DOOSAN ENGINE CO., LTD. AND SUBSIDIARY

CONSOLIDATED FINANCIAL STATEMENTS
AS OF AND FOR THE YEARS ENDED DECEMBER 31, 2014 AND 2013,
AND INDEPENDENT AUDITORS' REPORT

INDEPENDENT AUDITORS' REPORT

English Translation of Independent Auditors' Report Originally Issued in Korean on March 18, 2015

To the Stockholders and the Board of Directors of
Doosan Engine Co., Ltd.:

Report on the Financial Statements

We have audited the accompanying consolidated financial statements of Doosan Engine Co., Ltd. (the "Company") and subsidiary, which comprise the consolidated statements of financial position as of December 31, 2014 and 2013, and the consolidated statements of income, consolidated statements of comprehensive income, consolidated statements of changes in stockholders' equity and consolidated statements of cash flows for the years then ended, and 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 consolidated financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

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

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

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

Opinion

In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company and its subsidiary as of December 31, 2014 and 2013, and its financial performance and its cash flows for the years then ended in accordance with K-IFRS.

Others

We conducted our audit of consolidated financial statements of the Company and its subsidiary as of and for the year ended December 31, 2013, in accordance with the former KSAs, known as auditing standards generally accepted in Korea.

Deloitte Anjin LLC

March 18, 2015

Notice to Readers

This report is effective as of March 18, 2015, the auditors' report date. Certain subsequent events or circumstances may have occurred between the auditor's report date and the time the auditors' report is read. Such events or circumstances could significantly affect the financial statements and may result in modifications to the auditors' report.

DOOSAN ENGINE CO., LTD. (the “Company”)
AND SUBSIDIARY

CONSOLIDATED FINANCIAL STATEMENTS
AS OF AND FOR THE YEARS ENDED DECEMBER 31, 2014 AND 2013

The accompanying consolidated financial statements, including all footnote disclosures, were prepared by, and are the responsibility of, the Company.

Kim, Dong-Chul
Chief Executive Officer
Doosan Engine Co., Ltd.

DOOSAN ENGINE CO., LTD. AND SUBSIDIARY
CONSOLIDATED STATEMENTS OF FINANCIAL POSITION
AS OF DECEMBER 31, 2014 AND 2013
(In Korean won)

ASSETS	Notes	December 31, 2014	December 31, 2013
CURRENT ASSETS:			
Cash and cash equivalents	4 and 10	₩44,998,938,029	₩41,595,115,118
Short-term financial instruments	4 and 10	37,810,000,000	145,000,000,000
Short-term investment securities	4,8 and 10	7,000,000,000	-
Short-term loans receivables	4 and 10	1,100,900,000	9,155,850,000
Trade and other receivables	4,6,10,14,30 and 32	72,188,500,680	25,567,476,650
Gross amount due from customers for contract work	23	12,999,974,380	10,720,649,184
Prepaid income tax		1,059,722,158	1,136,878,000
Current derivative assets	9 and 10	2,489,829,322	40,345,302,756
Current firm commitment assets	9	41,236,094,869	20,346,022,821
Inventories	7	198,526,846,745	178,073,680,138
Other current assets		18,006,339,063	17,241,946,635
Total current assets		437,417,145,246	489,182,921,302
NON-CURRENT ASSETS:			
Long-term financial instruments	4,5,10 and 31	1,934,858,690	1,803,167,918
Long-term investment securities	4,8 and 10	72,048,000	7,072,048,000
Investments in associates	11 and 31	408,566,082,873	460,319,182,449
Long-term loans receivables	4 and 10	3,116,039,530	4,753,397,044
Long-term other receivables	4,6 and 10	10,701,073,220	9,693,320,091
Property, plant and equipment	3 and 12	607,104,335,784	627,445,657,537
Intangible assets	3 and 13	41,680,034,311	25,003,673,530
Non-current derivative assets	9 and 10	722,321,724	6,095,491,976
Non-current firm commitment assets	9	25,860,296,653	26,435,478,337
Deferred income tax assets	3 and 28	-	1,562,546,141
Other non-current assets		3,122,351,602	3,241,722,244
Total non-current assets		1,102,879,442,387	1,173,425,685,267
TOTAL ASSETS		₩1,540,296,587,633	₩1,662,608,606,569

