

LG Chem, Ltd.

**Separate Financial Statements
December 31, 2015 and 2014**

LG Chem, Ltd.
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December 31, 2015 and 2014

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Independent Auditor's Report
(English Translation of a Report Originally Issued in Korean)

To the Board of Directors and Shareholders of
LG Chem, Ltd.

We have audited the accompanying separate financial statements of LG Chem, Ltd. (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 Chem, Ltd. 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 Matters

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.

A handwritten signature in black ink that reads "Samil PricewaterhouseCoopers". The signature is written in a cursive style and is positioned above a faint, light-colored rectangular stamp.

Seoul, Korea
March 9, 2016

This report is effective as of March 9, 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 Chem, Ltd.
Separate Statements of Financial Position
December 31, 2015 and 2014

<i>(in millions of Korean won)</i>	Notes	2015	2014
Assets			
Current assets			
Cash and cash equivalents	3, 5, 6	1,423,061	717,965
Trade receivables	3, 5, 7, 32	2,745,514	2,776,022
Other receivables	3, 5, 7, 32	1,162,967	1,019,267
Other financial assets	3, 5, 8, 9	93	783
Other current assets	14	80,793	179,421
Inventories	10	1,695,482	2,057,422
Non-current asset held for sale	35	6,500	5,961
Total current assets		7,114,410	6,756,841
Non-current assets			
Other receivables	3, 5, 7	55,024	63,369
Other financial assets	3, 5, 8	13,813	5,926
Investments in subsidiaries	11	1,015,354	914,937
Investments in associates and joint ventures	11	245,674	409,080
Property, plant and equipment	12	7,429,799	7,379,266
Intangible assets	13	337,853	293,027
Other non-current assets	14	19,669	71,000
Total non-current assets		9,117,186	9,136,605
Total assets		16,231,596	15,893,446
Liabilities and equity			
Liabilities			
Current liabilities			
Trade payables	3, 5, 32	850,086	1,021,375
Other payables	3, 5, 32	839,884	1,034,195
Borrowings	3, 5, 15	1,133,004	1,388,646
Provisions	16	9,460	4,448
Current income tax liability		321,683	90,353
Other current liabilities	5, 18	258,488	199,023
Total current liabilities		3,412,605	3,738,040
Non-current liabilities			
Other payables	3, 5	551	53,631
Borrowings	3, 5, 15	233,859	300,710
Provisions	16	24,535	22,485
Net defined benefit liability	17	79,077	85,407
Deferred income tax liabilities	29	8,554	141,596
Other non-current liabilities	18	27,852	-
Total non-current liabilities		374,428	603,829
Total liabilities		3,787,033	4,341,869

LG Chem, Ltd.
Separate Statements of Financial Position
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<i>(in millions of Korean won)</i>	Notes	2015	2014
Equity			
Share capital	1, 20	369,500	369,500
Capital surplus		1,166,764	1,166,764
Other components of equity	22	(15,484)	(15,484)
Accumulated other comprehensive income		(591)	-
Retained earnings	21	<u>10,924,374</u>	<u>10,030,797</u>
Total equity		<u>12,444,563</u>	<u>11,551,577</u>
Total liabilities and equity		<u>16,231,596</u>	<u>15,893,446</u>

The accompanying notes are an integral part of these separate financial statements.

LG Chem, Ltd.
Separate Statements of Income
Years Ended December 31, 2015 and 2014

<i>(in millions of Korean won, except per share amounts)</i>	Notes	2015	2014
Revenue	32	17,334,109	19,675,975
Cost of sales	24, 32	<u>(14,109,705)</u>	<u>(17,057,579)</u>
Gross profit		3,224,404	2,618,396
Selling, general and administrative expenses	23, 24, 32	<u>(1,604,312)</u>	<u>(1,485,271)</u>
Operating profit		1,620,092	1,133,125
Finance income	5, 26	237,923	170,979
Finance expenses	5, 26	(138,579)	(114,382)
Other non-operating income	5, 27, 35	523,025	349,941
Other non-operating expenses	5, 28	<u>(716,013)</u>	<u>(467,220)</u>
Profit before income tax	33	1,526,448	1,072,443
Income tax expense	29	<u>(322,593)</u>	<u>(248,947)</u>
Profit for the year		<u>1,203,855</u>	<u>823,496</u>
Earnings per share for profit for the year			
(in won)	30		
Basic and diluted earnings per ordinary share		16,366	11,194
Basic and diluted earnings per preferred share		16,416	11,244

The accompanying notes are an integral part of these separate financial statements.

LG Chem, Ltd.
Separate Statements of Comprehensive Income
Years Ended December 31, 2015 and 2014

<i>(in millions of Korean won)</i>	Notes	2015	2014
Profit for the year		<u>1,203,855</u>	<u>823,496</u>
Other comprehensive income			
Items that will not be reclassified to profit or loss:			
Remeasurement of net defined benefit liability	17	(20,789)	(72,955)
Income tax effect relating to components of other comprehensive income		5,031	17,655
Items that will be reclassified subsequently to profit or loss:			
Loss on valuation of available-for-sale financial instruments	8	(780)	-
Income tax effect relating to components of other comprehensive income		<u>189</u>	<u>-</u>
Other comprehensive loss for the year, net of tax		<u>(16,349)</u>	<u>(55,300)</u>
Total comprehensive income for the year		<u><u>1,187,506</u></u>	<u><u>768,196</u></u>

The accompanying notes are an integral part of these separate financial statements.

LG Chem, Ltd.
Separate Statements of Changes in Equity
Years Ended December 31, 2015 and 2014

<i>(in millions of Korean won)</i>	Notes	Share capital	Capital surplus	Other components of equity	Accumulated other comprehensive loss	Retained earnings	Total equity
Balance at January 1, 2014		369,500	#####	(15,484)	-	9,557,121	11,077,901
Comprehensive income:							
Profit for the year		-	-	-	-	823,496	823,496
Remeasurement of net defined benefit liability	17	-	-	-	-	(55,300)	(55,300)
Total comprehensive income		-	-	-	-	768,196	768,196
Transactions with owners:							
Dividends		-	-	-	-	(294,520)	(294,520)
Total transactions with owners		-	-	-	-	(294,520)	(294,520)
Balance at December 31, 2014		369,500	#####	(15,484)	-	10,030,797	11,551,577
Balance at January 1, 2015		369,500	#####	(15,484)	-	10,030,797	11,551,577
Comprehensive income:							
Profit for the year		-	-	-	-	1,203,855	1,203,855
Remeasurement of net defined benefit liability	17	-	-	-	-	(15,758)	(15,758)
Loss on valuation of available-for-sale financial instruments		-	-	-	(591)	-	(591)
Total comprehensive income		-	-	-	(591)	1,188,097	1,187,506
Transactions with owners:							
Dividends	31	-	-	-	-	(294,520)	(294,520)
Total transactions with owners		-	-	-	-	(294,520)	(294,520)
Balance at December 31, 2015		369,500	#####	(15,484)	(591)	10,924,374	12,444,563

The accompanying notes are an integral part of these separate financial statements.

LG Chem, Ltd.
Separate Statements of Cash Flows
Years Ended December 31, 2015 and 2014

<i>(in millions of Korean won)</i>	Notes	2015	2014
Cash flows from operating activities			
Cash generated from operations	33	2,830,131	2,196,486
Interest received		30,945	41,767
Interest paid		(33,928)	(45,440)
Dividends		96,747	54,457
Income taxes paid		(171,367)	(345,312)
Net cash inflow from operating activities		<u>2,752,528</u>	<u>1,901,958</u>
Cash flows from investing activities			
Decrease in other receivables		897,548	910,003
Decrease in non-current other receivables		15,202	11,317
Proceeds from disposal of available-for-sale financial assets		2,991	-
Proceeds from disposal of property, plant and equipment		191,641	8,057
Proceeds from disposal of intangible assets		14,111	66
Increase in other receivables		(1,027,572)	(1,257,819)
Increase in non-current other receivables		(21,787)	(25,126)
Acquisition of investments in subsidiaries		(146,836)	(204,440)
Acquisition of investments in associates and joint ventures		(150)	(41,935)
Acquisition of available-for-sale financial assets		(11,626)	-
Purchases of property, plant and equipment		(1,166,953)	(1,126,968)
Purchases of intangible assets		(70,014)	(49,674)
Net cash outflow from investing activities		<u>(1,323,445)</u>	<u>(1,776,519)</u>
Cash flows from financing activities			
Proceeds from borrowings		-	16,553
Repayments of borrowings		(427,388)	(203,196)
Dividends		(294,531)	(294,530)
Net cash outflow from financing activities		<u>(721,919)</u>	<u>(481,173)</u>
Net increase(decrease) in cash and cash equivalents		707,164	(355,734)
Cash and cash equivalents at beginning of year		717,965	1,076,468
Exchange losses on cash and cash equivalents		(2,068)	(2,769)
Cash and cash equivalents at the end of year		<u>1,423,061</u>	<u>717,965</u>

The accompanying notes are an integral part of these separate financial statements.

LG Chem, Ltd.

Notes to the Separate Financial Statements

December 31, 2015 and 2014

1. General information

The Company was spun off on April 1, 2001, from LG Chem Investment Ltd. (now LG Corp. , formerly LG Chemical Ltd.).

The Company merged with LG Polycarbonate Ltd. on April 1, 2011.

As of December 31, 2015, the Company has its manufacturing facilities in Yeosu, Daesan, Ochang, Cheongju, Ulsan, Naju, Iksan, Paju and Gimcheon.

The Company is authorized to issue 292 million shares of ordinary shares with par value of ₩5,000 per share. As of December 31, 2015, the Company has issued 66,271,100 ordinary shares (₩331,356 million) and 7,628,921 preferred shares (₩38,144 million). The largest shareholder of the Company is LG Corp., which owns 33.53% of the Company's ordinary shares. Preferred shareholders have no voting rights but are entitled to receive dividends at a rate 1% more than those paid to ordinary shareholders.

2. Significant Accounting Policies

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

2.1 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 separate financial statements of the Company have been prepared in accordance with Korean IFRS. These are the standards, subsequent amendments and related interpretations issued by the International Accounting Standards Board (IASB) that have been adopted by the Republic of Korea.

The preparation of 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 4.

LG Chem, Ltd.
Notes to the Separate Financial Statements
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2.2 Changes in accounting policy and disclosures

(a) New and amended standards adopted by the Company

The Company newly applied the following amended and enacted standards for the annual periods beginning January 1, 2015:

- Amendment to Korean IFRS 1019, *Employee Benefits*
- Annual Improvements to Korean IFRS 2010-2012 Cycle
- Annual Improvements to Korean IFRS 2011-2013 Cycle

Other standards and amendments which are effective for the annual period beginning on January 1, 2015, do not have a material impact on the separate financial statements of the Company.

(b) New and amended standards not yet adopted

New standards and amendments issued but not effective for the financial year beginning January 1, 2015, and not early adopted are enumerated below. The Company expects that these standards and amendments would not have a material impact on its separate financial statements.

- Korean IFRS 1001, *Presentation of Financial Statements*
- Korean IFRS 1016, *Property, plant and equipment*, and Korean IFRS 1041, *Agriculture and fishing: Productive plants*
- Korean IFRS 1016, *Property, plant and equipment*, and Korean IFRS 1038, *Intangible assets: Amortization based on revenue*
- Amendment to Korean IFRS 1027, *Separate Financial Statements*
- Korean IFRS 1109, *Financial Instruments*
- Korean IFRS 1110, *Separate financial Statements*, Korean IFRS 1028, *Investments in Associates and Joint Ventures*, and Korean IFRS 1112, *Disclosures of Interests in Other Entities: Exemption for consolidation of investee*
- Korean IFRS 1111, *Joint Agreements*
- Annual Improvements to Korean IFRS 2012-2014 Cycle
- Korean IFRS 1115, *Revenue from Contracts with Customers*

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2.3 Investments in subsidiaries, associates and joint ventures

The accompanying financial statements are the separate financial statements of the Company prepared in accordance with Korean IFRS 1027, *Separate Financial Statements*. Investments in subsidiaries, associates and jointly controlled entities are recorded at acquisition cost based on its direct equity investments. At the date of transition from K-GAAP to Korean IFRS, the Company has used the K-GAAP carrying amount at the transition date as deemed cost. The Company recognizes a dividend from a subsidiary, associate or jointly controlled entity in profit or loss when its right to receive the dividend is established.

2.4 Foreign currency translation

(a) Functional and presentation currency

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

(b) Transactions and balances

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

Exchange differences arising on non-monetary financial assets and liabilities such as equity instruments at fair value through profit or loss and available-for-sale equity instruments are recognized in profit or loss and included in other comprehensive income, respectively, as part of the fair value gain or loss.

2.5 Cash and cash equivalents

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

2.6 Financial assets

(a) Classification and measurement

The Company classifies its financial assets in the following categories: financial assets at fair value through profit or loss, available-for-sale financial assets, loans and receivables, and held-to-maturity financial assets. Regular purchases and sales of financial assets are recognized on trade date.

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

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

(b) Impairment

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/are 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.

Impairment of loans and receivables is presented as a deduction in the 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 no longer recoverable.

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

(c) Derecognition

If the Company transfers a financial asset and the transfer does not result in derecognition because the Company has retained substantially of all risks and rewards of ownership of the transferred asset due to possession of recourse in the event the debtor defaults, the Company continues to recognize the transferred asset in its entirety and recognizes a financial liability for the consideration received. The related financial liability is classified as 'borrowings' in the statement of financial position (Note 15).

2.7 Derivative financial instruments

Derivatives are initially recognized at fair value on the date when a derivative contract is entered into and are subsequently re-measured at their fair value. Changes in the fair value of the derivatives that are not qualified for hedge accounting are recognized in the statement of income within 'other non-operating income (expenses)' or 'finance income (expenses)' according to the nature of transactions.

2.8 Inventories

Inventories are stated at the lower of cost and net realizable value. Cost is determined using weighted average cost method, except for goods in transit which is determined using the specific identification method. The Company changed its inventory valuation method from moving-average method to monthly total-average method in order to evaluate inventory more rationally for certain inventories including raw materials and merchandise for the year ended December 31, 2015. The purpose of this accounting policy change is to more accurately match income and expense, and to improve the reasonable allocation of periodical profit and loss. We reflected this accounting policy change beginning this fiscal year because it is impossible to reasonably determine the cumulative effect on the financial statements.

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2.9 Non-current assets (or disposal group) held-for-sale

Non-current assets (or disposal group) are classified as assets held-for-sale when their carrying amount is to be recovered principally through sale of the asset and when sale is considered highly probable. The assets are measured at the lower amount between their carrying amount and the fair value less costs to sell.

