LG Electronics Inc.

Separate Financial Statements December 31, 2015 and 2014

Page(s)

Independent Auditor's Report	1 - 2
Separate Financial Statements	
Separate Statements of Financial Position	3
Separate Statements of Income	4
Separate Statements of Comprehensive Income	5
Separate Statements of Changes in Equity	6
Separate Statements of Cash Flows	7
Notes to the Separate Financial Statements	8 - 97





Independent Auditor's Report

(English Translation of a Report Originally Issued in Korean)

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

We have audited the accompanying separate financial statements of LG Electronics Inc. ("the Company"), which comprise the separate statements of financial position as of December 31, 2015 and 2014, and the separate statements of income, comprehensive income, changes in equity and cash flows for the years then ended, and notes, comprising a summary of significant accounting policies and other explanatory information.

Management's responsibility for the financial statements

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

Auditor's responsibility

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

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

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



Opinion

In our opinion, the separate financial statements present fairly, in all material respects, the financial position of LG Electronics Inc. as of December 31, 2015 and 2014, and its financial performance and cash flows for the years then ended in accordance with the Korean IFRS.

Other Matter

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

Samil Prienderhouse Coopers

Seoul, Korea March 10, 2016

This report is effective as of March 10, 2016, the audit report date. Certain subsequent events or circumstances, which may occur between the audit report date and the time of reading this report, could have a material impact on the accompanying separate financial statements and notes thereto. Accordingly, the readers of the audit report should understand that there is a possibility that the above audit report may have to be revised to reflect the impact of such subsequent events or circumstances, if any.

LG Electronics Inc.

Separate Statements of Financial Position

December 31, 2015 and 2014

(in millions of Korean won)	Note	2015	2014
Assets			
Current assets			
Cash and cash equivalents	4,5,36	678,221	913,208
Financial deposits	4,5,36	80,500	65,000
Trade receivables	4,6,36	5,607,126	5,956,772
Loans and other receivables	4,6,36	534,079	484,344
Inventories	8	1,057,967	1,116,123
Current income tax assets		1,717	58,012
Other current assets	9	307,084	340,920
Assets held for sale	38	2,116	-
		8,268,810	8,934,379
Non-current assets			
Financial deposits	4,5,36	1,271	1,689
Loans and other receivables	4,6,36	339,859	385,352
Other financial assets	4,7,36	64,134	33,870
Property, plant and equipment	10	6,450,406	6,244,197
Intangible assets	11	1,154,910	1,094,479
Deferred income tax assets	16	948,457	950,898
Investments in subsidiaries, associates and joint ventures	12	7,963,467	8,055,416
Investment property	13	120,846	633
Other non-current assets	9	554,215	581,400
		17,597,565	17,347,934
Total assets		25,866,375	26,282,313
Liabilities			
Current liabilities			
Trade payables	4,36	5,015,038	5,451,036
Borrowings	4,14,36	1,041,603	1,016,906
Other payables	4,15,36	1,797,949	1,880,276
Other financial liabilities	4,7,36	14,553	106
Provisions	18	176,067	209,953
Other current liabilities	19	1,705,180	1,409,332
		9,750,390	9,967,609
Non-current liabilities			· · ·
Borrowings	4,14,36	5,577,300	5,233,447
Other financial liabilities	4,7,36	71,317	62,574
Net defined benefit liabilities	17	575,016	616,692
Provisions	18	847,647	836,013
Other non-current liabilities	19	83,696	77,278
		7,154,976	6,826,004
Total liabilities		16,905,366	16,793,613
Equity			
Paid-in capital:	20		
Capital stock		904,169	904,169
Share premium		3,088,179	3,088,179
Retained earnings	21	5,046,104	5,550,942
Accumulated other comprehensive loss	22	(44,624)	(21,771)
Other components of equity	23	(32,819)	(32,819)
Total equity		8,961,009	9,488,700
Total liabilities and equity		25,866,375	26,282,313
i otal habilitios and equity		20,000,010	20,202,010

LG Electronics Inc. Separate Statements of Income Years ended December 31, 2015 and 2014

(in millions of Korean won, except per share amounts)	Note	2015	2014
Continuing operations			
Net sales	24	28,368,428	29,556,368
Cost of sales	25	22,729,158	23,749,768
Gross profit		5,639,270	5,806,600
Selling and marketing expenses Administrative expenses Research and development expenses Service costs	25,26 25,26 25,26 25,26	2,591,650 619,268 1,988,854 <u>457,035</u> (17,537)	2,624,531 534,170 1,875,932 470,643 301,324
Operating income (loss) Financial income	27	266,506	215,251
Financial expenses	27	266,506 459,446	362,316
Other non-operating income	29	1,299,819	1,032,438
Other non-operating expenses	30	1,355,165	1,166,894
Profit (loss) before income tax		(265,823)	19,803
Income tax expense	16	85,894	17,283
Profit (loss) for the year from continuing operations		(351,717)	2,520
Discontinued operations			
Loss for the year from discontinued operations	39	(4,122)	(156,973)
Loss for the year		(355,839)	(154,453)
Earnings (loss) per share during the year (in won)	31		
Earnings (loss) per common share		(1,981)	(863)
From continuing operations		(1,958)	9
From discontinued operations		(23)	(872)
Earnings (loss) per preferred share		(1,931)	(813)
From continuing operations		(1,908)	59 (872)
From discontinued operations		(23)	(872)

LG Electronics Inc.

Separate Statements of Comprehensive Income

Years ended December 31, 2015 and 2014

(in millions of Korean won)	Note	2015	2014
Loss for the year Other comprehensive income (loss), net of tax	-	(355,839)	(154,453)
Items that will not be reclassified subsequently to profit or lo Remeasurements of the net defined benefit liability	oss: 17	(76,114)	(114,816)
Items that will be reclassified subsequently to profit or loss: Cash flow hedges Available-for-sale financial assets	36 7	(25,292) 2,439	(35,711) (2,268)
Other comprehensive loss for the year, net of tax Total comprehensive loss for the year, net of tax	-	(98,967) (454,806)	(152,795) (307,248)

LG Electronics Inc. Separate Statements of Changes in Equity Years ended December 31, 2015 and 2014

(in millions of Korean won)	Note	Paid-in Capital	Retained Earnings	Accumulated Other Comprehensive Income (loss)	Other Components of Equity	Total
Balance at January 1, 2014		3,992,348	5,857,083	16,208	(32,819)	9,832,820
Comprehensive income (loss):						
Loss for the year		-	(154,453)	-	-	(154,453)
Remeasurements of the net defined benefit liability	17	-	(114,816)	-	-	(114,816)
Cash flow hedges	36	-	-	(35,711)	-	(35,711)
Available-for-sale financial assets	7	-	-	(2,268)	-	(2,268)
Total comprehensive loss	_	-	(269,269)	(37,979)	-	(307,248)
Transactions with equity holders:						
Dividends	21	-	(36,872)	-	-	(36,872)
Total transactions with equity holders		-	(36,872)	-		(36,872)
Balance at December 31, 2014	_	3,992,348	5,550,942	(21,771)	(32,819)	9,488,700
Balance at January 1, 2015	_	3,992,348	5,550,942	(21,771)	(32,819)	9,488,700
Comprehensive income (loss):						
Loss for the year		-	(355,839)	-	-	(355,839)
Remeasurements of the net defined benefit liability	17	-	(76,114)	-	-	(76,114)
Cash flow hedges	36	-	-	(25,292)	-	(25,292)
Available-for-sale financial assets	7	-	-	2,439		2,439
Total comprehensive loss	_	-	(431,953)	(22,853)		(454,806)
Transactions with equity holders:						
Dividends	21	-	(72,885)	-	-	(72,885)
Total transactions with equity holders		-	(72,885)	-	-	(72,885)
Balance at December 31, 2015	_	3,992,348	5,046,104	(44,624)	(32,819)	8,961,009

LG Electronics Inc. Separate Statements of Cash Flows Years ended December 31, 2015 and 2014

(in millions of Korean won)	Note	2015	2014
Cash flows from operating activities			
Cash generated from operations	32	752,744	735,986
Interest received		13,505	21,212
Interest paid		(254,767)	(265,476)
Dividends received		156,858	222,581
Income tax refund (paid)	_	8,101	(50,997)
Net cash inflow from operating activities	-	676,441	663,306
Cash flows from investing activities			
Decrease in financial deposits		-	3,070
Decrease in loans and other receivables		99,922	117,360
Proceeds from recovery of and disposal of other financial assets		7,554	162
Proceeds from disposal of property, plant and equipment		40,997	48,502
Proceeds from disposal of intangible assets		134	16,836
Proceeds from disposal of investments in subsidiaries,			
associates and joint ventures		159,929	3,720
Transfer of business	32	22,010	1,905
Decrease in others		545	2,218
Increase in financial deposits		(15,082)	-
Increase in loans and other receivables		(72,048)	(88,728)
Acquisition of other financial assets		(1,740)	-
Acquisition of property, plant and equipment		(973,315)	(1,025,640)
Acquisition of intangible assets		(408,130)	(337,118)
Acquisition of investments in subsidiaries,			
associates and joint ventures		(11,057)	(55,909)
Business combination	37	(7,691)	-
Net cash outflow from investing activities	-	(1,157,972)	(1,313,622)
Cash flows from financing activities			
Proceeds from borrowings		1,716,934	1,775,453
Repayments of borrowings		(1,397,505)	(1,473,406)
Dividends paid	21	(72,885)	(36,872)
Net cash inflow from financing activities	-	246,544	265,175
-	-	<u> </u>	
Net decrease in cash and cash equivalents		(234,987)	(385,141)
Cash and cash equivalents at the beginning of year	5	913,208	1,298,349
Cash and cash equivalents at the end of year	5	678,221	913,208

1. General Information

General information about LG Electronics Inc. (the "Company") is as follows.

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

As of December 31, 2015, LG Corp. owns 33.7% of the Company's total shares, excluding preferred shares, while financial institutions, foreign investors and others own the rest.

The Company operates following major business segments: Home Entertainment segment manufactures and sells TVs, monitors, and digital media products; Mobile Communications segment manufactures and sells mobile communications equipment; Home Appliance & Air Solution segment manufactures and sells refrigerators, washing machines, vacuum cleaners, and residential and commercial air conditioners; and Vehicle Components segment designs and manufactures automobile parts. As of December 31, 2015, the Company operates manufacturing facilities mainly in Pyeongtaek, Changwon and Gumi in the Republic of Korea.

2. Significant Accounting Policies

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

Basis of Preparation

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

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

The attached statements are the separate financial statements subject to Korean IFRS 1027, 'Separate Financial Statements'. These separate financial statements have been prepared in accordance with the Korean IFRS standards and interpretations effective at December 31, 2015. These are the standards, subsequent amendments and related interpretations issued by the International Accounting Standards Board ("IASB") that have been adopted by the Republic of Korea. The preparation of the separate financial statements requires the use of certain critical accounting estimates. It also requires management to exercise judgment in the process of applying the Company's accounting policies. The areas involving a higher degree of judgment or complexity, or areas where assumptions and estimates are significant to the separate financial statements are disclosed in Note 3.

Changes in Accounting Policy and Disclosures

- (a) New and amended standards and interpretations effective for the financial year beginning January 1, 2015.
 - i) The new and amended standards and interpretations adopted by the Company from the financial year, 2015:
 - Korean IFRS 1019(Amendment): 'Employee Benefits'

In defined benefit plans with contributions from employees or third parties, if such contributions are linked to service provided by employees or third parties at the same period when contributions were made, a practical expedient of reducing such contributions from the service cost is allowed. It was clarified that when contributions reflect the actuarial valuation method, such contributions made by employees or third parties should be attributed by the same method used to attribute the total benefit. The amendments do not have a significant impact on these separate financial statements.

- Annual improvements of Korean IFRS

Korean IFRS 1102, 'Share-based Payment' Korean IFRS 1103, 'Business Combination' Korean IFRS 1108, 'Operating Segment' Korean IFRS 1113, 'Fair Value Measurement' Korean IFRS 1016, 'Property, Plant and Equipment' Korean IFRS 1038, 'Intangible Assets' Korean IFRS 1024, 'Related Party Disclosures' Korean IFRS 1040, 'Investment Property'

The annual improvements of Korean IFRS do not have a significant impact on these separate financial statements.

- (b) New standards, amendments and interpretations effective for the financial year beginning January 1, 2016.
 - i) There are no new and amended standards and interpretations early adopted by the Company from the financial year, 2015.
 - ii) New and amended standards and interpretations not yet adopted by the Company are as follows:

- Korean IFRS 1016(Amendment): 'Property, Plant and Equipment' and Korean IFRS 1038(Amendment): 'Intangible Assets'

Amendments to Korean IFRS 1016 and Korean IFRS 1038 clarify that the use of a revenuebased depreciation and amortization method is not permitted since the method are affected by factors, such as number of units sold and selling price, that are not directly related to the economic consumption of an asset. However, the revenue-based method is acceptable in limited circumstances in which intangible assets are measured based on revenue. The Company is assessing the impact of application of this amendment on its separate financial statements.

- Korean IFRS 1111(Amendment): 'Joint Arrangements'

Amendment to Korean IFRS 1111 requires the acquirer of an interest in a joint operation, in which the activity constitutes a business, as defined in Korean IFRS 1103, 'Business Combinations', to apply all of the principles on business combinations accounting in Korean IFRS 1103 and other Korean IFRSs, and to disclose the information related to the business combination. The Company is assessing the impact of application of this amendment on its separate financial statements.

- Korean IFRS 1027(Amendment): 'Separate Financial Statements'

Korean IFRS 1027, 'Separate Financial Statements' before amendment added the equity method, as descried in Korean IFRS 1028, 'Investments in Associates and Joint Ventures' to the accounting requirements for investments in subsidiaries, joint ventures, and associates when an entity prepares separate financial statements. The Company is assessing the impact of application of this amendment on its separate financial statements.

- Korean IFRS 1001(Amendment): 'Presentation of Financial Statements'

Amendment to Korean IFRS 1001, 'Presentation of Financial Statements' clarifies that the disclosed line items can be omitted, added, or aggregated in the list according to their materiality. In addition, the amendment clarifies that the share in the other comprehensive income of associates and joint ventures accounted for under the equity method should be presented separately in the financial statements based on whether they will or will not subsequently be reclassified to profit or loss. Also, additional requirements for disclosures in the notes and others are provided. The Company is assessing the impact of application of this amendment on its separate financial statements.

- Annual improvements of Korean IFRS

Korean IFRS 1105, 'Non-current assets held for sale and Discontinued operations', Korean IFRS 1107, 'Financial Instruments: Disclosure', Korean IFRS 1019, 'Employee benefits', Korean IFRS 1034, 'Interim Financial Reporting' The Company is in the process of determining the effects resulting from the adoption of annual improvements.

- (c) New standards, amendments and interpretations effective for the financial year beginning or after January 1, 2017.
 - Korean IFRS 1109, 'Financial Instruments'

The new standard issued in December 2015 regarding financial instruments replaces Korean IFRS 1039, 'Financial Instruments: Recognition and Measurement'.

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

- Korean IFRS 1115, 'Revenue from Contracts with Customers'

The new standard for the recognition of revenue issued in December 2015 will replace Korean IFRS 1018, 'Revenue', Korean IFRS 1011, 'Construction Contracts', and related Interpretations.

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

Investments in Subsidiaries, Associates and Joint ventures

In accordance with Korean IFRS 1027, 'Separate Financial Statements', the investments in subsidiaries, associates and joint ventures are recorded at acquisition cost on the basis of the direct equity interest. The Company recognizes a dividend from subsidiaries, associates and joint ventures in profit when its right to receive the dividend is established.

Segment Reporting

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

Foreign Currency Translation

(a) Functional and presentation currency

Items included in the financial statements are measured using the currency of the primary economic environment in which the Company operates (the "functional currency"). The Company's functional and presentation currency is 'Korean won'.

(b) Transactions and balances

Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transactions or valuation where items are re-measured. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at each reporting date of monetary assets and liabilities denominated in foreign currencies are recognized in the separate statements of income, except qualifying cash flow hedges which are recognized in other comprehensive income.

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

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

Cash and Cash Equivalents

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

Financial Instruments

Classification

The Company classifies its financial instruments in the following categories: financial assets and liabilities at fair value through profit or loss, loans and receivables, available-for-sale financial

assets, held-to-maturity investments, other financial liabilities at amortized cost, derivatives for hedging purpose, and financial guarantee liabilities. The classification depends on the purpose for which the financial instruments were acquired and the nature of the instruments. Management determines the classification of financial instruments at initial recognition.

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

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

(b) Loans and receivables

Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. They are included in current assets, except for those with maturities greater than 12 months after the end of the reporting period. These are classified as non-current assets. The Company's loans and receivables comprise 'cash and cash equivalents', 'financial deposits', 'trade receivables', and 'loans and other receivables'.

(c) Held-to-maturity financial assets

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

(d) Available-for-sale financial assets

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

(e) Financial liabilities measured at amortized cost

Non-derivative financial liabilities are included in financial liabilities at amortized cost, except for financial liability through profit or loss. In this case the transferred asset continues to be recognized and a financial liability is measured as the consideration received. Financial liabilities measured at amortized cost are included in non-current liabilities, except for maturities less than 12 months after the end of the reporting period, which are classified as current liabilities.

(f) Other

Derivatives for hedging purpose and financial guarantee liabilities are grouped in 'other financial assets' or 'other financial liabilities'.

Recognition and Measurement

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

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

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

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

Offsetting

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

Derecognition

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

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

Impairment of Financial Assets

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

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

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

(a) Loans and receivables and held-to-maturity financial assets (measured at amortized cost)

Impairment loss is measured as the difference between the asset's carrying amount and the present value of estimated future cash flows (excluding future credit losses that have not been

incurred) discounted at the financial asset's original effective interest rate. The carrying amount of the asset is reduced and the amount of the loss is recognized in the separate statements of income. Impairment of assets measured at amortized cost is presented as a deduction in an allowance account. Impairment of other financial assets is directly deducted from their carrying amount. The Company writes off financial assets when the assets are determined to be no longer recoverable. In case of financial assets with variable interest rates, impairment losses are recognized with current effective interest rates in accordance with the contract.

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

(b) Available-for-sale financial assets

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

Derivative Financial Instruments

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

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

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

Trade Receivables

Trade receivables are amounts due from customers for goods sold or services performed in the ordinary course of business. If collection is expected in one year or less, they are classified as current assets. If not, they are presented as non-current assets. Trade receivables are recognized initially at fair value, less allowance for doubtful debts.

Inventories

Inventories are stated at the lower of cost and net realizable value. Cost is determined using the monthly weighted-average method, except for inventories in-transit which is determined using the specific identification method. The cost of finished goods and work-in-process comprises raw materials, direct labour, other direct costs and related production overheads (based on normal operating capacity). The Company periodically reviews a possibility of the significant changes in net realizable value of inventories from disuse, decrease in market value and obsolescence and recognizes as 'Allowances for Valuation of Inventories'. Net realizable value is the estimated selling price in the ordinary course of business, less applicable selling expenses.

Assets Held for Sale and Discontinued Operations

Non-current assets (or disposal groups) are classified as 'assets held for sale' when their carrying amount is to be recovered principally through a sale transaction and a sale is considered highly probable. They are stated at the lower of carrying amount or fair value less costs to sell.

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

Property, Plant and Equipment

All property, plant and equipment are stated at historical cost less depreciation and impairment. Historical cost includes expenditures directly attributable to the acquisition of the items.

Subsequent costs are included in the asset's carrying amount or recognized as a separate asset, as appropriate, only when it is probable that future economic benefits associated with the item will flow to the Company and the cost of the item can be measured reliably. The carrying amount of the replaced part is derecognized. All other repairs and maintenance are charged to the separate statements of income during the financial period in which they are incurred.

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

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

The assets' depreciation method, residual values, and useful lives are reviewed, and adjusted if appropriate, at each financial year-end. An asset's carrying amount is written down immediately to its recoverable amount if the asset's carrying amount is greater than its estimated recoverable amount. Gains and losses on disposals are determined by comparing the proceeds with the carrying amount and are recognized within 'other non-operating income and expenses' in the separate statements of income.

Borrowing Costs

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

Government Grants

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

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

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

Intangible Assets

(a) Goodwill

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

(b) Industrial property rights

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

(c) Development costs

Development costs which are individually identifiable and directly related to a new technology or to new products which carry probable future benefits are capitalized as intangible assets. Amortization of development costs based on the straight-line method over their estimated useful lives of one to five years begins at the commencement of the commercial production of the related products or use of the related technology.

(d) Membership

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

(e) Other intangible assets

Other intangible assets such as software which meet the definition of an intangible asset are amortized using the straight-line method over their estimated useful lives of one to thirty years.

Research and Development Costs

Costs associated with research are recognized as an expense as incurred. Costs that are identifiable, controllable and directly attributable to development projects are recognized as intangible assets when all the following criteria are met:

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

Other development expenditures that do not meet these criteria are recognized as an expense as incurred. Development costs previously recognized as an expense are not recognized as an asset in a subsequent period. Capitalized development costs which are stated as intangible assets are

amortized using the straight-line method over their estimated useful lives when the assets are available for use or sale, and are tested at least annually for impairment.