(Continued)

DOOSAN ENGINE CO., LTD. AND SUBSIDIARY
CONSOLIDATED STATEMENTS OF FINANCIAL POSITION (CONTINUED)
AS OF DECEMBER 31, 2014 AND 2013
(In Korean won)

LIABILITIES AND STOCKHOLDERS' EQUITY	Notes	December 31, 2014	December 31, 2013
CURRENT LIABILITIES:			
Trade and other payable	4,10 and 32	₩125,098,377,971	₩89,569,231,247
Gross amount due to customers for contract work	23	14,568,457,756	3,773,450,411
Short-term borrowings	4,10,14 and 30	18,449,026,675	5,874,374,586
Advance receipts		271,795,996,146	321,969,651,812
Current portion of long-term borrowings	4,10 and 14	51,591,290,000	63,318,000,000
Income tax payable		-	3,822,392,136
Current derivative liabilities	9 and 10	14,866,327,518	2,615,663,130
Current firm commitment liabilities	9	14,768,025,920	34,731,375,957
Financial warranty liabilities	10 and 31	32,473,851	34,344,231
Current liability provisions	3 and 16	1,916,319,087	-
Other current liabilities		16,588,492,436	12,434,433,449
Total current liabilities		529,674,787,360	538,142,916,959
NON-CURRENT LIABILITIES:			
Long-term borrowings	4,9,10 and 14	45,000,000,000	53,133,620,000
Bonds	4,10 and 14	189,259,736,473	189,044,616,891
Long-term other payable	4 and 10	2,041,003,081	1,312,295,279
Retirement benefit obligation	3 and 15	11,865,665,028	10,608,946,661
Non-current derivative liabilities	9 and 10	7,306,319,851	279,647,734
Non-current firm commitment liabilities	9	13,108,076,384	21,394,738,642
Financial warranty liabilities	10 and 31	4,581,819,663	2,942,780,895
Liability provisions	3 and 16	1,949,715,661	10,097,900,058
Deferred income tax liabilities	3 and 28	34,807,787,599	45,613,681,912
Total non-current liabilities		309,920,123,740	334,428,228,072
TOTAL LIABILITIES		839,594,911,100	872,571,145,031
STOCKHOLDERS' EQUITY			
Share capital	1 and 17	69,500,000,000	69,500,000,000
Capital surplus	17	367,214,701,425	367,214,701,425
Other capital items	18	550,159,285	355,389,958
Accumulated other comprehensive income (loss)	12 and 19	(33,724,240,471)	4,438,398,121
Retained earnings	20	297,161,056,294	348,528,972,034
Equity attributable to owners of the parent company		700,701,676,533	790,037,461,538
Non-controlling interests		-	-
TOTAL STOCKHOLDERS' EQUITY		700,701,676,533	790,037,461,538
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY		₩1,540,296,587,633	₩1,662,608,606,569

(Concluded)

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

DOOSAN ENGINE CO., LTD. AND SUBSIDIARY
CONSOLIDATED STATEMENTS OF INCOME
FOR THE YEARS ENDED DECEMBER 31, 2014 AND 2013
(In Korean won)

	Notes	2014	2013
SALES	3,21,22,23 and 32	₩888,825,954,619	₩743,878,585,197
COST OF SALES	24,30 and 32	(887,155,076,842)	(691,241,404,734)
SELLING AND ADMINISTRATIVE EXPENSES	24 and 25	(41,267,308,065)	(51,915,830,581)
OPERATING INCOME (LOSS)		(39,596,430,288)	721,349,882
Finance income	4,10 and 26	91,238,868,043	100,929,494,353
Finance expenses	4,10 and 26	(94,797,646,874)	(107,260,196,264)
Other non-operating income	27	1,651,505,496	4,666,431,149
Other non-operating expenses	27	(2,703,112,450)	(8,502,027,368)
Share of profit (loss) of associates	11	(7,419,984,934)	4,146,853,544
LOSS BEFORE INCOME TAX BENEFIT		(51,626,801,007)	(5,298,094,704)
INCOME TAX BENEFIT	28	9,395,907,460	61,762,569
NET LOSS		(₩42,230,893,547)	(₩5,236,332,135)
Attributable to:			
Owners of the parent		(₩42,230,893,547)	(₩5,236,332,135)
Non-controlling interests		-	-
EARNINGS PER SHARE:	29		
Basic earnings per share		(₩608)	(₩75)
Diluted earnings per share		(₩608)	(₩75)

