# SAMSUNG SDI CO., LTD. AND SUBSIDIARIES

Consolidated Financial Statements

**December 31, 2015 and 2014** 

(With Independent Auditors' Report Thereon)

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# **Independent Auditors' Report**

Based on a report originally issued in Korean

The Board of Directors and Shareholders Samsung SDI Co., Ltd.:

#### Report on the Consolidated financial statements

We have audited the accompanying consolidated financial statements of Samsung SDI Co., Ltd. and its subsidiaries (the "Group"), which comprise the consolidated statement of financial position as of December 31, 2015 and 2014, the consolidated statements of comprehensive income (loss), 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 Consolidated Financial Statements

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

# **Auditors' Responsibility**

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

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

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

#### **Opinion**

In our opinion, the consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Group as of December 31, 2015 and 2014 and its consolidated financial performance and its consolidated cash flows for the years then ended in accordance with International Financial Reporting Standards.

# **Emphasis of Matter**

Without qualifying our opinion, we draw attention to Note 36 to the consolidated financial statements which states that the Group spun off its Chemical Department and established a Battery Business-Centered portfolio. The Group also decided to dispose 90% shares of the Chemical Department to Lotte Chemical Corporation by \(\frac{\psi}{2},326,500\) million in accordance with the resolution of the board meeting held on Oct 30, 2015. This spin-off will be done by the first half of 2016.

KPMG Samjory Accounting Corp.

Seoul, Korea February 24, 2016

This report is effective as of February 24, 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 consolidated financial statements and notes thereto. Accordingly, the readers of the audit report should understand that the above audit report has not been updated to reflect the impact of such subsequent events or circumstances, if any.

# As of December 31, 2015 and 2014

(In thousands of won)	Note	2015	2014
Assets			
Cash and cash equivalents	4,6 ₩	1,287,968,374	627,528,155
Trade and other receivables, net	4,7,30	1,203,289,302	980,557,547
Inventories, net	8	749,950,202	768,553,751
Other investments	4,9	595,558,128	1,079,633,824
Other assets	10	78,710,193	72,824,605
Non-current assets held for sale	33	858,403,959	6,456,871
Total current assets	_	4,773,880,158	3,535,554,753
Long-term trade and other receivables, net	4,7,30	65,848,344	11,213,384
Investments in equity-accounted investees	11	5,172,923,892	4,979,017,316
Property, plant and equipment, net	5,12	3,228,961,727	3,324,877,551
Intangible assets, net	5,13,34	1,277,621,026	1,278,941,592
Investments in property	5,14	228,181,655	168,727,599
Deferred tax assets	28	40,764,515	41,031,051
Other non-current investments	4,9,19	1,298,649,902	2,549,201,274
Other non-current assets	10,13	138,472,239	79,985,426
Total non-current assets	_	11,451,423,300	12,432,995,193
Total assets	₩_	16,225,303,458	15,968,549,946
Liabilities			
Trade and other liabilities	4,15,17,19,30 ₩	2,068,729,998	1,232,310,509
Income taxes payable	28	17,250,351	16,653,576
Advance received		48,343,482	29,989,860
Unearned revenue		19,820,912	886
Short-term borrowings	4,16	1,047,190,364	975,300,399
Total current liabilities	_	3,201,335,107	2,254,255,230
Trade and other liabilities	4,15,17,19,30	125,909,534	33,834,787
Long-term unearned revenue		60,737,684	-
Long-term borrowings	4,16	702,450,008	802,528,420
Employee benefits	18	79,274,232	11,525,368
Deferred tax liabilities	28	802,404,040	1,039,494,849
Total non-current liabilities	_	1,770,775,498	1,887,383,424
Total liabilities	_	4,972,110,605	4,141,638,654
Capital stock	1,20	356,712,130	356,712,130
Capital surplus	20	5,031,244,206	5,032,600,515
Other capital	21	(10,848,672)	(10,848,672)
Accumulated other comprehensive income (Related to assets held for sale: 2015 - ₩166,452,645)	22	781,748,991	1,345,646,158
Retained earnings	23	4,853,139,572	4,862,321,913
Equity attributable to owners of the Parent Company	31	11,011,996,227	11,586,432,044
Non-controlling interests	_	241,196,626	240,479,248
Total equity	_	11,253,192,853	11,826,911,292
Total liabilities and equity	₩	16,225,303,458	15,968,549,946

See accompanying note to the consolidated Financial Statements.

(In thousands of won, except per share information)	Note	2015	2014
Revenue	5,30 ₩	7,569,330,840	5,474,221,641
Cost of sales	8,18,25,30	(6,186,192,535)	(4,545,477,394)
Gross profit		1,383,138,305	928,744,247
Selling, general and administrative expenses	13,18,24,25	(1,442,970,331)	(857,926,738)
Operating income (loss)	5	(59,832,026)	70,817,509
Other income	9,11,14,26,30	844,733,152	233,600,659
Other expenses	9,14,26,30,34	(1,004,963,603)	(303,118,319)
Finance income	27	235,716,624	193,321,655
Finance costs	27	(256,495,878)	(185,521,932)
Share of profit of equity accounted investees	11	279,900,382	190,268,412
Profit before income taxes		39,058,651	199,367,984
Income tax expense	28	13,372,885	47,249,364
Profit from continuing operations		25,685,766	152,118,620
Profit (loss) from discontinued operations	29,32	-	(232,433,057)
Profit (loss) for the year	₩	25,685,766	(80,314,437)
Other comprehensive income (loss)			
Items that will never be reclassified to profit or loss:			
Defined benefit plan actuarial losses	18	9,591,501	(29,611,203)
Related tax		(2,306,372)	7,201,331
Items that are or may be reclassified to profit or loss:			
Effective portion of unrealized changes in fair values of cash flow hedges		279,630	(810,278)
Unrealized net changes in fair values of available-for-sale financial assets	9	(732,330,579)	345,363,047
Change in unrealized holding gain (loss) on equity method investments	11	(35,382,510)	74,416,352
Change in gain on translation of foreign operations		21,165,812	15,578,551
Related tax		183,184,366	(87,942,640)
Other comprehensive income (loss) for the year, net of tax		(555,798,152)	324,195,160
Total comprehensive income	₩	(530,112,386)	243,880,723
Profit attributable to:			
Owners of the Parent Company	29 ₩	53,846,138	(83,847,754)
Non-controlling interests	31	(28,160,372)	3,533,317
Total comprehensive income attributable to:		, , ,	
Owners of the Parent Company		(502,765,900)	237,482,223
Non-controlling interests	31	(27,346,486)	6,398,500
Earnings per share	29,32	(= ,= ;=, ;==,	2/202/023
Basic earnings per share (won) - Ordinary share	20,32	766	(1,458)
Earnings per share (voir) Statisty share	• •	766	2,580
Earnings per share -Discontinued operations		700	(4,038)
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Basic earnings per share (won) - Preference share		816	(1,145)
Earnings per share -Continuing operations		816	2,164
Earnings per share -Discontinued operations		-	(3,309)

See accompanying note to the consolidated Financial Statements.

(In thousands of won)		Capital stock	Capital surplus	Other capital	Accumulated other comprehensive income	Retained earnings	Non-controlling interests	Total equity
Balance at January 1, 2014	₩	240,681,185	1,262,958,484	(163,442,079)	1,001,906,309	5,035,989,171	164,323,361	7,542,416,431
Comprehensive income								
Profit for the year		-	-	-	-	(83,847,754)	3,533,317	(80,314,437)
Defined benefit plan actuarial losses		-	-	-	-	(22,409,872)	-	(22,409,872)
Loss on valuation of derivatives		-	-	-	(810,278)	-	-	(810,278)
Changes in fair values of available- for-sale financial assets Change in equity of equity-		-	-	-	261,899,693	-	4,935	261,904,628
accounted investees		-	-	-	56,551,593	-	-	56,551,593
Change in gain on translation of foreign operations					26,098,841		2,860,248	28,959,089
Total comprehensive income Transactions with shareholders directly recognized in equity Dividends to owners of the Company		-		<del>-</del>	343,739,849	(106,257,626)	6,398,500	243,880,723
Disposal of treasury stock		-	136,906,021	162,195,490	-	-	-	299,101,511
Acquisition of treasury stock		-	-	(6,096,395)	-	-	-	(6,096,395)
Exercise of share options, etc.		-	3,487,868	(3,487,868)	-	-	-	-
Acquisition of interests in subsidiary Capital contribution from non- controlling interesting		116,030,945	3,642,739,984	(17,820)	-	-	60,089,424 25,261,952	3,818,842,533 25,261,952
Other			(13,491,842)					(13,491,842)
Balance at December 31, 2014	₩	356,712,130	5,032,600,515	(10,848,672)	1,345,646,158	4,862,321,913	240,479,248	11,826,911,292

See accompanying notes to the consolidated financial statements.

(In thousands of won)		Capital stock	Capital surplus	Other capital	Accumulated other comprehensive income	Retained earnings	Non-controlling interests	Total equity
Balance at January 1, 2015	₩	356,712,130	5,032,600,515	(10,848,672)	1,345,646,158	4,862,321,913	240,479,248	11,826,911,292
Comprehensive income	• •	333/, 12/133	3,032,000,313	(10/0 10/0/2)	2/0 /0/0 /0/200	.,002,021,010	2 10, 17 3,2 10	11/020/311/232
Profit (loss) for the year		-	-	-	-	53,846,138	(28,160,372)	25,685,766
Defined benefit plan actuarial gain		-	-	-	-	7,285,129	-	7,285,129
Loss on valuation of derivatives		-	-	-	279,630	-	-	279,630
Changes in fair values of available- for-sale financial assets Changes in fair values of available-		-	-	-	(474,272,248)	-	25,458	(474,246,790)
for-sale financial assets (Non-current assets held for sale) Change in equity of equity-accounted		-	-	-	(80,243,717)	-	-	(80,243,717)
investees		-	-	-	(28,355,132)	-	-	(28,355,132)
Change in gain on translation of foreign operations		-	-	-	18,694,300	-	788,428	19,482,728
Total comprehensive income (loss)		_		=	(563,897,167)	61,131,267	(27,346,486)	(530,112,386)
Transactions with shareholders directly recognized in equity	_							
Dividends to owners of the Company		-	-	-	-	(70,313,608)	(1,790,831)	(72,104,439)
Capital contribution from non- controlling interesting Capital reduction from non-		-	-	-	-	-	30,680,388	30,680,388
controlling interesting		-	-	-	-	-	(18,576,341)	(18,576,341)
Acquisition of interests in subsidiary		-	-	-	-	-	20,817,663	20,817,663
Change in non-controlling interesting	_		(1,356,309)		<u> </u>		(3,067,015)	(4,423,324)
Balance at December 31, 2015	₩_	356,712,130	5,031,244,206	(10,848,672)	781,748,991	4,853,139,572	241,196,626	11,253,192,853

See accompanying notes to the consolidated financial statements.

(In thousands of won)	Note	2015	2014
Cash flows from operating activities			
Profit (loss) for the year	₩	25,685,766	(80,314,437)
Adjustments for expense (benefit)	35	330,626,724	440,093,117
Changes in assets and liabilities	35	623,637,525	10,126,042
Interest received		30,917,430	27,572,855
Interest paid		(62,434,654)	(48,120,740)
Dividends received		19,378,257	11,381,936
Income taxes paid		(86,744,490)	(50,145,951)
Net cash provided by operating activities	₩	881,066,558	310,592,822
Cash flows from investing activities			
Sale of other investments	₩	679,934,719	66,259,134
Sale of disposal group held for sale		15,174,034	-
Sale of property, plant and equipment		20,480,747	42,099,122
Sale of intangible assets		109,430	-
Sale of investment property		-	256,450
Proceeds from sale of investments in equity-accounted investees		85,080,863	238,618
Changes in non-current other payables		232,650,000	-
Acquisition of business, net of cash acquired		(130,983,163)	71,446,653
Acquisition of other non-current assets		(41,360,567)	(28,857,700)
Acquisition of property, plant and equipment		(725,906,416)	(476,280,781)
Acquisition of intangible assets		(16,085,315)	(2,791,646)
Acquisition of investments in equity-accounted investees		(3,764,145)	_
Net cash used in investing activities	₩	115,330,187	(327,630,150)
Cash flows from financing activities			
Proceeds from short-term borrowings	₩	45,129,693	-
Issuance of debentures		298,823,100	-
Proceeds from long-term borrowings		99,483,541	-
Capital contribution from Non-controlling Interesting		30,680,389	25,261,952
Proceeds from sale of treasury stock		-	342,810,294
Acquisition of interests in subsidiary		20,817,663	-
Dividends paid		(72,104,439)	(83,003,621)
Repayment of short-term borrowings		-	(61,265,668)
Repayment of current portion of long-term borrowings		(731,720,324)	(100,884,792)
Repayment of long-term borrowings		(6,535,157)	(200,000,000)
Capital reduction by cash distribution of subsidiaries		(18,576,341)	-
Effect of changed portion of non-controlling interests		(4,423,324)	-
Acquisition of treasury stock		-	(6,096,395)
Payment of transaction costs related to new stock		-	(631,689)
Transactions with non-controlling interests		(16,229,745)	-
Net cash used in financing activities	₩	(354,654,944)	(83,809,919)
Net increase (decrease) in cash and cash equivalents	₩	641,741,801	(100,847,247)
Cash and cash equivalents at January 1		627,528,155	730,176,084
Effect of exchange rate fluctuations on cash held		18,698,418	(1,800,682)
Cash and cash equivalents at December 31	₩	1,287,968,374	627,528,155
See accompanying notes to the consolidated financial states		. , ,-	,,

# 1. Reporting Entity

Samsung SDI Co., Ltd. (the "Parent Company" or the "Company") was incorporated on January 20, 1970 under the laws of the Republic of Korea with paid-in capital of ₩200 million. The consolidated financial statements comprise the Company and its subsidiaries (together referred to as the "Group" and individually as "Group entities") and the Group's interests in associates. In 1979, the Parent Company was listed on the Korean Stock Exchange and the Parent Company's head office is located in Giheung, Gyeonggi Do.

The Parent Company merged with former Cheil Industries Inc. (new material division) on July 1, 2014. Its main business is manufacturing and selling chemicals and electronic materials. The major business area and locations of domestic production facilities of the Parent Company are as follows.

Business	Major product lines	Domestic manufacturing facilities
Energy solution business	Small-sized li-on battery, Automotive battery, ESS (Energy Storage System)	Ulsan, Cheonan
Material business	Chemicals, electronic materials	Gumi, Uiwang, Cheongju, Yeosu

In addition to these local business sites, the Parent Company also has 32 subsidiaries operating in the United States, China, Germany, Hungary, and so on.

Under its Articles of Incorporation, the Parent Company is authorized to issue 200,000 thousand shares of capital stock with a par value of \$\struct 5,000\$ per share. As of December 31, 2015, 70,382,426 shares of capital stock (including 1,617,896 shares of preferred stock) have been issued and are outstanding, and the Parent Company's paid-in-capital amounts to \$\footnote{W}356,712\$ million. The major shareholder of the Parent Company is Samsung Electronics Co., Ltd.(ownership: 19.13%). The Parent Company is allowed to retire its stock through a board resolution within the amount that would be paid as dividends to shareholders. Pursuant to the resolution made by the board of directors on October 18, 2004, the Parent Company retired 930,000 ordinary shares and 30,000 preferred shares, which were acquired at \$\footnote{W}99,333\$ million on December 8, 2004 with appropriating retained earnings. The par value of outstanding shares is \$\footnote{W}351,912\$ million (\$\footnote{W}343,823\$ million for common stock and \$\footnote{W}8,089\$ million for preferred stock, excluding the retired shares) and it differs from the Group's paid-in-capital due to the share retirement.

Under its Articles of Incorporation, the Parent Company is authorized to issue 30,000 thousand shares of non-voting preferred stock. Holders of preferred shares issued before February 28, 1997 are entitled to receiving additional dividends of 1% of its par value per annum. As of December 31, 2015, 1,617,896 shares of non-cumulative and non-voting preferred stocks are eligible for these additional dividends.

# 2. Basis of Preparation

The consolidated financial statements have been prepared in accordance with Korean International Financial Reporting Standards ("K-IFRS"), as prescribed in the Act on External Audits of Corporations in the Republic of Korea. The consolidated financial statements were authorized for issue by the Board of Directors on January 25, 2016 and will be submitted for approval to general shareholders meeting to be held on March 11, 2016.

#### (1) Basis of measurement

The consolidated financial statements have been prepared on the historical cost basis except for the following material items in the statement of financial position:

- Financial instruments at fair value through profit and loss and available-for-sale financial assets are measured at fair value.
- Contingent consideration in a business combination is measured at fair value
- Liabilities for defined benefit plans are recognized at the net of the total present value of defined benefit obligations less the fair value of plan assets.

#### (2) Functional and presentation currency

These consolidated financial statements are presented in Korean won, which is the Parent Company's functional currency and the currency of the primary economic environment in which the Group operates.

#### (3) Use of estimates and judgments

The preparation of the consolidated financial statements in conformity with K-IFRS requires management to make judgments, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, income and expenses. Actual results may differ from these estimates.

Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimates are revised and in any future periods affected.

Information about critical judgments in applying accounting policies that have the most significant effect on the amounts recognized in the consolidated financial statements is included in the following notes:

- Note 3: consolidation: whether the Group has de facto control over an investee

# 2. Basis of Preparation, Continued

# (3) Use of estimates and judgments, continued

Information about assumptions and estimation uncertainties that have a significant risk of resulting in a material adjustment within the next financial year are included in the following notes:

- Note 12 and 13: impairment test: key assumptions underlying recoverable amounts, including the recoverability of development costs;
- Notes 17 and 19: recognition and measurement of provisions and contingencies: key assumptions about likelihood and magnitude of an outflow of resources;
- Note 18: measurement of defined benefit obligations: key actuarial assumptions; and
- Note 28: recognition of deferred tax assets: availability of future taxable profit against which carry-forward tax losses can be used, cash reserve taxation

#### (4) Fair value measurement

A number of the Group's accounting policies and disclosures require the measurement of fair values, for both financial and non-financial assets and liabilities. The Group has an established control framework with respect to the measurement of fair values. This includes a valuation team that has overall responsibility for overseeing all significant fair value measurements, including Level 3 fair values, and reports directly to the CFO.

The valuation team regularly reviews significant unobservable inputs and valuation adjustments. If third party information, such as broker quotes or pricing services, is used to measure fair values, then the valuation team measures the evidence obtained from the third parties to support the conclusion that such valuations meet the requirements of K-IFRS, including the level in the fair value hierarchy in which such valuations should be classified.

Significant valuation issues are reported to the Group's Audit Committee.

When measuring the fair value of an asset or a liability, the Group uses market observable data as far as possible. Fair values are categorized into different levels in a fair value hierarchy based on the inputs used in the valuation techniques as follows.

- Level 1: quoted prices (unadjusted) in active markets for identical assets or liabilities
- Level 2: inputs other than quoted prices included in Level 1 that are observable for the asset or Liability, either directly (i.e. as prices) or indirectly (i.e. derived from price)
- Level 3: inputs for the asset or liability that fare not based on observable market data (unobservable inputs)

If the inputs used to measure the fair value of an asset or a liability might be categorized in different levels of the fair value hierarchy, then the fair value measurement is categorized in its entirety in the same level of the fair value hierarchy as the lowest level input that is significant to the entire measurement. The Group recognized transfers between levels of the fair value hierarchy at the end of the reporting period during which the change has occurred.

Further information about the assumptions made in measuring fair values is included in following note:

- Note 4: Financial Risk Management

# 2. Basis of Preparation, Continued

#### (5) Changes in accounting policies

Except for the changes below, the Group has consistently applied the accounting policies set out in note 3 to all periods presented in these consolidated financial statements.

The Group has adopted the following amendments to standards and new interpretation with a date of initial application of January 1, 2015.

- Amendments to K-IFRS No. 1019: Employee Benefits' - Employee contributions

K-IFRS No.1019 'Employee Benefits' – Employee contributions

Amendments to K-IFRS No.1019 introduced a practical expedient to accounting for defined benefit plan, when employees or third parties pay contributions if certain criteria are met. According to the amendments, the entity is permitted to recognize those contributions as a reduction of the service cost in the period in which the related.

The change had no significant impact on the measurements of the Group's assets and liabilities.

## 3. Significant Accounting Policies

The significant accounting policies applied by the Group in preparation of its consolidated financial statements are included below. The accounting policies set out below have been applied consistently to all periods presented in these consolidated financial statements except as disclosed in note 2.