2.10 Property, plant and equipment

Property, plant and equipment are stated at its cost less accumulated depreciation and accumulated impairment losses. Historical cost includes expenditures that is directly attributable to the acquisition of the items.

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 estimated useful lives, is as follows:

Buildings	25 - 50 years
Structures	15 - 50 years
Machinery	4 - 15 years
Others	1 - 6 years

The depreciation method, residual values and useful lives of property, plant and equipment are reviewed at the end of each reporting period, if appropriate change of depreciation is incurred, accounted for as changes in accounting estimates.

2.11 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 obtaining a qualifying asset is deducted from the borrowing costs eligible for capitalization during the year. Other borrowing costs are recognized as expenses for the period in which they are incurred.

2.12 Government grants

Government grants are recognized at their fair values when there is reasonable assurance that the grant will be received and the Company will comply with the conditions attached to it. Government grants related to assets are presented by deducting the grants in arriving at the carrying amount of the assets, and grants related to income are deferred and presented by deducting the related expenses.

2.13 Intangible assets

Goodwill is recognized as the excess of the aggregate of the consideration transferred and the fair value at acquisition date of the acquirer's previously held equity interest in the acquiree over the identifiable net assets acquired. Goodwill is carried at cost less accumulated impairment losses. Impairment losses on goodwill are not reversed.

Intangible assets, except for goodwill, are initially recognized at its historical cost and carried at its cost less accumulated amortization and accumulated impairment losses.

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Internally generated software development costs are the aggregate costs recognized after meeting the asset recognition criteria, including technical feasibility, and determined to have future economic benefits. Membership rights are regarded as intangible assets with indefinite useful life and not amortized because there is no foreseeable limit to the period over which the assets are expected to be utilized. Intangible assets with definite useful life that are amortized using the straight-line method over their estimated useful lives, are as follows:

	Useful lives
Software development costs	3 - 6 years
Industrial property rights	5 - 15 years
Other intangible assets	6 - 20 years

2.14 Research and development

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 the following criteria are met:

- It is technically feasible to complete the development project so that it will be available for use;
- Management intends to complete the development project and use or sell it;
- There is an ability to use or sell the development project;
- It can be demonstrated how the development project will generate probable future economic benefits;
- Adequate technical, financial resources and other resources to complete the development and to use or sell the development project are available; and
- The expenditure attributable to the development project 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 that are recognized as intangible assets are amortized using the straight-line method over their estimated useful lives of three to six years when the assets are available for use and are tested for impairment.

2.15 Impairment of non-financial assets

Goodwill or intangible assets with indefinite useful lives are not subject to amortization and are tested annually for impairment. Assets that are subject to amortization are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognized for the amount by which the asset's carrying amount exceeds its recoverable amount. The recoverable amount is the higher of an asset's fair value less costs to sell and value in use. Non-financial assets, other than goodwill, that suffered impairment are reviewed for possible reversal of the impairment at each reporting date.

2.16 Financial Liabilities

(a) Classification and measurement

Financial liabilities at fair value through profit or loss are financial instruments held for trading. Financial liabilities are classified in this category if incurred principally for the purpose of

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repurchasing them in the near term. Derivatives that are not designated as hedges or bifurcated from financial instruments containing embedded derivatives are also categorized as held-for-trading.

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

(b) Derecognition

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

2.17 Current and deferred income tax

The tax expense for the period consists of current and deferred tax. Tax is recognized on the profit for the period in the statement of income, except to the extent that it relates to items recognized in other comprehensive income or directly in equity. In 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.

Deferred tax is recognized for temporary differences arising between the tax bases of assets and liabilities and their carrying amounts as expected tax consequences at the recovery or settlement of the carrying amounts of the assets and liabilities. However, deferred tax assets and liabilities are not recognized if they arise from initial recognition of an asset or liability in a transaction other than a business combination that at the time of the transaction affects neither accounting nor taxable profit or loss.

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

Deferred tax liability is recognized for taxable temporary differences associated with investments in subsidiaries, associates, and interests in joint ventures, except to the extent that the Company is able to control the timing of the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future. In addition, deferred tax asset is recognized for deductible temporary differences arising from such investments to the extent that it is probable the temporary difference will reverse in the foreseeable future and taxable profit will be available against which the temporary difference can be utilized.

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

2.18 Provisions

Provisions are measured at the present value of the expenditures expected to be required to settle the obligation and the increase in the provision due to passage of time is recognized as interest expense.

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2.19 Greenhouse Gas Emissions Allowances and Obligations

With Enforcement of Allocation and Trading of Greenhouse Gas Emissions Allowances, allowances that are received free of charge from the government are measured at zero while allowances purchased are measured at acquisition cost and stated net of accumulated impairment loss. Emissions obligations are measured as the sum of the carrying amount of the allocated allowances that will be submitted to the government and the best estimate of expenditure required to settle the obligation at the end of reporting period for any excess emission. The allowances and emissions obligations are classified as intangible assets and provisions, respectively, in the statement of financial position.

2.20 Employee benefits

(a) Post-employment benefits

The Company has both defined benefit and defined contribution plans. A defined contribution plan is a pension plan under which the Company pays fixed contributions into a separate entity. The contributions are recognized as employee benefit expenses when an employee has rendered service.

A defined benefit plan is a pension plan that is not a defined contribution plan. Typically defined benefit plans define an amount of pension benefit that an employee will receive on retirement, usually dependent on one or more factors such as age, years of service and compensation. The liability recognized in the statement of financial position in respect of defined benefit pension plans is the present value of the defined benefit obligation at the end of the reporting period less the fair value of plan assets. The defined benefit obligation is calculated annually by independent actuaries using the projected unit credit method. The present value of the defined benefit obligation is determined by discounting the estimated future cash outflows using interest rates of high-quality corporate bonds and that have terms to maturity approximating to the terms of the related pension obligation. The remeasurements of the net defined benefit 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 long-term employee benefits, which are entitled to employees with service period for ten years and above. 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 service cost, net interest on other long-term employee benefits and remeasurements as profit or loss for the year. These liabilities are valued annually by independent qualified actuaries.

2.21 Revenue recognition

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

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 Company bases its

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estimates on historical results, taking into consideration the type of customer, the type of transaction and the terms of each arrangement.

(a) Sales of goods

Sales of goods are recognized upon delivery of products to customers. The Company recognizes provisions for product warranties and sales returns based on reasonable expectation reflecting warranty obligation and sales return rates incurred historically.

(b) Interest income

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

(c) Dividend income

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

(d) Royalty income

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

2.22 Leases

A lease is an agreement, whereby the lessor conveys to the lessee, in return for a payment or series of payments, the right to use an asset for an agreed period of time. Leases where all the risks and rewards of ownership are not transferred to the Company are classified as operating leases. Lease payments under operating leases are recognized as expenses on a straight-line basis over the lease term.

Leases where the Company has substantially all the risks and rewards of ownership are classified as finance leases and recognized as lease assets and liabilities at the lower of the fair value of the leased property and the present value of the minimum lease payments on the opening date of the lease period.

A lease is classified as a finance lease if it transfers substantially all the risks and rewards incidental to ownership at the inception of the lease. A lease other than a finance lease is classified as an operating lease. Lease income from operating leases is recognized in income on a straight-line basis over the lease term. Initial direct costs incurred by the lessor in negotiating and arranging an operating lease is added to the carrying amount of the leased asset and recognized as an expense over the lease term on the same basis as the lease income.

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3. Financial risk management

3.1 Financial risk factors

The Company's activities expose it to a variety of financial risks: market risk, credit risk and liquidity risk. The Company's overall risk management program focuses on the unpredictability of financial markets and seeks to minimize potential adverse effects on the Company's financial performance. The Company uses derivative financial instruments to hedge certain exposures.

Risk management is carried out by the Company's finance team under policies approved by the Corporate Management Committee. The finance team identifies, evaluates and hedges financial risks in close co-operation with the Company's operating units. The Corporate Management Committee reviews and approves written principles for overall risk management, as well as written policies covering specific areas, such as foreign exchange risk, interest rate risk, and credit risk, use of derivative financial instruments and non-derivative financial instruments, and investment of surplus liquidity.

(1) Market risk

1) Foreign exchange risk

The Company operates internationally and is exposed to foreign exchange risk arising from various currency exposures, primarily with respect to the US dollar. Foreign exchange risk arises from future commercial transactions and recognized assets and liabilities.

Management has set up a policy to require companies to manage their foreign exchange risk against their functional currency. The Company manages maximum loss for currency risk exposures within acceptable range by using currency risk management model and hires employees who are exclusively responsible for currency risk management. Currency exposure arising from the net assets of the Company's foreign operations is managed primarily through borrowings denominated in the relevant foreign currencies.

As of December 31, 2015 and 2014, the Company's monetary assets and liabilities denominated in currencies other than its functional currency, are as follows:

<i>(in millions of Korean won)</i>	2015		2014	
	Assets	Liabilities	Assets	Liabilities
USD	2,038,570	1,607,772	2,201,805	1,784,921
EUR	156,576	117,176	138,825	100,672
JPY	16,408	102,051	33,338	89,244
GBP and others	47,505	6,473	2,636	1,921

As of December 31, 2015 and 2014, if the Company's functional currency had weakened / strengthened by 10% against the US dollar with all other variables held constant, profit before income tax would have been affected as follows:

<i>(in millions of Korean won)</i>	2015		2014	
	10% Increase	10% Decrease	10% Increase	10% Decrease
USD	43,080	(43,080)	41,688	(41,688)

The above sensitivity analysis has been performed for monetary assets and liabilities denominated in foreign currencies other than the Company's functional currency at the reporting date.

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2) Price risk

The Company holds equity securities that are exposed to price risk because of investments held by the Company that are classified as available-for-sale. The Company's investments in equity of other entities that are publicly traded are related to the KOSPI index.

The impact of increases/decreases of the listed stock price indices on the Company's equity before tax effects as of December 31, 2015, are as follows. The analysis is based on the assumption that the stock price indices had increased/decreased by 10% with all other variables held constant and all the Company's listed equity securities moved according to the historical correlation with the index.

<i>(in millions of Korean won)</i>	2015		2014	
	10% Increase	10% Decrease	10% Increase	10% Decrease
KOSPI	1,067	(1,067)	-	-

3) Interest rate risk

Interest rate risk is defined as the risk that the interest income or expenses arising from deposits and borrowings will fluctuate because of changes in future market interest rate. The interest rate risk mainly arises through floating rate deposits and borrowings. The objective of interest rate risk management lies in maximizing corporate value by minimizing uncertainty caused by fluctuations in interest rates and minimizing net interest expense.

The Company adequately minimizes risks from interest rate fluctuations through various policies, such as sharing excess cash within the Company (internal cash sharing) to minimize external borrowings, avoiding high rate borrowings, reforming capital structure, managing an appropriate ratio of fixed rate borrowings and floating rate borrowings, monitoring a fluctuation of domestic and foreign interest rates daily, weekly and monthly, establishing alternatives, and balancing floating rate short-term borrowings with floating rate deposits.

The impact of 1% (100 basis points) higher/lower of interest rate with all other variables held constant on the Company's post-tax profit for the years ended December 31, 2015 and 2014, and on equity as of December 31, 2015 and 2014, is as follows:

<i>(in millions of Korean won)</i>	Impact on post-tax profit		Impact on equity	
	2015	2014	2015	2014
Increase	(7,794)	(8,251)	(7,794)	(8,251)
Decrease	7,794	8,251	7,794	8,251

(2) Credit risk

Credit risk arises from cash and cash equivalents, derivative financial instruments and deposits with banks and financial institutions, as well as credit exposures to customers, including outstanding receivables and committed transactions.

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As of December 31, 2015 and 2014, the maximum degrees of credit exposures are as follows:

(in millions of Korean won)

	2015		
	Before allowance	Allowance for doubtful accounts	Book value (maximum exposure)
Loans and receivables (excluding cash on hand)	5,392,170	(5,635)	5,386,535
Financial assets at fair value through profit or loss	93	-	93
Total	5,392,263	(5,635)	5,386,628

(in millions of Korean won)

	2014		
	Before allowance	Allowance for doubtful accounts	Book value (maximum exposure)
Loans and receivables (excluding cash on hand)	4,582,846	(6,252)	4,576,594
Financial assets at fair value through profit or loss	783	-	783
Total	4,583,629	(6,252)	4,577,377

Details of financial guarantees provided by the Company are disclosed in Notes 3.1.(3) and 19.

The Company has established the following policies and procedures to manage credit risks.

To manage credit risks relating to trade receivables, the Company evaluates the credit rating of customers and determines credit limit for each customer based on the information provided by credit rating agencies and other available financial information before commencing business with customers. The credit risks relating to trade receivables are also mitigated by insurance contracts, collaterals as well as payment guarantees.

The Company has entered into export insurance contracts with Korea Trade Insurance Corporation to mitigate credit risks relating to export trade receivables to overseas customers. The Company is also provided with collaterals by customers depending on their credit rating or payment guarantees from the customers' financial institutions as necessary.

The Company has deposited its cash and cash equivalents, and other long-term deposits in several financial institutions, such as Woori Bank and others. The Company has also entered into derivative contracts with several financial institutions. The Company maintains business relationship with those financial institutions with high credit ratings evaluated by independent credit rating agencies and accordingly, credit risks associated with these financial institutions are limited.

(3) Liquidity risk

The Company monitors rolling forecasts of the Company's liquidity requirements to ensure it has sufficient cash to meet operational needs while maintaining sufficient headroom on its undrawn committed borrowing facilities at all times so that the Company does not breach borrowing limits or covenants on any of its borrowing facilities. Such forecasting takes into consideration the Company's debt financing plans, covenant compliance, compliance with internal statement of financial position ratio targets and, if applicable external regulatory or legal requirements - for example, currency restrictions.

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1) The table below analyzes the Company's non-derivative financial liabilities into relevant maturity groupings based on the remaining period at the reporting date to the contractual maturity date. Cash flows presented below are gross cash flows before discount, and includes cash flows for interests.

(in millions of Korean won)

	December 31, 2015			
	Less than 1 year	1 to 2 years	2 to 5 years	Over 5 years
Borrowings (excluding finance lease liabilities)	1,140,458	202,055	-	-
Finance lease liabilities	5,000	5,000	15,000	20,000
Trade and other payables	1,689,970	551	-	-
Total	2,835,428	207,606	15,000	20,000

(in millions of Korean won)

	December 31, 2014			
	Less than 1 year	1 to 2 years	2 to 5 years	Over 5 years
Borrowings (excluding finance lease liabilities)	1,408,669	112,574	203,034	59
Trade and other payables	2,055,570	53,581	50	-
Total	3,464,239	166,155	203,084	59

2) The table below analyzes the derivatives into relevant maturity groupings based on the remaining period at the reporting date to the contractual maturity date.