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

DOOSAN ENGINE CO., LTD. AND SUBSIDIARY
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
FOR THE YEARS ENDED DECEMBER 31, 2014 AND 2013
(In Korean won)

	Notes	2014	2013
NET LOSS		(₩42,230,893,547)	(₩5,236,332,135)
OTHER COMPREHENSIVE INCOME (LOSS)	19		
Items not reclassified subsequently to profit or loss:			
Remeasurements of net defined benefit liabilities	15	(3,054,807,011)	5,305,396,802
Revaluation of property, plant and equipment	12 and 19	-	36,207,539,902
Increase (decrease) in retained earnings of associates	11	(6,082,215,182)	15,589,135,530
Items reclassified subsequently to profit or loss:			
Gain on translation of foreign operations	19	88,260,868	311,603,487
Decrease in equity of associates	11	(38,250,899,460)	(9,869,557,577)
Total other comprehensive income (loss)		(47,299,660,785)	47,544,118,144
TOTAL COMPREHENSIVE INCOME (LOSS)		(₩89,530,554,332)	₩42,307,786,009
COMPREHENSIVE INCOME (LOSS) ATTRIBUTABLE TO:			
Owners of the parent		(₩89,530,554,332)	₩42,307,786,009
Non-controlling interests		-	-

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

DOOSAN ENGINE CO., LTD. AND SUBSIDIARY
CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY
FOR THE YEARS ENDED DECEMBER 31, 2014 AND 2013
(In Korean won)

	Share capital	Capital surplus	Other equity items	Accumulated other comprehensive income (loss)	Retained earnings (deficit)	Total
Balance at January 1, 2013	₩69,500,000,000	₩367,214,701,425	₩397,167,523	(₩22,211,187,691)	₩332,870,771,837	₩747,771,453,094
Total comprehensive income:						
Net loss	-	-	-	-	(5,236,332,135)	(5,236,332,135)
Remeasurements of net defined benefit liabilities	-	-	-	-	5,305,396,802	5,305,396,802
Revaluation surplus of land	-	-	-	36,207,539,902	-	36,207,539,902
Increase in retained earnings of associates	-	-	-	-	15,589,135,530	15,589,135,530
Gain on translation of foreign operations	-	-	-	311,603,487	-	311,603,487
Decrease in equity of associates	-	-	-	(9,869,557,577)	-	(9,869,557,577)
Subtotal	-	-	-	26,649,585,812	15,658,200,197	42,307,786,009
Capital transactions with stockholders						
Stock-based payment	-	-	(41,777,565)	-	-	(41,777,565)
Balance at December 31, 2013	₩69,500,000,000	₩367,214,701,425	₩355,389,958	₩4,438,398,121	₩348,528,972,034	₩790,037,461,538
Balance at January 1, 2014	₩69,500,000,000	₩367,214,701,425	₩355,389,958	₩4,438,398,121	₩348,528,972,034	₩790,037,461,538
Total comprehensive income:						
Net loss	-	-	-	-	(42,230,893,547)	(42,230,893,547)
Remeasurements of net defined benefit liabilities	-	-	-	-	(3,054,807,011)	(3,054,807,011)
Increase in retained earnings of associates					(6,082,215,182)	(6,082,215,182)
Gain on translation of foreign operations	-	-	-	88,260,868	-	88,260,868
Decrease in equity of associates	-	-	-	(38,250,899,460)	-	(38,250,899,460)
Subtotal	-	-	-	(38,162,638,592)	(51,367,915,740)	(89,530,554,332)
Capital transactions with stockholders						
Stock-based payment	-	-	194,769,327	-	-	194,769,327
Balance at December 31, 2014	₩69,500,000,000	₩367,214,701,425	₩550,159,285	(₩33,724,240,471)	₩297,161,056,294	₩700,701,676,533