Certain comparative amounts in the statement of comprehensive income have been reclassified as a result of an operation discontinued during the previous year (see note 32).

# (1) Consolidation

#### 1) Business combination

A business combination is accounted for by applying the acquisition method, unless it is a combination for entities or businesses under common control.

The consideration transferred in the acquisition is generally measured at fair value, as are the identifiable net assets acquired. Any goodwill that arises is tested annually for impairment. Any gain on a bargain purchase is recognized in profit or loss immediately. Acquisition-related costs, other than those associated with the issue of debt or equity securities recognized in accordance with K-IFRS No. 1032 and No. 1039, are expensed in the periods in which the costs are incurred and the services are received.

The consideration transferred does not include amounts related to the settlement of pre-existing relationships. Such amount are generally recognized in profit or loss.

Any contingent consideration payable is measured at fair value at the acquisition date. If the contingent consideration is classified as equity, then it is not re-measured and settlement is accounted for within equity. Otherwise, subsequent changes in the fair value of the contingent consideration are recognized in profit or loss.

# 3. Significant Accounting Policies, Continued

#### (1) Consolidation, continued

#### 1) Business combination, continued

If share-based payment awards (replacement awards) are required to be exchanged for awards held by the acquiree's replacement (acquiree's awards), then all or a portion of the amount of the acquirer's replacement awards is included in measuring the consideration transferred in the business combination. This determination is based on the market-based measure of the replacement awards compared with the market-based measure of the acquiree's awards and the extent to which the replacement awards relate to pre-combination service.

#### 2) Non-controlling interests

Non-controlling interests ("NCI") are measured at their proportionate share of the acquiree's identifiable net assets at the acquisition date. Changes in the Group's interest in subsidiaries that do not result in a loss of control are accounted for as equity transactions.

#### 3) Subsidiaries

Subsidiaries are entities controlled by the Group. The Group controls an entity when it is exposed, or has right to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. The financial statements of subsidiaries are included in the consolidated financial statements from the date on which control commences until the date on which control ceases.

If a member of the Group uses accounting policies other than those adopted in the consolidated financial statements for like transactions and events in similar circumstances, appropriate adjustments are made to its financial statements in preparing the consolidated financial statements.

# 3. Significant Accounting Policies, Continued

- (1) Consolidation, continued
- 3) Subsidiaries, continued
  - (i) The list of subsidiaries as of December 31, 2015 and 2014 are as follows: All subsidiaries' fiscal year end is December 31.

(In thousands of won, except number of	shares and perce	ntage of ownership)	Percentage of ov	vnersnip (*1)
Subsidiaries	Location	<b>Primary business</b>	2015	2014
Samsung SDI Japan Co., Ltd. ("SDIJ") (*3)	Japan	Purchase and sales of raw materials of rechargeable battery	100%	100%
Samsung SDI America, Inc. ("SDIA")	U.S.A.	Sales of rechargeable battery	91.7%	91.7%
Samsung SDI Hungary Rt. ("SDIHU")	Hungary	-	100%	100%
Samsung SDI Europe GmbH ("SDIEU")	Germany	Sales of rechargeable battery, etc.	100%	100%
Samsung SDI Battery Systems GmbH ("SDIBS")	Austria	Manufacturing and sales of automotive battery	100%	100%
Samsung SDI (Malaysia) Sdn, Bhd. ("SDI(M)")	Malaysia	-	68.6%	68.6%
Samsung SDI Vietnam Co., Ltd. ("SDIV")	Vietnam	Manufacturing and sales of rechargeable battery	100%	100%
Samsung SDI Energy Malaysia Sdn, Bhd. ("SDIEM")	Malaysia	Manufacturing and sales of rechargeable battery	100%	100%
Samsung SDI (Hong Kong) Ltd. ("SDIHK")	Hong Kong	Sales of rechargeable battery	97.6%	97.6%
Samsung SDI China Co., Ltd. ("SDIC")	China	Supporting sales in China region	100%	100%
Samsung SDI-ARN (Xi'An) Power Battery Co., Ltd. ("SAPB") (*2)	China	Manufacturing and sales of automotive battery	50.0%	50.0%
Samsung SDI-Sungrow Energy Storage Battery Co., Ltd. ("SSEB") (*4)	China	Manufacturing and sales of ESS products	65.0%	_
Samsung SDI (Changchun) Power Battery Co., Ltd. ("SCPB") (*4)	China	Manufacturing and sales of automotive battery	50.0%	-
Samsung SDI ( Tianjin ) Battery Co., Ltd. ("SDITB") (*4)	China	Manufacturing and sales of rechargeable battery	50.0%	_
Samsung SDI Brazil Ltda. ("SDIB")	Brazil	-	96.1%	96.1%
STM Co., Ltd. ("STM") (*5)	Korea	Manufacturing and Sales of Cathode Material for secondary batteries Investments in new	100%	-
SVIC 15 Fund ("SVIC 15")	Korea	technology venture business	99.0%	99.0%
Samsung Chemical U.S.A Inc. ("SCI") (*3)	U.S.A.	Sales of chemical products	100%	100%
Starex Compounding America Inc. ("SCA") (*3)	U.S.A.	-	-	100%
Samsung Chemical Europe GmbH ("SCEG")	Germany	Sales of chemical products	100%	100%
Samsung Chemical Material Trading (Shanghai) Co., Ltd. ("SCSC")	China	Sales of chemical products	100%	100%
Samsung Chemical (Thailand) Co., Ltd. ("SCT")	Thailand	Sales of chemical products	59.4%	59.4%
Tianjin Samsung Engineering Plastics Co., Ltd. ("TSEP")	China	Manufacturing of chemical products	100%	100%

# 3. Significant Accounting Policies, Continued

- (1) Consolidation, continued
- 3) Subsidiaries, continued
- (i) The list of subsidiaries as of December 31, 2015 and 2014 are as follows: All subsidiaries' fiscal year end is December 31.

(In thousands of won, except number	ercentage of ownership)	Percentage of ow	nership (*1)	
Subsidiaries	Location	Primary business	2015	2014
Samsung Chemical Hungary LLC ("SCH")	Hungary	Manufacturing and sales of chemical products	100%	100%
Samsung Chemical Electronic Materials (SuZhou) Co., Ltd. ("SCES")	China	Manufacturing and sales of electronic material products	100%	100%
Samsung Cheil industries Japan Ltd. ("SCJ") (*3)	Japan	-	-	100%
Dongguan Samsung Engineering Plastics Co., Ltd. ("DSEP")	China	Manufacturing of chemical products	100%	100%
Samsung SDI Wuxi Co., Ltd. ("SDIW") (*4)	China	Manufacturing and sales of electronic material products	100%	-
Novaled GmbH ("NOVALED")	Germany	Manufacturing and sales of electronic material products Investments in new	50.1%	50.1%
SVIC24 Fund ("SVIC24")	Korea	technology venture business	99.0%	99.0%
Subsidiary of SDIA Samsung SDI Mexico, S.A. de C.V. ("SDIM")	Mexico	-	91.7%	91.7%
Subsidiaries of SDIHK Shenzhen Samsung SDI Co., Ltd. ("SSDI")	China	-	78.0%	78.0%
Tianjin Samsung SDI Co., Ltd. ("TSDI")	China	Manufacturing and sales of rechargeable battery	78.0%	78.0%
Shanghai Samsung SVA Electronic Devices Co., Ltd. ("SSED") (*6)	China	-	-	58.9%
Subsidiaries of SCI Stacom Mexico, S.A. de C.V. ("STACOM")	Mexico	Manufacturing chemical products	100%	100%

<sup>(\*1)</sup> Effective ownership interest has been measured based on ownership of the Parent Company and its subsidiaries considering the control structure. In accordance with the local laws and regulations, no shares have been issued and ownership interest has been measured based on investments.

<sup>(\*2)</sup> A subsidiary, SAPB, was established in Xi'an, China in 2015. Although the Group holds less than majority ownership of SAPB, it was classified as a subsidiary because the Group controlled SAPB through the shareholders' agreement.

<sup>(\*3)</sup> Subsidiaries, SCI and SDIJ, have merged with SCA and SCJ respectively in this current year.

# 3. Significant Accounting Policies, Continued

- (1) Consolidation, continued
- 3) Subsidiaries, continued
- (\*4) SSEB, SCPB, SDITB and SDIW were newly established in this current year. Although the Group holds less than majority ownership of SCPB and SDITB, they were classified as subsidiaries because the Group controlled them through the shareholders' agreement
- (\*5) The Group additionally acquired STM's shares in the amount of \(\preceq\)8,924 million and reclassified it from available-for-sales to subsidiaries. After that, the Group purchased remaining shares from other shareholders in the amount of \(\preceq\)4,423 million and additionally invested \(\preceq\)70,000 million paid in capital.
- (\*6) SSED was excluded from consolidation due to the completion of liquidation process in this current year.
- (ii) Summary of financial information of subsidiaries as of and for the year ended December 31, 2015 is as follows:

(In thousands of won)

(III triousarius or v	WOII)				Net mustit	Total
Subsidiaries	Assets	Liabilities	Equity	Revenue	Net profit (loss)	comprehensive income (loss)
SDIJ	9,386,785	3,811,564	5,575,221	47,691,787	805,985	1,025,970
SDIA	97,324,095	44,552,875	52,771,220	19,928,109	(29,095,773)	(8,549,001)
SDIHU	11,781,822	75,549	11,706,273	-	(1,461,051)	(2,267,712)
SDIEU	11,399,072	7,094,808	4,304,264	20,330,044	1,658,373	1,590,979
SDIBS	252,620,800	220,074,135	32,546,665	72,827,990	(10,836,945)	(7,246,113)
SDI(M)	47,537,441	104,311,032	(56,773,591)	-	(99,632,969)	(105,853,668)
SDIV	184,586,721	102,536,948	82,049,773	725,119,480	(2,841,431)	(1,337,455)
SDIEM	503,512,112	262,287,199	241,224,913	710,166,995	17,430,218	23,078,719
SDIHK	607,477,277	356,580,995	250,896,282	247,454,885	(32,989,967)	(19,942,019)
SDIC	4,502,245	368,317	4,133,928	11,048,613	1,062,260	1,085,823
SAPB	294,511,453	192,625,131	101,886,322	51,197,892	(2,080,052)	(1,122,535)
SSEB	26,913,943	4,203,907	22,710,036	-	(498,383)	(633,414)
SCPB	5,421,457	304,871	5,116,586	-	(975,207)	(1,381,013)
SDITB	46,088,889	28,719,804	17,369,085	-	(2,004,385)	(2,507,315)
SDIB	21,570,918	1,937,487	19,633,431	-	917,457	(6,735,343)
STM	83,402,856	3,789,035	79,613,821	7,568,791	(2,791,534)	(2,768,880)
SVIC15	24,564,379	119,006	24,445,373	-	725,031	3,270,786
SCI	48,870,586	37,054,214	11,816,372	194,472,673	1,542,622	2,303,376
SCEG	19,914,472	16,284,463	3,630,009	37,881,639	614,730	(106,658)
SCSC	13,135,821	1,739,404	11,396,417	17,007,046	2,856,037	2,921,038
SCT	4,390,376	825,946	3,564,430	6,724,407	938,305	833,929
TSEP	43,590,853	13,718,390	29,872,463	59,784,862	4,941,408	5,145,604
SCH	45,321,542	29,877,338	15,444,204	109,668,083	4,788,314	4,442,296
SCES	16,213,206	11,201,155	5,012,051	22,602,066	2,477,972	2,493,606
DSEP	26,719,560	16,980,337	9,739,223	60,716,093	3,104,675	3,153,619
SDIW	136,918,064	586,935	136,331,129	-	2,702,977	(1,824,871)
NOVALED	80,465,564	14,674,321	65,791,243	65,891,483	32,946,780	32,041,726
SVIC24	10,532,801	388,223	10,144,578	-	(1,176,219)	(1,176,219)
SDIM	1,421,843	34,733	1,387,110	391,878	(1,066,346)	(1,184,866)
SSDI	163,467,183	2,733,261	160,733,922	-	5,354,354	6,790,303
TSDI	424,172,671	107,236,123	316,936,548	901,465,327	(21,664,638)	(17,506,790)
STACOM	936,103	552,895	383,208	5,441,421	(171,995)	(217,203)

# 3. Significant Accounting Policies, Continued

#### (1) Consolidation, continued

#### 4) Loss of control

If the controlling company loses control of subsidiaries, the controlling company derecognizes the assets and liabilities of the former subsidiaries from the consolidated statement of financial position and recognizes the gain or loss associated with the loss of control attributable to the former controlling interest. Meanwhile, the controlling company recognizes any investment retained in the former subsidiaries at its fair value when control is lost.

# 5) Interest in equity - accounted investees

The Group's interests in equity-accounted investees comprise interests in associates and joint venture.

Associates are those entities in which the Group has significant influence, but not control or joint control, over the financial and operating policies. A joint venture is an arrangement in which the Group has joint control, whereby the Group has rights to the net assets of the arrangement, rather than rights to its assets and obligations for its liabilities.

Interests in associates and the joint venture are accounted for using the equity method. They are initially recognized at cost, which includes transaction costs. Subsequent to initial recognition, the consolidated financial statements include the Group's share of the profit or loss and OCI of equity-accounted investees, until the date on which significant influence or joint control ceases.

# 6) Transactions eliminated on consolidation

Intra-group balances and transactions, including income and expenses and any unrealized income and expenses arising from intra-group transactions, are eliminated. Meanwhile, unrealized gains arising from transactions with equity-accounted investees are eliminated against the investment to the extent of the Group's interest in the investee. Unrealized losses are eliminated in the same way as unrealized gains, but only to the extent that there is no evidence of impairment.

#### 7) Business combination under common control

Combination of entities and business under common control recognizes the acquired assets and liabilities obtained at book values of consolidated financial statements of ultimate controlling company. The Group recognizes the differences between the net book value acquired and consideration transferred in capital surplus.

### (2) Discontinued operation

A discontinued operation is a component of the Group's business that represents a separate major line of business or geographical area of operations that has been disposed of or is held for sale, or is a subsidiary acquired exclusively with a view to resale. When an operation is classified as a discontinued operation, the comparative consolidated statement of comprehensive income is re-presented as if the operation had been discontinued from the start of the comparative period.

#### 3. Significant Accounting Policies, Continued

#### (3) Foreign currency transactions

Transactions in foreign currencies are translated to the respective functional currencies of Group entities at exchange rates at the dates of the transactions. Monetary assets and liabilities denominated in foreign currencies are retranslated to the functional currency using the reporting date's exchange rate. Non-monetary assets and liabilities denominated in foreign currencies that are measured at fair value are retranslated to the functional currency at the exchange rate at the date that the fair value was determined. Non-monetary items that are measured in terms of historical cost in a foreign currency are translated using the exchange rate at the date of the original transaction.

Exchange differences arising on the settlement of monetary items or on translating monetary items, except for translation differences from net investment in foreign operation and from financial liabilities designated to cash flow hedges, are recognized in profit or loss in the period in which they arise. If profit or loss from non-monetary items is regarded as other comprehensive income then the exchange rate change effects are treated as other comprehensive income, where regarded as current profit or loss then treated as current profit or loss.

# (4) Cash and cash equivalents

Cash and cash equivalents comprise cash balances and call deposits with maturities of three months or less from the acquisition date that are subject to an insignificant risk of changes in their fair value, and are used by the Group in the management of its short-term commitments. Equity investments are excluded from cash equivalents unless they are, in substance, cash equivalents, for example in the case of preferred shares when it has a short maturity with a specified redemption date.

# (5) Non-derivative financial assets

The Group recognizes and measures non-derivative financial assets by the following four categories: financial assets at fair value through profit or loss, held-to-maturity investments, loans and receivables and available-for-sale financial assets. The Group recognizes financial assets in the consolidated statement of financial position when the Group becomes a party to the contractual provisions of the instrument.

Upon initial recognition, non-derivative financial assets are measured at their fair value and transaction costs of other than financial assets at fair value through profit and loss are directly attributable to the asset's fair value at the initial recognition.

# 1) Financial assets at fair value through profit or loss

A financial asset is classified as financial assets at fair value through profit or loss if it is held for trading or is designated as such upon initial recognition. Upon initial recognition, transaction costs are recognized in profit or loss when incurred. Financial assets at fair value through profit or loss are measured at fair value, and changes therein are recognized in profit or loss.

#### 2) Held-to-maturity financial assets

A non-derivative financial asset with a fixed or determinable payment and fixed maturity, for which the Group has the positive intention and ability to hold to maturity, are classified as held-to-maturity investments. Subsequent to initial recognition, held-to-maturity investments are measured at amortized cost using the effective interest method except for loans and receivables of which the effect of discounting is immaterial.

#### 3. Significant Accounting Policies, Continued

#### (5) Non-derivative financial assets, continued

#### 3) Loans and receivables

Loans and receivables are financial assets with fixed or determinable payments that are not quoted in an active market. Subsequent to initial recognition, loans and receivables are measured at amortized cost using the effective interest method except for loans and receivables of which the effect of discounting is immaterial.

#### 4) Available-for-sale financial assets

Available-for-sale financial assets are those non-derivative financial assets that are not classified as financial assets at fair value through profit or loss, held-to-maturity investments or loans and receivables. Subsequent to initial recognition, they are measured at fair value. Investments in equity instruments that do not have a quoted market price in an active market and whose fair value cannot be reliably measured are measured at cost.

#### 5) De-recognition of financial assets

The Group derecognizes a financial asset when the contractual rights to the cash flows from the asset expire, or it transfers the rights to receive the contractual cash flows on the financial asset in a transaction in which substantially all the risks and rewards of ownership of the financial asset are transferred.

If the Group neither transfers nor retains substantially all the risks and rewards of ownership of the financial asset, the Group determines whether it has retained control of the financial asset. If the Group has not retained control, derecognizes the financial asset. If the Group has retained control, continues to recognize the financial asset to the extent of its continuing involvement in the financial asset.

If the Group has retained substantially all the risks and rewards of ownership of the transferred asset, the Group continues to recognize the transferred asset in its entirety and recognizes a financial liability for the consideration received.

#### 6) Offsetting a financial asset and a financial liability

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

# 3. Significant Accounting Policies, Continued

#### (6) Non-derivative financial liabilities

The Group classifies non-derivative financial liabilities into financial liabilities at fair value through profit or loss or other financial liabilities in accordance with the substance of the contractual arrangement and the definitions of financial liabilities. The Group recognizes financial liabilities in the consolidated statement of financial position when the Group becomes a party to the contractual provisions of the financial liability.

# 1) Financial liabilities at fair value through profit or loss

Financial liabilities at fair value through profit or loss include financial liabilities held for trading or designated as such upon initial recognition. Subsequent to initial recognition, financial liabilities at fair value through profit or loss are measured at fair value, and changes therein are recognized in profit or loss. Upon initial recognition, transaction costs that are directly attributable to the acquisition are recognized in profit or loss as incurred.

#### 2) Other financial liabilities

Non-derivative financial liabilities other than financial liabilities at fair value through profit or loss are classified as other financial liabilities. At the date of initial recognition, other financial liabilities are measured at fair value minus transaction costs that are directly attributable to the acquisition. Subsequent to initial recognition, other financial liabilities are measured at amortized cost using the effective interest method.

The Group derecognizes a financial liability from the consolidated statement of financial position when it is extinguished (i.e. when the obligation specified in the contract is discharged, cancelled or expires).

#### (7) Equity capital

Ordinary shares are classified as equity. Incremental costs directly attributable to the capital transactions are recognized as a deduction from equity, net of any tax effects.

Preference share capital is classified as equity if it is non-redeemable, or redeemable only at the Group's option, and any dividends are discretionary. Dividends thereon are recognized as distributions within equity upon approval by the Group's shareholders.

When the Group repurchases its share capital, the amount of the consideration paid is recognized as a deduction from equity and classified as treasury shares. The profits or losses from the purchase, disposal, reissue, or retirement of treasury shares are not recognized as current profit or loss.

# 3. Significant Accounting Policies, Continued

#### (8) Property, plant and equipment

#### 1) Recognition and measurement

Property, plant and equipment are initially measured at cost and after initial recognition, are carried at cost less accumulated depreciation and accumulated impairment losses. The cost of property, plant and equipment includes expenditures arising directly from the construction or acquisition of the asset, any costs directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management and the initial estimate of the costs of dismantling and removing the item and restoring the site on which it is located.

If the useful lives of certain components of the property, plant and equipment are different from the useful life of the asset as a whole, those components are treated as separate assets.