Investment Property

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

Subsequent costs are included in the asset's carrying amount or recognized as a separate asset, only when it is probable that future economic benefits associated with the item will flow to the Company and the cost of the item can be measured reliably. The carrying amount of the replaced part is derecognized. All other repairs and maintenance are charged to the separate statements of income during the financial period in which they are incurred.

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

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

Impairment of Non-Financial Assets

Goodwill and intangible assets that have an indefinite useful life are not subject to amortization and are tested at least annually for impairment. At each reporting date, assets that are subject to amortization are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognized as 'profit or loss for the year' for the amount by which the asset's carrying amount exceeds its recoverable amount. The recoverable amount is the higher of an asset's fair value less costs of disposal and its value in use. The value in use is measured by determining the estimated pre-tax cash flows based on past performance and its expectations of market development and applying the pre-tax discount rates reflecting specific risks relating to the relevant operating segments. For the purposes of assessing impairment, assets are grouped at the lowest levels for which there are separately identifiable cash flows (cash-generating units). Non-financial assets other than goodwill that suffered impairment are reviewed for possible reversal of the impairment at each reporting date.

Trade Payables

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

Borrowings

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

Financial Guarantee Contracts

Financial guarantee contracts are contracts that require the issuer to make specified payments to reimburse the holder for a loss it incurs because a specified debtor fails to make payments when due, in accordance with the terms of a debt instrument. Financial guarantees contracts provided by the Company are initially measured at fair value on the date the guarantee was given. Subsequent to initial recognition, the Company's liabilities under such guarantees are measured at the higher of the amounts below and recognized as 'other financial liabilities':

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

Provisions

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

A warranty provision is accrued for the estimated costs of future warranty claims based on historical experience. Sales return provision is for the estimated sales returns based on historical results. Where the Company, as a tenant, is required to restore its leased assets to their original state at the end of the lease-term, the Company recognizes the present value of the estimated cost of restoration as a provision for restoration. When there is a probability that an outflow of economic benefits will occur from litigation or disputes, and whose amount is reasonably estimable, a corresponding amount of provision is recognized as a provision for litigation in the separate financial statements.

Current and Deferred Income Tax

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

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

Deferred income tax is recognized on temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the separate financial statements. It represents future tax consequences that will arise when recovering or settling the carrying amount of its assets and liabilities. However, the deferred income tax is not accounted for if it arises from initial recognition of an asset or liability in a transaction other than a business combination that at the time of the transaction affects neither accounting nor tax profit or loss. Deferred income tax is determined using tax rates (and laws) that have been enacted or substantially enacted by the end of the reporting period and are expected to apply when the related deferred income tax asset is realized or the deferred income tax liability is settled.

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

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

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

Employee Benefits

(a) Post-employment benefits

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

A defined contribution plan is a pension plan under which the Company pays fixed contributions into a separate fund. The Company has no legal or constructive obligations to pay further contributions even if the fund does not hold sufficient assets to pay all employees the benefits relating to employee service in the current and prior periods. For the defined contribution plan, the Company pays contributions to publicly or privately administered pension insurance plans on a mandatory, contractual or voluntary basis. The Company has no further payment obligations once

the contributions have been paid. The contributions are recognized as employee benefit expenses when an employee has rendered service. Prepaid contributions are recognized as an asset to the extent that a cash refund or a reduction in the future payments is available.

A defined benefit plan is a pension plan that is not a defined contribution plan. Typically defined benefit plans define an amount of pension benefit that an employee will receive on retirement, usually dependent on one or more factors such as age, years of service and compensation. The liability recognized in the separate statements of financial position in respect of the net defined benefit pension plan is the present value of the defined benefit obligation at the end of the reporting period less the fair value of plan assets, together with adjustments for unrecognized past-service costs. The defined benefit liability is calculated annually by independent qualified actuaries using the projected unit credit method. The present value of the defined benefit obligation is determined by discounting the estimated future cash outflows using interest rates of high-quality corporate bonds 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. The remeasurements of the net defined benefit liability are recognized in other comprehensive income.

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

(b) Other long-term employee benefits

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

(c) Termination benefits

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

Share Capital

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

Where the Company purchases its own equity share capital, the consideration paid, including any directly attributable incremental costs, is deducted from equity attributable to the Company's equity holders until the shares are cancelled or reissued. Where such treasury shares are subsequently reissued, any consideration received is included in equity attributable to the

Company's equity holders.

Revenue Recognition

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

The Company recognizes revenue when the amount of revenue can be reliably measured, it is probable that future economic benefits will flow to the Company and when specific criteria have been met for each of the Company's activities as described below. The revenue can be reliably measured only when any contingency related to sales is resolved. The Company bases its estimates on historical results, taking into consideration the type of customer, the type of transaction and the specifics of each arrangement.

(a) Sales of goods

The Company manufactures and sells mobile communication products, multimedia, home electronics products and their related core parts and display. Sales of goods are recognized when the Company has delivered products to the customer. Delivery does not occur until the products have been shipped to the specified location, the risks of obsolescence and loss have been transferred to the customer, and either the customer has accepted the products in accordance with the sales contract, the acceptance provisions have lapsed, or the Company has objective evidence that all criteria for acceptance have been satisfied.

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

(b) Sales of services

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

(c) Royalty income

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

(d) Other income

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

(e) Interest income

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

(f) Dividend income

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

Leases

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

(a) Lessees

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

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

(b) Lessors

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

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

same basis as the lease income.

Dividend Distribution

A dividend liability is recognized in the separate financial statements when the dividends are approved by the shareholders.

Earnings(loss) per Share

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

Greenhouse Gas Emissions Rights (Allowances) and Obligations

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

Business Combination

The acquisition method of accounting is used to account for the acquisition of subsidiaries by the Company. The cost of an acquisition is measured as the fair value of the assets given, equity instruments issued and liabilities incurred or assumed at the date of exchange. The consideration transferred includes the fair value of any asset or liability resulting from a contingent consideration arrangement. Identifiable assets acquired and liabilities and contingent liabilities assumed in a business combination are measured initially at their fair values at the acquisition date. The excess of the cost of acquisition over the fair value of the Company's share of the identifiable net assets acquired is recorded as goodwill.

3. Critical Accounting Estimates and Judgments

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

The Company 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 date are addressed below.

(a) Revenue Recognition

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

(b) Impairment of Goodwill

The Company tests goodwill regularly for impairment in accordance with the accounting policy stated in Note 2. 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 Company 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 Company uses its judgment to select a variety of methods and makes assumptions that are mainly based on market conditions existing at the end of each reporting period.

(e) Provisions

The Company recognizes provisions for product warranties and sales return in accordance with the accounting policy stated in Note 2 as of the reporting date. The amounts are estimated based on historical data.

(f) Net defined benefit liability

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 Company 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.

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

	December 31, 2015					
(in millions of Korean won)	Assets at fair value through profit or loss	Loans and receivables	Available-for- sale financial assets	Held-to- maturity financial assets	Other	Total
Cash and cash equivalents	-	678,221			-	678,221
Financial deposits	-	81,771	-		-	81,771
Trade receivables	-	5,607,126	-		-	5,607,126
Loans and other receivables	-	873,938	-		-	873,938
Other financial assets	-	-	33,846	; -	30,288	64,134
Total	-	7,241,056	33,846	-	30,288	7,305,190

(a) Categorizations of financial instruments are as follows:

(in millions of Korean won)		December 31	December 31, 2015				
	Liabilities at fair value through profit or loss	Liabilities carried at amortized cost	Other	Total			
Trade payables		- 5,015,038	-	5,015,038			
Borrowings		- 6,618,903	-	6,618,903			
Other payables		- 1,797,949	-	1,797,949			
Other financial liabilities			85,870	85,870			
Total		- 13,431,890	85,870	13,517,760			

			December 31	l, 2014					
(in millions of Korean won)	Assets at fair value through profit or loss	Loans and receivables	Available-for- sale financial assets	Held-to- maturity financial assets	Other	Total			
Cash and cash equivalents	-	913,208			-	913,208			
Financial deposits	-	66,689			-	66,689			
Trade receivables	-	5,956,772			-	5,956,772			
Loans and other receivables	-	869,696			-	869,696			
Other financial assets	-	· _	28,618		5,252	33,870			
Total		7,806,365	28,618	-	5,252	7,840,235			

		December 31, 2014					
(in millions of Korean won)	Liabilities at fair value through profit or loss	Liabilities carried at amortized cost	Other	Total			
Trade payables		- 5,451,036	-	5,451,036			
Borrowings		- 6,250,353	-	6,250,353			
Other payables		- 1,880,276	-	1,880,276			
Other financial liabilities			62,680	62,680			
Total		- 13,581,665	62,680	13,644,345			

(b) Income and expenses by category of financial instruments for the years ended December 31, 2015 and 2014, are as follows:

	2015						
(in millions of Korean won)	Assets at fair value through profit or loss	Loans and receivables	Available-for- sale financial assets	Held-to- maturity financial assets	Other	Total	
Interest income	-	23,010			-	23,010	
Exchange differences	-	144,682			-	144,682	
Bad debt expense	-	(17,752)			-	(17,752)	
Loss on disposal of trade receivables	-	(5,279)			-	(5,279)	
Gain on disposal of available-for- sale financial assets	-	-	6,990) -	-	6,990	
Dividend income	-	-	278		-	278	
Profit for the year from discontinued operations	-	1,127			-	1,127	
Gain on valuation of available- for-sale financial assets, net of tax (through other comprehensive income)	-	-	2,439) -	-	2,439	
Gain on derivatives, net of tax (through other comprehensive income)	-	-			144	144	

	2015						
(in millions of Korean won)	Liabilities at fair value through profit or loss	Liabilities car		Other	Total		
Interest expenses		- (22	21,166)	(20,647)	(241,813)		
Exchange differences		- (33	34,813)	44,836	(289,977)		
Profit for the year from discontinued operations		-	132	-	132		
Loss on derivatives, net of tax (through other comprehensive income)		-	-	(25,436)	(25,436)		

			2014			
(in millions of Korean won)	Assets at fair value through profit or loss	Loans and receivables	Available-for- sale financial assets	Held-to- maturity financial assets	Other	Total
Interest income	-	29,971	-	-	-	29,971
Exchange differences	-	(76,148)	-		-	(76,148)
Bad debt expense	-	(24,074)	-	-	-	(24,074)
Loss on disposal of trade receivables	-	(583)	-	-	-	(583)
Gain on disposal of available-for- sale financial assets	-	-	61	-	-	61
Impairment loss of available-for- sale financial assets	-	-	(17)	-	-	(17)
Dividend income	-	-	299	-	-	299
Loss for the year from discontinued operations	-	(3,859)	-	-	-	(3,859)
Loss on valuation of available- for-sale financial assets, net of tax (through other comprehensive income)	-	-	(2,268)	-	-	(2,268)
Loss on derivatives, net of tax (through other comprehensive income)	-	-	-	-	(2,570)	(2,570)

	2014						
(in millions of Korean won)	Liabilities at fair value through profit or loss	Liabilities carried at amortized cost	Other	Total			
Interest expenses		- (207,332)	(17,858)	(225,190)			
Exchange differences		- (177,983)	(5,020)	(183,003)			
Loss for the year from discontinued operations		- (35,596)	-	(35,596)			
Loss on derivatives, net of tax (through other comprehensive income)			(33,141)	(33,141)			

(c) Recognized financial instruments that are subject to an enforceable master netting arrangements or similar arrangements are as follows:

	2015							
		Recognized	Net amounts presented in	Amounts r	not offset			
(in millions of Korean won)	Recognized financial instrument	financial instrument offset	the statement of financial position	Financial instruments	Cash collateral	Net amount		
Financial assets								
Trade receivables Financial liabilities	56,860	(55,309)	1,551	-	-	1,551		
Trade payables	85,687	(55,309)	30,378	-	-	30,378		

	2014							
		Recognized	Net amounts	Amounts r				
(in millions of Korean won)	Recognized financial instrument	financial instrument offset	presented in the statement of financial position	Financial instruments	Cash collateral	Net amount		
Financial assets								
Trade receivables	51,881	(51,881)	-	-	-	-		
Financial liabilities								
Trade payables	72,794	(51,881)	20,913	-	-	20,913		

5. Cash and Cash Equivalents, and Financial Deposits

(a) Cash and cash equivalents

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

(in millions of Korean won)	December 31, 2015	December 31, 2014
Cash on hand	10	10
Bank deposits	678,211	913,198
Total	678,221	913,208

(b) Financial deposits

The financial deposits restricted in use as of December 31, 2015 and 2014, are as follows:

(in millions of Korean won)	December 31, 2015	December 31, 2014
Current		
Fund for business cooperation	80,500	65,000
Non-current		
Deposit for checking account	39	39
National project	1,232	1,650
Subtotal	1,271	1,689
Total	81,771	66,689

6. Trade Receivables, and Loans and Other Receivables

(a) Trade receivables, and loans and other receivables, net of allowance for doubtful accounts, as of December 31, 2015 and 2014, are as follows:

	December 31, 2015			December 31, 2014			
(in millions of Korean won)	Original amount	Less : allowance for doubtful accounts	Carrying amount	Original amount	Less : allowance for doubtful accounts	Carrying amount	
Current							
Trade receivables	5,708,568	(101,442)	5,607,126	6,041,998	(85,226)	5,956,772	
Loans and other receivables	541,772	(7,693)	534,079	493,738	(9,394)	484,344	
Non-current							
Loans and other receivables	339,872	(13)	339,859	385,384	(32)	385,352	

(b) Details of loans and other receivables as of December 31, 2015 and 2014, are as follows:

(in millions of Korean won)	December 31, 2015	December 31, 2014
Current		
Loans	29,032	13,694
Non-trade receivables	336,489	358,002
Accrued income	161,268	110,303
Deposits	7,290	2,345
Subtotal	534,079	484,344
Non-current		
Loans	106,694	146,465
Non-trade receivables	2,887	2,839
Deposits	230,278	236,048
Subtotal	339,859	385,352
Total	873,938	869,696

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

	December 31, 2015				December 31, 2014			
	Trade		and other ivables		Trade	Loans and other receivables		
(in millions of Korean won)	receivables	Current	Non-current	Total	receivables	Current	Non-current	Total
Current	4,873,999	411,186	337,050	5,622,235	5,315,968	383,139	380,830	6,079,937
Past due but not impaired								
Up to 6 months	554,227	37,091	2,777	594,095	460,003	47,053	4,250	511,306
7 to 12 months	143,506	42,831	1	186,338	166,436	32,879	301	199,616
Over 1 year	124,026	38,837	44	162,907	86,014	16,383	3	102,400
Subtotal	821,759	118,759	2,822	943,340	712,453	96,315	4,554	813,322
Impaired	12,810	11,827	-	24,637	13,577	14,284	-	27,861
Total	5,708,568	541,772	339,872	6,590,212	6,041,998	493,738	385,384	6,921,120

- (d) The allowance for doubtful accounts is recognized based on aging analysis and historical experience.
- (e) Defaulted receivables which are uncertain to be collected due to reasons including debtors' insolvency are classified into rehabilitation-related receivables and other defaulted receivables. In case of receivables from a debtor under court receivership or composition, its carrying amount is measured at the present value of estimated future cash flows based on repayment schedule. All other defaulted receivables are measured based on the class and the amount of provided collateral.
- (f) Movements in allowance for doubtful accounts for the years ended December 31, 2015 and 2014, are as follows:

		2015	5	
(in millions of Korean won)	At Jan. 1	Addition (Reversal)	Write-off	At Dec. 31
Trade receivables	85,226	16,330	(114)	101,442
Loans and other receivables				
Current	9,394	(200)	(1,501)	7,693
Non-current	32	(19)	-	13

-		Addition		
(in millions of Korean won)	At Jan. 1	(Reversal)	Write-off	At Dec. 31
Trade receivables	62,988	22,894	(656)	85,226
Loans and other receivables				
Current	9,351	437	(394)	9,394
Non-current	50	(18)	-	32

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

(g) There are no financial assets transferred, but not derecognized in their entirety, and no associated liabilities recognized as of December 31, 2015.

7. Other Financial Assets and Liabilities

(a) Details of other financial assets and liabilities as of December 31, 2015 and 2014, are as follows:

December 31, 2015	December 31, 2014	
30,288	5,252	
33,846	28,618	
64,134	33,870	
-	-	
64,134	33,870	
December 31, 2015	December 31, 2014	
76,079	62,160	
9,791	520	
85,870	62,680	
14,553	106	
71,317	62,574	
	30,288 33,846 64,134 - 64,134 - 64,134 - 64,134 - 76,079 9,791 85,870 14,553	

(b) Details of derivatives as of December 31, 2015 and 2014, are as follows:

	December 31, 2015		December	ecember 31, 2014	
(in millions of Korean won)	Assets	Liabilities	Assets	Liabilities	
Current					
Currency swap		6,461			
Non-current					
Currency swap	30,288	-	5,252	28,352	
Interest rate swap		69,618		33,808	
Total	30,288	76,079	5,252	62,160	

The details of derivative contracts are described in Note 36.

- (c) Available-for-sale financial assets
 - i) Changes in available-for-sale financial assets for the years ended December 31, 2015 and 2014, are as follows:

	2015										
(in millions of Korean won)	At Jan. 1	Acquisition	Disposals	Valuation (OCI)	Impairment	At Dec. 31					
Listed equity securities	12,105	-	(1,369)	4,587	-	15,323					
Unlisted equity securities	16,513	2,573	(563)			18,523					
Total	28,618	2,573	(1,932)	4,587		33,846					

	2014									
(in millions of Korean won)	At Jan. 1	Acquisition	Disposals	Valuation (OCI)	Impairment	At Dec. 31				
Listed equity securities	15,114	-	-	(2,992)	(17)	12,105				
Unlisted equity securities	16,615		(102)			16,513				
Total	31,729		(102)	(2,992)	(17)	28,618				

- ii) The listed equity securities among the above equity securities are measured using quoted prices in active markets. However, the unlisted securities are measured at cost as they are mostly in the beginning of their business stages and their fair values cannot be reliably measured.
- iii) During the year ended December 31, 2015, listed equity securities amounting to ₩1,369 million have been derecognized as a result of disposal and the Company recognized gain on disposal amounting to ₩1,372 million. In addition, available-for-sale equity securities amounting to ₩563 million (2014: ₩102 million), whose fair value could not be measured reliably and therefore measured at cost, have been derecognized as a result of disposal or return of capital investments. Accordingly, a gain on disposal amounting to ₩5,618 million (2014: ₩61 million) was recognized as profit and loss for the year ended December 31, 2015.
- iv) For the year ended December 31, 2015, there is no impairment loss on listed equity securities that were reclassified from accumulated other comprehensive loss (2014: ₩17 million of impairment loss on listed equity securities that was reclassified from accumulated other comprehensive loss).

8. Inventories

(a) Inventories as of December 31, 2015 and 2014, are as follows:

	De	cember 31, 20	15	December 31, 2014			
(in millions of Korean won)	Cost	Valuation Allowance	Carrying amount	Cost	Valuation Allowance	Carrying amount	
Finished products and merchandise	493,082	(33,632)	459,450	445,396	(21,623)	423,773	
Work-in-process	85,531	(8,004)	77,527	90,508	(735)	89,773	
Raw materials and supplies	413,293	(38,783)	374,510	481,774	(18,695)	463,079	
Other	167,565	(21,085)	146,480	161,501	(22,003)	139,498	
Total	1,159,471	(101,504)	1,057,967	1,179,179	(63,056)	1,116,123	

- (b) The cost of inventories recognized as expense and included in 'Cost of sales' in 2015 amounts to ₩21,221,998 million (2014: ₩22,333,830 million) and 'Loss on valuation of inventories' amounts to ₩62,252 million (2014: ₩25,843 million) from continuing operations. The cost of inventories recognized as expense and included in 'Cost of sales' in 2015 amounts to ₩11,099 million (2014: ₩626,386 million) and 'Loss on valuation of inventories' amounts to ₩3,775 million (2014: ₩2,730 million) from discontinued operations
- (c) There is no inventory provided as collateral for borrowings as of December 31, 2015. .