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

DOOSAN ENGINE CO., LTD. AND SUBSIDIARY
CONSOLIDATED STATEMENTS OF CASH FLOWS
FOR THE YEARS ENDED DECEMBER 31, 2014 AND 2013
(In Korean won)

	2014	2013
CASH FLOWS FROM OPERATING ACTIVITIES:		
Cash generated from operations	(₩76,619,396,568)	(₩34,470,957,727)
Net loss	(42,230,893,547)	(5,236,332,135)
Adjustments	35,209,410,448	2,590,916,931
Changes in operating assets and liabilities	(69,597,913,469)	(31,825,542,523)
Interest received	4,784,750,274	6,817,133,106
Interest paid	(11,055,778,317)	(13,007,780,072)
Dividend received	-	826,620
Income tax received	(2,645,758,218)	(19,383,887,975)
Net cash used in operating activities	(85,536,182,829)	(60,044,666,048)
CASH FLOWS FROM INVESTING ACTIVITIES:		
Cash inflows from investing activities:		
Decrease in short-term financial instruments	107,190,000,000	25,016,124,100
Decrease in short-term loans receivable	9,484,400,000	-
Decrease in long-term financial instruments	-	356,200,000
Decrease in long-term loans receivable	1,247,017,256	446,615,987
Disposal of property, plant and equipment	93,673,323	34,998,878
Disposal of intangible assets	476,790,908	-
Disposal of non-current assets held for sale	-	4,872,000,000
Subtotal	118,491,881,487	30,725,938,965
Cash outflows for investing activities:		
Increase in short-term loans	-	6,994,550,000
Increase in long-term financial instruments	-	37,442,317
Increase in long-term loans	950,750,000	982,800,000
Acquisition of property, plant and equipment	1,787,035,047	7,526,413,843
Acquisition of intangible assets	19,338,691,563	8,345,179,608
Subtotal	(22,076,476,610)	(23,886,385,768)
Net cash provided by investing activities	96,415,404,877	6,839,553,197

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DOOSAN ENGINE CO., LTD. AND SUBSIDIARY
CONSOLIDATED STATEMENTS OF CASH FLOWS (CONTINUED)
FOR THE YEARS ENDED DECEMBER 31, 2014 AND 2013
(In Korean won)

	2014	2013
CASH FLOWS FROM FINANCING ACTIVITIES:		
Cash inflows from financing activities:		
Proceeds from short-term borrowings	₩12,196,011,080	₩-
Proceeds from long-term borrowings	45,000,000,000	-
Proceeds from issuance of bonds	-	89,421,600,000
Subtotal	57,196,011,080	89,421,600,000
Cash outflows for financing activities:		
Repayment of short-term borrowings	-	25,197,303,846
Repayment of long-term borrowings	64,856,370,000	64,266,000,000
Subtotal	(64,856,370,000)	(89,463,303,846)
Net cash used in financing activities	(7,660,358,920)	(41,703,846)
EFFECT OF EXCHANGE RATE CHANGES ON CASH AND CASH EQUIVALENTS	184,959,783	6,711,674
NET DECREASE (INCREASE) IN CASH AND CASH EQUIVALENTS	3,403,822,911	(53,240,105,023)
CASH AND CASH EQUIVALENTS, BEGINNING OF YEAR	41,595,115,118	94,835,220,141
CASH AND CASH EQUIVALENTS, END OF YEAR	₩ 44,998,938,029	₩41,595,115,118

(Concluded)

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

DOOSAN ENGINE CO., LTD. AND SUBSIDIARY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
AS OF AND FOR THE YEARS ENDED DECEMBER 31, 2014 AND 2013

1. ORGANIZATION AND DESCRIPTION OF THE BUSINESS:

(1) Parent company

Doosan Engine Co., Ltd. (the "Company" or "DE") was incorporated on December 30, 1999, under the Commercial Code of the Republic of Korea to manufacture and sell marine diesel engines. The Company's head office and plants are located in Changwon, Korea.

