognized when the rights to receive cash flows from the investments have expired or have been transferred and the Group has transferred substantially all risks and rewards of ownership. 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 financial assets are subsequently carried at amortized cost using the effective interest rate method.

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Gains or losses arising from changes in the fair value of the financial assets carried at fair value through profit or loss are presented in the consolidated statements of profit or loss within other non-operating income and expenses in the period in which they arise. However, gains or losses on settlement of derivatives relative to borrowings are presented in financial income and expenses. The Group recognizes a dividend from financial assets at fair value through profit or loss in the consolidated statements of profit or loss within non-operating income when its right to receive the dividend is established.

Changes in fair value of monetary and non-monetary securities classified as available-for-sale financial assets are recognized in other comprehensive income. When securities classified as available-for-sale are sold or impaired, the accumulated fair value adjustments recognized in equity are reported in the consolidated statements of profit or loss as other non-operating income and expenses.

Interest on available-for-sale securities and held-to-maturity financial assets are calculated using the effective interest method and is recognized in the consolidated statements of profit or loss as part of financial income. Dividends on available-for-sale equity instruments are recognized in the consolidated statements of profit or loss as part of other non-operating income when the Group's right to receive payments is established.

Offsetting

Financial assets and liabilities are offset and the net amount reported in the consolidated statements of financial position when there is a legally enforceable right to offset the recognized amounts and there is an intention to settle on a net basis, or realize the asset and settle the liability simultaneously.

Derecognition

Financial assets are derecognized when the contractual rights to receive cash from the investments have expired or have been transferred and the Group has substantially transferred all risks and rewards of ownership or when the risk and rewards of ownership of transferred assets have not been substantially retained or transferred and the Group has not retained control over these assets.

Trade receivable discounted and collaterals on factoring transactions such as trade receivable and others that do not qualify for the requirement above are not derecognized because the Group retains substantially all the risks and rewards due to recourse conditions in case of debtors' default on obligations and others. Financial liabilities associated with such transactions are categorized in borrowings in the consolidated statements of financial position.

Impairment of Financial Assets

The Group assesses at the end of each reporting period whether there is objective evidence that a financial asset or a group of financial assets is impaired. A financial asset or a group of financial assets is impaired and impairment losses are incurred only if there is objective evidence of impairment as a result of one or more events that occurred after the initial recognition of the asset (a 'loss event') and that loss event (or events) has an impact on the estimated future cash flows of the financial asset or a group of financial assets that can be reliably estimated.

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The criteria that the Group uses to determine that there is objective evidence of an impairment loss include:

- Significant financial difficulty of the issuer or obligor;
- A breach of contract, such as a default or delinquency in interest or principal payments;
- For economic or legal reasons relating to the borrower's financial difficulty, granting to the borrower a concession that the lender would not otherwise consider;
- It becomes probable that the borrower will enter bankruptcy or other financial reorganization;
- The disappearance of an active market for that financial asset because of financial difficulties;
 or
- Observable data indicating that there is a measurable decrease in the estimated future cash flows from a portfolio of financial assets since the initial recognition of those assets, even though the decrease cannot be identified with the individual financial assets in the portfolio, including:
 - (i) adverse changes in the payment status of borrowers in the portfolio;
 - (ii) national or local economic conditions that correlate with defaults on the assets in the portfolio.
- (a) Loans and receivables and held-to-maturity financial assets (measured at amortized cost)

The amount of the loss is measured as the difference between the asset's carrying amount and the present value of estimated future cash flows (excluding future credit losses that have not been incurred) discounted at the financial asset's original effective interest rate. The carrying amount of the asset is reduced and the amount of the loss is recognized in the consolidated statements of profit or loss. Impairment of assets measured at amortized cost 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 be no longer recoverable. In case of financial assets with variable interest rates, impairment losses are recognized with current effective interest rates in accordance with the contract.

If, in a subsequent period, the amount of the impairment loss decreases and the decrease can be related objectively to an event occurring after the impairment was recognized (such as an improvement in the debtor's credit rating), the reversal of the previously recognized impairment loss is recognized directly in the consolidated statements of profit or loss.

(b) Available-for-sale financial assets

The Group assesses at the end of each reporting period whether there is objective evidence that a financial asset or a group of financial assets is impaired. For debt securities classified as available-for-sale, the Group uses the criteria referred to in (a) above. In the case of equity investments classified as available-for-sale, a significant or prolonged decline in the fair value of the security below its cost is also evidence that the asset is impaired. If any such evidence exists for available-for-sale financial assets, the cumulative loss – measured as the difference between the acquisition cost and the current fair value, less any impairment loss on that financial asset previously recognized in profit or loss – is removed from equity and recognized in the consolidated statements of profit or loss. Impairment losses recognized in the consolidated statements of profit or loss on equity

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instruments are not reversed through the consolidated statements of profit or loss. If, in a subsequent period, the fair value of a debt instrument classified as available-for-sale increases and the increase can be objectively related to an event occurring after the impairment loss was recognized in profit or loss, the impairment loss is reversed through the consolidated statements of profit or loss.

Derivative Financial Instruments

Derivatives are initially recognized at fair value on the date a derivative contract is entered into and are subsequently re-measured at their fair value. The resulting gain or loss that does not meet the conditions for hedge accounting is recognized in other non-operating income and expenses or financial income and expenses according to the nature of transactions.

The effective portion of changes in the fair value of derivatives that are designated and qualify as cash flow hedges is recognized in other comprehensive income. The gain or loss relating to the ineffective portion is recognized immediately in the consolidated statements of profit or loss within other non-operating income and expenses or financial income and expenses.

Amounts accumulated in equity are reclassified to profit or loss in the periods when the hedged item affects profit or loss. When a forecast transaction is no longer expected to occur, the cumulative gain or loss that was reported in equity is immediately transferred to the consolidated statements of profit or loss within other non-operating income and expenses or financial income and expenses.

Trade Receivables

Trade receivables are amounts due from customers for goods 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 not, they are presented as non-current assets. Trade receivables are recognized initially at fair value, less allowance for doubtful debts.

Inventories

Inventories are stated at the lower of cost and net realizable value. Cost is determined using the weighted-average method, except for inventories in-transit which is determined using the specific identification method. The cost of finished goods and work-in-process comprises raw materials, direct labour, other direct costs and related production overheads (based on normal operating capacity). The Group periodically reviews a possibility of the significant changes in net realizable value of inventories from not in use, decrease in market value and obsolescence, and recognizes as Allowances for Valuation of Inventories. Net realizable value is the estimated selling price in the ordinary course of business, less applicable selling expenses.

Assets Held for Sale and Discontinued Operations

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. They are stated at the lower of carrying amount or fair value less costs to sell.

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When a component of discontinued operations or a component of the Group representing a separate major line of business or geographical area of operation has been disposed of, or is subject to a sale plan involving loss of control of a subsidiary, the Group discloses in the consolidated statements of profit or loss the post-tax profit or loss of discontinued operations and the post-tax gain or loss recognized on the measurement to fair value less costs to sell or on the disposal of the assets or disposal groups constituting the discontinued operation. The net cash flows attributable to the operating, investing and financing activities of discontinued operations are presented in the notes to the consolidated financial statements.

Property, Plant and Equipment

All property, plant and equipment are stated at historical cost less depreciation and impairment. Historical cost includes expenditures directly attribute 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 the replaced part is derecognized. All other repairs and maintenance are charged to the consolidated statements of profit or loss during the financial period in which they are incurred.

Land is not depreciated. Depreciation on other assets is calculated using the straight-line method to allocate the difference between their acquisition cost and their residual values over their major estimated useful lives, as follows:

Buildings and Structures	20, 40 years
Machinery	5, 10 years
Tools	5 years
Equipment	5 years
Other	5 years

The assets' depreciation method, residual values, and useful lives are reviewed, and adjusted if appropriate, at each financial year-end. 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 other non-operating income and expenses in the consolidated statements of profit or loss.

Borrowing Costs

Borrowing costs incurred in the acquisition or construction of a qualifying asset are capitalized in the period when it is prepared for its intended use, and investment income earned on the temporary investment of borrowings made specifically for the purpose of obtaining a qualifying asset is deducted from the borrowing costs eligible for capitalization during the period. Other borrowing costs are recognized as expenses for the period in which they are incurred.

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Government Grants

Grants from a government are recognized at their fair value where there is a reasonable assurance that the grant will be received and the Group will comply with all attached conditions.

Government grants relating to income are deferred and recognized in the consolidated statements of profit or loss over the period necessary to match them with the costs that they are intended to compensate.

Government grants relating to property, plant and equipment are presented as a deduction of related assets and are credited to depreciation over the expected lives of the related assets.

Intangible Assets

(a) Goodwill

Goodwill represents the excess of the aggregate of the consideration transferred, and the acquisition-date fair value of the Group's previously held equity interest in the acquiree over the net identifiable assets at the date of acquisition. Goodwill is tested at least annually for impairment and carried at cost less accumulated impairment losses. Impairment losses on goodwill are not reversed.

(b) Industrial property rights

Industrial property rights are shown at historical cost. Industrial property rights have a finite useful life and are carried at cost less accumulated amortization. Amortization is calculated using the straight-line method to allocate the cost of industrial property rights over their estimated useful lives of ten years.

(c) Development costs

New product development project is processed through product planning, design planning, product design, mass production verification, production readiness approval, and shipment approval. The Group generally recognizes expenditures incurred during and after the product design phase as development costs, and expenditures incurred before the phase are recognized as expenses within research and development expenses. Costs recognized as development costs are controlled by the Group and directly attributable to identifiable development projects, and meet all the following criteria.

- It is technically feasible to complete the intangible asset so that it will be available for use;
- Management intends to complete the intangible asset and use or sell it;
- There is the ability to use or sell the intangible asset;
- It can be demonstrated how the intangible asset will generate probable future economic benefits;
- Adequate technical, financial and other resources to complete the development for using and selling the intangible asset are available; and
- The expenditure attributable to the intangible asset during its development can be reliably measured.

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Amortization of development costs based on the straight-line method over their estimated useful lives of one to three years begins at the commencement of the commercial production of the related products or use of the related technology.

(d) Membership

Membership rights are regarded as intangible assets with an indefinite useful life and are not amortized because there is no foreseeable limit to the period over which the assets are expected to be utilized. All membership rights are tested annually for impairment and stated at acquisition cost less accumulated impairment.

(e) Other intangible assets

Other intangible assets such as customer relationships, values of technics and software which meet the definition of an intangible asset are amortized using the straight-line method over their estimated useful lives of five to ten years.

Investment Property

Investment property is held to earn rentals or for capital appreciation or both. Investment property is measured initially at its cost including transaction costs incurred in acquiring the asset. After recognition as an asset, investment property is carried at its cost less any accumulated depreciation and impairment losses.

Subsequent costs are included in the asset's carrying amount or recognized as a separate asset, 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 the replaced part is derecognized. All other repairs and maintenance are charged to the consolidated statements of profit or loss during the financial period in which they are incurred.

Land held for investment is not depreciated. Investment property, except for land, is depreciated using the straight-line method over their estimated useful lives (representative useful lives: 20 years, 40 years).

The depreciation method, the residual value and the useful life of an asset are reviewed at each financial year end and, if management judges that previous estimates should be adjusted, the change is accounted for as a change in an accounting estimate.

Impairment of Non-Financial Assets

Goodwill and intangible assets that have an indefinite useful life are not subject to amortization and are tested at least annually for impairment. At the end of each reporting period, 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 as profit or loss for the year 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 of disposal and its value in use. The value in use is measured by determining the estimated pre-tax cash flows based

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on past performance and its expectations of market development, and applying the pre-tax discount rates that reflect specific risks relating to the relevant operating segments. 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 that suffered impairment are reviewed for possible reversal of the impairment at the end of each reporting period.

Trade Payables

Trade payables are obligations to pay for goods or services that have been acquired in the ordinary course of business from suppliers. Trade payables are classified as current liabilities if payment is due within one year or less. If not, they are presented as non-current liabilities. Trade payables are recognized initially at fair value and subsequently measured at amortized cost using the effective interest method. Current trade payables measured initially at fair value are not significantly different from amortized cost using the effective interest method.

Borrowings

Borrowings are recognized initially at fair value, net of transaction costs incurred. Borrowings are subsequently carried at amortized cost; any difference between the proceeds (net of transaction costs) and the redemption value is recognized in the consolidated statements of profit or loss over the period of the borrowings using the effective interest method. The Group classifies the liability as current as long as it does not have an unconditional right to defer its settlement over 12 months after the end of the reporting period.

Financial Guarantee Contracts

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, in accordance with the original or modified terms of a debt instrument. Financial guarantees contracts provided by the Group are initially measured at fair value on the date the guarantee was given. Subsequent to initial recognition, the Group's liabilities under such guarantees are measured at the higher of the amounts below and recognized as other financial liabilities:

- The amount determined in accordance with Korean IFRS 1037 Provisions, Contingent Liabilities and Contingent Assets; or
- The initial amount, less accumulated amortization recognized in accordance with Korean IFRS 1018 Revenue.

Provisions

Provisions are recognized when the Group has a present legal or constructive obligation as a result of past events and an outflow of resources required to settle the obligation is probable and can be reliably estimated. The Group recognizes a warranty provision, a sales return provision, a provision for restoration, and a provision for litigation.

A warranty provision is accrued for the estimated costs of future warranty claims based on historical experience. Sales return provision is for the estimated sales returns based on historical results.

Where the Group, as a tenant, is required to restore its leased assets to their original state at the end of the lease-term, the Group recognizes the present value of the estimated cost of restoration as a provision for restoration. When there is a probability that an outflow of economic benefits will occur from litigation or disputes, and whose amount is reasonably estimable, a corresponding amount of provision is recognized as a provision for litigation in the consolidated financial statements.

A contingent liability is disclosed (Note 34) when;

- a possible obligation that arises from past events and whose existence will be confirmed only by the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of the entity; or
- a present obligation that arises from past events but is not recognized because: it is not
 probable that an outflow of resources embodying economic benefits will be required to settle
 the obligation; or the amount of the obligation cannot be measured with sufficient reliability.

Current and Deferred Income Tax

The tax expense for the year comprises current and deferred tax. Tax is recognized in the consolidated statements of profit or loss, except to the extent that it relates to items recognized in other comprehensive income or directly in equity. In this case the tax is also recognized in other comprehensive income or directly in equity, respectively.

The current income tax charge is calculated on the basis of the tax laws enacted or substantively enacted at the end of the reporting period in the countries where the Group operates and generates taxable income. Management periodically evaluates positions taken in tax returns with respect to situations in which applicable tax regulation is subject to interpretation. It establishes provisions where appropriate on the basis of amounts expected to be paid to the tax authorities.

Deferred income tax is recognized on temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the consolidated financial statements. It represents future tax consequences that will arise when recovering or settling the carrying amount of its assets and liabilities. However, the deferred income tax is not accounted for if it arises 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 tax profit or loss. Deferred income tax is determined using tax rates (and laws) that have been enacted or substantially enacted by the end of the reporting period and are expected to apply when the related deferred income tax asset is realized or the deferred income tax liability is settled.

Deferred tax assets are recognized only to the extent that it is probable that future taxable profit will be available against which the deductible temporary differences can be utilized.

Deferred income tax liabilities are provided on taxable temporary differences arising on investments in subsidiaries, associates and joint ventures, except where the timing of the reversal of the temporary difference is controlled by the Group and it is probable that the temporary difference will not reverse in the foreseeable future. Deferred income tax assets are recognized only to the extent that it is probable that the deductible temporary difference will reverse in the foreseeable future and taxable profit will be available against which the temporary difference can be utilized.

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Deferred income 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 taxable entity or different taxable entities where there is an intention either to settle the balances on a net basis.

Employee Benefits

(a) Post-employment benefits

The Group operates various pension schemes. The schemes are generally funded through payments to insurance companies or trustee-administered funds, determined by periodic actuarial calculations. The Group operates both defined contribution and defined benefit plans.

A defined contribution plan is a pension plan under which the Group pays fixed contributions into a separate fund. The Group has no legal or constructive obligations to pay further contributions even 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 the defined contribution plan, the Group pays contributions to publicly or privately administered pension insurance plans on a mandatory, contractual or voluntary basis. The contributions are recognized as employee benefit expenses when an employee has rendered service. 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 salary levels. The liability recognized in the statement of financial position in respect of 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 qualified 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 and that have terms to maturity approximating to the terms of the related pension obligation. The remeasurements of the net defined benefit liabilities are recognized in other comprehensive income.

If any plan amendments, curtailments, or settlements occur, past service costs or any gains or losses on settlement are recognized as profit or loss for the year.

(b) Other long-term employee benefits

The Group provides other long-term employee benefits to their employees. The entitlement to these benefits is usually conditional on the employee working more than ten years. The expected costs of these benefits are accrued over the period of employment using the same accounting methodology as used for defined benefit pension plans. The Group recognizes past service cost, net interest on other long-term employee benefits and remeasurements as profit or loss for the year. These benefits are calculated annually by independent qualified actuaries.

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(c) Termination benefits

Termination benefits are payable when employment is terminated by the Group before the normal retirement date, or whenever an employee accepts voluntary redundancy in exchange for these benefits. The Group recognizes termination benefits at the earlier of the following dates: when the entity can no longer withdraw the offer of those benefits or when the entity recognizes costs for a restructuring.

Share Capital

Ordinary shares and preferred shares without mandatory dividends or the obligation to be repaid are classified as equity.

Where the Parent Company purchases its own ordinary shares, the consideration paid, including any directly attributable incremental costs, is deducted from equity attributable to owners of the Parent Company until the shares are cancelled or reissued. Where such treasury shares are subsequently reissued, any consideration received is included in equity attributable to owners of the Parent Company.

Revenue Recognition

Revenue comprises the fair value of the consideration received or receivable for the sale of goods and services in the ordinary course of the Group's activities. Revenue is shown net of value-added tax, returns, rebates and discounts.

The Group recognizes revenue when the amount of revenue can be reliably measured, 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 revenue can be reliably measured only when any contingency related to sales is resolved. The Group bases its estimates on historical results, taking into consideration the type of customer, the type of transaction and the specifics of each arrangement.

(a) Sales of goods

The Group manufactures and sells home appliances, mobile communication, TV, monitors, vehicle components and others. Sales of goods are recognized when the Group has delivered products to the customer. Delivery does not occur until the products have been shipped to the specified location, the risks of obsolescence and loss have been transferred to the customer, and either the customer has accepted the products in accordance with the sales contract, the acceptance provisions have lapsed, or the Group has objective evidence that all criteria for acceptance have been satisfied.

The products are often sold with volume discounts and customers have a right to return faulty products. Accumulated experience is used to estimate and provide for the discounts and returns. The volume discounts are assessed based on anticipated annual purchases. The Group recognizes provisions for product warranties and sales returns based on reasonable expectation reflecting warranty obligation and sales return rates incurred historically.

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(b) Rendering of services

When the outcome of a transaction involving the rendering of services can be estimated reliably, revenue associated with such a transaction is recognized by reference to the percentage of completion of the services. Any changes in expected revenue, cost or the amount of services rendered are accounted for as changes in estimates. These changes in estimates may bring adjustments to the expected revenue or cost which is recognized in the statement of profit or loss in the period in which the management recognizes the changes in circumstances.

(c) Royalty income

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

(d) Other income

Income from rental, lease and others is recognized in income on a straight-line basis over the period of the contract.

(e) Interest income

Interest income is recognized using the effective interest method. When receivables are impaired, the Group reduces the carrying amount to its recoverable amount and continues unwinding the discount as interest income. Interest income on impaired receivables is recognized using the original effective interest rate.

(f) Dividend income

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

Leases

A lease is an agreement whereby the lessor conveys to the lessee in return for a payment or series of payments the right to use an asset for an agreed period of time.

(a) Lessees

The Group classifies leases that do not transfer substantially all the risks and rewards of ownership incidental to ownership of assets as operating leases. Payments made under operating leases are charged to the consolidated statements of profit or loss on a straight-line basis over the period of the lease.

The Group classifies leases that transfer substantially all the risks and rewards of ownership incidental to ownership of assets as finance leases. Finance leases are capitalized as financial lease assets and liabilities at the lease's commencement at the lower of the fair value of the leased property and the present value of the minimum lease payments.

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(b) Lessors

The Group classifies a lease that transfers substantially all the risks and rewards incidental to ownership of an asset at inception of the lease as a finance lease. A lease other than a finance lease is classified as an operating lease.

Lease income from operating lease is recognized on a straight-line basis over the lease term. Initial direct costs incurred by lessors in negotiating and arranging an operating lease are added to the carrying amount of the leased asset and recognized as an expense over the lease term on the same basis as the lease income.

Dividend Distribution

A dividend liability is recognized in the consolidated financial statements when the dividends are approved by the shareholders at their general meeting.

Earnings per Share

Basic earnings per share is calculated by dividing the profit attributable to shareholders of the Parent Company by the weighted average number of shares issued excluding shares purchased by the Parent Company that are held as treasury shares. Preferred shares have a right to participate in the profits of the Parent Company. These participation rights have been considered in presenting the EPS for ordinary shares and preferred shares.

Greenhouse Gas Emissions Rights (Allowances) and Obligations

Emission rights are defined as allowed amount of emissions that can be released, allocated by the Korean government as 'Act on the Allocation and Trading of Greenhouse-Gas Emission Permits' takes effect. Emission rights that are received free of charge from the government are measured at zero, while the rights purchased additionally from trading market such as the Korea Exchange are measured at acquisition cost. Emission rights are subsequently stated as acquisition cost less accumulated impairment loss. Emission liabilities are measured as the sum of the carrying amount of emission rights to be delivered to the government to settle the obligation for emissions occurred and expected expenditure required at the end of reporting period for any excess emissions. The emission rights and liabilities are classified as intangible assets and provisions, respectively, in the consolidated statement of financial position.