9. Other Assets

Details of other assets as of December 31, 2015 and 2014, are as follows:

(in millions of Korean won)	December 31, 2015	December 31, 2014
Current:		
Advances	24,400	65,100
Prepaid expenses	204,116	180,651
Prepaid value added tax	78,568	95,169
Subtotal	307,084	340,920
Non-current:		
Long-term prepaid expenses	261,083	308,690
Long-term advances	293,132	272,710
Subtotal	554,215	581,400
Total	861,299	922,320

10. Property, Plant and Equipment

(a) Details of property, plant and equipment as of December 31, 2015 and 2014, are as follows::

(in millions of Korean won)	Land	Buildings	Structures	Machinery	Tools	Equipment	Other	Construction -in-progress	Total
At December 31, 2015									
Acquisition cost	2,428,466	3,212,782	199,469	2,013,145	2,054,879	440,392	159,812	325,489	10,834,434
Accumulated depreciation	-	(729,634)	(97,143)	(1,293,389)	(1,699,542)	(355,532)	(66,794)	-	(4,242,034)
Accumulated Impairment	-	(129,543)	(558)	(7,251)	(3,164)	(525)	(953)	-	(141,994)
Net book amount	2,428,466	2,353,605	101,768	712,505	352,173	84,335	92,065	325,489	6,450,406
At December 31, 2014									
Acquisition cost	2,084,818	3,205,385	196,067	2,357,656	1,974,734	471,328	148,984	502,890	10,941,862
Accumulated depreciation	-	(678,168)	(96,239)	(1,735,129)	(1,581,477)	(373,456)	(66,214)	-	(4,530,683)
Accumulated Impairment	-	(129,544)	(299)	(34,293)	(1,194)	(622)	(1,030)	-	(166,982)
Net book amount	2,084,818	2,397,673	99,529	588,234	392,063	97,250	81,740	502,890	6,244,197

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

		2015								
(in millions of Korean won)	Land	Buildings	Structures	Machinery	Tools	Equipment	Other	Construction -in-progress	Total	
At January 1, 2015	2,084,818	2,397,673	99,529	588,234	392,063	97,250	81,740	502,890	6,244,197	
Acquisitions	68,660	68,632	2,513	59,003	159,603	25,606	37,015	571,533	992,565	
Acquisitions from business combination	-	-	-	-	2,192	298	23	-	2,513	
Transfer-in(out)	306,119	(17,652)	8,315	267,975	61,164	1,673	-	(748,928)	(121,334)	
Disposals	(28,262)	(3,326)	(9)	(14,494)	(6,829)	(191)	(3,577)	(6)	(56,694)	
Decrease due to transfer of business	-	-	-	(229)	(407)	(11)	-	-	(647)	
Depreciation	-	(83,566)	(8,301)	(186,836)	(252,972)	(40,146)	(22,965)	-	(594,786)	
Impairment ¹	(2,869)	(8,156)	(279)	(1,148)	(2,641)	(144)	(171)	-	(15,408)	
At December 31, 2015	2,428,466	2,353,605	101,768	712,505	352,173	84,335	92,065	325,489	6,450,406	

		2014									
(in millions of Korean won)	Land	Buildings	Structures	Machinery	Tools	Equipment	Other	Construction- in-progress	Total		
At January 1, 2014	2,094,126	2,425,536	101,806	559,151	414,812	100,960	79,220	269,426	6,045,037		
Acquisitions	289	76,476	6,485	72,425	219,724	34,371	19,315	581,661	1,010,746		
Transfer-in(out)	5,625	128,239	1,061	166,323	30,895	1,033	15,021	(348,197)	-		
Disposals	(15,222)	(19,927)	(448)	(4,401)	(8,108)	(860)	(9,465)	-	(58,431)		
Decrease due to transfer of business	-	-	(200)	(38)	(15)	(2)	-	-	(255)		
Depreciation	-	(85,325)	(8,271)	(184,304)	(264,163)	(37,967)	(21,853)	-	(601,883)		
Impairment	-	(127,326)	(904)	(20,922)	(1,082)	(285)	(498)	-	(151,017)		
At December 31, 2014	2,084,818	2,397,673	99,529	588,234	392,063	97,250	81,740	502,890	6,244,197		

¹ Divisions in other segments, managed as a separate cash-generating unit (hereafter 'CGU'), have been tested for impairment as accumulation of operating losses has been experienced and a future downturn in sales is expected. And impairment loss of W1,878 million was recognized as other non-operating expenses. This impairment was attributed to property, plant and equipment, mainly to tools, machinery, and others, since there was no goodwill allocated to the CGU. The recoverable amount was measured at fair value less costs of disposal, and the fair value amount is categorized within Level 3 of fair value hierarchy.

(c) Line items including depreciation for the years ended December 31, 2015 and 2014, are as follows:

(in millions of Korean won)	2015	2014	
Continuing operations			
Cost of sales	441,721	433,288	
Selling and marketing expenses	9,009	9,505	
Administrative expenses	46,756	34,754	
Research and development expenses	83,599	84,266	
Service costs	5,369	5,245	
Other non-operating expenses	8,332	7,600	
Subtotal	594,786	574,658	
Discontinued operations	-	27,225	
Total	594,786	601,883	

(d) Capitalized borrowing costs and capitalization rates for the years ended December 31, 2015 and 2014, are as follows:

(in millions of Korean won)	2015	2014	
Capitalized borrowing costs	17,835	9,030	
Capitalization rate(%)	3.79	4.04	

(e) There are no property, plant and equipment pledged as collateral for various borrowings from banks.

11. Intangible assets

(a) Details of intangible assets are as follows:

(in millions of Korean won) At December 31, 2015	Goodwill	Industrial property rights	Development costs	Membership rights	Other intangible assets	Construction -in-progress	Total
Acquisition cost	88,449	777,301	1,964,084	65,914	577,285	109,573	3,582,606
Accumulated amortization and impairment	(1,214)	(387,313)	(1,607,980)	(1,348)	(429,841)	-	(2,427,696)
Net book amount	87,235	389,988	356,104	64,566	147,444	109,573	1,154,910

(in millions of Korean won)	Goodwill	Industrial property rights	Development costs	Membership rights	Other intangible assets	Construction -in-progress	Total
At December 31, 2014							
Acquisition cost	87,235	710,114	1,721,450	66,141	500,133	130,021	3,215,094
Accumulated amortization and impairment	-	(333,962)	(1,402,630)	(675)	(383,348)	-	(2,120,615)
Net book amount	87,235	376,152	318,820	65,466	116,785	130,021	1,094,479

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

(in millions of Korean won)	Goodwill	Industrial property rights	Development costs	Membership rights	Other intangible assets	Construction -in-progress	Total
At January 1, 2015	87,235	376,152	318,820	65,466	116,785	130,021	1,094,479
Acquisitions	-	89,076	16,589	-	76,883	61,986	244,534
Acquisitions by internal development	-	-	20,013	-	-	183,690	203,703
Acquisitions from business combination	1,214	975	57	-	2,875	-	5,121
Transfer-in(out)	-	-	253,866	-	8,907	(262,773)	-
Disposals	-	(5,863)	(16,730)	(227)	(29)	(3,351)	(26,200)
Decrease due to transfer of business		(13)	-	-	(10)	-	(23)
Amortization	-	(70,072)	(236,461)	-	(57,640)	-	(364,173)
Impairment ¹	(1,214)	(267)	(50)	(673)	(327)	-	(2,531)
At December 31, 2015	87,235	389,988	356,104	64,566	147,444	109,573	1,154,910

(in millions of Korean won)	Goodwill	Industrial property rights	Development costs	Membership rights	Other intangible assets	Construction -in-progress	Total
At January 1, 2014	88,885	368,209	299,872	66,596	148,262	114,043	1,085,867
Acquisitions	-	92,226	43,451	-	21,687	69,034	226,398
Acquisitions by internal development	-	-	24,872	-	-	169,796	194,668
Transfer-in(out)	-	-	211,209	-	9,566	(220,775)	-
Disposals	-	(16,046)	(8,447)	(1,130)	(1)	(2,077)	(27,701)
Decrease due to business transfer	(1,650)	-	-	-	-	-	(1,650)
Amortization	-	(64,826)	(248,962)	-	(61,365)	-	(375,153)
Impairment	-	(3,411)	(3,175)	-	(1,364)	-	(7,950)
At December 31, 2014	87,235	376,152	318,820	65,466	116,785	130,021	1,094,479

¹ Divisions in other segments, managed as a separate cash-generating unit (hereafter 'CGU'), have been tested for impairment as accumulation of operating losses has been experienced and a future downturn in sales is expected, and impairment loss of ₩571 million was recognized as other non-operating expenses. This impairment was attributed to intangible assets, mainly to patent, software, and others, since there was no goodwill allocated to the CGU. The recoverable amount was measured at fair value less costs of disposal, and the fair value amount is categorized within Level 3 of fair value hierarchy.

(c) Line items including amortization of intangible assets are as follows:

(in millions of Korean won)	2015	2014	
Continuing operations:			
Cost of sales	201,962	221,098	
Selling and marketing expenses	23,114	27,152	
Administrative expenses	86,236	77,302	
Research and development expenses	51,483	45,331	
Service costs	1,378	1,462	
Subtotal	364,173	372,345	
Discontinued operations	<u> </u>	2,808	
Total	364,173	375,153	

(d) Capitalized borrowing costs and capitalization rates of intangible assets used for the years ended December 31, 2015 and 2014, are as follows:

(in millions of Korean won)	2015	2014
Capitalized borrowing costs	36	25
Capitalization rate(%)	3.79	4.04

(e) There are no intangible assets pledged as collateral for various borrowings from banks.

- (f) Impairment tests for goodwill
 - Goodwill is allocated among the Company's cash-generating units (CGUs) based on operating segments. As December 31, 2015, an operating segment-level summary of goodwill allocation is presented below:

(in millions of Korean won)	H&A ¹	MC ¹	Other	Total
Goodwill	55,230	29,894	2,111	87,235

¹ H&A: Home Appliance & Air Solution, MC: Mobile Communications

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

_	H&A	МС	Other
Discount rates	8.6%	14.3%	9.2%
Nominal long-term growth rates	2.1%	3.0%	2.9%

 iv) During the year ended December 31, 2015, impairment loss on goodwill, amounting to ₩1,214 million, was recognized on the basis of recoverable amounts of a CGU determined based on fair value less costs of disposal.

(g) Research and development expenses

Research and development expenses are as follows:

(in millions of Korean won)	2015	2014	
Continuing operations:			
Uncapitalized research and development expenditure	3,015,026	2,875,299	
Amortization from internally capitalized development costs	147,326	166,451	
Subtotal	3,162,352	3,041,750	
Discontinued operations	-	7,163	
Total	3,162,352	3,048,913	

12. Investments in subsidiaries, associates and joint ventures

(a) Investments in subsidiaries, associates and joint ventures as of December 31, 2015 and 2014, are as follows:

Dereenters of

	Classification at	ssification at		Percentage of ownership at	Carrying amount	
(in millions of Korean won)	December 31, 2015	Location	Closing month	December 31, 2015	December 31, 2015	December 31, 2014
LG Display Co., Ltd.	Associate	Korea	December	37.9%	3,480,623	3,480,623
LG Electronics U.S.A., Inc.(LGEUS)	Subsidiary	USA	December	100.0%	955,542	955,542
LG Innotek Co., Ltd.	Subsidiary	Korea	December	40.8%	541,538	541,538
LG Electronics India Pvt. Ltd.(LGEIL)	Subsidiary	India	March	100.0%	311,746	311,746
LG Electronics do Brasil Ltda.(LGEBR)	Subsidiary	Brazil	December	100.0%	270,631	270,631
LG Electronics Mlawa Sp. z o.o(LGEMA)	Subsidiary	Poland	December	100.0%	214,091	214,091
LG Electronics Tianjin Appliances Co., Ltd.(LGETA)	Subsidiary	China	December	70.0%	161,331	161,331
LG Electronics European Holdings B.V.(LGEEH)	Subsidiary	Netherlands	December	100.0%	148,551	148,551
Hiplaza Co., Ltd.	Subsidiary	Korea	December	100.0%	136,459	136,459
LG Holdings(HK) Ltd.	Joint venture	China	December	49.0%	129,386	129,386
Taizhou LG Electronics Refrigeration Co., Ltd.(LGETR)	Subsidiary	China	December	88.4%	97,608	97,608
P.T. LG Electronics Indonesia(LGEIN)	Subsidiary	Indonesia	December	100.0%	94,118	94,118
LG Electronics Vietnam Haiphong Co., Ltd. (LGEVH)	Subsidiary	Vietnam	December	100.0%	84,784	84,784

	Classification at			Percentage of ownership at	Carrying amount	
(in millions of Korean won)	December 31, 2015	Location	Closing month	December 31, 2015	December 31, 2015	December 31, 2014
Ericsson-LG Co., Ltd.	Associate	Korea	December	25.0%	81,755	81,755
Hitachi-LG Data Storage Inc.	Associate	Japan	December	49.0%	80,602	80,602
LG Electronics Panama, S.A.(LGEPS)	Subsidiary	Panama	December	100.0%	79,222	79,222
LG Electronics Wroclaw Sp.z o.o(LGEWR)	Subsidiary	Poland	December	100.0%	70,014	70,014
LG Electronics Mexico S.A. DE C.V.(LGEMS)	Subsidiary	Mexico	December	100.0%	68,721	68,721
LG Electronics Shenyang Inc.(LGESY)	Subsidiary	China	December	56.3%	66,668	66,668
Hi Entech Co., Ltd.	Subsidiary	Korea	December	100.0%	63,118	63,118
LG Electronics Thailand Co., Ltd.(LGETH)	Subsidiary	Thailand	December	100.0%	55,578	55,578
Global OLED Technology LLC ¹	Associate	USA	December	-	-	53,454
LG Electronics Australia Pty, Ltd.(LGEAP)	Subsidiary	Australia	December	100.0%	50,664	50,664
Inspur LG Digital Mobile Communications Co., Ltd.(LGEYT)	Subsidiary	China	December	60.5%	48,624	48,624
LG Fuel Cell Systems Inc.	Associate	USA	December	29.2%	44,051	44,051
LG Electronics RUS, LLC(LGERA)	Subsidiary	Russia	December	100.0%	43,645	43,645
LG Electronics Huizhou Ltd.(LGEHZ)	Subsidiary	China	December	45.0%	41,984	41,984
Arcelic-LG Klima Sanayi ve Ticarta A.S.	Joint venture	Turkey	December	50.0%	40,844	40,844
LG Electronics Finland Lab, Oy(LGEFL)	Subsidiary	Finland	December	100.0%	8,057	-
EIC PROPERTIES PTE LTD.	Joint venture	Singapore	December	38.2%	7,881	7,881
LG Electronics Mobilecomm France (LGEMF) ²	Subsidiary	France	December	-	-	5,756
LG-Shaker Co., Ltd.(LGESR)	Subsidiary	Saudi	December	51.0%	5,656	5,656
Korea Information Certificate Authority Inc.	Associate	Korea	December	7.5%	1,242	1,242
Innovation Investment Fund	Subsidiary	Korea	December	83.3%	1,054	1,054
PT.LG Electronics Service Indonesia (LGEID)	Subsidiary	Indonesia	December	99.8%	518	518
Others	Subsidiaries	-	-	-	477,161	517,957
Total					7,963,467	8,055,416

¹ Global OLED Technology LLC was disposed of in 2015.

² LG Electronics Mobilecomm France(LGEMF) was liquidated in 2015.

(b) Changes in investments in subsidiaries, associates and joint ventures for the years ended December 31, 2015 and 2014, are as follows:

(in millions of Korean won)	2015	2014
At January 1	8,055,416	8,006,190
Acquisitions	11,057	55,909
Reclassified as assets held for sale	(2,116)	-
Disposals	(92,047)	(3,657)
Impairment	(8,843)	(3,026)
At December 31	7,963,467	8,055,416

- (c) Impairment test for investments in subsidiaries, associates and Joint ventures
 - i) The Company records the investments in subsidiaries, associates or joint ventures at acquisition cost on the basis of the direct equity interest and assesses at the end of each reporting period whether there is any indication that asset may be impaired. If any such indication exists, the Company estimates the recoverable amount of the asset by future cash flow projection technique. And if the recoverable amount of an asset is less than its carrying amount, the Company recognizes an impairment loss immediately by reducing its carrying amount to its recoverable amount.
 - ii) The difference of ₩8,843 million between recoverable amount and carrying amount relating to Shanghai LG Electronics Co., Ltd., a subsidiary, and others is recognized in the statement of income within 'other non-operating expenses' for the year ended December 31, 2015.
 - iii) The difference of ₩3,026 million between recoverable amount and carrying amount relating to LG Electronics Mobilecomm France, a subsidiary, is recognized in the statement of income within 'other non-operating expenses' for the year ended December 31, 2014.
- (d) The fair value and book value of marketable subsidiaries, associates, and joint ventures securities are as follows:

	December 31, 2015				
	Туре	Shares held (Unit: shares)	Price per share (Unit: won)	Fair value (in millions of	Book value Korean won)
LG Display Co., Ltd.	Associate	135,625,000	24,550	3,329,594	3,480,623
LG Innotek Co., Ltd.	Subsidiary	9,653,181	98,500	950,838	541,538
Korea Information Certificate Authority Inc.	Associate	2,000,000	10,850	21,700	1,242

	December 31, 2014				
	Туре	Shares held (Unit: shares)	Price per share (Unit: won)	Fair value (in millions of	Book value Korean won)
LG Display Co., Ltd.	Associate	135,625,000	33,650	4,563,781	3,480,623
LG Innotek Co., Ltd.	Subsidiary	9,653,181	112,500	1,085,983	541,538
Korea Information Certificate Authority Inc.	Associate	2,000,000	3,475	6,950	1,242

13. Investment Property

(a) Details of investment property as of December 31, 2015 and 2014, are as follows:

(in millions of Korean won)	Land	Buildings	Total	
At December 31, 2015				
Acquisition cost	77,796	68,362	146,158	
Accumulated depreciation	-	(25,312)	(25,312)	
Net book amount	77,796	43,050	120,846	

(in millions of Korean won)	Land	Buildings	Total
At December 31, 2014			
Acquisition cost	-	760	760
Accumulated depreciation	-	(127)	(127)
Net book amount	-	633	633

(b) Changes in investment property for the years ended December 31, 2015 and 2014, are as follows:

	2015				
(in millions of Korean won)	Land	Buildings	Total		
At January 1	-	633	633		
Transfer-in ¹	77,796	43,538	121,334		
Disposals	-	(633)	(633)		
Depreciation		(488)	(488)		
At December 31	77,796	43,050	120,846		

	2014				
(in millions of Korean won)	Land	Buildings	Total		
At January 1	754	2,225	2,979		
Disposals	(754)	(1,174)	(1,928)		
Depreciation	-	(22)	(22)		
Impairment	-	(396)	(396)		
At December 31	-	633	633		

¹ Reclassified from property, plant and equipment.

(c) The fair value of investment property is valued by an independent professional appraiser with certified qualification or determined based on the evaluation reflecting official land value or recently available transaction price of similar properties and it is classified as Level 3 of the fair value hierarchy. The fair value of investment property as of December 31, 2015, is ₩122,692 million (2014: ₩554 million).

- (d) Rental income amounting to ₩1,465 million (2014: ₩67 million) and rental expenses amounting to ₩1,181 million (2014: ₩40 million) are recognized in the separate statement of income relating to investment property.
- (e) As of December 31, 2015, the Company assumes obligation for repairs and maintenance of the investment property owned by the Company.