(in millions of Korean won)

	December 31, 2015			
	Less than 1 year	1 to 2 years	2 to 5 years	Over 5 years
Gross settled derivatives				
Trading derivatives inflow	23,533	-	-	-
Trading derivative outflow	(23,440)	-	-	-
Total	93	-	-	-

(in millions of Korean won)

	December 31, 2014			
	Less than 1 year	1 to 2 years	2 to 5 years	Over 5 years
Gross settled derivatives				
Trading derivatives inflow	52,445	-	-	-
Trading derivative outflow	(51,662)	-	-	-
Total	783	-	-	-

3) The table below analyzes the Company's financial guarantee contracts into relevant maturity groupings based on the remaining period at the reporting date to the contractual maturity date.

(in millions of Korean won)

	December 31, 2015			
	Less than 1 year	1 to 2 years	2 to 5 years	Over 5 years
Financial guarantee contracts ¹	179,642	-	-	-

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¹ The Company has provided financial guarantee for subsidiaries (Note 19).

<i>(in millions of Korean won)</i>	December 31, 2014			
	Less than 1 year	1 to 2 years	2 to 5 years	Over 5 years
Financial guarantee contracts ²	197,411	-	-	-

² The Company provided LG Hausys Ltd. a joint guarantee for obligations outstanding as of April 1, 2009, the spin-off date. As of December 31, 2015, LG Hausys Ltd. repaid all relevant payables. The amount represented the maximum amount of the guarantee as of December 31, 2014, in which the guarantee could be called (Note 19).

3.2 Capital risk management

The Company's capital objectives are to safeguard the Company's ability to continue as a going concern in order to provide returns for shareholders and benefits for other stakeholders and to maintain an optimal capital structure to reduce the cost of capital.

Consistent with others in the industry, the Company monitors capital on the basis of the gearing ratio. This ratio is calculated as net debt divided by total capital. Net debt is calculated as total borrowings less cash and cash equivalents. Total capital is calculated as 'equity' as shown in the separate statement of financial position plus net debt.

The gearing ratio and debt-to-equity ratio as of December 31, 2015 and 2014, are as follows:

<i>(in millions of Korean won, except for ratios)</i>	2015	2014
Total borrowings (Note 15) (A)	1,366,863	1,689,356
Less: cash and cash equivalents (B)	<u>(1,423,061)</u>	<u>(717,965)</u>
Net debt (C=A+B)	<u>(56,198)</u>	<u>971,391</u>
Total liabilities (D)	3,787,033	4,341,869
Total equity (E)	<u>12,444,563</u>	<u>11,551,577</u>
Total capital (F=C+E)	<u>12,388,365</u>	<u>12,522,968</u>
Gearing ratio (C/F)	-	7.8%
Debt-to-equity ratio (D/E)	30.4%	37.6%

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3.3 Fair value estimation

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

<i>(in millions of Korean won)</i>	2015		2014	
	Carrying amount	Fair value	Carrying amount	Fair value
Financial assets (current)				
Cash and cash equivalents	1,423,061	1	717,965	1
Financial deposits	981,000	1	777,200	1
Trade receivables	2,745,514	1	2,776,022	1
Other receivables (excluding financial deposits)	181,967	1	242,067	1
Derivative financial instruments	93	93	783	783
Financial assets (non-current)				
Financial deposits	18,120	1	26,021	1
Other non-current receivables (excluding financial deposits)	36,904	1	37,348	1
Other non-current financial assets (at costs)	4,567	2	5,926	2
Other non-current financial assets (at fair value)	9,246	9,246	-	-
Financial liabilities (current)				
Trade and other payables	1,689,970	1	2,055,570	1
Borrowings (excluding financial lease liabilities)	1,128,119	1	1,388,646	1
Financial lease liabilities	4,885	1	-	-
Dividends payable	24	1	36	1
Financial liabilities (non-current)				
Borrowings (excluding financial lease liabilities)	199,773	205,343	300,710	313,050
Financial lease liabilities	34,086	35,361	-	-
Other non-current payables	551	1	53,631	51,941

¹ These financial assets and liabilities are not included in the disclosure above as their carrying amount is a reasonable approximation of the fair value.

² All other non-current financial assets of the Company consist of available-for-sale equity securities. Certain equity securities are measured at cost (2015: ₩ 4,567 million; 2014: ₩ 5,926 million) as the range of reasonable fair value estimates is significant and the probabilities of the various estimates cannot be reasonably assessed. These are not included in the disclosure above (Note 8). The Company does not have any plans to dispose of these available-for-sale equity securities in the near future.

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(2) Fair value for measurement and disclosure are determined based on the following method:

1) Derivative financial instruments

The Company determines derivative financial instruments 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. The fair value of derivative financial instruments is determined using forward exchange rates at the end of the reporting period with the resulting value discounted back to present value.

2) Financial liabilities (non-current)

Fair values of financial liabilities(non-current) are based on cash outflows discounted using Korean won currency note yield in the same credit grade with the Company (AA+), and the applied discount rates as of December 31, 2015 and 2014, are as follows:

<i>(in percentage)</i>	2015	2014
Discount rate	1.88%~2.60%	2.26%~2.68%

(3) Fair value hierarchy

Assets measured at fair value or for which the fair value is disclosed are categorized within the fair value hierarchy, and the defined levels are as follows:

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

Fair value hierarchy classifications of the financial assets and financial liabilities that are measured at fair value or its fair value is disclosed as of December 31, 2015 and 2014, are as follows:

<i>(in millions of Korean won)</i>	2015			
	Level 1	Level 2	Level 3	Total
Financial assets/liabilities that are measured at fair value				
Derivative financial instruments	-	93	-	93
Other non-current financial assets (at fair value)	9,246	-	-	9,246
Non-current borrowings (excluding finance lease liabilities)	-	205,343	-	205,343
Non-current finance lease liabilities	-	35,361	-	35,361

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<i>(in millions of Korean won)</i>	2014			
	Level 1	Level 2	Level 3	Total
Financial assets/liabilities that are measured at fair value				
Derivative financial instruments	-	783	-	783
Non-current borrowings (excluding finance lease liabilities)	-	313,050	-	313,050
Other non-current payables	-	51,941	-	51,941

4. Critical accounting estimates and assumptions

The Company makes estimates and assumptions concerning the future. The estimates and assumptions are continuously evaluated with consideration to factors such as events reasonably predictable in the foreseeable future within the present circumstance according to historical experience. The resulting accounting estimates will, by definition, seldom equal the related actual results. The estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are addressed below.

(1) Estimated impairment of goodwill

The Company tests annually whether goodwill has suffered any impairment. The recoverable amounts of cash-generating units have been determined based on value-in-use calculations (Note 13).

(2) Income taxes

The Company recorded, based on its best estimate, current taxes and deferred taxes that the Company will be liable in the future for the operating results as of the financial year end. However, the final tax outcome in the future may be different from the amounts that were initially recorded. Such differences will impact the current and deferred tax assets and liabilities in the period in which such determination is made (Note 29).

If certain portion of the taxable income is not used for investments, increase in wages, or dividends in accordance with the Tax System For Recirculation of Corporate Income, the Company is liable to pay additional income tax based on these tax laws. The new tax system is effective for three years from 2015. Accordingly, the measurement of current and deferred income tax is affected by the tax effects from the new system. As the Company's income tax is dependent on the investments, increase in wages and dividends, there exists uncertainty with regard to measuring the final tax effects.

(3) Provisions

The Company recognizes provisions for product warranties and sales return as of the reporting date as described in Note 16. The amounts are estimated based on historical data.

(4) Net defined benefit liability

The present value of net defined benefit liability depends on a number of factors that are determined on an actuarial basis using a number of assumptions including the discount rate (Note 17).

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5. Financial instruments by category

Categorizations of financial instruments as of December 31, 2015 and 2014, are as follows:

(in millions of Korean won)

Financial assets	2015			Total
	Loans and receivables	Assets at fair value through profit or loss	Available-for-sale financial assets	
Cash and cash equivalents	1,423,061	-	-	1,423,061
Trade receivables	2,745,514	-	-	2,745,514
Other receivables	1,162,967	-	-	1,162,967
Other current financial assets	-	93	-	93
Other non-current receivables	55,024	-	-	55,024
Other non-current financial assets	-	-	13,813	13,813
Total	5,386,566	93	13,813	5,400,472

(in millions of Korean won)

Financial liabilities	2015			Total
	Financial liabilities at fair value through profit or loss	Liabilities at amortized cost	Other liabilities ¹	
Trade payables	-	850,086	-	850,086
Other payables	-	839,884	-	839,884
Borrowings (current)	-	99,911	1,033,093	1,133,004
Other current liabilities (dividends payable)	-	24	-	24
Other non-current payables	-	551	-	551
Borrowings (non-current)	-	199,773	34,086	233,859
Total	-	1,990,229	1,067,179	3,057,408

(in millions of Korean won)

Financial assets	2014			Total
	Loans and receivables	Assets at fair value through profit or loss	Available-for-sale financial assets	
Cash and cash equivalents	717,965	-	-	717,965
Trade receivables	2,776,022	-	-	2,776,022
Other receivables	1,019,267	-	-	1,019,267
Other current financial assets	-	783	-	783
Other non-current receivables	63,369	-	-	63,369
Other non-current financial assets	-	-	5,926	5,926
Total	4,576,623	783	5,926	4,583,332

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<i>(in millions of Korean won)</i>	2014			
	Financial liabilities at fair value through profit or loss	Liabilities at amortized cost	Other liabilities¹	Total
Financial liabilities				
Trade payables	-	1,021,375	-	1,021,375
Other payables	-	1,034,195	-	1,034,195
Borrowings (current)	-	410,090	978,556	1,388,646
Other current liabilities (dividends payable)	-	36	-	36
Other non-current payables	-	53,631	-	53,631
Borrowings (non-current)	-	300,710	-	300,710
Total	-	2,820,037	978,556	3,798,593

¹ Other financial liabilities include capital lease liabilities that have been excluded from the scope of 'financial liabilities by category' and financial liabilities related to transferred financial assets that are not qualified for derecognition.

Net gains (losses) on financial instruments by category for the years ended December 31, 2015 and 2014, are as follows:

<i>(in millions of Korean won)</i>	2015	2014
Assets at fair value through profit or loss		
Loss on valuation/ disposal	(141)	(1,423)
Available-for-sale financial assets		
Gain on disposal	32	-
Dividend income	-	202
Loans and receivables		
Interest income	32,915	43,097
Gain on foreign currency translation	14,946	15,669
Gain on foreign exchange	74,491	32,683
Liabilities at amortized cost		
Interest expense	(22,331)	(35,457)
Loss foreign currency translation	(11,228)	(6,734)
Loss on foreign exchange	(39,072)	(19,173)
Other liabilities		
Interest expense	(9,661)	(10,145)
Loss foreign currency translation	(9,218)	(8,082)
Loss on foreign exchange	(47,994)	(24,285)

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6. Cash and cash equivalents

Details of cash and cash equivalents as of December 31, 2015 and 2014, are as follows:

<i>(in millions of Korean won)</i>	2015	2014
Bank deposits and cash on hand	16,225	40,657
Financial deposits, others	<u>1,406,836</u>	<u>677,308</u>
Total	<u>1,423,061</u>	<u>717,965</u>

7. Trade and other receivables

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

<i>(in millions of Korean won)</i>	2015		
	Original amount	Allowance for doubtful accounts	Carrying amount
Trade receivables ¹	2,750,818	(5,304)	2,745,514
Other current receivables	1,163,298	(331)	1,162,967
Other non-current receivables ²	<u>55,024</u>	<u>-</u>	<u>55,024</u>
Total	<u>3,969,140</u>	<u>(5,635)</u>	<u>3,963,505</u>

<i>(in millions of Korean won)</i>	2014		
	Original amount	Allowance for doubtful accounts	Carrying amount
Trade receivables ¹	2,782,274	(6,252)	2,776,022
Other current receivables	1,019,267	-	1,019,267
Other non-current receivables ²	<u>63,369</u>	<u>-</u>	<u>63,369</u>
Total	<u>3,864,910</u>	<u>(6,252)</u>	<u>3,858,658</u>

¹ As of December 31, 2015 and 2014, trade receivables transferred to financial institutions but not fully derecognized are as follows (Note 15):

<i>(in millions of Korean won)</i>	Loans and receivables (trade receivables collateralized borrowings)	
	2015	2014
Carrying amount of transferred assets	1,028,208	978,556
Carrying amount of related liabilities	(1,028,208)	(978,556)

² As of December 31, 2015, ₩ 20 million in other non-current receivables represents deposits which are restricted from withdrawal in connection with maintaining checking accounts (2014: ₩ 21 million).

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

<i>(in millions of Korean won)</i>	2015	2014
Current		
Non-trade receivables	137,914	139,923
Financial deposits ¹	981,000	777,200
Accrued income	7,878	5,908
Deposits	26,319	19,292
Loans ²	9,856	76,944
	<u>1,162,967</u>	<u>1,019,267</u>
Non-current		
Financial deposits ^{1,3}	18,120	26,021
Deposits	36,904	37,348
	<u>55,024</u>	<u>63,369</u>
Total	<u>1,217,991</u>	<u>1,082,636</u>

¹ As of December 31, 2014, certificates of deposits included within financial deposits amounting to ₩ 35,800 million had pledged as collateral to SH Corporation in relation to the land acquisition of LG Science Park. The financial deposits served as collateral, but were all cancelled in 2015.

² The amount represents loans to LG NanoH2O, Inc., a subsidiary newly acquired in 2014, for its operating funds. The loans were repaid in 2015 (Note 32).

³ As of December 31, 2015, ₩ 18,100 million is restricted from being withdrawn in relation to an agreement of cooperation between large, and small and medium-sized companies and others.