3. Critical Accounting Estimates and Judgments

The estimates and judgments are continuously evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable.

Critical Accounting Estimates and Assumptions

The Group makes estimates and assumptions concerning the future. Estimates and assumptions are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances. The

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resulting accounting estimates will, by definition, seldom equal the related actual results. The estimates and assumptions that have a significant risk of causing adjustments to the carrying amounts of assets and liabilities after the end of the reporting period are addressed below.

(a) Revenue Recognition

The Group recognizes revenue using the percentage of completion method for the rendering of service such as installation. When using the percentage of completion method, revenue shall be recognized in accordance with the progress of the transaction. It is calculated based on potential economic benefits and the estimated cost for the completion of the transaction. The factors for the estimation of revenue may vary.

(b) Impairment of Goodwill

The Group tests goodwill regularly for impairment. The recoverable amounts of cash-generating units have been determined based on fair value less costs of disposal or value in use calculations. These calculations require the use of estimates.

(c) Income Taxes

The Group recognizes assets and liabilities for anticipated tax audit issues based on the best estimates of whether additional taxes will be due. Where the final tax outcome of these matters is different from the amounts that were initially recorded, such differences will impact the current and deferred income tax assets and liabilities in the period in which such determination is made.

(d) Fair Value of Financial Instruments

The fair value of financial instruments that are not traded in an active market is determined by using valuation techniques. The Group uses its judgment to select a variety of methods and makes assumptions that are mainly based on market conditions existing at the end of each reporting period.

(e) Provisions

The Group recognizes provisions for product warranties and sales returns based on their historical data.

(f) Net Defined Benefit Liabilities

The present value of the defined benefit liability depends on various factors that are determined on an actuarial basis. The assumptions used in determining the net cost (income) for pensions include the discount rate, which is the interest rate that is used to determine the present value of estimated future cash outflows expected to be required to settle the defined benefit liability. In determining the appropriate discount rate, the Group considers the 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 the terms of the related pension liability. Other key assumptions for defined benefit liability are based on current market conditions.

Significant Judgment on Accounting Policies Adopted by the Group

In order to determine the Group's de-facto control, the Group considers the size of the Group's holding of voting rights relative to the size and dispersion of holdings of the other vote holders and additional facts and circumstances including voting patterns at previous shareholders' meetings.

4. Segment Information

The segments of the Group are strategic business divisions providing different products and services. They are reported separately because each business division requires different technologies and marketing strategies. The main products of each business division are as follows and the comparative information is presented in conformity with the same classification in the current period.

Operating segment	Type of products
Home Appliance & Air Solution (H&A)	Refrigerators, Washing machines, Residential and commercial air conditioners, Microwaves, Vacuum cleaners and others
Home Entertainment (HE)	TVs, Monitors, PCs, Audio, Video and others
Mobile Communications (MC)	Mobile communications and others
Vehicle Components (VC)	Vehicle components and others
LG Innotek Co., Ltd. and its subsidiaries (Innotek)	LED, Camera modules, Substrate & Material, Optics solution, Motors/sensors and others
Other segments	Display materials, Solar energy systems and others

(a) The segment information for sales and operating profit(loss) for the years ended December 31, 2017 and 2016, is as follows:

	2017							
(in millions of Korean won)	H&A	HE	МС	VC	Innotek	Other segments ¹	Inter-segment transactions ²	Total
Sales	19,226,042	18,673,661	11,666,307	3,489,105	7,641,361	2,380,771	(1,680,963)	61,396,284
External sales	19,207,066	18,654,726	11,665,675	3,489,105	6,747,021	1,632,691	-	61,396,284
Internal sales	18,976	18,935	632	-	894,340	748,080	(1,680,963)	-
Operating profit(loss) ³	1,489,056	1,566,748	(717,211)	(101,050)	296,491	(65,485)	-	2,468,549
Depreciation and amortization	452,407	305,744	257,815	172,445	355,034	211,680	-	1,755,125

	2016							
(in millions of Korean won)	H&A	HE	MC	VC	Innotek	Other segments ¹	Inter-segment transactions ²	Total
Sales	17,278,175	17,425,472	12,023,889	2,773,053	5,754,566	2,051,031	(1,939,153)	55,367,033
External sales	17,273,064	17,415,736	12,022,379	2,772,828	4,668,130	1,214,896	-	55,367,033
Internal sales	5,111	9,736	1,510	225	1,086,436	836,135	(1,939,153)	-
Operating profit(loss) ³	1,317,547	1,237,449	(1,218,142)	(63,229)	104,826	(40,688)	-	1,337,763
Depreciation and amortization	466,348	333,098	284,310	129,791	334,198	173,939	-	1,721,684

¹ Other segments include operating segments that are not qualified as reportable segments and departments that support the operating segments and R&D.

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(b) Segment assets and liabilities as of December 31, 2017 and 2016, are as follows:

	December	31, 2017	December	31, 2016
(in millions of Korean won)	Assets	Liabilities	Assets	Liabilities
H&A	13,671,163	8,558,981	12,386,229	8,129,060
HE	12,092,101	10,417,870	11,131,637	10,349,986
MC	5,442,010	5,943,307	5,928,667	5,554,926
VC	2,811,607	2,952,173	2,340,361	2,232,074
Innotek	5,877,489	3,926,706	4,323,719	2,545,243
Subtotal ¹	39,894,370	31,799,037	36,110,613	28,811,289
Other segments and inter-segment transactions	1,326,589	(5,251,762)	1,744,656	(4,312,762)
Total	41,220,959	26,547,275	37,855,269	24,498,527

¹ The amounts of assets and liabilities of each segment are before inter-company elimination, and common assets and liabilities are allocated based on the operations of the segments.

(c) External sales by geographic area for the years ended December 31, 2017 and 2016, and non-current assets by geographic area as of December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	External sales		Non-current assets ¹	
Geographic areas	2017	2016	December 31, 2017	December 31, 2016
Korea	20,260,962	14,592,974	11,306,773	10,384,327
North America	16,542,467	16,583,035	270,944	325,580
Asia	6,523,931	6,386,934	743,935	719,581
Europe	6,302,881	5,869,241	267,291	246,580
South America	4,422,175	3,894,923	133,499	160,959
Middle East & Africa	3,117,178	3,663,018	95,508	116,334
China	2,546,300	2,767,587	790,726	781,036
Others	1,680,390	1,609,321	142,438	156,149
Total	61,396,284	55,367,033	13,751,114	12,890,546

¹ Non-current assets consist of property, plant and equipment, intangible assets and investment properties.

(d) There is no external customer contributing to more than 10% of net sales for the years ended December 31, 2017 and 2016.

² Sales between segments are accounted on terms equivalent to those that prevail in arm's length transactions.

³ Other income or expenses items not comprised in the operating profit (loss) are not separately disclosed because the Chief Operating Decision Maker does not review them by segment.

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

5. Financial Instruments by Category and Offsetting Financial Assets and Financial Liabilities

(a) Categorizations of financial instruments as of December 31, 2017 and 2016, are as follows:

	December 31, 2017						
(in millions of Korean won)	Financial assets at fair value through profit or loss	Loans and receivables	Available-for- sale financial assets	Held-to- maturity financial assets	Other	Total	
Cash and cash equivalents	-	3,350,597	-	-	-	3,350,597	
Deposits held by financial institutions	-	133,290	-	-	-	133,290	
Trade receivables	-	8,178,213	-	-	-	8,178,213	
Loans and other receivables	-	937,643	-	-	-	937,643	
Other financial assets	3,534	-	50,998	121	1,862	56,515	
Total	3,534	12,599,743	50,998	121	1,862	12,656,258	

	December 31, 2017							
(in millions of Korean won)	Financial liabilities at fair value through profit or loss	Financial liabilities carried at amortized cost	Other	Total				
Trade payables	-	8,137,526	-	8,137,526				
Borrowings	-	9,450,480	-	9,450,480				
Other payables	-	3,529,329	-	3,529,329				
Other financial liabilities	2,166	-	68,724	70,890				
Total	2,166	21,117,335	68,724	21,188,225				

	December 31, 2016					
(in millions of Korean won)	Financial assets at fair value through profit or loss	Loans and receivables	Available-for- sale financial assets	Held-to- maturity financial assets	Other	Total
Cash and cash equivalents	-	3,015,137	-	-	-	3,015,137
Deposits held by financial institutions	-	138,754	-	-	-	138,754
Trade receivables	-	7,059,889	-	-	-	7,059,889
Loans and other receivables	-	1,035,944	-	-	-	1,035,944
Other financial assets	557	-	49,939	117	46,184	96,797
Total	557	11,249,724	49,939	117	46,184	11,346,521

	December 31, 2016							
(in millions of Korean won)	Financial liabilities at fair value through profit or loss	Financial liabilities carried at amortized cost	Other	Total				
Trade payables	-	6,746,361	-	6,746,361				
Borrowings	-	8,659,011	-	8,659,011				
Other payables	-	3,204,506	-	3,204,506				
Other financial liabilities	8,041	-	86,300	94,341				
Total	8,041	18,609,878	86,300	18,704,219				

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

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

	2017					
(in millions of Korean won)	Financial assets at fair value through profit or loss	Loans and receivables	Available-for- sale financial assets	Held-to- maturity financial assets	Other	Total
Interest income	-	95,257	-	3	-	95,260
Exchange differences	-	(889,183)	-	-	-	(889,183)
Bad debt expenses	-	(335)	-	-	-	(335)
Loss on disposal of trade receivables	-	(13,407)	-	-	-	(13,407)
Gain on disposal of available-for- sale financial assets	-	-	9,209	-	-	9,209
Impairment loss of available-for- sale financial assets	-	-	(1,758)	-	-	(1,758)
Dividend income	-	-	248	-	-	248
Gain on derivatives (through profit or loss)	19,869	-	-	-	-	19,869
Loss on valuation of available- for-sale financial assets, net of tax (through other comprehensive income)	-	-	(1,180)	-	-	(1,180)
Gain on derivatives, net of tax (through other comprehensive loss)	-	-	-	-	3,452	3,452

(in millions of Korean won)	Financial liabilities at fair value through profit or loss	Financial liabilities carried at amortized cost	Other	Total				
Interest expenses	-	(341,815)	(25,458)	(367,273)				
Exchange differences	-	882,991	(74,766)	808,225				
Loss on derivatives (through profit or loss)	(36,706)	-	-	(36,706)				
Gain on derivatives, net of tax (through other comprehensive loss)	-	-	26,010	26,010				
Others	-	(2,278)	-	(2,278)				

			2016			
(in millions of Korean won)	Financial assets at fair value through profit or loss	Loans and Receivables	Available-for- sale financial assets	Held-to- maturity financial assets	Other	Total
Interest income	-	94,621	19	64	-	94,704
Exchange differences	-	399,146	-	-	-	399,146
Bad debt expenses	-	58,969	-	-	-	58,969
Loss on disposal of trade receivables	-	(15,447)	-	-	-	(15,447)
Gain on disposal of available-for- sale financial assets	-	-	368	-	-	368
Impairment loss of available-for- sale financial assets	-	-	(9,897)	-	-	(9,897)
Dividend income	-	-	286	-	-	286
Gain on derivatives (through profit or loss)	23,813	-	-	-	-	23,813
Loss on valuation of available- for-sale financial assets, net of tax (through other comprehensive income)	-	-	(377)	-	-	(377)
Loss on derivatives, net of tax (through other comprehensive income)	-	-	-	-	(3,127)	(3,127)
			2016	6		
(in million of Konson word)	Financial liabi	ough car	ancial liabilities			Tatal
(in millions of Korean won) Interest expenses	profit or lo	<u> </u>	cost (366,332)	Other (51,9	80)	Total (418,312)
Exchange differences		_	(635,897)	•	-	(658,982)
Loss on derivatives (through profit or loss)		(71,460)	(000,097)	- (23,0	-	(71,460)
Gain on derivatives, net of tax (through other comprehensive loss)		-		- 1	181	181
Others		-	(2,051)) 4	114	(1,637)

(c) Recognized financial instruments that are subject to an enforceable master netting arrangements or similar arrangements as of December 31, 2017 and 2016, are as follows:

	2017							
		Recognized	Net amounts presented in	Amounts r				
(in millions of Korean won)	Recognized financial instrument	financial instrument offset	the statement of financial position	Financial instruments	Cash collateral	Net amount		
Financial assets								
Trade receivables	221,813	(207,165)	14,648	-	-	14,648		
Financial liabilities								
Trade payables	352,878	(207,165)	145,713	-	-	145,713		
			201	16				
			Net amounts	Amounts r	Amounts not offset			
(in millions of Korean won)	Recognized financial instrument	Recognized financial instrument offset	presented in the statement of financial position	Financial instruments	Cash collateral	Net amount		
Financial assets								
Trade receivables	209,703	(196,621)	13,082	-	-	13,082		
Financial liabilities								
Trade payables	331,230	(196,621)	134,609	-	-	134,609		

6. Cash and Cash Equivalents, and Deposits held by Financial Institutions

(a) Cash and cash equivalents

Cash and cash equivalents in the consolidated statements of financial position are equal to the cash and cash equivalents in the consolidated statements of cash flows. Details are as follows:

(in millions of Korean won)	December 31, 2017	December 31, 2016
Cash on hand	571	479
Bank deposits	3,350,026	3,014,658
Total	3,350,597	3,015,137

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

(b) Deposits held by financial institutions

The deposits held by financial institutions restricted in use as of December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	December 31, 2017	December 31, 2016
Current		
Fund for business cooperation	80,500	80,500
Others	15	59
Subtotal	80,515	80,559
Non-current		
Deposit for drawing a bill	14,794	21,161
Deposit for checking account	223	225
National project	1,752	1,122
Others	36,006	35,654
Subtotal	52,775	58,162
Total	133,290	138,721
		

7. Trade Receivables and Other Receivables

(a) Trade receivables and other receivables, net of allowance for doubtful accounts, as of December 31, 2017 and 2016, are as follows:

	December 31, 2017			December 31, 2016			
		Allowance for		Allowance for			
	Original	doubtful	Carrying	Original	doubtful	Carrying	
(in millions of Korean won)	amount	accounts	amount	amount	accounts	amount	
Trade receivables	8,258,464	(80,251)	8,178,213	7,146,370	(86,481)	7,059,889	
Other receivables							
Current	480,559	(13,132)	467,427	562,105	(16,339)	545,766	
Non-current	470,792	(576)	470,216	490,293	(115)	490,178	

(b) Details of other receivables as of December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	December 31, 2017	December 31, 2016
Current		
Loans	24,636	50,040
Non-trade receivables	293,889	257,527
Accrued income	113,981	217,056
Deposits	34,921	21,143
Subtotal	467,427	545,766
Non-current		
Loans	86,289	82,009
Non-trade receivables	19,092	17,250
Deposits	364,835	390,919
Subtotal	470,216	490,178
Total	937,643	1,035,944

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

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

	December 31, 2017				December 31, 2016			
(in millions of	Trade	Trade Other receivables			Trade	Other r		
Korean won)	receivables	Current	Non-current	Total	receivables	Current	Non-current	Total
Receivables not past due	7,218,180	454,976	460,392	8,133,548	6,298,870	523,760	480,884	7,303,514
Past due but not impaired								
Up to 6 months	912,902	12,135	9,879	934,916	712,345	10,261	9,407	732,013
7 to 12 months	25,752	89	519	26,360	15,324	9,087	2	24,413
Over 1 year	16,665	3,186	2	19,853	11,461	6,014	-	17,475
Subtotal	955,319	15,410	10,400	981,129	739,130	25,362	9,409	773,901
Impaired	84,965	10,173	-	95,138	108,370	12,983	-	121,353
Total	8,258,464	480,559	470,792	9,209,815	7,146,370	562,105	490,293	8,198,768

- (d) The allowance for doubtful accounts is recognized based on aging analysis and historical experience.
- (e) The Group classifies individually impaired receivables as defaulted receivables if the receivables are impaired due to reasons including bankruptcy and insolvency of the debtors. Defaulted receivables are classified into two categories of rehabilitation related receivables and other defaulted receivables. The Group performs impairment test on rehabilitation related receivables based on expected repayment amount and recognizes impairment loss on other defaulted receivables based on types and values of collaterals.
- (f) Movements in allowance for doubtful accounts for the years ended December 31, 2017 and 2016, are as follows:

	2017						
(in millions of Korean won)	At Jan. 1	Addition (reversal)	Write-off	Other	At Dec. 31		
Trade receivables	86,481	1,314	(16,608)	9,064	80,251		
Other receivables							
Current	16,339	(941)	(1,730)	(536)	13,132		
Non-current	115	(38)	-	499	576		

	2016							
(in millions of Korean won)	At Jan. 1	Addition (reversal)	Write-off	Other	At Dec. 31			
Trade receivables	143,977	(59,186)	(12,971)	14,661	86,481			
Other receivables								
Current	16,635	144	(2,704)	2,264	16,339			
Non-current	119	73	-	(77)	115			

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Notes to the Consolidated Financial Statements December 31, 2017 and 2016

The bad debt expenses of impaired trade receivables have been included in selling and marketing expenses in the consolidated statements of profit or loss and the bad debt expenses of other receivables have been included in other non-operating expenses. Amounts charged to the allowance account are generally reversed when reasons for allowance are resolved, or written off when there is no expectation of recovering additional cash.

(g) There are no financial assets transferred but not derecognized in their entirety, and no associated liabilities recognized as of December 31, 2017.

8. Other Financial Assets and Liabilities

(a) Details of other financial assets and liabilities as of December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	December 31, 2017	December 31, 2016
Other financial assets		
Derivatives	5,396	46,741
Available-for-sale	50,998	49,939
Held-to-maturity	121	117
Total	56,515	96,797
Current	3,534	30,650
Non-current	52,981	66,147
(in millions of Korean won)	December 31, 2017	December 31, 2016
Other financial liabilities		
Derivatives	70,755	94,227
Financial guarantee liability	135	114
Total	70,890	94,341
Current	2,280	21,115
Non-current	68,610	73,226

(b) Details of derivatives as of December 31, 2017 and 2016, are as follows:

	December 31, 2017		December 31, 2016	
(in millions of Korean won)	Assets	Liabilities	Assets	Liabilities
Current				
Currency Forward	3,534	2,166	557	8,041
Currency Swap	-	-	30,093	12,960
Subtotal	3,534	2,166	30,650	21,001
Non-current				
Currency Swap	-	32,921	16,091	-
Interest Rate Swap	1,862	35,668	-	73,226
Subtotal	1,862	68,589	16,091	73,226
Total	5,396	70,755	46,741	94,227

The details of major derivative contracts at the end of the reporting period are presented in Note 37.

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

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

	2017						
(in millions of Korean won)	At Jan. 1	Acquisition	Disposal	Valuation (OCI)	Impairment	Other	At Dec. 31
Listed equity securities	14,837	-	-	(993)	-	-	13,844
Unlisted equity securities	35,102	7,254	(2,469)	-	(1,758)	(975)	37,154
Total	49,939	7,254	(2,469)	(993)	(1,758)	(975)	50,998

				2016			
(in millions of Korean won)	At Jan. 1	Acquisition	Disposal	Valuation (OCI)	Impairment	Other	At Dec. 31
Listed equity securities	15,329	-	-	(488)	-	(4)	14,837
Unlisted equity securities	37,875	8,516	(2,095)	-	(9,267)	73	35,102
Debt securities	1,202	-	(476)	-	(630)	(96)	-
Total	54,406	8,516	(2,571)	(488)	(9,897)	(27)	49,939

- ii) The listed equity securities among the above equity securities are measured using quoted prices in active markets. However, the unlisted equity securities are measured at cost as they are mostly in the beginning stages of their business and their fair values cannot be reliably measured.
- iii) During the year ended December 31, 2017, the unlisted equity securities amounting to ₩2,469 million (2016: ₩2,095 million), whose fair value could not be measured reliably and therefore measured at cost, have been derecognized as a result of disposal or return of capital investments. Accordingly, a gain on disposal amounting to ₩9,157 million (2016: ₩318 million) was recognized as other non-operating income for the year ended December 31, 2017.
- iv) For the years ended December 31, 2017 and 2016, there is no accumulated other comprehensive income recognized for listed equity securities that was reclassified to impairment loss.
- v) During the year ended December 31, 2017, the Group disposed the unlisted debt securities that carrying amount is not significant, and gain on disposal amounting to ₩52 million (2016: ₩50 million) was recognized as other non-operating income.
- vi) There is no available-for-sale financial assets held for sale as of December 31, 2017.

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

(d) Held-to-maturity financial assets

i) Maturity analysis of held-to-maturity financial assets as of December 31, 2017 and 2016, is as follows:

(in millions of Korean won)	December 31, 2017	December 31, 2016
1 year or less	-	-
1 to 5 years	121	117

ii) The amount recognized as interest income in relation to held-to-maturity financial assets for the year ended December 31, 2017, is ₩3 million (2016: ₩64 million). No impairment losses were recognized in relation to held-to-maturity financial assets for the years ended December 31, 2017 and 2016.