14. Borrowings

(a) The carrying amounts of borrowings as of December 31, 2015 and 2014, are as follows:

(in millions of Korean won)	December 31, 2015	December 31, 2014
Current		
Short-term borrowings	-	100,000
Current portion of long-term borrowings	77,500	257,500
Current portion of debentures	964,103	659,406
Subtotal	1,041,603	1,016,906
Non-current		
Long-term borrowings	1,750,000	1,237,500
Debentures	3,827,300	3,995,947
Subtotal	5,577,300	5,233,447
Total	6,618,903	6,250,353

(b) Details of borrowings

i) Short-term borrowings consist of:

	Annual inte	erest rate(%)	Carrying amount			
(in millions of Korean won) Local currency loans	December 31, 2015	December 31, 2014	December 31, 2015	December 31, 2014		
Korea Development Bank	-	2.39	-	100,000		
Total	_		-	100,000		

ii) Long-term borrowings consist of:

		Annual interest rate at	December 31, 2015			
(in millions of Korean won)	Maturity date	December 31, 2015(%)	Total	Current	Non-current	
Local currency loans						
Kookmin Bank ¹	2027.01.28	3M CD+0.91	190,000	-	190,000	
Kookmin Bank ¹	2029.04.30	3M CD+1.14	200,000	-	200,000	
Nonghyup Bank ¹	2030.07.07	3M CD+1.05	190,000	-	190,000	
Shinhan Bank	2016.10.19	4.37	47,500	47,500	-	

		Annual interest rate at	Dec	cember 31, 20	r 31, 2015	
(in millions of Korean won)	Maturity date	December 31, 2015(%)	Total	Current	Non-current	
Shinhan Bank	2017.02.16	4.60	190,000	-	190,000	
Woori Bank ¹	2030.04.15	3M CD+0.82	390,000	-	390,000	
Hana Bank ¹	2024.01.03	3M CD+0.98	200,000	-	200,000	
Korea Development Bank	2016.04.20	4.63	30,000	30,000	-	
Korea Development Bank	2017.03.29	4.62	190,000	-	190,000	
Korea Development Bank	2025.09.09	3.00	200,000	-	200,000	
Total			1,827,500	77,500	1,750,000	

		Annual interest rate at	December 31, 2014		
(in millions of Korean won)	Maturity date	December 31, 2014(%)	Total	Current	Non-current
Local currency loans					
Kookmin Bank	2016.05.24	4.73	190,000	-	190,000
Kookmin Bank ¹	2029.04.30	3M CD+1.14	200,000	-	200,000
Shinhan Bank	2016.10.19	4.37	95,000	47,500	47,500
Shinhan Bank	2017.02.16	4.60	190,000	-	190,000
Woori Bank	2017.10.28	4.62	190,000	-	190,000
Hana Bank ¹	2024.01.03	3M CD+0.98	200,000	-	200,000
Korea Development Bank	2015.03.10	5.06	90,000	90,000	-
Korea Development Bank	2015.09.13	4.57	80,000	80,000	-
Korea Development Bank	2015.12.24	4.64	40,000	40,000	-
Korea Development Bank	2016.04.20	4.63	30,000	-	30,000
Korea Development Bank	2017.03.29	4.62	190,000	-	190,000
Total	_		1,495,000	257,500	1,237,500

¹ The Company entered into an interest rate swap contract to hedge cash flow risk related to floating interest rates fluctuation (Note 36).

iii) Debentures consist of:

			Annual Interest rate	December 31, 2015			
(in millions of Korean won)		Maturity date	at December 31, 2015(%)	Total	Current	Non-current	
Fixed rate notes in local currency	Public, non-guaranteed bonds (58-2 nd)	2016.02.16	4.91	60,000	60,000	-	
Fixed rate notes in local currency	Public, non-guaranteed bonds (60 th)	2016.05.20	4.41	190,000	190,000	-	
Fixed rate notes in local currency	Public, non-guaranteed bonds (61 st)	2016.06.29	4.38	190,000	190,000	-	
Fixed rate notes in local currency	Public, non-guaranteed bonds (62-2 nd)	2016.08.05	4.34	80,000	80,000	-	
Fixed rate notes in local currency	Public, non-guaranteed bonds (64 th)	2016.09.30	4.32	190,000	190,000	-	
Fixed rate notes in foreign currency ¹	Public, non-guaranteed bonds (65 th)	2016.12.02	2.00	254,859	254,859	-	
Fixed rate notes in local currency	Public, non-guaranteed bonds (66-2 nd)	2017.09.10	3.28	130,000	-	130,000	
Fixed rate notes in local currency	Private, non-guaranteed bonds (67 th)	2018.03.21	3.11	300,000	-	300,000	

Fixed rate notes in local currency	Private, non-guaranteed bonds (68-1 st)	2020.05.23	3.29	100,000	-	100,000
Fixed rate notes in local currency	Private, non-guaranteed bonds (68-2 nd)	2020.05.24	3.29	20,000	-	20,000
Fixed rate notes in local currency	Private, non-guaranteed bonds (68-3 rd)	2023.05.22	3.68	50,000	-	50,000
Fixed rate notes in local currency	Private, non-guaranteed bonds (68-4 th)	2023.05.23	3.68	30,000	-	30,000
Fixed rate notes in local currency	Public, non-guaranteed bonds (69-2 nd)	2018.07.31	3.54	140,000	-	140,000
Fixed rate notes in local currency	Public, non-guaranteed bonds (69-3 rd)	2020.07.31	3.85	150,000	-	150,000
Floating rate notes in foreign currency ¹	Private, guaranteed bonds (70 th)	2019.01.31	3ML+1.60	234,400	-	234,400
Fixed rate notes in local currency	Public, non-guaranteed bonds (71-1 st)	2018.10.18	3.55	200,000	-	200,000
Fixed rate notes in local currency	Public, non-guaranteed bonds (71-2 nd)	2020.10.19	3.82	110,000	-	110,000
Fixed rate notes in local currency	Public, non-guaranteed bonds (71-3 rd)	2023.10.18	4.25	90,000	-	90,000
Floating rate notes in foreign currency ¹	Private, non-guaranteed bonds (72 nd)	2017.06.19	3ML+1.30	234,400	-	234,400
Fixed rate notes in local currency	Public, non-guaranteed bonds (73-1st)	2017.01.24	3.16	100,000	-	100,000
Fixed rate notes in local currency	Public, non-guaranteed bonds (73-2 nd)	2019.01.24	3.60	120,000	-	120,000
Fixed rate notes in local currency	Public, non-guaranteed bonds (73-3 rd)	2021.01.24	3.95	160,000	-	160,000
Fixed rate notes in local currency	Public, non-guaranteed bonds (73-4 th)	2024.01.24	4.44	120,000	-	120,000
Fixed rate notes in local currency	Public, non-guaranteed bonds (74-1 st)	2019.05.29	3.30	200,000	-	200,000
Fixed rate notes in local currency	Public, non-guaranteed bonds (74-2 nd)	2021.05.29	3.52	130,000	-	130,000
Fixed rate notes in local currency	Public, non-guaranteed bonds (74-3 rd)	2024.05.29	4.04	210,000	-	210,000
Fixed rate notes in local currency	Public, non-guaranteed bonds (74-4 th)	2029.05.29	4.44	60,000	-	60,000
Fixed rate notes in local currency	Private , non-guaranteed bonds (75 th)	2026.07.16	3.96	100,000	-	100,000
Fixed rate notes in local currency	Private, non-guaranteed bonds (76-1 st)	2028.11.17	3.79	40,000	-	40,000
Fixed rate notes in local currency	Private, non-guaranteed bonds (76-2 nd)	2028.11.18	3.79	60,000	-	60,000
Fixed rate notes in local currency	Public, non-guaranteed bonds (77-1 st)	2020.02.02	2.28	210,000	-	210,000
Fixed rate notes in local currency	Public, non-guaranteed bonds (77-2 nd)	2022.02.02	2.51	230,000	-	230,000
Fixed rate notes in local currency	Public, non-guaranteed bonds (77-3 rd)	2025.02.02	2.97	210,000	-	210,000
Fixed rate notes in local currency	Public, non-guaranteed bonds (77-4 th)	2030.02.02	3.45	100,000	-	100,000
Less: discount on debentures				(12,256)	(756)	(11,500)
Total	-			4,791,403	964,103	3,827,300

			Annual Interest rate	De	cember 31,	2014
(in millions of Korean won)	_	Maturity date	at December 31, 2014(%)	Total	Current	Non-current
Fixed rate notes in local currency	Public, non-guaranteed bonds (56 th)	2015.09.09	4.63	190,000	190,000	-
Fixed rate notes in local currency	Public, non-guaranteed bonds (57 th)	2015.10.22	4.30	190,000	190,000	-
Fixed rate notes in local currency	Public, non-guaranteed bonds (58-2 nd)	2016.02.16	4.91	60,000	-	60,000
Fixed rate notes in local currency	Public, non-guaranteed bonds (60 th)	2016.05.20	4.41	190,000	-	190,000
Fixed rate notes in local currency	Public, non-guaranteed bonds (61 st)	2016.06.29	4.38	190,000	-	190,000
Fixed rate notes in local currency	Public, non-guaranteed bonds (62-2 nd)	2016.08.05	4.34	80,000	-	80,000
Fixed rate notes in local currency	Public, non-guaranteed bonds (64 th)	2016.09.30	4.32	190,000	-	190,000
Fixed rate notes in foreign currency ¹	Public, non-guaranteed bonds (65 th)	2016.12.02	2.00	238,957	-	238,957
Fixed rate notes in local currency	Public, non-guaranteed bonds (66-1st)	2015.09.10	3.18	170,000	170,000	-
Fixed rate notes in local currency	Public, non-guaranteed bonds (66-2 nd)	2017.09.10	3.28	130,000	-	130,000
Fixed rate notes in local currency	Private, non-guaranteed bonds (67 th)	2018.03.21	3.11	300,000	-	300,000

Total	_			4,655,353	659,406	3,995,947
Less: discount on debentures	_			(13,284)	(594)	(12,690)
Fixed rate notes in local currency	Private, non-guaranteed bonds (76-2 nd)	2028.11.18	3.79	60,000	-	60,000
Fixed rate notes in local currency	Private, non-guaranteed bonds (76-1st)	2028.11.17	3.79	40,000	-	40,000
Fixed rate notes in local currency	Private, non-guaranteed bonds (75 th)	2026.07.16	3.96	100,000	-	100,000
Fixed rate notes in local currency	Public, non-guaranteed bonds (74-4 th)	2029.05.29	4.44	60,000	-	60,000
Fixed rate notes in local currency	Public, non-guaranteed bonds (74-3 rd)	2024.05.29	4.04	210,000	-	210,000
Fixed rate notes in local currency	Public, non-guaranteed bonds (74-2 nd)	2021.05.29	3.52	130,000	-	130,000
Fixed rate notes in local currency	Public, non-guaranteed bonds (74-1st)	2019.05.29	3.30	200,000	-	200,000
Fixed rate notes in local currency	Public, non-guaranteed bonds (73-4 th)	2024.01.24	4.44	120,000	-	120,000
Fixed rate notes in local currency	Public, non-guaranteed bonds (73-3 rd)	2021.01.24	3.95	160,000	-	160,000
Fixed rate notes in local currency	Public, non-guaranteed bonds (73-2 nd)	2019.01.24	3.60	120,000	-	120,000
Fixed rate notes in local currency	Public, non-guaranteed bonds (73-1 st)	2017.01.24	3.16	100,000	-	100,000
Floating rate notes in foreign currency ¹	Private, non-guaranteed bonds (72 nd)	2017.06.19	3ML+1.30	219,840	-	219,840
Fixed rate notes in local currency	Public, non-guaranteed bonds (71-3 rd)	2023.10.18	4.25	90,000	-	90,000
Fixed rate notes in local currency	Public, non-guaranteed bonds (71-2 nd)	2020.10.19	3.82	110,000	-	110,000
Fixed rate notes in local currency	Public, non-guaranteed bonds (71-1 st)	2018.10.18	3.55	200,000	-	200,000
Floating rate notes in foreign currency ¹	Private, guaranteed bonds (70 th)	2019.01.31	3ML+1.60	219,840	-	219,840
Fixed rate notes in local currency	Public, non-guaranteed bonds (69-3 rd)	2020.07.31	3.85	150,000	-	150,000
Fixed rate notes in local currency	Public, non-guaranteed bonds (69-2 nd)	2018.07.31	3.54	140,000	-	140,000
Fixed rate notes in local currency	Public, non-guaranteed bonds (69-1 st)	2015.07.31	2.86	110,000	110,000	-
Fixed rate notes in local currency	Private, non-guaranteed bonds (68-4 th)	2023.05.23	3.68	30,000	-	30,000
Fixed rate notes in local currency	Private, non-guaranteed bonds (68-3 rd)	2023.05.22	3.68	50,000	-	50,000
Fixed rate notes in local currency	Private, non-guaranteed bonds (68-2 nd)	2020.05.24	3.29	20,000	-	20,000
Fixed rate notes in local currency	Private, non-guaranteed bonds (68-1 st)	2020.05.23	3.29	100,000	-	100,000

¹ The Company entered into cross-currency swap contracts to hedge cash flow risk related to floating interest rate and foreign exchange rate of the debenture (Note 36).

The principal and interests of private bonds(70th) are guaranteed by Shinhan Bank (Note 33).

15. Other Payables

Other payables as of December 31, 2015 and 2014, are as follows:

(in millions of Korean won)	December 31, 2015	December 31, 2014
Non-trade payables	1,170,765	1,145,044
Accrued expenses	601,491	714,413
Deposits received	25,693	20,819
Total	1,797,949	1,880,276

16. Current Income Tax and Deferred Income Tax

Income tax expense

(a) Details of income tax expense(benefit) for the years ended December 31, 2015 and 2014, are as follows:

(in millions of Korean won)	2015	2014
Current income taxes		
Current tax on profits for the year	52,010	59,617
Adjustments in respect of prior years	(1,469)	(64,186)
Deferred tax		
Changes in temporary differences	(21,726)	(188,532)
Changes in tax credits	95,135	38,452
Changes in tax losses	(39,372)	123,466
Income tax expense(benefit)	84,578	(31,183)
From continuing operations	85,894	17,283
From discontinued operations	(1,316)	(48,466)

(b) The reconciliation between profit before income tax and income tax expense for the years ended December 31, 2015 and 2014, is as follows:

(in millions of Korean won)	2015	2014
Profit(loss) before income tax:		
From continuing operations	(265,823)	19,803
From discontinued operations	(5,438)	(205,439)
	(271,261)	(185,636)
Tax expense based on statutory tax rate	(65,645)	(44,924)
Income not subject to tax	(7,793)	(3,663)
Expenses not deductible for tax purposes	13,479	10,898
Recognition of deferred tax asset on tax credits	(50,184)	(121,408)
Adjustments in respect of prior years	(1,469)	(64,186)
Changes in unrecognized deferred tax assets and others	196,190	192,100
Income tax expense(benefit)	84,578	(31,183)
From continuing operations	85,894	17,283
From discontinued operations	(1,316)	(48,466)
Effective tax rate	(-)31.2%	16.8%

Deferred income tax

(a) Deferred tax assets and deferred tax liabilities after offsetting as of December 31, 2015 and 2014, are as follows:

(in millions of Korean won)	December 31, 2015	December 31, 2014
Deferred tax assets:		
Deferred tax asset to be recovered within 12 months	534,030	414,720
Deferred tax asset to be recovered after more than 12 months	1,377,263	1,415,077
Deferred tax assets before offsetting	1,911,293	1,829,797
Deferred tax liabilities:		
Deferred tax liability to be settled within 12 months	3,207	5,483
Deferred tax liability to be settled after more than 12 months	959,629	873,416
Deferred tax liabilities before offsetting	962,836	878,899
Deferred tax assets after offsetting	948,457	950,898

(b) Changes in deferred income tax assets and liabilities for the years ended December 31, 2015 and 2014, are as follows:

	2015			
(in millions of Korean won)	At January 1	Charged (credited) to the statement of income	Charged to other comprehensive income	At December 31
Changes in temporary differences				
Investments in subsidiaries, associates and joint ventures	(254,360)	(252)	-	(254,612)
Property, plant and equipment	(141,814)	(7,176)	-	(148,990)
Accrued expenses	306,959	53,378	-	360,337
Provisions	92,939	1,045	-	93,984
Other	159,853	(25,269)	31,596	166,180
Subtotal	163,577	21,726	31,596	216,899
Tax credits carryforwards	628,952	(95,135)	-	533,817
Tax loss carryforwards	158,369	39,372	-	197,741
Deferred tax assets(liabilities)	950,898	(34,037)	31,596	948,457

2014			
her ve	At December 31		
-	(254,360)		
-	(141,814)		
-	306,959		
-	92,939		
3,781	159,853		
3,781	163,577		
-	628,952		
-	158,369		
3,781	950,898		
	- 3,781 3,781 - - 3,781		

(c) Tax effects recognized in other comprehensive income directly for the years ended December 31, 2015 and 2014, are as follows:

	2015		2014			
(in millions of Korean won)	Before tax	Tax effects	After tax	Before tax	Tax effects	After tax
Remeasurements of net defined benefit liability	(100,414)	24,300	(76,114)	(151,472)	36,656	(114,816)
Cash flow hedges	(33,367)	8,075	(25,292)	(47,112)	11,401	(35,711)
Available-for-sale financial assets	3,218	(779)	2,439	(2,992)	724	(2,268)
Total	(130,563)	31,596	(98,967)	(201,576)	48,781	(152,795)

(d) Details of deductible (taxable) temporary differences, tax credits and tax losses unrecognized as deferred tax assets (liabilities) as of December 31, 2015, are as follows:

(in millions of Korean won)	2015	Remark
Taxable temporary difference (investment in subsidiary)	(1,246,180)	Planned permanent reinvestment of undistributed profit
Deductible temporary difference (investment in subsidiary)	1,070,192	Unlikely to reverse(disposed of) in the foreseeable future
Tax credits carryforwards	401,987	Uncertainty of future taxable profit

(e) Expirations of unrecognized tax credits and tax loss carryforwards as of December 31, 2015, are as follows:

(in millions of Korean won)	1 year	Less than 2 years	Less than 3 years	Over 3 years
Tax credits carryforwards	104,757	116,028	144,631	36,571

17. Post-employment Benefits

Defined Benefit Plan

(a) The amounts of net defined benefit liabilities as of December 31, 2015 and 2014, are as follows:

(in millions of Korean won)	December 31, 2015	December 31, 2014
Present value of funded obligations	2,236,821	1,916,342
Fair value of plan assets	(1,661,805)	(1,299,650)
Net defined benefit liabilities	575,016	616,692

(b) The amounts recognized in the separate statements of income for the years ended December 31, 2015 and 2014, are as follows:

(in millions of Korean won)	2015	2014
Current service cost	267,256	240,584
Past service cost	-	20,467
Net interest cost	19,365	18,167
Managing cost	1,342	1,195
Total	287,963	280,413

(c) The line items in which expenses are included for the years ended December 31, 2015 and 2014, are as follows:

2015	2014
143,406	135,520
42,625	40,074
23,520	18,819
73,299	75,167
5,113	4,629
287,963	274,209
<u> </u>	6,204
287,963	280,413
	143,406 42,625 23,520 73,299 5,113 287,963

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

(in millions of Korean won)	2015	2014
At January 1	1,916,342	1,547,342
Current service cost	267,256	240,584
Interest expense	58,631	60,976
Remeasurements for:		
 Actuarial loss arising from changes in demographic assumptions 	19,023	23,547
 Actuarial loss arising from changes in financial assumptions 	96,036	147,874
 Actuarial gain arising from experience adjustments 	(22,187)	(28,737)
Increase due to business combination	142	-
Benefits paid	(96,497)	(95,711)
Past service cost	-	20,467
Decrease due to transfer of business	(1,925)	-
At December 31	2,236,821	1,916,342

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

(in millions of Korean won)	2015	2014
At January 1	1,299,650	1,133,517
Interest income	39,266	42,809
Remeasurements for:		
- Return on plan assets	(7,542)	(8,788)
Employer contributions	400,000	200,000
Increase due to business combination	133	-
Benefits paid	(66,872)	(66,693)
Decrease due to transfer of business	(1,488)	-
Managing cost	(1,342)	(1,195)
At December 31	1,661,805	1,299,650

(f) The principal actuarial assumptions used are as follows:

	December 31, 2015	December 31, 2014
Discount rate	2.7%	3.1%
Future salary growth rate	6.0%	6.0%

(g) The sensitivity analysis of defined benefit obligation to changes in principal assumptions as of December 31, 2015, is as follows:

(in millions of Korean won)	1%p increase	1%p decrease
Discount rate	(198,698)	230,908
Salary growth rate	221,652	(195,226)

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

(h) Plan assets consist of:

	Decem	nber 31, 2015	December 31, 2014		
(in millions of Korean won)	Amount Composition(%)		Amount	Composition(%)	
Securities combined with derivatives (guaranteed)	1,146,943	69.0	954,586	73.4	
Time deposits and others	514,862	31.0	345,064	26.6	
Total	1,661,805	100.0	1,299,650	100.0	

(i) The weighted average duration of the defined benefit obligations is 10.05 years. Expected maturity analysis of undiscounted pension benefits as of December 31, 2016, is as follows:

(in millions of Korean won)	Less than 1 year	Between 1 and 2 years	Between 2 and 5 years	Between 5 and 10 years	Over 10 years	Total
Pension benefits	105,661	131,037	464,033	681,821	1,623,434	3,005,986

The Company evaluates the fund contribution level annually and if there is a shortfall in the funds, the Company has a policy to finance the funds. Expected contributions to post-employment benefit plans for the year ending December 31, 2016, are \forall 167,474 million.

Defined Contribution Plan

Recognized expense related to the defined contribution plan for the year ended December 31, 2015, is $\forall 4,796$ million (2014: $\forall 5,512$ million).

18. Provisions

(a) Changes in provisions for the years ended December 31, 2015 and 2014, are as follows:

	2015				
(in millions of Korean won)	Warranty	Sales returns	Restoration	Litigation and others	Total
At January 1	222,522	528	4,812	818,104	1,045,966
Additions	253,626	31,153	1,749	92,685	379,213
Utilization	(292,667)	(30,843)	(801)	(77,154)	(401,465)
At December 31	183,481	838	5,760	833,635	1,023,714
Current	175,022	838	207	-	176,067
Non-current	8,459		5,553	833,635	847,647

	2014				
(in millions of Korean won)	Warranty	Sales returns	Restoration	Litigation and others	Total
At January 1	218,968	790	5,458	805,272	1,030,488
Additions	314,320	26,447	309	17,959	359,035
Utilization	(310,766)	(26,709)	(955)	(5,127)	(343,557)
At December 31	222,522	528	4,812	818,104	1,045,966
Current	208,652	528	773	-	209,953
Non-current	13,870		4,039	818,104	836,013

(b) Greenhouse Gas Emission Liabilities

As of December 31, 2015, emission rights received free of charge for each reporting period and greenhouse gas emission estimated by management, are as follows:

(in tons)	2015	2016	2017
Emission rights received free of charge	644,980	632,297	619,365

In 2015, there is no emission right that the Company additionally purchased from the market and there is no recognized emission liability as greenhouse gas emission is 497,496 tons, estimated by management.

19. Other Liabilities

Other liabilities as of December 31, 2015 and 2014, are as follows:

(in millions of Korean won)	December 31, 2015	December 31, 2014
Current		
Advances from customers	207,212	139,753
Unearned income	31,132	34,262
Withholding	116,047	47,280
Accrued expenses	1,350,789	1,188,037
Subtotal	1,705,180	1,409,332
Non-current		
Accrued expenses	83,696	77,278
Subtotal	83,696	77,278
Total	1,788,876	1,486,610

20. Paid-in Capital

(a) As of December 31, 2015 and 2014, the number of shares authorized is 600 million.