Under the Company's Articles of Incorporation, the Company is authorized to issue 120,000 thousand shares of capital stock (par value of ₩1,000). As of December 31, 2014, the Company issued 69,500 thousand common shares for ₩69,500,000 thousand.

On January 4, 2011, the DE's shares were listed in the Korea Exchange.

The DE's shares as of December 31, 2013, are owned as follows:

Name of stockholders	Number of shares owned	Ownership percentage (%)
Doosan Heavy Industries Construction Co., Ltd.	29,650,000	42.66%
Samsung Heavy Industries Co., Ltd.	9,815,000	14.12%
Daewoo Shipbuilding & Marine Engineering Co., Ltd.	5,600,000	8.06%
Employee stock ownership association	1,507,241	2.17%
Others	22,927,759	32.99%
Total	69,500,000	100.00%

(2) Consolidated subsidiary

1) DE's consolidated subsidiary as of December 31, 2014 and 2013, is as follows (in millions of Korean won):

Subsidiary	Type of business	Location	Proportion of ownership interests held by DE 2014	Proportion of ownership interests held by DE 2013	Proportion of ownership interests held by non-controlling interests 2014	Proportion of ownership interests held by non-controlling interests 2013	Financial closing date
Doosan Marine Industry (Dalian) Co., Ltd. ("DMI")	Manufacturing of marine engine parts	China	100.00	100.00	-	-	December 31

2) Condensed financial information of DE's consolidated subsidiary as of December 31, 2014, is as follows (in millions of Korean won):

Subsidiary	Asset	Liability	Equity	Sales	Net loss	Total comprehensive loss
DMI	28,557,108	18,383,593	10,173,515	9,443,692	(3,691,541)	(3,603,280)

(3) Changes in the scope of consolidation

There is no change in the scope of consolidation for the year ended December 31, 2014.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES:

(1) Basis of Preparation

The Company and its subsidiary (the "Group") have prepared the consolidated financial statements in accordance with the Korean International Financial Reporting Standards ("K-IFRS").

The accompanying consolidated financial statements have been prepared on the historical cost basis, except for certain properties/non-current assets and financial instruments that are measured at fair values, as explained in the accounting policies below. Historical cost is based on the fair values of the consideration given in exchange for assets.

The principal accounting policies are set out below.

1) Amendments to K-IFRSs and new interpretations that are mandatorily effective for the current year

Amendments to K-IFRS 1032 – *Financial Instruments: Presentation*

The amendments to K-IFRS 1032 clarify the requirement for the offset presentation of financial assets and financial liabilities: the right to offset must not be conditional upon the occurrence of future events and can be exercised anytime during the contract periods. The right to offset is executable even in the case of default or insolvency. As the Group does not have any financial assets and financial liabilities that qualify for offset based on the criteria set out in the amendments, and concluded that the application of the amendments has no significant impact on the Group's consolidated financial statements.

Amendments to K-IFRS 1036 – *Impairment of Assets*

The amendments introduced disclosure requirements of recoverable amount when the recoverable amount of an asset or CGU is measured at fair value, less costs of disposal. The application of these amendments has no impact on the disclosure in the Group's consolidated financial statements.

Enactment of K-IFRS 2121 – *Levies*

The enactment defines that the obligating event giving rise to the recognition of a liability to pay a levy is the activity that triggers the payment of the levy in accordance with the related legislation. The enactment has no significant impact on the Group's consolidated financial statements.

2) New and revised K-IFRSs in issue, but not yet effective

Amendments to K-IFRS 1019 – *Employee Benefits*

The amendments permit the Group to recognize amount of contributions as a reduction in the service cost in which the related service is rendered if the amount of the contributions is independent of the number of years of service. The amendments are effective for the annual periods beginning on or after July 1, 2014.

Amendments to K-IFRS 1016 – *Property, Plant and Equipment*

The amendments to K-IFRS 1016 prohibit the Group from using a revenue-based depreciation method for items of property, plant and equipment. The amendments are effective for the annual periods beginning on or after January 1, 2016.

