LG Electronics

Consolidated Interim Financial Statements June 30, 2019 and 2018

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Report on Review of Interim Financial Statements

(English Translation of a Report Originally Issued in Korean)

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

Reviewed Financial Statements

We have reviewed the accompanying consolidated interim financial statements of LG Electronics Inc. and its subsidiaries (collectively referred to as the "Group"). These financial statements consist of the consolidated interim statement of financial position of the Group as at June 30, 2019, and the related consolidated interim statements of profit or loss and comprehensive income for the three-month and six-month periods ended June 30, 2019 and 2018, and consolidated interim statements of changes in equity and cash flows for the six-month periods ended June 30, 2019 and 2018, and a summary of significant accounting policies and other explanatory notes, expressed in Korean won.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these consolidated interim financial statements in accordance with International Financial Reporting Standards as adopted by the Republic of Korea (Korean IFRS) 1034 *Interim Financial Reporting*, and for such internal control as management determines is necessary to enable the preparation of consolidated interim financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to issue a report on these consolidated interim financial statements based on our review.

We conducted our review in accordance with quarterly or semi-annual review standards established by the Securities and Futures Commission of the Republic of Korea. A review of interim financial information consists of making inquiries, primarily of persons responsible for financial and accounting matters, and applying analytical and other review procedures. A review is substantially less in scope than an audit conducted in accordance with Korean Standards on Auditing and consequently does not enable us to obtain assurance that we would become aware of all significant matters that might be identified in an audit. Accordingly, we do not express an audit opinion.

Conclusion

Based on our review, nothing has come to our attention that causes us to believe the accompanying consolidated interim financial statements are not presented fairly, in all material respects, in accordance with Korean IFRS 1034 *Interim Financial Reporting*.

Other Matters

We have audited the consolidated statement of financial position of the Group as at December 31, 2018, and the related consolidated statements of profit or loss, comprehensive income, changes in equity and cash flows for the year then ended, in accordance with Korean Standards on Auditing. We expressed an unqualified opinion on those financial statements, not presented herein, in our audit report dated March 7, 2019. The consolidated statement of financial position as at December 31, 2018, presented herein for comparative purposes, is consistent, in all material respects, with the above audited statement of financial position as at December 31, 2018.

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

August 14, 2019 Seoul, Korea

This report is effective as at August 14, 2019, the review report date. Certain subsequent events or circumstances, which may occur between the review report date and the time of reading this report, could have a material impact on the accompanying consolidated interim financial statements and notes thereto. Accordingly, the readers of the review report should understand that there is a possibility that the above review report may have to be revised to reflect the impact of such subsequent events or circumstances, if any.

LG Electronics Consolidated Interim Statements of Financial Position June 30, 2019 and December 31, 2018

(in millions of Korean won)	Notes	June 30, 2019 (Unaudited)	December 31, 2018
Assets			
Current assets			
Cash and cash equivalents	5,32	3,944,245	4,270,388
Deposits held by financial institutions	5,32	80,516	80,516
Trade receivables	5,6,32	7,386,791	6,371,594
Loans and other receivables	5,6,32	520,491	506,437
Other financial assets	5,7,32	3,902	8,401
Inventories	8	6,179,534	6,021,356
Current income tax assets		89,041	151,778
Contract assets	9	727,909	763,776
Other current assets		1,176,123	1,073,396
Assets held for sale	34	26,035	115,212
		20,134,587	19,362,854
Non-current assets			
Deposits held by financial institutions	5,32	46,768	45,853
Loans and other receivables	5,6,32	418,772	452,366
Other financial assets	5,7,32	94,701	78,072
Property, plant and equipment	10	14,241,629	13,333,951
Intangible assets	10	2,964,817	3,001,155
Deferred income tax assets		1,467,478	1,410,793
Investments in associates and joint ventures	11	5,377,151	5,537,556
Investment properties		93,738	94,396
Net defined benefit assets	14	15	942
Contract assets	9	235,880	221,008
Other non-current assets		791,716	789,497
		25,732,665	24,965,589
Total assets		45,867,252	44,328,443
Liabilities			
Current liabilities			
Trade payables	5,32	7,402,466	7,216,739
Borrowings	5,12,32	1,465,172	1,405,116
Lease liabilities	5,13,32	236,964	-
Other payables	5,32	2,866,204	3,670,453
Other financial liabilities	5,7,32	10,941	3,343
Current income tax liabilities		107,336	185,687
Provisions	15	696,296	672,544
Contract liabilities	9	1,336,127	1,119,806
Other current liabilities		3,096,740	2,861,341
	-	17,218,246	17,135,029
Non-current liabilities	5 40 00	0 000 070	0 400 070
Borrowings	5,12,32	9,392,878	9,496,070
Lease liabilities	5,13,32	463,205	-
Other payables	5,32	6,840	17,995
Other financial liabilities	5,7,32	117,767	89,267
Deferred income tax liabilities	4 4	126,156	127,014
Net defined benefit liabilities	14	749,896	398,611
Provisions Contract liabilities	15 9	333,809	343,811
Contract liabilities Other non-current liabilities	9	24,898	23,787
		<u>338,559</u> 11,554,008	<u>389,952</u> 10,886,507
Total liabilities		28,772,254	28,021,536
		20,112,254	20,021,030

LG Electronics Consolidated Interim Statements of Financial Position June 30, 2019 and December 31, 2018

(in millions of Korean won)	Notes	June 30, 2019 (Unaudited)	December 31, 2018
Equity			
Paid-in capital:	16		
Share capital		904,169	904,169
Share premium		3,088,179	3,088,179
Retained earnings	17	12,447,002	12,075,414
Accumulated other comprehensive loss	18	(1,202,368)	(1,604,730)
Other components of equity	19	(209,764)	(209,764)
Equity attributable to owners of the Parent Company	ıy	15,027,218	14,253,268
Non-controlling interests		2,067,780	2,053,639
Total equity		17,094,998	16,306,907
Total liabilities and equity		45,867,252	44,328,443

		Period Ended June 30						
(in millions of Korean won, except per share amounts)	Notes	2019 (Un	audited)	2018 (Un	audited)			
		Three months	Six months	Three months	Six months			
Net sales	20	15,629,264	30,544,328	15,019,311	30,142,352			
Cost of sales	21	11,672,931	22,842,978	11,101,452	22,414,851			
Gross profit		3,956,333	7,701,350	3,917,859	7,727,501			
Selling and marketing expenses Administrative expenses Research and development expenses Service costs	21,22 21,22 21,22 21,22 21,22	2,035,212 327,011 629,122 312,751	3,716,100 649,984 1,175,985 606,405	1,921,281 340,912 583,681 301,016	3,514,437 644,580 1,106,354 583,344			
Operating profit		652,237	1,552,876	770,969	1,878,786			
Financial income Financial expenses Loss from equity method valuation Other non-operating income Other non-operating expenses Profit before income tax Income tax expense	23 24 11 25 26	68,089 147,553 (206,673) 295,909 434,890 227,119 121,106	208,708 366,308 (229,896) 616,041 799,923 981,498 297,520	122,615 186,036 (105,696) 488,132 541,519 548,465 221,979	256,298 400,234 (133,641) 774,197 857,973 1,517,433 461,076			
Profit for the period		106,013	683,978	326,486	1,056,357			
Profit for the period attributable to:								
Owners of the Parent Company Non-controlling interests		91,649 <u>14,364</u> 106,013	662,523 21,455 683,978	283,300 <u>43,186</u> 326,486	999,987 <u>56,370</u> 1,056,357			
Earnings per share attributable to the owners of the Parent Company during the period <i>(in Korean won)</i> : Earnings per ordinary share Earnings per preferred share	27	508 520	3,677 3.702	1,572 1,585	5,551 5,576			
		020	0,102	.,	0,010			

LG Electronics Consolidated Interim Statements of Comprehensive Income Three-Month and Six-Month Periods Ended June 30, 2019 and 2018

		Period Ended June 30					
(in millions of Korean won)	Notes	2019 (Un	audited)	2018 (Un	audited)		
		Three months	Six months	Three months	Six months		
Profit for the period		106,013	683,978	326,486	1,056,357		
Other comprehensive income, net of tax							
Items that will not be reclassified subsequently to profit or loss:							
Remeasurements of the net defined benefit liability	14	(102,721)	(149,571)	(16,348)	(4,940)		
Share of remeasurements of associates	11	(2,375)	(4,201)	(1,388)	(2,948)		
Financial assets at fair value through other comprehensive income	7	8,827	8,849	(376)	1,723		
Items that will be reclassified subsequently to profit or loss:							
Share of other comprehensive income							
(excluding remeasurements) of associates and joint ventures	11	1,820	65,174	2,650	49,720		
Cash flow hedges	32	(20,481)	(33,963)	(16,429)	(12,685)		
Exchange differences on translation of foreign operations		191,077	392,683	37,833	100,398		
Other comprehensive income for the period, net of tax		76,147	278,971	5,942	131,268		
Total comprehensive income for the period, net of tax		182,160	962,949	332,428	1,187,625		
Total comprehensive income for the period, net of tax, attributable to:							
Owners of the Parent Company		160,237	918,195	283,577	1,110,826		
Non-controlling interests		21,923	44,754	48,851	76,799		
-		182,160	962,949	332,428	1,187,625		

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Consolidated Interim Statements of Changes in Equity Six-Month Periods Ended June 30, 2019 and 2018

			Attributable to	Attributable to Owners of the Parent Company						
(in millions of Korean won)	Note	Paid-in Capital	Retained Earnings	Accumulated Other Comprehensive Loss	Other Components of Equity	Total	Non-controlling Interests	Total Equity		
Balance at January 1, 2018		3,992,348	10,964,155	(1,522,478)	(209,764)	13,224,261	1,449,423	14,673,684		
Changes in accounting policy			20,639	(17,098)		3,541		3,541		
Restated total equity		3,992,348	10,984,794	(1,539,576)	(209,764)	13,227,802	1,449,423	14,677,225		
Total comprehensive income:							50.070			
Profit for the period		-	999,987	-	-	999,987	56,370	1,056,357		
Remeasurements of the net defined benefit liability Share of remeasurements of associates	14 11	-	(4,986)	-	-	(4,986)	46	(4,940)		
Financial assets at fair value through	11	-	(2,948)	-	-	(2,948)	-	(2,948)		
other comprehensive income	7	_	_	1,691	_	1,691	32	1,723		
Share of other comprehensive income	'			1,001		1,001	02	1,720		
(excluding remeasurements) of										
associates and joint ventures	11	-	-	49,720	-	49,720	-	49,720		
Cash flow hedges	32	-	-	(12,685)	-	(12,685)	-	(12,685)		
Exchange differences										
on translation of foreign operations			-	80,047		80,047	20,351	100,398		
Total comprehensive income			992,053	118,773		1,110,826	76,799	1,187,625		
Transactions with owners:										
Dividends	17	-	(72,885)	-	-	(72,885)	(32,572)	(105,457)		
Changes in controlling interests in subsidiaries			-			-	(20)	(20)		
Total transactions with owners		<u> </u>	(72,885)			(72,885)	(32,592)	(105,477)		
Balance at June 30, 2018 (Unaudited)		3,992,348	11,903,962	(1,420,803)	(209,764)	14,265,743	1,493,630	15,759,373		
Balance at January 1, 2019		3,992,348	12,075,414	(1,604,730)	(209,764)	14,253,268	2,053,639	16,306,907		
Changes in accounting policy	2		(8,336)			(8,336)	428	(7,908)		
Restated total equity		3,992,348	12,067,078	(1,604,730)	(209,764)	14,244,932	2,054,067	16,298,999		
Total comprehensive income:							o.,			
Profit for the period	4.4	-	662,523	-	-	662,523	21,455	683,978		
Remeasurements of the net defined benefit liability Share of remeasurements of associates	14 11	-	(142,489)	-	-	(142,489)	(7,082)	(149,571)		
Financial assets at fair value through	11	-	(4,201)	-	-	(4,201)	-	(4,201)		
other comprehensive income	7	_	_	8,538		8,538	311	8,849		
Share of other comprehensive income	'			0,000		0,000	511	0,043		
(excluding remeasurements) of										
associates and joint ventures	11	-	-	65,174	-	65,174	-	65,174		
Cash flow hedges	32	-	-	(34,063)	-	(34,063)	100	(33,963)		
Exchange differences										
on translation of foreign operations			-	362,713		362,713	29,970	392,683		
Total comprehensive income			515,833	402,362		918,195	44,754	962,949		
Transactions with owners:										
Dividends	17	-	(135,909)	-	-	(135,909)	(30,761)	(166,670)		
Changes in controlling interests in subsidiaries			-			-	(280)	(280)		
Total transactions with owners			(135,909)	- (1 000 000)	(200 70 1)	(135,909)	(31,041)	(166,950)		
Balance at June 30, 2019 (Unaudited)		3,992,348	12,447,002	(1,202,368)	(209,764)	15,027,218	2,067,780	17,094,998		

LG Electronics Consolidated Interim Statements of Cash Flows Six-Month Periods Ended June 30, 2019 and 2018

(in millions of Korean won)		Six-Month Period Ended June 30			
	Note	2019	2018		
		(Unaudited)	(Unaudited)		
Cash flows from operating activities					
Cash generated from operations	28	1,628,957	2,272,123		
Interest received		62,316	41,930		
Interest paid		(207,551)	(191,748)		
Dividend received		1,177	68,452		
Income tax paid		(281,784)	(275,001)		
Net cash inflow from operating activities	-	1,203,115	1,915,756		
Cash flows from investing activities					
Decrease in deposits held by financial institutions		5,492	4,551		
Decrease in loans and other receivables		64,651	61,829		
Proceeds from redemption and disposal of other financial as	sets	37,217	33,030		
Proceeds from disposal of property, plant and equipment		71,977	74,745		
Proceeds from disposal of intangible assets		36	2,353		
Proceeds from disposal of assets held for sale		110,814	37,622		
Transfer of business	28	529	- ,		
Increase in deposits held by financial institutions	-	(5,883)	(21,748)		
Increase in loans and other receivables		(75,163)	(69,882)		
Acquisition of other financial assets		(44,871)	(20,758)		
Acquisition of property, plant and equipment		(1,040,452)	(1,519,421)		
Acquisition of intangible assets		(263,466)	(317,006)		
Acquisition of investments in associates and joint ventures		(8,703)	(1,000)		
Business combination	33	(2,594)	-		
Net cash outflow from investing activities	-	(1,150,416)	(1,735,685)		
Cash flows from financing activities					
Proceeds from borrowings		668,677	1,660,113		
Repayments of borrowings		(816,356)	(447,231)		
Repayments of lease Iliabilities		(150,906)	-		
Dividends paid and others		(162,740)	(105,477)		
Net cash inflow (outflow) from financing activities	-	(461,325)	1,107,405		
Effects of exchange rate changes on cash and cash equivalents		82,483	21,560		
Net increase (decrease) in cash and cash equivalents	-	(326,143)	1,309,036		
Cash and cash equivalents at the beginning of the period		4,270,388	3,350,597		
Cash and cash equivalents at the end of the period	-	3,944,245	4,659,633		
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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 at June 30, 2019, 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 (collectively referred to as the "Group") operate following six 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 component Solutions segment designs and manufactures automobile parts; Business Solutions segment manufactures and sells information displays, solar panels and others; and LG Innotek Co., Ltd. operates LED, optics solutions, substrate materials and automotive components businesses. As at June 30, 2019, the Parent Company has 137 subsidiaries (Note 1 (a)), 18 associates and joint ventures (Note 11).

(a) Consolidated subsidiaries as at June 30, 2019 and December 31, 2018, are as follows:

			June	30, 2019	19 December 31, 2018				
			Percentage	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
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	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
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
	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

			June	30, 2019	Decembe	er 31, 2018			
			Percentage	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
	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
	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