		December	31, 2015	December	31, 2014
			Amount		Amount
	Par value	Number of	(in millions of	Number of	(in millions of
	per share	shares issued	Korean won)	shares issued	Korean won)
Common stock	5,000	163,647,814	818,239	163,647,814	818,239
Preferred stock	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 common shares. This preferred dividend rate is not applicable to stock dividends. In addition, the preferred shareholders have same rights on the remaining assets as common shareholders. Repayment and conversion are not applicable to preferred shares.

(b) Share premium balance as of December 31, 2015, is ₩3,088,179 million. The share premium of ₩1,876,153 million was recognized, which is ₩2,815,707 million of the carrying value of net assets acquired from the entity split-off back on April 1, 2002, less the Company's capital of ₩783,961 million and less the 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 common shares (merged 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 common shares in 2011.

21. Retained Earnings and Dividends

Retained Earnings

(a) Retained earnings consist of:

(in millions of Korean won)	December 31, 2015	December 31, 2014
Legal reserve	160,478	153,190
Discretionary reserve	5,317,480	5,666,922
Accumulated deficit	(431,854)	(269,170)
Total	5,046,104	5,550,942

All legal reserves are earned profit reserves. The Commercial Code of the Republic of Korea requires the 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 capital stock. The reserve is not available for the payment of cash dividends, but may be transferred to capital stock or used to reduce accumulated deficit.

(b) Changes in retained earnings for the years ended December 31, 2015 and 2014, are as follows:

(in millions of Korean won)	2015	2014
At January 1	5,550,942	5,857,083
Loss for the year	(355,839)	(154,453)
Remeasurements of net defined benefit liability	(76,114)	(114,816)
Dividends	(72,885)	(36,872)
At December 31	5,046,104	5,550,942

(c) Appropriation of retained earnings for the years ended December 31, 2015 and 2014, is as follows:

(in millions of Korean won)	2015	2014
Deficit for disposition		
Unappropriated retained earnings carried over from prior year	99	99
Remeasurement of net defined benefit liability	(76,114)	(114,816)
Loss for the year	(355,839)	(154,453)
	(431,854)	(269,170)
Transfer from discretionary reserve		
Reserve for research and manpower development	5,317,480	5,666,922
Total	4,885,626	5,397,752
Appropriation of retained earnings		
Earned profit reserves	7,288	7,288
Reserve for research and manpower development	4,805,354	5,317,480
Dividends	72,885	72,885

(in mill	ions of Korean won)	2015	2014
Com	mon stock :		
₩	400 (8%) in 2015		
₩	400 (8%) in 2014		
Prefe	erred stock :		
₩	450 (9%) in 2015		
₩	450 (9%) in 2014		
		4,885,527	5,397,653
	propriated retained earnings to be carried forward to sequent year	99	99

Dividends

Details of dividends per share and a total dividend in respect of the year ended December 31, 2015, which is to be proposed at the annual general meeting on March 18, 2016, are as follows. These separate financial statements do not reflect this dividend payable.

(Unit: shares)	201	5	201	4
	Common shares	Preferred shares	Common shares	Preferred shares
Outstanding shares	163,647,814	17,185,992	163,647,814	17,185,992
Treasury shares	(763,171)	(4,690)	(763,170)	(4,690)
Numbers of shares for dividend	162,884,643	17,181,302	162,884,644	17,181,302
Par value (in Korean won)	5,000	5,000	5,000	5,000
Dividend rate	8.00%	9.00%	8.00%	9.00%
Dividends per share	400	450	400	450
Total dividend amount (in millions of Korean won)	65,154	7,731	65,154	7,731
Dividend payout ratio ¹ (Dividends/Net income)	-	-	-	-
Stock price ² (in Korean won)	52,675	28,950	59,700	27,813
Dividend yield ratio (Dividend per share/ Market price)	0.76%	1.55%	0.67%	1.62%

¹ Dividend payout ratio is not calculated due to the net loss for the year of the Company.

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

22. Accumulated Other Comprehensive Income(loss)

Details of accumulated other comprehensive income(loss) consist of:

(in millions of Korean won)	December 31, 2015	December 31, 2014
Cash flow hedge	(55,567)	(30,275)
Available-for-sale financial assets	10,943	8,504
Total	(44,624)	(21,771)

23. Other Components of Equity

Details of other components of equity consist of:

(in millions of Korean won)	December 31, 2015	December 31, 2014
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
At December 31	(32,819)	(32,819)

¹ As of December 31, 2015 the Company has treasury shares consisting of 763,171 common shares (2014: 763,170 shares) and 4,690 preferred shares (2014: 4,690 shares) at the reporting date. The Company intends to either grant these treasury shares to employees and directors as compensation, or to sell them in the future.

24. Net Sales

Details of net sales for the years ended December 31, 2015 and 2014, are as follows:

(in millions of Korean won)	2015	2014
Continuing operations:		
Sales of goods	27,615,162	28,897,942
Sales of services	267,905	274,149
Royalty income	485,361	384,277
Subtotal	28,368,428	29,556,368
Discontinued operations	9,582	661,922
Total	28,378,010	30,218,290

25. Expenses by Nature

Expenses that are recorded by nature for the years ended December 31, 2015 and 2014, consist of:

(in millions of Korean won)	2015	2014
Continuing operations:		
Changes in finished goods and work-in-process	(53,744)	(48,657)
Raw materials and merchandise used	17,898,926	18,969,591
Employee salaries	3,374,207	3,257,389
Depreciation and amortization	951,115	939,425
Advertising expense	584,643	528,845
Promotional expense	206,646	246,496
Freight expense	557,455	598,700
Commission expense	1,479,585	1,456,718
Other expenses	3,387,132	3,306,537
Subtotal ¹	28,385,965	29,255,044
Discontinued operations	14,859	695,512
Total	28,400,824	29,950,556

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

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

Details of general operating expenses for the years ended December 31, 2015 and 2014, are as follows:

(in millions of Korean won)	2015	2014
Continuing operations:		
Salaries	1,283,394	1,219,549
Post-employment benefits	158,612	156,263
Employee benefits	229,404	217,536
Freight expense	551,655	587,209
Rental expense	166,617	155,419
Commission expense	1,037,518	1,001,841
Depreciation	145,221	133,792
Amortization	162,211	151,247
Taxes and dues	17,465	19,379
Advertising expense	584,643	528,845
Promotional expense	206,646	246,496
Direct R&D expense	477,572	417,367
Direct service costs	280,043	297,723
Bad debts expense	18,112	23,655
Other	337,694	348,955
Subtotal	5,656,807	5,505,276
Discontinued operations	(1,139)	54,131
Total	5,655,668	5,559,407

27. Financial Income

Financial income for the years ended December 31, 2015 and 2014, consists of:

(in millions of Korean won)	2015	2014
Continuing operations:		
Interest income	23,010	29,971
Exchange differences	215,395	164,730
Other	28,101	20,550
Subtotal	266,506	215,251
Discontinued operations	<u> </u>	4,794
Total	266,506	220,045
	266,506	22

28. Financial Expenses

Financial expenses for the years ended December 31, 2015 and 2014, consist of:

(in millions of Korean won)	2015	2014
Continuing operations:		
Interest expense	241,813	225,190
Exchange differences	211,326	136,502
Loss on disposal of trade receivables	5,279	583
Other	1,028	41
Subtotal	459,446	362,316
Discontinued operations		38,177
Total	459,446	400,493

29. Other Non-operating Income

Other non-operating income for the years ended December 31, 2015 and 2014, consists of:

(in millions of Korean won)	2015	2014
Continuing operations:		
Dividend income	169,166	209,545
Exchange differences	958,505	716,217
Gain on disposal of property, plant and equipment	4,757	9,272
Gain on disposal of intangible assets	-	14,815
Gain on disposal of available-for-sale financial assets	6,990	61
Gain on disposal of investments in subsidiaries, associates and joint ventures	73,506	-
Gain on transfer of business	13,045	-
Other	73,850	82,528
Subtotal	1,299,819	1,032,438
Discontinued operations	828	29,510
Total	1,300,647	1,061,948

30. Other Non-operating Expenses

Other non-operating expenses for the years ended December 31, 2015 and 2014, consist of:

(in millions of Korean won)	2015	2014
Continuing operations:		
Exchange differences	1,107,869	1,003,596
Loss on disposal of property, plant and equipment	18,292	19,635
Loss on disposal of intangible assets	26,026	19,037
Loss on disposal of investments in subsidiaries, associates and joint ventures	2,325	54
Impairment loss on investments in subsidiaries, associates and joint ventures	8,843	3,026
Other	191,810	121,546
Subtotal	1,355,165	1,166,894
Discontinued operations	989	167,976
Total	1,356,154	1,334,870

31. Earnings per Share

The Company has no potential dilutive common shares. Accordingly, basic earnings(loss) per share is identical to diluted earnings(loss) per share.

(a) Basic loss per common share is as follows:

	2015	2014
Profit(loss) attributable to common shares ¹ (in millions of won)	(322,663)	(140,492)
Continuing operations	(318,934)	1,503
Discontinued operations	(3,729)	(141,995)
Weighted average number of common shares outstanding (unit: shares) ²	162,884,643	162,884,645
Basic earnings(loss) per common share (in won per share)	(1,981)	(863)
Continuing operations	(1,958)	9
Discontinued operations	(23)	(872)

(b) Basic loss per preferred share is as follows:

	2015	2014
Profit(loss) attributable to preferred shares ¹ (in millions of won)	(33,176)	(13,961)
Continuing operations	(32,783)	1,017
Discontinued operations	(393)	(14,978)
Weighted average number of preferred shares outstanding (unit: shares) ²	17,181,302	17,181,302
Basic earnings(loss) per preferred share (in won per share)	(1,931)	(813)
Continuing operations	(1,908)	59
Discontinued operations	(23)	(872)

¹ Loss attributable to common and preferred shares are as follows:

(in millions of Korean won)	2015	2014
Continuing operations:		
Profit(loss) for the year (A)	(351,717)	2,520
Common share dividends (B)	65,154	65,154
Preferred share dividends (C)	7,731	7,731
Undistributed loss (D=A-B-C)	(424,602)	(70,365)
Undistributed loss available for common shares (E)	(384,088)	(63,651)
Undistributed loss available for preferred shares (F)	(40,514)	(6,714)
Profit(loss) attributable to common shares (G=B+E)	(318,934)	1,503
Profit(loss) attributable to preferred shares (H=C+F)	(32,783)	1,017
Discontinued operations:		
Loss for the year (I)	(4,122)	(156,973)
Common share dividends (J)	-	-
Preferred share dividends (K)	-	-
Undistributed loss (L=I-J-K)	(4,122)	(156,973)
Undistributed loss available for common shares (M)	(3,729)	(141,995)
Undistributed loss available for preferred shares (N)	(393)	(14,978)
Loss attributable to common shares (O=J+M)	(3,729)	(141,995)
Loss attributable to preferred shares (P=K+N)	(393)	(14,978)

²Weighted average numbers of shares are calculated as follows:

2015	2014
163,647,814	163,647,814
(763,171)	(763,170)
162,884,643	162,884,644
162,884,643	162,884,645
17,185,992	17,185,992
(4,690)	(4,690)
17,181,302	17,181,302
17,181,302	17,181,302
	163,647,814 (763,171) 162,884,643 162,884,643 17,185,992 (4,690) 17,181,302

32. Information on Cash Flow

Cash flows from operating activities are presented under the indirect method. Details of cash generated from operations for the years ended December 31, 2015 and 2014, are as follows:

(a) Cash generated from operations

(in millions of Korean won)	2015	2014
Loss for the year	(355,839)	(154,453)
Adjustments:		
Interest expense, net	218,803	195,219
Exchange differences, net	3,504	97,048
Depreciation	594,786	574,658
Amortization	364,173	372,345
Loss on disposal of property, plant and equipment and intangible assets	39,561	14,585
Provisions for severance benefits	287,963	274,209
Provisions	379,213	349,903
Loss (gain) on disposal of investments in subsidiaries, associates and joint ventures	(71,181)	54
Impairment loss on investments in subsidiaries, associates and joint ventures	8,843	3,026
Dividend income	(169,166)	(209,545)
Income tax expense	85,894	17,283
Other	140,548	120,396
Loss from discontinued operations	773	167,900
_	1,883,714	1,977,081
Changes in operating assets and liabilities		
Decrease (increase) in trade receivables	353,790	(1,355,502)
Increase in loans and other receivables	(52,296)	(42,331)
Increase in inventories	(20,148)	(228,114)
Decrease in other assets	23,085	78,225
Increase (decrease) in trade payables	(455,015)	1,107,155
Increase (decrease) in other payables	(65,633)	80,075
Decrease in provisions	(401,465)	(343,557)
Increase (decrease) in other liabilities	302,558	(120,749)
Payment of defined benefit liability	(29,625)	(29,018)
Deposit in plan assets, net	(430,382)	(232,826)
	(775,131)	(1,086,642)
Cash generated from operations	752,744	735,986

(b) Significant non-cash transactions

(in millions of Korean won)	2015	2014
Reclassification of construction-in-progress of property, plant and equipment	748,928	348,197
Reclassification of construction-in-progress of intangible assets	262,773	220,775
Reclassification of other assets to intangible assets	89,076	89,559
Reclassification of current maturities of borrowings and debentures	1,041,603	916,906
Other payables to acquire property, plant and equipment	65,297	45,917
Other payables to acquire intangible assets	44,528	93,495

(c) Assets and liabilities arising from the transfer of business

- i) Transfer of Display Driver-IC design business
- On July 1, 2015, assets and workforce of Display Driver-IC design business were transferred to Silicon Works Co., Ltd.
- Total consideration received and assets and liabilities of the transferred business are as follows:

(in millions of Korean won)	Amount
Total consideration	22,010
Assets of the transferred business:	
Trade and other receivables	8,199
Inventories	12,276
Property, plant and equipment, and intangible assets	670
Other assets	24
Liabilities of the transferred business:	
Trade and other payables	11,760
Other liabilities	7
Net defined benefit liabilities	437

- ii) Transfer of domestic service part of chiller division
 - The Company transferred the domestic service part of chiller division to Hi M Solutek on June 30, 2014.
 - Total consideration received and the assets and liabilities of the transferred business are as follows:

(in millions of Korean won)	Amount
Total consideration	1,905
Assets of the transferred business:	
Property, plant and equipment	255
Intangible assets	1,650
Liabilities of the transferred business: nil	

33. Contingencies

(a) For the year ended December 31, 2015, the Company is provided with a performance guarantee of #115,137 million (2014: #226,862 million) from Seoul Guarantee Insurance and two other banks relating to the performance guarantees. The Company is also provided with guarantee of principal US\$ 200 million (2014: US\$ 200 million) and interests from Shinhan Bank for the guaranteed bond.

(b) For the year ended December 31, 2015, the financial guarantees provided by the Company to related parties amounts to $\forall 4,757,997$ million (2014: $\forall 3,566,380$ million) on the indebtedness of its subsidiaries. Details are as follows:

(in millions of Korean won)	Beneficiary	December 31, 2015	December 31, 2014
LG Electronics European Shared Service Center B.V.(LGESC)	Citibank and others	884,866	549,348
LG Electronics U.S.A., Inc.(LGEUS)	JP Morgan and others	592,469	467,160
LG Electronics Ticaret A.S.(LGETK)	HSBC and others	524,990	428,639
LG Electronics do Brasil Ltda.(LGEBR)	Hana Bank and others	484,651	202,984
LG Electronics Vietnam Haiphong Co., Ltd.(LGEVH)	HSBC and others	293,539	220,815
LG Electronics (China) Co., Ltd.(LGECH)	Citibank and others	282,888	233,922
LG Electronics Peru S.A.(LGEPR)	Nova scotia and others	153,893	114,109
LG Electronics Inc Chile Ltda.(LGECL)	Scotiabank and others	147,486	151,402
LG Electronics India Pvt.Ltd.(LGEIL)	HSBC and others	143,989	-
LG Electronics Colombia Ltda.(LGECB)	Citibank and others	131,288	65,176
LG Electronics RUS, LLC(LGERA)	Citibank	125,680	43,968
LG Electronics Almaty Kazakhstan(LGEAK)	Citibank and others	108,492	72,547
LG-Shaker Co., Ltd.(LGESR)	BSF and others	100,756	108,016

(in millions of Korean won)	Beneficiary	December 31, 2015	December 31, 2014
LG Electronics Algeria SARL(LGEAS)	Societe Generale and others	100,250	118,770
LG Electronics Thailand Co., Ltd.(LGETH)	Citibank and others	91,148	52,808
LG Electronics Morocco S.A.R.L(LGEMC)	Citibank and others	80,607	117,607
LG Electronics Ukraine Inc.(LGEUR)	CAG and others	73,867	75,245
LG Electronics Egypt S.A.E (LGEEG)	HSBC and others	64,460	32,976
LG Electronics Philippines Inc.(LGEPH)	Citibank and others	56,832	53,738
LG Electronics Argentina S.A.(LGEAR)	Citibank and others	55,119	99,121
Other	Citibank and others	260,727	358,029
Total		4,757,997	3,566,380

(c) At the end of the reporting period, the financial guarantee for performance of guaranteed obligation provided by the Company to external parties, other than subsidiaries, amounts to USD 24 million (2014: USD 16 million). The Company is providing Hana Bank with a payment guarantee for buyers of up to $\forall 66,000$ million (2014: $\forall 126,000$ million).

(d) In December 2012, the European Commission imposed a penalty on the Company for anticompetitive activities among CRT (Cathode Ray Tube) manufacturers as a result of an investigation. The Company recognized such penalty amounting to EUR 491,567 thousand as expected loss. However, the Company appealed against the decision of the European Commission. The ultimate amount of loss resulting from the investigation may differ from the amount of penalty imposed and could be material. The Company is provided with a performance guarantee of EUR 524,748 thousand from HSBC and others for the above.

In addition, the Company is under investigation and has been named as defendants in class actions in countries, including the United States, Canada, Europe and others, in connection with the alleged anti-competitive activities among CRT manufacturers. There are also a number of other legal actions, disputes, and investigations that remain pending at the end of the reporting period. The ultimate effect of those lawsuits on the financial position of the Company as of the statement of financial position date cannot be presently determined.

There are pending lawsuits other than above. However, management does not expect the outcome of the litigation will have a material effect on the Company's financial position.

34. Commitments

(a) At the end of the reporting period, the Company has overdraft agreements with various banks, including Shinhan Bank, with a limit of #175,500 million (2014: #195,500 million).

(b) At the end of the reporting period, the Company has sales agreements for export trade receivables with Hana Bank and 24 other banks amounting to #2,872,042 million (2014: #3,340,546 million) and has sales agreements for domestic trade receivables with BTMU

amounting to #300,000 million.

(c) At the end of the reporting period, the Company has corporate electronic settlement services contracts and cooperation settlement services contracts with Shinhan Bank and eight other banks for up to \forall 1,320,000 million (2014: \forall 840,000 million) which guarantee the payment of trade accounts payable in case the suppliers sell their trade receivables.

(d) At the end of the reporting period, the Company has other trade financing agreements with financial institutions, including Hana Bank of up to \forall 139,468 million (2014: \forall 108,821 million).

(e) Contractual commitments for the acquisition of assets

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

(in millions of Korean won)	December 31, 2015	December 31, 2014
Property, plant and equipment	474,649	225,559
Intangible assets	3,881	5,012
Total	478,530	230,571

(f) Operating lease commitments - the Company as lessee

i) The future aggregate minimum lease payments under non-cancellable operating leases at the end of the reporting period are as follows:

	December 31, 2015			
(in millions of Korean won)	No later than 1 year	Later than 1 year and no later than 5 years	Over 5 years	Total lease payments
Buildings and offices	61,687	71,002	2,870	135,559
Vehicles	5,028	3,076	-	8,104
Equipment	14,231	10,024	-	24,255
Total	80,946	84,102	2,870	167,918

ii) Lease payment under operating lease recognized in the statement of income for the year ended December 31, 2015, is ₩115,486 million (2014: ₩112,161 million).

iii) As of December 31, 2015, total future minimum sublease receipts under non-cancellable sublease agreements for some buildings amount to ₩24,594 million, and lease income recognized related to the subleases for the year ended December 31, 2015, amounts to ₩14,518 million (2014: ₩14,709 million).