9. Inventories

(a) Inventories as of December 31, 2017 and 2016, consist of:

	Dec	ember 31, 201	17	December 31, 2016			
(in millions of Korean won)	Cost	Valuation allowance	Carrying amount	Cost	Valuation allowance	Carrying amount	
Finished products and merchandise	3,655,047	(94,935)	3,560,112	3,045,592	(115,657)	2,929,935	
Work-in-process	386,448	(10,385)	376,063	340,980	(13,851)	327,129	
Raw materials and supplies	1,770,261	(79,070)	1,691,191	1,679,482	(90,740)	1,588,742	
Other	309,323	(28,252)	281,071	366,335	(41,126)	325,209	
Total	6,121,079	(212,642)	5,908,437	5,432,389	(261,374)	5,171,015	

- (b) The cost of inventories recognized as expense and included in cost of sales in 2017 amounts to ₩44,839,956 million (2016: ₩40,024,768 million) and loss on valuation of inventories amounts to ₩128,300 million (2016: ₩286,047 million).
- (c) There is no inventory provided as collateral for borrowings as of December 31, 2017.

10. Other Assets

Details of other assets as of December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	December 31, 2017	December 31, 2016
Current:		
Advances	173,338	67,810
Prepaid expenses	339,758	289,812
Prepaid value added tax	537,555	573,798
Subtotal	1,050,651	931,420
Non-current:		
Long-term prepaid expenses	433,094	393,191
Long-term advances	279,246	306,382
Other investment assets	182	185
Subtotal	712,522	699,758
Total	1,763,173	1,631,178

11. Property, Plant and Equipment

(a) Details of property, plant and equipment as of December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	Land	Buildings	Structures	Machinery	Tools	Equipment	Other	Construction -in-progress	Total
At December 31, 2017									
Acquisition cost	2,479,681	6,927,233	394,231	7,549,923	3,204,892	831,402	571,846	433,020	22,392,228
Accumulated depreciation	-	(1,746,080)	(183,702)	(4,858,436)	(2,684,604)	(611,561)	(217,003)	-	(10,301,386)
Accumulated impairment	-	(131,279)	(1,362)	(134,385)	(11,286)	(1,619)	(402)	-	(280,333)
Government grants	(5,245)	(704)	(9)	(3,137)	(309)	(323)	-	-	(9,727)
Net book amount	2,474,436	5,049,170	209,158	2,553,965	508,693	217,899	354,441	433,020	11,800,782

(in millions of Korean won)	Land	Buildings	Structures	Machinery	Tools	Equipment	Other	Construction -in-progress	Total
At December 31, 2016									
Acquisition cost	2,823,449	5,987,432	385,322	6,688,499	3,419,268	829,514	435,742	1,100,009	21,669,235
Accumulated depreciation	-	(1,592,917)	(170,298)	(4,773,401)	(2,839,744)	(627,771)	(195,232)	- ((10,199,363)
Accumulated impairment	-	(129,718)	(1,060)	(96,780)	(8,135)	(986)	(1,082)	=	(237,761)
Government grants	(6,035)	(500)	(11)	(2,379)	(704)	(54)	-	-	(9,683)
Net book amount	2,817,414	4,264,297	213,953	1,815,939	570,685	200,703	239,428	1,100,009	11,222,428

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

				2017				
Land	Buildings	Structures	Machinery	Tools	Equipment	Other	Construction -in-progress	Total
2,817,414	4,264,297	213,953	1,815,939	570,685	200,703	239,428	1,100,009	11,222,428
16,966	267,520	544	126,303	176,089	93,756	216,352	1,872,569	2,770,099
-	-	-	-	495	47	79	-	621
53,523	956,363	20,424	1,325,404	141,707	14,983	5,101	(2,517,505)	-
(383,197)	(128,354)	(2,961)	(23,604)	(13,043)	(2,529)	(23,692)	(12,172)	(589,552)
-	-	-	-	(827)	(6)	-	-	(833)
-	(221,632)	(17,030)	(588,346)	(347,436)	(81,010)	(79,311)	-	(1,334,765)
-	(14,088)	(1,188)	(55,826)	(6,642)	(1,279)	(436)	-	(79,459)
(17,761)	(3,662)	(4)	-	(9)	-	-	-	(21,436)
(12,509)	(71,274)	(4,580)	(45,905)	(12,326)	(6,766)	(3,080)	(9,881)	(166,321)
2,474,436	5,049,170	209,158	2,553,965	508,693	217,899	354,441	433,020	11,800,782
	2,817,414 16,966 - 53,523 (383,197) - - - (17,761) (12,509)	2,817,414 4,264,297 16,966 267,520 - - 53,523 956,363 (383,197) (128,354) - - - (221,632) - (14,088) (17,761) (3,662) (12,509) (71,274)	2,817,414 4,264,297 213,953 16,966 267,520 544 - - - 53,523 956,363 20,424 (383,197) (128,354) (2,961) - - - - (221,632) (17,030) - (14,088) (1,188) (17,761) (3,662) (4) (12,509) (71,274) (4,580)	2,817,414 4,264,297 213,953 1,815,939 16,966 267,520 544 126,303 - - - - 53,523 956,363 20,424 1,325,404 (383,197) (128,354) (2,961) (23,604) - - - - - (221,632) (17,030) (588,346) - (14,088) (1,188) (55,826) (17,761) (3,662) (4) - (12,509) (71,274) (4,580) (45,905)	Land Buildings Structures Machinery Tools 2,817,414 4,264,297 213,953 1,815,939 570,685 16,966 267,520 544 126,303 176,089 - - - 495 53,523 956,363 20,424 1,325,404 141,707 (383,197) (128,354) (2,961) (23,604) (13,043) - - - (827) - (221,632) (17,030) (588,346) (347,436) - (14,088) (1,188) (55,826) (6,642) (17,761) (3,662) (4) - (9) (12,509) (71,274) (4,580) (45,905) (12,326)	Land Buildings Structures Machinery Tools Equipment 2,817,414 4,264,297 213,953 1,815,939 570,685 200,703 16,966 267,520 544 126,303 176,089 93,756 - - 495 47 53,523 956,363 20,424 1,325,404 141,707 14,983 (383,197) (128,354) (2,961) (23,604) (13,043) (2,529) - - - (827) (6) - (221,632) (17,030) (588,346) (347,436) (81,010) - (14,088) (1,188) (55,826) (6,642) (1,279) (17,761) (3,662) (4) - (9) - (12,509) (71,274) (4,580) (45,905) (12,326) (6,766)	Land Buildings Structures Machinery Tools Equipment Other 2,817,414 4,264,297 213,953 1,815,939 570,685 200,703 239,428 16,966 267,520 544 126,303 176,089 93,756 216,352 - - - 495 47 79 53,523 956,363 20,424 1,325,404 141,707 14,983 5,101 (383,197) (128,354) (2,961) (23,604) (13,043) (2,529) (23,692) - - - - (827) (6) - - (221,632) (17,030) (588,346) (347,436) (81,010) (79,311) - (14,088) (1,188) (55,826) (6,642) (1,279) (436) (17,761) (3,662) (4) - (9) - - (12,509) (71,274) (4,580) (45,905) (12,326) (6,766) (3,080)	Land Buildings Structures Machinery Tools Equipment Other Other Construction -in-progress 2,817,414 4,264,297 213,953 1,815,939 570,685 200,703 239,428 1,100,009 16,966 267,520 544 126,303 176,089 93,756 216,352 1,872,569

					2016				
(in millions of Korean won)	Land	Buildings	Structures	Machinery	Tools	Equipment	Other	Construction -in-progress	Total
At January 1, 2016	2,819,809	4,223,431	198,007	1,757,712	623,864	221,155	159,998	456,322	10,460,298
Acquisitions ¹	(6,745)	81,551	15,486	247,746	217,729	66,283	103,425	1,577,020	2,302,495
Transfer-in (out)	3,427	186,905	14,655	492,898	150,599	5,484	78,998	(932,966)	-
Disposals and others	(1,791)	(6,943)	(1,368)	(48,151)	(14,371)	(4,161)	(46,275)	(483)	(123,543)
Depreciation	-	(193,420)	(15,327)	(572,099)	(398,478)	(86,159)	(56,625)	-	(1,322,108)
Impairment ²	3,395	(1,758)	(729)	(66,111)	(5,773)	(518)	(219)	-	(71,713)
Exchange differences	(681)	(25,469)	3,229	3,944	(2,885)	(1,381)	126	116	(23,001)
At December 31, 2016	2,817,414	4,264,297	213,953	1,815,939	570,685	200,703	239,428	1,100,009	11,222,428

¹ It includes settlement of land purchase price.

(c) Line items including depreciation in the consolidated statements of profit or loss for the years ended December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	2017	2016
Cost of sales	1,095,241	1,051,539
Selling and marketing expenses	44,049	45,353
Administrative expenses	54,444	78,461
Research and development expense	113,341	109,776
Service costs	13,927	14,297
Other non-operating expenses	13,763	22,682
Total	1,334,765	1,322,108

(d) Capitalized borrowing costs and capitalization rates for the years ended December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	2017	2016
Capitalized borrowing costs	18,168	16,382
Capitalization rate(%)	3.85	3.91

² Divisions in Innotek and other segments, managed as separate cash-generating units (hereafter 'CGU'), have been tested for impairment as accumulation of operating losses has been experienced and a future downturn in sales is expected. And impairment losses of ₩5,054 million on Innotek (2016: ₩42,733 million) and ₩42,554 million on other segment (2016: ₩2,937 million) were recognized as other non-operating expenses. This impairment loss was allocated to machinery, tools, and others. The recoverable amount was measured at the higher of fair value less costs of disposal or value in use, and the fair value amount is categorized within 'level 3' of fair value hierarchy.

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

- (e) Details of property, plant and equipment provided as collateral as of December 31, 2017 and 2016, are as follows:
 - i) List of collateral for the Group

	December 31, 2017							
(in millions of Korean won)	Carrying amount	Secured amount	Related line item	Related amount	Secured party			
Land and buildings	191,526	189,531	Borrowings and others	96,245	Korea Development Bank and others			
			December	31, 2016				
(in millions of Korean won)	Carrying amount	Secured amount	Related line item	Related amount	Secured party			
Land and buildings	230,363	219,606	Borrowings and others	101,640	Korea Development Bank and others			
Machinery and others	17,743	17,739	Borrowings	1,709	Saudi Industrial Development Fund			

ii) List of collateral for external parties

As of December 31, 2017, buildings are pledged as collateral to guarantee the land lessor's obligation to the mortgagees including Nonghyup Bank within the secured amount of up to $\forall 9,120$ million (2016: $\forall 9,120$ million). The pledged asset is fully depreciated as of December 31, 2017 (carrying amount as of December 31, 2016: $\forall 266$ million).

12. Intangible assets

(a) Details of intangible assets as of December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	Goodwill	Industrial property rights	Development costs	Membership rights	Other Intangible assets	Construction- in-progress	Total
At December 31, 2017							
Acquisition cost	146,530	949,020	2,449,506	83,558	867,065	599,527	5,095,206
Accumulated amortization and impairment	(1,214)	(450,868)	(2,103,975)	(3,708)	(680,821)	-	(3,240,586)
Net book amount	145,316	498,152	345,531	79,850	186,244	599,527	1,854,620
At December 31, 2016							
Acquisition cost	150,917	900,094	2,232,992	82,463	829,746	269,350	4,465,562
Accumulated amortization and impairment	(5,481)	(423,121)	(1,855,502)	(2,631)	(607,740)	-	(2,894,475)
Net book amount	145,436	476,973	377,490	79,832	222,006	269,350	1,571,087

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

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				2017			
(in millions of Korean won)	Goodwill	Industrial property rights	Development costs	Membership rights	Other intangible assets	Construction- in-progress	Total
At January 1, 2017	145,436	476,973	377,490	79,832	222,006	269,350	1,571,087
Acquisitions	-	143,676	19,032	1,645	25,313	48,867	238,533
Acquisitions by internal development	-	-	12,604	-	2,755	530,033	545,392
Transfer-in(out)	-	-	216,030	-	20,628	(236,658)	-
Disposals and others	-	(25,368)	(2,647)	(375)	(220)	(11,416)	(40,026)
Decrease due to transfer of business	-	-	(566)	-	-	-	(566)
Amortization	-	(90,384)	(259,299)	-	(83,121)	-	(432,804)
Impairment ^{1,2}	-	(6,703)	(15,905)	(1,150)	(432)	(626)	(24,816)
Exchange differences	(120)	(42)	(1,208)	(102)	(685)	(23)	(2,180)
At December 31, 2017	145,316	498,152	345,531	79,850	186,244	599,527	1,854,620
			-				

	2016							
(in millions of Korean won)	Goodwill	Industrial property rights	Development costs	Membership rights	Other intangible assets	Construction- in-progress	Total	
At January 1, 2016	149,668	441,040	396,628	80,887	259,848	145,209	1,473,280	
Acquisitions	-	127,575	12,282	-	35,354	46,002	221,213	
Acquisitions by internal development	-	-	11,489	-	2,153	307,259	320,901	
Transfer-in(out)	-	-	210,321	-	13,114	(223,435)	-	
Disposals and others	-	(7,631)	(179)	(131)	(2,062)	(4,015)	(14,018)	
Amortization	-	(83,689)	(251,825)	-	(85,360)	-	(420,874)	
Impairment ^{1,2}	(4,267)	(316)	(1,271)	(909)	(1,369)	(1,683)	(9,815)	
Exchange differences	35	(6)	45	(15)	328	13	400	
At December 31, 2016	145,436	476,973	377,490	79,832	222,006	269,350	1,571,087	

¹ Divisions in Innotek and other segments, managed as separate cash-generating units (hereafter 'CGU'), have been tested for impairment as accumulation of operating losses has been experienced and a future downturn in sales is expected. And impairment loss of ₩10,855 million (Innotek: ₩4,267 million, other segments: ₩418 million) was recognized as other non-operating expenses. This impairment loss was allocated to industrial property rights, development costs, and others since there was no goodwill allocated to the CGU. The recoverable amount was measured at the higher of fair value less costs of disposal or value in use, and the fair value amount is categorized within 'level 3' of fair value hierarchy.

² As a result of impairment test for all projects related to development costs, an impairment loss of development costs relating to certain projects determined to have low business value, was recognized as other non-operating expenses.

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

(c) Line items including amortization of intangible assets for the years ended December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	2017	2016
Cost of sales	233,030	222,978
Selling and marketing expenses	20,206	15,829
Administrative expenses	93,057	95,039
Research and development expenses	84,560	84,743
Service costs	1,951	2,285
Total	432,804	420,874

(d) Capitalized borrowing costs and capitalization rates of intangible assets used for the years ended December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	2017	2016
Capitalized borrowing costs	282	85
Capitalization rate (%)	3.13	3.51

- (e) There are no intangible assets pledged as collateral for borrowings as of December 31, 2017.
- (f) Impairment tests for goodwill
 - Goodwill is allocated among the Group's cash generating units (CGUs) based on operating segments. As of December 31, 2017, an operating segment-level summary of goodwill allocation is presented below:

(in millions of Korean won)	H&A	MC	Other	Total
Goodwill	64,531	29,894	50,891	145,316

- ii) The recoverable amount of CGUs has been determined based on value in use calculations. These calculations use pre-tax cash flow projections based on financial budgets approved by the management covering a five-year period. Cash flows beyond the fiver-year period are extrapolated using the estimated growth rate which does not exceed the long-term average growth rate for the electronic industry in which the Group operated.
- iii) Management determined the estimated pre-tax cash flow based on past performance and its expectations of market development. Value in use is measured by applying the pre-tax discount rates reflecting specific risks relating to the relevant operating segments. Discount rates and nominal long-term growth rates used for calculating the value in use of major operating segments are as follows:

	H&A	MC	Other
Discount rates	11.9%	13.7%	11.0%
Nominal long-term growth rates	2.5%	0.0%	1.0%

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

(g) Research and development expenses

Research and development expenses for the years ended December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	2017	2016	
Uncapitalized research and development expenditures	3,486,102	3,567,437	
Amortization from internally capitalized development costs	177,900	167,267	
Total	3,664,002	3,734,704	

13. Investments in Associates and Joint Ventures

- (a) Investments in associates and joint ventures
 - i) Carrying amounts of investments in associates and joint ventures, as of December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	December 31, 2017	December 31, 2016
Associates	5,474,932	4,906,450
Joint ventures	145,399	198,108
Total	5,620,331	5,104,558

ii) Investments in associates as of December 31, 2017 and 2016, are as follows:

	December 31, 2017				December 31, 2016			
(in millions of Korean won)	Acquisition cost	Net asset amount	Unrealized gain	Carrying amount	Acquisition cost	Net asset amount	Unrealized gain	Carrying amount
LG Display Co., Ltd.	679,218	5,448,067	(90,575)	5,357,492	679,218	4,910,781	(72,971)	4,837,810
Ericsson-LG Co., Ltd	12,649	43,019	(15)	43,004	26,629	50,796	(30)	50,766
Hitachi-LG Data Storage Inc.(HLDS)	101,961	1,460	(3,096)	-	91,250	(17,640)	(1,496)	-
Korea Information Certificate Authority Inc.	1,745	4,825	-	4,825	1,988	5,167	-	5,167
LG Fuel Cell Systems Inc.	104,658	34,290	-	34,290	69,375	9,222	-	9,222
SKT Vietnam PTE., Ltd.	72,194	8	-	-	72,194	815	-	-
One-Red, LLC ¹	3,128	3,426	-	3,426	3,128	3,485	-	3,485
Kiwigrid GmbH ¹	13,019	11,243	-	11,243	-	-	-	-
CCP-LGE OWNER, LLC	11,652	11,652	-	11,652	-	-	-	-
ROBOTIS Co.,Ltd.	9,000	9,000	-	9,000	-	-	-	-
Total	1,009,224	5,566,990	(93,686)	5,474,932	943,782	4,962,626	(74,497)	4,906,450

¹ The financial statements as of November 30, 2017 were used due to a different closing date.

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

iii) Investments in joint ventures as of December 31, 2017 and 2016, are as follows:

	December 31, 2017				December 31, 2016			
(in millions of Korean won)	Acquisition cost	Net asset amount	Unrealized gain	Carrying amount	Acquisition cost	Net asset amount	Unrealized gain	Carrying amount
LG Holdings(HK) Ltd.	75,693	95,632	-	95,632	115,234	141,768	-	141,768
Arcelic-LG Klima Sanayi ve Ticarta A.S.(LGEAT)	14,718	34,500	(2)	34,498	14,718	41,377	(726)	40,651
EIC PROPERTIES PTE LTD.	9,636	14,181	-	14,181	9,636	14,493	-	14,493
LG-MRI LLC	516	1,094	(6)	1,088	516	1,196	-	1,196
Total	100,563	145,407	(8)	145,399	140,104	198,834	(726)	198,108

(b) Associates and joint ventures

i) Associates as of December 31, 2017, are as follows:

Name of associate	Location	Closing month	Percentage of ownership	Nature of relationships with the Group
LG Display Co., Ltd.	Korea	December	37.9%	Production and supply of display products
Ericsson-LG Co., Ltd	Korea	December	25.0%	Supply of communication devices and network solution products
Hitachi-LG Data Storage Inc.(HLDS)	Japan	December	49.0%	Production and supply of data storages
Korea Information Certificate Authority Inc. ¹	Korea	December	6.5%	Certificate services
LG Fuel Cell Systems Inc.	USA	December	33.0%	R&D of fuel cell
SKT Vietnam PTE., Ltd.	Singapore	December	25.4%	Communication services
One-Red, LLC	USA	March	25.0%	DVD related patent licensing
Kiwigrid GmbH ¹	Germany	December	17.6%	Supply of energy management solutions
CCP-LGE OWNER, LLC ²	USA	December	70.2%	Solar power plant
ROBOTIS Co.,Ltd. ¹	Korea	December	10.1%	Production and sales of personal robot

¹ Classified as an associate although the percentage of ownership is less than 20% because the Group can exercise a significant influence in the Board of Directors of the investee.

² Classified as an associate although the percentage of ownership is more than 50% because the Group does not have the right to control by an agreement with other shareholders.

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

ii) Joint ventures as of December 31, 2017, are as follows:

All joint arrangements, over which the Group has joint control, are structured through separate companies and are categorized as joint ventures as the parties with joint control are assumed to have rights to the net assets of the arrangement.