The gain or loss arising from the de-recognition of an item of property, plant and equipment shall be determined as the difference between the net disposal proceeds, if any, and the carrying amount of the item and recognized in other income and expenses.

# 2) Subsequent costs

Subsequent costs are recognized in the carrying amount of property, plant and equipment at cost or, if appropriate, as separate items if it is probable that future economic benefits associated with the item will flow to the Group and the cost of the item can be measured reliably. The carrying amount of the replaced part is derecognized. The costs of the day-to-day servicing are recognized in profit or loss as incurred.

## 3) Depreciation

Property, plant and equipment, except for land, are depreciated on a straight-line basis over estimated useful lives that appropriately reflect the pattern in which the asset's future economic benefits are expected to be consumed.

If the cost of a part of property, plant and equipment is significant compared to the cost of property, plant and equipment as a whole, and has a different useful life, that part of the cost should be accounted for as a separate item and is depreciated over its separate useful life.

The estimated useful lives of the Group's property, plant and equipment are as follows:

	Useful lives (years)
Buildings	10 ~ 60
Structures	10 ~ 40
Machineries	5 ~ 8
Tools, furniture and fixtures	4 ~ 5
Vehicles	4 ~ 5

Depreciation methods, useful lives and residual values are reviewed at the end of each reporting date and adjusted, if appropriate. The change is accounted for as a change in an accounting estimate.

# 3. Significant Accounting Policies, Continued

#### (9) Borrowing costs

The Group capitalizes borrowing costs directly attributable to the acquisition, construction or production of a qualifying asset as part of the cost of that asset. Other borrowing costs are recognized in expense as incurred. A qualifying asset is an asset that requires a substantial period of time to get ready for its intended use or sale. Financial assets and inventories that are manufactured or otherwise produced over a short period of time are not qualifying assets. Assets that are ready for their intended use or sale when acquired are not qualifying assets.

To the extent that the Group borrows funds specifically for the purpose of obtaining a qualifying asset, the Group determines the amount of borrowing costs eligible for capitalization as the actual borrowing costs incurred on that borrowing during the period less any investment income on the temporary investment of those borrowings. To the extent that the Group borrows funds generally and uses them for the purpose of obtaining a qualifying asset, the Group shall determine the amount of borrowing costs eligible for capitalization by applying a capitalization rate to the expenditures on that asset. The capitalization rate shall be the weighted average of the borrowing costs applicable to the borrowings of the Group that are outstanding during the period, other than borrowings made specifically for the purpose of obtaining a qualifying asset. The amount of borrowing costs that the Group capitalizes during a period shall not exceed the amount of borrowing costs incurred during that period.

# (10) Intangible asset

Intangible assets are measured initially at cost and, subsequently, are carried at cost less accumulated amortization and accumulated impairment losses.

Amortization of intangible assets except for goodwill is calculated on a straight-line basis over the estimated useful lives of intangible assets from the date that they are available for use. The residual value of intangible assets is zero.

The estimated useful lives of the group's assets are as follows:

	Useful lives (years)
Exclusive facility usage rights	5 ~10
Development costs	8 ~11
Others	4 ~20

Amortization periods and the amortization methods for intangible assets with finite useful lives are reviewed at each end of reporting period. If appropriate, the changes are accounted for as changes in accounting estimates.

Expenditures on research activities, undertaken with the prospect of gaining new scientific or technical knowledge and understanding, is recognized in profit or loss as incurred. Development expenditures are capitalized only if development costs can be measured reliably, the product or process is technically and commercially feasible, future economic benefits are probable, and the Group intends to and has sufficient resources to complete development and to use or sell the asset. Other development expenditures are recognized in profit or loss as incurred.

Subsequent expenditure is capitalized only when it increases the future economic benefits embodied in the specific asset to which it relates. All other expenditure, including expenditure on internally generated goodwill and brands, is recognized in profit or loss as incurred.

# 3. Significant Accounting Policies, Continued

#### (11) Investment property

Property held for the purpose of earning rentals or benefiting from capital appreciation is classified as investment property. Investment property is measured initially at its cost and transaction costs are included in the initial measurement. Subsequently, investment property is carried at depreciated cost less any accumulated impairment losses.

Subsequent costs are recognized in the carrying amount of investment property at cost or, if appropriate, as separate items if it is probable that future economic benefits associated with the item will flow to the Group and the cost of the item can be measured reliably. The carrying amount of the replaced part is derecognized. The costs of the day-to-day servicing are recognized in profit or loss as incurred.

Investment property, except for land, are depreciated on a straight-line basis over estimated useful lives that appropriately reflect the pattern in which the asset's future economic benefits are expected to be consumed.

Depreciation methods, useful lives and residual values are reviewed at the end of each reporting date and adjusted, if appropriate. The change is accounted for as a change in an accounting estimate.

#### (12) Inventories

The cost of inventories is based on specific method for materials in transit, moving average method for raw materials and sub-materials and gross average method (monthly moving average method) for all the other inventories, and includes expenditures for acquiring the inventories, production or conversion costs and other costs incurred in bringing them to their existing location and condition. In the case of manufactured inventories and work in progress, cost includes an appropriate share of production overheads based on normal operating capacity.

Inventories are measured at the lower of cost and net realizable value. Net realizable value is the estimated selling price in the ordinary course of business, less the estimated costs of completion and selling expenses. The amount of any write-down of inventories to net realizable value and all losses of inventories are recognized as an expense in the period the write-down or loss occurs. The amount of any reversal of any write-down of inventories, arising from an increase in net realizable value, are recognized as a reduction in the amount of inventories recognized as an expense in the period in which the reversal occurs.

# 3. Significant Accounting Policies, Continued

#### (13) Impairment

#### 1) Impairment of financial assets

A financial asset other than financial assets at fair value through profit or loss is assessed at each reporting date to determine whether there is objective evidence that it is impaired. A financial asset is impaired if objective evidence indicates that a loss event has occurred after the initial recognition of the asset, and that the loss event had a negative effect on the estimated future cash flows of that asset that can be estimated reliably. However, losses expected as a result of future events, regardless of likelihood, are not recognized.

If financial assets have objective evidence that they are impaired, impairment losses are be measured and recognized.

#### (i) Financial assets measured at amortized cost

An impairment loss in respect of a financial asset measured at amortized cost is calculated as the difference between its carrying amount and the present value of its estimated future cash flows discounted at the asset's original effective interest rate. The Group can recognize impairment losses directly or establish a provision to cover impairment losses. If, in a subsequent period, the amount of the impairment loss decreases and the decrease can be related objectively to an event occurring after the impairment was recognized, the previously recognized impairment loss shall be reversed in profit or loss either directly or by adjusting an allowance account.

#### (ii) Financial assets carried at cost

The amount of the impairment loss is measured as the difference between the carrying amount of the financial asset and the present value of estimated future cash flows discounted at the current market rate of return for a similar financial asset and is recorded in profit or loss. Such impairment losses shall not be reversed.

#### (iii) Available-for-sale financial assets

When a decline in the fair value of an available-for-sale financial asset has been recognized in other comprehensive income and there is objective evidence that the asset is impaired, the cumulative loss that had been recognized in other comprehensive income shall be reclassified from equity to profit or loss as a reclassification adjustment even though the financial asset has not been derecognized. Impairment losses recognized in profit or loss for an investment in an equity instrument classified as available-for-sale shall not be reversed through profit or loss. If, in a subsequent period, the fair value of a debt instrument classified as available-for-sale increases and the increase can be objectively related to an event occurring after the impairment loss was recognized in profit or loss, the impairment loss shall be reversed, with the amount of the reversal recognized in profit or loss.

#### 2) Impairment of non-financial assets

The carrying amounts of the Group's non-financial assets, other than assets arising from employee benefits, inventories, deferred tax assets and non-current assets held for sale are reviewed at each reporting date to determine whether there is any indication of impairment. If any such indication exists, then the asset's recoverable amount is estimated. Goodwill and intangible assets that have indefinite useful lives or that are not yet available for use, irrespective of whether there is any indication of impairment, are tested for impairment annually by comparing their recoverable amount to their carrying amount.

# 3. Significant Accounting Policies, Continued

- (13) Impairment, continued
- 2) Impairment of non-financial assets, continued

The Group estimates the recoverable amount of an individual asset, if it is impossible to measure the individual recoverable amount of an asset, then the Group estimates the recoverable amount of cash-generating unit ("CGU"). A CGU is the smallest identifiable group of assets that generates cash inflows that are largely independent of the cash inflows from other assets or groups of assets. The recoverable amount of an asset or CGU is the greater of its value in use and its fair value less costs to sell. The value in use is estimated by applying a pre-tax discount rate that reflect current market assessments of the time value of money and the risks specific to the asset or CGU for which estimated future cash flows have not been adjusted, to the estimated future cash flows expected to be generated by the asset or CGU.

An impairment loss is recognized if the carrying amount of an asset or its CGU exceeds its estimated recoverable amount. Impairment losses are recognized in profit or loss.

Goodwill acquired in a business combination is allocated to each CGU that is expected to benefit from the synergies arising from the goodwill acquired. Any impairment identified at the CGU level will first reduce the carrying value of goodwill and then be used to reduce the carrying amount of the other assets in the CGU on a pro rata basis. Except for impairment losses in respect of goodwill which are never reversed, an impairment loss is reversed if there has been a change in the estimates used to determine the recoverable amount. An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortization, if no impairment loss had been recognized.

# (14) Employee benefits

# 1) Short-term employee benefits

Short-term employee benefits are employee benefits that are due to be settled within 12 months after the end of the period in which the employees render the related service. When an employee has rendered service to the Group during an accounting period, the Group recognizes the undiscounted amount of short-term employee benefits expected to be paid in exchange for that service.

#### 2) Other long-term employee benefits

Other long-term employee benefits include employee benefits that are settled beyond 12 months after the end of the period in which the employees render the related service, and are calculated at the present value of the amount of future benefit that employees have earned in return for their service in the current and prior periods, less the fair value of any related assets. The present value is determined by discounting the expected future cash flows using the interest rate of high-quality corporate bonds that have maturity dates approximating the terms of the Group's obligations and that are denominated in the same currency in which the benefits are expected to be paid. Any actuarial gains and losses are recognized in profit or loss in the period in which they arise.

# 3. Significant Accounting Policies, Continued

#### (14) Employee benefits, continued

#### 3) Retirement benefits: defined contribution plans

When an employee has rendered service to the Group during a period, the Group recognizes the contribution payable to a defined contribution plan in exchange for that service as a liability (accrued expense), after deducting any contribution already paid. If the contribution already paid exceeds the contribution due for service before the end of the reporting period, the Group recognizes that excess as an asset (prepaid expense) to the extent that the prepayment will lead to a reduction in future payments or a cash refund.

# 4) Retirement benefits: defined benefit plans

The Group's net obligation in respect of defined benefit plans is calculated by estimating the amount of future benefit and that benefit is discounted to determine its present value deducted by the fair value of plan assets.

The calculation is performed annually by an independent actuary using the projected unit credit method. When the fair value of plan assets exceeds the present value of the defined benefit obligation, the Group recognizes an asset, to the extent of the present value of any economic benefits available in the form of refunds from the plan or reduction in the future contributions to the plan.

Remeasurements of the net defined benefit liability comprise actuarial gains and losses, the return on plan assets excluding amounts included in net interest on the net defined benefit liability, and any change in the effect of the asset ceiling, excluding amounts included in net interest on the net defined benefit liability and recognized in other comprehensive income. The Group determines net interests on net defined benefit liability (asset) by multiplying discount rate determined at the beginning of the annual reporting period and considers changes in net defined benefit liability (asset) from contributions and benefit payments. Net interest costs and other costs relating to the defined benefit plan are recognized through profit or loss.

When the plan amendment or curtailment occurs, gains or losses on amendment or curtailment in benefits for the past service provided are recognized through profit or loss. The Group recognizes gain or loss on a settlement when the settlement of defined benefit plan occurs.

#### 5) Share-based payment transactions

For equity-settled share-based awards which are granted to employees, the Group measures the goods or services received, and the corresponding increase in equity, directly, at the fair value of the goods or services received, unless that fair value cannot be reliably estimated. If the Group cannot reliably estimate the fair value of the goods or services received, the Group measures their value, and the corresponding increase in equity, by reference to the fair value of the equity instruments granted.

#### 6) Termination benefits

The Group recognizes a liability and expense for termination benefits at the earlier of the period when the Group can no longer withdraw the offer of those benefits and the period when the Group recognizes costs for a restructuring. If benefits are payable more than 12 months after the reporting period, then they are discounted to their present value.

# 3. Significant Accounting Policies, Continued

#### (15) Provisions

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

The risks and uncertainties that inevitably surround many events and circumstances are taken into account in reaching the best estimate of a provision. Where the effect of the time value of money is material, provisions are determined at the present value of the expected future cash flows.

Where some or all of the expenditures required to settle a provision are expected to be reimbursed by another party, the reimbursement shall be recognized when, and only when, it is virtually certain that reimbursement will be received if the entity settles the obligation. The reimbursement shall be treated as a separate asset.

Provisions are reviewed at the end of each reporting period and adjusted to reflect the current best estimates. If it is no longer probable that an outflow of resources embodying economic benefits will be required to settle the obligation, the provision is reversed.

A provision shall be used only for expenditures for which the provision was originally recognized.

#### (16) Revenue

Revenue from sale of goods, rendering of services or use of the Group's assets is measured at the fair value of the consideration received or receivable, and returns, trade discounts and volume rebates are recognized as a reduction of revenue.

# 1) Sales of goods

Revenue is recognized when persuasive evidence exists, usually in the form of an executed sales agreement, that the significant risks and rewards of ownership have been transferred to the buyer, recovery of the consideration is probable, the associated costs and possible return of goods can be estimated reliably, there is no continuing management involvement with the goods, and the amount of revenue can be measured reliably.

The timing of the transfers of risks and rewards varies depending on the individual terms of the contract of sale. For some international shipments transfer occurs upon loading the goods onto the relevant carrier at the port of the seller.

When two or more revenue generating activities or deliverables are sold under a single arrangement, each deliverable that is considered to be a separate unit of account is accounted for separately. The allocation of consideration from a revenue arrangement to its separate units of account is based on the relative fair values of each unit.

# 3. Significant Accounting Policies, Continued

#### (16) Revenue, continued

#### 2) Rental income

Rental income from investment property is recognized in profit on a straight-line basis over the term of the lease.

### (17) Government grants

Government grants are not recognized unless there is reasonable assurance that the Group will comply with the grant's conditions and that the grant will be received. Government grants which are intended to compensate the Group for expenses incurred are recognized as other income (government grants) in profit or loss over the periods in which the Group recognizes the related costs as expenses. If the Group has received government grants whose primary condition is that the Group purchase, construct or otherwise acquire long-term assets, the amounts are deducted in calculating the carrying amount of the asset. The grant is recognized in profit or loss over the life of a depreciable asset as a reduction to depreciation expense.

As of December 31, 2015 the Group has 18 ongoing national projects on which government grants are provided such as 'The development of electrode materials of secondary cells'.

#### (18) Finance income and costs

Finance income comprises interest income on funds invested (including available-for-sale financial assets), dividend income, changes in the fair value of financial assets at fair value through profit or loss, and gains on hedging instruments that are recognized in profit or loss. Interest income is recognized as it accrues in profit or loss, using the effective interest method.

Finance costs comprise interest expense on borrowings, unwinding of the discount on provisions, changes in the fair value of financial assets at fair value through profit or loss, and losses on hedging instruments that are recognized in profit or loss. Borrowing costs are recognized in profit or loss using the effective interest method.

# (19) Income taxes

Income tax expense comprises current and deferred tax. Current tax and deferred tax are recognized in profit or loss except to the extent that it relates to a business combination, or items recognized directly in equity or in other comprehensive income.

# 1) Current tax

Current tax is the expected tax payable or receivable on the taxable profit or loss for the year, using tax rates enacted or substantively enacted at the end of the reporting period and any adjustment to tax payable in respect of previous years. The taxable profit is different from the accounting profit for the period since the taxable profit is calculated excluding the temporary differences, which will be taxable or deductible in determining taxable profit (tax loss) of future periods, and non-taxable or non-deductible items from the accounting profit.

# 3. Significant Accounting Policies, Continued

#### (19) Income taxes, continued

#### 2) Deferred tax

The measurement of deferred tax assets and deferred tax liabilities reflects the tax consequences that would follow from the manner in which the Group expects, at the end of the reporting period to recover or settle the carrying amount of its assets and liabilities. The Group recognizes a deferred tax liability for all taxable temporary differences associated with investments in subsidiaries, associates, and interests in joint ventures, except to the extent that the Group is able to control the timing of the reversal of the temporary differences and it is probable that the temporary differences will not reverse in the foreseeable future. A deferred tax asset is recognized for all deductible temporary differences to the extent that it is probable that the differences will reverse in the foreseeable future and taxable profit will be available against which the temporary difference can be utilized.

The carrying amount of a deferred tax asset is reviewed at the end of each reporting period and reduces the carrying amount to the extent that it is no longer probable that sufficient taxable profit will be available to allow the benefit of part or all of that deferred tax asset to be utilized.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply to the period when the asset is realized or the liability is settled, based on tax rates (and tax laws) that have been enacted or substantively enacted by the end of the reporting period.

Deferred tax assets and liabilities are offset only if there is a legally enforceable right to offset the related current tax liabilities and assets, and they relate to income taxes levied by the same tax authority and they intend to settle current tax liabilities and assets on a net basis.

#### (20) Earnings per share

The Group presents basic and diluted earnings per share (the "EPS") data for its ordinary shares. Basic EPS is calculated by dividing the profit or loss attributable to ordinary shareholders of the Parent Company by the weighted average number of ordinary shares outstanding during the period, adjusted for own shares held. Diluted EPS is determined by adjusting the profit or loss attributable to ordinary shareholders and the weighted average number of ordinary shares outstanding, adjusted for the effects of all dilutive potential ordinary shares, which comprise share options granted to employees.

#### (21) Operating segment

The Group has three reportable segments: the chemicals business segment, electronic materials business segment and energy and other business segment. Strategic operations are operated separately because each segment is manufacturing different products respectively and requires different technologies and marketing strategies.

The performance of the operating segment is assessed based on profit attributable to owners of the Parent Company of each segment, which is considered to be useful for the management to compare the Group's performance in a specific segment with other companies in the same industry.

# 3. Significant Accounting Policies, Continued

#### (22) Non-current assets held for sale

If the carrying amount of non-current assets held for sale or disposal group is highly probable to be recovered through sale other than from continuing operation, those assets are classified as non-current assets held for sale. The asset (or, disposal group) must be available for immediate sale and the sale is highly probable to be classified as held for sale. Immediately before the initial classification of the asset (or, disposal group) as held for sale, the carrying amount of the asset will be measured at the lower of carrying amount and fair value less costs to sell.

Any subsequent decrease in fair value less costs to sell of an asset, recognized impairment loss at the time of classification as held for sale, may result in an immediate charge to profit or loss and gain for any subsequent increase in fair value less costs to sell of an asset can be recognized in the profit or loss to the extent that it is not in excess of the cumulative impairment loss that has been recognized previously.

Non-current assets or disposal groups that are classified as held for sale are not depreciated.

# (23) Emissions Rights

The Company accounts for greenhouse gases emission right and the relevant liability as below pursuant to the Act on Allocation and Trading of Greenhouse Gas Emission which became effective in 2015.

# 1) Greenhouse Gases Emission Right

Greenhouse Gases Emission Right consists of emission allowances which are allocated from the government free of charge or purchased from the market. The cost includes any directly attributable costs incurred during the normal course of business.

Emission rights held for the purpose of performing the obligation is classified as intangible asset and is initially measured at cost and after initial recognition, are carried at cost less accumulated impairment losses. Emission rights held for short-swing profits are classified as current asset and are measured at fair value with any changes in fair value recognized as profit or loss in the respective reporting period.

The Company derecognizes an emission right asset when the emission allowance is unusable, disposed or submitted to government in which the future economic benefits are no longer expected to be probable.

#### 2) Emission liability

Emission liability is a present obligation of submitting emission rights to the government with regard to emission of greenhouse gas. Emission liability is recognized when it is probable that outflows of resources will be required to settle the obligation and the costs required to perform the obligation are reliably estimable. Emission liability is an amount of estimated obligations for emission rights to be submitted to the government for the performing period. The emission liability is measured based on the expected quantity of emission for the performing period in excess of emission allowance in possession and the unit price for such emission rights in the market at the end of the reporting period.

The Group expects that the emission of greenhouse gas will be approximately 750 thousand ton which is less than the emission allowance in possession. Also, the Group does not hold any emission allowances held for sale.