(g) Operating lease commitments - the Company as lessor

 The Company has non-cancellable operating lease agreements regarding healthcare rental business that lends water purifiers and others to customers and real estate rental business. The future aggregate lease receipts under operating leases at the end of the reporting period are as follows:

	December 31, 2015			
	No later than	Later than 1 year and	Over	Total lease
(in millions of Korean won)	1 year	no later than 5 years	5 years	payments
Healthcare rental	100,743	148,770	-	249,513
Real estate rental	4,154	3,169	768	8,091
Total	104,897	151,939	768	257,604

- ii) The Company recognized ₩100,301 million(2014: ₩90,265 million) in lease income for the year ended December 31, 2015.
- iii) Details of assets subject to operating lease are as follows:

(in millions of Korean won)	December 31, 2015	December 31, 2014
Acquisition cost	240,244	81,998
Accumulated depreciation	(60,854)	(37,427)
Accumulated impairment	(827)	(782)
Net book amount	178,563	43,789

iv) Changes in net book amount of assets subject to operating lease for the years ended December 31, 2015 and 2014, are as follows:

(in millions of Korean won)	2015	2014	
At January 1	43,789	47,108	
Acquisition	34,945	18,909	
Transfer	121,334	-	
Disposal	(3,878)	(5,260)	
Depreciation	(17,560)	(16,295)	
Impairment	(67)	(673)	
At December 31	178,563	43,789	

(h) Trademark licenses commitments

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

Purpose	Related products	Provided by	Used by
Use of license	Mobile	Qualcomm Incorporated and others	LG Electronics Inc.
Provision for license	Home appliance	LG Electronics Inc.	Panasonic Corporation and others

35. Related Party

(a) The major related parties of the Company are as follows:

TerritoryLocation			Percentage of valid ownership	
		Subsidiaries	Dec. 31, 2015	Dec. 31, 2014
Korea Korea	Hiplaza Co., Ltd.	100.0%	100.0%	
	Korea	Hi Logistics Co., Ltd.	-	100.0%
	Korea	Hi Entech Co., Ltd.	100.0%	100.0%
	Korea	LG Hitachi Water Solution Co., Ltd.	51.0%	51.0%
	Korea	ACE R&A Co., Ltd.	100.0%	100.0%
	Korea	Hi M Solutek	100.0%	100.0%
	Korea	Hi Teleservice Co., Ltd.	100.0%	100.0%
	Korea	LGE Alliance Fund	96.2%	96.2%
	Korea	Innovation Investment Fund	83.3%	83.3%
	Korea	LG Innotek Co., Ltd.	40.8%	40.8%
	Korea	LG Innotek Alliance Fund	40.4%	40.4%
	Korea	Innowith Co., Ltd.	40.8%	40.8%
	Korea	Hanuri Co., Ltd.	100.0%	100.0%
	Korea	LGE Alliance Fund II	98.7%	98.7%
China	China	Hi Logistics (China) Co., Ltd.	-	100.0%
China	Inspur LG Digital Mobile Communications Co., Ltd.(LGEYT)	70.0%	70.0%	
	China	LG Electronics (China) Co., Ltd.(LGECH)	100.0%	100.0%
	China	LG Electronics (China) Research and Development Center Co., Ltd.(LGERD)	100.0%	100.0%
	China	LG Electronics (Hangzhou) Co., Ltd.(LGEHN)	70.0%	70.0%
	China	LG Electronics (Kunshan) Co., Ltd.(LGEKS)	100.0%	100.0%
	China	LG Electronics (Shanghai) Research and Development Center Co., Ltd.(LGCRC)	100.0%	100.0%
	China	LG Electronics Air-Conditioning(Shandong) Co., Ltd.(LGEQA)	100.0%	100.0%
	China	LG Electronics HK Ltd.(LGEHK)	100.0%	100.0%
	China	LG Electronics Huizhou Ltd.(LGEHZ)	80.0%	80.0%
	China	LG Electronics Nanjing New Technology co.,LTD(LGENT)	70.0%	70.0%
	China	LG Electronics Qinhuangdao Inc.(LGEQH)	100.0%	100.0%
	China	LG Electronics Shenyang Inc.(LGESY)	78.9%	78.9%
	China	LG Electronics Tianjin Appliances Co., Ltd.(LGETA)	80.0%	80.0%
	China	NanJing LG-Panda Appliances Co., Ltd.(LGEPN)	70.0%	70.0%
	China	Qingdao LG Inspur Digital Communication Co., Ltd.(LGEQD)	70.0%	70.0%
	China	Shanghai LG Electronics Co., Ltd.(LGESH)	70.0%	70.0%
	China	Taizhou LG Electronics Refrigeration Co., Ltd.(LGETR)	100.0%	100.0%
	China	Tianjin Lijie cartridge heater Co., Ltd.(LGETL)	66.7%	66.7%
	China	LG Innotek Yantai Co.,Ltd.(LGITYT)	40.8%	40.8%
	China	LG INNOTEK HUIZHOU CO., LTD(LGITHZ)	40.8%	40.8%

			Percentage of valid ownership			
Territory	Location	Subsidiaries	Dec. 31, 2015	Dec. 31, 2014		
	China	LG INNOTEK (FUZHOU) CO.,LTD.(LGITFZ)	-	40.8%		
	China	LG Innotek Trading (Shanghai) Co., Ltd.(LGITSH)	40.8%	40.8%		
	China	LG Innotek (Guangzhou) Co., Ltd.(LGITGZ)	-	40.8%		
	China	HiEntech (Tianjin) Co., LTD.	80.0%	100.0%		
	China	VENS BEIJING VEHICLE ENGINEERING CO., LTD	-	100.0%		
Asia	Australia	LG Electronics Australia Pty, Ltd.(LGEAP)	100.0%	100.0%		
	India	LG Electronics India Pvt. Ltd.(LGEIL)	100.0%	100.0%		
	Japan	LG Electronics Japan Lab. Inc.(LGEJL)	100.0%	100.0%		
	Japan	LG Electronics Japan, Inc.(LGEJP)	100.0%	100.0%		
	Malaysia	LG Electronics Malaysia SDN. BHD(LGEML)	100.0%	100.0%		
	Philippines	LG Electronics Philippines Inc.(LGEPH)	100.0%	100.0%		
	Singapore	LG Electronics Singapore PTE LTD.(LGESL)	100.0%	100.0%		
	Taiwan	LG Electronics Taiwan Taipei Co., Ltd.(LGETT)	100.0%	100.0%		
	Thailand	LG Electronics Thailand Co., Ltd.(LGETH)	100.0%	100.0%		
	Vietnam	LG Electronics Vietnam Co., Ltd.(LGEVN)	100.0%	100.0%		
	India	LG Soft India Private Limited.(LGSI)	100.0%	100.0%		
	Indonesia	P.T. LG Electronics Indonesia(LGEIN)	100.0%	100.0%		
	Philippines	LG Electronics Pasig Inc.	38.0%	38.0%		
	India	Hi Logistics India Private Limited	-	100.0%		
	Malaysia	HI LOGISTICS MALAYSIA SDN BHD	-	100.0%		
	Indonesia	PT. LG INNOTEK INDONESIA(LGITIN)	40.8%	40.8%		
	Taiwan	LG INNOTEK (TAIWAN) CO.,LTD.(LGITTW)	40.8%	40.8%		
	Malaysia	V-ENS (M) Sdn. Bhd.	100.0%	100.0%		
	Vietnam	LG Electronics Vietnam Haiphong Co., Ltd.(LGEVH)	100.0%	100.0%		
	Indonesia	PT.LG Electronics Service Indonesia(LGEID)	99.8%	99.8%		
	Vietnam	Hi Logistics Vietnam Co., LTD.	-	100.0%		
Europe	Netherlands	Hi Logistics Europe B.V.	-	100.0%		
	Austria	LG Electronics Austria GmbH(LGEAG)	100.0%	100.0%		
	Netherlands	LG Electronics Benelux Sales B.V.(LGEBN)	100.0%	100.0%		
	Czech Republic	LG Electronics CZ, s.r.o.(LGECZ)	100.0%	100.0%		
	Germany	LG Electronics Deutschland GmbH(LGEDG)	100.0%	100.0%		
	Spain	LG Electronics Espana S.A.(LGEES)	100.0%	100.0%		
	Netherlands	LG Electronics European Holdings B.V.(LGEEH)	100.0%	100.0%		
	Netherlands	LG Electronics European Shared Service Center B.V.(LGESC)	100.0%	100.0%		
	Finland	LG Electronics Finland Lab, Oy(LGEFL)	100.0%	-		
	France	LG Electronics France S.A.S.(LGEFS)	100.0%	100.0%		
	Greece	LG Electronics Hellas S.A.(LGEHS)	100.0%	100.0%		
	Italy	LG Electronics Italia S.p.A(LGEIS)	100.0%	100.0%		
	Latvia	LG Electronics Latvia, LLC(LGELA)	100.0%	100.0%		
	Hungary	LG Electronics Magyar KFT(LGEMK)	100.0%	100.0%		
	Poland	LG Electronics Mlawa Sp. z o.o(LGEMA)	100.0%	100.0%		

			Percentage of valid ownership			
Territory	Location	Subsidiaries	Dec. 31, 2015	Dec. 31, 2014		
	France	LG Electronics Mobilecomm France(LGEMF)	-	100.0%		
	Sweden	LG Electronics Nordic AB(LGESW)	100.0%	100.0%		
	Norway	LG Electronics Norway AS(LGENO)	-	100.0%		
	Poland	LG Electronics Polska Sp. z o.o(LGEPL)	100.0%	100.0%		
	Portugal	LG Electronics Portugal S.A.(LGEPT)	100.0%	100.0%		
	Romania	LG Electronics Romania S.R.L.(LGERO)	100.0%	100.0%		
	UK	LG Electronics United Kingdom Ltd.(LGEUK)	100.0%	100.0%		
	Poland	LG Electronics Wroclaw Sp.z o.o(LGEWR)	100.0%	100.0%		
	Poland	LG Innotek Poland Sp z o.o.(LGITPO)	40.8%	40.8%		
North America	USA	LG Electronics Miami Inc.(LGEMI)	100.0%	100.0%		
	USA	LG Electronics Alabama Inc.(LGEAI)	100.0%	100.0%		
	Canada	LG Electronics Canada, Inc.(LGECI)	100.0%	100.0%		
	Mexico	LG Electronics Mexicalli, S.A. DE C.V.(LGEMX)	100.0%	100.0%		
	Mexico	LG Electronics Mexico S.A. DE C.V.(LGEMS)	100.0%	100.0%		
	USA	LG Electronics Mobile Research U.S.A., L.L.C.(LGEMR)	100.0%	100.0%		
	USA	LG Electronics Mobilecomm U.S.A., Inc.(LGEMU)	100.0%	100.0%		
	Mexico	LG Electronics Monterrey Mexico S.A.de C.V.(LGEMM)	100.0%	100.0%		
	Mexico	LG Electronics Reynosa S.A. DE C.V.(LGERS)	100.0%	100.0%		
	USA	LG Electronics U.S.A., Inc.(LGEUS)	100.0%	100.0%		
	Mexico	Servicios Integrales LG S.A DE C.V	100.0%	100.0%		
	Mexico	Servicios LG Monterrey Mexico S.A. de C.V.	100.0%	100.0%		
	USA	Zenith Electronics Corporation of Pennsylvania	100.0%	100.0%		
	USA	Zenith Electronics Corporation(Zenith)	100.0%	100.0%		
	USA	LG Innotek USA, Inc.(LGITUS)	40.8%	40.8%		
	Mexico	HILOGISTICS MEXICO SA DE CV	-	100.0%		
	Mexico	HiLogistics Reynosa	-	100.0%		
	USA	HiLogistics USA	-	100.0%		
	Mexico	LG INNOTEK MEXICO SA DE CV(LGITMX)	40.8%	40.8%		
South America	Brazil	LG Armagem Geral Ltda.	100.0%	100.0%		
	Argentina	LG Electronics Argentina S.A.(LGEAR)	100.0%	100.0%		
	Colombia	LG Electronics Colombia Ltda.(LGECB)	100.0%	100.0%		
	Brazil	LG Electronics do Brasil Ltda.(LGEBR)	100.0%	100.0%		
	Honduras	LG Electronics Honduras S.de R.L.	20.0%	20.0%		
	Chile	LG Electronics Inc Chile Ltda.(LGECL)	100.0%	100.0%		
	Panama	LG Electronics Panama, S.A.(LGEPS)	100.0%	100.0%		
	Peru	LG Electronics Peru S.A.(LGEPR)	100.0%	100.0%		
	Venezuela	LG Electronics Venezuela S.A.(LGEVZ)	100.0%	100.0%		
	Brazil	SOCIO VIP Ltda.	100.0%	100.0%		
	Panama	C&S America Solutions	100.0%	100.0%		
	Panama	LG Consulting corp.	100.0%	100.0%		
	Guatemala	LG Electronics Guatemala S.A.	100.0%	100.0%		

				ntage of wnership	
Territory	Location	Subsidiaries	Dec. 31, 2015	Dec. 31, 2014	
Africa	Angola	LG Electronics Angola Limitada(LGEAO)	100.0%	100.0%	
	Jordan	LG Electronics (Levant) Jordan(LGELF)	100.0%	100.0%	
	UAE	LG Electronics Africa Logistics FZE(LGEAF)	100.0%	100.0%	
	Algeria	LG Electronics Algeria SARL(LGEAS)	70.0%	70.0%	
	UAE	LG Electronics Dubai FZE(LGEDF)	100.0%	100.0%	
	Egypt	LG Electronics Egypt S.A.E(LGEEG)	100.0%	100.0%	
	UAE	LG Electronics Gulf FZE(LGEGF)	100.0%	100.0%	
	UAE	LG Electronics Middle East Co., Ltd.(LGEME)	100.0%	100.0%	
	Morocco	LG Electronics Morocco S.A.R.L(LGEMC)	100.0%	100.0%	
	Nigeria	LG Electronics Nigeria Limited(LGENI)	100.0%	100.0%	
	Tunisia	LG Electronics North Africa Service Company S.A.R.L	100.0%	100.0%	
	UAE	LG Electronics Overseas Trading FZE(LGEOT)	100.0%	100.0%	
	South Africa	LG Electronics S.A. (Pty) Ltd.(LGESA)	100.0%	100.0%	
	Turkey	LG Electronics Ticaret A.S.(LGETK)	100.0%	100.0%	
	Saudi Arabia	LG-Shaker Co., Ltd.(LGESR)	51.0%	51.0%	
	Kenya	LG Electronics Service Kenya Limited(LGESK)	100.0%	100.0%	
	Saudi Arabia	LG Electronics Saudi Arabia Limited	100.0%	100.0%	
	UAE	Hi Logistics Middle East FZE	-	100.0%	
	Egypt	Hi Logistics Egypt	-	100.0%	
Other	Russia	LG Alina Electronics(LGERI)	95.0%	95.0%	
	Russia	HI LOGISTICS RUS Limited Liability Company	-	100.0%	
	Kazakhstan	LG Electronics Almaty Kazakhstan(LGEAK)	100.0%	100.0%	
	Russia	LG Electronics RUS, LLC(LGERA)	100.0%	100.0%	
	Ukraine	LG Electronics Ukraine Inc.(LGEUR)	100.0%	100.0%	

(b) The related parties of the Company, other than subsidiaries, are as follows:

	N		
Classification	December 31, 2015	December 31, 2014	Note
Significantly influencing the Company	LG Corp.	LG Corp.	-
Associates	LG Display Co., Ltd. and its subs.	LG Display Co., Ltd. and its subs.	-
	LG Display Co., Ltd.	LG Display Co., Ltd.	-
	LG Display Germany GmbH	LG Display Germany GmbH	-
	LG Display Shanghai Co., Ltd.	LG Display Shanghai Co., Ltd.	-
	LG Display Yantai Co., Ltd.	LG Display Yantai Co., Ltd.	-
	LG Display America, Inc.	LG Display America, Inc.	-
	LG Display Japan Co., Ltd.	LG Display Japan Co., Ltd.	-
	LG Display Taiwan Co., Ltd.	LG Display Taiwan Co., Ltd.	-
	LG Display Nanjing Co., Ltd.	LG Display Nanjing Co., Ltd.	-

	Na	Name					
Classification	December 31, 2015	December 31, 2014	Note				
	LG Display Poland Sp. z o.o.	LG Display Poland Sp. z o.o.	-				
	LG Display Guangzhou Co., Ltd.	LG Display Guangzhou Co., Ltd.	-				
	LG Display Shenzhen Co., Ltd.	LG Display Shenzhen Co., Ltd.	-				
	LG Display Singapore Pte. Ltd.	LG Display Singapore Pte. Ltd.	-				
	LG Display U.S.A., Inc. -	LG Display U.S.A., Inc. L&T Display Technology (Xiamen) Limited	-				
	L&T Display Technology (Fujian) Limited	L&T Display Technology (Fujian) Limited	-				
	Nanumnuri Co., Ltd.	Nanumnuri Co., Ltd.	-				
	LG Display (China) Co., Ltd.	LG Display (China) Co., Ltd.	-				
	Unified Innovative Technology, LLC	Unified Innovative Technology, LLC	-				
	LG Display Guangzhou Trading Co., Ltd	-					
	Global OLED Technology, LLC	-					
	MMT(Money Market Trust)	MMT(Money Market Trust)					
	Ericsson-LG Co., Ltd., and its subs.	Ericsson-LG Co., Ltd., and its subs.					
	Ericsson-LG Co., Ltd.	Ericsson-LG Co., Ltd.					
	LN Srithai Com Co., Ltd.	LN Srithai Com Co., Ltd.	-				
	Novera Optics Inc.	Novera Optics Inc.	-				
	Ericsson-LG Enterprise Co., Ltd.	Ericsson-LG Enterprise Co., Ltd.	-				
	Hitachi LG Data Storage Inc.(HLDS) and its subs.	Hitachi LG Data Storage Inc.(HLDS) and its subs.	-				
	Hitachi-LG Data Storage Inc.(HLDS)	Hitachi-LG Data Storage Inc.(HLDS)	-				
	Hitachi-LG Data Storage Korea, Inc.	Hitachi-LG Data Storage Korea, Inc.	-				
	Hitachi-LG Data Storage(Huizhou), Ltd.	Hitachi-LG Data Storage(Huizhou), Ltd.	-				
	Hitachi Electronic Products (Malaysia) Sdn. Bhd.	Hitachi Electronic Products (Malaysia) Sdn. Bhd.	-				
	LG Fuel Cell Systems Inc. and its subs.	LG Fuel Cell Systems Inc. and its subs.	-				
	LG Fuel Cell Systems Inc.	LG Fuel Cell Systems Inc.	-				
	LG Fuel Cell Systems Korea Inc.	LG Fuel Cell Systems Korea Inc.	-				
	Korea Information Certificate Authority Inc.	Korea Information Certificate Authority Inc.	-				
	Hi Logistics (China) Co., Ltd.	-					
	-	Global OLED Technology LLC	-				
	SKT Vietnam PTE., Ltd.	SKT Vietnam PTE., Ltd.	-				

_	me		
Note	December 31, 2014	December 31, 2015	Classification
-	One-Red, LLC	One-Red, LLC	
-	Arcelik-LG Klima Sanayi ve Ticaret A.S.(LGEAT)	Arcelik-LG Klima Sanayi ve Ticaret A.S.(LGEAT)	Joint ventures
-	LG Holdings(HK) Ltd. and its subs.	LG Holdings(HK) Ltd. and its subs.	
-	LG Holdings(HK) Ltd.	LG Holdings(HK) Ltd.	
-	Beijing LG Building Development Company	Beijing LG Building Development Company	
-	EIC PROPERTIES PTE LTD.	EIC PROPERTIES PTE LTD.	
-	LG-MRI LLC	LG-MRI LLC	
LG Corp.'s subsidiary	LG CNS Co., Ltd. and its subs.	LG CNS Co., Ltd. and its subs.	Other related parties
-	LG CNS Co., Ltd.	LG CNS Co., Ltd.	
-	LG N-Sys Inc.	LG N-Sys Inc.	
-	BNE PARTNERS, Inc.	BNE PARTNERS, Inc.	
-	Ucess Partners Co., Ltd.	Ucess Partners Co., Ltd.	
-	KOREA ELECOM Ltd.	KOREA ELECOM Ltd.	
-	Ever On Co., Ltd.	Ever On Co., Ltd.	
-	LG CNS Philippines Inc.	LG CNS Philippines Inc.	
-	LG CNS China Inc.	LG CNS China Inc.	
-	LG CNS Europe B.V.	LG CNS Europe B.V.	
-	LG CNS Japan Co., Ltd.	-	
-	LG CNS America Inc.	LG CNS America Inc.	
-	LG CNS India Pvt. Ltd.	LG CNS India Pvt. Ltd.	
-	PT LG CNS Indonesia	PT LG CNS Indonesia	
-	Entrue Brasil Servicos de T.I. Ltda.	Entrue Brasil Servicos de T.I. Ltda.	
-	LG CNS Shenyang Inc.	LG CNS Shenyang Inc.	
-	LG CNS Tianjin Inc.	-	
-	SBI-LG Systems Co., Ltd.	SBI-LG Systems Co., Ltd.	
-	LG CNS Colombia S.A.S	LG CNS Colombia S.A.S	
-	UCESS PHILLIPPINES, INC.	UCESS PHILLIPPINES, INC.	
-	Oneseen Skytech Co., Ltd.	Oneseen Skytech Co., Ltd.	
-	LG CNS MALAYSIA SDN BHD	LG CNS MALAYSIA SDN BHD	
-	LG CNS Saudi Arabia LLC	LG CNS Saudi Arabia LLC	
-	TXCNS Healthcare, LLC	TXCNS Healthcare, LLC	
-	LG CNS GB Ltd.	LG CNS GB Ltd.	
-	LG CNS Smart Green Co.,Ltd.	LG CNS Japan Co., Ltd.	
-	LLC LG CNS RUS	LLC LG CNS RUS	
	LG CNS Saudi Arabia LLC TXCNS Healthcare, LLC LG CNS GB Ltd. LG CNS Smart Green Co.,Ltd.	LG CNS Saudi Arabia LLC TXCNS Healthcare, LLC LG CNS GB Ltd. LG CNS Japan Co., Ltd.	