The aging analysis of these trade and other receivables as of December 31, 2015 and 2014, is as follows:

<i>(in millions of Korean won)</i>	2015		2014	
	Trade receivables	Other receivables	Trade receivables	Other receivables
Receivables not past due	<u>2,712,631</u>	<u>1,210,709</u>	<u>2,736,154</u>	<u>1,077,000</u>
Past due but not impaired				
Up to 3 months	17,065	2,590	40,161	5,620
3 to 6 months	2,136	2,811	286	16
Over 6 months	1,838	2,212	73	-
	<u>21,039</u>	<u>7,613</u>	<u>40,520</u>	<u>5,636</u>
Impaired receivables	<u>17,148</u>	<u>-</u>	<u>5,600</u>	<u>-</u>
	<u>2,750,818</u>	<u>1,218,322</u>	<u>2,782,274</u>	<u>1,082,636</u>

LG Chem, Ltd.
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The movements in bad debts allowance for the years ended December 31, 2015 and 2014, are as follows:

(in millions of Korean won)

	2015			
	Trade receivables		Other receivables	
	Current	Non-current	Current	Non-current
Beginning balance	6,252	-	-	-
Additions	-	-	331	-
Write-off	(777)	-	-	-
Reversals	(171)	-	-	-
Ending balance	<u>5,304</u>	<u>-</u>	<u>331</u>	<u>-</u>

(in millions of Korean won)

	2014			
	Trade receivables		Other receivables	
	Current	Non-current	Current	Non-current
Beginning balance	7,185	-	-	-
Additions	38	-	-	-
Write-off	(971)	-	-	-
Reversals	-	-	-	-
Ending balance	<u>6,252</u>	<u>-</u>	<u>-</u>	<u>-</u>

As of December 31, 2015 and 2014, the carrying amounts of trade and other receivables approximate their fair values.

8. Other Financial Assets

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

(in millions of Korean won)

	2015	2014
Other financial assets		
Derivatives (Note 9)	93	783
Available-for-sale financial assets	13,813	5,926
Less: current portion	<u>(93)</u>	<u>(783)</u>
	<u>13,813</u>	<u>5,926</u>

LG Chem, Ltd.
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The movements in available-for-sale financial assets for the years ended December 31, 2015 and 2014, are as follows:

<i>(in millions of Korean won)</i>	2015	2014
Beginning balance	5,926	5,846
Acquisition / Reclassification	11,626	80
Disposal	(2,959)	-
Loss on valuation (before income tax effects)	(780)	-
Ending balance	<u>13,813</u>	<u>5,926</u>

Available-for-sale financial assets consist of equity securities. Certain unlisted equity securities are measured at cost as the range of reasonable fair value estimates is significant and the probabilities of the various estimates cannot be reasonably assessed.

No impairment losses were recognized for available-for-sale financial assets for the years ended December 31, 2015 and 2014.

9. Derivative financial instruments

Details of derivative financial instruments as of December 31, 2015 and 2014, are as follows:

<i>(in millions of Korean won)</i>	2015		2014	
	Assets	Liabilities	Assets	Liabilities
Current				
Held-for-trading	93	-	783	-
	<u>93</u>	<u>-</u>	<u>783</u>	<u>-</u>

Details of derivative financial contracts as of December 31, 2015 and 2014, are as follows:

2015					
Classification	Contractor	Contract date	Contract amount (in thousands)	Contract period	Contract terms
Forward exchange	Two contracts in Woori Bank	2015.12.21, others	US\$ 10,000, others	2016.01.04 ~ 2016.01.05	\ 1,177.60/ US\$ 1, others
2014					
Classification	Contractor	Contract date	Contract amount (in thousands)	Contract period	Contract terms
Forward exchange	Shinhan Bank and 4 others	2014.12.03, others	US\$ 10,000, others	2015.01.02 ~ 2015.01.06	\ 1,117.95/ US\$ 1, others

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10. Inventories

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

(in millions of Korean won)

	2015		
	Original amount	Valuation allowance	Carrying amount
Merchandise	37,618	(937)	36,681
Finished products	718,036	(39,927)	678,109
Semi-finished products	330,060	-	330,060
Work-in-process	275	-	275
Raw materials	468,550	(1,460)	467,090
Supplies	67,722	-	67,722
Materials-in-transit	115,545	-	115,545
Total	1,737,806	(42,324)	1,695,482

(in millions of Korean won)

	2014		
	Original amount	Valuation allowance	Carrying amount
Merchandise	45,936	(826)	45,110
Finished products	939,581	(31,828)	907,753
Semi-finished products	345,585	-	345,585
Work-in-process	465	-	465
Raw materials	539,469	(2,139)	537,330
Supplies	67,395	-	67,395
Materials-in-transit	153,784	-	153,784
Total	2,092,215	(34,793)	2,057,422

The cost of inventories recognized as expense and included in 'cost of sales' amounted to ₩ 10,552,127 million (2014: ₩ 13,887,447 million) for the year ended December 31, 2015.

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11. Investments in Subsidiaries, Associates and Joint ventures

Changes in the carrying amount of investments in subsidiaries, associates and joint ventures for the years ended December 31, 2015 and 2014, are as follows:

<i>(in millions of Korean won)</i>	2015	2014
Beginning balance	1,324,017	1,129,883
Additions / Transfer	146,986	246,375
Impairment ¹	(265,671)	(52,241)
Reversal of impairment loss ²	55,696	-
Ending balance	<u>1,261,028</u>	<u>1,324,017</u>

¹ During 2015, LG NanoH₂O, Inc., that is located in the United States of America and managed as a separate cash-generating unit (hereafter 'CGU') in the Information & Electronic segments, and KLPE Limited Liability Partnership that is located in Kazakhstan and managed as a separate CGU in Basic materials & Chemicals segments, have been tested for impairment because their economic performances are lower than expected.

In addition, during 2014, a Chinese PVC division, managed as separate CGUs in the Basic materials & Chemicals segments, was tested for impairment due to their deteriorating performance in earnings as a result of significant price drop of the PVC products. The recoverable amount of the CGU is calculated on a basis of the value in use.

² During 2015, LG Chem Michigan Inc., that is located in the United States of America and managed as a separate CGU in Battery segment, has been tested for reversal of impairment loss because its future economic performance is expected to significantly excess past expectations. The recoverable amount of the CGU is calculated on a basis of the value in use.

The amounts of impairment loss recognized as other non-operating expenses and key assumptions used for calculation of value in use for the years ended December 31, 2015 and 2014, are as follows:

<i>(in millions of Korean won and in percentage)</i>	2015		
	KLPE Limited Liability Partnership	LG NanoH₂O, Inc.	LG Chem Michigan Inc.
Impaired (reversed) amount	163,556	102,115	(55,696)
Pre-tax discount rate	8.8%	9.3%	13.8%
Growth rate for subsequent years after five years	0.0%	0.5%	0.0%

<i>(in millions of Korean won and in percentage)</i>	2014	
	Tianjin LG DAGU Chemical Co., Ltd.	Tianjin LG Bohai Chemical Co., Ltd.
Impaired amount	18,238	34,003
Pre-tax discount rate	12.0%	12.0%
Growth rate for subsequent years after five years	0.0%	0.0%

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Details of investments in subsidiaries, associates and joint ventures as of December 31, 2015 and 2014, are as follows:

	Location	Ownership (%)		Carrying amount	
		2015	2014	2015	2014
Subsidiaries					
Tianjin LG Dagu Chemical Co.,Ltd. ¹	China	-	75	-	6,027
Ningbo LG Yongxing Chemical Co.,Ltd. ²	China	75	75	135,908	135,908
Ningbo Zhenhai LG Yongxing Trade Co., Ltd. ²	China	-	-	-	-
LG Chem HK Ltd.	Hong Kong	100	100	11,159	11,159
LG Chem America, Inc.	USA	100	100	3,620	3,620
LG Chemical India Pvt. Ltd. ³	India	100	100	54,929	54,929
LG Polymer India Pvt. Ltd. ³	India	-	-	-	-
LG Chemical (Guangzhou) Engineering Plastics Co.,Ltd.	China	100	100	21,911	21,911
LG Chem (Nanjing) Information & Electronics Materials Co.,Ltd. ⁴	China	81	81	299,369	282,865
LG Chem (Taiwan), Ltd.	Taiwan	100	100	18	18
LG Chem Display Materials (Beijing) Co.,Ltd.	China	90	90	13,444	13,444
Tianjin LG Bohai Chemical Co.,Ltd. ^{1,5}	China	68	65	77,871	71,844
Tianjin LG BOTIAN Chemical Co.,Ltd. ⁵	China	41	41	9,550	9,550
LG Chem (China) Investment Co.,Ltd. ⁶	China	100	100	80,090	73,673
LG Chem (Tianjin) Engineering Plastics Co., Ltd.	China	90	90	14,733	14,733
LG Chem Europe GmbH	Germany	100	100	3,085	3,085
LG Chem Poland Sp. z o.o. ⁷	Poland	100	100	26,948	15,402
LG Chem Michigan Inc.	USA	100	100	63,422	7,726
LG Chem Power Inc.	USA	100	100	19,553	19,553
LGC Petrochemical India Private Limited.	India	100	100	299	299
Haengboknuri	Korea	100	100	600	600
LG CHEM TK Kimya SANAYI VE TIC. Ltd. STI.	Turkey	100	100	174	174
LG Chem Japan Co.,Ltd.	Japan	100	100	1,406	1,406
LG NanoH2O, Inc. ⁸	USA	100	100	143,195	151,411
NanoH2O Singapore Private Ltd. ⁸	Singapore	-	-	-	-
NanoH2O (Jiangsu) Water Processing Technology Co. Ltd ⁸	China	-	-	-	-
Nanjing LG Chem New Energy Battery Co.,Ltd. ⁹	China	50	50	24,801	15,600
LG Chem (Chongqing) Engineering Plastics Co., Ltd. ¹⁰	China	100	-	9,269	-
				<u>1,015,354</u>	<u>914,937</u>
Associates					
LG Holdings (HK) Ltd.	Hong Kong	26	26	77,535	77,535
TECWIN Co.,Ltd.	Korea	20	20	2,861	2,861
LG Chem BRASIL INTERMEDIACAO DE NEGOCIOS DO SETOR QUIMICO LTDA. ¹¹	Brazil	100	100	579	579
LG Chem Malaysia SDN.BHD. ¹²	Malaysia	100	-	150	-
LG Fuel Cell Systems Inc.	USA	20	20	30,671	30,671
				<u>111,796</u>	<u>111,646</u>
Joint ventures					

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LG Vina chemical Co.,Ltd.	Vietnam	40	40	1,313	1,313
HL Greenpower Co.,Ltd.	Korea	49	49	14,210	14,210
SEETEC Co.,Ltd.	Korea	50	50	58,416	58,416
CNOOC & LG Petrochemicals Co.,Ltd.	China	50	50	40,230	40,230
KLPE Limited Liability Partnership	Kazakhstan	50	50	19,709	183,265
				<u>133,878</u>	<u>297,434</u>
Total				<u>245,674</u>	<u>409,080</u>

¹ In 2015, Tianjin LG DAGU Chemical Co., Ltd. merged with Tianjin LG Bohai Chemical Co., Ltd.

² As of December 31, 2015, Ningbo LG Yongxing Chemical Co.,Ltd. owns 100% of Ningbo Zhenhai LG Yongxing Trade Co.,Ltd. shares.

³ As of December 31, 2015, LG Chemical India Pvt. Ltd. owns 100% of LG Polymer India Pvt. Ltd. shares.

⁴ In 2015, the Company acquired additional shares of LG Chem (Nanjing) Information & Electronics Materials Co.,Ltd. for ₩ 16,504 million.

⁵ As of December 31, 2015, Tianjin LG Bohai Chemical Co., Ltd. owns 20.30% of Tianjin LG Botian Chemical Co.,Ltd. shares.

⁶ In 2015, the Company acquired additional shares of LG Chem (China) Investment Co.,Ltd. for \ 6,417 million.

⁷ In 2015, the Company acquired additional shares of LG Chem Poland Sp. z o.o. for \ 11,546 million.

⁸ In 2015, the Company acquired additional shares of NanoH2O Inc. for \ 93,899 million. LG NanoH2O Inc. owns 100% of NanoH2O Singapore Private Ltd. and NanoH2O (Jiangsu) Water Processing Technology Co. Ltd. shares.

⁹ In 2015, the Company acquired additional shares of Nanjing LG Chem New Energy Battery Co., Ltd. for \ 9,201 million. Although the Company owns less than 50% of the voting rights of Nanjing LG Chem New Energy Battery Co., Ltd., the Company is considered to have control over the investment, as the Company can exercise the majority voting rights in its decision-making process in accordance with the shareholders' agreement.

¹⁰ LG Chem (Chongqing) Engineering Plastics Co., Ltd. was established in 2015 and the Company newly acquired 100% of its shares for \ 9,269 million.

¹¹ Classified as an investment in associate due to its small size.

¹² LG Chem Malaysia SDN.BHD. was established in 2015 and classified as an investment in associate due to its small size. The Company newly acquired 100% of shares of LG Chem Malaysia SDN.BHD. for \ 150 million.

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12. Property, plant and equipment

Changes in the carrying amounts of property, plant and equipment for the years ended December 31, 2015 and 2014, are as follows:

	2015										
	Land	Buildings	Structures	Machinery	Vehicles	Tools	Equipment	Others	Construction -in-progress	Machinery -in-transit	Total
Beginning balance	902,365	1,595,466	514,281	3,400,414	8,254	261,955	70,806	85,194	455,800	84,731	7,379,266
Cost	903,729	1,936,318	863,951	8,907,547	32,269	647,171	218,520	251,722	491,155	84,731	14,337,113
Accumulated depreciation	-	(336,291)	(347,006)	(5,451,339)	(23,915)	(377,488)	(146,593)	(166,528)	-	-	(6,849,160)
Accumulated impairment	(1,364)	(4,561)	(2,664)	(55,794)	(100)	(7,728)	(1,121)	-	(35,355)	-	(108,687)
Acquisitions/ Transfer	49	117,833	74,291	931,826	4,408	92,393	17,191	113,411	1,060,635	84,262	2,496,299
Disposals/ Transfer	(1)	(7,714)	(848)	(117,957)	(85)	(10,249)	(516)	-	(1,177,861)	(158,456)	(1,473,687)
Depreciation	-	(42,155)	(37,557)	(699,485)	(3,293)	(86,023)	(22,690)	(63,169)	-	-	(954,372)
Impairment	(503)	(7,846)	(1,376)	(4,449)	(13)	(2,118)	(218)	-	(204)	-	(16,727)
Reversal of impairment	-	-	-	5,430	-	90	-	-	-	-	5,520
Transfer to non-current assets held for sale (Note 35)	-	-	-	(6,394)	-	(106)	-	-	-	-	(6,500)
Ending balance	901,910	1,655,584	548,791	3,509,385	9,271	255,942	64,573	135,436	338,370	10,537	7,429,799
Cost	903,777	2,045,520	934,250	9,526,360	35,865	694,831	228,592	281,556	373,906	10,537	15,035,194
Accumulated depreciation	-	(377,548)	(382,190)	(6,010,371)	(26,482)	(430,130)	(162,711)	(146,120)	-	-	(7,535,552)
Accumulated impairment	(1,867)	(12,388)	(3,269)	(6,604)	(112)	(8,759)	(1,308)	-	(35,536)	-	(69,843)
	2014										
	Land	Buildings	Structures	Machinery	Vehicles	Tools	Equipment	Others	Construction -in-progress	Machinery -in-transit	Total
Beginning balance	805,745	1,513,090	501,985	3,375,901	8,922	238,583	72,781	73,083	528,476	154,545	7,273,111
Cost	806,284	1,811,743	824,525	8,342,904	32,174	573,424	206,319	210,205	569,193	154,545	13,531,316
Accumulated depreciation	-	(296,504)	(320,906)	(4,933,956)	(23,162)	(328,041)	(132,788)	(137,122)	-	-	(6,172,479)
Accumulated impairment	(539)	(2,149)	(1,634)	(33,047)	(90)	(6,800)	(750)	-	(40,717)	-	(85,726)
Acquisitions/ Transfer	97,191	127,579	46,691	711,346	2,247	103,681	20,192	80,759	929,284	110,048	2,229,018
Disposals/ Transfer	(490)	(4,589)	(174)	(9,688)	(10)	(5,753)	(422)	-	(982,283)	(179,862)	(1,183,271)
Depreciation	-	(39,830)	(33,299)	(664,202)	(2,807)	(73,335)	(21,552)	(68,648)	-	-	(903,673)
Impairment	(81)	(784)	(922)	(7,426)	(55)	(910)	(165)	-	(19,677)	-	(30,020)
Transfer to non-current assets held for sale	-	-	-	(5,517)	(43)	(311)	(28)	-	-	-	(5,899)
Ending balance	902,365	1,595,466	514,281	3,400,414	8,254	261,955	70,806	85,194	455,800	84,731	7,379,266
Cost	903,729	1,936,318	863,951	8,907,547	32,269	647,171	218,520	251,722	491,155	84,731	14,337,113
Accumulated depreciation	-	(336,291)	(347,006)	(5,451,339)	(23,915)	(377,488)	(146,593)	(166,528)	-	-	(6,849,160)
Accumulated impairment	(1,364)	(4,561)	(2,664)	(55,794)	(100)	(7,728)	(1,121)	-	(35,355)	-	(108,687)