# 3. Significant Accounting Policies, Continued

## (24) New standards and interpretations not yet adopted

The following new standards, interpretations and amendments to existing standards have been published and are mandatory for the Group for annual periods beginning after January 1, 2015, and the Group has not early adopted them.

Management believes the impact of the amendments on the Group's consolidated financial statement is not significant.

# K-IFRS No. 1109, Financial Instruments

K-IFRS 1109, published in December 2015, replaces the existing guidance in K-IFRS No. 1039, Financial Instruments: Recognition and Measurement. K-IFRS 1109 includes revised guidance on the classification and measurement of financial instruments, a new expected credit loss model for calculating impairment on financial assets, and new general hedge accounting requirements. It also carries forward the guidance on recognition and derecognition of financial instruments from K-IFRS No. 1039. K-IFRS 1109 is effective for annual periods beginning on or after January 1, 2018, with early adoption permitted.

# K-IFRS No. 1115, Revenue from Contracts with Customers

K-IFRS 1115, published in January 2016, establishes a comprehensive framework for determining whether, how much and when revenue is recognized. It replaces existing revenue recognition guidance, including K-IFRS No. 1018, Revenue, K-IFRS No. 1011, Construction Contracts and K-IFRS No. 2113, Customer Loyalty Programmes. K-IFRS 1115 is effective for annual reporting periods beginning on or after January 1, 2018, with early adoption permitted.

#### 4. Financial Risk Management

The Group has exposure to the credit risk, liquidity risk and market risk. This note presents information about the Group's exposure to each of the above risks, the Group's objectives, policies and processes for measuring and managing risk, and the Group's management of capital. Further quantitative disclosures are included throughout these consolidated financial statements.

#### (1) Credit risk

Credit risk is the risk of financial loss to the Group if a customer or counterparty to a financial instrument fails to meet its contractual obligations. The Group's exposure to credit risk is influenced mainly by the individual characteristics of each customer. Most customers have been transacting with the Group for many years and impairment loss has not occurred very often. In addition, the Group reviews credit rating of new customers prior to the determination of payment terms and also re-examines the credit rating of customers on a regular basis.

The Group sets allowances for estimated losses from accounts receivable and investment assets. In addition, the Group reports present conditions and countermeasures of delayed recovery for the financial assets and takes reasonable steps depending on the reasons for delay in order to manage the credit risk.

#### 1) Exposure to credit risk

The carrying amount of financial assets represents the maximum credit exposure. The Group limits its exposure to credit risk by depositing cash and cash equivalents in financial institutions that have a high credit rate. The maximum exposure to credit risk at the reporting date as of December 31, 2015 and 2014 are summarized as follows:

(In thousands of won)	2015	2014
Cash and cash equivalents	1,287,968,374	627,528,155
Trade and other receivables, net	1,272,000,532	994,038,723
Held-to-maturity financial assets	401,775	397,140
Non-derivative financial instruments	548,045,664	1,030,736,302
Guarantee deposits	146,478,433	139,746,436
Financial instruments	-	9,816,659
Total ₩	3,254,894,778	2,802,263,415

The maximum exposure to credit risk for trade and other receivables at the reporting date by geographic region as of December 31, 2015 and 2014 are as follows:

(In thousands of won)	2015	2014
Domestic ¥	373,065,641	147,975,013
North America	72,230,897	122,230,138
Europe	120,708,567	64,054,841
China	369,145,141	394,202,309
Other	336,850,286	265,576,422
Total ¥	1,272,000,532	994,038,723

# 4. Financial Risk Management, Continued

#### (1) Credit risk, continued

#### 2) Impairment loss

The aging of trade and other receivables and respective impaired amounts as of December 31, 2015 and 2014 are as follows:

		201	5	2014	
(In thousands of won)		Gross	Impairment	Gross	Impairment
Not past due	₩	1,214,093,354		955,952,541	150,195
Past due 1-30 days		44,159,376	-	32,007,048	-
Past due 31-60 days		3,601,883	-	497,783	-
Past due 61 days		10,145,919	1,877,267	5,581,351	1,027,623
Total	₩	1,272,000,532	1,877,267	994,038,723	1,177,818

# 3) Financial assets that are past due but not impaired

Financial assets that are past due but not impaired as of December 31, 2015 are summarized as follows:

(In thousands of won)

			6 months	More than	
	_	Carrying amount	or less	6 months	
Trade and other receivables	W	56,029,911	50,434,431	5,595,480	

Financial assets that are past due but not impaired as of December 31, 2014 are summarized as follows

(In thousands of won)

			6 months	More than
		Carrying amount	or less	6 months
Trade and other receivables	₩	37,058,559	32,754,812	4,303,747

# (2) Liquidity risk

Liquidity risk is the risk that the Group will encounter difficulty in meeting the obligations associated with its financial liabilities that are settled by delivering cash or another financial asset. The Group's approach to managing liquidity is to ensure, as far as possible, that it will always have sufficient liquidity to meet its liabilities when due, under both normal and stressed conditions, without incurring unacceptable losses or risking damage to the Group's reputation.

The Group monitors its cash flows through long-term and short-term management strategies and ensures it has sufficient cash on demand to meet expected operational expenses. This excludes the potential impact of extreme circumstances that cannot reasonably be predicted.

The Group establishes short-term and long-term cash management plans to manage liquidity risk. The Group matches maturity structures of financial assets and liabilities through analyzing and reviewing cash flow budget and actual cash flow. Management believes that the Group is able to redeem its financial liabilities through operating cash flows and cash inflows of financial assets.

# 4. Financial Risk Management, Continued

# (2) Liquidity risk, continued

Maturity analysis of financial liabilities as of December 31, 2015 is as follows:

(In thousands of won)		Carrying amount	Contractual Cash flow	1 Year or less	More than 1 year and less than 5 years	More than 5 years
Short-term borrowings	₩	1,047,190,364	1,069,501,186	1,069,501,186	-	-
Long-term borrowings		702,450,008	734,305,059	8,067,219	722,255,237	3,982,603
Total	₩	1,749,640,372	1,803,806,245	1,077,568,405	722,255,237	3,982,603

# (3) Market risk

Market risk is the risk that changes in market prices, such as foreign exchange rates, interest rates and equity prices will affect the Group's income or the value of its holdings of financial instruments. The objective of market risk management is to manage and control market risk exposures within acceptable parameters, while optimizing the return.

# 1) Exchange rate risk

The Group has exposure to the exchange rate risk for the sale, purchase, and borrowing of currencies not denominated in functional currency. Main currencies used for these transactions are EUR, USD, JPY and etc. The Group manages the exchange rate risk through currency forward transactions as considered necessary in order to hedge the exchange risk.

Carrying amounts of monetary assets and liabilities expressed as other than functional currency as of December 31, 2015 and 2014 are as follows:

(In thousands of v	von)		2015			2014	
		USD	EUR	JPY, etc.	USD	EUR	JPY, etc.
Monetary assets	in fo	oreign:					
Cash and cash equivalents Trade and other	₩	206,030,690	825,907	3,654,458	151,407,825	890,847	2,750,649
receivables Other		883,650,248	51,796,065	8,943,985	1,184,867,710	88,295,659	83,204,202
investments		371,323	2,900	138,380	353,391	138,733	636,209
Total	₩	1,090,052,261	52,624,872	12,736,823	1,336,628,926	89,325,239	86,591,060
<b>Monetary liabilit</b> Trade and other	ies iı	n foreign:					
payables	₩	715,509,820	11,886,311	37,240,964	803,278,085	39,229,911	85,200,664
Borrowings		451,202,359	41,977,083	5,506,400	546,062,366	28,297,015	713,592
Total	₩	1,166,712,179	53,863,394	42,747,364	1,349,340,451	67,526,926	85,914,256

# 4. Financial Risk Management, Continued

- (3) Market risk, Continued
- 1) Exchange rate risk, Continued

The following significant exchange rates were applied during the years ended December 31, 2015 and 2014:

(In Won)	Average r	ate	Reporting date spot rate		
Currency	2015	2014	2015	2014	
USD	1,131.0	1,052.8	1,172.0	1,099.2	
EUR	1,255.6	1,398.6	1,280.5	1,336.5	
JPY	9.35	9.96	9.72	9.20	

Effects on income (loss) after income taxes as a result of change in exchange rate as of December 31, 2015 and 2014 are as follows:

(In thousands of won)	20	15	2014		
Currency	If increased by 5%	If decreased by 5%	If increased by 5%	If decreased by 5%	
USD	(2,905,411)	2,905,411	(481,767)	481,767	
EUR	(46,940)	46,940	826,156	(826, 156)	
JPY, etc.	(1,137,400)	1,137,400	25,651	(25,651)	

# 2) Interest rate risk

The Group entered into interest rate swaps contracts in order to hedge the interest rate fluctuation risk for certain borrowings.

(i) At the reporting date the interest rate profile of the Group's interest-bearing financial instruments as of December 31, 2015 and 2014 are summarized as follows:

(In thousands of won)		2015	2014
Fixed interest rate:		_	
Short-term borrowings	₩	500,148,934	402,098,133
Long-term borrowings		504,756,963	802,528,420
Sub-total	₩	1,004,905,897	1,204,626,553
Floating interest rate:			
Short-term borrowings	₩	547,041,430	573,202,266
Long-term borrowings		197,693,045	-
Sub-total		744,734,475	573,202,266
Total	₩	1,749,640,372	1,777,828,819

<sup>(</sup>ii) Fair value sensitivity analysis for fixed rate instruments

Debentures and borrowings at amortized cost bear fixed interest rates. Therefore a change in interest rates at the reporting date would not affect profit or loss.

#### 4. Financial Risk Management, Continued

- (3) Market risk, Continued
- 2) Interest rate risk, Continued
- (iii) Cash flow sensitivity analysis for variable rate instruments

A change of one percent point in interest rates at the reporting date would have increased (decreased) equity and income after income taxes by the amounts shown below as of December 31, 2015 and 2014. This analysis assumes that all other variables remain constant.

(In thousands of won)		Equ	iity	Profit after in	come taxes
		If increased by 1%	If decreased by 1%	If increased by 1%	If decreased by 1%
2015	₩	(5,645,087)	5,645,087	(5,645,087)	5,645,087
2014		(4,344,873)	4,344,873	(4,344,873)	4,344,873

#### 3) Other market price risk

Market price risk arises from the available-for-sale financial assets that the Group possesses. Major investments within the portfolio are managed separately and the approval of the Board of Directors is necessary for important acquisition or sale decisions.

The effect on other comprehensive income (gains/losses on valuation of available-for-sale financial assets), when the price of listed equity financial assets, among the available-for-sale financial assets that the Group possesses, changed by five percent points as of December 31, 2015 is as follows:

(In thousands of won)	<u>-</u>	Decembe	r 31, 2015
	_	If increased by 5%	If decreased by 5%
Total comprehensive income, net of tax effect	₩	72,776,572	(72,776,572)

#### (4) Capital management

The Group's capital management is to maintain a sound capital structure and to maximize shareholder profit. The Group uses financial ratios such as debt ratio and net borrowings ratio as a capital management indicator to achieve the optimum capital structure. Debt to equity ratio is calculated as total debt divided by total equity and net borrowings to equity ratio is calculated as net borrowings divided by total equity.

# 4. Financial Risk Management, Continued

### (4) Capital management, Continued

(In thousands of won)		2015	2014
Debt to equity ratio:			
Total liabilities	₩	4,972,110,605	4,141,638,654
Total equity		11,253,192,853	11,826,911,292
Debt to equity ratio		44.2%	35.0%
Net borrowings to equity ratio:			
Borrowings	₩	1,749,640,372	1,777,828,819
Less : Cash and cash equivalents		(1,287,968,374)	(627,528,155)
Less: Short-term financial instruments		(543,881,171)	(1,026,840,000)
Net borrowings	₩	(82,209,173)	123,460,664
Net borrowings to equity ratio		(0.7%)	1.0%

#### (5) Fair values

#### 1) Fair value versus carrying amounts

The fair values of financial assets and liabilities, together with the carrying amounts shown in the statement of financial position, as of December 31, 2015 and 2014 are summarized as follows:

(In thousands of won)		201	15	2014		
		Carrying		Carrying		
	_	amount	Fair value	amount	Fair value	
Financial assets:						
Assets carried at fair value						
Available-for-sale financial assets (*)	₩	2,033,848,414	2,033,848,414	2,448,138,561	2,448,138,561	
Derivative financial assets	_	<u> </u>		9,816,659	9,816,659	
Subtotal	₩_	2,033,848,414	2,033,848,414	2,457,955,220	2,457,955,220	
Assets carried at amortized cost						
Cash and cash equivalents Trade receivables and other	₩	1,287,968,374	1,287,968,374	627,528,155	627,528,155	
receivables		1,269,137,646	1,269,137,646	991,770,931	991,770,931	
Held-to-maturity financial assets		401,775	401,775	397,140	397,140	
Financial instruments		548,045,664	548,045,664	1,030,736,302	1,030,736,302	
Guarantee deposits	_	146,478,433	146,478,433	139,746,436	139,746,436	
Subtotal	₩	3,252,031,892	3,252,031,892	2,790,178,964	2,790,178,964	
Total financial assets	₩_	5,285,880,306	5,285,880,306	5,248,134,184	5,248,134,184	
Financial liabilities:						
Liabilities carried at amortized cost						
Borrowings	₩	1,749,640,372	1,754,143,409	1,777,828,819	1,798,179,841	
Trade and other payables	_	1,800,790,644	1,800,790,644	1,069,662,124	1,069,662,124	
Total financial liabilities	₩	3,550,431,016	3,554,934,053	2,847,490,943	2,867,841,965	

<sup>(\*)</sup> It contains available for sale financial assets classified into non-current assets held for sale.

### 4. Financial Risk Management, Continued

- (5) Fair values, Continued
- 2) Interest rates used for determining fair value

The interest rates used to discount estimated cash flows, when applicable, are based on the treasury bond yield curve at the reporting date plus an adequate credit spread, and were as follows:

	2015	2014
Borrowings	2.12%	2.39%

#### 3) Fair value hierarchy

The Group classifies financial instruments carried at fair value in the statement of financial position according to fair value hierarchy which reflects significance of input variables used. The different levels of fair value hierarchy have been defined as follows:

"Level 1" indicates quoted prices in active markets for identical assets or liabilities. Instruments included in "Level 1" are composed of listed equity securities that are classified as available-for-sale financial assets.

The Group uses a valuation technique to estimate fair values of financial instruments which are not traded in an active market. If the significant inputs which are required for a fair value measurement are observable directly or indirectly in a market, the fair value input is classed as "Level 2". "Level 2" consists of currency swap agreement which is classified as derivatives. On the other hand, if the significant inputs are not based on observable market data, the fair value input for that instrument is classed as "Level 3".

Among unlisted equity securities, the fair value of Samsung Total Petrochemicals Co., Ltd is estimated using the discounted cash flow method in income approach and the fair value of Samsung Venture Investment Corporation is estimated using the probability distribution of value per share in accordance with estimated price per share calculated by the free cash flows to equity method. The Korea Economic Daily are estimated by the continuous probability distribution of value per share in accordance with estimated price per share calculated by the discounted cash flow valuation model and Comparable company valuation multiples.

These unlisted equity securities are classed as "Level 3".

The fair values of financial instruments based on the fair value hierarchy as of December 31, 2015 and 2014 are summarized as follows:

(In thousands of won)		Level 1	Level 2	Level 3	Total
December 31, 2015:					
Available-for-sale financial assets	₩	1,085,659,912	-	92,096,545	1,177,756,457
Non-current assets held for sale (*)		834,566,256	-	-	834,566,256
December 31, 2014:					
Available-for-sale financial assets	₩	2,159,959,423	-	263,419,320	2,423,378,743
Derivative financial assets		-	9,816,659	-	9,816,659

(\*) As described in Note 33, some listed securities were classified into non-current Assets held for sale.

#### 4. Financial Risk Management, Continued

(6) Transfer of financial assets and others

As of December 31, 2015 and 2014, the list of transferred financial assets which are not derecognized in the statement of financial position is as follows:

(In thousands of won)		Trade receiv	ables
		2015	2014
Carrying amount of assets	₩	402,264,929	496,188,709
Carrying amount of associated liabilities		402,264,929	496,188,709

### 5. Segments Information

- (1) Operating segments
- 1) The Group has three reportable segments, which are summarized as follows:

Segment	Main business
Chemical	Resin materials and petrochemicals including ABS and PS, membrane for water treatment
Electronic material	Semi-conductor and display materials
Energy and other	Other businesses which includes manufacturing and sales of the secondary battery

2) The operating segments of the consolidated group are decided by management, which established the strategic decision making. Management reviews the operating income for each operating segment in order to decide on resource allocation for each operating segment and assess the segments' performance. The Group has three reportable segments which offer different products and services. The following table provides information for each reportable segment for the years ended December 31, 2015 and 2014.

#### (i) 2015

(In thousands of won)		Revenues	Depreciation	Amortization	profit (loss)
Chemical	₩	2,614,469,494	76,892,992	17,877,615	207,661,869
Electronic material		1,642,146,662	79,672,647	54,637,582	228,164,598
Energy and other		3,312,714,684	376,555,602	57,806,718	(495,658,493)
Total	₩	7,569,330,840	533,121,241	130,321,915	(59,832,026)
(ii) 2014					Operating

Operating

(In thousands of won)		Revenues	Depreciation	Amortization	profit (loss)
Chemical	₩	1,349,039,901	49,523,868	11,088,307	13,556,904
Electronic material		797,723,166	42,237,354	32,030,208	83,577,285
Energy and other		3,327,458,574	322,616,414	36,081,900	(26,316,680)
Total	₩	5,474,221,641	414,377,636	79,200,415	70,817,509

Total amount of assets and liabilities of each segment is not represented since the information hasn't been provided to management on a regular basis.

# 5. Segments Information, Continued

### (2) Geographical information

The Group has operated in the global markets such as Korea (the Parent Company's domicile), North America, Europe, South America, China and Southeast Asia and so on. The following table provides information for each geographical region as of and for the years ended December 31, 2015 and 2014.

(In thousands of won)

		201	15	201	4
	_	Revenue(*1)	Non-current assets(*2)	Revenue(*1)	Non- current assets(*2)
Korea	₩	5,559,768,809	3,583,270,511	2,294,816,106	3,811,637,620
North America Europe and		253,802,415	14,287,309	395,602,501	5,677,657
South America		971,417,980	124,533,475	761,417,915	28,377,565
China Southeast Asia		1,203,390,338	521,073,121	1,664,685,093	321,914,410
etc. Consolidation		2,087,162,634	364,251,334	2,772,181,516	432,693,980
adjustments	_	(2,506,211,336)	127,348,658	(2,414,481,490)	172,245,510
Total	₩_	7,569,330,840	4,734,764,408	5,474,221,641	4,772,546,742

<sup>(\*1)</sup> As described in note 30, the Group's related party transactions comprise more than 10% of consolidated revenue.

## 6. Cash and Cash Equivalents

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

(In thousands of won)	2015		2014
Cash on hand	₩	2,762,698	1,731,652
Demand deposits		759,717,196	342,325,925
Short-term investments		525,488,480	283,470,578
Total	₩	1,287,968,374	627,528,155

<sup>(\*2)</sup> Non-current assets include carrying amount of property, plant and equipment, intangible assets and investment property.