		June 30, 2019 December 31, 2018						
		Percentage	of ownership	Percentage of	of ownership			
Location	Subsidiary	Controlling interest	Non- controlling interest	Controlling interest	Non- controlling interest	Closing month	Major business	Basis of control
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%	-	100.0%	-	December	Production of heater	More than half of voting rights
China	QINGGONGLIAN ELECTRICAL INSTALLATION ENGINEERING CO.,LTD.	80.0%	20.0%	-	-	December	Installation and sales of air conditioners	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
China	ZKW Lighting Systems (Dalian) Co. Ltd.	70.0%	30.0%	70.0%	30.0%	December	Production and sales of vehicle components	More than half of voting rights
China	HIPLAZA (Shenyang) Trading Co., Ltd.	100.0%	-	100.0%	-	December	Sales of electronic products	More than half of voting rights
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)	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
	China China China China China China China China China Australia India Japan	ChinaTaizhou LG Electronics Refrigeration Co., Ltd.(LGETR)ChinaTianjin Lijie cartridge heater Co., Ltd.(LGETL) QINGGONGLIAN ELECTRICAL INSTALLATION ENGINEERING CO.,LTD.ChinaLG Innotek Yantai Co.,Ltd.(LGITYT)1ChinaLG Innotek Huizhou Co.,Ltd.(LGITYT)1ChinaLG Innotek Trading (Shanghai) Co.,Ltd.(LGITHZ)1ChinaLG Innotek Trading (Shanghai) Co.,Ltd.(LGITHZ)1ChinaLG Innotek Trading (Shanghai) Co.,Ltd.(LGITSH)1ChinaLG Electronics Australia Co., Ltd.ChinaZKW Lighting Systems (Dalian) Co., Ltd.ChinaHIPLAZA (Shenyang) Trading Co., Ltd.ChinaLG Electronics Australia Pty, Ltd.(LGEAP)IndiaLG Electronics India Pvt. Ltd.(LGEIL)4JapanLG Electronics Japan Lab. Inc.(LGJL)LG Electronics Japan, LG Electronics Japan,	LocationSubsidiaryControlling interestChinaTaizhou LG Electronics Refrigeration Co., Ltd.(LGETR)100.0%ChinaTianjin Lijie cartridge heater Co., Ltd.(LGETL)100.0%ChinaTianjin Lijie cartridge heater Co., Ltd.(LGETL)100.0%ChinaELECTRICAL INSTALLATION ENGINEERING CO.,LTD.80.0%ChinaLG Innotek Yantai Co.,Ltd.(LGITYT)140.8%ChinaLG Innotek Huizhou Co.,Ltd.(LGITHZ)140.8%ChinaLG Innotek Trading (Shanghai) Co.,Ltd.(LGITSH)140.8%ChinaLG Innotek Trading (Shanghai) Co.,Ltd.(LGITSH)140.8%ChinaLG Innotek Trading (Shanghai) Co.,Ltd.(LGITSH)140.8%ChinaLG Innotek Trading (Shanghai) Co.,Ltd.(LGITSH)140.8%ChinaLG Electronics Australia Co.,Ltd.(LGETSH)170.0%ChinaZKW Lighting Systems (Dalian) Co.,Ltd.(LGEAP)70.0%IndiaLG Electronics Australia Pty, Ltd.(LGEAP)100.0%IndiaLG Electronics Japan Lab. Inc.(LGJL)100.0%	LocationSubsidiaryPercentage of ownership Non- controlling interestChinaTaizhou LG Electronics Refrigeration Co., Ltd.(LGETR)100.0%-ChinaTianjin Lijie cartridge heater Co., Ltd.(LGETL)100.0%-ChinaTianjin Lijie cartridge heater Co., Ltd.(LGETL)100.0%-ChinaELECTRICAL INSTALLATION ENGINEERING CO.,LTD.80.0%20.0%ChinaLG Innotek Yantai Co.,Ltd.(LGITYT) 140.8%59.2%ChinaLG Innotek Yantai Co.,Ltd.(LGITYT) 140.8%59.2%ChinaLG Innotek Trading (Shanghai) Co.,Ltd.(LGITSH) 140.8%59.2%ChinaLG Innotek Trading (Shanghai) Co.,Ltd.(LGITSH) 140.8%59.2%ChinaLG Innotek Trading (Shanghai) Co.,Ltd.(LGITSH) 140.8%59.2%ChinaLG Electronics Australia Co.,Ltd.70.0%30.0%ChinaHIEntech (Tianjin) Co., LTD.80.0%20.0%ChinaLG Electronics Australia Pty, Ltd.(LGELP)100.0%-IndiaLG Electronics Australia Pty, Ltd.(LGELP)100.0%-IndiaLG Electronics Japan Lab. Inc.(LGJL)100.0%-	LocationSubsidiaryPercentage of ownership Non- Controlling interestPercentage of Non- controlling interestChinaTaizhou LG Electronics Refrigeration Co., Ltd. (LGETR)100.0%-100.0%ChinaTianjin Lijie cartridge heater Co., Ltd. (LGETR)100.0%-100.0%ChinaELECTRICAL INSTALLATION ENGINEERING CO.,LTD.100.0%-100.0%ChinaELECTRICAL INSTALLATION ENGINEERING CO.,LTD.80.0%20.0%-ChinaLG Innotek Yantai Co.,Ltd.(LGITYT) 140.8%59.2%40.8%ChinaLG Innotek Trading (Shanghai) Co.,Ltd.(LGITYT) 140.8%59.2%40.8%ChinaLG Innotek Trading (Shanghai) Co.,Ltd.(LGITSH) 140.8%59.2%40.8%ChinaLG Innotek Trading (Shanghai) Co.,Ltd. (LGITSH) 140.8%59.2%40.8%ChinaLG Innotek Trading (Shanghai) Co.,Ltd. (LGITSH) 140.8%59.2%40.8%ChinaLG Innotek Trading (Shanghai) Co.,Ltd.(LGITSH) 140.8%59.2%40.8%ChinaLG Electonics Australia Co.,Ltd.70.0%30.0%70.0%ChinaLG Electonics Australia Co.,Ltd.100.0%-100.0%IndiaLG Electonics Australia Pty, Ltd.(LGEL) 1100.0%-100.0%IndiaLG Electonics Japan Lab. Inc.(LGJL)100.0%-100.0%IapanLG Electonics Japan, LG Electonics Japan,100.0%-100.0%	LocationSubsidiaryPercentage of ownership Non- Controlling interestPercentage of ownership Non- Controlling interestLocationSubsidiaryTaizhou LG Electoronics Refrigeration Co., Ltd.(LGETR)100.0%-100.0%-ChinaTiarjin Lijie catridge heater Co., Ltd.(LGETL)100.0%-100.0%-ChinaCo., Ltd.(LGETL) UNINGCONGLIAN ELECTRICAL INSTALLATION ENSINEERING CO.,LTD.80.0%20.0%ChinaLG Innotek Yantai Co.,Ltd.(LGITYT)140.8%59.2%40.8%59.2%ChinaLG Innotek Huizhou Co.,Ltd.(LGITHZ)140.8%59.2%40.8%59.2%ChinaLG Innotek Huizhou Co.,Ltd.(LGITHZ)140.8%59.2%40.8%59.2%ChinaLG Innotek Trading (Shanghai) Co.,Ltd.(LGITSH)140.8%59.2%40.8%59.2%ChinaLG Innotek Trading (Shanghai) Co.,Ltd.(LGITSH)170.0%30.0%70.0%30.0%ChinaZKW Lighting Systems (Dalian) Co., Ltd.70.0%30.0%70.0%30.0%ChinaLG Electronics Australia Pty. Ltd.(LGEAP)100.0%-100.0%-IndiaLG Electronics India Ptv. Ltd.(LGEL)4100.0%-100.0%-IndiaLG Electronics Japan, LG Electronics Japan,100.0%-100.0%-	LocationSubsidiaryPercentage of ownership Non- Controlling interestPercentage of ownership Non- Controlling interestNon- Controlling interestClosing monthChinaTaizhou LG Electronics Co., Ltd.(LGETL)100.0%-100.0%-DecemberChinaELECTRICAL INSTALLATION ENGINEERING CO.,LTD.80.0%20.0%DecemberChinaLG Innotek Yantai Co.,Ltd.(LGITYT) 140.8%59.2%40.8%59.2%DecemberChinaLG Innotek Huizhou Co.,Ltd.(LGITHZ) 140.8%59.2%40.8%59.2%DecemberChinaLG Innotek Trading (Shanghai) Co.,Ltd.(LGITSH) 140.8%59.2%40.8%59.2%DecemberChinaLG Innotek Trading (Shanghai) Co.,Ltd.70.0%30.0%70.0%30.0%DecemberChinaLG Innotek Trading (Shanghai) Co.,Ltd.70.0%30.0%70.0%30.0%DecemberChinaLG Electronics Australia Pty, Ltd.(LGEAP)100.0%-100.0%-	LocationSubsidiaryPercentage of ownership Non- Controlling InterestPercentage of ownership Non- Controlling InterestPercentage of ownership Non- Controlling InterestMajor businessChinaTaizhou LG Electronics Refrigeration Co., Ltd. (LGETR)100.0%-100.0%-DecemberProduction of electronic productsChinaTianjin Lije cartridge heater Co., Ltd. (LGETR)100.0%-100.0%-DecemberProduction of heater productsChinaELECTRICAL INSTALLATION80.0%20.0%DecemberInstallation and sales of air conditionersChinaLG Innotek Yantal Co., Ltd. (LGITYT)40.8%59.2%40.8%59.2%DecemberProduction and sales of electrical/electronic materialsChinaLG Innotek Huizhou Co., Ltd. (LGITHZ)!40.8%59.2%40.8%59.2%DecemberProduction and sales of electrical/electronic materialsChinaLG Innotek Huizhou Co., Ltd. (LGITHZ)!40.8%59.2%40.8%59.2%DecemberSales of electrical/electronic materialsChinaLG Innotek Huizhou Co., Ltd. (LGITSH)!70.0%30.0%70.0%30.0%DecemberProduction and sales of electrical/electronic materialsChinaLG Electonics Australia70.0%30.0%70.0%30.0%DecemberSales of electronic productsChinaLG Electonics Australia100.0%-100.0%-DecemberSales of electronic products<

			June 30, 2019 December 31, 2018						
			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
	Malaysia	LG Electronics Malaysia SDN. BHD(LGEML)	100.0%	-	100.0%	-	December	Sales of electronic products	More than half of voting rights
	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

			June 30, 2019 December 31, 2018		r 31, 2018				
			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	HI-M SOLUTEK PHILIPPINES INC.	100.0%	-	100.0%	-	December	Services	More than half of voting rights
	Vietnam	HI-M SOLUTEK VIETNAM CO., LTD.	100.0%	-	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

			June 30, 2019 December 31, 2018						
			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
	Portugal	LG Electronics Portugal S.A.(LGEPT)	100.0%	-	100.0%	-	December	Sales of electronic products	More than half of voting rights
	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
	Austria	ZKW Holding GmbH	70.0%	30.0%	70.0%	30.0%	December	Holding company	More than half of voting rights
	Austria	ZKW Group GmbH	70.0%	30.0%	70.0%	30.0%	December	Services	More than half of voting rights
	Austria	ZKW Elektronik GmbH	70.0%	30.0%	70.0%	30.0%	December	Production and sales of vehicle components	More than half of voting rights
	Austria	ZKW Lichtsysteme GmbH	70.0%	30.0%	70.0%	30.0%	December	Production and sales of vehicle components	More than half of voting rights
	Austria	Mommert Gewerbelmmobilien Verwaltungs GmbH	70.0%	30.0%	70.0%	30.0%	December	Holding company	More than half of voting rights
	Austria	Mommert Immobilien GmbH	70.0%	30.0%	70.0%	30.0%	December	Real estates	More than half of voting rights
	Slovakia	ZKW Slovakia s.r.o.	70.0%	30.0%	70.0%	30.0%	December	Production and sales of vehicle components	More than half of voting rights

			June	30, 2019	Decembe	er 31, 2018			
			Percentage	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
	Czech	KES - kablove a elektricke systemy spol. s.r.o.	70.0%	30.0%	70.0%	30.0%	December	Production and sales of vehicle components	More than half of voting rights
	Poland	KES Poland Sp.z o.o.	70.0%	30.0%	70.0%	30.0%	December	Production and sales of vehicle components	More than half of voting rights
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
	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
	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

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			June 3	30, 2019	Decembe	er 31, 2018			
			Percentage	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
	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
	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

			June 3	30, 2019	Decembe	er 31, 2018			
			Percentage	of ownership	Percentage	of ownership			
			Controlling	Non- controlling	Controlling	Non- controlling	Closing		
Territory	Location	Subsidiary	interest	interest	interest	interest	month	Major business	Basis of control
	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
	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
	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 in operating and financing activities of the entity and is exposed to variable returns.

⁴ In the preparation of the consolidated interim financial statements, the financial statements for the six-month period ended June 30, 2019 were used for those subsidiaries with different fiscal year ends.

(b) Financial information of major subsidiaries as at June 30, 2019 and December 31, 2018, and for the three-month and six-month periods ended June 30, 2019 and 2018, are as follows (before elimination of intercompany transactions):

		June 30, 2019			2019		
				Three I	months	Six m	
(in millions of Korean won)	Assets	Liabilities	Equity	Sales	Profit (loss) for the period	Sales	Profit (loss) for the period
LG Innotek Co., Ltd.	4,853,983	3,014,841	1,839,142	1,471,269	(21,962)	2,777,678	(64,266)
LG Electronics U.S.A., Inc.(LGEUS)	3,918,244	3,943,020	(24,776)	2,901,214	(184,295)	5,561,394	(105,922)
LG Electronics European Shared Service Center B.V.(LGESC)	2,004,909	1,954,872	50,037	154,802	8,208	261,091	18,575
LG Electronics Reynosa S.A. DE C.V.(LGERS)	1,449,155	483,483	965,672	702,295	112,978	1,381,470	205,149
Zenith Electronics Corporation(Zenith)	1,112,585	19,418	1,093,167	15,987	(2,543)	29,799	(5,260)
LG Electronics Mlawa Sp. z.O.O.(LGEMA)	965,070	501,193	463,877	576,268	14,860	1,291,142	26,988
LG Electronics do Brasil Ltda.(LGEBR)	1,161,714	540,772	620,942	506,927	23,220	1,030,822	56,455
LG Electronics Vietnam Haiphong Co., Ltd.(LGEVH)	1,039,438	669,765	369,673	811,485	(30,584)	1,684,930	26,886
LG Electronics India Pvt. Ltd.(LGEIL)	1,346,485	487,107	859,378	807,227	97,360	1,499,147	177,251
LG Electronics (China) Co., Ltd.(LGECH)	828,032	941,635	(113,603)	83,297	5,494	165,939	11,196
LG Electronics RUS, LLC(LGERA)	801,407	218,345	583,062	282,351	13,430	598,957	45,441
LG Innotek Vietnam Hai Phong Co.,Ltd.	804,775	645,146	159,629	382,739	24,734	570,157	22,806
Hiplaza Co., Ltd.	970,732	788,452	182,280	845,350	4,094	1,617,415	9,370
ZKW Lichtsysteme GmbH	836,418	474,810	361,608	236,110	9,989	470,089	17,437
LG Electronics Tianjin Appliances Co., Ltd.(LGETA)	664,173	386,196	277,977	399,868	18,906	768,722	31,344
ZKW Group GmbH	601,706	307,348	294,358	964	15,839	1,255	19,179
Inspur LG Digital Mobile Communications Co., Ltd.(LGEYT)	487,363	184,849	302,514	202,340	(5,508)	536,783	17,144
Taizhou LG Electronics Refrigeration Co., Ltd.(LGETR)	597,752	420,664	177,088	316,422	7,551	584,673	18,623
P.T. LG Electronics Indonesia(LGEIN)	578,639	237,270	341,369	327,472	11,733	663,635	33,066
LG Electronics Deutschland GmbH(LGEDG)	559,032	458,070	100,962	558,506	16,432	1,048,160	(7,161)
LG Electronics Thailand Co., Ltd.(LGETH)	549,354	236,679	312,675	321,142	11,300	724,803	20,449
LG Electronics Nanjing New Technology co.,LTD(LGENT)	443,812	248,541	195,271	351,154	15,260	763,041	27,535

	December 31, 2018			2018				
-				Three	months	Six m	onths	
(in millions of Korean won)	Assets	Liabilities	Equity	Sales	Profit (loss) for the period	Sales	Profit (loss) for the period	
LG Innotek Co., Ltd.	5,062,817	3,140,216	1,922,601	1,425,122	634	3,015,953	346	
LG Electronics U.S.A., Inc.(LGEUS)	3,581,129	3,495,389	85,740	1,839,975	(86,984)	3,579,594	(84,119)	
LG Electronics European Shared Service Center B.V.(LGESC)	1,853,240	1,822,647	30,593	56,600	584	108,087	1,281	
LG Electronics Reynosa S.A. DE C.V.(LGERS)	1,298,166	565,836	732,330	575,443	64,842	1,072,944	125,843	
Zenith Electronics Corporation(Zenith)	1,080,075	18,770	1,061,305	13,416	(1,239)	19,414	(11,067)	
LG Electronics Mlawa Sp. z.O.O.(LGEMA)	1,068,222	648,999	419,223	556,727	11,935	1,166,000	26,194	
LG Electronics do Brasil Ltda.(LGEBR)	1,003,964	468,001	535,963	491,784	20,855	1,054,280	95,766	
LG Electronics Vietnam Haiphong Co., Ltd.(LGEVH)	1,002,255	671,022	331,233	657,920	(6,423)	1,383,108	40,818	
LG Electronics India Pvt. Ltd.(LGEIL)	991,303	343,183	648,120	686,312	69,397	1,345,514	146,772	
LG Electronics (China) Co., Ltd.(LGECH)	890,353	1,011,156	(120,803)	81,821	7,915	193,976	16,759	
LG Electronics RUS, LLC(LGERA)	791,066	268,912	522,154	295,018	19,508	603,330	47,619	
LG Innotek Vietnam Hai Phong Co.,Ltd.	734,010	601,413	132,597	164,787	14,057	250,955	14,227	
Hiplaza Co., Ltd.	607,368	434,258	173,110	753,142	5,108	1,356,609	2,924	
ZKW Lichtsysteme GmbH ¹	600,317	258,424	341,893	-	-	-	-	
LG Electronics Tianjin Appliances Co., Ltd.(LGETA)	590,825	351,650	239,175	338,221	7,957	681,834	13,217	
ZKW Group GmbH ¹	565,125	298,436	266,689	-	-	-	-	
Inspur LG Digital Mobile Communications Co., Ltd.(LGEYT)	562,263	286,881	275,382	461,313	46,320	1,009,590	68,030	
Taizhou LG Electronics Refrigeration Co., Ltd.(LGETR)	531,273	377,870	153,403	263,108	3,896	503,849	8,503	
P.T. LG Electronics Indonesia(LGEIN)	516,151	218,568	297,583	291,372	6,471	566,779	32,028	
LG Electronics Deutschland GmbH(LGEDG)	497,260	391,178	106,082	507,485	2,307	949,288	(2,037)	
LG Electronics Thailand Co., Ltd.(LGETH)	490,113	223,418	266,695	271,812	14,467	579,937	16,746	
LG Electronics Nanjing New Technology co.,LTD(LGENT)	479,292	279,917	199,375	292,967	11,710	642,016	23,804	

¹ The amounts of sales and profit for the period after the business combination are presented.

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

(in millions of Korean won)	June 30, 2019	December 31, 2018
Percentage of ownership in non-controlling interests	59.2%	59.2%
Accumulated non-controlling interests	1,238,408	1,259,456

ii) Profit (loss) and dividends attributable to non-controlling interests for the three-month and six-month periods ended June 30, 2019 and 2018, are as follows:

	201	19	2018		
(in millions of Korean won)	Three months	Six months	Three months	Six months	
Profit (loss) to non-controlling interests	(775)	(19,485)	10,273	5,562	
Dividends to non-controlling interests	-	4,204	-	3,503	

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

(in millions of Korean won)	June 30, 2019	December 31, 2018
Current assets	2,111,632	2,233,328
Non-current assets	3,476,335	3,522,739
Total assets	5,587,967	5,756,067
Current liabilities	1,865,516	1,584,398
Non-current liabilities	1,644,973	2,053,434
Total liabilities	3,510,489	3,637,832
Equity attributable to the owners of LG Innotek Co., Ltd.	2,077,476	2,118,233
Non-controlling interests	2	2
Total equity	2,077,478	2,118,235

 iv) Summarized consolidated statements of comprehensive income (loss) of subsidiaries with material non-controlling interests for the three-month and six-month periods ended June 30, 2019 and 2018, are as follows (before elimination of intercompany transactions):

	2019		20	18
(in millions of Korean won)	Three months	Six months	Three months	Six months
Net sales	1,522,325	2,890,955	1,517,884	3,238,414
Profit (loss) for the period	(5,166)	(38,161)	15,875	6,177
Other comprehensive income (loss), net of tax	(4,312)	4,503	4,733	16,092
Total comprehensive income (loss), net of tax	(9,478)	(33,658)	20,608	22,269

v) Summarized consolidated statements of cash flows of subsidiaries with material noncontrolling interests for the six-month periods ended June 30, 2019 and 2018, are as follows (before elimination of intercompany transactions):

(in millions of Korean won)	2019	2018
Cash flows from operating activities	227,885	292,265
Cash flows from investing activities	(160,621)	(755,243)
Cash flows from financing activities	(118,970)	417,265
Effects of exchange rate changes on cash and cash equivalents	3,415	2,062
Net decrease in cash and cash equivalents	(48,291)	(43,651)
Cash and cash equivalents at the beginning of the period	621,247	369,533
Cash and cash equivalents at the end of the period	572,956	325,882

(d) Significant restrictions on subsidiaries

i) Significant restrictions on the 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.