During the year ended December 31, 2015, the Company capitalized ₩ 4,839 million of borrowing costs (2014: ₩ 6,384 million) to property, plant and equipment. The capitalization rate of borrowings used to determine the amount of borrowing costs eligible for capitalization is 1.84% (2014: 2.12%).

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The details of property, plant and equipment that have been pledged as collateral for certain bank loan outstanding as of December 31, 2014, but was redeemed in 2015, are as follows:

	2014				
	Carrying amount	Collateral value	Related account	Related amount	Mortgagee
Land	3,294	3,844	Borrowings	1,498	Kookmin Bank
Building	9,264	4,943	(Note 15)		

Depreciation of property, plant and equipment for the years ended December 31, 2015 and 2014, was classified as follows:

<i>(in millions of Korean won)</i>	2015	2014
Cost of sales	886,828	841,864
Selling, general and administrative expenses	67,130	61,576
Others	414	233
Total	954,372	903,673

Details of machinery classified as a finance lease as of December 31, 2015 and 2014, are as follows:

<i>(in millions of Korean won)</i>	2015	2014
Cost- capitalized finance leases	42,669	-
Accumulated depreciation	(4,267)	-
Net book value	38,402	-

The Company has entered into non-cancellable finance lease contracts with lease term of ten years for machineries, and the contracts include an agreement that the ownership of the assets is transferred by the end of the lease term.

The Company reviews annually whether there is any indication that an asset may be impaired. During 2015, LED Encap division, managed as separate CGU of Materials segment, was tested for impairment due to significant price drop of products.

In addition, during 2014, the separator division, managed as a CGU in IT & Electronic Materials segments, has been tested for impairment because its sales volume was lower than expected. The recoverable amount of the CGU is calculated on a basis of the value in use and impairment is mainly related to machinery and equipment used in manufacturing.

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The amount of impairment loss (reversal) recognized as other non-operating expenses (income) and key assumptions used for calculation of value in use for the years ended December 31, 2015 and 2014, are as follows:

<i>(in millions of Korean won)</i>	2015	2014
	LED Encap	Separator division
Impaired amount		
Property, plant and equipment	16,727	23,053
Intangible assets	1,093	415
Key assumptions		
Pre-tax discount rate	11.7%	14.4%
Growth rate for subsequent years exceeding five years	0.0%	0.0%

The Company decided to dispose of certain non-current assets during 2015 and 2014. The differences between the fair value and book value were recognized as impairment losses (reversal of impairment losses) (Note 35). The amounts classified as other non-operating expenses (income) are as follows:

<i>(in millions of Korean won)</i>	2015	2014
(Reversal of) Impairment loss on property, plant and equipment	(5,520)	6,967
Impairment loss on intangible assets	-	77
	(5,520)	7,044

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13. Intangible assets

Changes in the carrying amount of intangible assets for the years ended December 31, 2015 and 2014 are, as follows:

(in millions of Korean won)

	2015					
	Software development costs	Industrial property rights	Goodwill	Memberships	Others	Total
Beginning balance	53,044	129,602	33,415	49,541	27,425	293,027
Acquisitions/ Transfer	30,771	41,863	-	2,405	21,373	96,412
Disposals/ Transfer	(8,817)	(3,434)	-	(2,996)	(16)	(15,263)
Amortization	(16,428)	(10,209)	-	-	(8,593)	(35,230)
Impairment	(56)	(985)	-	-	(52)	(1,093)
Ending balance	58,514	156,837	33,415	48,950	40,137	337,853

(in millions of Korean won)

	2014					
	Software development costs	Industrial property rights	Goodwill	Memberships	Others	Total
Beginning balance	42,829	100,770	33,415	51,028	24,519	252,561
Acquisitions/ Transfer	30,442	36,958	-	592	9,800	77,792
Disposals/ Transfer	(6,721)	(60)	-	(2,018)	(17)	(8,816)
Amortization	(13,319)	(7,792)	-	-	(6,845)	(27,956)
Impairment	(126)	(274)	-	(61)	(31)	(492)
Transfer to non-current assets held for sale	(61)	-	-	-	(1)	(62)
Ending balance	53,044	129,602	33,415	49,541	27,425	293,027

Amortization of intangible assets was classified for the years ended December 31, 2015 and 2014, as follows:

(in millions of Korean won)

	2015	2014
Cost of sales	10,318	8,715
Selling, general and administrative expenses	24,912	19,241
Total	35,230	27,956

Research and development costs recognized as expenses for the year ended December 31, 2015, amount to ₩ 554,892 million (2014: ₩ 496,103 million).

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Goodwill is allocated to the Company's CGUs identified according to operating segment. The carrying amounts of allocated goodwill by CGUs as of December 31, 2015, are as follows:

(in millions of Korean won)

CGUs	Carrying amount
Goodwill arising on the acquisition of LG Petrochemical Co., Ltd.	
NCC	2,361
ABS	1,250
PO	1,063
PVC	759
Acrylic	653
Plasticizer	143
BPA	125
Others	1,839
	<u>8,193</u>
Goodwill arising on the acquisition of SAP business	
Acrylic	25,222
Total	<u>33,415</u>

The recoverable amounts of CGUs have been determined based on value-in-use calculations. These calculations use pre-tax cash flow projections based on financial budgets approved by management covering a five-year period. Cash flows beyond the five-year period are estimated using 0% of expected growth rate. Management determined pre-tax cash flow based on past performance and its expectations of market development. The discount rate used is pre-tax and reflect specific risks relating to the relevant operating segments. Discount rate used for value-in-use calculations for the current year is 11.7%. The recoverable amounts based on value-in-use calculations exceeded carrying amounts and accordingly, no impairment was recognized for the year ended December 31, 2015.

14. Other current and non-current assets

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

(in millions of Korean won)

	2015	2014
Current		
Advance payments	27,408	7,854
Prepaid expenses	13,853	13,003
Prepaid value added tax	24,308	52,416
Others	15,224	106,148
Total	<u>80,793</u>	<u>179,421</u>
Non-current		
Long-term prepaid expenses	8,843	12,456
Others	10,826	58,544
Total	<u>19,669</u>	<u>71,000</u>

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15. Borrowings

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

<i>(in millions of Korean won)</i>	2015	2014
Current		
Short-term borrowings	1,028,208	978,556
Current maturities of borrowings	-	310,126
Current maturities of debentures	99,911	99,964
Finance lease liabilities	4,885	-
	<u>1,133,004</u>	<u>1,388,646</u>
Non-current		
Borrowings	-	1,292
Debentures	199,773	299,418
Finance lease liabilities	34,086	-
	<u>233,859</u>	<u>300,710</u>
Total	<u>1,366,863</u>	<u>1,689,356</u>

Details of current borrowings as of December 31, 2015 and 2014, are as follows:

<i>(in millions of Korean won)</i>	Bank	Latest maturity date	Annual interest rate (%) at December 31, 2015	Carrying Amount	
				2015	2014
Notes discounted ¹	Woori Bank, others	2016.06.24	Libor + 0.56, various	1,028,208	978,556

¹ As of December 31, 2015, trade receivables transferred to financial institutions but not derecognized are accounted for as collateralized borrowing transaction (Note 7).

All non-current borrowings were redeemed as of December 31, 2015. Details of non-current borrowings as of December 31, 2014, are as follows:

<i>(in millions of Korean won)</i>	Bank	2014			Total amount	Current	Non-current
		Annual interest rate (%)	Latest maturity date	Total amount			
Won currency borrowings	Kookmin Bank	2.70	2018.07.14	711	127	584	
	Kookmin Bank	2.70	2020.03.21	787	79	708	
	Korea Development Bank	3.53	2015.07.19	200,000	200,000	-	
Foreign currency borrowings	BTMU	3Libor + 1.54	2015.07.20	54,960	54,960	-	
	Nova Scotia Bank	3Libor + 1.54	2015.07.20	54,960	54,960	-	
Total				<u>311,418</u>	<u>310,126</u>	<u>1,292</u>	

Certain property, plant and equipment have been pledged as collateral for the above non-current borrowings for Kookmin Bank (Note 12).

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

(in millions of Korean won)

		2015				
	Financial institution	Annual interest rate (%)	Latest maturity date	Total amount	Current	Non-current
Won currency debentures	Woori Securities, others	4.03	2016.12.05	100,000	100,000	-
	Woori Securities, others	4.11	2017.03.29	200,000	-	200,000
Less: discount on debentures				(316)	(89)	(227)
Total				299,684	99,911	199,773

(in millions of Korean won)

		2014				
	Financial institution	Annual interest rate (%)	Latest maturity date	Total amount	Current	Non-current
Won currency debentures	Woori Securities, others	4.03	2016.12.05	100,000	-	100,000
	Woori Securities, others	3.96	2015.03.29	100,000	100,000	-
	Woori Securities, others	4.11	2017.03.29	200,000	-	200,000
Less: discount on debentures				(618)	(36)	(582)
Total				399,382	99,964	299,418

Details of finance lease liabilities as of December 31, 2015, are as follows:

(in millions of Korean won)

		2015			
Leaser	Annual interest rate (%)	Latest maturity date	Total amount	Current	Non-current
Hyundai Oil Bank	3.12	2024.12.31	38,971	4,885	34,086

The present value of finance lease liabilities as of December 31, 2015 and 2014, is as follows:

(in millions of Korean won)

	2015			2014		
	Minimum lease payments	Future finance costs	Present value	Minimum lease payments	Future finance costs	Present value
Within 1 year	5,000	115	4,885	-	-	-
1 to 5 years	20,000	1,903	18,097	-	-	-
Over 5 years	20,000	4,011	15,989	-	-	-

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16. Provisions

Changes in the carrying amount of provisions for the years ended December 31, 2015 and 2014, are as follows:

(in millions of Korean won)

	2015			Total
	Sales returns ¹	Warranty ²	Greenhouse gas emission ³	
Beginning balance	4,320	22,613	-	26,933
Additions	42,411	4,208	3,720	50,339
Used	(41,443)	(1,834)	-	(43,277)
Ending balance	5,288	24,987	3,720	33,995
Less : current portion	(5,288)	(452)	(3,720)	(9,460)
Total	-	24,535	-	24,535

(in millions of Korean won)

	2014			Total
	Sales returns ¹	Warranty ²	Greenhouse gas emission ³	
Beginning balance	1,893	17,748	-	19,641
Additions	32,911	6,401	-	39,312
Used	(30,484)	(1,536)	-	(32,020)
Ending balance	4,320	22,613	-	26,933
Less : current portion	(4,320)	(128)	-	(4,448)
Total	-	22,485	-	22,485

¹ Sales return provisions have been accrued for the estimated sales return determined based on historical experience.

² Warranty provisions have been accrued for the estimated warranty service costs to be incurred based on the terms of warranty and historical experience.

³ Greenhouse gas emission provisions have been accrued for estimated expected expenses to be obligated for the excess emission over the obligation at the end of reporting period.

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17. Net defined benefit liability

The amounts recognized in the statements of financial position as of December 31, 2015 and 2014, are as follows:

<i>(in millions of Korean won)</i>	2015	2014
Present value of retirement benefit obligations ¹	715,343	603,990
Fair value of plan assets	<u>(636,266)</u>	<u>(518,583)</u>
Liability in the statement of financial position	<u>79,077</u>	<u>85,407</u>

¹ The present value of retirement benefit obligations is net of existing contributions to the National Pension Plan of ₩ 802 million as of December 31, 2015 (2014: ₩ 847 million).

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

<i>(in millions of Korean won)</i>	2015	2014
Current service cost ¹	101,075	87,434
Past service cost	-	24,410
Interest cost	<u>2,682</u>	<u>3,685</u>
Total, included in employee benefit expenses	<u>103,757</u>	<u>115,529</u>

¹ The above amounts excluded ₩ 555 million (2014: ₩ 674 million) of expenses capitalized to construction in progress and development costs.

Severance costs recognized for defined contribution plan for the year ended December 31, 2015, amounted to ₩ 1,990 million (2014: ₩ 1,486 million).