	Name					
Classification	December 31, 2015	December 31, 2014	Note			
	Collain Healthcare, LLC	Collain Healthcare, LLC	-			
	LG CNS Chile Ltda.	LG CNS Chile Ltda.	-			
	LG CNS UZBEKISTAN, LLC	-				
	SERVEONE Co., Ltd. and its subs.	SERVEONE Co., Ltd. and its subs.	LG Corp.'s subsidiary			
	SERVEONE Co., Ltd.	SERVEONE Co., Ltd.	-			
	Konjiam Yewon	Konjiam Yewon				
	-	LG-TOYO Engineering	-			
	Serveone(Nanjing).Co., Ltd	Serveone(Nanjing).Co., Ltd	-			
	Serveone Construction(Nanjing) Co., Ltd	Serveone Construction(Nanjing) Co., Ltd	-			
	Serveone Guangzhou. Co., Ltd	Serveone Guangzhou. Co., Ltd	-			
	SERVEONE VIETNAM Co.,Ltd	SERVEONE VIETNAM Co.,Ltd	-			
	-	Gumiochang Photovoltaic Co., Ltd	-			
	LG Siltron Incorporated and its subs.	LG Siltron Incorporated and its subs.	LG Corp.'s subsidiary			
	LG Siltron Incorporated	LG Siltron Incorporated	-			
	LG Siltron America, Inc.	LG Siltron America, Inc.	-			
	LG Siltron Japan Inc.	LG Siltron Japan Inc.	-			
	LUSEM CO., LTD.	LUSEM CO., LTD.	LG Corp.'s subsidiary			
	LG Management Development Institute	LG Management Development Institute	LG Corp.'s subsidiary			
	LG SPORTS Ltd.	LG SPORTS Ltd.	LG Corp.'s subsidiary			
	-	LG Solar Energy Inc.	LG Corp.'s subsidiary			
	LG Holdings Japan Co., Ltd.	LG Holdings Japan Co., Ltd.	LG Corp.'s subsidiary			
	LG MMA Ltd.	LG MMA Ltd.	LG Corp.'s joint venture			

- (c) Major transactions for the years ended December 31, 2015 and 2014, and balances of receivables and payables from transaction with related parties as of December 31, 2015 and 2014, are as follows:
 - i) Major revenue and expense transactions with related parties

(in millions of Korean won)		2015							
		Inco	me transacti	ons	Expe	nse transactio	ons		
Classification	Name	Sales	Others	Total	Purchases	Others	Total		
Significantly influencing the Company	LG Corp.	974	-	974	-	136,140	136,140		
Subsidiaries	LG Innotek Co., Ltd.	49,531	-	49,531	1,002,923	12,175	1,015,098		
	LG Electronics U.S.A., Inc.	2,595,340	-	2,595,340	5,256	124,694	129,950		
	LG Electronics do Brasil Ltda.	821,576	5	821,581	19,889	2,188	22,077		
	LG Electronics European Shared Service Center B.V.	161,412	-	161,412	-	443	443		
	Zenith Electronics Corporation	43,407	-	43,407	-	3,235	3,235		
	LG Electronics RUS, LLC	339,483	18	339,501	3,586	1,245	4,831		
	LG Electronics (China) Co., Ltd.	50,118	-	50,118	608	1,004	1,612		
	LG Electronics Tianjin Appliances Co., Ltd.	40,336	978	41,314	46,147	46	46,193		
	P.T. LG Electronics Indonesia	162,006	6	162,012	143,453	171	143,624		
	LG Electronics India Pvt. Ltd.	254,725	757	255,482	1,746	752	2,498		
	LG Electronics Mexico S.A. DE C.V.	406,461	-	406,461	-	1,005	1,005		
	LG Electronics Nanjing New Technology co.,LTD	299,552	374	299,926	504,253	631	504,884		
	LG Electronics Wroclaw Sp.z o.o	184,564	6	184,570	3,872	1,786	5,658		
	LG Electronics Reynosa S.A. DE C.V.	328,982	-	328,982	5,516	119	5,635		
	LG Electronics Mobilecomm U.S.A., Inc.	3,125,202	-	3,125,202	566	5,910	6,476		
	LG Electronics Egypt S.A.E	270,714	6	270,720	-	362	362		
	LG Electronics Mlawa Sp. z o.o	199,197	80	199,277	3,837	1,690	5,527		
	Inspur LG Digital Mobile Communications Co., Ltd.	1,922,465	1,632	1,924,097	52,127	30,906	83,033		
	NanJing LG-Panda Appliances Co., Ltd.	46,556	6	46,562	7,281	318	7,599		
	Hiplaza Co., Ltd.	1,011,756	-	1,011,756	69	11,730	11,799		
	Taizhou LG Electronics Refrigeration Co., Ltd.	68,809	751	69,560	30,511	8	30,519		
	LG Electronics Thailand Co., Ltd.	98,647	63	98,710	26,748	64	26,812		
	Others	7,641,090	1,400	7,642,490	255,575	562,936	818,511		
	Subtotal	20,121,929	6,082	20,128,011	2,113,963	763,418	2,877,381		
Associates	LG Display Co., Ltd. and its subsidiaries	477,697	54,050	531,747	1,682,930	11,109	1,694,039		
	Ericsson-LG Co., Ltd. and its subsidiaries	8,191	-	8,191	5,161	-	5,161		

(in millions of H	Korean won)	2015						
		Inco	me transactio	ons	Expense transactions			
Classification	Name	Sales	Others	Total	Purchases	Others	Total	
	Hitachi-LG Data Storage Inc. and its subsidiaries	2,418	-	2,418	168	-	168	
	LG Fuel Cell Systems Inc. and its subsidiaries	135	-	135	-	-	-	
	Korea Information Certificate Authority Inc.	-	-	-	-	1	1	
	Subtotal	488,441	54,050	542,491	1,688,259	11,110	1,699,369	
Other related parties	LG CNS Co., Ltd. and its subsidiaries	56,672	-	56,672	128,320	295,935	424,255	
	SERVEONE Co., Ltd. and its subsidiaries	21,604	-	21,604	716,228	97,068	813,296	
	LG Siltron Incorporated and its subsidiaries	2,330	-	2,330	6	-	6	
	LUSEM CO., LTD.	126	-	126	6,947	327	7,274	
	LG Management Development Institute	175	-	175	167	25,626	25,793	
	LG SPORTS Ltd.	19	-	19	-	11,106	11,106	
	LG MMA Ltd.	273	-	273	4	-	4	
	LG Holdings Japan Co., Ltd.	-	-	-	-	134	134	
	Subtotal	81,199	-	81,199	851,672	430,196	1,281,868	
	Total	20,692,543	60,132	20,752,675	4,653,894	1,340,864	5,994,758	

(in millions of Korean won)		2014								
		Inco	me transactio	ons	Expense transactions					
Classification	Name	Sales	Others	Total	Purchases	Others	Total			
Significantly influencing the Company	LG Corp.	550	-	550	-	142,348	142,348			
Subsidiaries	LG Innotek Co., Ltd.	35,300	-	35,300	1,095,994	8,644	1,104,638			
	LG Electornics do Brasil Ltda.	1,432,175	108	1,432,283	7,620	745	8,365			
	LG Electronics U.S.A., Inc.	2,111,766	-	2,111,766	3,247	70,970	74,217			
	Zenith Electronics Corporation	40,379	-	40,379	-	1	1			
	LG Electronics European Shared Service Center B.V.	130,973	-	130,973	-	13	13			
	LG Electronics RUS, LLC	643,268	6	643,274	147	1,213	1,360			
	LG Electronics (China) Co. Ltd.	9,611	-	9,611	844	297	1,141			
	LG Electronics Tianjin Appliances Co., Ltd.	38,365	285	38,650	38,947	15	38,962			
	LG Electronics Mobilecomm U.S.A., Inc.	3,338,554	-	3,338,554	-	975	975			
	LG Electronics India Pvt. Ltd.	278,751	3	278,754	1,190	123	1,313			
	Inspur LG Digital Mobile Communications Co., Ltd.	2,060,776	4,784	2,065,560	49,237	14,354	63,591			
	LG Electronics Egypt S.A.E	172,324	1	172,325	-	60	60			
	LG Electronics Mlawa Sp. z o.o	333,088	51	333,139	2,097	50	2,147			
	LG Electronics Reynosa S.A. DE C.V.	445,410	-	445,410	2,089	231	2,320			

(in millions of P	Korean won)	2014						
		Inco	me transacti	ons	Expe	nse transactio	ons	
Classification	Name	Sales	Others	Total	Purchases	Others	Total	
	P.T. LG Electronics Indonesia	218,241	-	218,241	129,568	50	129,618	
	LG Electronics Nanjing Display Co., Ltd.	315,452	-	315,452	397,924	42	397,966	
	LG Electronics Wroclaw Sp.z.o.o	211,315	76	211,391	104,975	298	105,273	
	Hiplaza Co., Ltd.	1,046,132	-	1,046,132	74	14,399	14,473	
	LG Electronics Mexico S.A. DE C.V.	406,373	-	406,373	-	251	251	
	NanJing LG-Panda Appliances Co., Ltd.	55,540	1,584	57,124	13,260	-	13,260	
	Taizhou LG Electronics Refrigeration Co., Ltd.	87,807	159	87,966	9,915	-	9,915	
	LG Electronics Monterrey Mexico S.A.de C.V.	116,871	393	117,264	4,996	-	4,996	
	Others	7,903,979	2,743	7,906,722	246,096	514,850	760,946	
	Subtotal	21,432,450	10,193	21,442,643	2,108,220	627,581	2,735,801	
Associates	LG Display Co., Ltd. and its subsidiaries	380,413	-	380,413	2,144,300	13,172	2,157,472	
	Ericsson-LG Co., Ltd. and its subsidiaries	7,644	-	7,644	5,543	-	5,543	
	Hitachi-LG Data Storage Inc. and its subsidiaries	2,836	-	2,836	53	-	53	
	LG Fuel Cell Systems Inc. and its subsidiaries	43	-	43	-	-	-	
	Korea Information Certificate Authority Inc.	-	-			21	21	
	Subtotal	390,936	-	390,936	2,149,896	13,193	2,163,089	
Other related parties	LG CNS Co., Ltd. and its subsidiaries	25,608	-	25,608	103,023	373,448	476,471	
	SERVEONE Co., Ltd. and its subsidiaries	18,496	-	18,496	767,048	112,916	879,964	
	LG Siltron Incorporated and its subsidiaries	555	-	555	452	-	452	
	LUSEM CO., LTD.	16	-	16	19,792	428	20,220	
	LG Management Development Institute	20	-	20	375	23,536	23,911	
	LG SPORTS Ltd.	19	-	19	-	12,134	12,134	
	LG MMA Ltd.	944	-	944	-	-	-	
	Subtotal	45,658	-	45,658	890,690	522,462	1,413,152	
	Total	21,869,594	10,193	21,879,787	5,148,806	1,305,584	6,454,390	

The balances of significant transactions are as follows: ii)

(in millions of K	íorean won)				December 3	31, 2015			
			Recei	vables			Payat	oles	
Classification	Name	Trade receivables	Loans	Other receivables	Total	Trade payables	Borrowings	Other payables	Total
Significantly influencing the Company	LG Corp.	-	-	29,683	29,683	-	-	580	580
Subsidiaries	LG Innotek Co., Ltd.	21,454	-	6,877	28,331	272,073	-	2,451	274,524
	LG Electronics do Brasil Ltda.	213,816	-	14,416	228,232	3,497	-	444	3,941
	LG Electronics U.S.A., Inc.	350,051	-	4	350,055	-	-	23,195	23,195
	Zenith Electronics Corporation	-	-	3,203	3,203	-	-	1,461	1,461
	LG Electronics European Shared Service Center B.V.	34,085	-	7,710	41,795	-	-	9	9
	LG Electronics RUS, LLC	125,164	-	12,001	137,165	1,676	-	56	1,732
	LG Electronics (China) Co., Ltd.	1,838	-	-	1,838	-	-	82	82
	LG Electronics Tianjin Appliances Co., Ltd.	6,564	-	1,340	7,904	56,690	-	16	56,706
	LG Electronics Mobilecomm U.S.A., Inc.	440,497	-	-	440,497	126	-	20,514	20,640
	LG Electronics India Pvt. Ltd.	22,163	-	8,583	30,746	1,106	-	135	1,241
	Inspur LG Digital Mobile Communications Co., Ltd.	203,599	-	29	203,628	418,213	-	1,089	419,302
	LG Electronics Mlawa Sp. z o.o	24,525	-	-	24,525	397,917	-	84	398,001
	LG Electronics Reynosa S.A. DE C.V.	12,748	-	44,979	57,727	46,624	-	-	46,624
	P.T. LG Electronics Indonesia	19,253	-	778	20,031	131,843	-	96	131,939
	LG Electronics Nanjing New Technology co.,LTD	59,549	-	509	60,058	97,239	-	190	97,429
	LG Electronics Wroclaw Sp.z o.o	55,044	-	272	55,316	290,678	-	146	290,824
	Hiplaza Co., Ltd.	80,935	-	18,930	99,865	-	-	9,869	9,869
	LG Electronics Mexico S.A. DE C.V.	105,052	-	-	105,052	-	-	72	72
	NanJing LG-Panda Appliances Co., Ltd.	11,162	-	1,089	12,251	50,425	-	117	50,542
	LG Electronics Thailand Co., Ltd.	64,758	-	862	65,620	83,851	-	5	83,856
	Taizhou LG Electronics Refrigeration Co., Ltd.	16,547	-	1,130	17,677	29,993	-	-	29,993
	LG Electronics Egypt S.A.E	309,455	-	53,414	362,869	16,325	-	32	16,357
	Others	2,355,465	-	58,928	2,414,393	451,313	-	65,771	517,084
	Subtotal	4,533,724	-	235,054	4,768,778	2,349,589	-	125,834	2,475,423
Associates	LG Display Co., Ltd. and its subsidiaries	99,698	-	39,988	139,686	407,370	-	35,342	442,712

(in millions of Korean won)		December 31, 2015								
			Recei	vables			Payab	les		
Classification	Name	Trade receivables	Loans	Other receivables	Total	Trade payables	Borrowings	Other payables	Total	
	Ericsson-LG Co., Ltd. and its subsidiaries	5	-	330	335	897	-	150	1,047	
	Hitachi-LG Data Storage Inc. and its subsidiaries	-	-	54	54	7	-	3	10	
	LG Fuel Cell Systems Inc. and its subsidiaries	-	-	-	-	-	-	-	-	
	Korea Information Certificate Authority Inc.	-	-	-	-	-	-	-	-	
	Subtotal	99,703	-	40,372	140,075	408,274	-	35,495	443,769	
Other related parties	LG CNS Co., Ltd. and its subsidiaries	7,094	-	262	7,356	12,773	-	136,341	149,114	
	SERVEONE Co., Ltd. and its subsidiaries	1,207	-	54,239	55,446	161,734		51,093	212,827	
	LG Siltron Incorporated and its subsidiaries	44	-	-	44	-		2,502	2,502	
	LUSEM CO., LTD.	-	-	-	-	364	-	-	364	
	LG Management Development Institute	-	-	15,660	15,660	-	-	939	939	
	LG SPORTS Ltd.	-	-	-	-	-	-	121	121	
	LG Holdings Japan Co., Ltd	-	-	-	-	-	-	-	-	
	LG MMA Ltd.	30	-	-	30	-	-	-	-	
	Subtotal	8,375	-	70,161	78,536	174,871	-	190,996	365,867	
	Total	4,641,802	-	375,270	5,017,072	2,932,734	-	352,905	3,285,639	

(in millions of Korean won)

December 31, 2014

			Receivables				Payables			
Classification	Name	Trade receivables	Loans	Other receivables	Total	Trade payables	Borrowings	Other payables	Total	
Significantly influencing the Company	LG Corp.	-	-	22,882	22,882		-	4,700	4,700	
Subsidiaries	LG Innotek Co., Ltd.	18,563	-	2,352	20,915	265,488	-	4,830	270,318	
	LG Electronics do Brasil Ltda.	428,740	-	4,482	433,222	3,422	-	564	3,986	
	LG Electronics U.S.A., Inc.	371,894	-	30	371,924	-	-	29,940	29,940	
	Zenith Electronics Corporation	-	-	3,001	3,001	-	-	-	-	
	LG Electronics European Shared Service Center B.V.	31,933	-	135	32,068	-	-	3	3	
	LG Electronics RUS, LLC	209,858	-	65,796	275,654	1	-	101	102	
	LG Electronics (China) Co., Ltd.	383	-	22	405	111	-	121	232	
	LG Electronics Tianjin Appliances Co., Ltd.	8,186	-	583	8,769	57,096	-	16	57,112	

(in millions of K	orean won)			81, 2014	4				
			Recei	vables			Payal	oles	
Classification	Name	Trade receivables	Loans	Other receivables	Total	Trade payables	Borrowings	Other payables	Total
	LG Electronics Mobilecomm U.S.A., Inc.	610,090	-	-	610,090	-	-	14,120	14,120
	LG Electronics India Pvt. Ltd.	18,547	-	6,921	25,468	1,502	-	64	1,566
	Inspur LG Digital Mobile Communications Co., Ltd.	303,979	-	11	303,990	569,608	-	1,243	570,85
	LG Electronics Mlawa Sp. z o.o	48,369	-	-	48,369	511,132	-	64	511,19
	LG Electronics Reynosa S.A. DE C.V.	19,567	-	3,016	22,583	112,703	-	-	112,70
	P.T. LG Electronics Indonesia	69,329	-	735	70,064	168,708	-	97	168,80
	LG Electronics Nanjing New Technology co.,LTD	63,193	-	752	63,945	96,866	-	32	96,89
	LG Electronics Wroclaw Sp.z o.o	53,336	-	-	53,336	243,564	-	140	243,704
	Hiplaza Co., Ltd.	74,311	-	16,688	90,999	-	-	7,083	7,083
	LG Electronics Mexico S.A. DE C.V.	172,454	-	-	172,454	-	-	83	8
	NanJing LG-Panda Appliances Co., Ltd.	11,272	-	1,563	12,835	63,234	-	16	63,25
	Taizhou LG Electronics Refrigeration Co., Ltd.	19,340	-	1,308	20,648	33,666	-	-	33,66
	LG Electronics Monterrey Mexico S.A.de C.V.	26,532	-	188	26,720	86,474	-	-	86,47
	LG Electronics Egypt S.A.E	255,308	-	28,340	283,648	17,409	-	39	17,44
	Others	2,304,115	-	38,554	2,342,669	601,422	-	82,116	683,53
	Subtotal	5,119,299	-	174,477	5,293,776	2,832,406	-	140,672	2,973,078
Associates	LG Display Co., Ltd. and its subsidiaries	64,914	-	57,611	122,525	384,972	-	28,721	413,693
	Ericsson-LG Co., Ltd. and its subsidiaries	-	-	46	46	678	-	-	673
	Hitachi-LG Data Storage Inc. and its subsidiaries	26	-	257	283	9	-	61	70
	Subtotal	64,940	-	57,914	122,854	385,659	-	28,782	414,44
Other related parties	LG CNS Co., Ltd. and its subsidiaries	2,067	-	34	2,101	24,323	-	243,356	267,679
	SERVEONE Co., Ltd. and its subsidiaries	2,080	-	54,198	56,278	123,891	-	37,022	160,91
	LG Siltron Incorporated and its subsidiaries	-	-	-	-	28	-	551	579
	LUSEM CO., LTD.	2	-	-	2	2,030	-	10	2,04
	LG Management Development Institute	-	-	15,660	15,660	-	-	2,449	2,449
	LG SPORTS Ltd.	-	-	-	-	-	-	231	23
	LG MMA Ltd.	103	-	-	103	-	-	-	
	Subtotal	4,252	-	69,892	74,144	150,272	-	283,619	433,892
	Total	5,188,491		325,165	5,513,656	3,368,337	-	457,773	3,826,110

iii) Significant capital transactions with related parties and others for the years ended December 31, 2015 and 2014, are as follows:

(in millions of Korean won)					15		
			Cash investment	Financing loan transaction		Financing borrowing transaction	
	Name	Dividend income	(reduction) and others	Loan	Collection	Borrowing	Repayment
Subsidiaries	LG Electronics (Hangzhou) Co., Ltd.	989	-	-	-	-	-
	LG Electronics Huizhou Ltd.	9,583	-	-	-	-	-
	LG Electronics Nanjing New Technology co.,LTD	1,956	-	-	-	-	-
	LG Electronics Tianjin Appliances Co., Ltd.	12,048	-	-	-	-	-
	LG Electronics (Kunshan) Co., Ltd.	8,642	-	-	-	-	-
	LG Electronics do Brasil Ltda.	16,246	-	-	-	-	-
	Inspur LG Digital Mobile Communications Co., Ltd.	32,478	-	-	-	-	-
	Qingdao LG Inspur Digital Communication Co., Ltd.	5,456	-	-	-	-	-
	NanJing LG-Panda Appliances Co., Ltd.	7,121	-	-	-	-	-
	LG Electronics Finland Lab, Oy	-	8,054	-	-	-	-
	LG Innotek Co., Ltd.	2,413	-	-	-	-	-
	Innovation Investment Fund	833	-	-	-	-	-
	LGE Alliance Fund ${\rm I\!I}$	-	3,000	-	-	-	-
	Subtotal	97,765	11,054	-	-	-	-
Associates	LG Display Co., Ltd.	67,813	-	-	-	-	-
	Ericsson-LG Co., Ltd.	3,250	-	-	-	-	-
	Korea Information Certificate Authority Inc.	60	-		-		-
	Subtotal	71,123	-	-	-	-	-
	Total	168,888	11,054	-	-	-	-