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 issuances of debentures over ₩1,000 million not included in the business plan
	 Expenditures over ₩1,000 million not included in the business plan Initial engagement, amendment and termination of significant
LG-Shaker Co., Ltd.(LGESR)	contracts over ₩1,000 million An unanimous approval is required for the confirmation of the financial statements and dividend declaration.

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

There are no changes in the Parent Company's interest in subsidiaries without the loss of control for the six-month periods ended June 30, 2019 and 2018.

(f) A subsidiary newly included in the scope of the preparation of the consolidated interim financial statements for the six-month period ended June 30, 2019, is:

Subsidiary	Reason	Country	Percentage of ownership	Closing month	Major business
QINGGONGLIAN ELECTRICAL INSTALLATION ENGINEERING CO.,LTD.	Newly acquired	China	80%	December	Installation and sales of air conditioners

(g) Subsidiaries excluded from the scope of the preparation of the consolidated interim financial statements for the six-month period ended June 30, 2019, are:

Subsidiary	Reason	Country	
LG Electronics Service Kenya Limited(LGESK)	Liquidation	Kenya	-
LGE Alliance Fund	Liquidation	Korea	
LGE Alliance Fund II	Liquidation	Korea	

(h) Gain or loss resulted from the loss of control

During the six-month period ended June 30, 2019, no gain or loss was incurred from the loss of control.

2. Significant Accounting Policies

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 interim financial statements have been condensed, restructured and translated into English from the Korean language financial statements.

The Group's consolidated interim financial statements for the six-month period ended June 30, 2019, have been prepared in accordance with Korean IFRS 1034 *Interim Financial Reporting*. These consolidated interim financial statements have been prepared in accordance with Korean IFRS which is effective as at June 30, 2019.

Changes in Accounting Policies and Disclosures

- (a) New and amended standards and interpretations effective for the financial year beginning January 1, 2019.
- Enactment of Korean IFRS 1116 Leases

Korean IFRS 1116 Leases replaces Korean IFRS 1017 Leases, Interpretation 2104 Determining whether an Arrangement contains a Lease, Interpretation 2015 Operating Leases-Incentives, and Interpretation 2027 Evaluating the Substance of Transactions Involving the Legal Form of a Lease.

At inception of a contract, the Group shall assess whether the contract is, or contains, a lease. Also, at the date of initial application, the Group shall assess whether the contract is, or contains, a lease in accordance with the standard. For a contract that is, or contains, a lease, a lessee or a lessor shall account for each lease component within the contract as a lease separately from nonlease 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 Group elected 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).

Lessor accounting treatment did not change significantly from current 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
- retrospectively with the cumulative effect of initially applying the standard recognized at the date of initial application (Cumulative catch-up method).

The Group applied Korean IFRS 1116 retrospectively with the cumulative effect of initially applying the standard as at January 1, 2019. The Group did not restate any comparative information. Instead, the cumulative effect of applying the standard was recognized as an adjustment to the opening balance of retained earnings at the date of initial application.

Under Korean IFRS 1116, with implementation of a single lease model, a lessee is required to recognize assets and liabilities for all lease whose lease terms are over 12 months and underlying assets are not low-value assets. A lessee is required to recognize a right-of-use asset and a lease liability representing its obligation to make lease payments.

On adoption of Korean IFRS 1116, the Group recognized right-of-use assets and lease liabilities in relation to leases which had previously been classified as 'operating leases' under the principles of Korean IFRS 1017. These liabilities were measured at the present value of the remaining lease payments, discounted using the lessee's incremental borrowing rate as at January 1, 2019. The lessee's weighted average incremental borrowing rate applied to the lease liabilities on January 1, 2019 was 4.1%.

For leases previously classified as 'finance leases', the Group recognized the carrying amount of the lease asset and lease liability immediately before transition as the carrying amount of the rightof-use asset and the lease liability at the date of initial application. The measurement principles of Korean IFRS 1116 are only applied after that date. The remeasurements to the lease liabilities were recognized as adjustments to the related right-of-use assets immediately after the date of initial application.

As at January 1, 2019, the date of initial application, further details on the impact of the application of the standard are as follows:

(in millions of Korean won)	January 1, 2019
Operating lease commitments disclosed as at December 31, 2018	722,451
Discounted amount using the lessee's incremental borrowing rate of at the date of initial application	690,429
Add: finance lease liabilities recognized as at December 31, 2018	18,662
Less: short-term lease payments recognized on a straight-line basis as expenses	(77,618)
Less: low-value asset lease payments recognized on a straight-line basis as expenses	(9,014)
Lease liabilities recognized as at January 1, 2019	622,459

(in millions of Korean won)	January 1, 2019
Of which are:	
Current lease liabilities	177,456
Non-current lease liabilities	445,003
Total	622,459

The associated right-of-use assets for leases were measured as if the new rules had always been applied using the lessee's incremental borrowing rate at the date of initial application. Other right-of use assets were measured at the amount equal to the lease liability, adjusted by the amount of any prepaid or accrued lease payments relating to that lease recognized in the consolidated statement of financial position as at December 31, 2018. Onerous lease contracts that would have required an adjustment to the right-of-use assets at the date of initial application, amounted to W 1,374 million, and were accounted for as a deduction of the right-of-use assets.

Consolidated statements of financial position at the date of initial application (January 1, 2019):

(in millions of Korean won)	December 31, 2018 (before adjustments)	K-IFRS 1116 Adjustments	January 1, 2019 (after adjustments)
Current assets			
Other assets	1,073,396	(17,375)	1,056,021
Current assets without financial effect	18,289,458		18,289,458
Total current assets	19,362,854	(17,375)	19,345,479
Non-current assets			
Other receivables	452,366	(2,179)	450,187
Property, plant and equipment	13,333,951	677,261	14,011,212
Intangible assets	3,001,155	(15,325)	2,985,830
Deferred income tax assets	1,410,793	2,990	1,413,783
Other assets	789,497	(64,584)	724,913
Non-current assets without financial effect	5,977,827		5,977,827
Total non-current assets	24,965,589	598,163	25,563,752
Total assets	44,328,443	580,788	44,909,231
Current liabilities			
Lease liabilities	-	177,456	177,456
Other payables	3,670,453	(20,694)	3,649,759
Other liabilities	2,861,341	(299)	2,861,042
Current liabilities without financial effect	10,603,235		10,603,235
Total current liabilities	17,135,029	156,463	17,291,492
Non-current liabilities			
Lease liabilities	-	445,003	445,003
Other payables	17,995	(11,349)	6,646
Deferred income tax liabilities	127,014	(47)	126,967
Provisions	343,811	(1,374)	342,437

(in millions of Korean won)	December 31, 2018 (before adjustments)	K-IFRS 1116 Adjustments	January 1, 2019 (after adjustments)
Non-current liabilities without financial effect	10,397,687	-	10,397,687
Total non-current liabilities	10,886,507	432,233	11,318,740
Total liabilities	28,021,536	588,696	28,610,232
Equity			
Equity attributable to owners of the Parent Company			
Retained earnings	12,075,414	(8,336)	12,067,078
Equity without financial effect	2,177,854	-	2,177,854
Non-controlling interests	2,053,639	428	2,054,067
Total equity	16,306,907	(7,908)	16,298,999

In applying Korean IFRS 1116 for the first time, the Group has used the following practical expedients permitted by the standard:

- the use of a single discount rate to a portfolio of leases with reasonably similar characteristics
- reliance on previous assessments on whether leases are onerous
- the accounting for operating leases with a remaining lease term of less than 12 months as at January 1, 2019, as short-term leases
- the exclusion of initial direct costs for the measurement of the right-of-use asset at the date of initial application, and
- the use of hindsight in determining the lease term where the contract contains options to extend or terminate the lease

The Group has also elected not to reassess whether a contract is, or contains a lease at the date of initial application. Instead, for contracts entered into before the date of initial application, the Group relied on its assessment made applying Korean IFRS 1017 and Interpretation 2104 *Determining whether an Arrangement contains a Lease*.

Lessor accounting

There is no significant impact on the consolidated interim financial statements from applying the new standard as accounting for the Group, as a lessor, does not significantly change.

- Amendments to Korean IFRS 1109 Financial Instruments

The narrow-scope amendments made to Korean IFRS 1109 *Financial Instruments* enable entities to measure certain prepayable financial assets with negative compensation at amortized cost. When a modification of a financial liability measured at amortized cost that does not result in the derecognition, a modification gain or loss shall be recognized in profit or loss. The amendment does not have a significant impact on the consolidated interim financial statements.

- Amendments to Korean IFRS 1019 Employee Benefits

The amendments require that an entity shall calculate current service cost and net interest for the remainder of the reporting period after a plan amendment, curtailment or settlement based on updated actuarial assumptions from the date of the change. The amendments also require that a reduction in a surplus must be recognized in profit or loss even if that surplus was not previously recognized because of the impact of the asset ceiling. The amendments are effective for plan amendments, curtailments and settlements occurring in reporting periods that begin on or after January 1, 2019. The amendment does not have a significant impact on the consolidated interim financial statements.

- Amendments to Korean IFRS 1028 Investments in Associates and Joint Ventures

The amendments clarify that an entity shall apply Korean IFRS 1109 to financial instruments in an associate or joint venture to which the equity method is not applied. These include long-term interests that, in substance, form part of the entity's net investment in an associate or joint venture. The amendment does not have a significant impact on the consolidated interim financial statements.

- Enactment to Interpretation of Korean IFRS 2123 Uncertainty over Income Tax Treatments

The Interpretation explains how to recognize and measure deferred and current income tax assets and liabilities where there is uncertainty over a tax treatment, and includes guidance on how to determine whether each uncertain tax treatment is considered separately or together. It also presents examples of circumstances where a judgement or estimate is required to be reassessed. The enactment does not have a significant impact on the consolidated interim financial statements.

(b) There are no new, enacted and amended standards issued, but not effective for June 30, 2019, and not early adopted by the Group.

Significant Accounting Policies

Significant accounting policies and method of computation used in the preparation of the condensed consolidated interim financial statements are consistent with those of the consolidated interim financial statements for the year ended December 31, 2018, except for the changes due to the application of amendment and enactments of standards described in Note 2 and the ones described below.

Income Tax Expense

Income tax expense for the interim period is recognized based on management's best estimate of the weighted average annual income tax rate expected for the full financial year. The estimated average annual tax rate is applied to the pre-tax income for the period.

Leases

The Group has applied Korean IFRS 1116 *Leases* from January 1, 2019.

The Group leases various offices, warehouses, retail stores, equipment and cars. A lease term is normally determined considering non-cancellable period of a lease and its extension options. Lease conditions are negotiated on an individual basis and contain a wide range of different terms and conditions. The lease agreements do not impose any covenants, but leased assets may not be used as security for borrowing purposes.

Lessee accounting

Until the 2018 financial year, leases of property, plant and equipment were classified as either finance or operating leases. Payments made under operating leases (net of any incentives received from the lessor) were charged to profit or loss on a straight-line basis over the period of the lease.

From January 1, 2019, leases are recognized as a right-of-use asset and a corresponding liability at the date at which the leased asset is available for use by the Group. Each lease payment is allocated to the repayment of lease liability and finance cost. The finance cost is charged to profit or loss over the lease period so as to produce a constant periodic rate of interest on the remaining balance of the lease liability for each period. The right-of-use asset is depreciated over the shorter of the asset's useful life and the lease term on a straight-line basis.

(a) Right-of-use assets

Right-of-use assets are measured at cost comprising the following:

- the amount of the initial measurement of lease liability
- any lease payments made at or before the commencement date less any lease incentives received
- any initial direct costs, and
- estimated restoration costs

(b) Lease liabilities

The lease liabilities are initially measured at the present value of the lease payments that are not paid at the commencement date. The lease payments are discounted using the interest rate implicit in the lease. If that rate cannot be determined, the lessee's incremental borrowing rate is used, being the rate that the lessee would have to pay to borrow the funds necessary to obtain an asset of similar value in a similar economic environment with similar terms and conditions.

At the commencement date, the lease payments included in the measurement of the lease liability comprise the following payments:

- fixed lease payments (including in-substance fixed payments), less any lease incentives receivable
- variable lease payments that are based on an index or a rate
- amounts expected to be payable by the lessee under residual value guarantees
- the exercise price of a purchase option if the lessee is reasonably certain to exercise that option, and
- payments of penalties for terminating the lease, if the lease term reflects the lessee exercising that option

However, payments associated with short-term leases and leases of low-value assets are recognized on a straight-line basis as an expense in profit or loss. Short-term leases are leases with a lease term of 12 months or less. Low-value assets comprise IT-equipment whose underlying assets are values below US\$ 5,000, and others.

Lessor accounting

There is no significant impact on the consolidated interim financial statements from applying the new standard as the current accounting treatment for the Group, as a lessor, does not significantly change.

A lessor classifies each of its leases as either an operating lease or a finance lease. A lease that transfers substantially all the risks and rewards incidental to ownership of underlying asset is classified as a finance lease, and a lease other than a finance lease is classified as an operating lease.

At the commencement date, a lessor recognizes assets held under a finance lease in its statement of financial position and presents them as a receivable at an amount equal to the net investment in the lease using the interest rate implicit in the lease. Under an operating lease, a lessor recognizes lease payments from operating leases as income on either a straight-line basis or other systematic base.

3. Critical Accounting Estimates and Judgements

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 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 over time using the percentage of completion method for the rendering of service such as equipment production and installation. The Group measures the percentage of completion by estimating cost for the completion of the transaction, and 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 judgement to select a variety of methods and makes assumptions that are mainly based on market conditions existing at the end of the reporting period.

(e) Provisions

The Group recognizes provisions for product warranties and others based on their historical data at the end of the reporting period.

(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.

(g) Development Costs

The Group capitalizes development costs when there is a reasonable assurance that projects have technical feasibility and the possibility of generating future economic benefits, and performs

periodic impairment test. The recoverable amount of each project has been calculated on a basis of the value-in-use reflecting historical experience and future business plans. These calculations require estimates.

Significant Judgment on Accounting Policies Adopted by the Group

In order to determine the Group's de-facto control, the Group considers percentage of ownership held by Group and ownership dispersion of the remaining shareholders, and also considers 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. At the end of the reporting periods, 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				
Vehicle component Solutions (VS)	Vehicle components and others				
Business Solutions (BS)	Information displays, solar panels and others				
LG Innotek Co., Ltd. and its subsidiaries (Innotek) Other segments	LED, camera modules, substrate & material, motor/sensor and others Water solution, equipment production and others				

(a) The segment information for sales and operating profit (loss) for the three-month and sixmonth periods ended June 30, 2019 and 2018, is as follows:

	Three-month period ended June 30, 2019								
(in millions of Korean won)	H&A	HE	МС	VC	B2B	Innotek	Other segments ¹	Inter- segment transactions ²	Total
Sales	6,102,794	3,671,230	1,613,267	1,423,070	675,451	1,522,325	890,889	(269,762)	15,629,264
External sales	6,089,927	3,668,750	1,612,656	1,423,047	675,234	1,355,642	804,008	-	15,629,264
Internal sales Operating profit	12,867	2,480	611	23	217	166,683	86,881	(269,762)	-
(loss) ³	717,471	205,574	(312,951)	(55,767)	58,103	18,772	21,035	-	652,237
Depreciation and amortization	150,983	82,439	44,496	108,430	50,808	142,206	32,535	-	611,897
	Six-month period ended June 30, 2019								
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(in millions of Korean won)	H&A	HE	МС	VC	B2B	Innotek	Other segments ¹	Inter- segment transactions ²	Total
Sales	11,568,737	7,694,941	3,123,640	2,770,065	1,301,003	2,890,955	1,684,050	(489,063)	30,544,328
External sales	11,547,911	7,689,739	3,121,972	2,770,029	1,300,625	2,564,621	1,549,431	-	30,544,328
Internal sales	20,826	5,202	1,668	36	378	326,334	134,619	(489,063)	-
Operating profit (loss) ³	1,445,057	552,076	(516,423)	(71,140)	113,641	7,359	22,306	-	1,552,876
Depreciation and amortization	303,201	162,497	85,608	212,990	104,616	281,372	63,585	-	1,213,869

	Three-month period ended June 30, 2018								
(in millions of _Korean won)	H&A	HE	МС	VC	B2B	Innotek	Other segments ¹	Inter- segment transactions ²	Total
Sales	5,258,108	3,845,513	2,048,966	872,859	588,494	1,517,884	1,295,670	(408,183)	15,019,311
External sales	5,246,439	3,842,993	2,048,745	872,859	587,783	1,322,819	1,097,673	-	15,019,311
Internal sales	11,669	2,520	221	-	711	195,065	197,997	(408,183)	-
Operating profit (loss) ³ Depreciation	461,828	405,243	(183,635)	(32,540)	38,991	13,396	67,686	-	770,969
and amortization	116,550	69,473	48,405	53,211	45,169	120,123	14,148	-	467,079

		Six-month period ended June 30, 2018								
(in millions of Korean won)	H&A	HE	МС	VC	B2B	Innotek	Other segments ¹	Inter- segment transactions ²	Total	
Sales	10,182,037	7,987,457	4,183,343	1,712,825	1,231,226	3,238,414	2,320,928	(713,878)	30,142,352	
External sales	10,161,288	7,982,236	4,183,030	1,712,825	1,229,307	2,860,357	2,013,309	-	30,142,352	
Internal sales	20,749	5,221	313	-	1,919	378,057	307,619	(713,878)	-	
Operating profit (loss) ³	1,019,392	978,242	(315,435)	(49,524)	117,833	30,222	98,056	-	1,878,786	
Depreciation and amortization	234,350	141,002	99,865	104,164	93,631	241,069	23,876	-	937,957	

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

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 included in the operating profit (loss) are not separately disclosed because the Chief Operating Decision Maker does not review them by segment.