### 7. Trade and Other Receivables

(1) Trade and other receivables as of December 31, 2015 and 2014 are summarized as follows:

(In thousands of won)	_	2015		20^	14
	_	Current	Non-current	Current	Non-current
Loans	₩	1,353,807	9,153,645	1,331,822	9,559,579
Present value discount		-	(769,474)	-	(747,955)
Other account receivables		133,761,849	55,265,779	51,684,339	-
Allowance		(66,370)	-	(127,293)	-
Accrued income		78,534,530	-	6,998,818	-
VAT receivables		68,036,632	-	79,143,166	-
Trade account receivable		922,975,851	2,918,439	842,121,084	3,199,915
Allowance	_	(1,306,997)	(720,045)	(594,389)	(798,155)
Total	₩_	1,203,289,302	65,848,344	980,557,547	11,213,384

(2) Changes in allowance for trade and other receivables for the years ended December 31, 2015 and 2014 are summarized as follows:

(In thousands of won)	201	5	2014		
		Current	Non-current	Current	Non-current
Balance at beginning Increased by business	₩	721,682	798,155	4,588,079	390,549
combination		22,572	-	335,928	588,892
Write off		(174,304)	-	(8,213)	-
(Reversal of) Bad debt expense		803,417	(78,110)	(4,194,112)	(181,286)
Balance at ending	₩	1,373,367	720,045	721,682	798,155

#### 8. Inventories

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

#### 1) 2015

(In thousands of won)		Acquisition cost	Allowance for valuation	Carrying amount
Merchandize	₩	3,863,458	-	3,863,458
Finished goods		256,299,697	(32,368,738)	223,930,959
Semi-finished goods		248,833,278	(20,224,083)	228,609,195
Raw materials		218,041,505	(2,583,625)	215,457,880
Supplies		18,972,434	-	18,972,434
Materials-in-transit		58,071,908	-	58,071,908
Other inventories		1,044,368	<u>-</u>	1,044,368
Total	₩	805,126,648	(55, 176, 446)	749,950,202

## 8. Inventories, Continued

(1) Inventories as of December 31, 2015 and 2014 are summarized as follows:, Continued

### 2) 2014

	_		Allowance for	
(In thousands of won)	A	cquisition cost	valuation	Book value
Merchandize	₩	8,335,121	(39)	8,335,082
Finished goods		237,491,752	(19,877,425)	217,614,327
Semi-finished goods		264,880,716	(7,024,185)	257,856,531
Raw materials		219,313,946	(1,284,613)	218,029,333
Supplies		16,067,515	=	16,067,515
Materials-in-transit		49,464,893	-	49,464,893
Other inventories		1,186,070		1,186,070
Total	₩	796,740,013	(28,186,262)	768,553,751

(2) The amounts of inventories recognized as cost of sales and loss on valuation of inventories recorded in cost of sales for the years ended December 31, 2015 and 2014 are as follows:

(In thousands of won)		2015	2014
Inventories recognized as cost of sales	₩	6,159,202,351	4,546,381,224
Loss on valuation of inventories		26,990,184	(903,830)
Total	₩	6,186,192,535	4,545,477,394

#### 9. Other Investments

(1) Other investments as of December 31, 2015 and 2014 are summarized as follows:

(In thousands of won)	_	20	15	2014		
	_	Current	Non-current	Current	Non-current	
Held for maturity financial assets	₩	-	401,775	-	397,140	
Available-for-sale financial assets		-	1,199,282,158	-	2,448,138,561	
Financial instruments		543,881,171	4,164,493	1,026,840,000	3,896,302	
Guarantee deposits		51,676,957	94,801,476	42,977,165	96,769,271	
Derivatives financial assets	_			9,816,659		
Total	₩_	595,558,128	1,298,649,902	1,079,633,824	2,549,201,274	

#### 9. Other Investments, Continued

(2) Available-for-sale financial assets as of December 31, 2015 and 2014 are summarized as follows:

(In thousands of won)

			Uni	realized gain (lo	oss)		
		Acquisition cost	Beginning balance	Changes in unrealized gain or loss	Ending balance	Allowances for impairment	Carrying amount
December 31, 2015	-						
Listed equity securities Unlisted equity	₩	877,689,909	1,085,180,542	(518,237,042)	566,943,500	(358,973,497)	1,085,659,912
securities	_	126,535,597	95,403,652	(108,231,114)	(12,827,462)	(85,889)	113,622,246
Total	W	1,004,225,506	1,180,584,194	(626,468,156)	554,116,038	(359,059,386)	1,199,282,158
Tax effect	₩		(285,805,881)	152,221,366	(133,584,515)		
December 31, 2014							
Listed equity securities Unlisted equity securities	₩	970,378,158 192,775,486	990,398,123	420,239,360 (74,876,313)	1,410,637,483 95,403,652	(221,056,218)	2,159,959,423
Total	₩	1,163,153,644	1,160,678,088	345,363,047	1,506,041,135	(221,056,218)	2,448,138,561
Tax effect	₩	, , , , , , , , , , , , , , , , , , , ,	(281,098,789)	(83,458,418)	(364,557,207)	, ,	,,,

- 1) The Group estimates fair values of certain unlisted equity securities as follows:
- The fair value of Hanwha General Chemical Co., Ltd (ex, Samsung General Chemical Co., Ltd) is estimated using the discounted cash flow method in income approach. The acquisition cost and the carrying value of the unlisted security are ₩78,826 million and ₩ 60,833 million, respectively, as of December 31, 2015. As mentioned in note 19, these securities are contracted with third party.
- The fair value of Samsung Venture Investment Corporation is estimated using the free cash flows to equity method. The acquisition cost and the carrying value of the unlisted security are ₩4,900 million and ₩6,112 million, respectively, as of December 31, 2015.
- The fair value of The Korea Economic Daily is estimated using the discounted cash flow valuation model and comparable company valuation multiples. The acquisition cost and the carrying value of the unlisted security are ₩9,073 million and ₩10,759 million, respectively, as of December 31, 2014.
- Listed equity securities of 18 companies including iMarket Asia Co., Ltd. and Younicos AG debt securities are valued as acquisition costs net of impairment loss as they are nonmarketable and fair value cannot be reliably estimated. The acquisition cost and the carrying value of those securities are \#21,526 million.

#### 9. Other Investments, Continued

- (2) Available-for-sale financial assets as of December 31, 2015 and 2014 are summarized as follows:, continued
- 2) The Group disposed partial shares of Hanwha General Chemical Co., Ltd.(ex, Samsung General Chemical Co., Ltd) and recorded \(\frac{\text{W93}}{202}\) million as gains on disposal of those unlisted shares. This agreement includes conditions such that if the operating profit rates of HANWHA TOTAL PETROCHEMICAL Co., Ltd. (ex, Samsung Total Petrochemical Co., Ltd), a subsidiary of Hanwha General Chemical Co., Ltd., (ex, Samsung General Chemical Co., Ltd) for the year of 2017 and 2018 are larger than 5%, the Group will receive \(\frac{\text{W11}}{11,692}\) million each year from the acquirer. The contingent consideration was valued as zero as possibility of the expected cash inflow of the contingent consideration is low as of December 31, 2015.
- 3) The impairment losses of  $\mbox{$W$}122,314$  million and  $\mbox{$W$}15,603$  million were recognized respectively as other expenses due to the significant decrease of fair value of investments in Samsung Engineering Co., Ltd. and Samsung Heavy Industries Co., Ltd. below the acquisition cost in the current year respectively.
- 4) As the Samsung C&T Corporation was acquired by Cheil Industries Inc. the investments on Samsung C&T Corporation the Group previously held were exchanged for the investments of Cheil Industries Inc.. The gain of \(\pi\)527,349 million on the disposition of the available-for-sales from this transaction was recorded as other income. Meanwhile, Cheil Industries Inc., the acquirer, changed its name as Samsung C&T Corporation.
- 5) As mentioned in Note 33, the Group reclassified available-for-sales securities of Samsung C&T Corporation and Samsung Fine Chemicals Co., Ltd. as non-current assets held for sale

#### 10. Other Current Assets and Non-current Assets

Other current assets and non-current assets as of December 31, 2015 and 2014 are summarized as follows:

(In thousands of won)		201	5	2014		
		Current	Non-current	Current	Non-current	
Advance payments	₩	32,548,715	-	31,997,736	-	
Prepaid expenses		38,803,007	127,352,038	39,465,469	64,945,717	
Prepaid income tax	_	7,358,471	11,120,201	1,361,400	15,039,709	
Total	₩	78,710,193	138,472,239	72,824,605	79,985,426	

#### 11. Equity-accounted Investees

(1) The equity-accounted investees of the Group as of December 31, 2015 and December 31, 2014 are summarized as follows:

(In thousands of won)		201	15	2014		
Company	Place of business	Primary business	Percentage of ownership	Carrying amount	Percentage of ownership	Carrying amount
Associates: Samsung Display Co., Ltd. ("SDC") (*1)	Korea	Manufacturing and sale of LCD, AMOLED, etc.	15.2% ₩	5,120,790,592	15.2% ₩	√ 4,882,490,386
Samsung B.P. Chemicals Co., Ltd. ("SBPC") (*2)	Korea	Manufacturing and sale of acetic acid	-	-	29.2%	50,077,859
Samsung Economic Research Institute Ltd. ("SERI")	Korea	Management advisory consulting	29.6%	27,011,254	29.6%	26,774,200
Intellectual Keystone Technology ("IKT") Sungrow-	U.S.A	Investing in new technology	41.0%	12,547,054	41.0%	11,724,624
Samsung SDI Energy Storage Power Supply Co., Ltd. ("SSEP") (*2)	China	Manufacturing ESS products	35.0%	4,024,017		
SD Flex Co., Ltd.	Korea	Manufacturing printed-circuit board	50.0%	4,024,017 8,550,975	50.0%	7,950,247
Total			₩	5,172,923,892	¥	4,979,017,316

For all companies above, the fiscal year end is December 31.

<sup>(\*1)</sup> Although equity ownership is less than 20%, the Group has classified the shares equity-accounted investees due to the fact that the Group has representations in the board of directors of SDC.

<sup>(\*2)</sup> Samsung BP Chemicals Co., Ltd.'s shares were disposed in the amount of 81,898 million and the gain on the disposal of these shares is recorded as other gains and SSEP, an associated company, is newly established.

# 11. Equity-accounted Investees, Continued

(2) The summarized financial information of equity-accounted investees as of and for the years ended December 31, 2015 and 2014 are summarized as follows:

# 1) 2015

(In thousands of won)	SDC	SERI	IKT	SSEP	Sd flex
Current assets	₩ 16,947,132,688	62,897,899	5,731,696	7,754,491	14,964,043
Non-current assets	25,161,234,553	68,693,670	42,486,363	4,597,603	4,809,640
Current liabilities	6,758,263,823	22,303,316	17,615,487	854,904	2,224,992
Non-current liabilities	1,206,089,990	18,034,018	-	-	446,740
Revenue	27,446,418,864	165,781,758	7,068,453	-	13,089,700
Operating profit (loss)	2,187,219,473	783,340	106,712	(69,771)	1,300,798
Net income (loss) Other comprehensive	1,841,636,699	240,722	108,052	790,070	1,253,785
income Total comprehensive	(233,526,548)	-	-	-	-
income (loss)	1,608,110,151	240,722	108,052	790,070	1,253,785

### 2) 2014

(In thousands of won)	SDC	SBPC	SERI	IKT	Sd flex
Current assets	₩ 14,185,655,826	137,165,598	63,791,889	6,394,056	12,344,790
Non-current assets	25,380,045,889	178,979,888	69,906,577	44,890,601	5,102,409
Current liabilities	6,158,562,242	96,946,819	26,103,124	22,688,015	919,278
Non-current liabilities	871,084,397	47,743,189	17,141,962	-	627,426
Revenue	25,646,108,776	408,135,966	171,834,978	13,160,494	9,281,994
Operating profit (loss)	594,461,703	47,699,768	7,205	6,603,128	473,666
Net income (loss) Other comprehensive	1,153,733,552	35,341,026	252,635	5,989,806	421,088
income	485,350,362	-	-	-	-
Total comprehensive income (loss)	1,639,083,914	35,341,026	252,635	5,989,806	421,088
Dividends	-	5,286,558	-	-	-

# 11. Equity-accounted Investees, Continued

(3) The comparison between carrying amount of the investments and the investees' net assets based on the Group's percentage of ownership as of December 31, 2015 and 2014 are summarized as follows:

## 1) 2015

(In thousands of won)	SDC	SERI	IKT	SSEP	Sd flex
Net assets(a)(*)	₩33,639,387,485	91,254,235	30,602,572	11,497,190	17,101,951
Percentage of ownership(b)	15.2%	29.6%	41.0%	35.0%	50.0%
Equity to net assets(axb)	5,120,790,592	27,011,254	12,547,054	4,024,017	8,550,975
Carrying amounts	5,120,790,592	27,011,254	12,547,054	4,024,017	8,550,975

#### 2) 2014

(In thousands of won)	SDC	SBPC	SERI	IKT	Sd flex
Net assets(a)(*)	₩32,073,950,895	171,455,478	90,453,380	28,596,643	15,900,495
Percentage of ownership(b)	15.2%	29.2%	29.6%	41.0%	50.0%
Equity to net assets(axb)	4,882,490,386	50,077,859	26,774,200	11,724,624	7,950,247
Carrying amounts	4,882,490,386	50,077,859	26,774,200	11,724,624	7,950,247

<sup>(\*)</sup> Net assets are equal of net asset of equity-accounted investees deducted by non-controlling interests.

(4) Changes in investments in equity-accounted investees for the years ended December 31, 2015 and 2014 are as follows:

## 1) 2015

(In thousands of won)

Company	<u>/</u>	January 1, 2015	Acquisition	Disposition	Dividends received	Share of profits(loss)	capital movements	December 31, 2015
SDC	₩	4,882,490,386	-	-	-	274,507,970	(36,207,764)	5,120,790,592
SBPC		50,077,859	-	(50,782,918)	(3,592,523)	4,399,739	(102,157)	-
SERI		26,774,200	-	-	-	71,119	165,935	27,011,254
IKT		11,724,624	-	-	-	44,302	778,128	12,547,054
SSEP		-	3,764,145	-	-	276,524	(16,652)	4,024,017
Sd flex		7,950,247				600,728		8,550,975
Total	₩	4,979,017,316	3,764,145	(50,782,918)	(3,592,523)	279,900,382	(35,382,510)	5,172,923,892

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### 11. Equity-accounted Investees, Continued

- (4) Changes in investments in equity-accounted investees for the years ended December 31, 2015 and 2014 are as follows:, continued
- 2) 2014

(In thousands of won)

Company	<u>y</u>	January 1, 2014	Acquisition of business combination	Disposition	Dividends received	Share of profits(loss)	Other capital movements	December 31, 2014
SDC	₩	4,632,864,753	-	-	-	177,049,180	72,576,453	4,882,490,386
SSH		251,439	-	(230,568)	-	(11,606)	(9,265)	-
SBPC		45,140,010	-	-	(5,286,558)	10,267,004	(42,597)	50,077,859
SERI		24,862,759	809,400	-	-	(142,465)	1,244,506	26,774,200
IKT		3,646,627	4,441,935	-	-	2,988,807	647,255	11,724,624
Sd flex			7,832,755			117,492		7,950,247
Total	₩	4,706,765,588	13,084,090	(230,568)	(5,286,558)	190,268,412	74,416,352	4,979,017,316

- (5) None of the equity-accounted investees is a listed company as of December 31, 2015.
- (6) There is no significant restriction on the Group's ability to transfer money from equity-accounted investees and redemption of borrowings or advances to equity-accounted investees.
- (7) There is no contingent liability related to interests in equity-accounted investees.

## 12. Property, Plant and Equipment

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

#### 1) 2015

(In thousands of won)

		Land	Buildings	Structures	Machinery	Vehicles	Tools, furniture and fixtures	Construction in progress	Total
Beginning balance Acquisition	₩	710,981,599	972,502,728	262,530,560	1,022,906,573	2,721,761	147,336,955	205,897,375	3,324,877,551
cost Accumulated		710,981,599	2,005,706,495	530,795,295	2,851,780,921	10,081,233	411,725,624	205,897,375	6,726,968,542
depreciation Acquisitions and capital		-	(1,033,203,767)	(268,264,735)	(1,828,874,348)	(7,359,472)	(264,388,669)	-	(3,402,090,991)
expenditure Business		943,245	59,757,083	22,575,282	95,104,237	791,682	43,673,573	513,987,422	736,832,524
combinations		2,289,882	18,476,400	2,846,268	67,735,545	47,750	4,027,596	4,895,405	100,318,846
Depreciation		-	(60,803,170)	(26,738,484)	(352,944,880)	(1,252,032)	(90,495,013)	-	(532,233,579)
Disposals Impairment		(1,719,813)	(4,076,741)	(424,504)	(23,982,554)	(325,342)	(16,625,597)	(955,296)	(48,109,847)
losses Government		-	(6,802,725)	(1,287,729)	(114,014,378)	(138,218)	(13,726,536)	-	(135,969,586)
grant		-	-	-	(57,259,345)	-	-	-	(57,259,345)
Other Exchange rate	(	115,023,023)	29,109,417	11,915,626	286,428,689	876,546	63,576,638	(464,442,640)	(187,558,747)
fluctuation	_	106,992	7,579,062	4,040,496	15,820,880	32,002	785,358	(300,880)	28,063,910
Ending balance	₩	597,578,882	1,015,742,054	275,457,515	939,794,767	2,754,149	138,552,974	259,081,386	3,228,961,727
Acquisition cost Accumulated		597,578,882	2,079,292,053	525,101,047	2,488,276,975	9,498,861	438,761,743	259,081,386	6,397,590,947
depreciation		-	(1,063,549,999)	(249,643,532)	(1,548,482,208)	(6,744,712)	(300,208,769)	-	(3,168,629,220)

Other amounts include reclassification of construction-in-progress to appropriate accounts such as investment property, property, plant and equipment, and expense accounts and the effect of merger with subsidiary from prior year.

The Group recognized impairment loss as it expects the recoverable value of relevant assets in certain division is less than the carrying amount of the relevant assets.

# 12. Property, Plant and Equipment, Continued

2) 2014

(In thousands of won)

(III tribusarius bi	VVO	111)					Tools.		
		Land	Buildings	Structures	Machinery	Vehicles	furniture and fixtures	Construction in progress	Total
Beginning balance Acquisition	₩	126,066,533	580,946,635	148,779,366	743,889,282	3,151,835	83,810,723	101,310,274	1,787,954,648
cost Accumulated		126,066,533	1,579,712,120	396,675,994	3,030,693,579	13,376,811	362,259,592	101,310,274	5,610,094,903
depreciation Acquisitions and capital		-	(998,765,485)	(247,896,628)	(2,286,804,297)	(10,224,976)	(278,448,869)	-	(3,822,140,255)
expenditure Business		-	338,503	1,596,287	15,301,640	513,685	25,342,824	458,235,641	501,328,580
combinations		591,303,575	424,068,215	136,201,620	364,982,587	422,406	77,061,696	52,862,844	1,646,902,943
Depreciation		-	(54,286,615)	(23,222,425)	(289,034,952)	(1,452,779)	(75,198,270)	-	(443,195,041)
Disposals Impairment		-	(3,345,246)	(4,029,529)	(35,653,024)	(285,258)	(15,236,316)	(3,240,141)	(61,789,514)
losses Government		-	(4,837,670)	(15,273,114)	(16,075,197)	(74,717)	(1,889,583)	(5,274,762)	(43,425,043)
grant		-	-	-	(1,534,129)	-	(12,023)	-	(1,546,152)
Other Exchange rate		(6,184,591)	29,426,031	19,382,345	242,367,379	391,584	53,031,508	(398,799,995)	(60,385,739)
fluctuation		(203,918)	192,875	(903,990)	(1,337,013)	55,005	426,396	803,514	(967,131)
Ending balance	₩	710,981,599	972,502,728	262,530,560	1,022,906,573	2,721,761	147,336,955	205,897,375	3,324,877,551
Acquisition cost Accumulated		710,981,599	2,005,706,495	530,795,295	2,851,780,921	10,081,233	411,725,624	205,897,375	6,726,968,542
depreciation		-	(1,033,203,767)	(268,264,735)	(1,828,874,348)	(7,359,472)	(264,388,669)	-	(3,402,090,991)

Other amounts include reclassification of construction-in-progress to appropriate accounts such as investment property, property, plant and equipment, and expense accounts and the effect of merger with subsidiary from prior year.

The Group recognized impairment loss as it expects the recoverable value of relevant assets in certain division is less than the carrying amount of the relevant assets.

### 13. Intangible Assets

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

#### (1) 2015

(In thousands of won)		Industrial property	Development costs	Others	Goodwill(*)	Total
Beginning balance	₩	60,001,781	2,688,214	456,671,330	759,580,267	1,278,941,592
Acquisition cost Accumulated		104,597,938	4,874,310	665,907,976	770,922,477	1,546,302,701
depreciation		(44,596,157)	(2,186,096)	(209,236,646)	(11,342,210)	(267,361,109)
Acquisitions Acquisitions through		1,539,222	1,766,188	12,779,905	-	16,085,315
business combinations		3,597,729	-	23,892,664	54,300,471	81,790,864
Amortization		(9,873,325)	(108,039)	(120,340,551)	-	(130,321,915)
Disposals		(8,245,981)	(109,380)	(27,520)	-	(8,382,881)
Impairment losses		(744,101)	(2,236,713)	(885,493)	-	(3,866,307)
Other		14,408,427	-	33,443,970	-	47,852,397
Exchange rate fluctuation		(60,752)	35,102	(3,570,332)	(882,057)	(4,478,039)
Ending balance	₩	60,623,000	2,035,372	401,963,973	812,998,681	1,277,621,026
Acquisition cost Accumulated	_	100,216,901	6,675,599	699,317,786	824,340,891	1,630,551,177
depreciation		(39,593,901)	(4,640,227)	(297,353,813)	(11,342,210)	(352,930,151)

<sup>(\*)</sup> As described in note 34, Goodwill is recognized as a result of the acquisition with SDIBS. The Group expects strengthening the competitiveness in batteries for vehicles business by utilizing the capabilities of SDIBS.