Name of joint venture	Location	Closing month	Percentage of ownership	Nature of relationships with the Group
LG Holdings(HK) Ltd.	China	December	49.0%	Real estate
Arcelic-LG Klima Sanayi ve Ticarta A.S.(LGEAT)	Turkey	December	50.0%	Production and supply of air conditioning products
EIC PROPERTIES PTE LTD.	Singapore	December	38.2%	Real estate
LG-MRI LLC	USA	December	50.0%	Production and supply of digital display products

- iii) All associates and joint ventures are accounted for using the equity method.
- (c) Changes in investments in associates and joint ventures
 - i) Changes in the carrying amounts of investments in associates for the years ended December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	2017								
	Beginning balance	Acquisition	Share of profit(loss) ¹	Other comprehen - sive income (excluding remeasurement)	Remeasure- ment component	Dividend/ recovery	Exchange difference	Changes in ownership interest over associates	Ending balance
LG Display Co., Ltd.	4,837,810	-	665,530	(75,548)	(2,487)	(67,813)	-	-	5,357,492
Ericsson-LG Co., Ltd	50,766	-	3,064	296	1,378	(12,500)	-	-	43,004
Hitachi-LG Data Storage Inc.(HLDS)	-	10,710	(10,710)	-	-	-	-	-	-
Korea Information Certificate Authority Inc.	5,167	-	376	35	-	(753)	-	-	4,825
LG Fuel Cell Systems Inc.	9,222	35,284	(14,953)	(371)	89	-	-	5,019	34,290
SKT Vietnam PTE., Ltd.	-	-	-	-	-	-	-	-	-
One-Red, LLC	3,485	-	197	-	-	-	(256)	-	3,426
Kiwigrid GmbH	-	13,019	(1,778)	2		-	-	-	11,243
CCP-LGE OWNER, LLC	-	11,652	-	-	-	-	-	-	11,652
ROBOTIS Co.,Ltd.		9,000	-		_	_			9,000
Total	4,906,450	79,665	641,726	(75,586)	(1,020)	(81,066)	(256)	5,019	5,474,932

(in millions of Korean won)

(in millions of Korean won)	2016									
	Beginning balance	Acquisition	Share of profit(loss) ¹	Other comprehen - sive income (excluding remeasurement)	Remeasure- ment component	Dividend/ recovery	Exchange difference	Changes in ownership interest over associates	Ending balance	
LG Display Co., Ltd.	4,562,369	-	330,132	(31,586)	44,708	(67,813)	-	-	4,837,810	
Ericsson-LG Co., Ltd	78,934	-	(527)	947	162	(28,750)	-	-	50,766	
Hitachi-LG Data Storage Inc.(HLDS)	-	40,066	(40,066)	-	-	-	-	-	-	
Korea Information Certificate Authority Inc.	3,605	1,136	458	38	-	(70)	-	-	5,167	
LG Fuel Cell Systems Inc.	-	25,324	(16,117)	14	1	-	-	-	9,222	
SKT Vietnam PTE., Ltd.	-	-	-	-	-	-	-	-	-	
One-Red, LLC	3,289	_	89	-	-	_	107		3,485	
Total	4,648,197	66,526	273,969	(30,587)	44,871	(96,633)	107	-	4,906,450	

¹ The Group recognized additional equity method gain of ₩17,499 million (2016: equity method loss of ₩19,059 million) for loans of Hitachi-LG Data Storage Inc. during 2017.

ii) Changes in the carrying amounts of investments in joint ventures for the years ended December 31, 2017 and 2016, are as follows:

2017

	Beginning balance	Acquisition	Share of profit(loss)	Other comprehen - sive income (excluding remeasurement)	Remeasure- ment component	Dividend/ recovery	Exchange difference	Changes in ownership interest over associates	Ending balance
LG Holdings(HK) Ltd.	141,768	-	6,310	(15,169)	-	(37,277)	-	-	95,632
Arcelic-LG Klima Sanayi ve Ticarta A.S.(LGEAT)	40,651	-	1,283	(7,436)	-	-	-	-	34,498
EIC PROPERTIES PTE LTD.	14,493	-	349	(661)	-	-	-	-	14,181
LG-MRI LLC	1,196	-	308	-	-	(296)	(120)	-	1,088
Total	198,108	-	8,250	(23,266)	-	(37,573)	(120)	-	145,399
(in millions of Korean won)				Other	2016				
	Beginning balance	Acquisition	Share of profit(loss)	comprehen - sive income (excluding remeasure- ment)	Remeasure- ment component	Dividend/ recovery	Exchange difference	Changes in ownership interest over associates	Ending balance
LG Holdings(HK) Ltd.	137,638	-	6,763	(2,633)	-	-	-	-	141,768
Arcelic-LG Klima Sanayi ve Ticarta A.S.(LGEAT)	41,283	-	6,264	(6,896)	-	-	-	-	40,651
EIC PROPERTIES PTE LTD.	14,063	-	325	105	-	-	-	-	14,493
LG-MRI LLC	680		476	-	-	_	40	-	1,196
Total	193,664	-	13,828	(9,424)	-	-	40	-	198,108

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

- (d) Summarized financial information of the associates that are material to the reporting entity as of December 31, 2017 and 2016, and for the years ended December 31, 2017 and 2016, is as follows:
 - LG Display Co., Ltd. and its subsidiaries

(in millions of Korean won)	December 31, 2017	December 31, 2016
Current assets	10,473,703	10,484,186
Non-current assets	18,685,984	14,400,150
Total assets	29,159,687	24,884,336
Current liabilities	8,978,682	7,058,219
Non-current liabilities	5,199,496	4,363,729
Total liabilities	14,178,178	11,421,948
Equity attributable to owners of LG Display Co., Ltd.	14,373,482	12,955,997
Non-controlling interests	608,027	506,391
Total equity	14,981,509	13,462,388

(in millions of Korean won)	2017	2016
Net sales	27,790,216	26,504,074
Profit for the year	1,937,052	931,508
Equity attributable to owners of LG Display Co., Ltd.		
Profit for the year	1,802,756	906,713
Other comprehensive income, net of tax	(206,363)	35,240
Total comprehensive income, net of tax	1,596,393	941,953

The Group received dividends from LG Display Co., Ltd. amounting to \forall 67,813 million (2016: \forall 67,813 million) for the year ended December 31, 2017.

- (e) Reconciliations of the summarized financial information of associates that are material to the reporting entity to the carrying amount of the Group's interest for the years ended December 31, 2017 and 2016, are as follows:
 - LG Display Co., Ltd. and its subsidiaries

(in millions of Korean won)	2017	2016
Opening equity attributable to owners of LG Display Co., Ltd.	12,955,997	12,192,952
Profit for the year	1,802,756	906,713
Other comprehensive income, net of tax	(206,363)	35,240
Dividends	(178,908)	(178,908)
Closing equity attributable to owners of LG Display Co., Ltd.	14,373,482	12,955,997
Group ownership(%)	37.9	37.9
The Group's share at the end of the reporting period	5,448,067	4,910,781
Unrealized gain	(90,575)	(72,971)
Carrying amount at the end of the reporting period	5,357,492	4,837,810

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

(f) The Group's share in the operating results of the individually insignificant associates and joint ventures for the years ended December 31, 2017 and 2016, is as follows:

	2017		2016	
(in millions of Korean won)	Associates	Joint ventures	Associates	Joint ventures
Profit(loss) for the year	(1,899)	7,545	(52,396)	14,407
Other comprehensive income, net of tax	(1,444)	(23,278)	(474)	(9,412)
Total comprehensive income(loss), net of tax	(3,343)	(15,733)	(52,870)	4,995

(g) Accumulated unrecognized changes in equity due to discontinued use of the equity method for the years ended December 31, 2017 and 2016, are as follows:

	December 31, 2017		Decem	ber 31, 2016
(in millions of Korean won)	Unrecognized losses	Unrecognized accumulated losses	Unrecognized losses	Unrecognized accumulated losses
Hitachi-LG Data Storage Inc.(HLDS)	-	-	(21,243)	-

(h) Details of marketable investments in associates as of December 31, 2017 and 2016, are as follows:

			December 31, 2017		
	Туре	Shares held (Unit: shares)	Price per share (Unit: won)	Fair value (in millions of	Book amount Korean won)
LG Display Co., Ltd.	Associate	135,625,000	29,900	4,055,188	5,357,492
Korea Information Certificate Authority Inc.	Associate	2,010,247	5,670	11,398	4,825
			December 31, 2016		
	Туре	Shares held (Unit: shares)	Price per share (Unit: won)	Fair value (in millions of	Book amount Korean won)
LG Display Co., Ltd.	Associate	135,625,000	31,450	4,265,406	4,837,810
Korea Information Certificate Authority Inc.	Associate	2,289,708	5,660	12,960	5,167

14. Investment Properties

(a) Details of investment properties as of December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	Land	Buildings	Total
At December 31, 2017			
Acquisition cost	63,864	53,960	117,824
Accumulated depreciation		(22,112)	(22,112)
Net book amount	63,864	31,848	95,712

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

(in millions of Korean won)	Land	Buildings	Total
At December 31, 2016			
Acquisition cost	63,864	53,960	117,824
Accumulated depreciation		(20,793)	(20,793)
Net book amount	63,864	33,167	97,031

(b) Changes in investment properties for the years ended December 31, 2017 and 2016, are as follows:

	2017			
(in millions of Korean won)	Land	Buildings	Total	
At January 1	63,864	33,167	97,031	
Depreciation	<u> </u>	(1,319)	(1,319)	
At December 31	63,864	31,848	95,712	

	2016			
(in millions of Korean won)	Land	Buildings	Total	
At January 1	77,990	43,281	121,271	
Transfer out ¹	(8,906)	-	(8,906)	
Disposals	(5,220)	(8,730)	(13,950)	
Depreciation	-	(1,384)	(1,384)	
At December 31	63,864	33,167	97,031	

¹ Reclassified to assets held for sale from investment properties.

- (c) The fair value of investment property is valued by an independent professional appraiser with certified qualification or determined based on the evaluation reflecting official land value or recently available transaction price of similar properties, and it is classified as 'level 3' of the fair value hierarchy. The fair value of investment property as of December 31, 2017, is ₩110,123 million (2016: ₩100,411 million).
- (d) Rental income amounting to ₩3,235 million (2016: ₩3,841million) and rental expenses amounting to ₩2,082 million (2016: ₩2,108 million) are recognized in the consolidated statements of profit or loss relating to the investment properties for the year ended December 31, 2017.
- (e) As of December 31, 2017, the Group assumes obligation for repairs and maintenance of investment property owned by the Group.

15. Borrowings

(a) The carrying amounts of borrowings as of December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	December 31, 2017	December 31, 2016
Current		
Short-term borrowings	314,246	596,541
Current portion of long-term borrowings	356,841	422,944
Current portion of debentures	689,669	631,026
Subtotal	1,360,756	1,650,511
Non-current		
Long-term borrowings	2,864,425	2,199,764
Debentures	5,225,299	4,808,736
Subtotal	8,089,724	7,008,500
Total	9,450,480	8,659,011
Non-current Long-term borrowings Debentures Subtotal	2,864,425 5,225,299 8,089,724	2,199,7 4,808,7 7,008,5

- (b) Details of borrowings as at December 31, 2017 and 2016, are as follows:
 - i) Short-term borrowings consist of:

(in millions of Korean won)	s of Korean won) Annual interest rate at		Carrying amount	
	December 31, 2017	December 31, 2016	December 31, 2017	December 31, 2016
General loans				
HSBC and others	0.8 ~ 15.2%	1.3 ~ 14.4%	314,246	596,541
Total			314,246	596,541

ii) Long-term borrowings consist of:

		Annual interest	December 31, 2017			
(in millions of Korean won)	Maturity date	rate at December 31, 2017(%)	Total	Current	Non-current	
Local currency loans						
Kookmin Bank	2019.11.08	2.35	40,000	30,000	10,000	
Kookmin Bank	2027.01.28	3M CD+0.91	190,000	-	190,000	
Kookmin Bank	2029.04.30	3M CD+1.14	200,000	-	200,000	
Nonghyup Bank	2021.09.13	2.68	70,000	40,000	30,000	
Nonghyup Bank	2030.07.07	3M CD+1.05	190,000	-	190,000	
Shinhan Bank	2018.06.04	2.69	20,000	20,000	-	
Shinhan Bank	2020.04.16	3.11	1,167	500	667	
Shinhan Bank	2021.08.30	2.38	50,000	-	50,000	
Shinhan Bank	2021.10.18	2.68	69,734	-	69,734	
Woori Bank	2030.04.15	3M CD+0.82	390,000	-	390,000	
Industrial & Commercial Bank of China	2020.04.10	2.43	50,000	-	50,000	
Agricultural Bank of China	2020.04.10	2.43	40,000	-	40,000	
Bank of China	2027.01.15	3M CD+0.95	100,000	-	100,000	

		Annual interest	December 31, 2017		7
<i>(</i> , , , , , , , , , , , , , , , , , , ,		rate at December 31,			
(in millions of Korean won)	Maturity date	2017(%)	Total	Current	Non-current
KEB Hana Bank	2024.01.03	3M CD+0.98	200,000	-	200,000
KEB Hana Bank	2025.04.23	3M LIBOR+1.20	107,140	-	107,140
Korea Development Bank	2019.05.27	2.81	30,000	-	30,000
Korea Development Bank	2023.12.19	2.65	120,000	-	120,000
Korea Development Bank	2023.12.19	2.69	80,000	-	80,000
Korea Development Bank	2025.09.09	3.00	200,000	-	200,000
Korea Development Bank	2018.05.28	3.76	50,000	50,000	-
Korea Development Bank	2022.07.10	3.14	150,000	-	150,000
The Export-Import Bank of Korea	2026.07.29	2.21	200,000	-	200,000
The Export-Import Bank of Korea	2027.05.25	2.75	200,000	-	200,000
Foreign currency loans	0040 00 00				
HSBC and others	2018.02.20~ 2022.11.29	2.36 ~ 14.24	473,225	216,341	256,884
Total		-	3,221,266	356,841	2,864,425
		Annual interest rate at	De	cember 31, 201	6
(in millions of Korean won) Local currency loans	Maturity date	December 31, 2016(%)	Total	Current	Non-current
Kookmin Bank	2019.11.08	2.35	50,000	10,000	40.000
			·	10,000	40,000
Kookmin Bank	2027.01.28	3M CD+0.91	190,000	-	190,000
Kookmin Bank	2029.04.30	3M CD+1.14	200,000	-	200,000
Nonghyup Bank	2030.07.07	3M CD+1.05	190,000	400,000	190,000
Shinhan Bank	2017.02.16	4.60	190,000	190,000	-
Shinhan Bank	2017.02.27	3.63	20,000	20,000	-
Shinhan Bank	2017.09.15	1.75	168	168	-
Shinhan Bank	2018.06.04	2.69	20,000	-	20,000
Shinhan Bank	2020.04.16	3.11	1,667	500	1,167
Shinhan Bank	2021.08.30	2.38	50,000	-	50,000
Woori Bank	2030.04.15	3M CD+0.82	390,000	-	390,000
KEB Hana Bank	2024.01.03	3M CD+0.98	200,000	-	200,000
Korea Development Bank	2017.02.28	3.58	70,000	70,000	-
Korea Development Bank	2017.02.28	3.76	30,000	30,000	-
Korea Development Bank	2017.02.28	3.97	70,000	70,000	-
Korea Development Bank	2018.05.28	3.76	50,000	-	50,000
Korea Development Bank	2019.05.27	2.81	30,000	-	30,000
Korea Development Bank	2023.12.19	2.65	120,000	-	120,000
Korea Development Bank	2025.09.09	3.00	200,000	-	200,000
The Export-Import Bank of Korea	2026.07.29	2.21	200,000	-	200,000
Foreign currency loans					
HSBC and others	2017.07.17~ 2021.07.12	2.36 ~ 12.48	350,873	32,276	318,597
Total		-	2,622,708	422,944	2,199,764

The Group entered into interest rate swap and cross-currency swap contracts to hedge cash flow risks related to floating interest rates and foreign exchange rates of some of these borrowings (Note 37).

iii) Debentures consist of:

			Annual interest rate	De	cember 31,	2017
(in millions of Korean won)		Maturity Date	at December 31, 2017(%)	Total	Current	Non-current
Fixed rate notes in local currency	- Public, non-guaranteed bonds(33-2 nd)	2019.11.10	2.98	70,000	-	70,000
Fixed rate notes in local currency	Private, non-guaranteed bonds(34-1st)	2018.02.13	2.48	10,000	10,000	-
Fixed rate notes in local currency	Private, non-guaranteed bonds(34-2 nd)	2020.02.13	2.90	90,000	-	90,000
Fixed rate notes in local currency	Public, non-guaranteed bonds(35-1st)	2018.11.26	2.26	40,000	40,000	-
Fixed rate notes in local currency	Public, non-guaranteed bonds(35-2 nd)	2020.11.26	2.54	60,000	-	60,000
Fixed rate notes in local currency	Private, non-guaranteed bonds(36-1st)	2019.02.12	2.02	30,000	-	30,000
Fixed rate notes in local currency	Private, non-guaranteed bonds(36-2 nd)	2020.02.12	2.07	20,000	-	20,000
Fixed rate notes in local currency	Public, non-guaranteed bonds(37-1st)	2019.04.19	1.90	80,000	-	80,000
Fixed rate notes in local currency	Public, non-guaranteed bonds(37-2 nd)	2021.04.19	2.21	70,000	-	70,000
Fixed rate notes in local currency	Private, non-guaranteed bonds(38 th)	2019.09.21	1.95	60,000	-	60,000
Fixed rate notes in local currency	Public, non-guaranteed bonds(39-1st)	2020.02.13	1.94	150,000	-	150,000
Fixed rate notes in local currency	Public, non-guaranteed bonds(39-2 nd)	2022.02.13	2.42	100,000	-	100,000
Fixed rate notes in local currency	Private, non-guaranteed bonds(67 th)	2018.03.21	3.11	300,000	300,000	-
Fixed rate notes in local currency	Private, non-guaranteed bonds(68-1st)	2020.05.23	3.29	100,000	-	100,000
Fixed rate notes in local currency	Private, non-guaranteed bonds(68-2 nd)	2020.05.24	3.29	20,000	-	20,000
Fixed rate notes in local currency	Private, non-guaranteed bonds(68-3 rd)	2023.05.22	3.68	50,000	-	50,000
Fixed rate notes in local currency	Private, non-guaranteed bonds(68-4 th)	2023.05.23	3.68	30,000	-	30,000
Fixed rate notes in local currency	Public, non-guaranteed bonds(69-2 nd)	2018.07.31	3.54	140,000	140,000	-
Fixed rate notes in local currency	Public, non-guaranteed bonds(69-3 rd)	2020.07.31	3.85	150,000	-	150,000
Floating rate notes in foreign currency	Private, guaranteed bonds(70 th)	2019.01.31	3M LIBOR+1.60	214,280	-	214,280
Fixed rate notes in local currency	Public, non-guaranteed bonds(71-1st)	2018.10.18	3.55	200,000	200,000	-
Fixed rate notes in local currency	Public, non-guaranteed bonds(71-2 nd)	2020.10.19	3.82	110,000	-	110,000
Fixed rate notes in local currency	Public, non-guaranteed bonds(71-3 rd)	2023.10.18	4.25	90,000	-	90,000
Fixed rate notes in local currency	Public, non-guaranteed bonds(73-2 nd)	2019.01.24	3.60	120,000	-	120,000
Fixed rate notes in local currency	Public, non-guaranteed bonds(73-3 rd)	2021.01.24	3.95	160,000	-	160,000
Fixed rate notes in local currency	Public, non-guaranteed bonds(73-4th)	2024.01.24	4.44	120,000	-	120,000
Fixed rate notes in local currency	Public, non-guaranteed bonds(74-1st)	2019.05.29	3.30	200,000	-	200,000
Fixed rate notes in local currency	Public, non-guaranteed bonds(74-2 nd)	2021.05.29	3.52	130,000	-	130,000
Fixed rate notes in local currency	Public, non-guaranteed bonds(74-3 rd)	2024.05.29	4.04	210,000	-	210,000

			Annual interest rate	De	cember 31,	2017
(in millions of Korean won)		Maturity Date	at December 31, 2017(%)	Total	Current	Non-current
Fixed rate notes in local currency	Public, non-guaranteed bonds(74-4 th)	2029.05.29	4.44	60,000	-	60,000
Fixed rate notes in local currency	Private, non-guaranteed bonds(75th)	2026.07.16	3.96	100,000	-	100,000
Fixed rate notes in local currency	Private, non-guaranteed bonds(76-1st)	2028.11.17	3.79	40,000	-	40,000
Fixed rate notes in local currency	Private, non-guaranteed bonds(76-2 nd)	2028.11.18	3.79	60,000	-	60,000
Fixed rate notes in local currency	Public, non-guaranteed bonds(77-1st)	2020.02.02	2.28	210,000	-	210,000
Fixed rate notes in local currency	Public, non-guaranteed bonds(77-2 nd)	2022.02.02	2.51	230,000	-	230,000
Fixed rate notes in local currency	Public, non-guaranteed bonds(77-3 rd)	2025.02.02	2.97	210,000	-	210,000
Fixed rate notes in local currency	Public, non-guaranteed bonds(77-4 th)	2030.02.02	3.45	100,000	-	100,000
Fixed rate notes in local currency	Public, non-guaranteed bonds(78-1st)	2019.02.24	1.88	110,000	-	110,000
Fixed rate notes in local currency	Public, non-guaranteed bonds(78-2 nd)	2021.02.24	2.14	200,000	-	200,000
Fixed rate notes in local currency	Public, non-guaranteed bonds(78-3 rd)	2023.02.24	2.45	140,000	-	140,000
Fixed rate notes in local currency	Public, non-guaranteed bonds(79-1st)	2019.09.06	1.48	90,000	-	90,000
Fixed rate notes in local currency	Public, non-guaranteed bonds(79-2 nd)	2021.09.06	1.75	90,000	-	90,000
Fixed rate notes in local currency	Public, non-guaranteed bonds(79-3 rd)	2023.09.06	2.08	130,000	-	130,000
Fixed rate notes in local currency	Public, non-guaranteed bonds(79-4 th)	2026.09.06	2.67	150,000	-	150,000
Floating rate notes in foreign currency	Private, non-guaranteed bonds(80 th)	2022.02.02	1M LIBOR+0.90	107,140	-	107,140
Fixed rate notes in local currency	Private, non-guaranteed bonds(81st)	2027.03.10	3.42	50,000	-	50,000
Fixed rate notes in local currency	Private, non-guaranteed bonds(82 nd)	2027.03.22	3.29	50,000	-	50,000
Fixed rate notes in local currency	Public, non-guaranteed bonds(83-1st)	2022.04.28	2.36	160,000	-	160,000
Fixed rate notes in local currency	Public, non-guaranteed bonds(83-2 nd)	2024.04.28	2.79	130,000	-	130,000
Fixed rate notes in local currency	Public, non-guaranteed bonds(83-3 rd)	2027.04.28	3.20	70,000	-	70,000
Floating rate notes in foreign currency	Private, non-guaranteed bonds(84th)	2023.02.24	3M EURIBOR+ 0.75	127,925	-	127,925
Fixed rate notes in local currency	Private, non-guaranteed bonds(85-1st)	2027.11.17	3.62	30,000	-	30,000
Fixed rate notes in local currency	Private, non-guaranteed bonds(85-2 nd)	2032.11.17	4.03	20,000	-	20,000
Floating rate notes in foreign currency	Private, non-guaranteed bonds(86-1st)	2020.11.22	1M LIBOR+0.78	48,213	-	48,213
Floating rate notes in foreign currency	Private, non-guaranteed bonds(86-2 nd)	2022.11.22	1M LIBOR+0.86	91,069	-	91,069
Less: discount on debentures				(13,659)	(331)	(13,328)
Total	-			5,914,968	689,669	5,225,299
	-					