	June 30	, 2019	December 31, 2018		
(in millions of Korean won)	Assets	Liabilities	Assets	Liabilities	
H&A	18,665,040	11,244,514	15,788,755	9,577,912	
HE	12,523,290	9,640,192	11,971,528	9,603,530	
MC	4,398,438	6,803,115	4,127,122	5,902,259	
VS	6,080,894	5,803,047	5,704,878	5,281,526	
BS	2,916,896	2,276,271	2,682,832	2,123,830	
Innotek	5,587,967	3,510,489	5,756,067	3,637,832	
Subtotal ¹	50,172,525	39,277,628	46,031,182	36,126,889	
Other segments and inter-segment transactions	(4,305,273)	(10,505,374)	(1,702,739)	(8,105,353)	
Total	45,867,252	28,772,254	44,328,443	28,021,536	

(b) Segment assets and liabilities as at June 30, 2019 and December 31, 2018, are as follows:

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) Non-current assets by geographic area as at June 30, 2019 and December 31, 2018, are as follows:

(in millions of Korean won)	Non-curre	nt assets ¹
Geographic areas	June 30, 2019	December 31, 2018
Korea	12,572,506	12,316,318
China	1,074,580	970,706
Asia	1,033,315	951,524
North America	931,761	773,311
Europe	1,221,292	1,073,397
South America	164,403	109,667
Middle East & Africa	111,283	92,831
Russia and others	191,044	141,748
Total	17,300,184	16,429,502

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 six-month periods ended June 30, 2019 and 2018.

5. Financial Instruments by Category

(a) Categorizations of financial instruments as at June 30, 2019 and December 31, 2018, are as follows:

		June	30, 2019		
(in millions of Korean won)	Financial assets at amortized cost	Financial assets at fair value through other comprehensive income	Financial assets at fair value through profit or loss	Other	Total
Cash and cash equivalents	3,944,245	-	-	-	3,944,245
Deposits held by financial institutions	127,284	-	-	-	127,284
Trade receivables	6,814,452	572,339	-	-	7,386,791
Other receivables	939,263	-	-	-	939,263
Other financial assets	1,729	66,938	26,354	3,582	98,603
Total	11,826,973	639,277	26,354	3,582	12,496,186

		June 30, 2	019	
(in millions of Korean won)	Financial liabilities at amortized cost	Financial liabilities at fair value through profit or loss	Other	Total
Trade payables	7,402,466	-	-	7,402,466
Borrowings	10,858,050	-	-	10,858,050
Lease liabilities	-	-	700,169	700,169
Other payables	2,873,044	-	-	2,873,044
Other financial liabilities	-	19,246	109,462	128,708
Total	21,133,560	19,246	809,631	21,962,437

		Decemi	oer 31, 2018		
(in millions of Korean won)	Financial assets at amortized cost	Financial assets at fair value through other comprehensive income	Financial assets at fair value through profit or loss	Other	Total
Cash and cash equivalents	4,270,388	-	-	-	4,270,388
Deposits held by financial institutions	126,369	-	-	-	126,369
Trade receivables	6,013,151	358,443	-	-	6,371,594
Other receivables	958,803	-	-	-	958,803
Other financial assets	1,729	56,070	26,841	1,833	86,473
Total	11,370,440	414,513	26,841	1,833	11,813,627

		December 31,	2018	
(in millions of Korean won)	Financial liabilities at amortized cost	Financial liabilities at fair value through profit or loss	Other	Total
Trade payables	7,216,739	-	-	7,216,739
Borrowings	10,901,186	-	-	10,901,186
Other payables	3,688,448	-	-	3,688,448
Other financial liabilities	-	11,273	81,337	92,610
Total	21,806,373	11,273	81,337	21,898,983

(b) Net gains or losses on each category of financial instruments for the six-month periods ended June 30, 2019 and 2018, are as follows:

		20	19		
(in millions of Korean won)	Financial assets at amortized cost	Financial assets at fair value through other comprehensive income	Financial assets at fair value through profit or loss	Other	Total
Interest income	68,951	-	-	-	68,951
Exchange differences	151,923	(1,041)	-	-	150,882
Bad debt expenses	(21,863)	-	-	-	(21,863)
Loss on disposal of trade receivables	(3,530)	(5,663)	-	-	(9,193)
Dividend income	-	262	273	-	535
Gain on valuation of financial assets at fair value through profit or loss	-	-	149	-	149
Loss on disposal of financial assets at fair value through other comprehensive income	-	(206)	-	-	(206)
Gain on derivatives (through profit or loss)	-	-	21,399	-	21,399
Fair value gain, net of tax (through other comprehensive income)	-	8,849	-	-	8,849
Loss on derivatives, net of tax (through other comprehensive income)	-	-	-	(711)	(711)

		2019		
(in millions of Korean won)	Financial liabilities carried at amortized cost	Financial liabilities at fair value through profit or loss	Other	Total
Interest expenses	(194,440)	-	(11,175)	(205,615)
Exchange differences	(178,092)	-	19,536	(158,556)
Loss on derivatives (through profit or loss)	-	(36,932)	-	(36,932)
Loss on derivatives, net of tax (through other comprehensive income)	-	-	(33,252)	(33,252)
Others	(2,028)	-	-	(2,028)

		20	18		
(in millions of Korean won)	Financial assets at amortized cost	Financial assets at fair value through other comprehensive income	Financial assets at fair value through profit or loss	Other	Total
Interest income	50,858	-	-	-	50,858
Exchange differences	304,169	2,364	-	-	306,533
Bad debt expenses	(15,269)	-	-	-	(15,269)
Loss on disposal of trade receivables	(2,751)	(6,428)	-	-	(9,179)
Dividend income	-	202	-	-	202
Gain on derivatives (through profit or loss)	-	-	37,723	-	37,723
Fair value gain, net of tax (through other comprehensive income)	-	1,723	-	-	1,723
Gain on derivatives, net of tax (through other comprehensive income)	-	-	-	98	98

		2018		
(in millions of Korean won)	Financial liabilities carried at amortized cost	Financial liabilities at fair value through profit or loss	Other	Total
Interest expenses	(186,001)	-	(6,883)	(192,884)
Exchange differences	(424,380)	-	36,234	(388,146)
Loss on derivatives (through profit or loss)	-	(21,077)	-	(21,077)
Loss on derivatives, net of tax (through other comprehensive loss)	-	-	(12,783)	(12,783)
Others	(1,459)	-	-	(1,459)

6. Trade Receivables and Other Receivables

(a) Trade receivables and other receivables, net of allowance for doubtful accounts, as at June 30, 2019 and December 31, 2018, are as follows:

		June 30, 2019			December 31, 2018			
		Allowance for			Allowance for			
(in millions of Korean won)	Original amount	doubtful accounts	Carrying amount	Original amount	doubtful accounts	Carrying amount		
Trade receivables	7,498,158	(111,367)	7,386,791	6,462,609	(91,015)	6,371,594		
Other receivables								
Current	534,258	(13,767)	520,491	519,330	(12,893)	506,437		
Non-current	418,939	(167)	418,772	452,444	(78)	452,366		

(b) Movements in allowance for doubtful accounts for the six-month periods ended June 30, 2019 and 2018, are as follows:

(in millions of Korean won)	Beginning Balance	Addition (reversal)	Write-off	Other	Ending Balance
Trade receivables	91,015	21,161	(3,109)	2,300	111,367
Other receivables					
Current	12,893	615	(110)	369	13,767
Non-current	78	87	-	2	167

			2018		
(in millions of Korean won)	Beginning Balance	Addition (reversal)	Write-off	Other	Ending Balance
Trade receivables	78,883	14,178	(1,778)	1,950	93,233
Other receivables					
Current	13,132	(174)	(53)	(106)	12,799
Non-current	576	1,265	-	(1)	1,840

(c) The aging analysis of trade receivables and other receivables as at June 30, 2019 and December 31, 2018, is as follows:

	June 30, 2019				December 31, 2018			
(in millions of	Trade	Other re	eceivables		Trade	Other r	eceivables	
Korean won)	receivables	Current	Non-current	Total	receivables	Current	Non-current	Total
Receivables not past due	6,609,770	512,124	411,611	7,533,505	5,535,187	492,511	439,320	6,467,018
Past due but not impaired								
Up to 6 months	646,412	6,903	5,608	658,923	715,731	11,822	11,964	739,517
7 to 12 months	71,482	472	1,679	73,633	79,800	2,487	648	82,935
Over 1 year	65,924	5,071	41	71,036	21,057	2,855	512	24,424
Subtotal	783,818	12,446	7,328	803,592	816,588	17,164	13,124	846,876
Impaired	104,570	9,688		114,258	110,834	9,655		120,489
Total	7,498,158	534,258	418,939	8,451,355	6,462,609	519,330	452,444	7,434,383

(d) There are no financial assets transferred but not derecognized in their entirety, nor any associated liabilities recognized at the end of the reporting period.

7. Other Financial Assets and Liabilities

(a) Details of other financial assets and liabilities as at June 30, 2019 and December 31, 2018, are as follows:

(in millions of Korean won)	June 30, 2019	December 31, 2018
Other financial assets		
Derivatives	6,657	8,575
Financial assets at fair value through other comprehensive income	66,938	56,070
Financial assets at fair value through profit or loss	23,279	20,099
Financial assets at amortized cost	1,729	1,729
Total	98,603	86,473
Current	3,902	8,401
Non-current	94,701	78,072
(in millions of Korean won)	June 30, 2019	December 31, 2018
Other financial liabilities		
Derivatives	128,628	92,443
Financial guarantee liability	80	167
Total	128,708	92,610
Current	10,941	3,343
Non-current	117,767	89,267

	June 30	, 2019	December 31, 2018		
(in millions of Korean won)	Assets	Assets Liabilities		Liabilities	
Current					
Currency forward	3,075	9,026	6,742	3,228	
Cross-currency swap	678	-	1,542	-	
Share purchase contract	-	1,869	-	-	
Subtotal	3,753	10,895	8,284	3,228	
Non-current					
Cross-currency swap	2,904	14,716	291	20,920	
Interest rate swap	-	103,017	-	66,433	
Share purchase contract	-	-	-	1,862	
Subtotal	2,904	117,733	291	89,215	
Total	6,657	128,628	8,575	92,443	

(b) Details of derivatives as at June 30, 2019 and December 31, 2018, are as follows:

The details of major derivative contracts at the end of the reporting period are presented in Note 32.

(c) Changes in carrying amount of financial assets at fair value through other comprehensive income for the six-month periods ended June 30, 2019 and 2018, are as follows:

	2019					
(in millions of Korean won)	At Jan. 1	Acquisition	Disposal	Valuation	Other	At Jun. 30
Listed equity securities	20,463	-	-	(864)	212	19,811
Unlisted equity securities	34,055	12,505	(10,266)	10,230	603	47,127
Debt securities	1,552	-	(1,587)	(21)	56	-
Total	56,070	12,505	(11,853)	9,345	871	66,938

			201	8		
(in millions of Korean won)	At Jan. 1	Acquisition	Disposal	Valuation	Other	At Jun. 30
Listed equity securities	13,844	-	-	1,588	-	15,432
Unlisted equity securities	21,076	3,497	(1,550)	(353)	410	23,080
Total	34,920	3,497	(1,550)	1,235	410	38,512

(d) Changes in carrying amount of financial assets at fair value through profit or loss for the sixmonth periods ended June 30, 2019 and 2018, are as follows:

	2019					
(in millions of Korean won)	At Jan. 1	Acquisition	Disposal	Valuation	Other	At Jun. 30
Unlisted equity securities	18,488	3,098	(156)	12	37	21,479
Debt securities	1,611	-	-	137	52	1,800
Total	20,099	3,098	(156)	149	89	23,279

	2018					
(in millions of Korean won)	At Jan. 1	Acquisition	Disposal	Valuation	Other	At Jun. 30
Unlisted equity securities	16,078	1,773	-	-	-	17,851

(e) Financial assets at amortized cost

 Maturity analysis of financial assets at amortized cost as at June 30, 2019 and December 31, 2018, is as follows:

(in millions of Korean won)	June 30, 2019	December 31, 2018
Within one year	117	117
One to five years	1,612	1,612
Total	1,729	1,729

ii) The amount recognized as interest income in relation to financial assets at amortized cost for the six-month period ended June 30, 2019, was ₩15 million (June 30, 2018: ₩1 million). No impairment losses were recognized in relation to financial assets at amortized cost for the six-month periods ended June 30, 2019 and 2018.

8. Inventories

Inventories as at June 30, 2019 and December 31, 2018, consist of:

	J	une 30, 2019		December 31, 2018				
(in millions of Korean won)	Cost	Valuation allowance	Carrying amount	Cost	Valuation allowance	Carrying amount		
Finished products and merchandise	3,589,398	(98,887)	3,490,511	3,411,675	(107,772)	3,303,903		
Work-in-process	403,805	(13,039)	390,766	384,261	(12,323)	371,938		
Raw materials and supplies	2,143,143	(101,003)	2,042,140	2,156,094	(71,882)	2,084,212		
Other	287,499	(31,382)	256,117	291,718	(30,415)	261,303		
Total	6,423,845	(244,311)	6,179,534	6,243,748	(222,392)	6,021,356		

9. Contract Assets and Contract Liabilities

(a) Contract assets as at June 30, 2019 and December 31, 2018, are as follows:

(in millions of Korean won)	June 30, 2019	December 31, 2018		
Due from customers	675,048	711,135		
(Less: allowance for doubtful accounts)	(11,482)	(5,898)		
Right to recover returned products	90,796	78,499		
Costs to fulfil contracts and others	209,427	201,048		
Total	963,789	984,784		
Current	727,909	763,776		
Non-current	235,880	221,008		

(b) Contract liabilities as at June 30, 2019 and December 31, 2018, are as follows:

(in millions of Korean won)	June 30, 2019	December 31, 2018		
Expected promotional incentives for customers	835,244	635,287		
Expected returns from customers	133,021	115,503		
Customer loyalty program	61,285	51,015		
Rendering of warranty services	59,164	52,104		
Due to customers and others	272,311	289,684		
Total	1,361,025	1,143,593		
Current	1,336,127	1,119,806		
Non-current	24,898	23,787		

(c) Revenue recognized in relation to contract liabilities for the six-month periods ended June 30, 2019 and 2018, is as follows:

(in millions of Korean won)	2019	2018	
Revenue recognized that was included in the contract liability amount at the beginning of the period:			
Due to customers and others	164,835	225,505	
Customer loyalty program	25,431	1,587	
Rendering of warranty services	13,909	13,509	
Total	204,175	240,601	
Revenue recognized from performance obligations satisfied in previous periods	12,205	1,902	

(d) Unsatisfied long-term contracts

At the end of the reporting period, the total amount of transaction price allocated to the unsatisfied or partially unsatisfied performance obligations is $\forall 999,761$ million where they are expected to be satisfied by 2022, at the latest. Also as a practical expedient, the Group excluded performance obligation which is a contract that has an original expected duration of one year or less.

(e) For the six-month period ended June 30, 2019, the Group recognized an impairment loss amounting to ₩ 5,027 million (June 30, 2018: ₩1,140 million) upon due from customers and a depreciation of ₩74,575 million (June 30, 2018: ₩1,298 million) upon costs to fulfil contracts.

10. Property, Plant and Equipment, and Intangible Assets

(a) Changes in property, plant and equipment for the six-month periods ended June 30, 2019 and 2018, are as follows:

(in millions of Korean won)	2019	2018	
At January 1 ¹	14,011,212	11,800,782	
Acquisitions	1,239,930	1,310,966	
Acquisitions due to business combination	222	-	
Classification to assets held for sale	(26,034)	(17)	
Disposals and others	(131,793)	(70,154)	
Depreciation	(1,021,624)	(747,701)	
Impairment	(3,341)	(14,199)	
Exchange differences	173,057	57,712	
At June 30	14,241,629	12,337,389	

¹ Property, plant and equipment as at January 1, 2019, amounting to ₩677,261 million, were newly recognized upon adoption of Korean IFRS 1116 *Leases*.

(b) Line items including depreciation in the consolidated interim statements of profit or loss for the six-month periods ended June 30, 2019 and 2018, are as follows:

(in millions of Korean won)	2019	2018	
Cost of sales	793,541	637,499	
Selling and marketing expenses	95,204	22,841	
Administrative expenses	51,789	27,862	
Research and development expenses	54,361	46,318	
Service costs	11,869	6,158	
Other non-operating expenses	14,860	7,023	
Total	1,021,624	747,701	

(c) Changes in right-of-use assets included in property, plant and equipment for the six-month period ended June 30, 2019, are as follows:

(in millions of Korean won)	2019
At January 1	707,243
Acquisitions	278,399
Disposals and others	(44,588)
Depreciation	(144,090)
Exchange differences	13,946
At June 30	810,910

The amount recognized as lease income in relation to sublease of the above right-of-use assets for the six-month period June 30, 2019, was $\forall 3,060$ million.

(d) Changes in intangible assets for the six-month periods ended June 30, 2019 and 2018, are as follows:

(in millions of Korean won)	2019	2018 1,854,620	
At January 1 ¹	2,985,830		
Acquisitions	116,399	116,530	
Acquisitions through internal development	209,469	257,047	
Acquisitions due to business combination	77	-	
Reclassification to assets held for sale	(1)	-	
Disposals and others	(27,941)	(27,902)	
Amortization	(206,457)	(196,621)	
Impairment	(118,522)	(6,328)	
Exchange differences	5,963	248	
At June 30	2,964,817	1,997,594	

¹ Intangible assets as at January 1, 2019, amounting to ₩15,325 million, were reclassified to property, plant and equipment upon adoption of Korean IFRS 1116 *Leases*.