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

<i>(in millions of Korean won)</i>	2015	2014
Cost of sales	75,069	87,832
Selling, general and administrative expenses	<u>30,678</u>	<u>29,183</u>
Total	<u>105,747</u>	<u>117,015</u>

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

<i>(in millions of Korean won)</i>	2015	2014
Beginning balance	603,990	436,233
Transfer in	7,620	1,918
Transfer out	(5,132)	(1,467)
Current service cost	101,630	88,108
Past service cost	-	24,410
Interest expense	18,704	18,075
Remeasurements:		
Actuarial gains and losses arising from changes in demographic assumptions	371	1,161
Actuarial gains and losses arising from changes in financial assumptions	30,875	59,097
Actuarial gains and losses arising from experience adjustments	(12,108)	11,485
Others	412	266
Payments from plans	(31,019)	(35,296)
Ending balance	<u>715,343</u>	<u>603,990</u>

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

<i>(in millions of Korean won)</i>	2015	2014
Beginning balance	518,583	386,211
Transfer in	642	352
Transfer out	(260)	(638)
Interest income	16,022	14,390
Remeasurements:		
Return on plan assets (excluding amounts included in interest income)	(1,239)	(946)
Contributions:		
Employers	120,000	145,000
Payments from plans	(15,219)	(25,044)
Administrative costs	(2,263)	(742)
Ending balance	<u>636,266</u>	<u>518,583</u>

The actual return on plan assets for the year ended December 31, 2015, was ₩ 14,783 million (2014: ₩ 13,444 million).

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The principal actuarial assumptions used as of December 31, 2015 and 2014, are as follows:

	2015	2014
Discount rate	2.8%	3.1%
Future salary increase	5.1%	5.1%

The sensitivity analysis for changes in key actuarial assumptions is as follows:

<i>(in millions of Korean won)</i>	Increase by 1%	Decrease by 1%
Discount rate:		
Increase(decrease) in defined benefit obligations	(72,380)	86,551
Salary growth rate:		
Increase(decrease) in defined benefit obligations	83,685	(71,602)

A decrease in corporate bond yields may lead most significantly to an increase in defined benefit liabilities.

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 recognized on the statement of financial position.

The methods and types of assumptions used in preparing the sensitivity analysis did not change compared to the previous period.

Plan assets as of December 31, 2015 and 2014, consist of:

<i>(in millions of Korean won)</i>	2015				2014			
	Quoted price	Unquoted price	Total	Composition	Quoted price	Unquoted price	Total	Composition
Insurance contracts with guaranteed yield	636,266	-	636,266	100%	518,583	-	518,583	100%

As of December 31, 2015, the weighted average duration of the defined benefit obligations is 11.7 years.

The Company reviews the funding level on an annual basis and has a policy to eliminate deficit in the fund. Expected contributions to post-employment benefit plans for the year ending December 31, 2016, are ₩133,672 million.

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18. Other current and non-current liabilities

Details of other current and non-current liabilities as of December 31, 2015 and 2014, are as follows:

<i>(in millions of Korean won)</i>	2015	2014
Current		
Advances from customers	40,956	9,478
Dividends payable	24	36
Withholding	14,052	22,840
Unearned revenues	4,452	11,234
Non-trade payables	154,134	105,046
Accrued expenses	44,870	50,389
Total	<u>258,488</u>	<u>199,023</u>
Non-current		
Long-term accrued expenses	<u>27,852</u>	<u>-</u>

19. Commitments and contingencies

- (1) As of December 31, 2015, the Company has been provided with guarantees from the Seoul Guarantee Insurance for the execution of supply contracts.
- (2) As of December 31, 2015, the Company has provided one blank promissory note to the Korea National Oil Corporation as collateral in relation to petroleum import surcharges.
- (3) As of December 31, 2015, the Company has bank overdraft agreements with several banks for up to ₩ 64,100 million and US\$ 50 million, and has entered into contracts with several financial institutions, for discounting notes from export for up to US\$ 1,372 million, and for letters of credit for up to ₩ 90,200 million and US\$ 383 million, and for the guaranteed payments in foreign currency for up to US\$ 190 million. The Company also has comprehensive line of credit agreements with several financial institutions for up to ₩ 270,000 million and US\$ 180 million.
- (4) As of December 31, 2015, the Company has B2B purchase arrangements with several financial institutions amounting to ₩ 360,000 million.
- (5) As of December 31, 2015, the consumers in U.S. and Canada have filed two class actions and the customers have filed three separate actions against the Company in relation to price fixing of mobile batteries. However, the ultimate outcome of these cases cannot be determined at the reporting date.
- (6) In addition, as of December 31, 2015, the Company have been named as a plaintiff in 11 legal actions involving ₩ 4,137 million, and as a defendant in eight legal actions with ₩ 6,483 million. The ultimate outcome of these cases cannot be determined at the reporting date.
- (7) As of December 31, 2015, the Company has technology license agreements with STYRON EUROPE GmbH and other companies for the production of Polycarbonate products. Further,

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the Company has entered into manufacture and production technical contracts with Exxon Mobile and others.

- (8) The Company has entered into a license agreement with LG Corp. to use trademarks on the products that the Company manufactures and sells, and on the services the Company provides in relation to its business.
- (9) As of December 31, 2015, the Company has contracts of US\$ 2.6 million and EUR 9.9 million in guarantees with financial institutions in regard to warranty for certain products, and the Company has a contract of US\$ 79 million in guarantees with financial institutions for the advances received from customers.
- (10) As of December 31, 2015, the Company has guaranteed the repayment of various obligations of its subsidiaries. The outstanding balance of such guarantees as of December 31, 2015, amounts to US\$ 150 million and EUR 3 million (total equivalent to ₩ 179,642 million) (2014: US\$ 175 million and EUR 3 million, total equivalent to ₩196,370 million). Details of guarantees provided as of December 31, 2015 and 2014, are as follows:

(in millions of Korean won)

Guarantee beneficiary	Guarantee period	Financial institution	2015		2014	
			Amount of guarantee	Outstanding loan amount	Amount of guarantee	Outstanding loan amount
LG Chem Europe GmbH	2015.01.02 ~ 2016.01.02	Shinhan Bank	3,842	-	4,010	-
LG Chem Michigan, Inc.	2014.05.27 ~ 2017.05.27	Mizuho Bank	70,320	70,320	65,952	65,952
"	2014.03.31 ~ 2017.03.31	SMBC	23,440	23,440	21,984	21,984
"	2015.04.01 ~ 2016.03.31	SMBC	23,440	-	21,984	-
"	2013.11.12 ~ 2015.02.16	JP Morgan	-	-	27,480	27,480
"	2015.08.18 ~ 2016.08.18	Wells Fargo	23,440	23,440	21,984	21,984
LG NanoH2O, Inc.	2015.10.01 ~ 2016.09.30	Citibank	35,160	12,892	32,976	7,694
Total			179,642	130,092	196,370	145,094

In addition, the Company provides Letters of Comfort (LOC) in relation to certain borrowings of subsidiaries.

Further, as of December 31, 2015, the Company provided no financial guarantee to its associates in relation to their borrowings.

- (11) Capital expenditure contracted for as of December 31, 2015 and 2014, but not yet incurred is as follows:

(in millions of Korean won)	2015	2014
Property, plant and equipment	167,685	414,813

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20. Equity

Changes in share capital and share premium for the years ended December 31, 2015 and 2014, are as follows:

(in millions of Korean won and in shares)

	Ordinary shares		Preferred shares		Share premium
	Number of shares	Amount	Number of shares	Amount	
January 1, 2014	66,271,100	331,356	7,628,921	38,144	897,840
December 31, 2014	66,271,100	331,356	7,628,921	38,144	897,840
December 31, 2015	66,271,100	331,356	7,628,921	38,144	897,840

Changes in treasury shares for the years ended December 31, 2015 and 2014, are as follows:

<i>(in millions of Korean won)</i>	Number of shares		Carrying amount	Gain on sale of treasury shares
	Ordinary shares	Preferred shares		
January 1, 2014	359,792	5,519	15,484	13,855
Purchase of treasury shares	3	-	-	-
December 31, 2014	359,795	5,519	15,484	13,855
December 31, 2015	359,795	5,519	15,484	13,855

21. Retained earnings

Details of retained earnings as of December 31, 2015 and 2014, are as follows:

<i>(in millions of Korean won)</i>	2015	2014
Legal reserve ¹	184,750	184,750
Discretionary reserve ²	9,551,527	9,077,851
Retained earnings before appropriation	1,188,097	768,196
Total	10,924,374	10,030,797

¹ The Commercial Code of the Republic of Korea requires the Company to appropriate for each financial period, 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 cash dividends payment, but may be transferred to capital stock or used to reduce accumulated deficit. When the accumulated legal reserves (the sum of capital reserves and earned profit reserves) are greater than 1.5 times the paid-in capital amount, the excess legal reserves may be distributed in accordance with a resolution of the shareholders' meeting.

² The Company separately accumulates a discretionary reserve for research and human resource development through appropriation of retained earnings, which has been included as deductible expense for the corporate income tax return according to the Special Tax Treatment Law. The reserve could be reversed in accordance with the terms of related tax laws.

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22. Other components of equity

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

<i>(in millions of Korean won)</i>	2015	2014
Treasury shares (Note 20)	(15,484)	(15,484)

23. Selling, general and administrative expenses

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

<i>(in millions of Korean won)</i>	2015	2014
Wages and salaries	373,886	319,453
Pension costs (Note 17)	30,678	29,183
Welfare expense	73,448	59,293
Travel expense	29,480	27,707
Water & utilities	25,064	24,467
Packaging expense	6,198	5,392
Rental expense	75,080	77,366
Commission expense	282,578	254,733
Depreciation (Note 12)	67,130	61,576
Advertising expense	15,693	16,254
Freight expense	353,571	354,973
Training expense	10,963	11,046
Amortization (Note 13)	24,912	19,241
Sample expense	16,554	9,915
Development costs	109,917	103,552
Others	109,160	111,120
Total	<u>1,604,312</u>	<u>1,485,271</u>

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24. Expenses by nature

Expenses that are recorded by function as cost of sales, and selling, general and administrative expenses in the statements of income for the years ended December 31, 2015 and 2014, consist of:

<i>(in millions of Korean won)</i>	2015	2014
Changes in inventories	253,788	(2,126)
Raw materials and consumables used	9,208,670	12,702,927
Purchase of merchandise	1,089,669	1,186,646
Employee benefit expense (Note 25)	1,339,832	1,171,723
Advertising expense	16,933	17,395
Freight expense	376,397	380,534
Service fees	398,194	367,602
Depreciation, amortization	989,188	931,396
Operating lease payments	44,749	40,908
Other expenses	<u>1,996,597</u>	<u>1,745,845</u>
Total	<u>15,714,017</u>	<u>18,542,850</u>

25. Employee benefit expense

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

<i>(in millions of Korean won)</i>	2015	2014
Wages and salaries	1,112,260	973,618
Pension costs – Defined benefit plan (Note 17)	103,757	115,529
Pension costs – Defined contribution plan (Note 17)	1,990	1,486
Others	<u>121,825</u>	<u>81,090</u>
Total	<u>1,339,832</u>	<u>1,171,723</u>

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26. Finance income and expenses

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

<i>(in millions of Korean won)</i>	2015	2014
Finance income		
Interest income ¹	32,915	43,097
Dividend income	96,747	54,362
Gain on foreign exchange	100,897	65,329
Gain on foreign currency translation	105	19
Gain on disposal of available-for-sale securities	32	-
Gain on disposal of trading derivatives	7,134	7,389
Gain on valuation of trading derivatives	93	783
Total	237,923	170,979
Finance expense		
Interest expense ²	27,153	39,218
Loss on foreign exchange	101,884	58,387
Loss on foreign exchange translations	2,174	7,182
Loss on disposal of trading derivatives	7,368	9,595
Total	138,579	114,382

¹ Details of interest income for the years ended December 31, 2015 and 2014, are as follows:

<i>(in millions of Korean won)</i>	2015	2014
Bank deposits	32,530	41,095
Other loans and receivables	385	2,002
Total	32,915	43,097

² Details of interest expense for the years ended December 31, 2015 and 2014, are as follows:

<i>(in millions of Korean won)</i>	2015	2014
Interest on bank overdraft and borrowings	17,168	21,383
Interest on finance lease liabilities	1,303	122
Interest on debentures	13,521	23,994
Other interest expenses	-	103
Capitalized interest for qualifying assets	(4,839)	(6,384)
Total	27,153	39,218

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27. Other non-operating income

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

<i>(in millions of Korean won)</i>	2015	2014
Gain on foreign exchange	292,383	303,458
Gain on foreign currency translation	21,293	30,207
Gain on disposal of property, plant and equipment	7,564	2,845
Gain on disposal of intangible assets	-	16
Reversal of impairment loss on property, plant and equipment (Note 12)	5,520	-
Reversal of impairment loss on investments in subsidiaries (Note 11)	55,696	-
Gain on disposal of business	122,295	-
Others	18,274	13,415
Total	<u>523,025</u>	<u>349,941</u>

Disposal of OLED lighting business

The Company transferred OLED lighting business to LG Display Co., Ltd. on December 15, 2015.