			Annual interest rate	December 31, 2016		
(in millions of Korean won)		Maturity Date	at December 31, 2016(%)	Total	Current	Non-current
Fixed rate notes in local currency	Public, non-guaranteed bonds(30-2 nd)	2017.02.09	4.90	50,000	50,000	-
Fixed rate notes in local currency	Public, non-guaranteed bonds(31-2 nd)	2017.11.12	3.73	80,000	80,000	-
Fixed rate notes in local currency	Public, non-guaranteed bonds(33-1st)	2017.11.10	2.48	30,000	30,000	-
Fixed rate notes in local currency	Public, non-guaranteed bonds(33-2 nd)	2019.11.10	2.98	70,000	-	70,000
Fixed rate notes in local currency	Private, non-guaranteed bonds(34-1st)	2018.02.13	2.48	10,000	-	10,000
Fixed rate notes in local currency	Private, non-guaranteed bonds(34-2 nd)	2020.02.13	2.90	90,000	-	90,000
Fixed rate notes in local currency	Public, non-guaranteed bonds(35-1st)	2018.11.26	2.26	40,000	-	40,000
Fixed rate notes in local currency	Public, non-guaranteed bonds(35-2 nd)	2020.11.26	2.54	60,000	-	60,000
Fixed rate notes in local currency	Private, non-guaranteed bonds(36-1st)	2019.02.12	2.02	30,000	-	30,000
Fixed rate notes in local currency	Private, non-guaranteed bonds(36-2 nd)	2020.02.12	2.07	20,000	-	20,000
Fixed rate notes in local currency	Public, non-guaranteed bonds(37-1st)	2019.04.19	1.90	80,000	-	80,000
Fixed rate notes in local currency	Public, non-guaranteed bonds(37-2 nd)	2021.04.19	2.21	70,000	-	70,000
Fixed rate notes in local currency	Private, non-guaranteed bonds(38th)	2019.09.21	1.95	60,000	-	60,000
Fixed rate notes in local currency	Public, non-guaranteed bonds(66-2 nd)	2017.09.10	3.28	130,000	130,000	-
Fixed rate notes in local currency	Private, non-guaranteed bonds(67 th)	2018.03.21	3.11	300,000	-	300,000
Fixed rate notes in local currency	Private, non-guaranteed bonds(68-1st)	2020.05.23	3.29	100,000	-	100,000
Fixed rate notes in local currency	Private, non-guaranteed bonds(68-2 nd)	2020.05.24	3.29	20,000	-	20,000
Fixed rate notes in local currency	Private, non-guaranteed bonds(68-3 rd)	2023.05.22	3.68	50,000	-	50,000
Fixed rate notes in local currency	Private, non-guaranteed bonds(68-4 th)	2023.05.23	3.68	30,000	-	30,000
Fixed rate notes in local currency	Public, non-guaranteed bonds(69-2 nd)	2018.07.31	3.54	140,000	-	140,000
Fixed rate notes in local currency	Public, non-guaranteed bonds(69-3 rd)	2020.07.31	3.85	150,000	-	150,000
Floating rate notes in foreign currency	Private, guaranteed bonds(70 th)	2019.01.31	3M LIBOR+1.60	241,700	-	241,700
Fixed rate notes in local currency	Public, non-guaranteed bonds(71-1st)	2018.10.18	3.55	200,000	-	200,000
Fixed rate notes in local currency	Public, non-guaranteed bonds(71-2 nd)	2020.10.19	3.82	110,000	-	110,000
Fixed rate notes in local currency	Public, non-guaranteed bonds(71-3 rd)	2023.10.18	4.25	90,000	-	90,000
Floating rate notes in foreign currency	Private, non-guaranteed bonds(72 nd)	2017.06.19	3M LIBOR+1.30	241,700	241,700	-
Fixed rate notes in local currency	Public, non-guaranteed bonds(73-1st)	2017.01.24	3.16	100,000	100,000	-
Fixed rate notes in local currency	Public, non-guaranteed bonds(73-2 nd)	2019.01.24	3.60	120,000	-	120,000
Fixed rate notes in local currency	Public, non-guaranteed bonds(73-3 rd)	2021.01.24	3.95	160,000	-	160,000
Fixed rate notes in local currency	Public, non-guaranteed bonds(73-4 th)	2024.01.24	4.44	120,000	-	120,000
Fixed rate notes in local currency	Public, non-guaranteed bonds(74-1st)	2019.05.29	3.30	200,000	-	200,000
Fixed rate notes in local currency	Public, non-guaranteed bonds(74-2 nd)	2021.05.29	3.52	130,000	-	130,000
Fixed rate notes in local currency	Public, non-guaranteed bonds(74-3 rd)	2024.05.29	4.04	210,000	-	210,000
Fixed rate notes in local currency	Public, non-guaranteed bonds(74-4 th)	2029.05.29	4.44	60,000	-	60,000

			Annual interest rate	December 31, 2016		
(in millions of Korean won)	_	Maturity Date	at December 31, 2016(%)	Total	Current	Non-current
Fixed rate notes in local currency	Private, non-guaranteed bonds(75 th)	2026.07.16	3.96	100,000	-	100,000
Fixed rate notes in local currency	Private, non-guaranteed bonds(76-1st)	2028.11.17	3.79	40,000	-	40,000
Fixed rate notes in local currency	Private, non-guaranteed bonds(76-2 nd)	2028.11.18	3.79	60,000	-	60,000
Fixed rate notes in local currency	Public, non-guaranteed bonds(77-1st)	2020.02.02	2.28	210,000	-	210,000
Fixed rate notes in local currency	Public, non-guaranteed bonds(77-2 nd)	2022.02.02	2.51	230,000	-	230,000
Fixed rate notes in local currency	Public, non-guaranteed bonds(77-3 rd)	2025.02.02	2.97	210,000	-	210,000
Fixed rate notes in local currency	Public, non-guaranteed bonds(77-4th)	2030.02.02	3.45	100,000	-	100,000
Fixed rate notes in local currency	Public, non-guaranteed bonds(78-1st)	2019.02.24	1.88	110,000	-	110,000
Fixed rate notes in local currency	Public, non-guaranteed bonds(78-2 nd)	2021.02.24	2.14	200,000	-	200,000
Fixed rate notes in local currency	Public, non-guaranteed bonds(78-3 rd)	2023.02.24	2.45	140,000	-	140,000
Fixed rate notes in local currency	Public, non-guaranteed bonds(79-1st)	2019.09.06	1.48	90,000	-	90,000
Fixed rate notes in local currency	Public, non-guaranteed bonds(79-2 nd)	2021.09.06	1.75	90,000	-	90,000
Fixed rate notes in local currency	Public, non-guaranteed bonds(79-3 rd)	2023.09.06	2.08	130,000	-	130,000
Fixed rate notes in local currency	Public, non-guaranteed bonds(79-4 th)	2026.09.06	2.67	150,000	-	150,000
Less: discount on debentures	_			(13,638)	(674)	(12,964)
Total	- -			5,439,762	631,026	4,808,736

The Group entered into interest rate swap and cross-currency swap contracts to hedge cash flow risk related to floating interest rates and foreign exchange rates of some of these borrowings (Note 37).

The principal and interests of private bonds (70th, 84th) are guaranteed by Shinhan Bank (Note 34).

16. Other Payables

Details of other payables as of December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	December 31, 2017	December 31, 2016	
Current			
Non-trade payables	2,676,089	2,488,866	
Accrued expenses	832,334	690,169	
Dividends payable	223	246	
Leasehold deposits received	14,193	17,454	
Subtotal	3,522,839	3,196,735	
Non-current			
Non-trade payables	4,853	2,294	
Leasehold deposits received	1,637	5,477	
Subtotal	6,490	7,771	
Total	3,529,329	3,204,506	

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

17. Current Income Tax and Deferred Income Tax

Income tax expense

(a) Details of income tax expense(benefit) for the years ended December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	2017	2016
Current income taxes		
Current tax on profits for the year	558,677	530,875
Adjustments in respect of prior years	2,372	56,413
Deferred income taxes		
Changes in temporary differences	135,487	(79,047)
Changes in tax credits	(181,791)	20,215
Changes in tax losses	173,849	66,946
Income tax expense	688,594	595,402

(b) The reconciliation between profit before income tax and income tax expense for the years ended December 31, 2017 and 2016, is as follows:

(in millions of Korean won)	2017	2016	
Profit before income tax	2,558,112	721,717	
Tax expense based on applicable tax rate ¹	666,330	232,190	
Income not subject to tax	(31,265)	(48,503)	
Expenses not deductible for tax purposes	92,026	75,651	
Recognition of deferred tax asset on tax credits	(241,697)	(249,388)	
Adjustments in respect of prior years	2,372	56,413	
Changes in unrecognized deferred tax assets	34,554	465,447	
Tax effect on investment in subsidiaries and associates	35,090	64,015	
Change in tax rates	131,184	(423)	
Income tax expense	688,594	595,402	
Effective tax rate	26.9%	82.5%	

¹ The applicable tax rate, calculated using the weighted average statutory tax rates applicable to each entity within the Group to the profit before tax of the Group is 26.0% (2016: 32.2%) for the year ended December 31, 2017. The applicable tax rate has decreased due to changes in the proportions of each entity's profit (loss) before income tax.

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

Deferred income tax

(a) Deferred tax assets and deferred tax liabilities after offsetting as of December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	December 31, 2017	December 31, 2016
Deferred tax assets:		
Deferred tax asset to be recovered within 12 months	1,022,780	1,070,390
Deferred tax asset to be recovered after more than 12 months	1,926,057	1,654,323
Deferred tax assets before offsetting	2,948,837	2,724,713
Deferred tax liabilities:		
Deferred tax liability to be settled within 12 months	44,262	44,019
Deferred tax liability to be settled after more than 12		
months	1,547,967	1,135,686
Deferred tax liabilities before offsetting	1,592,229	1,179,705
Deferred tax assets after offsetting	1,365,367	1,554,594
Deferred tax liabilities after offsetting	8,759	9,586

(b) Changes in deferred income tax assets and liabilities for the years ended December 31, 2017 and 2016, are as follows:

			2017		
(in millions of Korean won)	At January 1	Charged (credited) to the statements of profit or loss	Charged(credited) to other comprehensive income	Exchange differences	At December 31
Changes in temporary differences					
Investments in subsidiaries	(314,788)	(204,858)	1,791	-	(517,855)
Property, plant and equipment	(37,822)	41,932	-	(81)	4,029
Accrued expenses	473,298	75,151	-	3,586	552,035
Provisions	204,387	(36,090)	-	(4,587)	163,710
Other	407,137	(11,622)	(29,343)	(35,123)	331,049
Subtotal	732,212	(135,487)	(27,552)	(36,205)	532,968
Tax credits carryforwards	566,551	181,791	-	_	748,342
Tax loss carryforwards	246,245	(173,849)	-	2,902	75,298
Deferred tax assets(liabilities)	1,545,008	(127,545)	(27,552)	(33,303)	1,356,608

			2016		
(in millions of Korean won)	At January 1	Charged (credited) to the statements of profit or loss	Charged(credited) to other comprehensive income	Exchange differences	At December 31
Changes in temporary differences					
Investments in subsidiaries	(309,625)	(5,379)	216	-	(314,788)
Property, plant and equipment	(49,496)	12,603	-	(929)	(37,822)
Accrued expenses	497,731	(23,591)	-	(842)	473,298
Provisions	197,883	5,509	-	995	204,387
Other	393,806	89,905	(56,491)	(20,083)	407,137
Subtotal	730,299	79,047	(56,275)	(20,859)	732,212
Tax credits carryforwards	586,766	(20,215)	-	_	566,551
Tax loss carryforwards	314,931	(66,946)	-	(1,740)	246,245
Deferred tax assets(liabilities)	1,631,996	(8,114)	(56,275)	(22,599)	1,545,008

(c) Tax effects directly recognized in other comprehensive income directly for the years ended December 31, 2017 and 2016, are as follows:

	2017			2016		
	Before	Tax	After	Before	Tax	After
(in millions of Korean won)	tax	effects	tax	tax	effects	tax
Remeasurements of net defined benefit liabilities	117,933	(21,419)	96,514	239,901	(57,879)	182,022
Cash flow hedge	37,199	(7,737)	29,462	(4,216)	1,270	(2,946)
Available-for-sale financial assets	(993)	(187)	(1,180)	(495)	118	(377)
Exchange differences on translation of foreign operations	(462,537)	1,791	(460,746)	174,409	216	174,625
Total	(308,398)	(27,552)	(335,950)	409,599	(56,275)	353,324

(d) Details of deductible (taxable) temporary differences, tax credits and tax losses carryforward unrecognized as deferred tax assets (liabilities) as of December 31, 2017, are as follows:

(in millions of Korean won)	2017	Remark
Taxable temporary difference (investment in subsidiary)	(5,263,401)	Planned permanent reinvestment of undistributed profit
Deductible temporary difference (investment in subsidiary)	1,593,352	Unlikely to reverse(disposed of) in the foreseeable future
Tax credits carryforwards	421,081	Uncertainty of future taxable profit
Tax losses carryforwards	530,270	Uncertainty of future taxable profit

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

(e) Expirations of unrecognized tax credits and tax losses carryforward as of December 31, 2017, are as follows:

(in millions of Korean won)	1 year or less	1 to 2 years	2 to 3 years	Over 3 years
Tax credits carryforwards	131,674	59,799	895	228,713
Tax losses carryforwards	9,040	50,154	53,341	417,735

18. Post-employment Benefits

Defined Benefit Plan

(a) The amounts of net defined benefit liabilities as of December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	December 31, 2017	December 31, 2016	
Present value of funded obligations	2,886,079	2,755,266	
Present value of unfunded obligations	31,192	33,165	
Subtotal	2,917,271	2,788,431	
Fair value of plan assets	(2,591,256)	(2,277,909)	
Net defined benefit liabilities ¹	326,015	510,522	

¹ Net defined benefit assets are included.

(b) The amounts recognized in the consolidated statements of profit or loss for the years ended December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	2017	2016	
Current service cost	354,877	379,451	
Past service cost	(1,012)	(2,074)	
Net interest cost	14,654	21,860	
Operating management cost	2,411	2,275	
Total	370,930	401,512	

(c) Line items in which expenses are included for the years ended December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	2017	2016
Cost of sales	194,609	202,949
Selling and marketing expenses	56,581	61,596
Administrative expenses	23,489	22,825
Research and development expenses	89,001	106,007
Service costs	7,250	8,135
Total	370,930	401,512

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

(d) Movements in the present value of defined benefit obligations for the years ended December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	2017	2016
At January 1	2,788,431	2,736,094
Current service cost	354,877	379,451
Past service cost	(1,012)	(2,074)
Interest expense	74,627	72,397
Remeasurements for:		
 Actuarial loss arising from changes in demographic assumptions 	3,468	12,562
 Actuarial gain arising from changes in financial assumptions 	(119,518)	(259,479)
 Actuarial gain arising from experience adjustments 	(21,977)	(4,610)
Benefits paid	(157,504)	(146,292)
Others	(4,121)	382
At December 31	2,917,271	2,788,431

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

(in millions of Korean won)	2017	2016
At January 1	2,277,909	1,948,484
Interest income	59,973	50,537
Remeasurements of plan assets	(20,094)	(11,626)
Employer contributions	394,886	394,661
Benefits paid	(118,451)	(101,936)
Operating management cost	(2,411)	(2,275)
Others	(556)	64
At December 31	2,591,256	2,277,909

(f) The significant actuarial assumptions used as of December 31, 2017 and 2016, are as follows:

	December 31, 2017	December 31, 2016
Weighted average of discount rate of the Group	3.1%	2.8%
Weighted average of expected salary growth rate of the Group	5.0%	5.1%

As of December 31, 2017, the discount rates applied to the Parent Company and subsidiaries are between 0.3%~7.5% (2016: 0.4%~8.4%), and the expected salary growth rates are between 1.0%~10.0% (2016: 1.0%~11.0%).

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

(g) The sensitivity analysis of the defined benefit obligation to changes in principal assumptions as of December 31, 2017, is as follows:

(in millions of Korean won)	1%p increase	1%p decrease	
Discount rate	(234,846)	270,480	
Expected salary growth rate	258,755	(237,126)	

The above sensitivity analysis are based on a change in an assumption while holding all other assumptions constant. In practice, this is unlikely to occur, and changes in some of the assumptions may be correlated. The sensitivity of the defined benefit obligation to changes in principal actuarial assumptions is calculated using the projected unit credit method, the same method applied when calculating the defined benefit obligations.

(h) Plan assets consist of:

	Decem	ber 31, 2017	December 31, 2016		
(in millions of Korean won)	Amount	Composition(%)	Amount	Composition(%)	
Securities combined with derivatives (guaranteed)	1,044,184	40.3	681,201	29.9	
Time deposits and others	1,547,072	59.7	1,596,708	70.1	
Total	2,591,256	100.0	2,277,909	100.0	

(i) The weighted average duration of the defined benefit obligations is 9.2 years. Expected maturity analysis of undiscounted pension benefits as of December 31, 2017, is as follows:

Within				Over			
(in millions of Korean won)	1 year	1 to 2 years	2 to 5 years	5 to 10 years	10 years	Total	
Pension benefits	174,982	209,524	660,108	942,997	2,004,291	3,991,902	

The Group evaluates the fund contribution level annually and if there is a shortfall in the funds the Group has a policy to finance the funds. Expected contributions to post-employment benefit plans for the year ending December 31, 2018, are $\forall 349,210$ million.

Defined Contribution Plan

The expense recognized in the current year in relation to defined contribution plan was \forall 12,330 million (2016: \forall 10,386 million).

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

19. Provisions

(a) Changes in provisions for the years ended December 31, 2017 and 2016, are as follows:

			2017		
(in millions of Korean won)	Warranty	Sales returns	Restoration	Litigation and others	Total
At January 1	756,509	39,071	24,985	978,700	1,799,265
Additions	1,003,743	269,729	13,886	119,322	1,406,680
Utilization	(1,083,404)	(269,702)	(4,551)	(861,830)	(2,219,487)
Exchange differences	(24,505)	(2,588)	(187)	(11,502)	(38,782)
At December 31	652,343	36,510	34,133	224,690	947,676
Current	593,681	36,510	12,813	6,551	649,555
Non-current	58,662		21,320	218,139	298,121

			2016		
(in millions of Korean won)	Warranty	Sales returns	Restoration	Litigation and others	Total
At January 1	569,101	57,063	16,163	1,007,963	1,650,290
Additions	1,575,549	246,507	11,768	166,763	2,000,587
Utilization	(1,387,593)	(264,309)	(2,453)	(204,080)	(1,858,435)
Exchange differences	(548)	(190)	(493)	8,054	6,823
At December 31	756,509	39,071	24,985	978,700	1,799,265
Current	710,950	39,071	4,980	15,966	770,967
Non-current	45,559		20,005	962,734	1,028,298

(b) Greenhouse Gas Emission Liabilities

As of December 31, 2017, emission rights received free of charge for each reporting period and greenhouse gas emission estimated by management, are as follows:

(in tons)	2017	2018
Emission rights received free of charge ¹	1,611,336	1,514,442

¹ Emission rights received free of charge are defined as allowed amount of emissions that can be released, allocated by the Korean government for free in accordance with 'Act on the Allocation and Trading of Greenhouse-Gas Emission Permits'.

In 2017, there is no emission right that the Group additionally purchased from the market and there is no recognized emission liability as greenhouse gas emission estimated by management is 1,374,357 tons.

20. Other Liabilities

Other liabilities as of December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	December 31, 2017	December 31, 2016
Current	·	
Advances from customers	557,122	428,232
Unearned income	64,765	50,339
Withholding	639,530	419,881
Accrued expenses	2,501,743	2,385,952
Other	1	8
Subtotal	3,763,161	3,284,412
Non-current		
Advances from customers	95,862	-
Unearned income	18,926	17,878
Accrued expenses	95,903	95,941
Other	1,711	1,711
Subtotal	212,402	115,530
Total	3,975,563	3,399,942

21. Paid-in Capital

(a) As of December 31, 2017 and 2016, the number of shares authorized is 600 million.