(e) Line items including amortization of intangible assets for the six-month periods ended June 30, 2019 and 2018, are as follows:

(in millions of Korean won)	2019	2018
Cost of sales	114,690	104,298
Selling and marketing expenses	13,963	9,811
Administrative expenses	34,275	38,536
Research and development expenses	42,673	43,133
Service costs	846	843
Other non-operating expenses	10	-
Total	206,457	196,621

11. Investments in Associates and Joint Ventures

- (a) Investments in associates and joint ventures
 - i) Carrying amounts of investments in associates and joint ventures, as at June 30, 2019 and December 31, 2018, are as follows:

(in millions of Korean won)	June 30, 2019	December 31, 2018
Associates	5,207,046	5,386,252
Joint ventures	170,105	151,304
Total	5,377,151	5,537,556

ii) Investments in associates as at June 30, 2019 and December 31, 2018, are as follows:

	June 30, 2019				December 31, 2018			
(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	5,125,771	(120,841)	5,004,930	679,218	5,298,615	(107,531)	5,191,084
Ericsson-LG Co., Ltd	12,649	50,010	-	50,010	12,649	47,227	-	47,227
Hitachi-LG Data Storage Inc.(HLDS)	101,961	33,872	(1,326)	32,546	101,961	28,380	(1,198)	27,182
Korea Information Certificate Authority Inc.	1,745	5,265	-	5,265	1,745	5,200	-	5,200
LG Fuel Cell Systems Inc.	111,837	-	-	-	111,837	-	-	-
One-Red, LLC ¹	3,128	3,045	-	3,045	3,128	2,971	-	2,971
Kiwigrid GmbH ¹	13,019	8,720	-	8,720	13,019	9,880	-	9,880
CCP-LGE OWNER, LLC ¹	11,652	11,152	-	11,152	11,652	10,819	-	10,819
ROBOTIS Co., Ltd. ¹	9,000	9,209	-	9,209	9,000	9,381	-	9,381
Acryl Inc. ¹	2,000	1,845	-	1,845	1,000	894	-	894
Robostar Co.,Ltd	82,045	80,821	(497)	80,324	82,045	81,614	-	81,614
Total	1,028,254	5,329,710	(122,664)	5,207,046	1,027,254	5,494,981	(108,729)	5,386,252

¹ The financial statements as at May 31, 2019 were used due to a different closing date.

iii) Investments in joint ventures as at June 30, 2019 and December 31, 2018, are as follows:

	June 30, 2019				December 31, 2018			
(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	115,788	-	115,788	75,693	108,108	-	108,108
Arcelik-LG Klima Sanayi ve Ticaret A.S.(LGEAT)	14,718	31,117	(754)	30,363	14,718	27,348	(193)	27,155
EIC PROPERTIES PTE LTD.	9,636	15,466	-	15,466	9,636	14,882	-	14,882
LG-MRI LLC	516	932	-	932	516	1,159	-	1,159
Neolite ZKW Lightings PVT Ltd.	-	-	-	-	-	-	-	-
LG-LHT Aircraft Solutions GmbH	3,852	3,765	-	3,765	-	-	-	-
LG-LHT Passenger Solutions GmbH	3,851	3,791		3,791				
Total	108,266	170,859	(754)	170,105	100,563	151,497	(193)	151,304

(b) Associates and joint ventures

i) Associates as at June 30, 2019, 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	33.5	R&D of fuel cell
One-Red, LLC	USA	March	25.0	DVD related patent licensing
Kiwigrid GmbH ¹	Germany	December	16.3	Supply of energy management solutions
CCP-LGE OWNER, LLC ²	USA	December	70.2	Solar power plant
ROBOTIS Co., Ltd. ¹	Korea	December	8.5	Production and sales of personal robot
Acryl Inc. ¹	Korea	December	14.5	Development and sales of software
Robostar Co.,Ltd	Korea	December	30.0	Production and sales of industrial 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.

ii) Joint ventures as at June 30, 2019, 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
Neolite ZKW Lightings PVT Ltd.	India	March	26.0	Production and sales of vehicle components
LG-LHT Aircraft Solutions GmbH	Germany	December	49.0	Production and sales of aircraft components
LG-LHT Passenger Solutions GmbH	Germany	December	49.0	Production and sales of aircraft components

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 six-month periods ended June 30, 2019 and 2018, are as follows:

(in millions of Korean won)	2019	2018
Opening carrying amount	5,386,252	5,474,932
Acquisition	1,000	1,000
Loss from equity method valuation ¹	(238,366)	(146,441)
Share of other comprehensive income of associates	58,035	41,971
Dividend/ withdrawal of investment	(307)	(67,927)
Exchange differences	432	606
Changes in ownership interest over associates	-	199
Closing carrying amount	5,207,046	5,304,340

¹ The Group recognized additional loss from equity method valuation of ₩1,635 million for loans provided to Hitachi-LG Data Storage Inc. for the six-month period ended June 30, 2018.

ii) Changes in the carrying amounts of investments in joint ventures for the six-month periods ended June 30, 2019 and 2018, are as follows:

(in millions of Korean won)	2019	2018
Opening carrying amount	151,304	145,399
Acquisition	7,703	-
Gain from equity method valuation	8,470	11,165
Share of other comprehensive income of joint ventures	2,938	4,801
Dividend / withdrawal of investment	(337)	(321)
Exchange differences	27	35
Closing carrying amount	170,105	161,079

- (d) Summarized financial information of the associates that are material to the reporting entity as at June 30, 2019 and December 31, 2018, and for the three-month and six-month periods ended June 30, 2019 and 2018, is as follows:
 - LG Display Co., Ltd. and its subsidiaries

June 30, 2019	December 31, 2018
8,989,170	8,800,127
26,684,692	24,375,583
35,673,862	33,175,710
10,293,431	9,954,483
10,651,873	8,334,981
20,945,304	18,289,464
13,523,181	13,979,188
1,205,377	907,058
14,728,558	14,886,246
	8,989,170 26,684,692 35,673,862 10,293,431 10,651,873 20,945,304 13,523,181 1,205,377

	201	9	2018	
(in millions of Korean won)	Three months	Six months	Three months	Six months
Net sales	5,353,410	11,232,191	5,611,248	11,286,412
Loss for the period Attributable to the owners of LG Display Co., Ltd.	(550,180)	(612,820)	(300,543)	(349,525)
Loss for the period	(548,377)	(609,310)	(297,385)	(356,839)
Other comprehensive income, net of tax	588	153,303	8,693	110,851
Total comprehensive loss, net of tax	(547,789)	(456,007)	(288,692)	(245,988)

There are no dividends received from LG Display Co., Ltd. for the six-month period ended June 30, 2019 (June 30, 2018: ₩67,813 million).

- (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 six-month periods ended June 30, 2019 and 2018, are as follows:
 - LG Display Co., Ltd. and its subsidiaries

(in millions of Korean won)	2019	2018
Opening equity attributable to owners of LG Display Co., Ltd.	13,979,188	14,373,482
Loss for the period	(609,310)	(356,839)
Other comprehensive income, net of tax	153,303	110,851
Dividends	-	(178,908)
Closing equity attributable to owners of LG Display Co., Ltd.	13,523,181	13,948,586
Group ownership (%)	37.9	37.9
The Group's share at the end of the reporting period	5,125,771	5,287,015
Unrealized gain	(120,841)	(98,722)
Carrying amount at the end of the reporting period	5,004,930	5,188,293

(f) The Group's share in the operating results of the individually insignificant associates and joint ventures for the three-month and six-month periods ended June 30, 2019 and 2018, is as follows:

	2019				
	Assoc	iates	Joint ve	ntures	
(in millions of Korean won)	Three months	Six months	Three months	Six months	
Profit for the period	4,765	6,581	6,207	9,039	
Other comprehensive income (loss), net of tax	(356)	(121)	(478)	2,931	
Total comprehensive income, net of tax	4,409	6,460	5,729	11,970	

	2018				
	Assoc	iates	Joint ve	entures	
(in millions of Korean won)	Three months	Six months	Three months	Six months	
Profit (loss) for the period	780	(1,392)	9,024	11,430	
Other comprehensive income (loss), net of tax	2,108	(18)	(1,961)	4,804	
Total comprehensive income (loss), net of tax	2,888	(1,410)	7,063	16,234	

(g) There are no accumulated unrecognized changes in equity due to discontinued use of the equity method as at June 30, 2019 and December 31, 2018.

(h) Details of marketable investments in associates as at June 30, 2019 and December 31, 2018, are as follows:

	June 30, 2019				
	Туре	Shares held <u>(Unit: shares)</u>	Price per share (Unit: Korean won)	Fair value <i>(in millions</i>	Book amount of Korean won)
LG Display Co., Ltd.	Associate	135,625,000	17,850	2,420,906	5,004,930
Korea Information Certificate Authority Inc.	Associate	2,010,247	3,845	7,729	5,265
Robostar Co.,Ltd	Associate	2,927,735	23,500	68,802	80,324
ROBOTIS Co.,Ltd.	Associate	961,550	16,750	16,106	9,209

	December 31, 2018				
	Туре	Shares held (Unit: shares)	Price per share (Unit: Korean won)	Fair value _ <i>(in million</i> s	Book amount of Korean won)
LG Display Co., Ltd.	Associate	135,625,000	18,050	2,448,031	5,191,084
Korea Information Certificate Authority Inc.	Associate	2,010,247	3,775	7,589	5,200
Robostar Co.,Ltd	Associate	2,927,735	24,000	70,266	81,614
ROBOTIS Co.,Ltd.	Associate	961,550	17,200	16,539	9,381

12. Borrowings

(a) The carrying amounts of borrowings as at June 30, 2019 and December 31, 2018, are as follows:

(in millions of Korean won)	June 30, 2019	December 31, 2018	
Current			
Short-term borrowings	357,372	293,221	
Current portion of long-term borrowings	298,167	128,760	
Current portion of debentures	809,633	983,135	
Subtotal	1,465,172	1,405,116	
Non-current			
Long-term borrowings	4,142,841	4,241,936	
Debentures	5,250,037	5,254,134	
Subtotal	9,392,878	9,496,070	
Total	10,858,050	10,901,186	

(b) Details of borrowings as at June 30, 2019 and December 31, 2018, are as follows:

	Annual interest		Carrying	amount
	Latest	rate at June 30,		December 31,
(in millions of Korean won)	maturity date	2019(%)	June 30, 2019	2018
Short-term borrowings				
in local currency Standard Chartered Bank				
Korea and others	-	2.27	49,943	17,800
Short-term borrowings				
in foreign currency				
Citibank and others	-	0.66 ~ 5.98	307,429	275,421
Long-term borrowings				
in local currency				
Korea Development Bank and others	2030, 8, 1	2.21 ~ 4.00	2,972,953	2,978,493
Long-term borrowings in			_,,	_,,
foreign currency				
KEB Hana Bank and others	2030. 8. 1	0.11 ~ 12.12	1,468,055	1,392,203
Local currency debentures				
Public, non-guaranteed bonds	2034. 2.21	1.48 ~ 4.44	4,390,000	4,400,000
Private, non-guaranteed bonds	2038. 4. 3	1.95 ~ 4.21	1,170,000	1,130,000
Foreign currency debentures				
Private, non-guaranteed bonds	2028. 6. 8	3.18 ~ 3.93	381,744	368,973
Private, guaranteed bonds	2023. 2.24	0.37	131,511	351,536
Less: discount on debentures			(13,585)	(13,240)
Total			10,858,050	10,901,186

The Group entered into interest rate swap and cross-currency swap contracts to hedge cash flow risk related to foreign exchange rate and floating interest rate of some portion of borrowings (Note 32).

13. Lease liabilities

(a) Details of lease liabilities as at June 30, 2019 and January 1, 2019, are as follows:

(in millions of Korean won)	June 30, 2019	January 1, 2019	
Lease liabilities			
Current	236,964	177,456	
Non-current	463,205	445,003	
Total	700,169	622,459	

(b) The statement of profit or loss shows the following amounts relating to leases:

(in millions of Korean won)	2019
Interest expense relating on lease liabilities	11,413
Short term lease payments (included in cost of sales, selling and marketing expenses, administrative expenses, and others)	91,080
Payments for leases of low-value assets that are not short-term leases (included in cost of sales, selling and marketing	11,170
expenses, administrative expenses, and others)	

Total expenses for leases including short-term leases and leases of low-value assets are $\forall 264,402 \text{ million}.$

14. Post-employment Benefits

Defined Benefit Plan

(a) The amounts of net defined benefit liabilities as at June 30, 2019 and December 31, 2018, are as follows:

(in millions of Korean won)	June 30, 2019	December 31, 2018	
Present value of funded obligations	3,430,494	3,170,154	
Present value of unfunded obligations	51,387	45,705	
Subtotal	3,481,881	3,215,859	
Fair value of plan assets	(2,732,000)	(2,818,190)	
Net defined benefit liabilities ¹	749,881	397,669	

¹ Net defined benefit assets are included.

(b) The amounts recognized in the consolidated interim statements of profit or loss for the sixmonth periods ended June 30, 2019 and 2018, are as follows:

(in millions of Korean won)	2019	2018
Current service cost	185,331	170,891
Past service cost	(11,847)	(118)
Net interest cost	5,461	5,173
Operating management cost	1,576	1,558
Total	180,521	177,504

(c) Line items in which expenses are included for the six-month periods ended June 30, 2019 and 2018, are as follows:

(in millions of Korean won)	2019	2018
Cost of sales	86,006	92,476
Selling and marketing expenses	29,620	28,103
Administrative expenses	13,565	12,403
Research and development expenses	44,218	41,131
Service costs	7,112	3,391
Total	180,521	177,504

(d) Movements in the present value of defined benefit obligations for the six-month periods ended June 30, 2019 and 2018, are as follows:

(in millions of Korean won)	2019	2018
At January 1	3,215,859	2,917,271
Current service cost	185,331	170,891
Past service cost	(11,847)	(118)
Interest expense	40,708	43,433
Remeasurements for:		
 Actuarial loss from change in demographic assumptions 	95,591	-
 Actuarial loss (gain) arising from changes in financial assumptions 	103,225	(7,755)
Benefits paid	(127,912)	(116,760)
Reduction due to settlement of plan	(22,050)	-
Reclassification to liabilities held for sale	-	(463)
Others ¹	2,976	977
At June 30	3,481,881	3,007,476

¹ The effects of exchange rate changes are included.

(e) Movements in the fair value of plan assets for the six-month periods ended June 30, 2019 and 2018, are as follows:

(in millions of Korean won)	2019	2018
At January 1	2,818,190	2,591,256
Interest income	35,247	38,260
Remeasurements of plan assets	(5,436)	(14,673)
Employer contributions	5,034	6,934
Benefits paid	(98,471)	(95,235)
Reduction due to settlement of plan	(21,447)	-
Operating management cost	(1,576)	(1,558)
Reclassification to liabilities held for sale	-	(461)
Others ¹	459	(253)
At June 30	2,732,000	2,524,270

¹ The effects of exchange rate changes are included.

(f) The significant actuarial assumptions used as at June 30, 2019 and December 31, 2018, are as follows:

	June 30, 2019	December 31, 2018
Weighted average discount rate of the Group	2.3%	2.6%
Weighted average expected salary growth rate of the Group	4.9%	4.9%

As at June 30, 2019, the discount rates applied to the Parent Company and subsidiaries are between 0.3%~10.2% (December 31, 2018: 0.3%~10.2%), and the expected salary growth rates are between 1.0%~10.0% (December 31, 2018: 1.0%~10.0%).

(g) The sensitivity analysis of the defined benefit obligation to changes in principal assumptions as at June 30, 2019, is as follows:

(in millions of Korean won)	1%p increase	1%p decrease
Discount rate	(287,465)	331,788
Expected salary growth rate	316,685	(289,145)

The above sensitivity analysis is 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.

Defined Contribution Plan

The expense recognized in the six-month period ended June 30, 2019 in relation to the defined contribution plan was $\forall 10,648$ million (June 30, 2018: $\forall 7,805$ million).

15. Provisions

(a) Changes in provisions for the six-month periods ended June 30, 2019 and 2018, are as follows:

	2019			
-			Litigation and	
(in millions of Korean won)	Warranty	Restoration	others	Total
At January 1 ¹	740,839	39,013	235,129	1,014,981
Additional provisions, net ²	362,666	1,853	10,687	375,206
Utilization	(353,514)	(675)	(24,483)	(378,672)
Exchange differences	12,647	457	5,486	18,590
At June 30	762,638	40,648	226,819	1,030,105
Current	668,280	18,945	9,071	696,296
Non-current	94,358	21,703	217,748	333,809

2018				
Litigation and				
Warranty	Restoration	others	Total	
652,343	34,133	224,690	911,166	
387,630	6,595	16,735	410,960	
(372,665)	(2,755)	(13,287)	(388,707)	
1,578	278	(5,941)	(4,085)	
668,886	38,251	222,197	929,334	
591,602	11,035	2,142	604,779	
77,284	27,216	220,055	324,555	
	652,343 387,630 (372,665) 1,578 668,886 591,602	Warranty Restoration 652,343 34,133 387,630 6,595 (372,665) (2,755) 1,578 278 668,886 38,251 591,602 11,035	Warranty Restoration Litigation and others 652,343 34,133 224,690 387,630 6,595 16,735 (372,665) (2,755) (13,287) 1,578 278 (5,941) 668,886 38,251 222,197 591,602 11,035 2,142	

¹ Provision for "litigation and others" as at January 1, 2019, amounting to ₩1,374 million, was reclassified to lease assets upon adoption of Korean IFRS 1116 *Lease*.

² Net amount of additional provisions equals to additional provisions less reversed amounts.

16. Paid-in Capital

(a) At the end of the reporting period, the number of shares authorized is 600 million.

		June 3	80, 2019	December 31, 2018		
	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 at June 30, 2019, 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 right and warrants 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.

17. Retained Earnings

Retained earnings as at June 30, 2019 and December 31, 2018, consist of:

(in millions of Korean won)	June 30, 2019	December 31, 2018	
Legal reserve ¹	195,936	182,342	
Discretionary reserve	5,128,767	5,347,641	
Unappropriated retained earnings ²	7,122,299	6,545,431	
Total	12,447,002	12,075,414	

¹ The 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.

² Dividend for the year ended December 31, 2018 of ₩135,909 million was approved at the annual general meeting held on March 15, 2019, and paid in April 2019 (2018 payments: ₩72,885 million).

18. Accumulated Other Comprehensive Loss

Accumulated other comprehensive loss as at June 30, 2019 and December 31, 2018, consists of:

(in millions of Korean won)	June 30, 2019	December 31, 2018
Share of accumulated other comprehensive loss of associates and joint ventures	(139,595)	(204,769)
Cash flow hedge	(95,950)	(61,887)
Financial assets at fair value through other comprehensive income	138	(8,400)
Exchange difference on translation of foreign operations	(966,961)	(1,329,674)
Total	(1,202,368)	(1,604,730)

19. Other Components of Equity

Other components of equity as at June 30, 2019 and December 31, 2018, consist of:

(in millions of Korean won)	June 30, 2019	December 31, 2018	
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)	(176,945)	
Total	(209,764)	(209,764)	

¹ The Parent Company has treasury shares consisting of 763,172 ordinary shares (December 31, 2018: 763,172 shares) and 4,692 preferred shares (December 31, 2018: 4,692 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 sell them in the future.