<i>(in millions of Korean won)</i>	Amount
Total consideration	160,000
Assets of the transferred business:	
Property, plant and equipment	27,244
Intangible assets	3,621
Other assets	7,701
Liabilities of the transferred business:	
Other liabilities	861

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28. Other non-operating expenses

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

<i>(in millions of Korean won)</i>	2015	2014
Loss on foreign exchange	303,971	321,175
Loss on foreign currency translation	24,724	22,191
Loss on disposal of property, plant and equipment	73,726	15,913
Loss on disposal of intangible assets	330	2,211
Impairment loss on property, plant and equipment (Note 12)	16,727	30,020
Impairment loss on intangible assets (Note 13)	1,093	492
Impairment loss on investments in subsidiaries (Note 11)	102,115	52,241
Impairment loss on investments in joint ventures (Note 11)	163,556	-
Others	29,771	22,977
Total	716,013	467,220

29. Income Taxes

Details of income tax expense as of December 31, 2015 and 2014, are as follows:

<i>(in millions of Korean won)</i>	2015	2014
Current tax on profit for the year	447,582	223,084
Adjustments in respect of prior years	2,833	40,103
Deferred tax-movement in temporary differences	(126,453)	(49,758)
Deferred tax-tax credit carryforwards	(6,589)	17,863
	317,373	231,292
Deferred tax charged directly to equity	189	-
Current tax charged directly to equity	5,031	17,655
Income tax expense	322,593	248,947

Income taxes charged directly to components of other comprehensive income for the years ended December 31, 2015 and 2014, are as follows:

<i>(in millions of Korean won)</i>	2015	2014
Current tax		
Remeasurements of net defined benefits liabilities	5,031	17,655
Deferred tax		
Loss on valuation of available-for-sale financial assets	189	-
Total	5,220	17,655

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The movement in deferred tax assets (liabilities) for the years ended December 31, 2015 and 2014, is as follows:

(in millions of Korean won)

	2015			
	Beginning balance	Increase (decrease)		Ending balance
		Profit for the year	Other comprehensive income	
Defined benefit liability	132,262	29,900	-	162,162
Plan assets	(124,936)	(26,966)	-	(151,902)
Reserve for research and human resources development	(171,820)	55,660	-	(116,160)
Allowance for doubtful accounts	679	(55)	-	624
Property, plant and equipment	19,033	(10,951)	-	8,082
Investments in subsidiaries, associates and joint ventures	(1,046)	39,580	-	38,534
Accrued interest income	(1,430)	(477)	-	(1,907)
Others	192	39,573	189	39,954
	<u>(147,066)</u>	<u>126,264</u>	<u>189</u>	<u>(20,613)</u>
Tax credit carryforwards	5,470	6,589	-	12,059
Deferred income tax assets(liabilities)	<u>(141,596)</u>	<u>132,853</u>	<u>189</u>	<u>(8,554)</u>

(in millions of Korean won)

	2014			
	Beginning balance	Increase (decrease)		Ending balance
		Profit for the year	Other comprehensive income	
Defined benefit liability	89,239	43,023	-	132,262
Plan assets	(92,322)	(32,614)	-	(124,936)
Reserve for research and human resources development	(234,740)	62,920	-	(171,820)
Allowance for doubtful accounts	679	-	-	679
Property, plant and equipment	31,236	(12,203)	-	19,033
Investments in subsidiaries, associates and joint ventures	(1,046)	-	-	(1,046)
Accrued interest income	(1,108)	(322)	-	(1,430)
Others	11,238	(11,046)	-	192
	<u>(196,824)</u>	<u>49,758</u>	<u>-</u>	<u>(147,066)</u>
Tax credit carryforwards	23,333	(17,863)	-	5,470
Deferred income tax assets(liabilities)	<u>(173,491)</u>	<u>31,895</u>	<u>-</u>	<u>(141,596)</u>

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The reconciliations between income tax expense and accounting profit for the years ended December 31, 2015 and 2014, are as follows:

<i>(in millions of Korean won)</i>	2015	2014
Profit before income tax	1,526,448	1,072,443
Income tax expense based on applicable tax rate	371,630	263,639
Tax adjustments		
Income not subject to tax	(7,839)	(19,005)
Expenses not deductible for tax purposes	10,941	3,292
Unrecognized deferred income tax for temporary differences in the current year	43,181	17,715
Tax credit	(100,806)	(76,611)
Others	5,486	59,917
Income tax expense	322,593	248,947
Effective tax rate (income tax expense/ profit before income tax)	21.13%	23.21%

Realization of the future tax benefits related to the deferred tax assets is dependent on many factors, including the Company's ability to generate taxable income within the period during which the temporary differences reverse, the outlook of the economic environment, and the overall future industry outlook. Management periodically considers these factors in reaching its conclusion.

Details of deductible (taxable) temporary differences unrecognized as deferred tax assets (liabilities) as of December 31, 2015 and 2014, are as follows:

<i>(in millions of Korean won)</i>	2015	2014
Investment in subsidiaries, associates and joint ventures	193,957	15,525
Goodwill	(8,193)	(8,193)
Total	185,764	7,332

The expiration of tax loss carryforwards is as follows:

<i>(in millions of Korean won)</i>	2015	2014
2019	1,333	1,333

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30. Earnings per share

Basic earnings per share is calculated by dividing the profit attributable to ordinary shares by the weighted average number of shares in issue excluding shares purchased by the Company and held as treasury shares. As of the reporting date, the Company has no potential ordinary 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 ordinary shares and preferred shares.

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

Basic earnings per ordinary shares

*(in millions of Korean won and
in number of shares)*

	2015	2014
Profit attributable to ordinary shares ¹	1,078,709	737,782
Weighted average number of ordinary shares outstanding ²	65,911,305	65,911,308
Basic earnings per ordinary share (in won)	<u>16,366</u>	<u>11,194</u>

Basic earnings per preferred shares

*(in millions of Korean won and
in number of shares)*

	2015	2014
Profit attributable to preferred shares ¹	125,146	85,714
Weighted average number of ordinary shares outstanding ²	7,623,402	7,623,402
Basic earnings per preferred share (in won)	<u>16,416</u>	<u>11,244</u>

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

<i>(in millions of Korean won)</i>	2015	2014
Profit for the year	1,203,855	823,496
Ordinary shares dividends (A)	296,601	263,645
Preferred shares dividends (B)	34,686	30,875
Undistributed earnings for the year	872,568	528,976
Undistributed earnings available for ordinary shares (C)	782,108	474,137
Undistributed earnings available for preferred shares (D)	90,460	54,839
Profit for the year attributable to ordinary shares (A+C)	1,078,709	737,782
Profit for the year attributable to preferred shares (B+D)	125,146	85,714

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² Weighted average numbers of shares are calculated as follows:

Ordinary shares	Period	2015		
		Number of shares	Number of days	Number of shares x days
Beginning balance	2015. 1. 1 ~ 2015.12.31	65,911,305	365	<u>24,057,626,325</u>
Total				<u>24,057,626,325</u>

Weighted average number of ordinary shares outstanding: $24,057,626,325 / 365 = 65,911,305$ shares

Preferred shares	Period	2015		
		Number of shares	Number of days	Number of shares x days
Beginning balance	2015. 1. 1 ~ 2015.12.31	7,623,402	365	<u>2,782,541,730</u>
Total				<u>2,782,541,730</u>

Weighted average number of preferred shares outstanding: $2,782,541,730 / 365 = 7,623,402$ shares

Ordinary shares	Period	2014		
		Number of shares	Number of days	Number of shares x days
Beginning balance	2014. 1. 1 - 2014.12.31	65,911,308	365	24,057,627,420
Purchase of treasury shares	2014.12.31 - 2014.12.31	(3)	1	<u>(3)</u>
Total				<u>24,057,627,417</u>

Weighted average number of ordinary shares outstanding: $24,057,627,417 / 365 = 65,911,308$ shares

Preferred shares	Period	2014		
		Number of shares	Number of days	Number of shares x days
Beginning balance	2014. 1. 1 - 2014.12.31	7,623,402	365	<u>2,782,541,730</u>
Total				<u>2,782,541,730</u>

Weighted average number of preferred shares outstanding: $2,782,541,730 / 365 = 7,623,402$ shares

There were no dilutive potential outstanding ordinary shares at the reporting date. Accordingly, diluted earnings per share for profit attributable to owners of the Company is identical to basic earnings per share.

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31. Dividends

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

	2015	2014
Number of shares entitled to dividends: shares issued and outstanding (par value per share: ₩5,000)		
Ordinary shares	65,911,305	65,911,305
Preferred shares	7,623,402	7,623,402
Dividend per share (in won)		
Ordinary shares: cash	4,500(90%)	4,000(80%)
Preferred shares: cash	4,550(91%)	4,050(81%)
Cash dividends to distribute (in millions of Korean won)		
Ordinary shares	296,601	263,645
Preferred shares	34,686	30,875
	<u>331,287</u>	<u>294,520</u>

Dividend payout ratios for the years ended December 31, 2015 and 2014, are as follows:

<i>(in millions of Korean won)</i>	2015	2014
Dividends (A)	331,287	294,520
Profit for the year (B)	<u>1,203,855</u>	<u>823,496</u>
Dividend payout ratio (A/B)	<u>27.52%</u>	<u>35.76%</u>

Dividend yield ratios for the years ended December 31, 2015 and 2014, are as follows:

<i>(in Korean won)</i>	2015		2014	
	Ordinary shares	Preferred Shares	Ordinary shares	Preferred Shares
Dividend per share (A)	4,500	4,550	4,000	4,050
Market value at the end of year (B) ¹	<u>336,000</u>	<u>251,250</u>	<u>186,250</u>	<u>144,375</u>
Dividend yield ratio (A/B)	<u>1.34%</u>	<u>1.81%</u>	<u>2.15%</u>	<u>2.81%</u>

¹ Average price in the stock market during the week preceding the two business days before the record date of the shareholders' list for the general meeting of shareholders related to above dividends.

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32. Related party transactions

As of December 31, 2015 and 2014, LG Corp. is an entity exercising significant influence over the Company as it owns 33.53% of the Company's ordinary shares.

Details of other related parties that have sales and other transactions with the Company or have receivables and payables balances, other than consolidated subsidiaries, associates and joint ventures (Note 11), as of December 31, 2015 and 2014, are as follows:

Name	Classification
SERVEONE Co., Ltd.,	A subsidiary of LG Corp.
LG CNS Co., Ltd.	"
LG Siltron Incorporated	"
LG Management Development Institute	"
LG SPORTS Ltd.	"
LG MMA Corporation	A joint venture of LG Corp.
LG N-Sys Inc.	A subsidiary of LG CNS Co., Ltd.
BNE PARTNERS, Inc.	"
EVERON	"

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

(in millions of Korean won)

	2015			
	Sales and others	Purchase and others		
		Purchase of raw material /merchandise	Acquisition of property, plant and equipment and intangible assets	Others
Entities with significant influence over the Company				
LG Corp.	12	-	-	50,241
Subsidiaries				
Ningbo LG Yongxing Chemical Co.,Ltd.	69,217	434	-	-
LG Chem HK Ltd.	212,009	-	-	1,465
LG Chem America, Inc.	609,028	-	-	3,234
LG Chem (Nanjing) Information & Electronics Materials Co.,Ltd.	785,711	1,121,319	-	2,661
LG Chem (Taiwan), Ltd.	208,353	203	-	7,189
LG Chem Display Materials (Beijing) Co.,Ltd.	23	-	-	8,063
Tianjin LG Bohai Chemical Co.,Ltd.	197	-	-	-
LG Chem (China) Investment Co.,Ltd.	-	-	-	40,631
LG Chem Europe GmbH	308,488	-	-	16,498
LG Chem Poland Sp. z o.o.	17,959	360	-	9,877
LG NanoH2O, Inc.	3,144	-	-	5,835
LG Chem Michigan Inc.	60,315	8,350	-	-
Nanjing LG Chem New Energy Battery Co., Ltd.	32,661	-	-	-
Other	44,489	1,326	-	24,072
Associates and joint ventures				
SEETEC Co.,Ltd.	55,230	124,971	209	82,992
TECWIN Co.,Ltd.	-	53	2,423	14
HL Greenpower Co.,Ltd.	54,130	-	-	-
Other	1,563	-	-	1,669
Others				
LG MMA Corporation	91,927	128,519	-	2,632
SERVEONE Co., Ltd.,	18,670	354,678	244,975	68,411
LG CNS Co., Ltd.	2,313	3,073	50,561	41,386
Other	14,652	14,108	1,149	10,891
Key management				
Key management	-	-	-	49,194
Total	2,590,091	1,757,394	299,317	426,955

LG Chem, Ltd.
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(in millions of Korean won)

	2014			
	Sales and others	Purchase and others		
		Purchase of raw material /merchandise	Acquisition of property, plant and equipment and intangible assets	Others
:Entities with significant influence over the Company				
LG Corp.	12	-	-	54,191
Subsidiaries				
Ningbo LG Yongxing Chemical Co.,Ltd.	12,819	-	-	-
LG Chem HK Ltd.	189,032	-	-	3,326
LG Chem America, Inc.	688,628	-	-	2,860
LG Chem (Nanjing) Information & Electronics Materials Co.,Ltd.	680,334	1,294,314	-	2,699
LG Chem (Taiwan), Ltd.	199,580	500	-	7,277
LG Chem Display Materials (Beijing) Co.,Ltd.	11	-	-	6,990
Tianjin LG Bohai Chemical Co.,Ltd.	17,992	-	-	-
LG Chem (China) Investment Co.,Ltd.	-	-	-	30,882
LG Chem Europe GmbH	357,783	-	-	12,804
LG Chem Poland Sp. z o.o.	17,668	73	-	11,724
LG NanoH2O, Inc.	2,019	-	-	-
LG Chem Michigan Inc.	25,199	-	-	-
Other	42,638	906	-	18,471
Associates and joint ventures				
SEETEC Co.,Ltd.	76,171	175,822	10	78,008
TECWIN Co.,Ltd.	18	378	2,218	32
HL Greenpower Co.,Ltd.	80,184	-	-	-
Other	1,009	-	-	1,371
Others				
LG MMA Corporation	123,991	135,752	-	-
SERVEONE Co., Ltd.,	24,382	336,365	174,684	68,678
LG CNS Co., Ltd.	835	5,088	65,954	41,204
Other	4,869	1,558	1,776	9,248
Key management				
Key management	-	-	-	34,953
Total	2,545,174	1,950,756	244,642	384,718

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

(in millions of Korean won)

	2015			
	Receivables			
	Trade receivables	Loan receivables	Other receivables	Total
Entities with significant influence over the Company				
LG Corp.	-	-	11,463	11,463
Subsidiaries				
Ningbo LG Yongxing Chemical Co.,Ltd.	4,533	-	5,876	10,409
LG Chem HK Ltd.	13,305	-	-	13,305
LG Chem America, Inc.	118,829	-	1,141	119,970
LG Chem (Nanjing) Information & Electronics Materials Co.,Ltd.	148,596	-	34,342	182,938
LG Chem (Taiwan), Ltd.	54,500	-	184	54,684
LG Chem Display Materials (Beijing) Co.,Ltd.	-	-	10	10
Tianjin LG Bohai Chemical Co.,Ltd.	-	-	92	92
LG Chem (China) Investment Co.,Ltd.	-	-	-	-
LG Chem Europe GmbH	98,300	-	118	98,418
LG Chem Poland Sp. z o.o.	5,554	-	1,187	6,741
LG NanoH2O, Inc.	3,638	-	46	3,684
LG Chem Michigan Inc.	21,502	-	2,702	24,204
Nanjing LG Chem New Energy Battery Co., Ltd.	1,903	-	4,019	5,922
Other	3,143	-	5,899	9,042
Associates and joint ventures				
SEETEC Co.,Ltd.	-	-	-	-
TECWIN Co.,Ltd.	-	-	-	-
HL Greenpower Co.,Ltd.	12,833	-	-	12,833
LG Fuel Cell Systems Inc.	-	9,857	-	9,857
Other	-	-	451	451
Others				
LG MMA Corporation	7,801	-	402	8,203
SERVEONE Co., Ltd.,	1,929	-	26,193	28,122
LG CNS Co., Ltd.	-	-	-	-
Other	10,228	-	3,722	13,950
Key management				
Key management	-	-	-	-
Total	506,594	9,857	97,847	614,298

LG Chem, Ltd.
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(in millions of Korean won)