Other amounts include reclassification of long-term prepaid expenses to exclusive facility usage rights and of construction-in-progress to other intangible assets. For the year ended December 31, 2015, the Group has recognized impairment loss since the recoverable amount of intangible assets of some divisions is expected to be lower than the carrying amount.

#### 13. Intangible Assets, Continued

Changes in intangible assets for the years ended December 31, 2015 and 2014 are summarized as follows:, continued

#### (2) 2014

(In thousands of won)		Industrial property	Development costs	Others	Goodwill(*)	Total
Beginning balance	₩	46,689,095	-	91,058,425	29,322,982	167,070,502
Acquisition cost Accumulated		83,976,703	-	236,640,534	40,665,192	361,282,429
depreciation		(37,287,608)	-	(145,582,109)	(11,342,210)	(194,211,927)
Acquisitions Acquisitions through		723,851	-	2,281,049	-	3,004,900
business combinations		6,470,348	16,875,425	416,370,727	734,122,620	1,173,839,120
Amortization		(7,981,395)	(2,186,096)	(78,341,878)	-	(88,509,369)
Disposals		(149,749)	-	(146)	-	(149,895)
Impairment losses		(971,195)	(12,001,115)	(2,170,149)	-	(15,142,459)
Other		15,293,955	-	31,804,693	-	47,098,648
Exchange rate fluctuation	_	(73,129)		(4,331,391)	(3,865,335)	(8,269,855)
Ending balance	₩	60,001,781	2,688,214	456,671,330	759,580,267	1,278,941,592
Acquisition cost Accumulated		104,597,938	4,874,310	665,907,976	770,922,477	1,546,302,701
depreciation		(44,596,157)	(2,186,096)	(209,236,646)	(11,342,210)	(267,361,109)

<sup>(\*)</sup> Goodwill is recognized as a result of the merger with former Cheil Industry, Inc. The Group expects strengthening the competitiveness in lithium-ion battery business by utilizing the capabilities of former Cheil Industry, Inc. in materials parts and system sectors, and expanding its capacity with the integrated systems and the mutual interchange of the customer networks.

Other amounts include reclassification of long-term prepaid expenses to exclusive facility usage rights and of construction-in-progress to other intangible assets. For the year ended December 31, 2014, the Group has recognized impairment loss since the recoverable amount of intangible assets of some divisions is expected to be lower than the carrying amount.

#### (3) Amortization expenses

Amortization expenses are classified as manufacturing cost and selling, general and administrative expenses, and the Group recognizes the manufacturing cost as cost of sales when the inventory is sold.

#### (4) Research and development expenses

Research and development expenses recognized as selling, general and administrative expenses for the years ended December 31, 2015 and 2014 are ₩571,018 million and ₩353,724 million, respectively.

#### 13. Intangible Assets, Continued

### (5) Impairment of CGU including goodwill

The Group performed impairment test on the goodwill allocated to the automotive battery division, a cash generating unit ("CGU"), and the expected recoverable amount exceeded the carrying amount of the CGU.

### 14. Investment Property

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

(In thousands of won)			2015			2014	
	_	Land	Buildings	Total	Land	Buildings	Total
Beginning balance	₩	92,888,813	75,838,786	168,727,599	35,533,797	1	35,533,798
Acquisition Increased by business		-	-	-	90,507	1,465,645	1,556,152
combination		(530,918)	-	(530,918)	58,599,897	76,827,987	135,427,884
Reclassification		115,553,941	1,180,345	116,734,286	-	-	-
Disposal		-	-	-	(51,780)	-	(51,780)
Depreciation		-	(887,662)	(887,662)	-	(989,202)	(989,202)
Impairment loss		-	-	-	(1,005,200)	(1,468,185)	(2,473,385)
Disuse Effect of exchange rate		-	(55,757,054)	(55,757,054)	-	-	-
fluctuations	_	(99,185)	(5,411)	(104,596)	(278,408)	2,540	(275,868)
Ending balance	₩	207,812,651	20,369,004	228,181,655	92,888,813	75,838,786	168,727,599

Investment property consists of land and buildings, leased to Samsung Display Co., Ltd. In Chen-an and also includes land and buildings leased to Samsung Electronics Co., Ltd and Samsung C&T Corporation.

There was a fire loss in land and buildings which is leased to Samsung C&T Corporation in Gimpo, so the Group has recognized impairment loss by \(\prec{\psi}\)55,757,054 thousand since the recoverable amount of investment property is expected to be lower than the carrying amount.

As of December 31, 2015, investigation on fire is still going on, the Group has recognized the compensation revenues for the amounts, expected to be received in accordance with the provision of the insurance.

#### 15. Trade Payables and Other Liabilities

Trade payables and other liabilities as of December 31, 2015 and 2014 are summarized as follows:

(In thousands of won)		201	5	201	4
	_	Current	Non-current	Current	Non-current
Trade payables	₩	378,105,662	-	385,429,907	-
Accounts payable		216,825,453	19,976	180,051,477	30,874
Accrued expenses		516,851,115	1,744,697	435,191,620	3,330,784
Other		956,947,768	124,144,861	231,637,505	30,473,129
Total	₩	2,068,729,998	125,909,534	1,232,310,509	33,834,787

Other liabilities include provisions, withholdings, guarantee deposits received, etc. (notes 17 and 19).

# 16. Borrowings

(1) Borrowings as of December 31, 2015 and 2014 are summarized as follows:

(In thousands of won)		2015	2014	
Short-term borrowings				
Current portion of debentures in Korean won Current portion of long-term borrowings in foreign	₩	499,771,427	399,746,834	
currency		377,508	77,386,296	
Disposals of trade receivable		402,264,929	496,188,709	
Short-term borrowings in foreign currency		144,776,500	1,978,560	
Sub total	₩	1,047,190,364	975,300,399	
Long-term borrowings				
Debentures	₩	498,715,758	698,915,245	
Long-term borrowings in foreign currency		203,734,250	103,613,175	
Sub total		702,450,008	802,528,420	
Total	₩	1,749,640,372	1,777,828,819	

(2) Debentures issued by the Parent company as of December 31, 2015 and 2014 are summarized as follows:

Туре	Classification	Date of maturity	Annual Interest rate (%)		2015	2014
		2015.02.02	3.95	₩	-	100,000,000
		2015.08.16	3.17		-	100,000,000
		2015.09.14	3.19		-	200,000,000
		2016.04.05	2.72		200,000,000	200,000,000
Corporate bonds	Unsecured	2016.08.01	4.46		200,000,000	200,000,000
Corporate borids	Onsecureu	2016.10.26	4.39		100,000,000	100,000,000
		2017.02.02	4.03		100,000,000	100,000,000
		2017.08.16	3.31		100,000,000	100,000,000
		2018.09.14	1.96		200,000,000	-
		2020.09.14	2.20	_	100,000,000	
Sub total				₩_	1,000,000,000	1,100,000,000
Less discount or	n debentures				(1,512,815)	(1,337,921)
Less current por	tion of long-term b	orrowings		_	(499,771,427)	(399,746,834)
Total				₩_	498,715,758	698,915,245

# 16. Borrowings, Continued

(3) Long-term borrowings as of December 31, 2015 and 2014 are summarized as follows:

(In thousands of won)

(III tirousuriae	01 11011)			Annual			
Borrower	Description	Financial institution	Date of maturity	interest rate(%)	_	2015	2014
SDIEM	Foreign currency loans	Standard Chartered Bank, etc.	2015.09.12, etc.	KLIBOR 3M+ 0.55, etc.	₩	-	171,285,558
SCI	Facility loan	BBCN Bank	2020.05.05	3.25		-	771,101
DSEP	Facility loan	Shinhan bank, etc.	2015.11.23, etc.	2.95, etc.		-	1,870,705
SCH	Financing lease debts	UniCredit Leasing Hungary Zrt	2026.03.31	6.50		6,418,713	7,072,107
SDIBS	Foreign currency loans	Sumitomo Mitsui Banking Corporation Europe Limited	2018.04.27	EURIBOR 3M+0.73		93,478,690	-
SAPB	Foreign currency loans	Bank of China	2018.04.10	LIBOR 3M + 1.45		104,214,355	
Sub total						204,111,758	180,999,471
Less current	portion of long-term	borrowings				(377,508)	(77,386,296)
Total					₩	203,734,250	103,613,175

### 17. Provisions

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

(In thousands of won)

	Current				Non-current				
·	Royalty	Quality	Construction				Site	<u> </u>	<u> </u>
_	expenses	assurance	warranties	Incentives	Other	Incentives	restoration	Other	Total
Balance at Jan. 1,2014 ₩ Increased by	47,735,703	16,700,878	-	-	-	28,820,492	-	-	93,257,073
business combination Provisions	-	-	128,836	-	-	6,675,082	-	-	6,803,918
made	620,431	10,250,355	-	6,999,523	16,201,483	20,013,719	-	-	54,085,511
-	(38,759,112)	(16,400,135)	(74,034)			(31,572,769)			(86,806,050)
Balance at Dec. 31,2014 ₩	9,597,022	10,551,098	54,802	6,999,523	16,201,483	23,936,524			67,340,452
Balance at Jan. 1, 2015 ₩ Increased by business	9,597,022	10,551,098	54,802	6,999,523	16,201,483	23,936,524	-	-	67,340,452
combination Provisions	-	1,767,095	-	-	736,260	-	-	-	2,503,355
made	191,083	27,298,187	1,616	6,999,523	19,872,697	11,597,005	34,386	1,810,286	67,804,783
Provisions used	(3,168,248)	(7,626,684)	(56,418)	(6,999,523)	(34,515,711)	(11,566,716)		(518,531)	(64,451,831)
Balance at Dec. 31,2015 ₩	6,619,857	31,989,696	_	6,999,523	2,294,729	23,966,813	34,386	1,291,755	73,196,759

#### 17. Provisions, Continued

The Group recognizes a warranty provision (quality assurance) for the estimated costs of future repairs and recalls as accrued expenses, based on past experience.

The Group has long-term incentive plans for its executives based on three-year management performance criteria and has made a provision for the estimated incentive costs.

Royalty expenses in relation to the technology usage agreement for which the related amounts have not been determined are recorded as accrued expense based on expected future royalty expenses. The payment timing of some royalty expenses may change according to negotiations with respective companies.

The Group records provision for construction warranties if the expenditure of future repairs and claims after the completion of construction is probable and the amount can be estimated reliably.

The details of provisions for lawsuits have not been shown as it may affect the investigation result and pending lawsuits.

### 18. Employee Benefits

(1) Employee benefit liabilities as of December 31, 2015 and 2014 are summarized as follows:

#### 1) Present value of defined obligations

		2015	2014
(In thousands of won)			
Beginning balance	₩	507,884,165	276,731,853
Current service cost		80,228,762	64,733,675
Interest expenses		18,324,074	15,403,342
Transfer in related parties		5,221,974	1,443,667
Payments of employee benefits		(28,830,762)	(40,890,505)
Actuarial loss in other comprehensive income		(16,877,427)	24,884,267
Payments with a subscription to the defined contribution plan		(5,256,166)	(2,182,200)
Obligations assumed in business combination		5,278,414	167,861,104
Exchange rate fluctuations	-	(195,128)	(101,038)
Ending balance	₩	565,777,906	507,884,165

### 18. Employee Benefits

(1) Employee benefit liabilities as of December 31, 2015 and 2014 are summarized as follows:, continued

### 2) Fair value of plan assets

(In thousands of won)		2015	2014
Beginning balance	₩	496,358,797	247,322,768
Contributions paid into plan		358,146	137,628,335
Benefits paid by the plan		(15,633,863)	(25,037,434)
Payments with a subscription to the defined contribution plan		(5,256,166)	(2,013,335)
Interest income		17,820,446	13,291,351
Actuarial loss in other comprehensive income		(7,285,926)	(4,726,936)
Obligations assumed in business combination		96,758	129,999,797
Exchange rate fluctuations		45,482	(105,749)
Ending balance	₩	486,503,674	496,358,797

3) Other liabilities for employee benefits as of December 31, 2015 and 2014 are summarized as follows:

(In thousands of won)	_	2015	2014
Liabilities for paid absence	₩	56,177,752	52,881,528
Long-term incentive provisions	_	30,966,336	30,936,047
Total	₩_	87,144,088	83,817,575

(2) Expenses for employee benefits for the years ended December 31, 2015 and 2014 are summarized as follows:

(In thousands of won)		2015	2014
Current service costs	₩	80,228,762	64,733,675
Interest cost		18,324,074	15,403,342
Interest income		(17,820,446)	(13,291,351)
Payment on defined contribution plans		958,655	338,193
Total	₩	81,691,045	67,183,859

(3) Fair value of plan assets as of December 31, 2015 and 2014 are summarized as follows:

(In thousands of won)			2015	2014
Severance insurance bonds (*)	7	₩	485,774,121	495,602,100
National pension fund			729,553	756,697
Total	7	₩	486,503,674	496,358,797

(\*) Mainly includes deposit, government securities and corporate bond, etc.

(4) The Group determined the discount rate based on market returns of blue chip corporate bonds consistent with currencies and estimated payment terms of defined benefit obligations as of the reporting date in order to calculate present value of the defined benefit obligations. Major actuarial assumptions for the years ended December 31, 2015 and 2014 are summarized as follows:

	2015	2014
Expected rate of salary increase	4.70% ~ 4.75%	5.25% ~ 6.75%
Discount rate for defined benefit obligations	3.30%	3.75%

#### 18. Employee Benefits, Continued

#### (5) Sensitivity analysis

Reasonably possible changes at the reporting date to one of the relevant actuarial assumptions as of December 31, 2015, holding other assumptions constant, would have affected the defined benefit obligation by the amounts shown below.

(In thousands of won)	f won) Present value of defined		
	If increased by 1%	If decreased by 1%	
Expected rate salary increase	56,324,674	(49,105,729)	
Discount rate for defined benefit obligations	(48.278.373)	56.390.643	

### 19. Commitment and Contingencies

- (1) As of December 31, 2015, the Group has been provided a guarantee of ₩17,562 million by Seoul Guarantee Insurance Co., Ltd. in relation to a court deposit and licensing procedures.
- (2) In December 2012, the European Commission imposed the fine of EUR 150,840 thousand to the Group for Cathod Ray Tubes (CRT) price fixing, and the Group is appealing the decision to a court. Also, the Group is under investigations on CRT price fixing from the appropriate authorities of Japan and other countries, and buyers from the Europe and four other countries claimed for civil damages. Estimated losses concerning the investigations have been recognized by the Group, however, actual losses may be different from the amount estimated by the Group and the difference can be significant. In addition, concerning the lawsuits, the proceedings are in progress, and neither result of the lawsuits nor the impact on the financial statements can be reasonably determined. Based on legal advice, the management does not expect the outcome of the action to have a material effect on the Group's financial position. The Group does not disclose the details as it could affect the pending litigations.
- (3) In addition to the litigation described in note 19. (2) above, as of December 31, 2015, the Group is a defendant in 14 cases in domestic and foreign jurisdictions arising from the ordinary course of business. However, certain information as required by the related K-IFRSs has not been disclosed as such disclosures may be prejudicial to the outcome of these cases. While the amount and the timing of outflow of resources from the litigations are uncertain, the impact on the consolidated financial statements cannot be reasonably estimated and does not materially affect the consolidated financial statements of the Group.

### 19. Commitment and Contingencies, Continued

(4) The group has following borrowing commitments as of December 31, 2015

(In thousands of USD, CNY and EUR and hundred millions of won)

	Currency	Credit limit	Name of financial institution
Bank overdrafts	KRW	435	Woori and 4 others
	USD	120,000	HSBC and 3 others
	CNY	800,000	Bank of China and 1 other
General purpose loans	KRW	1,050	KEB Hana and 1 others
	USD	6,000	BBCN
	EUR	3,000	Citi
	CNY	12,000	Woori
Note receivable discount	KRW	840	KEB Hana
Trade financing(Local L/C)	KRW	1,050	KEB Hana and 2 others
A/S, Usance	USD	220,300	Woori and 4 others
Loans for Import trade	USD	105,000	Deutsche and 2 others
Guarantee payments for foreign currency	USD	120,000	Woori and 1 others
D/A, D/P, O/A	USD	1,040,525	KEB Hana and 6 others
Secured loan of credit sales	KRW	2,540	Woori and 5 others

- (5) In accordance with technical license agreements, the Group recorded royalty expenses of ₩16,279 million and ₩5,338 million for the years ended December 31, 2015 and 2014, respectively.
- (6) As of December 31, 2015, the Group provides a guarantee up to  $\upmathbb{W}11,412$  million relating to the borrowings for rented housing to its employees.
- (7) Group has signed buy and sell contract with Hanwha Chemical and Hanwha Energy ("buyer") at November 26, 2014, and according to the contract, If Hanwha General Chemical Co., Ltd. (e.g. Samsung General Chemical Co., Ltd) is not listed within 6 years (or 7 years if buyer asks) from June 29, 2015, Group has put option of 1,721,156 equity securities. And the buyer also has call option of 1,721,156 equity securities in the same period and equivalent condition. The exercise price of the call option is equal to the higher of the two prices mentioned below.

Price 1: price per share that is obtained by (i) dividing Enterprise Value by EBITDA and multiplying the quotient resulting from clause (i) above by the price per share on the prior year's Modified EBITDA.

Price 2: 32,255 per share

Group did not evaluate the fair value of the option as the basis data for evaluation were not reliable.

# 20. Capital Stock and Capital Surplus

# (1) Capital stock

Ordinary shares and preferred shares issued and outstanding as of December 31, 2015 and 2014 are summarized as follows:

# 1) 2015

(In shares)	Issued shares	Treasury shares	Outstanding shares
Ordinary shares			
January, 01	68,764,530	35,891	68,728,639
December, 31	68,764,530	35,891	68,728,639
Preferred shares	1,617,896	108,402	1,509,494

## 2) 2014

Issued shares	Treasury shares	Outstanding shares
45,558,341	2,178,399	43,379,942
-	(2,178,399)	2,178,399
-	35,781	(35,781)
23,206,189	110	23,206,079
68,764,530	35,891	68,728,639
1,617,896	108,402	1,509,494
	45,558,341 - - 23,206,189 68,764,530	45,558,341 2,178,399 - (2,178,399) - 35,781 23,206,189 110 68,764,530 35,891

# (2) Capital surplus as of December 31, 2015 and 2014 are summarized as follows:

(In thousands of won)		2015	2014
Capital in excess of par value	₩	4,838,550,738	4,838,550,738
Other capital surpluses		192,693,468	194,049,777
Total	₩	5,031,244,206	5,032,600,515

#### 20. Capital Stock and Capital Surplus, Continued

(3) Dividends declared by board of directors after the reporting period as of December 31, 2015 and 2014 are summarized as follows. Dividends for 2014 are not yet paid and there are no income tax effect relating to these dividends.

`(In thousands of won)		2015	2014
Common share (2015: ₩1,000 per share, 2014: ₩1,000 per share)	₩	68,728,639	68,728,639
Preferred share (2015: ₩1,050 per share, 2014: ₩1,050 per share)		1,584,969	1,584,969
	₩	70,313,608	70,313,608

# 21. Other Capital

(1) Other capital as of December 31, 2015 and 2014 are summarized as follows:

(In thousands of won)		2015	2014
Treasury shares	₩	(10,848,672)	(10,848,672)

(2) As of December 31, 2015, the Parent Company has common stock of 35,891 shares and preferred stock of 108,402 shares acquired at market value as treasury (other capital) and the Parent Company is planning to dispose of these shares according to market conditions.