20. Net Sales

(a) Details of net sales for three-month and six-month periods ended June 30, 2019 and 2018, are as follows:

	201	19	2018		
(in millions of Korean won) Revenue from contracts with customers:	Three months	Six months	Three months	Six months	
Sales of goods	15,186,514	29,708,278	14,677,764	29,460,617	
Rendering of services	284,878	544,383	250,858	503,855	
Royalty income	46,986	77,341	17,581	36,769	
Sub-total	15,518,378	30,330,002	14,946,203	30,001,241	
Revenue from other sources:					
Rental income and others ¹	110,886	214,326	73,108	141,111	
Total	15,629,264	30,544,328	15,019,311	30,142,352	

(b) Details of revenue from contracts with customers for the six-month periods ended June 30, 2019 and 2018, are as follows:

					2019				
(in millions of Korean won)	H&A	HE	МС	VS	BS	Innotek	Other segments	Inter- segment transactions	Total
Revenue from contracts with customers:									
External sales	11,340,745	7,682,052	3,120,563	2,769,497	1,299,541	2,564,418	1,553,186	-	30,330,002
Internal sales	20,826	5,130	1,668	36	376	326,328	131,755	(486,119)	
	11,361,571	7,687,182	3,122,231	2,769,533	1,299,917	2,890,746	1,684,941	(486,119)	30,330,002
By type of products: Refrigerators/									
washing machine/ air conditioners and others	9,725,492	-	-	-	-	-	-	(4,164)	9,721,328
TV/monitor /PC and others Mobile	-	7,097,013	-	-	-	-	-	(5,103)	7,091,910
communications	-	-	3,122,231	-	-	-	-	(1,668)	3,120,563
In-vehicle infotainment	-	-	-	1,604,018	-	-	-	(36)	1,603,982
Information display	-	-	-	-	783,078	-	-	(377)	782,701
Camera modules	-	-	-	-	-	1,496,120	-	(131,098)	1,365,022
Others	1,636,079	590,169	-	1,165,515	516,839	1,394,626	1,684,941	(343,673)	6,644,496
By major geographical market ¹ :									
Korea	4,098,264	1,237,534	772,848	476,917	155,653	2,712,596	1,651,612	(455,113)	10,650,311
North America	2,468,225	1,690,531	1,809,839	566,367	486,776	3,307	-	(144)	7,024,901
Asia	2,125,071	980,866	87,670	112,625	239,178	18,193	2	(15,081)	3,548,524
Europe	699,106	1,753,198	96,898	1,321,269	303,999	13,837	-	(311)	4,187,996
South America	438,873	980,333	308,737	33,924	49,618	-	2	(4)	1,811,483
Middle East & Africa	666,654	532,426	16,003	290	37,540	-	1	(73)	1,252,841
China	548,978	166,870	28,829	258,141	17,830	142,813	33,324	(15,391)	1,181,394
Russia and others	316,400	345,424	1,407	-	9,323	-	-	(2)	672,552
Timing of transfer: Transferred at a point in time	11,168,883	7,631,538	3,061,219	2,701,858	1,288,531	2,890,746	571,930	(376,035)	28,938,670
Transferred over time	192,688	55,644	61,012	67,675	11,386	-	1,113,011	(110,084)	1,391,332

					2018				
(in millions of Korean won)	H&A	HE	МС	VS	BS	Innotek	Other segments	Inter- segment transactions	Total
Revenue from contracts with customers:									
External sales	10,024,826	7,975,028	4,181,547	1,712,403	1,227,884	2,860,075	2,019,478	-	30,001,241
Internal sales	20,749	5,074	312	-	1,916	378,057	304,457	(710,565)	-
	10,045,575	7,980,102	4,181,859	1,712,403	1,229,800	3,238,132	2,323,935	(710,565)	30,001,241
By type of products:									
Refrigerators/ washing machine/ air conditioners and others	8,513,394	-	-	-	-	-	-	(5,894)	8,507,500
TV/monitor /PC and others	-	7,294,544	-	-	-	-	-	(4,978)	7,289,566
Mobile communications	-	-	4,181,859	-	-	-	-	(289)	4,181,570
In-vehicle infotainment	-	-	-	1,415,700	-	-	-	-	1,415,700
Information display	-	-	-	-	769,340	-	-	(1,852)	767,488
Camera modules	-	-	-	-	-	1,827,932	-	(132,622)	1,695,310
Others	1,532,181	685,558	-	296,703	460,460	1,410,200	2,323,935	(564,930)	6,144,107
By major geographical market ¹ :									
Korea	3,467,913	1,220,294	841,641	465,799	191,645	2,933,080	2,281,294	(688,662)	10,713,004
North America	2,289,152	1,558,281	2,304,866	459,538	455,469	10,671	149	(245)	7,077,881
Asia	1,812,317	960,451	210,091	184,617	198,737	17,760	10	(8,787)	3,375,196
Europe	598,223	1,850,315	290,783	430,092	246,076	10,778	-	(5,792)	3,420,475
South America	421,684	1,200,181	388,898	25,475	43,122	-	325	(7)	2,079,678
Middle East & Africa	618,916	652,201	73,589	1	54,099	-	-	(65)	1,398,741
China	540,506	180,403	45,050	146,881	26,075	265,843	42,157	(7,006)	1,239,909
Russia and others	296,864	357,976	26,941	-	14,577	-	-	(1)	696,357
Timing of transfer: Transferred at a point in time	9,835,819	7,922,317	4,137,604	1,705,033	1,221,597	3,238,132	751,351	(442,019)	28,369,834
Transferred over time	209,756	57,785	44,255	7,370	8,203	-	1,572,584	(268,546)	1,631,407

¹ Sales by major geographical market are the sales by region in which the Group is located.

(c) Changes in the estimates of total contract revenue and total contract costs

The estimated total contract revenue and costs for contracts in progress have changed during the six-month period ended in June 30, 2019. Details of changes in estimated total contract revenue and costs and the impact on profit or loss for the six-month period ended June 30, 2019 and the succeeding period are as follows:

(in millions of Korean won)	Changes in estimated total contract revenue	Changes in estimated total contract cost	Impact on profit or loss for the period	Impact on profit or loss for the succeeding period
VS segment	29,348	24,448	433	4,467
Other segments	40,970	41,350	(6,268)	5,888
Total	70,318	65,798	(5,835)	10,355

21. Expenses by Nature

Expenses that are recorded by nature for the three-month and six-month periods ended June 30, 2019 and 2018, consist of:

	2019		2018		
(in millions of Korean won)	Three months	Six months	Three months	Six months	
Changes in finished goods and work-in-process	(80,100)	(227,446)	138,174	202,260	
Raw materials and merchandise used	9,218,773	18,203,109	8,782,316	17,911,915	
Employee benefit expense	2,015,693	3,855,175	1,733,790	3,368,387	
Depreciation and amortization	611,897	1,213,869	467,079	937,957	
Advertising expense	344,538	510,934	353,330	580,642	
Promotion expense	216,335	371,297	224,613	359,046	
Freight expense	440,988	859,674	383,248	742,045	
Commission expense	899,444	1,711,834	794,006	1,513,986	
Other expenses	1,309,459	2,493,006	1,371,786	2,647,328	
Total ¹	14,977,027	28,991,452	14,248,342	28,263,566	

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

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

Details of general operating expenses for the three-month and six-month periods ended June 30, 2019 and 2018, are as follows:

	201	9	2018		
(in millions of Korean won)	Three months	Six months	Three months	Six months	
Salaries	838,491	1,577,868	749,037	1,431,267	
Post-employment benefits	49,365	99,847	43,265	88,817	
Employee benefits	185,692	334,194	160,341	306,044	
Freight expense	433,470	845,050	379,481	735,232	
Rental expense	39,657	79,368	90,175	186,078	
Commission expense	634,074	1,212,062	579,872	1,087,028	
Depreciation	107,722	213,881	55,317	103,837	
Amortization	46,395	91,757	46,189	92,323	
Taxes and dues	18,515	43,944	32,361	67,450	
Advertising expense	344,538	510,934	353,330	580,642	
Promotional expense	216,335	371,297	224,613	359,046	
R&D expense	101,207	159,874	86,016	143,772	
Direct service costs	121,094	278,154	163,335	315,745	
Bad debts expense	25,692	26,188	18,617	16,704	
Other	141,849	304,056	164,941	334,730	
Total	3,304,096	6,148,474	3,146,890	5,848,715	

23. Financial Income

Financial income for the three-month and six-month periods ended June 30, 2019 and 2018, consists of:

	201	19	2018		
(in millions of Korean won)	Three months	Six months	Three months	Six months	
Interest income	35,125	68,951	26,422	50,858	
Exchange differences	31,815	135,081	95,030	203,215	
Gain on derivatives	1,149	4,676	1,154	2,216	
Other			9	9	
Total	68,089	208,708	122,615	256,298	

24. Financial Expenses

Financial expenses for the three-month and six-month periods ended June 30, 2019 and 2018, consist of:

	201	19	2018		
(in millions of Korean won)	Three months	Six months	Three months	Six months	
Interest expense	103,296	205,615	99,912	192,884	
Exchange differences	34,552	139,711	79,449	193,336	
Loss on derivatives	4,474	9,761	1,601	3,367	
Loss on disposal of trade receivables	4,317	9,193	4,353	9,179	
Other	914	2,028	721	1,468	
Total	147,553	366,308	186,036	400,234	

25. Other Non-operating Income

Other non-operating income for the three-month and six-month periods ended June 30, 2019 and 2018, consists of:

	2019		2018		
(in millions of Korean won)	Three months	Six months	Three months	Six months	
Dividend income	274	535	10	202	
Exchange differences	275,097	569,657	415,303	681,651	
Gain on derivatives	5,581	16,871	27,661	35,593	
Gain on disposal of property, plant and equipment	5,088	8,711	12,294	17,364	
Gain on disposal of assets held for sale	-	-	25,012	25,238	
Gain on valuation of financial assets at fair value through profit or loss	(48)	149	-	-	
Gain on disposal of financial assets at fair value through other comprehensive income	32	32	-	-	
Gain on disposal of investments in associates and joint ventures	-	-	199	199	
Other	9,885	20,086	7,653	13,950	
Total	295,909	616,041	488,132	774,197	

26. Other Non-operating Expenses

Other non-operating expenses for the three-month and six-month periods ended June 30, 2019 and 2018, consist of:

	2019		2018		
(in millions of Korean won)	Three months	Six months	Three months	Six months	
Exchange differences	272,328	567,421	491,547	760,714	
Loss on derivatives	16,493	27,319	11,120	17,796	
Loss on disposal of property, plant and equipment	13,817	34,000	10,373	18,810	
Impairment loss on property, plant and equipment	1,871	3,417	2,623	14,215	
Loss on disposal of intangible assets	7,399	14,625	7,362	14,647	
Impairment loss on intangible assets	99,246	118,522	3,860	6,328	
Loss on disposal of financial assets at fair value through other comprehensive income	238	238	-	-	
Other	23,498	34,381	14,634	25,463	
Total	434,890	799,923	541,519	857,973	

27. 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 three-month and six-month periods ended June 30, 2019 and 2018, is as follows:

	201	9	2018		
	Three months	Six months	Three months	Six months	
Profit attributable to ordinary shares (in millions of Korean won)	82,710	598,919	256,074	904,183	
Weighted average number of ordinary shares outstanding (unit: shares)	162,884,642	162,884,642	162,884,642	162,884,642	
Basic earnings per ordinary share (in Korean won)	508	3,677	1,572	5,551	

(b) Basic earnings per preferred share for the three-month and six-month periods ended June 30, 2019 and 2018, is as follows:

	201	9	2018		
	Three months	Six months	Three months	Six months	
Profit attributable to preferred shares (in millions of Korean won)	8,939	63,604	27,226	95,804	
Weighted average number of preferred shares outstanding <i>(unit: shares)</i>	17,181,300	17,181,300	17,181,300	17,181,300	
Basic earnings per preferred share (in Korean won)	520	3,702	1,585	5,576	

28. Cash Flow Information

Cash flows from operating activities are prepared using the indirect method. Details of cash generated from operations for the six-month periods ended June 30, 2019 and 2018, are as follows:

(a) Cash generated from operations

(in millions of Korean won)	2019	2018
Profit for the period	683,978	1,056,357
Adjustments:		
Interest expense, net	136,664	142,026
Exchange differences, net	(15,165)	43,349
Loss (gain) on derivatives, net	15,533	(16,646)
Depreciation	1,021,624	747,701
Amortization	206,457	196,621
Loss on disposal of property, plant and equipment and intangible assets, net	39,912	16,043
Provisions for severance benefits	180,521	177,504
Additional provisions, net	375,206	410,960
Income tax expense	297,520	461,076
Gain from equity method valuation	229,896	133,641
Other	277,573	94,520
	2,765,741	2,406,795
Changes in operating assets and liabilities		
Decrease (increase) in trade receivables	(770,895)	886,604
Decrease in other receivables	62,166	54,951
Increase in inventories	(28,797)	(66,421)
Decrease (increase) in contract assets	32,548	(125,344)
Decrease (increase) in other assets	(242,390)	44,329
Decrease in trade payables	(1,847)	(928,220)
Decrease in other payables	(770,153)	(409,909)
Decrease in provisions	(378,672)	(403,221)
Increase in contract liabilities	188,563	97,363
Increase (decrease) in other liabilities	152,028	(290,673)

(in millions of Korean won)	2019	2018
Payment of defined benefit liability	(30,044)	(21,525)
Deposit in plan assets, net	(33,269)	(28,963)
	(1,820,762)	(1,191,029)
Cash generated from operations	1,628,957	2,272,123

(b) Changes in liabilities from financing activities

				2019			
		Non-cash transactions					
		Net cash flow		Exchange		Effects of	
(in millions of		from financing	Addition and	differences	Amortization	exchange rate	
Korean won)	At Jan.1	activities	others	(profit/loss)	and others	changes	At Jun.30
Short-term borrowings	293,221	10,888	-	16,002	-	37,261	357,372
Long-term borrowings	4,370,696	36,418	-	(4,261)	34	38,121	4,441,008
Debentures	6,237,269	(194,985)	-	15,415	1,971	-	6,059,670
Lease liabilities	622,459	(150,906)	226,301	50	167	2,098	700,169
Total	11,523,645	(298,585)	226,301	27,206	2,172	77,480	11,558,219

			20	18		
			Non-cash transactions			
(in millions of		Net cash flow from financing	Exchange differences	• • •	Effects of exchange rate	
Korean won)	At Jan.1	activities	(profit/loss)	Amortization	changes	At Jun. 30
Short-term borrowings	314,246	111,338	1,988	-	(17,899)	409,673
Long-term borrowings	3,221,266	428,723	11,162	33	1,161	3,662,345
Debentures	5,914,968	672,821	28,663	2,148		6,618,600
Total	9,450,480	1,212,882	41,813	2,181	(16,738)	10,690,618

(c) Significant non-cash transactions

(in millions of Korean won)	2019	2018
Reclassification of construction-in-progress to property, plant and equipment	401,931	521,423
Reclassification of construction-in-progress to intangible assets	202,482	151,175
Reclassification of current portion of borrowings and debentures	810,400	870,034
Other payables to acquire property, plant and equipment	279,901	435,861
Other payables to acquire intangible assets	13,111	11,494

- (d) Assets and liabilities arising from the transfer of business
 - Transfer of Membrane business
 - i) On December 17, 2018, Membrane business was transferred to LG Chem Ltd.
 - 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	3,488
Other receivables ¹	529
Assets of the transferred business:	
Inventories	2,175
Property, plant and equipment	3,680
Intangible assets	183
Other assets	75
Liabilities of the transferred business:	
Other payables	510
Provisions	80
Other liabilities	399

¹ Collected during the three-month period ended March 31, 2019.

- Transfer of OLED T-Con chip design business
- On July 1, 2018, OLED T-Con chip design business was transferred to Silicon Works Co., Ltd.
- 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	46,130
Assets of the transferred business:	
Trade receivables	7,880
Inventories	2,508
Property, plant and equipment	9
Liabilities of the transferred business:	
Trade payables	2,592
Contract liabilities	452
Other liabilities	12

29. Contingencies

(a) At the end of the reporting period, borrowings are collateralized by a certain portion of property, plant and equipment (land and buildings) with the secured amount of \forall 208,272 million (December 31, 2018: \forall 192,350 million) and the book amount of pledged assets is \forall 284,727 million (December 31, 2018: \forall 226,310 million). In addition, the Group provided buildings to Shinhan Bank, which are also provided with land as collateral, in order to guarantee obligations of landlords with the secured amount of \forall 7,680 million (December 31, 2018: \forall 6,480 million) and the book amount of pledged assets is \forall 1,752 million (December 31, 2018: \forall 1,743 million). Furthermore, financial assets at fair value through profit or loss amounting to \forall 1,717 million (December 31, 2018: \forall 1,717 million) of certain subsidiaries are also provided as collateral.

(b) At the end of the reporting period, the Parent Company and domestic subsidiaries are provided with performance guarantees of ₩328,819 million (December 31, 2018: ₩355,761 million) from Seoul Guarantee Insurance and others relating to the performance guarantees. The Parent Company is provided with guarantee of principal amounting to EUR 100 million (December 31, 2018: USD 200 million, EUR 100 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 subrogation payment obligation for customers up to ₩46,000 million (December 31, 2018: ₩46,000 million). Also, subsidiaries provide joint performance guarantee amounting to ₩6,313 million (December 31, 2018: ₩32,862 million), and payment guarantee for Hitachi-LG Data Storage Inc.(HLDS) amounting to USD 7.5 million (December 31, 2018: USD 7.5 million).

(d) 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.

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.

30. 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, 2018: \forall 165,500 million).

In addition, LG Innotek Co., Ltd. has overdraft facility agreements with various banks, including Shinhan Bank, with a limit of $\forall 27,000$ million (December 31, 2018: $\forall 27,000$ million). The total limit of overdrafts and comprehensive limits provided by financial institutions to the overseas subsidiaries of LG Innotek Co., Ltd. is $\forall 373,893$ million (December 31, 2018: $\forall 389,791$ million).

Other subsidiaries have overdraft facility agreements with a limit of \forall 1,391,464 million (December 31, 2018: \forall 1,387,534 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 $\forall 2,099,592$ million (December 31, 2018: $\forall 1,926,486$ million) and has sales agreements for domestic trade receivables with MUFG Bank and one other bank amounting to $\forall 900,000$ million (December 31, 2018: $\forall 690,000$ million).

In addition, LG Innotek Co., Ltd. has trade receivables transfer agreements with various banks, including ING Bank, amounting to $\forall 734,568$ million (December 31, 2018: $\forall 709,994$ 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 USD 627 million (December 31, 2018: USD 768 million), and have sales agreements for trade receivables with a limit of USD 400 million (December 31, 2018: USD 400 million) with MUFG Bank. 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 W81,000 million (December 31, 2018: W81,000 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 \forall 1,160,000 million (December 31, 2018: \forall 1,160,000 million) in connection with the payment of trade payables.

In addition, LG Innotek Co., Ltd., a subsidiary, has corporate electronic settlement services contracts and vendor prepayment services contracts with Shinhan Bank and others for up to \forall 204,000 million (December 31, 2018: \forall 204,000 million) in connection with the payment of trade payables, where under the contracts the vendors of LG Innotek Co., Ltd. can transfer their receivables to these banks.

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 \forall 68,900 million limit (December 31, 2018: \forall 69,900 million) in connection with the payment of trade payables.

(d) At the end of the reporting period, other subsidiaries have commercial paper agreements with Shinhan Bank and others for $\forall 30,000$ million (December 31, 2018: $\forall 40,000$ 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 $\forall 3,536,201$ million (December 31, 2018: $\forall 3,663,920$ million).