		December 31, 2017		Decembe	er 31, 2016
	Par value per share	Number of shares issued	Amount (in millions of Korean won)	Number of shares issued	Amount (in millions of Korean won)
Ordinary shares	5,000	163,647,814	818,239	163,647,814	818,239
Preferred shares	5,000	17,185,992	85,930	17,185,992	85,930
Total		180,833,806	904,169	180,833,806	904,169

The preferred shareholders have no voting rights and are entitled to preferred dividends at a rate of one percentage point over that of ordinary shares. This preferred dividend rate is not applicable to stock dividends. In addition, the preferred shareholders have same rights on the remaining assets as ordinary shareholders. Repayment and conversion are not applicable to preferred shares.

(b) Share premium balance as of December 31, 2017, is ₩3,088,179 million. The share premium of ₩1,876,153 million was recognized, which is ₩2,815,707 million of the carrying amount of net assets acquired from the entity split-off back on April 1, 2002, less the Parent Company's capital of ₩783,961 million and less the Parent Company's capital adjustment of ₩155,593 million. In addition, the amount of ₩331,766 million paid in excess of par value due to issuance of ordinary shares (merger with LG IBMPC Co., Ltd.) and the exercise of conversion option in 2005 and 2006 are included. The excess in paid-in capital amounting to ₩880,260 million over the par value was recognized as the share premium due to the issuance of ordinary shares in 2011.

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

22. Retained Earnings and Dividends

(a) Retained earnings as of December 31, 2017 and 2016, consist of:

(in millions of Korean won)	December 31, 2017	December 31, 2016
Legal reserve ¹	175,054	167,766
Discretionary reserve	4,603,535	4,805,354
Unappropriated retained earnings	6,185,566	4,260,296
Total	10,964,155	9,233,416

¹The Commercial Code of the Republic of Korea requires the Parent Company to appropriate, as a legal reserve, an amount equal to a minimum of 10% of cash dividends paid until such reserve equals 50% of its issued share capital. The reserve is not available for the payment of cash dividends, but may be transferred to share capital or used to reduce accumulated deficit.

(b) Dividends of the Parent Company

Details of dividends per share and a total dividend in respect of the year ended December 31, 2017, which is to be proposed at the annual general meeting on March 16, 2018, are as follows. These consolidated financial statements do not reflect this dividend payable.

(Unit: shares) 2017		7	2016		
	Ordinary	Preferred	Ordinary	Preferred	
<u>-</u>	shares	shares	shares	shares	
Outstanding shares	163,647,814	17,185,992	163,647,814	17,185,992	
Treasury shares	(763,172)	(4,690)	(763,171)	(4,690)	
Numbers of shares for dividend	162,884,642	17,181,302	162,884,643	17,181,302	
Par value (in Korean won)	5,000	5,000	5,000	5,000	
Dividend rate	8%	9%	8%	9%	
Dividends per share (in Korean won)	400	450	400	450	
Total dividend amount (in millions of Korean won)	65,154	7,731	65,154	7,731	
Dividend payout ratio ¹ (Dividends/Net profit)	8.59%	1.02%	-	-	
Stock price ² (in Korean won)	100,375	44,988	49,810	24,390	
Dividend yield ratio (Dividend per share/Market price)	0.40%	1.00%	0.80%	1.85%	

¹ Dividend payout ratio is calculated based on the net profit of the Parent Company for the year ended December 31, 2017. It is not calculated for the year ended December 31, 2016 due to the net loss of the Parent Company.

² Average of prices in the stock market for one week preceding the two business days before the record date of the shareholders' list for the general meeting of shareholders related to above dividends.

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

23. Accumulated Other Comprehensive Income

Accumulated other comprehensive income as of December 31, 2017 and 2016, consist of:

(in millions of Korean won)	December 31, 2017	December 31, 2016
Accumulated other comprehensive loss of associates and joint ventures	(196,195)	(97,343)
Cash flow hedge	(26,409)	(55,871)
Available-for-sale financial assets	9,384	10,564
Exchange difference on translation of foreign operations	(1,309,258)	(886,312)
Total	(1,522,478)	(1,028,962)

24. Other Components of Equity

Other components of equity as of December 31, 2017 and 2016, consist of:

(in millions of Korean won)	December 31, 2017	December 31, 2016
Treasury shares ¹	(44,893)	(44,893)
Consideration for conversion rights	9,891	9,891
Gain on disposal of treasury shares	2,183	2,183
Capital transactions within the Group	(176,945)	(176,889)
Total	(209,764)	(209,708)

¹ As of December 31, 2017, the Parent Company has treasury shares consisting of 763,172 ordinary shares (December 31, 2016: 763,171 shares) and 4,690 preferred shares (December 31, 2016: 4,690 shares) at the end of the reporting period. The Parent Company intends to either grant these treasury shares to employees and directors as compensation, or to dispose them in the future.

25. Net Sales

Details of net sales for the years ended December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	2017	2016
Sales of goods	60,083,384	54,586,597
Rendering of services	936,340	541,663
Royalty income	376,560	238,773
Total	61,396,284	55,367,033

26. Expenses by Nature

Expenses that are recorded by nature for the years ended December 31, 2017 and 2016, consist of:

(in millions of Korean won)	2017	2016
Changes in finished goods and work-in-process	(576,537)	(162,369)
Raw materials and merchandise used	38,558,819	33,936,093
Employee benefit expense	6,787,531	6,371,390
Depreciation and amortization	1,755,125	1,721,684
Advertising expense	1,251,010	1,322,215
Promotion expense	813,201	761,576
Transportation expense	1,505,861	1,377,625
Commission expense	2,982,121	2,811,245
Other expenses	5,850,604	5,889,811
Total ¹	58,927,735	54,029,270

¹ Cost of sales, selling and marketing expenses, administrative expenses, research and development expenses and service costs are included.

27. General Operating Expenses (Selling and Marketing Expenses, Administrative Expenses, Research and Development Expenses, and Service Costs)

Details of general operating expenses for the years ended December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	2017	2016
Salaries	2,912,076	2,749,514
Post-employment benefits	203,678	243,576
Employee welfare benefits	601,999	597,014
Freight expense	1,490,787	1,362,895
Rental expense	444,527	448,965
Commission expense	2,171,495	2,032,347
Depreciation	227,080	249,271
Amortization	199,774	197,896
Taxes and dues	142,818	138,542
Advertising expense	1,251,010	1,322,215
Promotional expense	813,201	761,576
R&D expense	272,768	354,408
Direct service costs	774,005	1,311,115
Bad debts expense	1,314	(59,186)
Other	683,640	688,829
Total	12,190,172	12,398,977

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

28. Financial Income

Financial income for the years ended December 31, 2017 and 2016, consists of:

(in millions of Korean won)	2017	2016
Interest income	95,260	94,704
Exchange differences	384,396	392,139
Gain on derivatives	4,009	3,341
Other	-	409
Total	483,665	490,593

29. Financial Expenses

Financial expenses for the years ended December 31, 2017 and 2016, consist of:

(in millions of Korean won)	2017	2016
Interest expense	367,273	418,312
Exchange differences	447,586	445,479
Loss on derivatives	570	2,767
Loss on disposal of trade receivables	13,407	15,447
Other	2,278	2,046
Total	831,114	884,051

30. Other Non-operating Income

Other non-operating income for the years ended December 31, 2017 and 2016, consists of:

(in millions of Korean won)	2017	2016
Dividend income	248	286
Exchange differences	1,184,456	1,797,247
Gain on derivatives	15,860	20,472
Gain on disposal of property, plant and equipment	79,798	20,115
Gain on disposal of intangible assets	35	2
Gain on disposal of investment property	-	7,903
Gain on disposal of assets held for sale	3,804	-
Gain on disposal of available-for-sale financial assets	9,209	368
Gain on disposal of investments in associates and joint ventures	6,279	-
Gain on transfer of business	4,882	-
Other	42,036	48,191
Total	1,346,607	1,894,584

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

31. Other Non-operating Expenses

Other non-operating expenses for the years ended December 31, 2017 and 2016, consist of:

(in millions of Korean won)	2017	2016
Exchange differences	1,202,224	2,003,743
Loss on derivatives	36,136	68,693
Loss on disposal of property, plant and equipment	52,078	33,241
Impairment loss on property, plant and equipment	79,497	75,115
Loss on disposal of intangible assets	38,018	11,503
Impairment loss on intangible assets	24,816	9,815
Impairment loss on available-for-sale financial assets	1,758	9,897
Other	142,543	173,903
Total	1,577,070	2,385,910

32. Earnings per Share

The Group has no potential dilutive ordinary shares. Accordingly, basic earnings per share is identical to diluted earnings per share.

(a) Basic earnings per ordinary share for the years ended December 31, 2017 and 2016, is as follows:

	2017	2016
Profit attributable to ordinary shares ¹ (in millions of Korean won)	1,560,330	68,767
Weighted average number of ordinary shares outstanding (unit: shares) ²	162,884,643	162,884,643
Basic earnings per ordinary share (in Korean won)	9,579	422

(b) Basic earnings per preferred share for the years ended December 31, 2017 and 2016, is as follows:

	2017	2016
Profit attributable to preferred shares ¹ (in millions of Korean won)	165,444	8,112
Weighted average number of preferred shares outstanding(unit: shares) ²	17,181,302	17,181,302
Basic earnings per preferred share (in Korean won)	9,629	472

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

¹ Profit attributable to ordinary and preferred shares is as follows:

(in millions of Korean won)	2017	2016
Profit for the year (A)	1,725,774	76,879
Ordinary share dividends (B)	65,154	65,154
Preferred share dividends (C)	7,731	7,731
Undistributed profit(D=A-B-C)	1,652,889	3,994
Undistributed profit available for ordinary shares (E)	1,495,176	3,613
Undistributed profit available for preferred shares (F)	157,713	381
Profit attributable to ordinary shares (G=B+E)	1,560,330	68,767
Profit attributable to preferred shares (H=C+F)	165,444	8,112

² Weighted average numbers of shares are calculated as follows:

	2017	2016
Ordinary shares issued	163,647,814	163,647,814
Ordinary treasury shares	(763,172)	(763,171)
Ordinary shares outstanding	162,884,642	162,884,643
Weighted average number of ordinary shares outstanding	162,884,643	162,884,643
Preferred shares issued	17,185,992	17,185,992
Preferred treasury shares	(4,690)	(4,690)
Preferred shares outstanding	17,181,302	17,181,302
Weighted average number of preferred shares outstanding	17,181,302	17,181,302

33. Cash Flow Information

Cash flows from operating activities are prepared using the indirect method. Details of cash generated from operations for the years ended December 31, 2017 and 2016, are as follows:

(a) Cash generated from operations

(in millions of Korean won)	2017	2016
Profit for the year	1,869,518	126,315
Adjustments:		
Interest expense, net	272,013	323,608
Exchange differences, net	(3,748)	290,362
Loss on derivatives, net	16,837	47,647
Depreciation	1,334,765	1,322,108
Amortization	432,804	420,874
Loss on disposal of property, plant and equipment, intangible assets, net	10,263	24,627
Provisions for severance benefits	370,930	401,512
Provisions	1,406,680	2,000,587
Income tax expense	688,594	595,402
Gain from equity method	(667,475)	(268,738)
Other	277,342	385,524
	4,139,005	5,543,513

(in millions of Korean won)	2017	2016	
Changes in operating assets and liabilities			
Decrease (increase) in trade receivables	(1,926,211)	363,458	
Decrease in loans and other receivables	16,751	112,724	
Increase in inventories	(1,196,750)	(527,665)	
Increase in other assets	(305,521)	(241,414)	
Increase in trade payables	2,127,672	423,512	
Increase in other payables	307,712	65,795	
Decrease in provisions	(2,219,487)	(1,858,435)	
Increase in other liabilities	596,268	447,194	
Payment of defined benefit liability	(39,053)	(44,356)	
Deposit in plan assets, net	(432,354)	(431,297)	
	(3,070,973)	(1,690,484)	
Cash generated from operations	2,937,550	3,979,344	

(b) Changes in liabilities arising from financing activities

(in millions of Korean

	Non-cash transactions				_
	Net cash flow	Exchange		Effects of	A. D. O.
,	J		Amortization	ū	At Dec. 31, 2017
	activities	(pront/1033)	Amortization	Changes	2017
596,541	(250,331)	(2,700)	-	(29,264)	314,246
2,622,708	661,184	(11,831)	14	(50,809)	3,221,266
5,439,762	546,737	(75,912)	4,381	-	5,914,968
8,659,011	957,590	(90,443)	4,395	(80,073)	9,450,480
	2,622,708 5,439,762	At Jan.1, from financing activities 596,541 (250,331) 2,622,708 661,184 5,439,762 546,737	At Jan.1, 2017 Net cash flow from financing activities Exchange differences (profit/loss) 596,541 (250,331) (2,700) 2,622,708 661,184 (11,831) 5,439,762 546,737 (75,912)	At Jan.1, 2017 Net cash flow from financing activities Exchange differences (profit/loss) Amortization 596,541 (250,331) (2,700) - 2,622,708 661,184 (11,831) 14 5,439,762 546,737 (75,912) 4,381	At Jan.1, 2017 Net cash flow from financing activities Exchange differences (profit/loss) Exchange differences (profit/loss) Exchange exchange rate exchanges 596,541 (250,331) (2,700) - (29,264) 2,622,708 661,184 (11,831) 14 (50,809) 5,439,762 546,737 (75,912) 4,381 -

(c) Significant non-cash transactions:

(in millions of Korean won)	2017	2016
Reclassification of construction-in-progress to property, plant and equipment	2,517,505	932,966
Reclassification of construction-in-progress to intangible assets	236,658	223,435
Reclassification of current portion of borrowings and debentures	1,063,672	1,258,665
Other payables to acquire property, plant and equipment	650,166	473,778
Other payables to acquire intangible assets	15,693	15,527

- (d) Assets and liabilities arising from the transfer of business
 - Transfer of Set-top Box business
 - On May 17, 2017, set-top box product business of Home Entertainment segment were transferred to Technicolor SA.

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

ii) Total consideration received and the assets of the transferred business are as follows:

(in millions of Korean won)	Amount
Total consideration	
Cash and cash equivalents	13,942
Assets of the transferred business:	
Trade receivables and other receivables	4,481
Inventories	3,180
Property, plant and equipment and intangible assets	1,399

34. Contingencies

- (a) At the end of the reporting period, borrowings are collateralized by property, plant and equipment (land, buildings, and others) (Note 11).
- (b) At the end of the reporting period, the Parent Company and domestic subsidiaries are provided with performance guarantees of ₩448,068 million (December 31, 2016: ₩221,261 million) from Seoul Guarantee Insurance Company and others relating to the performance guarantees. The Parent Company is provided with guarantee of principal US\$ 200 million and EUR 100 million (December 31, 2016: US\$ 200 million) and interests from Shinhan Bank for the guaranteed private placement bonds.
- (c) At the end of the reporting period, the Parent Company is providing KEB Hana Bank with a payment guarantee for customers of up to ₩46,000 million (December 31, 2016: ₩46,000 million). Also, subsidiaries provide joint performance guarantee amounting to ₩87,252 million (December 31, 2016: ₩61,499 million), and payment guarantee for Hitachi-LG Data Storage Inc.(HLDS) amounting to US\$ 10 million.
- (d) At the end of the reporting period, the Group is obliged to collect a portion of the waste generated from products sold in India in the past to comply with the E-Waste (Management) Rule of India. This may affect certain items in general operating expenses or provisions. However, the potential impact on the consolidated financial statements may materially vary depending on subsequent guidance of relevant legislations.
- (e) There are a number of legal actions, disputes and investigations arising from the normal course of business that remain pending at the end of the reporting period. The ultimate effect of those lawsuits on the financial position of the Group at the end of the reporting period cannot reflect a reasonable expectation. Management does not expect the outcome of the litigations will have a material effect on the Group's financial position.

At the end of the reporting period, LG Display Co., Ltd., an associate of the Group, has been accused as a defendant in cases related to the infringement of patents. In addition, LG Display Co., Ltd. is currently under the investigation and civil suit for anti-competitive activities. The outcome of the case may affect the gain or loss from the equity method valuation. The Group does not have individual responsibility in the case and the investigation above.

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

At the end of the reporting period, the European Commission imposed a penalty amounting to EUR 37,121 thousand on Hitachi-LG Data Storage Inc. (HLDS), an associate of the Group, for anti-competitive activities among Optical Disk Drive (ODD) manufactures as a result of an investigation. However, HLDS appealed against the decision of the European Commission. The outcome of the investigation may affect gain or loss from equity method valuation. The Group does not have individual responsibility in the case above.

35. Commitments

(a) At the end of the reporting period, the Parent Company has overdraft facility agreements with various banks, including Shinhan Bank, with a limit of \forall 165,500 million (December 31, 2016: \forall 165,500 million).

In addition, LG Innotek Co., Ltd. has overdraft facility agreements with various banks, including Shinhan Bank, with a limit of $\mbox{$W$}27,000$ million (December 31, 2016: $\mbox{$W$}27,000$ million). The total limit of overdrafts and comprehensive limits provided by financial institutions to the overseas subsidiaries of LG Innotek Co., Ltd. is $\mbox{$W$}212,500$ million (December 31, 2016: $\mbox{$W$}201,888$ million).

In addition, other subsidiaries have overdraft facility agreements with a limit of \forall 1,494,848 million (December 31, 2016: \forall 1,591,226 million) with Citibank and others.

(b) At the end of the reporting period, the Parent Company has sales agreements for export trade receivables with KEB Hana Bank and 19 other banks amounting to \forall 1,915,663 million (December 31, 2016: \forall 2,535,433 million) and has sales agreements for domestic trade receivables with BTMU amounting to \forall 500,000 million (December 31, 2016: \forall 500,000 million).

In addition, LG Innotek Co., Ltd. has trade receivables transfer agreements with various banks, including ING Bank, amounting to \\displais 669,625 million (December 31, 2016: \displais 245,326 million) at the end of the reporting period.

In addition, other subsidiaries transfer their trade receivable to Societe Generale Bank on a revolving basis, for up to US\$ 641 million (December 31, 2016: US\$ 262 million), and have sales agreements for trade receivables with a limit of US\$ 620 million (December 31, 2016: US\$ 420 million) with BTMU and others. In addition, other subsidiaries have entered into corporate electronic settlement services contracts and discount note agreements with Shinhan Bank and others with a limit of \$84,000 million (December 31, 2016: \$48,000 million) in connection with the collection of the trade receivables.

(c) At the end of the reporting period, the Parent Company has corporate electronic settlement services contracts and vendor prepayment services contracts with Shinhan Bank and seven other banks for up to $\mbox{$\mbox{$$\mu$}$}1,160,000$ million (December 31, 2016: $\mbox{$\mbox{$$\mu$}$}1,150,000$ million) which guarantee the payment of trade payables in case the suppliers sell their trade receivables.

In addition, LG Innotek Co., Ltd. and its subsidiaries have provided payment guarantees to financial institutions, including Woori Bank, amounting to ₩184,000 million (December 31, 2016: ₩146,251 million) in connection with the discounting of notes which are paid to their suppliers.

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

In addition, other subsidiaries have contract arrangements such as corporate electronic settlement services contracts and note discount agreements with Shinhan Bank and other banks for up to $\pm 65,400$ million limit (December 31, 2016: $\pm 64,000$ million) to guarantee the payment of trade payables.

(d) LG Innotek Co., Ltd., a subsidiary, has an agreement for underwriting commercial paper with a limit of ₩30,000 million (December 31, 2016: ₩30,000 million).

In addition, other subsidiaries have commercial paper agreements with Shinhan Bank and others for $\forall 40,000$ million (December 31, 2016: $\forall 40,000$ million).

- (e) At the end of the reporting period, the Group has other trade financing agreements and loan commitments with financial institutions, including Shinhan Bank of up to 44,698,230 million (December 31, 2016: 44,848,826 million).
- (f) Contractual commitments for the acquisition of assets

The property, plant and equipment and intangible assets contracted for, but not yet acquired at the end of the reporting period, are as follows:

(in millions of Korean won)	December 31, 2017	December 31, 2016
Property, plant and equipment	360,394	502,666
Intangible assets	33,615	28,591
Total	394,009	531,257

- (g) Operating lease commitments the Group as lessee
 - i) The future aggregate minimum lease payments under non-cancellable operating leases at the end of the reporting period, are as follows:

	December 31, 2017							
(in millions of Korean won)	1 year or less	1 to 5 years	Over 5 years	Total lease payments				
Land	240	911	991	2,142				
Buildings	228,850	359,666	56,122	644,638				
Vehicles	27,822	23,774	32	51,628				
Equipment	16,323	18,606		34,929				
Total	273,235	402,957	57,145	733,337				

- ii) Lease payment under operating lease recognized in the consolidated statement of profit or loss for the year ended December 31, 2017, is ₩343,975 million (2016: ₩337,588 million).
- iii) As of December 31, 2017, total future minimum sublease receipts under non-cancellable sublease agreements for some buildings amount to ₩14,710 million and lease income recognized related to the sublease for the year ended December 31, 2017, amounts to ₩9,378 million (2016: ₩10,021 million).