## 22. Accumulated Other Comprehensive Income

Accumulated other comprehensive income as of December 31, 2015 and 2014 are summarized as follows:

(In thousands of won)		2015	2014
Effective portion of changes in fair value of cash flow hedges	₩		(279,630)
Gain in fair value of available-for-sale financial assets Gain in fair value of available-for-sale financial assets		420,510,383	1,141,478,992
(Non-current assets held for sale)		166,452,645	-
Unrealized holding gain on equity method investments		445,747,328	432,046,368
Unrealized holding loss on equity method investments		(210,338,271)	(168,282,179)
Loss on translation of foreign operations		(40,623,093)	(59,317,393)
Total	₩	781,748,992	1,345,646,158

### 23. Retained Earnings

(1) Retained earnings as of December 31, 2015 and 2014 are summarized as follows:

(In thousands of won)		2015	2 014
Legal reserve	₩	130,733,135	122,926,470
Discretionary reserve		4,875,098,000	5,141,818,000
Undisposed accumulated deficit		(152,691,563)	(402,422,557)
Total	₩	4,853,139,572	4,862,321,913

# 23. Retained Earnings, Continued

(2) Statements of appropriation of retained earnings the years ended December 31, 2015 and 2014 are summarized as follows:

(In thousands of won)		2015	2014
I . Undisposed accumulated deficit	₩	(134,565,949)	(189,364,100)
Balance at beginnings of year		10,931	1,199
Defined benefit plan remeasurement etc.		7,357,961	(22,365,558)
Loss for the year		(141,934,841)	(166,999,741)
II. Transfer from reserves		211,920,000	266,720,000
Reserve for facility		211,920,000	266,720,000
Ⅲ. Appropriated retained earnings		(77,344,969)	(77,344,969)
Legal reverse		(7,031,361)	(7,031,361)
Dividends	_	(70,313,608)	(70,313,608)
IV. Unappropriated retained earnings to be carried over to subsequent year	₩	9,082	10,931

Above statements of appropriation of retained earnings are prepared based on Parent Company's separate financial statements. The Statements are to be approved on March 11, 2016

# 24. Selling, General, and Administrative Expenses

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

(In thousands of won)		2015	2014
Salaries and wages	₩	268,523,982	123,213,810
Defined benefit liabilities		20,032,894	42,959,900
Employee fringe benefits		65,574,603	46,502,180
Depreciation		100,592,543	64,448,469
Research and development expenses		571,018,124	353,723,802
Supplies and repair cost		9,931,483	7,168,444
Transportation cost		23,754,305	17,105,020
Insurance expenses		13,020,896	8,663,396
Selling and distribution cost		125,819,888	79,143,213
Fees and commissions		98,640,451	46,417,430
Rental expenses		12,723,560	8,111,710
Others		133,337,602	60,469,364
Total	₩	1,442,970,331	857,926,738

# 25. The Nature of Expenses

The nature of certain expenses for the years ended December 31, 2015 and 2014 are summarized as follows:

(In thousands of won)	<u> </u>	2015	2014
Salaries and wages	₩	962,014,434	581,433,421
Accrual for retirement and severance benefits		81,691,045	78,781,508
Employee fringe benefits		276,012,382	179,245,154
Depreciation		533,121,241	414,377,636
Amortization		130,321,915	79,200,415
Total	₩	1,983,161,017	1,333,038,134

# 26. Other Income and Other Expenses

(1) Other income for the years ended December 31, 2015 and 2014 are summarized as follows:

(In thousands of won)		2015	2014
Dividends income	₩	19,378,257	11,381,936
Rental income		793,959	569,674
Reversal of allowance for doubtful accounts		82,894	325,166
Gain on sale of available-for-sale assets		621,643,676	146,299,750
Gain on disposal of associates		30,705,422	-
Gain on sale of property, plant and equipment		19,543,283	2,919,884
Gain on sale of investment assets		-	204,670
Damage compensation		69,105,595	-
Miscellaneous income		83,480,066	71,899,579
Total	₩	844,733,152	233,600,659

(2) Other expenses for the years ended December 31, 2015 and 2014 are summarized as follows:

(In thousands of won)	2015		2014
Bad debt expenses-other	₩	-	23,044
Loss on sale of available-for-sale assets		2,514,419	-
Loss on impairment for available-for-sale assets		138,003,168	221,056,218
Loss on disposal of associates and joint ventures		-	12,896
Donation		5,362,564	7,395,883
Loss on disposal of property, plant and equipment		39,314,575	22,943,821
Loss on impairment for property, plant and equipment		135,969,586	5,234,231
Loss on restoration for property, plant and equipment		21,000	-
Loss on disposal of intangible assets		8,266,608	149,895
Loss on impairment for intangible assets		3,866,307	12,001,115
Loss on disuse for investment property		55,757,054	-
Legal expense and other		615,888,322	34,301,216
Total	₩	1,004,963,603	303,118,319

### 27. Financial Income and Financial Cost

Finance income and costs for the years ended December 31, 2015 and 2014 are summarized as follows:

### (1) 2015

(In thousands of won)		Interest income / expense	Foreign currency transaction gain / loss	Foreign currency translations gain / loss	Gain / loss on transaction of derivatives
Cash and cash equivalents	₩	11,361,905	5,868,363	30,811	-
Loans and receivables		8,739,878	105,602,622	8,143,466	-
Financial instruments		20,384,794	593,363	(44,800)	-
Other financial liabilities		(54,259,848)	(111,097,183)	(14,854,295)	-
Derivative financial assets	_	<u> </u>			(1,248,330)
Total	₩_	(13,773,271)	967,165	(6,724,818)	(1,248,330)

### (2) 2014

(In thousands of won)		Interest income / expense	Foreign currency transaction gain / loss	Foreign currency translations gain / loss	Gain / loss on transaction of derivatives
Cash and cash equivalents	₩	11,564,941	1,651,558	-	-
Loans and receivables		88,160	(21,323,513)	10,895,580	-
Financial instruments		13,283,163	(10,137,138)	(261)	-
Other financial liabilities		(40,815,696)	28,618,683	9,434,526	-
Derivative financial assets		_	<u>-</u> _		4,539,720
Total	₩	(15,879,432)	(1,190,410)	20,329,845	4,539,720

Interest expense recognized for the years ended 31, December 2015 and 2014 were  $\,$ \$\pm\$46,818 million and  $\,$ \$\pm\$46,075 million, respectively.

### 28. Income Tax Expense

(1) Income tax expense (benefit) for the years ended December 31, 2015 and 2014 are summarized as follows:

(In thousands of won)		2015	2014
Current income taxes	₩	67,518,471	50,145,951
Deferred income taxes from changes in temporary differences		(3,414,745)	(22,033,916)
Deferred income taxes from changes in tax credit carry forward		(50,662,582)	(13,731,220)
Deferred income taxes recorded in stockholders' equity		-	(41,598,918)
Others	_	(68,259)	1,211,959
Income tax expense (benefit)	₩	13,372,885	(26,006,144)
Continuing operations		13,372,885	47,249,364
Discontinued operations		-	(73,255,508)

(2) Deferred tax assets and liabilities recognized as stockholders' equity for the years ended December 31, 2015 and 2014 are summarized as follows:

### 1) 2015

(In thousands of won)

		Deferred tax assets					
	_	Before tax	(liabilities)	After tax			
Retained earnings, etc.	₩	24,178,463	16,091,821	40,270,284			
Capital surplus of equity method investee		23,237,831	(2,407,857)	20,829,974			
Capital movements of equity method investee		230,877,400	(66,373,444)	164,503,956			
Gain on valuation of available-for-sale Securities	_	773,689,416	(186,726,388)	586,963,028			
Total	₩	1,051,983,110	(239,415,868)	812,567,242			

#### 2) 2014

(In thousands of won)

	_	Before tax	Deferred tax assets (liabilities)	After tax
Retained earnings, etc.	₩	10,347,484	19,438,918	29,786,402
Capital surplus of equity method investee		23,237,831	(801,358)	22,436,473
Capital movements of equity method investee		248,806,137	(73,481,241)	175,324,896
Gain on valuation of available-for-sale Securities	_	1,506,472,980	(364,566,461)	1,141,906,519
Total	₩	1,788,864,432	(419,410,142)	1,369,454,290

Income tax related to gains/losses on sale of treasury stock and so on was recognized directly in capital surplus in equity and income tax related to defined benefit plan actuarial gains/losses and gains/losses on valuation of available-for-sale assets were recognized in other comprehensive income.

# 28. Income Tax Expense, Continued

(3) Reconciliation of effective tax rate for the years ended December 31, 2015 and 2014 are summarized as follows:

(In thousands of won)		2015	2014
Profit (loss) before income tax	₩	39,058,651	(106,320,582)
Statutory tax rate		24.2%	24.2%
Income tax using the Company's statutory tax rate		9,452,194	(25,729,581)
Adjustments			
Foreign withholding tax		23,889,152	16,478,662
Permanent differences		54,580,062	4,458,522
Loss carryforwards		-	2,046,576
Unrecognized temporary differences		(18,382,893)	18,989,333
Tax credits		(43,642,835)	(43,932,300)
Difference in tax rate		(1,727,934)	5,800,705
Adjustments for consolidation and other		(10,794,861)	(4,118,061)
Income tax expense	₩	13,372,885	(26,006,144)
Average effective tax rate		34.2%	24.5%

- (4) As of December 31, 2015, the tax effects of temporary differences were calculated by using expected tax rate for the year when the temporary differences are expected to be reversed. Applied tax rate is 24.2% for the realized portion after year of 2015.
- (5) Temporary differences and increase (decrease) in deferred tax assets (liabilities) as of December 2015 and 2014 are summarized as follows:

1) 2015								
(In thousands of wo	n)	Deductible (Ta	xable) tempora	ary difference	Deferred	Deferred tax assets (liabilities)		
		Beginning balance	Changes	Ending balance	Beginning balance	Changes	Ending balance	
Tangible/Intangible assets Investment in subsidiaries and	₩	(== ,= =,	(122,369,055)	(710,017,786)	16,973,766	(29,623,354)	(12,649,588)	
associates		(3,933,826,920)	146,322,434	(3,787,504,486)	(882,364,838)	(33,108,989)	(915,473,827)	
Inventories		25,249,977	14,487,047	39,737,024	6,110,494	3,505,866	9,616,360	
Accrued expenses Available-for-sale		494,446,414	266,600,560	761,046,974	119,656,032	64,517,336	184,173,368	
financial assets		(338,469,515)	(376,231,493)	(714,701,008)	(81,909,623)	(91,048,021)	(172,957,644)	
Others		(170,656,861)	204,522,376	33,865,515	(41,298,960)	42,934,778	1,635,818	
Sub total Deferred tax added	₩	(4,510,905,636)	133,331,869	(4,377,573,767)	(862,833,129)	(42,822,384)	(905,655,513)	
to capital		(1,788,864,432)	736,881,322	(1,051,983,110)	(419,410,142)	179,994,274	(239,415,868)	
Loss carry forwards		534,028,733	173,060,902	707,089,635	112,362,258	41,468,482	153,830,740	
Tax credit Temporary differences of		169,484,284	50,309,316	219,793,600	166,532,224	50,662,582	217,194,806	
subsidiaries		(28,136,078)	47,033,522	18,897,444	4,884,991	7,521,319	12,406,310	
Total	₩						(761,639,525)	

### 28. Income Tax Expense, Continued

(5) Temporary differences and increase (decrease) in deferred tax assets (liabilities) as of December 2015 and 2014 are summarized as follows: continued

#### 2) 2014

(In thousands of won)

		Beginning balance	Merger	Changes	Ending balance	Beginning balance	Merger	Changes	Ending balance
Tangible/Intangible assets Investment in	e ₩		(1,082,738,953)	32,230,474	(587,648,731)	112,012,059		16,610,871	16,973,766
subsidiaries and associates		(3,349,666,657)	(687,829,682)	(234,800,096)	(4,272,296,435)	(838,056,298)	(162,040,550)	35,822,387	(964,274,461)
Inventories		47,085,185	7,942,904	(29,778,112)	25,249,977	11,394,615	1,922,183	(7,206,304)	6,110,494
Accrued expenses	3	519,806,269	34,077,730	(59,437,585)	494,446,414	125,793,117	8,246,811	(14,383,896)	119,656,032
Others		11,668,655	(121,176,142)	(61,149,374)	(170,656,861)	1,931,666	(29,443,249)	(13,787,377)	(41,298,960)
Sub total Deferred tax	₩	(2,308,246,800)	(1,849,724,143)	(352,934,693)	(4,510,905,636)	(586,924,841)	(292,963,969)	17,055,681	(862,833,129)
added to capital		(1,394,169,829)	-	(394,694,603)	(1,788,864,432)	(324,900,571)	-	(94,509,571)	(419,410,142)
forwards		464,836,680	96,168,244	(26,976,191)	534,028,733	112,490,477	-	(128,219)	112,362,258
Tax credit Temporary differences of		149,177,132	3,623,872	16,683,280	169,484,284	149,177,132	3,623,872	13,731,220	166,532,224
subsidiaries		217,056,802	(135,345,890)	(109,846,990)	(28,136,078)	44,291,273	(42,678,389)	3,272,107	4,884,991
Total	₩								(998,463,798)

(6) The Group did not recognize deferred tax liabilities in the amount of ₩12,096,610 thousand for temporary differences and related deferred tax liabilities of ₩2,927,380 thousand relating to investment to its subsidiaries, as the Group is able to control the reversal of the temporary differences and it is probable that the temporary differences will not reverse in the foreseeable future.

### 29. Earning per Share

- (1) Basic earnings per share
- 1) Basic earnings per share for the years ended December 31, 2015 and 2014 are calculated as follows:
- (i) Ordinary Shares

(In thousands of won, except earnings per share)		2015	2014
Profit (loss) attributable to the owners of the Company	₩	53,846,138	(83,847,754)
Profit (loss) attributable to ordinary shares		52,615,073	(82,119,627)
Profit (loss) from continuing operations attributable to ordinary shares		52,615,073	145,318,190
Profit (loss) from discontinued operations attributable to ordinary shares		-	(227,437,817)
Weighted average number of ordinary shares (basic)		68,728,639	56,315,267
Basic earnings per share (won)		766	(1,458)
Basic earnings per share of continuing operations (won)		766	2,580
Basic earnings per share of discontinued operations (won)		-	(4,038)

# 29. Earning per Share, Continued

- (1) Basic earnings per share, continued
  - 1) Basic earnings per share for the years ended December 31, 2015 and 2014 are calculated as follows:, continued

### (ii) Preferred Shares

(In thousands of won, except earnings per share)	_	2015	2014
Profit (loss) attributable to the owners of the Company	₩	53,846,138	(83,847,754)
Profit (loss) attributable to preferred shares		1,231,065	(1,728,127)
Profit (loss) from continuing operations attributable to preferred shares		1,231,065	3,267,113
Profit (loss) from discontinued operations attributable to preferred shares		-	(4,995,240)
Weighted average number of preferred shares (basic)		1,509,494	1,509,495
Basic earnings per share (won)		816	(1,145)
Basic earnings per share of continuing operations (won)		816	2,164
Basic earnings per share of discontinued operations (won)		-	(3,309)

2) Weighted average number of ordinary shares for the years ended December 31, 2015 and 2014 are calculated as follows:

### (i) Ordinary Shares

(In shares)	2015	2014
Issued ordinary shares at January 1	68,764,530	45,558,341
Treasury stock	(35,891)	(941,536)
Shares issued related to a business combination		11,698,462
Weighted average number of common shares outstanding (basic)	68,728,639	56,315,267

#### (ii) Preferred Shares

(In shares)	2015	2014
Issued ordinary shares at January 1	1,617,896	1,617,896
Treasury stock	(108,402)	(108,401)
Weighted average number of common shares outstanding (basic)	1,509,494	1,509,495

Although this preferred shares don't have any priority rights, dividend ratio is different from other types of ordinary shares. So we considered this ordinary share as preferred one when we calculate the Basic earnings per share.

## (2) Diluted earnings per share

Diluted earnings per share are same as Basic earnings per share as there are no diluted effects for the years ended December 31, 2015 and 2014.

### 30. Related Parties

(1) Significant transactions with related parties for the years ended December 31, 2015 and 2014 are summarized as follows:

### 1) 2015

(In thousands of won)	Revenues	Other Income	Inventory purchase	Purchase of property plant and equipment	Other expenses
Associates					
Samsung Display Co., Ltd. ("SDC") and subsidiaries Samsung Economic Research Institute	₩ 645,204,721	56,366,641	-	306,494	3,656,498
Ltd.	-	-	-	-	5,964,067
SD Flex Co., Ltd.	137,232	813,425	8,112,313	-	53,222
Other affiliated corporations					
Samsung Electronics Co., Ltd. ("SEC") and subsidiaries	1,415,985,436	10,900,075	1,082,333	1,235,796	42,605,491
Total	₩ 2,061,327,389	68,080,141	9,194,646	1,542,290	52,279,278

#### 2) 2014

(In thousands of won)	Revenues	Other Income	Inventory purchase	Purchase of property plant and equipment	Other expenses
Associates					
Samsung Display Co., Ltd. ("SDC") and subsidiaries	₩ 345,495,285	60,303,942	11,588	-	4,649,465
Samsung Economic Research Institute Ltd.	-	-	-	-	5,890,288
SD Flex Co., Ltd.	-	449,740	4,103,220	-	12,421
Other affiliated corporations					
Samsung Electronics Co., Ltd. ("SEC"	")				
and subsidiaries	2,370,649,840	14,496,139	114,264,714	5,391,482	38,442,254
Total	₩ 2,716,145,125	75,249,821	118,379,522	5,391,482	48,994,428

(2) Details of significant account balances with related parties as of December 31, 2015 and 2014 are summarized as follows:

## 1) 2015

(In thousands of won)	_	Account receivable	Other receivable	Account payable	Other payable, etc
Associates					
Samsung Display Co., Ltd. ("SDC") and subsidiaries Samsung Economic Research Institute	₩	31,013,471	-	-	406,679
Ltd.		-	-	-	631,684
SD Flex Co., Ltd.		12,580	79,240	716,638	7,811
Other affiliated corporations					
Samsung Electronics Co., Ltd. ("SEC") and subsidiaries	_	102,843,569	3,951,409	120,889	90,392,036
Total	₩	133,869,620	4,030,649	837,527	91,438,210

#### 30. Related Parties, Continued

(2) Details of significant account balances with related parties as of December 31, 2015 and 2014 are summarized as follows:, continued

#### 2) 2014

(In thousands of won)

	Account receivable	Other receivable	Account payable	Other payable, etc.
Associates				
Samsung Display Co., Ltd. ("SDC") and subsidiaries ₩	32,414,014	24,599	-	72,623
Samsung Economic Research Institute Ltd.	-	-	-	874,164
SD Flex Co., Ltd.	12,580	74,247	614,800	3,615
Other affiliated corporations Samsung Electronics Co., Ltd. ("SEC") and				
subsidiaries	132,926,807	3,595,346	4,295	5,870,000
₩	165,353,401	3,694,192	619,095	6,820,402

(3) Personnel compensation in total to registered officers (the "key management") who have the authority and responsibility in the planning, directing, and control of the Group is ₩4,800 million and ₩5,302 million, for the years ended December 31, 2015 and 2014, respectively.

As of December 31, 2015 and 2014, liabilities related to long-term employee benefits for key management are \$5,253 million and \$3,916 million, respectively. In addition, liabilities related to retirement benefits for key management as of December 31, 2015 and 2014 are \$5,524 million and \$6,935 million, respectively.

# 31. Non-controlling Interest

Non-controlling interests as of and for the years ended December 31, 2015 and 2014 are summarized as follows:

## (1) 2015

(In millions of won)

(In millions of won)							
		SDI(M)	NOVALED	United States (SDIA and other)	China(TSDI and 6 others)	Others	Total
Current assets	₩ _	47,483	70,511	85,941	973,583	18,749	1,196,267
Non-current assets		55	109,058	12.805	594,470	42.310	758,698
Current liabilities		104,311	14.654	44.572	579.751	3,251	746,539
Non-current liabilities		-	31,317	16	112,653	20	144,006
Net assets		(56,773)	133,598	54,158	875.649	57,788	1,064,420
Carrying amount of non-		(00,770)	100,000	01,100	0,0,010	07,700	1,001,120
controlling interests		(25,138)	66,669	4,616	189.537	5,513	241,197
Sales		-	65,891	20,320	1,200,118	6,724	1,293,053
Net income (loss)		(99,633)	20,859	(30,162)	(54,858)	1,405	(162,389)
Total comprehensive income		(105,854)	11,666	(9,734)	(36,303)	(3,808)	(144,033)
Distributed net income (loss)							
of non-controlling interests		(31,297)	10,419	(999)	(6,240)	(43)	(28,160)
Cash flow from operating							
activities		45,364	41,752	(32,735)	122,751	(94)	177,038
Cash flow from investing							
activities		(29,072)	(4,157)	6,928	41,934	(10,092)	5,541
Cash flow from financing							
activities before payment							
on dividends of non-							
controlling Interest		-	-	-	152,324	(2,910)	149,414
Dividends attributed to							
non-controlling equity		<del>-</del>	-	-	(1,779)	(12)	(1,791)
Exchange rate change effect		(6,406)	104	8,452	28,339	(3,939)	26,550
Changes on cash and cash	147			(4-0)		(	
equivalents	₩	9,886	37,699	(17,355)	343,569	(17,047)	356,752

The condensed information on cash flows is translated to Korean Won based on the cash flow of subsidiaries before consolidation adjustments.