(f) Contractual commitments for the acquisition of assets

Assets contracted for, but not yet acquired at the end of the reporting period, are as follows:

(in millions of Korean won)	June 30, 2019	December 31, 2018
Property, plant and equipment	203,615	228,841
Intangible assets	44,411	52,632
Investments in associates and joint ventures	101,771	9,863
Total	349,797	291,336

(g) Operating lease commitments - the Group as a lessor

 The Group has non-cancellable operating lease agreements regarding healthcare rental business that lends water purifiers and others 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:

	June 30, 2019					
(in millions of Karaan wan)	Within 4 year	Within 2	Within 3	Within 4	Over 4	Total lease
(in millions of Korean won)	Within 1 year	years	years	years	years	payments
Healthcare rental	486,779	400,565	235,472	45,721	-	1,168,537
Real estate rental	931	760	731	608	-	3,030
Total	487,710	401,325	236,203	46,329		1,171,567

ii) The Group recognized ₩200,440 million (June 30, 2018: ₩128,220 million) in lease income for the six-month period ended June 30, 2019.

(h) 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
31. Related Party

(a) Major transactions for the six-month periods ended June 30, 2019 and 2018, and balances of receivables and payables from transaction with related parties as at June 30, 2019 and December 31, 2018, are as follows:

i) Major income and expense transactions with related parties

(in millions of Ko	rean won)			20	19		
		Inco	me transactio	ns	Expe	nse transacti	ons
Classification	Name	Sales	Others	Total	Purchases	Others	Total
Significantly influencing the Group	LG Corp.	699	-	699	437	79,923	80,360
Associates	LG Display Co., Ltd. and its subsidiaries	713,052	44,687	757,739	1,803,045	3,569	1,806,614
	Ericsson-LG Co., Ltd. and its subsidiaries	106	-	106	-	-	-
	Hitachi-LG Data Storage Inc. and its subsidiaries	1,071	-	1,071	46,095	247	46,342
	LG Fuel Cell Systems Inc. and its subsidiaries	295	510	805	-	69	69
	Korea Information Certificate Authority Inc.	-	-	-	-	42	42
	Acryl Inc.	-	-	-	-	374	374
	Kiwigrid GmbH	-	-	-	-	448	448
	ROBOTIS Co., Ltd.	-	-	-	-	34	34
	Robostar Co.,Ltd	3	-	3	22,972	3,321	26,293
	Subtotal	714,527	45,197	759,724	1,872,112	8,104	1,880,216
Joint ventures	Arcelik-LG Klima Sanayi ve Ticaret A.S.(LGEAT) LG Holdings (HK) Ltd. and its	20,660		20,660	52,710	·	52,710
	subsidiaries	-	-	-	-	1,078	1,078
	EIC PROPERTIES PTE LTD.	-	-	-	-	400	400
	LG-MRI LLC	1,164		1,164	13,275		13,275
	Subtotal	21,824	-	21,824	65,985	1,478	67,463
Other related parties	LG CNS Co., Ltd. and its subsidiaries	82,634	1	82,635	57,820	177,934	235,754
	S&I Corp. and its subsidiaries ²	25,175	4,305	29,480	369,411	136,615	506,026
	LG Management Development Institute	1	-	1	5	15,038	15,043
	LG SPORTS Ltd.	8	-	8	-	6,832	6,832
	LG MMA Ltd.	3	-	3	51	-	51
	LG Holdings Japan Co., Ltd.	9	-	9	-	1,720	1,720
	LG Corp. U.S.A.	721	-	721	-	-	-
	Subtotal	108,551	4,306	112,857	427,287	338,139	765,426
Others ¹	LG Chem Ltd. and its subsidiaries and joint ventures	494,010	11,394	505,404	510,620	8,706	519,326
	LG INTERNATIONAL CORP and its subsidiaries	44,443	2,921	47,364	1,531,290	962,368	2,493,658
	LG Uplus Corp and its subsidiaries LG HAUSYS,LTD. and its	291,431	10	291,441	27,760	2,794	30,554
	subsidiaries and associates	4,294	90	4,384	721	59	780
	Silicon Works Co., Ltd.	13,013	1,480	14,493	5,447	-	5,447
	LG HOUSEHOLD & HEALTH CARE LTD and its subsidiaries	3,813	1	3,814	149	219	368

(in millions of Korean won)		2019								
		Income transactions			Expense transactions					
Classification	Name	Sales	Others	Total	Purchases	Others	Total			
	$G \amalg R$ Inc. and its subsidiaries	1,793	47	1,840	76	194,455	194,531			
	SERVEONE Co., Ltd. and its _subsidiaries ²	4,912	1,914	6,826	151,362	26,378	177,740			
	Subtotal	857,709	17,857	875,566	2,227,425	1,194,979	3,422,404			
	Total	1,703,310	67,360	1,770,670	4,593,246	1,622,623	6,215,869			

(in millions of Kor	ean won)	2018									
		Inco	me transactio	ons	Expe	nse transact	ions				
Classification	Name	Sales	Others	Total	Purchases	Others	Total				
Significantly influencing the Group	LG Corp.	1,776	-	1,776	298	79,889	80,187				
Associates	LG Display Co., Ltd. and its subsidiaries	987,266	12,021	999,287	2,169,775	8,146	2,177,921				
	Ericsson-LG Co., Ltd. and its subsidiaries	1,318	31	1,349	1,729	-	1,729				
	Hitachi-LG Data Storage Inc. (HLDS) and its subsidiaries	385	108	493	57,554	153	57,707				
	LG Fuel Cell Systems Inc. and its subsidiaries	2,927	-	2,927	-	-	-				
	Korea Information Certificate Authority Inc.	-	-	-	-	1	1				
	Subtotal	991,896	12,160	1,004,056	2,229,058	8,300	2,237,358				
Joint ventures	Arcelik-LG Klima Sanayi ve Ticaret A.S.(LGEAT)	50,465	-	50,465	47,194	-	47,194				
	LG Holdings (HK) Ltd. and its subsidiaries	-	-	-	-	1,125	1,125				
	EIC PROPERTIES PTE LTD.	-	-	-	-	386	386				
	LG-MRI LLC	377	-	377	23,165	-	23,165				
	Subtotal	50,842	-	50,842	70,359	1,511	71,870				
Other related parties	LG CNS Co., Ltd. and its subsidiaries SERVEONE Co., Ltd. and its	57,327	1	57,328	65,263	219,507	284,770				
	subsidiaries	51,260	5,374	56,634	523,704	337,657	861,361				
	LB Lusem CO., LTD. ²	6,114	-	6,114	205	1	206				
	LG Management Development Institute	-	-	-	82	14,186	14,268				
	LG SPORTS Ltd.	8	-	8	-	5,497	5,497				
	LG MMA Ltd.	10	-	10	190	-	190				
	LG Holdings Japan Co., Ltd.	9	-	9	-	1,587	1,587				
	LG Corp. U.S.A.	652	-	652	-	-	-				
	Subtotal	115,380	5,375	120,755	589,444	578,435	1,167,879				
Others ¹	LG Chem Ltd. and its subsidiaries and joint ventures	707,280	45,602	752,882	494,934	589	495,523				
	LG INTERNATIONAL CORP and its subsidiaries	47,407	636	48,043	1,255,148	933,075	2,188,223				
	LG Uplus Corp and its subsidiaries	402,999	60	403,059	28,137	4,598	32,735				
	LG HAUSYS,LTD. and its subsidiaries and associates	6,596	117	6,713	5,752	6	5,758				
	Silicon Works Co., Ltd.	11,724	575	12,299	4,804	-	4,804				

(in millions of Ko	(in millions of Korean won)		2018								
		Income transactions			Expense transactions						
Classification	Name	Sales	Others	Total	Purchases	Others	Total				
	LG HOUSEHOLD & HEALTH CARE LTD and its subsidiaries	3,137	4	3,141	220	378	598				
	$G {\rm I\hspace{1em}I} R$ Inc. and its subsidiaries	2,891	-	2,891	7	163,082	163,089				
	Subtotal	1,182,034	46,994	1,229,028	1,789,002	1,101,728	2,890,730				
	Total	2,341,928	64,529	2,406,457	4,678,161	1,769,863	6,448,024				

¹ Although the entities are not the related parties of the Group in accordance with Korean IFRS 1024, the entities belong to a Large Enterprise Group in accordance with the Monopoly Regulation and Fair Trade Act.

² SERVEONE Co., Ltd. was spun off into S&I Corp. and SERVEONE Co., Ltd. on December 1, 2018. On May 15, 2019, S&I Corp., the existing entity, disposed 60.1% shares of SERVEONE Co., Ltd., a newly established entity.

³ All shares of LUSEM CO., LTD. were sold to LB SEMICON CO., LTD. on February 27, 2018, and the name of LUSEM CO., LTD. was changed to LB Lusem CO., LTD on March 15, 2018.

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

(in millions of Ko	rean won)				June 3	0, 2019			
			Rece	ivables			Paya		
Classification	Name	Trade receivables	Loans	Other receivables	Total	Trade payables	Borrowings	Other payables	Total
Significantly influencing the Group	LG Corp.	331	-	31,158	31,489	-	-	4,901	4,901
Associates	LG Display Co., Ltd. and its subsidiaries	466,805	-	107,317	574,122	396,825	-	111,070	507,895
	Ericsson-LG Co., Ltd. and its subsidiaries	116	-	-	116	-	-	-	-
	Hitachi-LG Data Storage Inc. and its subsidiaries	363	-	-	363	36,557	-	282	36,839
	LG Fuel Cell Systems Inc. and its subsidiaries	21	-	-	21	-	-	69	69
	Acryl Inc.	-	-	-	-	-	-	283	283
	ROBOTIS Co., Ltd.	-	-	-	-	-	-	36	36
	Robostar Co.,Ltd	-	-	-	-	428	-	6,021	6,449
	Subtotal	467,305	-	107,317	574,622	433,810	-	117,761	551,571
Joint ventures	Arcelik-LG Klima Sanayi ve Ticaret A.S.(LGEAT)	7,603	-	26	7,629	21,109	-	-	21,109
	LG Holdings (HK) Ltd. and its subsidiaries	-	-	-	-	-	-	1,114	1,114
	EIC PROPERTIES PTE LTD.	-	-	-	-	-	-	68	68
	LG-MRI LLC	1,766	-	-	1,766	-	-	-	-
	Subtotal	9,369	-	26	9,395	21,109	-	1,182	22,291
Other related parties	LG CNS Co., Ltd. and its subsidiaries	39,200	-	2,267	41,467	5,964	-	113,135	119,099
	S&I Corp. and its subsidiaries ²	8,346	-	66,602	74,948	323	-	50,170	50,493
	LG Management Development Institute	-	-	17,864	17,864	-	-	1,410	1,410

(in millions of Ko	orean won)				June 3	0, 2019			
			Rece	ivables			Paya	bles	
Classification	Name	Trade receivables	Loans	Other receivables	Total	Trade payables	Borrowings	Other payables	Total
	LG SPORTS Ltd.	1	-	-	1	-	-	1,073	1,073
	LG MMA Ltd.	1	-	-	1	-	-	-	-
	LG Holdings Japan Co., Ltd.	-	-	3,971	3,971	-	-	-	-
	LG Corp. U.S.A.	5	-	11,009	11,014	-	-	-	-
	Subtotal	47,553	-	101,713	149,266	6,287	-	165,788	172,075
Others ¹	LG Chem Ltd. and its subsidiaries and joint ventures	288,069		257,808	545,877	318,293	-	63,494	381,787
	LG INTERNATIONAL CORP and its subsidiaries	42,404	-	1,913	44,317	256,365	-	292,929	549,294
	LG Uplus Corp and its subsidiaries	63,400	-	91	63,491	-	-	108	108
	LG HAUSYS,LTD. and its subsidiaries and associates	1,194	-	1,283	2,477	104	-	847	951
	Silicon Works Co., Ltd.	6,608	-	267	6,875	2,659	-	959	3,618
	LG HOUSEHOLD & HEALTH CARE LTD and its subsidiaries	514	-	119	633	31	-	508	539
	G II R Inc. and its subsidiaries	26	-	173	199	392	-	193,171	193,563
	SERVEONE Co., Ltd. and its subsidiaries ²	3,812	-	-	3,812	294,854	-	91,343	386,197
	Subtotal	406,027	-	261,654	667,681	872,698	-	643,359	1,516,057
	Total	930,585	-	501,868	1,432,453	1,333,904	-	932,991	2,266,895

(in millions of Ko	rean won)	December 31, 2018									
			Rece	ivables			Paya	bles			
Classification	Name	Trade receivables	Loans	Other receivables	Total	Trade payables	Borrowings	Other payables	Total		
Significantly influencing the Group	LG Corp.	42	-	29,398	29,440	-	-	742	742		
Associates	LG Display Co., Ltd. and its subsidiaries	563,778	-	136,544	700,322	518,663	-	168,882	687,545		
	Ericsson-LG Co., Ltd. and its subsidiaries	31	-	-	31	534	-	-	534		
	Hitachi-LG Data Storage Inc. and its subsidiaries	109	7,257	31	7,397	32,687	-	397	33,084		
	LG Fuel Cell Systems Inc. and its subsidiaries	12	-	240	252	-	-	28	28		
	Korea Information Certificate Authority Inc.	-	-	-	-	-	-	55	55		
	Acryl Inc.	-	-	-	-	-	-	312	312		
	Kiwigrid GmbH	-	-	-	-	-	-	54	54		
	ROBOTIS Co., Ltd.	-	-	-	-	-	-	168	168		
	Robostar Co.,Ltd	-	-	-	-	13,406	-	519	13,925		
	Subtotal	563,930	7,257	136,815	708,002	565,290	-	170,415	735,705		

(in millions of K	orean won)				Decembe	r 31, 2018			
			Rece	ivables			Paya		
Classification	Name	Trade receivables	Loans	Other receivables	Total	Trade payables	Borrowings	Other payables	Total
Joint ventures	Arcelik-LG Klima Sanayi ve Ticaret A.S.(LGEAT)	2,733	-	-	2,733	4,779	-	-	4,779
	LG Holdings (HK) Ltd. and its subsidiaries	-	-	-	-	-	-	1,210	1,210
	EIC PROPERTIES PTE LTD.	-	-	-	-	-	-	1	
	LG-MRI LLC	643	-	-	643	9,228	-	63	9,292
	Subtotal	3,376	-	-	3,376	14,007	-	1,274	15,28
Other related parties	LG CNS Co., Ltd. and its subsidiaries	19,819	-	2,218	22,037	3,959	-	182,146	186,105
	S&I Corp. and its subsidiaries ²	10,819	-	67,510	78,329	247,412	-	225,331	472,743
	LG Management Development Institute	-	-	17,864	17,864	-	-	1,850	1,850
	LG SPORTS Ltd.	2	-	-	2	-	-	1,859	1,859
	LG MMA Ltd.	86	-	-	86	51	-	21	72
	LG Holdings Japan Co., Ltd.	-	-	3,546	3,546	-	-	-	
	LG Corp. U.S.A.	4	-	8,062	8,066	-	-	-	
	Subtotal	30,730		99,200	129,930	251,422	-	411,207	662,629
Others ¹	LG Chem Ltd. and its subsidiaries and joint ventures	490,832	-	270,963	761,795	277,880	-	84,364	362,244
	LG INTERNATIONAL CORP and its subsidiaries	19,582	-	9,362	28,944	558,108	-	269,497	827,605
	LG Uplus Corp and its subsidiaries	19,219	-	182	19,401	-	-	378	378
	LG HAUSYS,LTD. and its subsidiaries and associates	725	-	1,354	2,079	29	-	485	514
	Silicon Works Co., Ltd.	3,309	-	-	3,309	2,011	-	748	2,759
	LG HOUSEHOLD & HEALTH CARE LTD and its subsidiaries	2,270	-	350	2,620	32	-	734	766
	G II R Inc. and its subsidiaries	83	-	137	220	334	-	251,174	251,508
	Subtotal	536,020	-	282,348	818,368	838,394	-	607,380	1,445,774
	Total	1,134,098	7,257	547,761	1,689,116	1,669,113	-	1,191,018	2,860,132

¹ Although the entities are not the related parties of the Group in accordance with Korean IFRS 1024, the entities belong to a large enterprise group in accordance with the Monopoly Regulation and Fair Trade Act.

² SERVEONE Co., Ltd. was spun off into S&I Corp. and SERVEONE Co., Ltd. on December 1, 2018, and S&I Corp., the existing entity, disposed 60.1% shares of SERVEONE Co., Ltd., a newly established entity, on May, 15, 2019.

iii) Significant capital transactions with related parties and others for the six-month periods ended June 30, 2019 and 2018, are as follows:

(in millions of Ko	(in millions of Korean won)			2019									
		Dividend	Distinguised	Cash		ncing loan		borrowing actions					
Classification	Name	income	Dividend paid	distribution (reduction)	Loans	Collections	Borrowings	Repayments					
Significantly influencing the Group	LG Corp.	- -	41,321	-	-	-	-	-					
Associates	Korea Information Certificate Authority Inc.	161	-	-	-	-	-	-					
	LG-MRI LLC	337	-	-	-	-	-	-					
	Robostar Co.,Ltd	146	-	-	-	-	-	-					
	Acryl Inc.	-	-	1,000	-	-	-	-					
	Total	644	41,321	1,000	-	-	-	-					

in millions of Korean won)		2018									
,	Dividend	Dividend	Cash	Cash trans		Financing borrowing transactions					
Name	income	paid	(reduction)	Loans	Collections	Borrowings	Repayments				
LG Corp.	-	22,038	-	-	-	-					
LG Display Co., Ltd.	67,813	-	-	-		-					
Korea Information Certificate Authority Inc.	100	-	-	-	-	-					
LG-MRI LLC	321	-	-	-	-	-					
Total	68,234	22,038	-	-	-	-					
	Name LG Corp. LG Display Co., Ltd. Korea Information Certificate Authority Inc. LG-MRI LLC	NameDividend incomeLG CorpLG Display Co., Ltd.67,813Korea Information Certificate Authority Inc.100LG-MRI LLC321	NameDividend incomeDividend paidLG Corp22,038LG Display Co., Ltd.67,813-Korea Information Certificate Authority Inc.100-LG-MRI LLC321-	NameDividend incomeDividend paidCash distribution (reduction)LG Corp22,038-LG Display Co., Ltd.67,813Korea Information Certificate Authority Inc.100LG-MRI LLC321	NameDividend incomeDividend paidCash distribution (reduction)Fina trarLG Corp22,038LG Display Co., Ltd.67,813Korea Information Certificate Authority Inc.100LG-MRI LLC321	NameDividend incomeDividend paidCash distribution (reduction)Financing loan transactionsLG Corp22,038LG Display Co., Ltd.67,813Korea Information Certificate Authority Inc.100LG-MRI LLC321	NameDividend incomeDividend paidCash distribution (reduction)Financing loan transactionsFinancing transaLG Corp22,038LG Display Co., Ltd.67,813Korea Information Certificate Authority Inc.100LG-MRI LLC321				

(b) The compensation paid or payable to key management personnel for the six-month periods ended June 30, 2019 and 2018, consists of:

(in millions of Korean won)	2019	2018
Salaries and other short-term employee benefits	13,052	13,039
Post-employment benefits	1,740	1,883
Other long-term benefits	53	56
Total	14,845	14,978

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. amounting to USD 7.5 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.