(in millions of Korean won)		2014							
			Cash investment	Financing loan transaction		Financing borrowing transaction			
Classification Name		Dividend income	(reduction) and others	Loan	Collection	Borrowing	Repayment		
Subsidiaries	LG Electronics India Pvt. Ltd.	68,692	-	-	-	-	-		
	LG Electronics do Brasil Ltda.	19,414	-	-	-	-	-		
	LG Electronics Tianjin Appliances Co., Ltd.	9,755	-	-	-	-	-		
	LG Electronics Huizhou Ltd.	5,958	-	-	-	-	-		

(in millions of Korean won)				20	14		
			Cash investment		cing loan saction		borrowing action
Classification	Name	Dividend income	(reduction) and others	Loan	Collection	Borrowing	Repayment
	LG Electronics (Kunshan) Computer Co., Ltd.	4,862	-	-	-	-	-
	NanJing LG-Panda Appliances Co., Ltd.	5,430	-	-	-	-	-
	LG Electronics Nanjing Display Co., Ltd.	28,422	-	-	-	-	-
	LG Electronics (Hangzhou) Co., Ltd.	577	-	-	-	-	-
	Shanghai LG Electronics Co., Ltd.	1,176	-	-	-	-	-
	LG Electronics Australia Pty, Ltd.	47,514	-	-	-	-	-
	LG Electronics Vietnam Haiphong Co., LTD	-	47,086	-	-	-	-
	Qingdao LG Inspur Digital Communication Co.,Ltd.	2,159	-	-	-	-	-
	Inspur LG Digital Mobile Communications Co., Ltd.	11,781	-	-	-	-	-
	Innovation Investment Fund	-	(2,916)	-	-	-	-
	Subtotal	205,740	44,170	-	-	-	-
Associates	Ericsson-LG Co., Ltd.	17,000	-	-	-	-	-
	Korea Information Certificate Authority Inc.	60	-	-	-	-	-
	LG Fuel Cell Systems Inc.	-	7,267	-	-	-	-
	Subtotal	17,060	7,267	-	-	-	-
Joint ventures	LG Fund for Enterprises	6	(740)	-	-	-	-
	Total	222,806	50,697	-	-	-	-

- iv) The details of the transfer of business between the Company and related parties are provided in Note 32.
- (d) Key management compensation costs of the Company for the years ended December 31, 2015 and 2014, consist of:

(in millions of Korean won)	2015	2014
Wages and salaries	17,035	11,834
Post-employment benefits	5,885	4,335
Other long-term benefits	96	52
Total	23,016	16,221

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

(e) The payment guarantees for the funding sources of related parties at the end of the reporting period are presented in Note 33.

- (f) There is no collateral provided by the Company for the funding sources of related parties at the end of the reporting period.
- (g) The Company has not recognized any bad debt expense or allowance for trade receivables due from related parties for the years ended December 31, 2015 and 2014.

36. Risk Management

Financial Risk Management

The Company'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 Company to enhance cost competitiveness through cost-efficient financing cost by improving financial structure and effective cash management.

While cooperating with other divisions, the finance team in the Company mainly implements FRM. This involves setting-up risk management policies and recognizing, evaluating and hedging risks from a global point of view.

The Company 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 4 and Note 14, respectively.

(a) Market risk

i) Foreign exchange risk

Due to its multinational business operations, the Company 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 Company's foreign exchange risk management is implemented under its own foreign exchange policy through which the Company 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 Company continuously considers efficient foreign exchange risk hedges against its remaining exposure with derivative financial instruments and scrutinizes changes in foreign exchange exposure and the results of hedging activities on a monthly basis. Speculative foreign exchange trading is prohibited in principle.

As of December 31, 2015 and 2014, if the foreign exchange rate of the Korean won for monetary assets and liabilities denominated in major foreign currency other than functional currency fluctuated by 10% while other variables were fixed, the effects on income(loss) before tax would be as follows:

	Decembe	r 31, 2015	December 31, 2014		
(in millions of Korean won)	10% increase	10% decrease	10% increase	10% decrease	
USD/KRW	37,374	(37,374)	(35,844)	35,844	
EUR/KRW	47,219	(47,219)	53,928	(53,928)	

ii) Interest rate risk

The Company is exposed to interest rate risk through changes in interest-bearing liabilities or assets. The risk mainly arises from financial borrowings and financial deposits 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 Company minimizes its borrowings from others and optimizes its deposits by expanding internal finance sharing. The Company periodically establishes the plan for reaction by the monitoring trends of internal and external interest rates, and minimizes the risk of net interest expense by properly operating short-term borrowings and deposits with variable interest rates.

As of December 31, 2015 and 2014, if interest rates fluctuate by 1% without other variables changing, the effects on income related to financial deposits with variable interest rates for the twelve-month periods are as follows:

	Decembe	r 31, 2015	December 31, 2014		
(in millions of Korean won)	1%p increase	1%p decrease	1%p increase	1%p decrease	
Interest income	6,782	(6,782)	9,132	(9,132)	
Interest expense	-	-	-	-	

There are no borrowings with variable interest rates and related interest expenses exposed to interest rate risk as of December 31, 2015 and 2014.

iii) Details of derivatives contracts are as follows:

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

December 31, 2015	Contractor	Contracted amount <i>(in millions)</i>	Contracted currency rate	Interest rate (received)	Interest rate (paid)	Contract date	Expiration date
USD/KRW CRS	Shinhan Bank	USD200	USD/KRW 1,113.6	3ML+160bp	3.22%	2013.07.31	2019.01.31
	BNP PARIBAS and others	USD200	USD/KRW 1,052.1	3ML+130bp	3.42%	2013.12.19	2017.06.19
CHF/KRW CRS	BNP PARIBAS and others	CHF215	CHF/KRW 1,213.6	2.00%	3.64 ~ 3.74%	2012.07.02	2016.12.02

The Company entered into the interest rate swap contracts to hedge cash flow risks related to the floating interest rates of debentures.

December 31, 2015	Contractor	Contracted amount <i>(in millions of</i> <i>Korean won)</i>	Interest rate (received)	Interest rate (paid)	Contract date	Expiration date
	Hana Bank	200,000	3M CD+98bp	4.53%	2014.01.03	2024.01.03
	Kookmin Bank	200,000	3M CD+114bp	4.52%	2014.04.30	2029.04.30
KRW interest rate swap	Kookmin Bank	190,000	3M CD+91bp	3.15%	2015.01.28	2027.01.28
	Woori Bank	390,000	3M CD+82bp	3.07%	2015.04.15	2030.04.15
	Nonghyup Bank	190,000	3M CD+105bp	3.39%	2015.07.07	2030.07.07

At the end of the reporting period, the swap contracts are evaluated at fair value and the loss on valuation of the effective portion amounting to #6,956 million in 2015 (2014: loss on valuation amounting to #53,053 million) after applying the tax effect, is recognized in other comprehensive income(loss). The Company reclassified #18,336 million to gain from equity in 2015 and #17,342 million to loss from equity in 2014, and the loss on valuation amounting to #25,292 million in 2015 (2014: loss on valuation amounting to #35,711 million) after applying the tax effect, is recognized in other comprehensive income(loss).

iv) Price risk

The Company is exposed to price risk through securities owned by the Company classified as available-for-sale financial assets on the separate financial statements.

The listed securities owned by the Company are traded in the public market, and related to KOSDAQ Index at the end of reporting period.

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 Company have correlation with the relevant past index.

	Decembe	er 31, 2015	Decembe	er 31, 2014
(in millions of Korean won)	30% increase	30% decrease	30% increase	30% decrease
KOSDAQ	3,673	(3,673)	3,001	(3,001)
NASDAQ	-	-	742	(742)

The valuation and the reclassified amounts of the available-for-sale financial asset related to the market risk above are presented in Note 7.

(b) Credit risk

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

In regard to trade receivables, the Company operates an integrated receivable insurance program with the Korea Trade Insurance Corporation (K-SURE) and Seoul Guarantee Insurance (Coface). In an effort to minimize trade receivable credit risk, the Company applies the credit rating of the counterparty when determining the insurance coverage. In addition, the Company performs stringent credit risk managements based on credit valuation criteria for trade receivables without insurance coverage or collateral.

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

(in millions of Korean won)	December 31, 2015	December 31, 2014
Trade receivables with insurance or collateral		
Excellent	136,360	109,259
Good	106,645	95,336
Fair	232,627	100,368
Poor ¹	46,177	15,895
Subtotal	521,809	320,858
Trade receivables without insurance or collateral		
Tier 1	4,091,014	4,745,058
Tier 2	251,264	205,992
Tier 3	9,912	44,060
Subtotal	4,352,190	4,995,110
Total	4,873,999	5,315,968

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

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

Category	Coface	K-SURE
Excellent	8~10	A~B
Good	7	С
Fair	3~6	D~E
Poor	0~2	F~R

Debtors for which credit ratings are not provided by insurance company are categorized using the criteria from domestic credit rating agency.

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

Tier 1 – National or local government, domestic credit rating agency AA- ~ AAA+, related parties including subsidiaries, associates, and others

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

Tier 3 - Small debtors without credit history

The credit rating of cash equivalents and financial deposits estimated by the Company using external credit rating criteria as of December 31, 2015 and 2014, is as follows:

December 31, 2015	December 31, 2014
759,982	829,883
-	150,004
759,982	979,887
	759,982

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

Good: Equal to or more than BBB-(Global credit rating agency such as S&P), AA(Domestic credit rating agency)

(c) Liquidity risk

The Company forecasts its cash flow and liquidity status and sets action plans on a regular base to manage liquidity risk proactively. The Company systematically works with experts in four RTCs to carry out fund and liquidity management that can react proactively to the changing global financial environment.

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

In addition, the Company is able to source funds any time in domestic and international financial markets because it has good investment credit grades of AA from Korea Investors Service, Korea Ratings and NICE Information Service, BBB from Standard & Poors, and Baa3 from Moody's as of December 31, 2015, respectively.

i) Cash flow information on maturity of borrowings is as follows:

	December 31, 2015						
(in millions of Korean won)	Total	Less than 1 year	Between 1 year and 2 years	Between 2 year and 5 years	Over 5 years		
Trade payables	5,015,038	5,015,038	-	-	-		
Borrowings	7,799,110	1,274,074	996,420	2,283,501	3,245,115		
Other payables	1,797,949	1,797,949		-	-		
Total	14,612,097	8,087,061	996,420	2,283,501	3,245,115		

The above cash flows are calculated at nominal value based on the earliest maturity dates, and include cash flows of principal and interests. Derivatives for cash flow hedges from changes in interest rate and exchange rate are reflected in the cash flows of related borrowings

ii) The maturity analysis of financial guarantee contracts provided by the Company to third party companies as of December 31, 2015, is as follows:

(in millions of Korean won)	Total	Less than 1 year	1 to 2 years	3 to 5 years	Over 5 years
Financial guarantee contracts	4,852,566	4,522,673	113,426	216,467	-

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

Capital Risk Management

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

Debt-to-equity ratio and net borrowing ratio are as follows:

(in millions of Korean won, except for ratios)	December 31, 2015	December 31, 2014
Liability (A)	16,905,366	16,793,613
Equity (B)	8,961,009	9,488,700
Cash and cash equivalents and current financial deposits (C)	678,221	913,208
Borrowings (D)	6,618,903	6,250,353
Liability-to-equity ratio (A/B)	188.7%	177.0%
Net borrowings ratio (D-C)/B	66.3%	56.2%

Fair Value Estimation

(a) The book values and fair values of the Company's financial assets and liabilities are as follows:

	December 31, 2015		December 31, 2014	
(in millions of Korean won)	Book amount	Fair value	Book amount	Fair value
Current financial asset items				
[Assets at amortized cost]				
Loans and other receivables				
Cash and cash equivalents	678,221	1	913,208	1
Financial deposits	80,500	1	65,000	1
Trade receivables	5,607,126	1	5,956,772	1
Other receivables	534,079	1	484,344	1
Non-current financial asset items				
[Assets at fair value]				
Derivatives for hedging purposes				
Other financial assets	30,288	30,288	5,252	5,252
Available-for-sale financial assets				
Other financial assets	15,323	15,323	12,105	12,105
[Assets at amortized cost]				
Loans and other receivables				
Financial deposits	1,271	1,271	1,689	1,689
Other receivables	339,859	330,143	385,352	366,644
[Assets at cost]				
Available-for-sale financial assets				
Other financial assets	18,523	2	16,513	2
Total	7,305,190		7,840,235	

	December	31, 2015	December 31, 2014	
(in millions of Korean won)	Book amount	Fair value	Book amount	Fair value
Current financial liability items				
[Liabilities at fair value]				
Derivatives for hedging purposes				
Other financial liabilities	6,461	6,461	-	-
[Liabilities at amortized cost]				
Trade payables	5,015,038	1	5,451,036	1
Borrowings	1,041,603	1	1,016,906	1
Other payables	1,797,949	1	1,880,276	1
[Other liabilities]				
Other financial liabilities	8,092	3	106	3
Non-current financial liability items				
[Liabilities at fair value]				
Derivatives for hedging purposes				

	December	31, 2015	December 31, 2014		
(in millions of Korean won)	Book amount	Book amount Fair value		Fair value	
Other financial liabilities	69,618	69,618	62,160	62,160	
[Liabilities at amortized cost]					
Borrowings	5,577,300	5,719,193	5,233,447	5,414,298	
[Other liabilities]					
Other financial liabilities	1,699	3	414	3	
Total	13,517,760		13,644,345		

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

² Unlisted equity securities are calculated at cost because the variability in the range of the estimated future cash flows is significant and the probabilities of the various estimates within the range cannot be reasonably assessed.

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

(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. The Company measures fair value using valuation techniques that maximize 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 price 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.

- Level 2: When financial instruments are measured by using a discounted cash flow analysis, 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 analysis, if one or more of the significant inputs are unobservable market data, the instrument is included in 'level 3'. There are no assets or liabilities categorized within 'level 3'.

The fair value of financial instruments traded in active markets is based on quoted market

prices at the reporting date. 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 used for financial assets held by the Company is the current bid price. These instruments are included in 'level 1'. Instruments included in 'level 1' comprise primarily equity investments classified as available for sale.

The fair value of financial instruments that are not traded in an active market is determined by using valuation techniques. The fair value of assets or liabilities are either measured through internally developed evaluation model or provided by independent external evaluation agencies. The Company utilizes discounted cash flow method and makes judgments based on current market conditions. These valuation techniques maximize the use of observable market data where it is available and rely as little as possible on entity specific estimates. If all significant inputs required to measure the fair value of an instrument are observable, the instrument is included in 'level 2'.

If one or more of the significant inputs are not based on observable market data, the instrument is included in 'level 3'. Financial instrument included 'level 3' uses discounted 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 are as follows:

	December 31, 2015			
(in millions of Korean won)	Level 1	Level 2	Level 3	Total
Assets				
Other financial assets				
Available-for-sale financial assets				
- Marketable equity securities	15,323	-	-	15,323
Derivatives for hedging purposes	-	30,288	-	30,288
Liabilities				
Other financial liabilities				
Derivatives for hedging purposes	-	76,079	-	76,079

	December 31, 2014			
(in millions of Korean won)	Level 1	Level 2	Level 3	Total
Assets				
Other financial assets				
Available-for-sale financial assets				
- Marketable equity securities	12,105	-	-	12,105
Derivatives for hedging purposes	-	5,252	-	5,252
Liabilities				
Other financial liabilities				
Derivatives for hedging purposes	-	62,160	-	62,160

The above fair value amounts are recurring fair value measurements.

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

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

Valuation technique and inputs for fair value measurements categorized within level 2 are as follows:

	Fair	value			
(in millions of Korean won)	December 31, 2015	December 31, 2014	Valuation techniques	Inputs	
Assets					
Other financial assets					
Derivatives for hedging purposes	30,288	5,252	Discounted cash flow	Discount rate and exchange rate	
Liabilities					
Other financial liabilities					
Derivatives for hedging purposes	76,079	62,160	Discounted cash flow	Discount rate and exchange rate	

- Fair value measurements categorized within level 3

As of December 31, 2015, no financial instruments measured at fair value are categorized within level 3.

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

Financial instruments not measured at fair value but for which the fair value is disclosed as of follows:

	December 31, 2015				
(in millions of Korean won)	Level 1	Level 2	Level 3	Total	
Assets					
Non-current financial deposit	-	-	1,271	1,271	
Non-current other receivables	-	-	330,143	330,143	
Liabilities					
Non-current borrowings	-	-	5,719,193	5,719,193	

	December 31, 2014				
(in millions of Korean won)	Level 1	Level 2	Level 3	Total	
Assets					
Non-current financial deposit	-	-	1,689	1,689	
Non-current other receivables	-	-	366,644	366,644	
Liabilities					
Non-current borrowings	-	-	5,414,298	5,414,298	

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

As of December 31, 2015, 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 are as of follows:

	Decembe	r 31, 2015	Decembe	r 31, 2014				Range of
(in millions of Korean won)	Carrying amount	Fair value	Carrying amount	Fair value	Valuation techniques	Inputs	Significant but unobservable inputs	significant but unobservable inputs
Assets								
Non-current financial deposits	1,271	1,271	1,689	1,689	Discounted cash flow	Discount rate	Discount rate	0.1% ~ 0.3%
Non-current other receivables	339,859	330,143	385,352	366,644	Discounted cash flow	Discount rate and exchange rate	Discount rate	3.0% ~ 3.8%
Liabilities								
Non-current borrowings	5,577,300	5,719,193	5,233,447	5,414,298	Discounted cash flow	Discount rate and exchange rate	Discount rate	1.8% ~ 3.6%

37. Business Combination

- (a) The Company acquired the Power Conditioning System business from LG U plus Co., Ltd. on February 2, 2015, in order to maximize its market responsiveness by enhancing business capabilities in Energy Storage System business, the Company's future strategic business.
- (b) The following table summarizes the consideration paid and the fair value of assets acquired and liabilities assumed:

(in millions of Korean won)	Amount
Consideration ¹	
Cash and cash equivalents	7,700
Recognized amounts of identifiable assets acquired and liabilities assumed ¹	
Current assets	
Cash and cash equivalents	9
Trade receivables	66
Non-current assets	
Property, plant and equipment	2,513
Intangible assets	3,907
Non-current liabilities	
Net defined benefit liability	9
Total identifiable net assets	6,486
Goodwill	1,214

¹Consideration transferred during the measurement period.

- (c) The acquisition-related cost amounting to ₩147 million was recognized as an expense in the period in which they were incurred.
- (d) The above fair value of trade receivables and other receivables are the same as the contractual amounts in gross.

38. Assets and Liabilities Held for sale

(a) Details of assets and liabilities classified as held for sale are follows:

(in millions of Korean won)	December 31, 2015	December 31, 2014
Assets classified as held for sale		
Investment in associates and joint ventures	2,116	-
Total	2,116	-

In accordance with the resolution of the Board of Directors dated October 28, 2015, the Company decided to dispose its entire shareholdings in Hi Logtistics(China) Co., Ltd., in which the Company owns 25%, for the purpose of logistics cost reduction and superior customer

responsiveness. The sale is expected to be completed in the first half of 2016.

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

39. Discontinued Operations

As a result of the decreased demand for PDP TV products, the Company discontinued its operations of the PDP modules and PDP TV on November 30, 2014, in order to focus on its OLED TV and LCD TV division going forward.

(a) Loss for the year from discontinued operations for the years ended December 31, 2015 and 2014, consists of:

(in millions of Korean won)	2015	2014	
Net sales	9,582	661,922	
Operating loss	(5,277)	(33,590)	
Loss for the year before tax	(5,438)	(205,439)	
Income tax benefit	(1,316)	(48,466)	
Loss for the year, net of tax	(4,122)	(156,973)	

For the years ended December 31, 2015 and 2014, a gain on disposal of property, plant and equipment of \forall 64 million and an impairment loss of \forall 139,307 million, respectively, were recognized based on the recoverable amount of assets due to the discontinued operations of PDP modules and PDP TV.

(b) Cash generated from discontinued operations

(in millions of Korean won)	2015	2014	
Net cash flows from operating activities	9,742	80,277	
Net cash flows from investing activities	68	(567)	
Net cash flow from discontinued operations	9,810	79,710	

40. Approval of the Separate Financial Statements

The issuance of the December 31, 2015 separate financial statements of the Company was approved by the Board of Directors on January 29, 2016.