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

- (h) Operating lease commitments the Group as lessor
 - i) The Group has non-cancellable operating lease agreements regarding healthcare rental business that lends water purifiers to customers, and real estate rentals business. The future aggregate lease receipts under operating leases at the end of the reporting period, are as follows:

	December 31, 2017						
(in millions of Korean won)	1 year or less	1 to 5 years	Over 5 years	Total lease payments			
Healthcare rental	229,682	386,669	-	616,351			
Real estate rental	498	158		656			
Total	230,180	386,827		617,007			

- ii) The Group recognized ₩160,545 million (2016: ₩113,117 million) in lease income for the year ended December 31, 2017.
- iii) Details of assets subject to operating lease are as follows:

(in millions of Korean won)	December 31, 2017	December 31, 2016
Acquisition cost	420,911	261,409
Accumulated depreciation	(88,272)	(58,358)
Accumulated impairment	(231)	(793)
Net book amount	332,408	202,258

iv) Changes in net book amount of assets subject to operating lease for the years ended December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	2017	2016
At January 1	200,258	177,010
Acquisition	182,276	76,660
Transfer	-	(8,906)
Disposal	(8,103)	(18,394)
Depreciation	(44,023)	(24,112)
Impairment loss	<u>-</u>	<u> </u>
At December 31	332,408	202,258

(i) Finance lease commitments – the Group as lessee

At the end of the reporting period, the Group has entered into a finance lease agreement for vehicle lease and has recognized related assets and liabilities in the consolidated statements of financial position. Net book amount of the leased assets amounts to \pm 1,840 million, and the present value of the finance lease liabilities amounts to \pm 957 million.

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

As of December 31, 2017 and 2016, future minimum lease payments under the finance lease agreement are as follows:

	Decembe	r 31, 2017	December 31, 2016		
(in millions of Korean won)	Minimum lease payments	PV of minimum lease payments	Minimum lease payments	PV of minimum lease payments	
1 year or less	708	665	1,527	1,437	
1 to 5 years	304	292	1,045	991	
Total	1,012	957	2,572	2,428	

(j) Trademark license commitments

At the end of the reporting period, the Group has various agreements as follows:

Purpose	Related products	Provided by	Used by
Use of license	Home appliance /Mobile/LED	Qualcomm Incorporated and others	The Group
Provision of license	Home appliance /Mobile/LED	The Group	Panasonic Corporation and others

36. Related Party

- (a) Major transactions for the years ended December 31, 2017 and 2016, and balances of receivables and payables from transaction with related parties as of December 31, 2017 and 2016, are as follows:
 - i) Major income and expense transactions with related parties

(in millions of K	orean won)	2017						
		Inco	me transactio	ons	Expe	Expense transactions		
Classification	Name	Sales	Others	Total	Purchases	Others	Total	
Significantly influencing the Group	LG Corp.	1,536	13	1,549	359	168,950	169,309	
Associates	LG Display Co., Ltd. and its subsidiaries	1,729,726	-	1,729,726	5,402,549	18,364	5,420,913	
	Ericsson-LG Co., Ltd. and its subsidiaries	7,746	-	7,746	4,250	-	4,250	
	Hitachi-LG Data Storage Inc. and its subsidiaries	676	238	914	123,491	715	124,206	
	LG Fuel Cell Systems Inc. and its subsidiaries	2,485	470	2,955	-	-	-	
	Korea Information Certificate Authority Inc.	-	-	-	-	14	14	
	Subtotal	1,740,633	708	1,741,341	5,530,290	19,093	5,549,383	
Joint ventures	Arcelik-LG Klima Sanayi ve Ticaret A.S.(LGEAT)	72,548	-	72,548	64,104	3	64,107	
	LG Holdings (HK) Ltd. and its subsidiaries	-	-	-	-	2,783	2,783	
	EIC PROPERTIES PTE LTD.	-	-	-	-	768	768	

(in millions of K	orean won)	2017					
		Inco	me transaction	ons	Ехре	ense transact	tions
Classification	Name	Sales	Others	Total	Purchases	Others	Total
	LG-MRI LLC	635		635	23,164		23,164
	Subtotal	73,183	-	73,183	87,268	3,554	90,822
Other related parties	LG CNS Co., Ltd. and its subsidiaries	78,495	-	78,495	155,865	486,027	641,892
	SERVEONE Co., Ltd. and its subsidiaries	203,514	223,000	426,514	1,103,010	567,995	1,671,005
	SK Siltron Incorporated and its subsidiaries ¹	6,261	-	6,261	28	-	28
	LUSEM CO., LTD.	48,383	-	48,383	1,746	27	1,773
	LG Management Development Institute	35	-	35	315	28,641	28,956
	LG SPORTS Ltd.	25	-	25	-	13,698	13,698
	LG MMA Ltd.	1,457	-	1,457	143	-	143
	LG Holdings Japan Co., Ltd.	18	-	18	-	3,501	3,501
	LG Corp. U.S.A.		84,713	84,713			
	Subtotal	338,188	307,713	645,901	1,261,107	1,099,889	2,360,996
Others ²	LG Chem Ltd. and its subsidiaries and joint ventures	843,414	2,065	845,479	966,231	8,897	975,128
	LG INTERNATIONAL CORP and its subsidiaries	161,070	-	161,070	3,648,448	1,836,813	5,485,261
	LG Uplus Corp and its subsidiaries	756,654	2	756,656	57,460	7,270	64,730
	LG HAUSYS,LTD. and its subsidiaries and associates	40,075	-	40,075	30,404	1,035	31,439
	Silicon Works Co., Ltd.	15,713	-	15,713	12,337	-	12,337
	LG HOUSEHOLD & HEALTH CARE LTD and its subsidiaries	5,412	-	5,412	312	573	885
	$G \mathbb{I} R$ Inc. and its subsidiaries	2,324	-	2,324	3,911	393,863	397,774
	Subtotal	1,824,662	2,067	1,826,729	4,719,103	2,248,451	6,967,554
	Total	3,978,202	310,501	4,288,703	11,598,127	3,539,937	15,138,064

(in millions of K	orean won)	2016						
		Income transactions			Expense transactions		ions	
Classification	Name	Sales	Others	Total	Purchases	Others	Total	
Significantly influencing the Group	LG Corp.	2,133	10,053	12,186	-	143,686	143,686	
Associates	LG Display Co., Ltd. and its subsidiaries	1,466,445	10,053	1,476,498	5,049,959	26,622	5,076,581	
	Ericsson-LG Co., Ltd. and its subsidiaries	8,060	-	8,060	4,537	-	4,537	
	Hitachi-LG Data Storage Inc. and its subsidiaries	873	340	1,213	119,465	1	119,466	
	LG Fuel Cell Systems Inc. and its subsidiaries	496	980	1,476	154	-	154	
	Korea Information Certificate Authority Inc.	-	-	-	-	1	1	
	Hi Logistics (China) Co., Ltd.	263	-	263	-	49,306	49,306	
	Subtotal	1,476,137	11,373	1,487,510	5,174,115	75,930	5,250,045	

(in millions of Ko	orean won)	2016					
		Inco	me transaction	ons	Expe	ense transac	tions
Classification	Name	Sales	Others	Total	Purchases	Others	Total
Joint ventures	Arcelik-LG Klima Sanayi ve Ticaret A.S.(LGEAT)	48,689	-	48,689	35,399	-	35,399
	LG Holdings (HK) Ltd. and its subsidiaries	-	-	-	-	2,780	2,780
	EIC PROPERTIES PTE LTD.	-	-	-	-	850	850
	LG-MRI LLC	291	-	291	21,015	1	21,016
	Subtotal	48,980	_	48,980	56,414	3,631	60,045
Other related parties	LG CNS Co., Ltd. and its subsidiaries	59,153	-	59,153	208,850	444,433	653,283
	SERVEONE Co., Ltd. and its subsidiaries	84,269	-	84,269	1,363,658	198,951	1,562,609
	LG Siltron Incorporated and its subsidiaries ¹	4,988	-	4,988	42	-	42
	LUSEM CO., LTD.	40,799	-	40,799	2,195	53	2,248
	LG Management Development Institute	54	-	54	53	30,434	30,487
	LG SPORTS Ltd.	37	-	37	-	10,285	10,285
	LG MMA Ltd.	596	-	596	48	-	48
	LG Holdings Japan Co., Ltd.	19	-	19		3,731	3,731
	Subtotal	189,915	_	189,915	1,574,846	687,887	2,262,733
Others ²	LG Chem Ltd. and its subsidiaries and joint ventures	384,118	6,960	391,078	634,472	7,207	641,679
	LG INTERNATIONAL CORP and its subsidiaries	161,607	15,149	176,756	3,468,179	1,412,795	4,880,974
	LG Uplus Corp and its subsidiaries	710,274	-	710,274	38,567	8,749	47,316
	LG HAUSYS,LTD. and its subsidiaries and associates	25,911	-	25,911	40,274	198	40,472
	Silicon Works Co., Ltd.	10,322	-	10,322	4,444	-	4,444
	LG HOUSEHOLD & HEALTH CARE LTD and its subsidiaries	2,941	-	2,941	280	349	629
	LG LIFE SCIENCES, LTD. and its subsidiaries	3,976	-	3,976	1	-	1
	G II R Inc. and its subsidiaries	365		365	70	214,070	214,140
	Subtotal	1,299,514	22,109	1,321,623	4,186,287	1,643,368	5,829,655
	Total	3,016,679	43,535	3,060,214	10,991,662	2,554,502	13,546,164

¹ All shares of LG Siltron Incorporated were sold to SK Holdings Co., Ltd. on August 17, 2017, and the name of LG Siltron Incorporated was changed to SK Siltron Co., Ltd.

² Although the entities are not the related parties of the Group in accordance with Korean IFRS 1024, the entity belongs to the Large Enterprise Group to which the Group also belongs in accordance with the Monopoly Regulation and Fair Trade Act.

ii) The balances of receivables from and payables to related parties

(in millions of Korean won)		December 31, 2017									
			Rece	ivables	Payables						
011011		Trade		Other		Trade		Other			
Classification	Name	receivables	Loans	receivables	Total	payables	Borrowings	payables	Total		
Significantly influencing the Group	LG Corp.	39	-	26,634	26,673	-	-	13,196	13,196		
Associates	LG Display Co., Ltd. and its subsidiaries	623,699	-	16,318	640,017	1,053,036	-	104,156	1,157,192		
	Ericsson-LG Co., Ltd. and its subsidiaries	316	-	202	518	1,302	-	-	1,302		
	Hitachi-LG Data Storage Inc. and its subsidiaries ¹	33	13,347	1,625	15,005	21,589	-	237	21,826		
	LG Fuel Cell Systems Inc. and its subsidiaries	1,201	-	-	1,201	-	-	5	5		
	Korea Information Certificate Authority Inc.	-	-	-	-	-	-	7	7		
	Subtotal	625,249	13,347	18,145	656,741	1,075,927		104,405	1,180,332		
Joint ventures	Arcelik-LG Klima Sanayi ve Ticaret A.S.(LGEAT)	6,811	-	-	6,811	2,548	-	-	2,548		
	LG Holdings (HK) Ltd. and its subsidiaries	-	-	-	-	-	-	1,329	1,329		
	EIC PROPERTIES PTE LTD.	-	-	-	-	-	-	64	64		
	LG-MRI LLC	248	-	-	248	3,871	-	214	4,085		
	Subtotal	7,059			7,059	6,419		1,607	8,026		
Other related parties	LG CNS Co., Ltd. and its subsidiaries	21,674	-	2,430	24,104	4,355	-	165,793	170,148		
	SERVEONE Co., Ltd. and its subsidiaries	92,615	-	66,627	159,242	294,980	-	224,411	519,391		
	LUSEM CO., LTD.	16,151	-	-	16,151	244	-	46	290		
	LG Management Development Institute	-	-	17,864	17,864	-	-	1,609	1,609		
	LG SPORTS Ltd.	-	-	-	-	-	-	1,952	1,952		
	LG MMA Ltd.	423	-	-	423	18	-	9	27		
	LG Holdings Japan Co., Ltd.	-	-	3,321	3,321	-	-	-	-		
	LG Corp. U.S.A.	-	-	12,534	12,534	-	-	-	-		
	Subtotal	130,863		102,776	233,639	299,597		393,820	693,417		
Others ²	LG Chem Ltd. and its subsidiaries and joint ventures	317,285	-	7,964	325,249	328,823	-	88,265	417,088		
	LG INTERNATIONAL CORP and its subsidiaries	28,245	-	28,352	56,597	599,376	-	266,176	865,552		
	LG Uplus Corp and its subsidiaries	53,778	-	458	54,236	3,550	-	911	4,461		
	LG HAUSYS,LTD. and its subsidiaries and associates	18,932	-	169	19,101	4,548	-	4,098	8,646		
	Silicon Works Co., Ltd.	6,312	-	-	6,312	2,181	-	852	3,033		

(in millions of Korean won)		December 31, 2017									
			Rece	ivables		Payables					
Classification	Name	Trade receivables	Loans	Other receivables	Total	Trade payables	Borrowings	Other payables	Total		
Oldsoniodilon	LG HOUSEHOLD &	receivables	Loans	receivables	Iotai	payables	Borrowings	payables	I Otal		
	HEALTH CARE LTD and its subsidiaries	2,048	-	-	2,048	30	-	1,431	1,461		
	G II R Inc. and its subsidiaries	339		2,365	2,704	6,491		247,555	254,046		
	Subtotal	426,939		39,308	466,247	944,999		609,288	1,554,287		
	Total	1,190,149	13,347	186,863	1,390,359	2,326,942		1,122,316	3,449,258		
(in millions of K	orean won)				Decembe	r 31, 2016					
			Rece	ivables			Paya				
Classification	Name	Trade receivables	Loans	Other receivables	Total	Trade payables	Borrowings	Other payables	Total		
Significantly influencing the Group	LG Corp.	745	-	28,484	29,229	-	-	62	62		
Associates	LG Display Co., Ltd. and its subsidiaries	415,581	-	22,056	437,637	959,799	-	80,288	1,040,087		
	Ericsson-LG Co., Ltd. and its subsidiaries	235	-	529	764	706	-	-	706		
	Hitachi-LG Data Storage Inc. and its subsidiaries ¹	-	3,259	154	3,413	27,992	-	388	28,380		
	LG Fuel Cell Systems Inc. and its subsidiaries ¹	245	14,551	516	15,312	-	-	-	-		
	Subtotal	416,061	17,810	23,255	457,126	988,497	-	80,676	1,069,173		
Joint ventures	Arcelik-LG Klima Sanayi ve Ticaret A.S.(LGEAT)	4,082	-	421	4,503	344	-	-	344		
	LG Holdings (HK) Ltd. and its subsidiaries	-	-	-	-	-	-	1,180	1,180		
	EIC PROPERTIES PTE LTD.	-	-	-	-	-	-	72	72		
	LG-MRI LLC	341			341	8,218			8,218		
	Subtotal	4,423	-	421	4,844	8,562	-	1,252	9,814		
Other related parties	LG CNS Co., Ltd. and its subsidiaries	12,306	-	606	12,912	46,223	-	127,927	174,150		
	SERVEONE Co., Ltd. and its subsidiaries	31,598	-	60,826	92,424	330,230	-	131,198	461,428		
	LG Siltron Incorporated and its subsidiaries	1,186	-	-	1,186	-	-	30	30		
	LUSEM CO., LTD.	7,166	-	-	7,166	312	-	8	320		
	LG Management Development Institute	-	-	17,875	17,875	-	-	1,552	1,552		
	LG MMA Ltd.	321	-	-	321	7	-	15	22		
	LG Holdings Japan Co., Ltd.	- 	-	3,952	3,952		-	8	8		
	Subtotal	52,577		83,259	135,836	376,772		260,738	637,510		
Others ²	LG Chem Ltd. and its subsidiaries and joint	102,241	-	32,789	135,030	258,590	-	4,112	262,702		

ventures

(in millions of Korean won)		December 31, 2016									
		Receivables				Payables					
Classification	Name	Trade receivables	Loans	Other receivables	Total	Trade payables	Borrowings	Other payables	Total		
	LG INTERNATIONAL CORP and its subsidiaries	58,437	-	15,539	73,976	269,466	-	187,712	457,178		
	LG Uplus Corp and its subsidiaries	61,117	-	1,389	62,506	833	-	109	942		
	LG HAUSYS,LTD. and its subsidiaries and associates	5,193	-	500	5,693	5,967	-	2,016	7,983		
	Silicon Works Co., Ltd.	2,366	-	9	2,375	734	-	328	1,062		
	LG HOUSEHOLD & HEALTH CARE LTD and its subsidiaries	1,310	-	-	1,310	86	-	823	909		
	LG LIFE SCIENCES, LTD. and its subsidiaries	1,224	-	-	1,224	-	-	-	-		
	G II R Inc. and its subsidiaries	139	-	-	139	107,552	-	52,046	159,598		
	Subtotal	232,027	-	50,226	282,253	643,228	-	247,146	890,374		
	Total	705,833	17,810	185,645	909,288	2,017,059	-	589,874	2,606,933		

¹ During the year, the Group recognized additional equity method gain of ₩17,499 million (2016: equity method loss of ₩19,059 million) for loans of Hitachi-LG Data Storage Inc.

iii) Significant capital transactions with related parties and others for the years ended December 31, 2017 and 2016, are as follows:

(in millions of Korean won)		2017								
		Cash Financing loan F						Financing borrowing transactions		
Classification Name		income	paid	(reduction)	Loans	Collections	Borrowings	Repayments		
Significantly influencing the Group	LG Corp.	-	22,038	-	-	-	-	-		
Associates	LG Display Co., Ltd.	67,813	-			-	-	-		
	Korea Information Certificate Authority Inc.	114	-	-	-	-	-	-		
	Hitachi-LG Data Storage Inc.(HLDS)	-	-	10,710	-	7,413	-	-		
	LG Fuel Cell Systems Inc.	-	-	35,284	-	13,593	-	-		
	Ericsson-LG Co., Ltd. and its subsidiaries	-	-	(12,500)	-	-	-	-		
	LG Holdings (HK) Ltd.	-	-	(37,277)	-	-	-	-		
	Subtotal	67,927	-	(3,783)	-	21,006	-	-		
	Total	67,927	22,038	(3,783)		21,006	-	-		
								. —		

² Although the entities are not the related parties of the Group in accordance with Korean IFRS 1024, the entity belongs to the Large Enterprise Group to which the Group also belongs in accordance with the Monopoly Regulation and Fair Trade Act.

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(in millions of Korean won)		2016								
	Classification Name		Dividend	Cash distribution	Financing loan transactions		Financing borrowing transactions			
Classification			paid	(reduction)	Loans	Collections	Borrowings	Repayments		
Significantly influencing the Group	LG Corp.	-	22,038	-	-	-	-			
Associates	LG Display Co., Ltd.	67,813	-			-	-	-		
	Ericsson-LG Co., Ltd.	3,750	-	(25,000)	-	-	-			
	Korea Information Certificate Authority Inc.	70	-	1,136	-	-	-	-		
	Hitachi-LG Data Storage Inc.(HLDS)	-	-	40,066	22,772	-	-	-		
	LG Fuel Cell Systems Inc.	-	-	25,324	-	-	-	-		
	Subtotal	71,633	-	41,526	22,772	-	-	-		
	Total	71,633	22,038	41,526	22,772	-	-	-		

(b) The compensation paid or payable to key management personnel for the years ended December 31, 2017 and 2016, consist of:

(in millions of Korean won)	2017	2016
Wages and salaries	16,248	15,176
Post-employment benefits	4,136	4,274
Other long-term benefits	137	157
Total	20,521	19,607

Key management refers to the directors who have significant control and responsibilities on the Group's business plans, operations and control.

- (c) The Group provides payment guarantee for Hitachi-LG Data Storage Inc.(HLDS) amounting to US\$ 10 million at the end of the reporting period.
- (d) There is no collateral provided by the Group for the financial support of related parties at the end of the reporting period.
- (e) The Group has not recognized any bad debt expense or allowance for trade receivables from related parties at the end of the reporting period.

37. Risk Management

Financial Risk Management

The Group's financial risk management ("FRM") policy supports each business division to achieve excellent performance solidly and continuously against market risk, credit risk and liquidity risk. In addition, FRM helps the Group to enhance cost competitiveness through cost-efficient financing cost by improving financial structure and effective cash management.

While cooperating with other divisions, Finance Division in the Parent Company mainly implements

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FRM. This involves setting-up risk management policies and recognizing, evaluating and hedging risks from a global point of view.

The Group anticipatively and systematically manages the financial risks over global business activities through its four overseas treasury centers in New Jersey (United States), Amsterdam (Netherlands), Beijing (China), and Singapore in coordination with Finance Division in the Parent Company. And it also helps to improve overseas subsidiaries' business competitiveness by performing integration of their finance functions.

The Group mitigates the adverse effects from financial risk by monitoring the risk periodically and updating FRM policy each year.

The carrying amount and profit or loss of each category of financial instruments and the details of borrowings related to the financial risk management are presented in Note 5 and Note 15, respectively.

(a) Market risk

Foreign exchange risk

Due to its multinational business operations, the Group is mainly exposed to foreign exchange risk on the US Dollar and Euro.

The purpose of foreign exchange risk management is to provide the foundation of a stable business operation by minimizing the uncertainty and volatility of foreign exchange gains and losses from foreign exchange rate fluctuations.

The Group's foreign exchange risk management is implemented under its own foreign exchange policy through which the Group can minimize the exposure to foreign exchange risk by preferentially making equal amount of foreign exchange assets and liabilities from general operating activities. And the Group continuously considers efficient foreign exchange risk hedges against its remaining exposure with derivative financial instruments and scrutinizes changes in foreign exchange exposure and the results of hedging activities on a monthly basis. Speculative foreign exchange trading is prohibited in principle.