32. 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 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 12, respectively.

- (a) Market risk
 - i) 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 at June 30, 2019 and December 31, 2018, 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:

	June 30	, 2019	Decembe	r 31, 2018
(in millions of Korean won)	10% increase	10% decrease	10% increase	10% decrease
USD/KRW	(43,895)	43,895	(40,378)	40,378
EUR/KRW	23,363	(23,363)	18,956	(18,956)

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 expanding internal finance sharing. The Group establishes the plan for reaction by periodically monitoring the 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 six-month periods ended June 30, 2019 and 2018, are as follows:

	20	19	2018		
(in millions of Korean won)	1%p increase	1%p decrease	1%p increase	1%p decrease	
Interest income	18,249	(18,249)	23,245	(23,245)	
Interest expenses	4,145	(4,145)	2,490	(2,490)	

iii) Details of derivative 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.

Details of hedging instruments are as follows:

		Contracted	Contracted	Interest rate			Book a (in mill Korea	ions of
	Contractor	amount (in millions)	currency rate	Interest rate (paid) (%)	Starting date	Expiration date	Assets	Liabilities
Cross-currency	MUFG Bank and others	USD 530 (USD/KRW)	1,067.9~ 1,155.2	2.17 ~ 3.64	2017. 2. 2 ~ 2018. 6. 8	2020.11.23 ~ 2028. 6. 8	2,904	14,716
swap	Commerzbank and others	CZK 566 (EUR/CZK)	26.0 ~ 26.4	-	2018. 6.28 ~ 2019.6.3	2019. 7. 2 ~ 2020.4.1	678	-
Interest rate swap	Woori Bank and others	KRW 1,270,000 / EUR 103 / USD 235	-	1.00 ~ 4.53	2012. 2. 3 ~ 2018. 5.24	2019. 9.30 ~ 2030. 7. 7	-	94,666

Interest rates received for the above swap contracts are equal to annual interest rates of borrowings (Note 12).

Details of hedged items are as follows:

(in millions of Korean won)	Hedged items	Book amount	Changes in fair value (net of tax)	Accumulated other comprehensive loss
Cross-currency swap	Borrowings	640,834	(9,899)	(27,932)
Interest rate swap	Borrowings	1,671,457	29,501	(67,992)

The results of hedge accounting are as follows:

(in millions of Korean won)	Changes in fair value of derivatives (net of tax)	Line items in profit or loss	Reclassified to profit or loss (net of tax)	Other comprehensive loss (net of tax)
Cross-currency swap	9,899	Interest expense and exchange differences	(18,243)	(8,344)
Interest rate swap	(29,501)	Interest expense	3,882	(25,619)

Trading purposes

The Group entered into the currency forward contracts and the interest rate swap contracts to manage the risk against possible future changes in foreign exchange rates and interest rates. The subsidiaries' currency forward contracts and the interest rate swap contracts as at June 30, 2019, and related profit or loss for the six-month period ended June 30, 2019, are as follows:

(in millions of Korean won)	Purchase	Sale	Loss on valuation	Gain (loss) on transaction
Currency forward	799,534	808,001	(7,140)	(6,485)
Interest rate swap	-	-	(1,969)	68

Share Purchase Agreement

The Group entered into a contract to additionally purchase shares of Robostar Co., Ltd. in December 2019 at the average price of immediate four months with a 25% mark up. In relation to this share purchase contract, the Group recognized derivative liabilities amounting to \forall 2,713 million at the time of acquisition of Robostar Co., Ltd. and recognized loss on valuation of derivatives amounting to \forall 7 million during the six-month period ended June 30, 2019. Accordingly, the related derivative liabilities amounted to \forall 1,869 million at the end of the reporting period.

iv) Price risk

The Group is exposed to price risk through equity securities owned by the Group classified as financial assets at fair value through other comprehensive income.

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

	June 3	0, 2019	December 31, 2018		
(in millions of Korean won)	30% increase	30% decrease	30% increase	30% decrease	
KOSDAQ	2,801	(2,801)	3,057	(3,057)	
Austrian Traded Index	2,898	(2,898)	3,108	(3,108)	

The valuation and changes in book amounts of the financial assets at fair value through other comprehensive income related to the market risk above are presented in Note 7.

(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 rated by insurers, 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.

At the end of reporting period, trade receivable balance of the Group is $\forall7,498,158$ million (December 31, 2018: $\forall6,462,609$ million) and its risk is managed appropriately within insurer's credit limit of $\forall24,684,519$ million (December 31, 2018: $\forall23,936,144$ million). Therefore, the Group determined that credit risk exposed to the Group is limited.

At the end of reporting period, the carrying amount of financial assets represents net of impairment loss to reflect Group's maximum exposure to the credit risk.

(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 regional treasury centers to carry 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 liquidity risk arising from financial distress.

In addition, the Group is able to source funds any time in the domestic and international financial markets 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 at the end of the reporting period.

i) Cash flow information on maturity of financial liabilities as at June 30, 2019, is as follows:

(in millions of Korean won)	Total	Within 1 year	1 to 2 years	2 to 5 years	Over 5 years
Trade payables	7,402,466	7,402,466	-	-	-
Borrowings	12,501,084	1,785,998	1,762,850	4,407,515	4,544,721
Lease liabilities	766,800	253,008	194,450	239,562	79,780
Other payables	2,873,218	2,866,236	5,441	1,541	-
Other financial liabilities	27,034	18,683	-	5,459	2,892
Total	23,570,602	12,326,391	1,962,741	4,654,077	4,627,393

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 within other financial liabilities that are not qualified for hedge accounting have been included at their fair value of $\forall 9,026$ 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) At the end of the reporting period, the maturity analysis of financial guarantee contracts provided by the Group to third party companies is 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	54,676	48,892	5,784	-	-

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 at June 30, 2019 and December 31, 2018, are as follows:

(in millions of Korean won, except for ratios)	June 30, 2019	December 31, 2018
Liability (A)	28,772,254	28,021,536
Equity (B)	17,094,998	16,306,907
Cash and cash equivalents (C)	3,944,245	4,270,388
Borrowings and lease liabilities (D)	11,558,219	10,901,186
Debt-to-equity ratio (A/B)	168.3%	171.8%
Net borrowings ratio ((D-C)/B)	44.5%	40.7%

Fair Value Estimation

(a) The book amount and fair value of the Group's financial assets and liabilities as at June 30, 2019 and December 31, 2018, are as follows:

	June 30, 2019					
	Curre	ent	Non-cu	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	3,107	3,107	23,247	1		
Financial assets at fair value through other comprehensive income		1				
Trade receivables	572,339	1	-	-		
Other financial assets						
Listed equity securities	-	-	19,811	19,811		
Unlisted equity securities	-	-	47,127	1		
Derivatives for hedging purposes						
Other financial assets	678	678	2,904	2,904		
Assets at amortized cost						
Financial assets at amortized cost						
Cash and cash equivalents	3,944,245	1	-	-		
Deposits held by financial institutions	80,516	1	46,768	46,768		
Trade receivables	6,814,452	1	-	-		
Other receivables	520,491	1	418,772	399,176		
Other financial assets	117	1	1,612	1		
Total	11,935,945		560,241			

	June 30, 2019					
	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	10,895	10,895	8,351	8,351		
Derivatives for hedging purposes						
Other financial liabilities	-	-	109,382	109,382		
Liabilities at amortized cost						
Financial liabilities at amortized cost						
Trade payables	7,402,466	1	-	-		
Borrowings	1,465,172	1	9,392,878	9,760,722		
Lease liabilities	236,964	2	463,205	2		
Other payables	2,866,204	1	6,840	6,692		
Other liabilities						
Other financial liabilities	46	3	34	3		
Total	11,981,747		9,980,690			

	December 31, 2018					
	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	6,742	6,742	20,099	1		
Financial assets at fair value through other comprehensive income						
Trade receivables	358,443	1	-	-		
Other financial assets						
Listed equity securities	-	-	20,463	20,463		
Unlisted equity securities	-	-	34,055	1		
Debt securities	-	-	1,552	1		
Derivatives for hedging purposes						
Other financial assets	1,542	1,542	291	291		
Assets at amortized cost						
Financial assets at amortized cost						
Cash and cash equivalents	4,270,388	1	-	-		
Deposits held by financial institutions	80,516	1	45,853	45,853		
Trade receivables	6,013,151	1	-	-		
Other receivables	506,437	1	452,366	426,804		
Other financial assets	117	1	1,612	1		
Total	11,237,336		576,291			

	December 31, 2018			
	Curre	ent	Non-current	
(in millions of Korean won)	Book amount Fair valu		Book amount	Fair value
Liabilities at fair value				
Financial liabilities at fair value through profit or loss				
Other financial liabilities	3,228	3,228	8,045	8,045
Derivatives for hedging purposes				
Other financial liabilities	-	-	81,170	81,170
Liabilities at amortized cost				
Financial liabilities at amortized cost				
Trade payables	7,216,739	1	-	-
Borrowings	1,405,116	1	9,496,070	9,764,971
Other payables	3,670,453	1	17,995	18,407
Other liabilities				
Other financial liabilities	115	3	52	3
Total	12,295,651		9,603,332	

¹ Excluded from disclosure such as fair value hierarchy and measurement method as the carrying amount is the reasonable approximate of fair value.

² Lease liabilities were excluded from the fair value disclosures in accordance with Korean IFRS 1107 *Financial Instruments: Disclosures.*

- ³ Measured at the higher of the amount of the loss allowance determined in accordance with Korean IFRS 1109 *Financial Instruments,* and the amount initially recognized less cumulative amount of income recognized in accordance with Korean IFRS 1115 *Revenue from Contracts with Customers.*
- (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 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 financial assets at fair value through other comprehensive income.

The fair value of financial instruments that are not traded in an active market is determined by using valuation techniques. The Group uses various valuation techniques that the Group develops or figures that external valuation agencies provide, and makes judgements 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 at June 30, 2019 and December 31, 2018, are as follows:

	June 30, 2019			
(in millions of Korean won)	Level 1	Level 2	Level 3	Total
Assets				
Other financial assets				
Financial assets at fair value through other comprehensive income				
- Listed equity securities	19,811	-	-	19,811
Financial assets at fair value through profit or loss	-	3,107	-	3,107
Derivatives for hedging purposes	-	3,582	-	3,582
Liabilities				
Other financial liabilities				
Financial liabilities at fair value through profit or loss	-	19,246	-	19,246
Derivatives for hedging purposes	-	109,382	-	109,382
		December	31, 2018	
(in millions of Korean won)	Level 1	December Level 2	31, 2018 Level 3	Total
(in millions of Korean won) Assets	Level 1			Total
Assets Other financial assets	Level 1			Total
Assets	Level 1			Total
Assets Other financial assets Financial assets at fair value through other comprehensive	Level 1			Total 20,463
Assets Other financial assets Financial assets at fair value through other comprehensive income				
Assets Other financial assets Financial assets at fair value through other comprehensive income - Listed equity securities Financial assets at fair value		Level 2		20,463
Assets Other financial assets Financial assets at fair value through other comprehensive income - Listed equity securities Financial assets at fair value through profit or loss		Level 2		20,463 6,742
Assets Other financial assets Financial assets at fair value through other comprehensive income - Listed equity securities Financial assets at fair value through profit or loss Derivatives for hedging purposes		Level 2		20,463 6,742
Assets Other financial assets Financial assets at fair value through other comprehensive income - Listed equity securities Financial assets at fair value through profit or loss Derivatives for hedging purposes Liabilities		Level 2		20,463 6,742

The above fair value amounts are recurring fair value measurements.

- 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 at June 30, 2019 and December 31, 2018, are as follows:

	Fair	/alue		
(in millions of Korean won)	June 30, 2019	December 31, 2018	Valuation techniques	Inputs
Assets				
Other financial assets				
Financial assets at fair value through profit or loss	3,107	6,742	Discounted cash flow	Discount rate and exchange rate
Derivatives for hedging purposes	3,582	1,833	Discounted cash flow	Discount rate and exchange rate
Liabilities				
Other financial liabilities				
Financial liabilities at fair value through profit or loss	19,246	11,273	Discounted cash flow	Discount rate, exchange rate and share price
Derivatives for hedging purposes	109,382	81,170	Discounted cash flow	Discount rate and exchange rate

- Fair value measurements categorized within 'level 3'

There are no changes in financial assets and financial liabilities that are measured at fair value and categorized within 'level 3' for the six-month periods ended June 30, 2019 and 2018.

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 at June 30, 2019 and December 31, 2018, are as follows:

	June 30, 2019			
(in millions of Korean won)	Level 1	Level 2	Level 3	Total
Assets				
Non-current deposits held by financial institutions	-	-	46,768	46,768
Non-current other receivables	-	-	399,176	399,176
Liabilities				
Non-current borrowings	-	-	9,760,722	9,760,722
Non-current other payables	-	-	6,692	6,692

	December 31, 2018			
(in millions of Korean won)	Level 1	Level 2	Level 3	Total
Assets				
Non-current deposits held by financial institutions	-	-	45,853	45,853
Non-current other receivables	-	-	426,804	426,804
Liabilities				
Non-current borrowings	-	-	9,764,971	9,764,971
Non-current other payables	-	-	18,407	18,407

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

At the end of the reporting period, 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 at June 30, 2019 and December 31, 2018, are as follows:

	June 3	0, 2019	December	r 31, 2018			Significant but	
(in millions of Korean won)	Carrying amount	Fair value	Carrying amount	Fair value	Valuation techniques	Inputs	unobservable inputs	significant but unobservable inputs
Assets								
Non-current deposits held by financial institutions	46,768	46,768	45,853	45,853	Discounted cash flow	Discount rate and exchange rate	Discount rate	0.1% ~ 1.8%
Non-current other receivables	418,772	399,176	452,366	426,804	Discounted cash flow	Discount rate and exchange rate	Discount rate	3.1% ~ 3.8%
Liabilities								
Non-current borrowings	9,392,878	9,760,722	9,496,070	9,764,971	Discounted cash flow	Discount rate and exchange rate	Discount rate	1.7% ~ 3.2%
Non-current other payables	6,840	6,692	17,995	18,407	Discounted cash flow	Discount rate and exchange rate	Discount rate	1.7% ~ 1.8%

33. Business Combinations

(a) On March 5, 2019, LG Electronics Tianjin Appliances Co., Ltd., a subsidiary, acquired 100% shares of QINGGONGLIAN ELECTRICAL INSTALLATION ENGINEERING CO., LTD. in order to secure competitiveness of sales and installation of air conditioners in China.

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	3,623
Recognized amounts of identifiable assets acquired and liabilities assumed	
Current assets	
Cash and cash equivalents	1,029
Trade receivables ¹	1,080
Other assets	5,165
Non-current assets	
Property, plant and equipment	222
Intangible assets	77
Current liabilities	
Trade and other payables	360
Other liabilities	3,590
Fair value of total identifiable net assets	3,623
Goodwill	

¹ The fair value of above trade receivables is the same as the contractual amount in gross.

The acquisition-related direct costs incurred in relation to business combination amounting to \forall 29 million was recognized as expenses as incurred.

Net sales and profit of QINGGONGLIAN ELECTRICAL INSTALLATION ENGINEERING CO., LTD. for the period from March 5, 2019, the acquisition date, included in the consolidated interim statements of profit or loss are $\forall 1,263$ million and $\forall 21$ million, respectively. Net sales and profit for the current reporting period as though the acquisition date had been as at the beginning of the annual reporting period are as follows:

(in millions of Korean won)	Before adjustments	Adjustments	After adjustments
Net sales	30,544,328	1,086	30,545,414
Profit for the period	683,978	4	683,982

(b) On August 3, 2018, the Group acquired 70% shares of ZKW Holding GmbH, its subsidiaries and related entities in order to secure competitiveness of the vehicle components business.

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	979,108
Recognized amounts of identifiable assets acquired and liabilities assumed	
Current assets	
Cash and cash equivalents	241,079
Trade receivables ¹	189,572
Other receivables ¹	28,118
Inventories	152,472
Other assets	182,918
Non-current assets	
Property, plant and equipment	571,775
Intangibles assets	354,719
Other receivables ¹	2,107
Other assets	254,969
Current liabilities	
Trade and other payables	201,785
Borrowings	216,114
Other liabilities	202,933
Non-current liabilities	
Borrowings	297,802
Other liabilities	202,332
Fair value of total identifiable net assets	856,763
Non-controlling interest ²	420,001
Goodwill ³	542,346

¹ The fair value of above trade and other receivables is the same as the total contract amount.

² The fair value of the non-controlling interest is measured as ₩420,001 million, which is the cash and cash equivalent amount paid by LG Corp., in acquiring 30% shares of ZKW Holding GmbH, its subsidiaries and related entities.

³ Goodwill incurred in a business combination amounting to ₩542,346 million is due to an increase in sales from integration of business with ZKW Holding GmbH, its subsidiaries and related entities, which is not allowed to be tax deductible.

The acquisition-related direct costs in relation to business combination amounting to #18,533 million were recognized as expenses as incurred.

34. Assets Classified as Held for Sale

(a) Details of assets classified as held for sale as at June 30, 2019 and December 31, 2018, are as follows:

(in millions of Korean won)	June 30, 2019 ¹	December 31, 2018 ²
Assets held for sale		
Building	5,149	-
Land	18,946	-
Machinery	492	115,212
Other property, plant and equipment and		
intangible assets	1,448	-
Total	26,035	115,212

¹ At the end of the reporting period, sales procedure of the assets is in progress and the sale is expected to be completed by the third quarter of 2019.

² The Group entered into a sales contract in December 2018 and the sale was completed in April 2019.

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

35. Events after the reporting period

- (a) The Company decided to dispose 100% shares of Hi Entech Co., Ltd. and 51% shares of LG Hitachi Water Solutions Co., Ltd, both entities operating water engineering business, to Techcross Inc. with the approval of the Board of Directors on July 23, 2019. The sales price amounts to ₩227,950 million (total sales price including non-controlling interests amounts to ₩250,000 million).
- (b) The Company decided to dispose the main, annexed and other buildings of its research institutes located in Anyang due to the lack of demands for rent, to KT&G Corp., with the approval of the Board of Directors on July 23, 2019. The sales price amounts to ₩100,916 million, and the book amount of the asset for sale amounts to ₩93,978 million.