	2015			
	Payables			
	Trade payables	Borrowings	Other payables	Total
Entities with significant influence over the Company				
LG Corp.	-	-	-	-
Subsidiaries				
Ningbo LG Yongxing Chemical Co.,Ltd.	-	-	-	-
LG Chem HK Ltd.	-	-	67	67
LG Chem America, Inc.	-	-	295	295
LG Chem (Nanjing) Information & Electronics Materials Co.,Ltd.	-	-	193,443	193,443
LG Chem (Taiwan), Ltd.	-	-	854	854
LG Chem Display Materials (Beijing) Co.,Ltd.	55	-	794	849
Tianjin LG Bohai Chemical Co.,Ltd.	-	-	-	-
LG Chem (China) Investment Co.,Ltd.	-	-	4,490	4,490
LG Chem Europe GmbH	-	-	942	942
LG Chem Poland Sp. z o.o.	-	-	809	809
LG NanoH2O, Inc.	-	-	4,859	4,859
LG Chem Michigan Inc.	-	-	269	269
Nanjing LG Chem New Energy Battery Co., Ltd.	-	-	-	-
Other	569	-	1,860	2,429
Associates and joint ventures				
SEETEC Co.,Ltd.	-	-	20,725	20,725
TECWIN Co.,Ltd.	-	-	215	215
HL Greenpower Co.,Ltd.	-	-	5	5
LG Fuel Cell Systems Inc.	-	-	-	-
Other	-	-	60	60
Others				
LG MMA Corporation	8,149	-	-	8,149
SERVEONE Co., Ltd.,	508	-	119,936	120,444
LG CNS Co., Ltd.	-	-	23,620	23,620
Other	304	-	2,671	2,975
Key management				
Key management	-	-	54,423	54,423
Total	9,585	-	430,337	439,922

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(in millions of Korean won)

	2014			
	Receivables			
	Trade receivables	Loan receivables	Other receivables	Total
Entities with significant influence over the Company				
LG Corp.	-	-	8,167	8,167
Subsidiaries				
Ningbo LG Yongxing Chemical Co.,Ltd.	1,375	-	3,286	4,661
LG Chem HK Ltd.	12,691	-	-	12,691
LG Chem America, Inc.	156,256	-	1,411	157,667
LG Chem (Nanjing) Information & Electronics Materials Co.,Ltd.	148,805	-	37,575	186,380
LG Chem (Taiwan), Ltd.	68,482	-	1,963	70,445
LG Chem Display Materials (Beijing) Co.,Ltd.	-	-	136	136
Tianjin LG Bohai Chemical Co.,Ltd.	1,516	-	140	1,656
LG Chem (China) Investment Co.,Ltd.	-	-	-	-
LG Chem Europe GmbH	112,927	-	78	113,005
LG Chem Poland Sp. z o.o.	3,900	-	2,126	6,026
LG NanoH2O, Inc.	-	76,944	2,116	79,060
LG Chem Michigan Inc.	840	-	6,939	7,779
Nanjing LG Chem New Energy Battery Co., Ltd.	-	-	-	-
Other	14,573	-	141	14,714
Associates and joint ventures				
SEETEC Co.,Ltd.	-	-	-	-
TECWIN Co.,Ltd.	-	-	-	-
HL Greenpower Co.,Ltd.	18,402	-	-	18,402
Other	-	-	15	15
Others				
LG MMA Corporation	8,397	-	416	8,813
SERVEONE Co., Ltd.,	2,872	-	25,903	28,775
LG CNS Co., Ltd.	588	-	-	588
Other	2,870	-	3,724	6,594
Key management				
Key management	-	-	-	-
Total	554,494	76,944	94,136	725,574

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(in millions of Korean won)

	2014			
	Payables			
	Trade payables	Borrowings	Other payables	Total
Entities with significant influence over the Company				
LG Corp.	-	-	7	7
Subsidiaries				
Ningbo LG Yongxing Chemical Co.,Ltd.	-	-	-	-
LG Chem HK Ltd.	-	-	264	264
LG Chem America, Inc.	-	-	261	261
LG Chem (Nanjing) Information & Electronics Materials Co.,Ltd.	-	-	209,036	209,036
LG Chem (Taiwan), Ltd.	-	-	771	771
LG Chem Display Materials (Beijing) Co.,Ltd.	29	-	575	604
Tianjin LG Bohai Chemical Co.,Ltd.	-	-	-	-
LG Chem (China) Investment Co.,Ltd.	-	-	2,240	2,240
LG Chem Europe GmbH	-	-	1,169	1,169
LG Chem Poland Sp. z o.o.	-	-	1,064	1,064
LG NanoH2O, Inc.	-	-	-	-
LG Chem Michigan Inc.	-	-	382	382
Nanjing LG Chem New Energy Battery Co., Ltd.	-	-	-	-
Other	22	-	1,653	1,675
Associates and joint ventures				
SEETEC Co.,Ltd.	-	-	24,310	24,310
TECWIN Co.,Ltd.	-	-	886	886
HL Greenpower Co.,Ltd.	-	-	-	-
Other	-	-	-	-
Others				
LG MMA Corporation	9,589	-	-	9,589
SERVEONE Co., Ltd.,	-	-	146,406	146,406
LG CNS Co., Ltd.	-	-	25,328	25,328
Other	-	-	3,024	3,024
Key management				
Key management	-	-	41,280	41,280
Total	9,640	-	458,656	468,296

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

(in millions of Korean won)

	2015		2014	
	Equity contributions in cash	Loan (repayment)	Equity contributions in cash	Loan (repayment)
Subsidiaries				
LG Chem (China) Investment Co.,Ltd.	6,417	-	5,896	-
LG Chem (Chongqing) Engineering Plastics Co., Ltd.	9,269	-	-	-
LG Chem (Nanjing) Information & Electronics Materials Co.,Ltd.	16,504	-	30,127	-
LG Chem Japan Co., Ltd.	-	-	1,406	-
LG Chem Poland Sp. z o.o.	11,546	-	-	-
LG NanoH2O, Inc.	93,899	(76,356)	151,411	72,219
Nanjing LG Chem New Energy Battery Co.,Ltd.	9,201	-	15,600	-
Associates and joint ventures				
LG Fuel Cell Systems Inc.	-	9,897	8,402	-
KLPE Limited Liability Partnership	-	-	33,533	-
LG Chem Malaysia SDN.BHD.	150	-	-	-
Total	146,986	(66,459)	246,375	72,219

Dividends received from related parties for the years ended December 31, 2015 and 2014, are as follows:

(in millions of Korean won)

	2015	2014
Subsidiaries		
LG Chem (Nanjing) Information & Electronics Materials Co.,Ltd.	5,656	-
LG Chem (Tianjin) Engineering Plastics Co.,Ltd.	2,976	-
Ningbo LG Yongxing Chemical Co.,Ltd.	44,640	15,926
LG Chemical (Guangzhou) Engineering Plastics Co.,Ltd.	-	141
LG Chem (Taiwan), Ltd.	8,982	19,601
Associates and joint ventures		
SEETEC Co.,Ltd.	33,500	17,500
LG VINA Chemical Co.,Ltd.	993	974
TECWIN Co., Ltd.	-	18
Total	96,747	54,160

LG Chem, Ltd.
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Dividends paid to related parties for the years ended December 31, 2015 and 2014, are as follows:

<i>(in millions of Korean won)</i>	2015	2014
Entities with significant influence over the Company		
LG Corp.	88,877	88,877

Compensation for key management of the Company for the years ended December 31, 2015 and 2014, consists of:

<i>(in millions of Korean won)</i>	2015	2014
Wages and salaries	46,757	33,073
Pension costs	2,437	1,880
Total	<u>49,194</u>	<u>34,953</u>

Key management includes directors and audit committee members having duties and responsibilities over planning, operations and controlling of the Company's business activities.

There are no provisions held against receivables from related parties and thus, no bad debts expense has been recognized in 2015 and 2014.

Details of the guarantees provided by the Company for related parties at the reporting date are disclosed in Note 19.

LG Chem, Ltd.
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33. Cash generated from operations

Reconciliation between operating profit and net cash inflow (outflow) from operating activities for the years ended December 31, 2015 and 2014, is as follows:

<i>(in millions of Korean won)</i>	2015	2014
Profit before income tax	1,526,448	1,072,443
Adjustments for:		
Depreciation	953,958	903,440
Amortization	35,230	27,956
Pension costs	103,757	115,529
Finance income	(158,226)	(135,073)
Financial expenses	61,341	77,403
Foreign exchange differences	53,902	24,285
Gain on disposal of property, plant and equipment	(7,564)	(2,845)
Gain on disposal of intangible assets	-	(16)
Gain on disposal of business	(122,295)	-
Loss on disposal of property, plant and equipment	73,726	15,913
Loss on disposal of intangible assets	330	2,211
Impairment loss on property, plant and equipment	16,727	30,020
Impairment loss on intangible assets	1,093	492
Reversal of impairment loss on property, plant and equipment	(5,520)	-
Impairment loss on investments in subsidiaries	102,115	52,241
Reversal of impairment loss on investments in subsidiaries	(55,696)	-
Impairment loss on investments in joint ventures	163,556	-
Other income	10,192	4,482
Inventories	363,089	(49,375)
Trade receivables	45,863	12,988
Other receivables	3,770	5,952
Settlement of derivatives	549	(2,206)
Trade payables	(174,799)	98,489
Other payables	(224,348)	143,637
Net defined benefit liabilities	(131,431)	(153,774)
Other cash flows from operations	194,364	(47,706)
Cash generated from operations	<u>2,830,131</u>	<u>2,196,486</u>

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The principal non-cash transactions for the years ended December 31, 2015 and 2014, are as follows:

<i>(in millions of Korean won)</i>	2015	2014
Transfer of construction-in-progress	1,177,861	982,283
Transfer of machinery-in-transit	158,456	179,862
Reclassification of long-term borrowings into current maturities	109,762	409,944
Reclassification of non-current asset held for sale	6,500	5,961
Acquisition of financial lease assets	42,669	-

34. Appropriation of retained earnings

The appropriation of retained earnings for the years ended December 31, 2015 and 2014, is as follows:

(Dates of appropriation: March 18, 2016 and March 13, 2015 for the years ended December 31, 2015 and 2014, respectively)

<i>(in millions of Korean won)</i>	2015	2014
Unappropriated retained earnings carried over from prior year	-	-
Profit for the year	1,203,855	823,496
Remeasurements of net defined benefits liabilities	<u>(15,758)</u>	<u>(55,300)</u>
Retained earnings before appropriation	1,188,097	768,196
Transfer from other reserves		
Reserve for technology development	<u>230,000</u>	<u>160,000</u>
Appropriation of retained earnings		
Legal reserve	-	-
Dividends	331,287	294,520
Reserve for technology development	<u>1,086,810</u>	<u>633,676</u>
	<u>1,418,097</u>	<u>928,196</u>
Unappropriated retained earnings to be carried forward	-	-

LG Chem, Ltd.
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35. Non-current assets held for sale

The Company decided to sell certain non-current assets related to the separator division with the approval of the management on September 25, 2015. The related assets were reclassified as non-current assets held for sale. The disposal is expected to be completed by the first half of 2016.

Details of assets of disposal group classified as held-for-sale as of December 31, 2015, are as follows:

<i>(in millions of Korean won)</i>	Amount
Assets of disposal group	
Property, plant and equipment	<u>6,500</u>
Total	<u><u>6,500</u></u>

Assets of the disposal group were measured at fair value immediately before the initial classification of the assets as held for sale; the related reversal of impairment loss amounting \ 5,520 million was recognized as other non-operating income during 2015.

36. Events after the reporting period

The Company decided to acquire 100% of equity shares of DONGBU FARM HANNONG CO., LTD., as approved by the Board of Directors on January 8, 2016.

The Company decided to withdraw its investments in KPLE Limited Liability Partnership, as approved by the Board of Directors on January 26, 2016.

37. Approval of financial statements

The separate financial statements for the year ended December 31, 2015, were approved by the Board of Directors on January 26, 2016, which is subject to change with approval of shareholders at the annual shareholders' meeting.

**Report on independent accountants’
Review of Internal Accounting Control System**

To the Representative Director
LG Chem, Ltd.

We have reviewed the accompanying management’s report on the operations of the Internal Accounting Control System (“IACS”) of LG Chem, Ltd. (the “Company”) as of December 31, 2015. The Company’s management is responsible for designing and operating IACS and for its assessment of the effectiveness of IACS. Our responsibility is to review the management’s report on the operations of the IACS and issue a report based on our review. The management’s report on the operations of the IACS of the Company states that “based on its assessment of the operations of the IACS as of December 31, 2015, the Company’s IACS has been designed and is operating effectively as of December 31, 2015, in all material respects, in accordance with the IACS standards established by the Internal Accounting Control System Operations Committee (IACSOC) of the Korea Listed Companies Association.”

Our review was conducted in accordance with the IACS review standards established by the Korean Institute of Certified Public Accountants. Those standards require that we plan and perform, in all material respects, the review of management’s report on the operations of the IACS to obtain a lower level of assurance than an audit. A review is to obtain an understanding of a company’s IACS and consists principally of inquiries of management and, when deemed necessary, a limited inspection of underlying documents, which is substantially less in scope than an audit.

A company’s IACS is a system to monitor and operate those policies and procedures designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with accounting principles generally accepted in the Republic of Korea. Because of its inherent limitations, IACS may not prevent or detect a material misstatement of the financial statements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Based on our review, nothing has come to our attention that causes us to believe that management's report on the operations of the IACS, referred to above, is not presented fairly, in all material respects, in accordance with the IACS standards established by IACSOC.

Our review is based on the Company's IACS as of December 31, 2015, and we did not review management's assessment of its IACS subsequent to December 31, 2015. This report has been prepared pursuant to the Acts on External Audit for Stock Companies in Korea and may not be appropriate for other purposes or for other users.

Samil PricewaterhouseCoopers

March 9, 2016

Report on the Operations of the Internal Accounting Control System

To the Board of Directors and Audit Committee of
LG Chem, Ltd.

I, as the Internal Accounting Control Officer (“IACO”) of LG Chem, Ltd. (“the Company”), assessed the status of the design and operations of the Company’s internal accounting control system (“IACS”) for the year ended December 31, 2015.

The Company’s management including IACO is responsible for designing and operating IACS. I, as the IACO, assessed whether the IACS has been effectively designed and is operating to prevent and detect any error or fraud which may cause any misstatement of the financial statements, for the purpose of establishing the reliability of financial reporting and the preparation of financial statements for external purposes. I, as the IACO, applied the IACS standard for the assessment of design and operations of the IACS.

Based on the assessment on the operations of the IACS, the Company’s IACS has been effectively designed and is operating as of December 31, 2015, in all material respects, in accordance with the IACS standards.

January 26, 2016

Ho-Young Jeong, Internal Accounting Control System Officer

Jin-Soo Park, Chief Executive Officer