# 31. Non-controlling Interest, Continued

Non-controlling interests as of and for the years ended December 31, 2015 and 2014 are summarized as follows:, continued

#### (2) 2014

(In millions of won)

(In millions of won)	_	SDI(M)	NOVALED	United States (SDIA and other)	China(TSDI and 4 others)	Others	Total
Current assets	₩	76,678	34,936	98,788	656,265	26,353	893,020
Non-current assets		63	129,941	10,089	475,559	32,879	648,531
Current liabilities		29,499	8,853	27,739	262,394	3,610	332,095
Non-current liabilities		-	38,635	15	-	15	38,665
Net assets Carrying amount of non-		47,242	117,389	81,123	869,430	55,607	1,170,791
controlling interests		54,186	15,212	5,419	163,715	1,947	240,479
Sales		-	27,252	334,996	2,201,657	3,705	2,567,610
Net income (loss)		(8,051)	9,511	14,311	73,345	2,186	91,302
Total comprehensive income Distributed net income (loss) o	f	(9,246)	8,483	45,567	84,996	1,211	131,011
non-controlling interests Cash flow from operating		(4,163)	3,116	929	3,442	209	3,533
activities Cash flow from investing		(6,890)	7,836	31,432	195,694	7,176	235,248
activities  Cash flow from financing activities before payment on dividends of non-controlling		11,936	(2,723)	(302)	(29,049)	(4,655)	(24,793)
interest Dividends attributed to		-	(4,897)	(24,152)	(92,591)	(13,939)	(135,579)
non-controlling equity		-	-	(2,169)	(13,406)	(18)	(15,593)
Exchange rate change effect Changes on cash and cash		(182)	(704)	2,779	7,396	(893)	8,396
equivalents	₩	4,864	(488)	7,588	68,044	(12,329)	67,679

The condensed information on cash flows is translated to Korean Won based on the cash flow of subsidiaries before consolidation adjustments.

# 32. Discontinued Operation

The Group discontinued manufacturing and sales of PDP (Plasma Display Panel) division due to decreased demand of PDP in 2014. In addition, the Group discontinued division of solar energy battery due to uncertainty of the market. The comparative consolidated statement of comprehensive income is represented in order to show the discontinued operation separately from continuing operations.

#### 32. Discontinued Operation, Continued

(1) Profit or loss from discontinued operations for the year ended December 31, 2014 is summarized as follows:

(In thousands of won)		2014
Profit (loss) of discontinued operation:	₩	
Revenue		859,945,276
Expense		(1,165,633,841)
Loss of discontinued operation before income tax		(305,688,565)
Income tax expense (benefit)		(73,255,508)
Loss of discontinued operations	₩_	(232,433,057)
Basic earnings per share for ordinary shares (won)		(4,038)
Basic earnings per share for preferred shares (won)		(3,309)

(2) Cash flow from (used in) discontinued operations for the year ended December 31, 2014 is summarized as follows:

(In thousands of won)		2014
Cash flows from (used in) operating activities	₩	10,158,610
Cash flows from (used in) investing activities		1,407,502
Cash flows from (used in) financing activities		-
Cash flows from (used in) discontinued operation	₩	11,566,112

#### 33. Non-current Assets Held for Sale

Non-current assets held for sale as of December 31, 2015 and 2014 are summarized as follows:

(In thousands of won)		2015	2014
Tangible assets (*1)	₩	12,504,954	6,456,871
Other non-current assets (*1)		11,332,749	-
Available-for-sale financial assets (*2)		834,566,256	
Total	₩	858,403,959	6,456,871

- (\*1) The Group committed to a plan to sell shares and tangible assets of a subsidiary and started to select a buyer. For the year ended December 31, 2015, the group classified non-current assets of subsidiaries into non-current assets held for sale due to expectation that the assets are supposed to be disposed of.
- (\*2) Korea Fair Trade Commission demanded group to designate the investment stock of 5,000,000 shares of Samsung C&T Corporation from 9,042,758 shares that Group has as Non-current Assets Held. In addition Board of director decided to dispose all of Samsung Fine Chemicals Co., Ltd's shares to Lotte Chemical Corporation in October 30, 2015. So the Group classified ₩134,556 million of available-for-sale financial assets to Non-current Assets Held for Sale. This Non-current Assets will be disposed of in the first half of 2016.

#### 34. Business Combination

#### (1) Acquiring of automotive battery business

In 2015, SDIBS obtained control of Magna Styer Battery Systems GmbH & Co. OG (the "MSBS") by acquiring 100% of its shares from Magna international Inc. SDIA took over assets and liabilities of Battery Systems segment of Magna E-car Systems of America LLC from Magna international Inc.

#### 1) General details

Plan	Details
Acquiree	Magna Styer Battery Systems GmbH & Co. OG
Purpose of acquisition	Expansion of automotive battery business
Date of acquisition	May 01, 2015

In the eight month period after the acquisition, MSBS recognized revenue of  $\mbox{$W$72,828$}$  million and loss of  $\mbox{$W$10,837$}$  million. If the acquisition had occurred on January 1, 2015, management estimates that consolidated revenue of  $\mbox{$W$18,442$}$  million and consolidated loss of  $\mbox{$W$7,213$}$  million would have been additionally recognized. In determining these amounts, management has assumed that the fair value adjustments, determined provisionally, that arose on the date of acquisition would have been the same if the acquisition had occurred on January 1, 2015.

#### 2) Consideration Transferred

SDIBS and SDIA paid the acquisition price of EUR 100,562 thousand and EUR 8,000 thousand to Magna International Inc. in cash, and there is no other or contingent consideration to transfer.

#### 3) Identifiable assets acquired and liabilities assumed

(i) Amount of assets acquired and liabilities assumed as of July 1, 2015 as follows:

(In thousands of won)	Amount	
Property, plant and equipment	₩	32,541,376
Intangible assets		23,863,972
Inventories		6,822,777
Cash and cash equivalents		17,975,745
Trade receivables and other assets		22,107,072
Borrowings		(1,448,285)
Trade payables and other liabilities		(24,095,810)
Identifiable net assets	₩	77,766,847

# 34. Business Combination, Continued

- (1) Acquiring of automotive battery business, continued
  - 3) Identifiable assets acquired and liabilities assumed, continued
  - (ii) Fair value measurements

Valuation methods, used to measure the fair value of acquired significant assets, are as follows:

Acquired assets	Valuation method
Property, plant and equipment	Market comparison technique and cost technique: The valuation model considers quoted market prices for similar items when they are available, and depreciated replacement cost when appropriate. Depreciated replacement cost reflects adjustments for physical deterioration as well as functional and economic obsolescence.
Intangible assets	Relief-from-royalty method and multi-period excess earnings method: The relief-from-royalty method considers the discounted estimated royalty payments that are expected to be avoided as a result of the patents or trademarks being owned. The multi-period excess earnings method considers the present value of net cash flows expected to be generated by the customer relationships, by excluding any cash flows related to contributory assets.

# 4) Goodwill

Goodwill was recognized as a result of the merger as follows:

(In thousands of won)		Amount
Total consideration transferred	∀	129,961,228
Less : Fair value of identifiable net assets		77,766,847
Goodwill	₩	52,194,381

# 34. Business Combination, Continued

# (2) Acquiring of materials of battery business

The Group obtained battery business unit from Samsung Fine Chemicals Co., Ltd. to enforce competitiveness in the battery material market in September 16, 2015 in accordance with the resolution of Board of Directors' meeting held on August 28, 2015 as follows:

(In thousands of won)		Amount
Consideration transferred(*)	₩	10,092,595
Identifiable net assets		
Property, plant and equipment		8,967,507
Intangible assets		2,221,804
Other assets		92,266
Liabilities		(1,188,982)
Less: Fair value of identifiable net assets		(10,092,595)
Goodwill	₩	

(\*) There was no other consideration or contingent consideration transferred other than the cash and cash equivalents.

#### (3) Acquiring of STM

The Group acquired 57.98% of STM's shares and obtained the control to enforce the competitiveness in the battery material market in September 16, 2015 in accordance with the resolution of Board of Directors' meeting held on August 28th, 2015. In addition, the Group acquired all the remaining shares of STM in the amount of ₩4,423 million from the external stock holders.

# 1) General details

Plan	Details
Acquiree	STM Co., Ltd.
Purpose of acquisition	Enforce the competitiveness in manufacturing Cathode Material which is key material in Secondary Cell Battery.
Date of acquisition	September 16, 2015

In the four month period after the acquisition, STM recognized revenue of  $\mbox{$W$}7,569$  million and loss of  $\mbox{$W$}2,792$  million. If the acquisition had occurred on January 1, 2015, management estimates that consolidated revenue of  $\mbox{$W$}19,701$  million and consolidated loss of  $\mbox{$W$}9,248$  million would have been additionally recognized. In determining these amounts, management has assumed that the fair value adjustments, determined provisionally, that arose on the date of acquisition would have been the same if the acquisition had occurred on January 1, 2015.

#### 2) Consideration Transferred

(In thousands of won)		Amount
Cash and cash equivalents	₩	8,924,417
Fair value of the shares which Group had before the business Combination(*)		2,130,748
Total	₩	11,055,165

# 34. Business Combination, Continued

- (3) Acquiring of STM, continued
- 2) Consideration Transferred, continued
- (\*) Group recognized ₩1,699,826 of loss on disposal of available-for-sale financial assets as Group reassess 13.85% STM Co., Ltd's shares, which Group had had before, with fair value and classified it to other expenses.
- 3) Identifiable assets acquired and liabilities assumed
- (i) Amount of assets acquired and liabilities assumed as of May 1, 2015 as follows:

(In thousands of won)		Amount
Cash and cash equivalents	₩	19,333
Trade receivables and other assets		3,555,215
Inventories		10,421,048
Other assets		1,031,177
Property, plant and equipment		58,279,045
Intangible assets		1,404,617
Other non-current assets		40,000
Trade and other payables		(2,129,274)
Borrowings		(56,110,416)
Other liabilities	_	(4,050,576)
Identifiable net assets	₩	12,460,169

### (ii) Fair value measurements

Valuation methods, used to measure the fair value of acquired significant assets, are as follows:

Acquired assets	Valuation method
Property, plant and equipment	Market comparison technique and cost technique: The valuation model considers quoted market prices for similar items when they are available, and depreciated replacement cost when appropriate. Depreciated replacement cost reflects adjustments for physical deterioration as well as functional and economic obsolescence.
Intangible assets	Relief-from-royalty method and multi-period excess earnings method: The relief-from-royalty method considers the discounted estimated royalty payments that are expected to be avoided as a result of the patents or trademarks being owned. The multi-period excess earnings method considers the present value of net cash flows expected to be generated by the customer relationships, by excluding any cash flows related to contributory assets.
Inventories	Market comparison technique: The fair value is determined based on the estimated selling price in the ordinary course of business less the estimated costs of completion and sale, and a reasonable profit margin based on the effort required to complete and sell the inventories.

# 34. Business Combination, Continued

#### (3) Acquiring of STM, continued

#### 4) Goodwill

Goodwill was recognized as a result of the merger as follows:

(In thousands of won)	_	Amount
Total consideration transferred	₩	11,055,165
Non-controlling interests		3,511,094
Less : Fair value of identifiable net assets	_	(12,460,169)
Goodwill	₩	2,106,090

# (4) Merger with Cheil Industries. Inc.

The Parent Company merged with former Cheil Industries Inc. on July 1, 2014 resulting in the Parent Company as a surviving company and former Cheil Industries Inc. as an extinct company in accordance with resolution of the board of directors meeting held on March 31, 2014.

#### 1) General Details

Plan	Details
Extinct company	Cheil Industries Inc.(CEO: CHO, NAM SUNG)
Purpose of merger	Strengthening SDI's competitiveness in lithium-ion battery
	business by utilizing the capabilities of Cheil industries Inc.
	in materials parts, and system sectors and expanding its
	business to various industries such as chemicals and
	electronic materials.
Shares of merger	Offering 0.4425482 shares of surviving company for each
	share of extinct company
Date of merger	July 1, 2014

In the six month period after the merger, former Cheil Industries Inc. (referred to as material division) recognized revenue of  $\mbox{$W$2,146,763$}$  million and loss of  $\mbox{$W$86,773$}$  million. If the merger with materials division had occurred at January 1, 2014, management estimates that total revenue before eliminating discontinued operation revenue would have been  $\mbox{$W$8,430,738$}$  million and loss would have been  $\mbox{$W$56,774$}$  million. These estimated amounts are computed based on the assumption that fair value adjustments as of January 1, 2014 are the same as at the date of acquisition.

#### 2) Consideration transferred

The Parent Company granted 23,206,189 shares to former Cheil Industries Inc.'s shareholders by issuing new shares. The stock price, 162,000 won per share as of the date of merger, was used to calculate the consideration transferred and there was no other consideration or contingent consideration transferred other than the common stocks.

# 34. Business Combination, Continued

- (4) Merger with Cheil Industries. Inc., continued
- 3) Identifiable assets acquired and liabilities assumed
- i) Amount of assets acquired and liabilities assumed as of July 1, 2014 as follows:

(In thousands of won)		Amount
Property, plant and equipment	₩	1,646,902,943
Intangible assets		439,716,500
Inventories		346,214,158
Cash and cash equivalents		71,446,653
Subsidiaries and related company		12,274,690
Other investments		1,776,424,905
Trade receivables and other assets		518,235,417
Borrowings		(963,161,215)
Deferred tax liabilities		(332,413,715)
Trade payables and other liabilities		(430,288,735)
Identifiable net assets		3,085,351,601

# ii) Fair value measurements

Valuation methods, used to measure the fair value of acquired significant assets, are as follows:

Acquired assets	Valuation method
Property, plant and equipment	Market comparison technique and cost technique: The valuation model considers quoted market prices for similar items when they are available, and depreciated replacement cost when appropriate. Depreciated replacement cost reflects adjustments for physical deterioration as well as functional and economic obsolescence.
Intangible assets	Relief-from-royalty method and multi-period excess earnings method: The relief-from-royalty method considers the discounted estimated royalty payments that are expected to be avoided as a result of the patents or trademarks being owned. The multi-period excess earnings method considers the present value of net cash flows expected to be generated by the customer relationships, by excluding any cash flows related to contributory assets.
Inventories	Market comparison technique: The fair value is determined based on the estimated selling price in the ordinary course of business less the estimated costs of completion and sale, and a reasonable profit margin based on the effort required to complete and sell the inventories.

# 34. Business Combination, Continued

- (4) Merger with Cheil Industries. Inc., continued
- 4) Goodwill

Goodwill was recognized as a result of the merger as follows:

(In thousands of won)
Total consideration transferred
Fair value of identifiable net assets
Non-controlling interests
Goodwill

	Amount
₩	3,759,384,798
	3,085,351,601
	(60,089,423)
₩	734.122.620

# 35. Statement of Cash Flows

Adjustment and Changes in assets and liabilities for Cash Flows from Operating Activities for the years ended December 31, 2015 and 2014 are summarized as follows:

# (1) Adjustment for Cash Flows from Operating Activities

(In thousands of won)	2015	2014
Expenses for employee benefits	80,732,390	66,845,666
Loss (reversal) on valuation of inventories	26,990,184	(31,673,272)
Depreciation	533,121,241	444,184,243
Amortization	130,321,915	88,509,369
(Reversal of) bad debt expense	883,572	(3,957,162)
(Reversal of) other bad debt expense	(82,894)	(296,090)
Commission fee	5,156,716	8,711,349
Share of profit of equity accounted investees	(279,900,382)	(190,268,412)
Loss on sale of investments in equity-accounted investees	-	12,896
Gain on sale of investments in equity-accounted investees	(30,705,422)	-
Loss on sale of available-for-sale financial assets	2,514,419	-
Gain on sale of available-for-sale financial assets	(621,643,676)	(146,299,750)
Impairment losses on available-for-sale financial assets	138,003,168	221,056,218
Foreign currency translations loss	16,988,519	12,933,635
Foreign currency translations gain	(10,263,701)	(15,902,972)
Gain on valuation of derivatives	-	(4,539,720)
Loss on derivatives transaction	1,248,330	-
Loss on sale of property, plant and equipment	39,314,575	23,093,556
Gain on sale of property, plant and equipment	(19,543,283)	(3,595,596)
Impairment losses on property, plant and equipment	135,969,586	45,898,430
Loss on restoration of property, plant and equipment	21,000	-
Loss on sale of intangible assets	8,266,608	149,894
Impairment losses on intangible assets	3,866,307	15,142,459
Gain on sale of investment property	-	(204,670)
Impairment losses on investment property	55,757,054	-
Legal expense and other	175,252,160	312,424
Miscellaneous income	(303,966)	(72,695,951)
Damage compensation	(69,105,595)	-
Income tax expense (benefit)	13,372,885	(26,006,144)
Interest expense	46,818,157	46,074,766
Interest income	(33,044,886)	(26,010,113)
Dividends income	(19,378,257)	(11,381,936)
Total =	330,626,724	440,093,117

# 35. Statement of Cash Flows, Continued

Adjustment and Changes in assets and liabilities for Cash Flows from Operating Activities for the years ended December 31, 2015 and 2014 are summarized as follows:, continued

### (2) Changes in assets and liabilities for Cash Flows from Operating Activities

	2015	2014
Changes in assets and liabilities:		
Trade receivables	(31,946,018)	272,274,228
Other receivables	285,151,064	25,724,940
Other current assets	17,276,903	(3,894,477)
Inventories	17,413,607	139,780,486
Non-current trade receivables	(87,053)	-
Non-current other receivables	87,572,542	(4,884,456)
Non-current other assets	(72,620,093)	-
Trade payables	(20,459,354)	(213,003,867)
Other payables	154,044,330	(75,033,036)
Advance received	23,903,785	9,453,245
Unearned revenue	55,947,368	(734,588)
Non-current other payables	115,773,515	12,650,171
Payment of retirement and employee benefits	(34,086,928)	(43,072,705)
Transfer in from related parties for employee benefits	5,221,974	1,443,667
Plan assets	20,531,883	(110,577,566)
Total	623,637,525	10,126,042

# 36. Subsequent Events

#### (1) General Deatails

The Group decided to spin off Chemical department as a separate entity in order to establish a Battery Business-Centered portfolio. The Group also decided to dispose 90% shares of this Chemical Department to Lotte Chemical Corporation Co., Ltd. by ₩2,326,500 million in accordance with the resolution of the Board of directors' meeting held on October 30, 2015. The detailed schedule of the business transfer is as follows:

Plan	Date
The date of Board of Directors' meeting (Date of the transfer contract signed)	October 30, 2015
The date of Board of Directors' meeting held for deciding the spin-off and	
convocation of extraordinary meeting of shareholders	November 13, 2015
Extraordinary meeting of shareholders for approval of spin-off	January 25, 2016
Date of spin-off	February 1, 2016
Disposal of Shares	First half of 2016(Estimated)

# 36. Subsequent Events, Continued

# (2) Operation performance of Divided Business Department

Operation performance of Divided Business Department for the years ended December 31, 2015 and 2014 are as follows. Group reflected the possibility of Shareholders' approval for the spin-off when Group assessed the possibility of transferring business department.

Group expected that the possibility of Business Transfer is not high by the date of approving Financial Statements. Consequently, Group did not distinguish Assets and Liabilities for Divided Business department as Non-Current Assets held for sale and did not separate operational performance of Divided Business department

(In thousands of won except earnings per share)		2015	2014
Revenue	₩	2,614,469,494	1,349,039,901
Cost of sales		(2,071,450,047)	(1,173,430,318)
Gross profit		543,019,447	175,609,583
Selling, general and administrative expenses		(335,357,578)	(162,052,679)
Operating income		207,661,869	13,556,904
Other income		41,359,973	12,844,843
Other expenses		(40,220,696)	(10,466,173)
Finance income		65,420,280	26,279,280
Finance costs		(65,046,542)	(30,288,014)
Profit before income taxes		209,174,884	11,926,840
Income tax expense		53,220,760	5,111,688
Profit for the year	₩	155,954,124	6,815,152