As of December 31, 2017 and 2016, if the foreign exchange rate of the Korean won fluctuated for monetary assets and liabilities denominated in major foreign currency other than functional currency by 10% while other variables were fixed, the effects on income (loss) before tax would be as follows:

	December	31, 2017	December 31, 2016			
(in millions of Korean won)	10% increase	10% decrease	10% increase	10% decrease		
USD/KRW	38,886	(38,886)	(12,382)	12,382		
EUR/KRW	19,998	(19,998)	31,934	(31,934)		

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ii) Interest rate risk

The Group is exposed to interest rate risk through changes in interest-bearing liabilities or assets. The risk mainly arises from borrowings and deposits held by financial institutions with variable interest rates linked to market interest rate changes in the future. The objective of interest rate risk management lies in improving corporate value by minimizing uncertainty caused by fluctuations in interest rates and minimizing net interest expense.

The Group minimizes its borrowings from others and optimizes its deposits by constructing global internal finance sharing system. The Group manages the risk of floating interest rate by regularly monitoring trends of internal and external interest rates.

If interest rates fluctuate by 1%p without other variables changing, the effects on income and expenses related to borrowings and deposits held by financial institutions with variable interest rates for the years ended December 31, 2017 and 2016, are as follows:

	20	17	2016		
(in millions of Korean won)	1%p increase	1%p decrease	1%p increase	1%p decrease	
Interest income	32,249	(32,249)	29,060	(29,060)	
Interest expense	3,721	(3,721)	3,877	(3,877)	

iii) Details of derivatives contracts are as follows:

Hedging purposes

The Group entered into the cross-currency swap contracts and the interest rate swap contracts to hedge cash flow risks related to the floating interest rates and foreign exchange rates of debentures.

December 31, 2017	Contractor	Contracted amount (in millions)	Contracted currency rate	Interest rate (paid)	Starting date	Expiration date
USD/KRW cross- currency swap	Shinhan Bank and others	USD 530	1,097.3 ~ 1,155.2	2.17% ~ 3.22%	2013.07.31 ~ 2017.11.22	2019.01.31 ~ 2025.04.23
Interest rate swap	Woori Bank and others	KRW 1,270,000 / EUR 100	-	1.00% ~ 4.53%	2014.01.03 ~ 2017.08.24	2023.02.24 ~ 2030.07.07

Interest rate received for the above swap contracts equals to annual interest rate of borrowings (Note 15).

At the end of the reporting period, the swap contracts are evaluated at fair value and the loss on valuation of the effective portion amounting to \$45,703 million in 2017 (2016: loss on valuation amounting to \$55,973 million) after applying the tax effect, is recognized in other comprehensive income. The Group has reclassified \$75,165 million to loss from equity in 2017 (2016: \$53,027 million to loss from equity). Therefore, other comprehensive income from cash flow hedges amounts to \$29,462 million in 2017 (2016: other comprehensive loss of \$2,946 million) after applying the tax effect.

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

Trading purposes

The Group entered into the currency forward contracts to manage the risk against possible future changes in foreign exchange rates. The subsidiaries' currency forward contracts as of December 31, 2017, and related profit or loss for the year ended December 31, 2017, are as follows:

(in millions of Korean won)	Purchase	Sale	Gain on valuation	Loss on transaction
Currency forward	494,471	494,307	6,209	23,046

iv) Price risk

The Group is exposed to price risk through equity securities owned by the Group classified as available-for-sale financial assets in the consolidated financial statements.

The listed securities owned by the Group are traded in the open market, and related to KOSDAQ Index.

The effect of price index's fluctuation related to the listed securities on the equity (before applying the tax effect) is set out in the below table. The analysis is performed in respect of 30% increase/decrease in the price index under the assumption that other variations are consistent and the listed securities owned by the Group have correlation with the relevant past index.

	December	r 31, 2017	December 31, 2016		
(in millions of Korean won)	30% increase	30% decrease	30% increase	30% decrease	
KOSDAQ	3,095	(3,095)	3,575	(3,575)	

The valuation and the reclassified amounts of the available-for-sale financial assets related to the market risk above are presented in Note 8.

(b) Credit risk

The Group operates a consistent Global Credit / TR (trade receivables) policy to manage credit risk exposures.

In regard to receivables, the Group operates an integrated receivable insurance program with the world top three receivable insurers (Euler Hermes, Atradius and Coface) and Korea Trade Insurance Corporation (K-SURE). In an effort to minimize receivable credit risk, the Group applies the credit rating of the counterparty when determining the insurance coverage. In addition, the Group performs stringent credit risk management based on credit valuation criteria for receivables without insurance coverage or collateral.

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Details of credit quality for trade receivables that are neither past due nor impaired are as follows:

(in millions of Korean won)	December 31, 2017	December 31, 2016
Trade receivables with insurance or collateral		
Excellent	1,697,353	2,018,681
Good	955,370	815,379
Fair	1,718,824	1,583,315
Poor ¹	703,256	680,106
Subtotal	5,074,803	5,097,481
Trade receivables without insurance or collateral		
Tier 1	1,582,088	757,863
Tier 2	408,854	228,180
Tier 3	152,435	215,346
Subtotal	2,143,377	1,201,389
Total	7,218,180	6,298,870

¹Debtors with insurance or collateral, but without credit rating are included herein.

Criteria of categorizing trade receivables with insurance or collateral are as follows:

Category	Atradius	Euler	Coface	K-SURE
Excellent	1~28	1~3	8~10	A~B
Good	29~40	4~5	7	С
Fair	41~72	6~7	3~6	D~E
Poor	73~	8~10	0~2	F~R

Criteria of categorizing trade receivables without insurance or collateral are as follows:

Tier 1 - National or local government, domestic and global credit rating agency AA- ~ AAA+

Tier 2 – Debtors with domestic and global credit rating other than Tier 1

Tier 3 – Small debtors without credit history

The credit rating of cash equivalents and deposits held by financial institutions estimated by the Group using external credit rating criteria as of December 31, 2017 and 2016, is as follows:

Category	December 31, 2017	December 31, 2016
Excellent	2,776,107	2,886,947
Good	676,609	174,612
Others	30,600	91,853
Total	3,483,316	3,153,412

Excellent: Equal to or more than A-(Global credit rating agency such as S&P), AAA(Domestic credit rating agency such as Korea investors service)

Good: Equal to or more than BBB-(Global credit rating agency such as S&P), AA(Domestic credit rating agency) Others: Financial deposit without credit rating

(c) Liquidity risk

The Group forecasts its cash flow and liquidity status, and sets action plans on a regular basis to manage liquidity risk proactively. The Group systematically works with experts in four RTCs to carry

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

out fund and liquidity management that can react proactively to the changing global financial environment.

The Group maintains adequate amount of cash and committed credit facilities in Kookmin Bank and Shinhan Bank to cope with potential financial distress.

In addition, the Group is able to source funds any time in the domestic and international financial markets as of the end of reporting period because it has good investment credit grades of AA Stable from Korea Investors Service, Korea Ratings and NICE Information Service, BBB from Standard & Poors, and Baa3 from Moody's as of December 31, 2017.

 i) Cash flow information on maturity of financial liabilities as of December 31, 2017, are as follows:

(in millions of Korean won)	Total	Within 1 year	1 to 2 years	2 to 5 years	Over 5 years
Trade payables	8,137,526	8,137,526	-	-	-
Borrowings	10,793,759	1,643,798	1,373,632	3,989,329	3,787,000
Other payables	3,529,415	3,522,874	825	5,546	170
Derivative liabilities	2,166	2,166			
Total	22,462,866	13,306,364	1,374,457	3,994,875	3,787,170

The above cash flows are calculated at nominal value based on the earliest maturity dates and include cash flows of principal and interests. The Group's trading portfolio derivative liabilities that are not qualified for hedge accounting have been included at their fair value of $\mbox{$W2,166$}$ million within the less than 1-year time bucket. This is because the contractual maturities are not essential for an understanding of the timing of the cash flows. These contracts are managed on a net-fair value basis rather than by maturity date. Derivatives for cash flow hedges from changes in interest rate and exchange rate are reflected in the cash flows of related borrowings.

ii) The maturity analysis of financial guarantee contracts provided by the Group to third party companies as of December 31, 2017, are as follows:

		Within 1			Over 5
(in millions of Korean won)	Total	year	1 to 2 years	2 to 5 years	years
Financial guarantee contracts	56,714	47,339	2,678	6,697	_

The above cash flow is the maximum amount of guarantees allocated to earliest period in which the Group can be required to make payments.

Capital Risk Management

The Group's capital risk management purpose is to maximize shareholders' value through maintaining a sound capital structure. The Group monitors financial ratios, such as liability to equity ratio and net borrowing ratio each month and implements required action plan to improve the capital structure.

Debt-to-equity ratio and net borrowing ratio as of December 31, 2017 and 2016, are as follows:

(in millions of Korean won, except for ratios)	December 31, 2017	December 31, 2016
Liability (A)	26,547,275	24,498,527
Equity (B)	14,673,684	13,356,742
Cash and cash equivalents (C)	3,350,597	3,015,137
Borrowings (D)	9,450,480	8,659,011
Debt-to-equity ratio (A/B)	180.9%	183.4%
Net borrowings ratio ((D-C)/B)	41.6%	42.3%

Fair Value Estimation

(a) The book amounts and fair values of the Group's financial assets and liabilities as of December 31, 2017 and 2016, are as follows:

	December 31, 2017				
	Curre	ent	Non-cui	rrent	
(in millions of Korean won)	Book amount	Fair value	Book amount	Fair value	
Assets at fair value					
Financial assets at fair value through profit or loss					
Other financial assets	3,534	3,534	-	-	
Derivatives for hedging purposes					
Other financial assets	-	-	1,862	1,862	
Available-for-sale financial assets					
Other financial assets	-	-	13,844	13,844	
Assets at amortized cost					
Loans and other receivables					
Cash and cash equivalents	3,350,597	1	-	-	
Deposits held by financial institutions	80,515	1	52,775	52,775	
Trade receivables	8,178,213	1	-	-	
Other receivables	467,427	1	470,216	451,855	
Held-to-maturity financial assets					
Other financial assets	-	-	121	1	
Assets at cost					
Available-for-sale financial assets					
Other financial assets	-	-	37,154	2	
Total	12,080,286		575,972		

	December 31, 2017				
	Curre	ent	Non-current		
(in millions of Korean won)	Book amount	Fair value	Book amount	Fair value	
Liabilities at fair value					
Financial liabilities at fair value through profit or loss					
Other financial liabilities	2,166	2,166	-	-	
Derivatives for hedging purposes					
Other financial liabilities	-	-	68,589	68,589	
Liabilities at amortized cost					
Trade payables	8,137,526	1	-	-	
Borrowings	1,360,756	1	8,089,724	8,076,497	
Other payables	3,522,839	1	6,490	6,496	
Other liabilities					
Other financial liabilities	114	3	21	3	
Total	13,023,401		8,164,824		

	December 31, 2016				
	Curre	ent	Non-current		
(in millions of Korean won)	Book amount	Fair value	Book amount	Fair value	
Assets at fair value					
Financial assets at fair value through profit or loss					
Other financial assets	557	557	-	-	
Derivatives for hedging purposes					
Other financial assets	30,093	30,093	16,091	16,091	
Available-for-sale financial assets					
Other financial assets	-	-	14,837	14,837	
Assets at amortized cost					
Loans and other receivables					
Cash and cash equivalents	3,015,137	1	-	-	
Deposits held by financial institutions	80,559	1	58,195	58,195	
Trade receivables	7,059,889	1	-	-	
Other receivables	545,766	1	490,178	477,590	
Held-to-maturity financial assets					
Other financial assets	-	-	117	1	
Assets at cost					
Available-for-sale financial assets					
Other financial assets	-	-	35,102	2	
Total	10,732,001		614,520		

	December 31, 2016				
	Curre	ent	Non-current		
(in millions of Korean won)	Book amount	Fair value	Book amount	Fair value	
Liabilities at fair value					
Financial liabilities at fair value through profit or loss					
Other financial liabilities	8,041	8,041	-	-	
Derivatives for hedging purposes					
Other financial liabilities	12,960	12,960	73,226	73,226	
Liabilities at amortized cost					
Trade payables	6,746,361	1	-	-	
Borrowings	1,650,511	1	7,008,500	7,194,685	
Other payables	3,196,735	1	7,771	6,923	
Other liabilities					
Other financial liabilities	114	3	-	-	
Total	11,614,722		7,089,497		

¹ Excluded from disclosure as the carrying amount is the reasonable approximate of fair value.

(b) Fair value measurements of assets and liabilities

i) Fair value hierarchy and measurement method

The fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. The fair value measurement is to estimate the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date under current market conditions. When measuring fair value using valuation techniques, the Group maximizes the use of market information and minimizes the use of unobservable inputs.

Financial instruments measured at fair value are categorized within the fair value hierarchy, and the defined levels are as follows:

- Level 1: Financial instruments measured at the quoted prices in an active market for identical assets or liabilities are included in 'level 1'. Assets or liabilities categorized within 'level 1' include financial instruments such as marketable equity securities traded.
- Level 2: When financial instruments are measured by using a discounted cash flow, if all significant inputs required to measure the fair value of an instrument are observable, the instrument is included in 'level 2'. Assets or liabilities categorized within 'level 2' include financial instruments such as derivative financial instruments.
- Level 3: When financial instruments are measured by using a discounted cash flow, if one or

² Unlisted equity securities are calculated at cost because the variability in the range of the estimated future cash flows is significant and the probabilities of the various estimates within the range cannot be reasonably assessed. As of December 31, 2017, there is no asset to be disposed of in near future.

³ Measured at the higher of the amount determined in accordance with Korean IFRS 1037 Provisions, Contingent Liabilities and Contingent Assets, and the amount initially recognized less cumulative amortization recognized in accordance with Korean IFRS 1018 Revenue.

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

more of the significant inputs are unobservable market data, the instrument is included in 'level 3'. Assets or liabilities categorized within 'level 3' include financial instruments such as debt securities.

The fair value of financial instruments traded in active markets is based on quoted market prices at the end of the reporting period. A market is regarded as active if quoted prices are readily and regularly available from an exchange, dealer, broker, an entity within the same industry, 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 for financial assets held by the Group is the closing price at the end of the reporting period. These instruments are included in 'level 1'. Instruments included in 'level 1' comprise primarily equity investments classified as available for sale.

The fair value of financial instruments that are not traded in an active market is determined by using valuation techniques. The Group uses various valuation techniques and makes judgments based on current market conditions. 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 measure the fair value of an instrument are observable, the instrument is included in 'level 2'.

If one or more of the significant inputs are not based on observable market data, the instrument is included in 'level 3'. Financial instrument included 'level 3' uses other method including discounting cash flow method.

ii) Financial instruments measured at fair value

Fair value hierarchy classifications of the financial assets and financial liabilities that are measured at fair value as of December 31, 2017 and 2016, are as follows:

	December 31, 2017				
(in millions of Korean won)	Level 1	Level 2	Level 3	Total	
Assets					
Other financial assets					
Available-for-sale financial assets					
- Marketable equity securities	13,844	-	-	13,844	
Financial assets at fair value through profit or loss	-	3,534	-	3,534	
Derivatives for hedging purposes	-	1,862	-	1,862	
Liabilities					
Other financial liabilities					
Financial liabilities at fair value through profit or loss	-	2,166	-	2,166	
Derivatives for hedging purposes	-	68,589	-	68,589	

	December 31, 2016			
(in millions of Korean won)	Level 1	Level 2	Level 3	Total
Assets			_	
Other financial assets				
Available-for-sale financial assets				
- Marketable equity securities	14,837	-	-	14,837
Financial assets at fair value through profit or loss	-	557	-	557
Derivatives for hedging purposes	-	46,184	-	46,184
Liabilities				
Other financial liabilities				
Financial liabilities at fair value through profit or loss	-	8,041	-	8,041
Derivatives for hedging purposes	-	86,186	-	86,186

The above fair value amounts are recurring fair value measurements.

In case of investments in equity instruments that do not have a quoted market price in an active market and their fair value cannot be measured reliably, they are measured at cost and not included in the above fair value measurement hierarchy.

- Valuation technique and inputs for fair value measurements categorized within 'level 2'

Valuation technique and inputs for fair value measurements categorized within 'level 2' as of December 31, 2017 and 2016, are as follows:

	Fair v	value		
(in millions of Korean won)	December 31, 2017	December 31, 2016	Valuation techniques	Inputs
Assets				
Other financial assets				
Financial assets at fair value through profit or loss	3,534	557	Discounted cash flow	Discount rate and exchange rate
Derivatives for hedging purposes	1.862	46,184	Discounted cash flow	Discount rate and exchange rate
Liabilities				
Other financial liabilities				
Financial liabilities at fair value through profit or loss	2,166	8,041	Discounted cash flow	Discount rate and exchange rate
Derivatives for hedging purposes	68,589	86,186	Discounted cash flow	Discount rate and exchange rate

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- Fair value measurements categorized within 'level 3'

Changes in financial assets and financial liabilities that are measured at fair value and categorized within 'level 3' for the years ended December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	2017	2016
At January 1	-	1,202
Total gain (loss) for the year		
Loss included in profit for the year ¹	-	(626)
Gain included in other comprehensive income	-	-
Purchase, issue, sales and settlement		
Purchase	-	-
Sale and others		(576)
At December 31	-	

¹ No gain and loss is included in profit for the year ended December 31, 2017 (2016: interest income of ₩4 million and impairment loss of ₩630 million).

iii) Financial instruments not measured at fair value but for which the fair value is disclosed

Financial instruments not measured at fair value but for which the fair value is disclosed as of December 31, 2017 and 2016, are as follows:

	December 31, 2017				
(in millions of Korean won)	Level 1	Level 2	Level 3	Total	
Assets					
Non-current deposits held by financial institutions	-	-	52,775	52,775	
Non-current other receivables	-	-	451,855	451,855	
Liabilities					
Non-current borrowings	-	-	8,076,497	8,076,497	
Non-current other payables	-	-	6,496	6,496	
		December	31, 2016		
(in millions of Korean won)	Level 1	Level 2	Level 3	Total	
Assets					
Non-current deposits held by financial institutions	-	-	58,195	58,195	
Non-current other receivables	-	-	477,590	477,590	
Liabilities					
Non-current borrowings	-	-	7,194,685	7,194,685	
Non-current other payables					

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- Valuation technique and inputs for fair value measurements categorized within 'level 2'

As of December 31, 2017, there are no financial instruments that are not measured at fair value but for which the fair value is disclosed and categorized within 'level 2'.

- Disclosure in relation to fair value measurements categorized within 'level 3'

Valuation technique, inputs and unobservable inputs of financial instruments that are not measured at fair value but for which the fair value is disclosed and categorized within 'level 3' as of December 31, 2017 and 2016, are as follows:

	Decembe	r 31, 2017	December	31, 2016			Significant but	Range of significant but
(in millions of Korean won)	Carrying amount	Fair value	Carrying amount	Fair value	Valuation techniques	Inputs	unobservable inputs	unobservable inputs
Assets								
Non-current deposits held by financial institutions	52,775	52,775	58,195	58,195	Discounted cash flow	Discount rate and exchange rate	Discount rate	0.1% ~ 1.8%
Non-current other receivables	470,216	451,855	490,178	477,590	Discounted cash flow	Discount rate and exchange rate	Discount rate	3.4% ~ 3.7%
Liabilities								
Non-current borrowings	8,089,724	8,076,497	7,008,500	7,194,685	Discounted cash flow	Discount rate and exchange rate	Discount rate	0.9% ~ 3.9%
Non-current other payables	6,490	6,496	7,771	6,923	Discounted cash flow	Discount rate and exchange rate	Discount rate	2.0% ~ 3.5%

38. Business Combinations

- (a) On July 1, 2017, the Group acquired R&D institutions in Japan from LG Chem, Ltd. and LG Display Co., Ltd. in order to create synergy effects by integrating R&D base in Japan.
- (b) The following table summarizes the consideration paid and the fair value of assets acquired and liabilities assumed:

(in millions of Korean won)	Amount
Consideration	
Cash and cash equivalents	1,378
Recognized amounts of identifiable assets acquired and liabilities assumed	
Current assets	
Other assets	4
Non-current assets	
Property, plant and equipment	621
Other receivables ¹	753
Fair value of total identifiable net assets	1,378
Goodwill	-
	·

¹ The fair value of above other receivables are the same as the contractual amount in gross.

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

The acquisition-related direct costs incurred in relation to business combination amounting to ₩10 million was recognized as expenses as incurred.

Net sales and profit included in these consolidated statements of profit and loss arising from R&D institutions of LG Chem, Ltd. and LG Display Co., Ltd. in Japan are \(\pm\)3,885 million and \(\pm\)185 million, respectively, since the acquisition date. Net sales and profit in the consolidated statements of profit or loss for the current reporting period as though the acquisition date had been as of the beginning of the annual reporting period are as follows:

(in millions of Korean won)	Prior adjustment	Adjustment	Post adjustment
Net sales	61,396,284	4,027	61,400,311
Profit for the year	1,869,518	116	1,869,634

39. Assets Classified as Held for Sale

(a) Details of assets classified as held for sale as of December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	December 31, 2017	December 31, 2016
Assets classified as held for sale		
Property, plant and equipment ¹	21,436	-
Investment property ²	-	8,906

¹ As of December 31, 2017, sales procedure of the assets is in progress and the sale is expected to be completed by June 2018.

(b) Assets held for sale are measured at fair value less costs to sell before the reclassification, and there is no impairment loss recognized.

40. Approval of the Consolidated Financial Statements

The issuance of the December 31, 2017 consolidated financial statements of the Group was approved by the Board of Directors on January 23, 2018.

² The investment property was sold in January 2017.