Amendments to K-IFRS 1038 – *Intangible Assets*

The amendments apply prospectively for annual periods beginning on or after January 1, 2016. The amendments to K-IFRS 1038 do not allow presumption that revenue is an appropriate basis for the amortization of an intangible assets, which the presumption can only be limited when the intangible asset expressed as a measure of revenue or when it can be demonstrated that revenue and consumption of the economic benefits of the intangible asset are highly correlated.

Amendments to K-IFRS 1111 – *Accounting for Acquisitions of Interests in Joint Operations*

The amendments to K-IFRS 1111 provide guidance on how to account for the acquisition of a joint operation that constitutes a business as defined in K-IFRS 1103, *Business Combinations*. A joint operator is also required to disclose the relevant information required by K-IFRS 1103 and other standards for business combinations. The amendments to K-IFRS 1111 are effective for the annual periods beginning on or after January 1, 2016.

Annual Improvements to K-IFRS 2010-2012 Cycle

The amendments to K-IFRS 1002 (i) changes the definitions of 'vesting condition' and 'market condition'; and (ii) add definition for 'performance condition' and 'service condition', which were previously included within the definition of 'vesting condition'. The amendments to K-IFRS 1103, *Business Combinations*, clarify the classification and measurement of the contingent consideration in business combination. The amendments to K-IFRS 1108 clarify that a reconciliation of the total of the reportable segments' assets should only be provided if the segment assets are regularly provided to the chief operating decision maker. The amendments are effective for the annual periods beginning on or after July 1, 2014.

Annual Improvements to K-IFRS 2011-2013 Cycle

The amendments to K-IFRS 1103 clarify the scope of the portfolio exception for measuring the fair values of the group of financial assets and financial liabilities on a net basis, including all contracts that are within the scope; the standard does not apply to the accounting for the formation of all types of joint arrangement in the financial statements of the joint arrangement itself. The amendments to K-IFRS 1113, *Fair values Measurements*, and K-IFRS 1040, *Investment Properties*, exist, and these amendments are effective to the annual periods beginning on or after July 1, 2014.

The Group does not anticipate that the application of these new and revised K-IFRSs that have been issued, but not effective will have any impact on the Group' consolidated financial statements.

(2) Basis of Consolidation

The consolidated financial statements incorporate the financial statements of the Company and entities controlled by the Company (and its subsidiaries). Control is achieved where the Company 1) has the power over the investee; 2) is exposed, or has rights, to variable returns from its involvement with the investee; and 3) has the ability to use its power to affect its returns. The Company reassesses whether or not it controls an investee if facts and circumstances indicate that there are changes to one or more of the three elements of control listed above.

When the Company has less than a majority of the voting rights of an investee, it has power over the investee when the voting rights are sufficient to give it the practical ability to direct the activities of the investee unilaterally. The Company considers all relevant facts and circumstances in assessing whether or not the Company's voting rights in an investee are sufficient to give it power, including:

- the size of the Company's holding of voting rights relative to the size and dispersion of holdings of the other vote holders;
- potential voting rights held by the Company, other vote holders or other parties;
- rights arising from other contractual arrangements; and
- any additional facts and circumstances that indicate that the Company has, or does not have, the current ability to direct the relevant activities at the time that decisions need to be made, including voting patterns at previous shareholders' meetings.

Income and expenses of subsidiaries acquired or disposed of during the year are included in the consolidated statements of comprehensive income from the date the Company gains control until the date when the Company ceases to control the subsidiary. Profit or loss and each component of other comprehensive income are attributed to the owners of the Company and to the non-controlling interests. Total comprehensive income of subsidiaries is attributed to the owners of the Company and to the non-controlling interests even if this results in the non-controlling interests having a deficit balance

When necessary, adjustments are made to the financial statements of subsidiaries to bring their accounting policies into line with the Group's accounting policies.

All intragroup transactions and related assets and liabilities, income and expenses are eliminated in full on consolidation.

Changes in the Group's ownership interests in subsidiaries that do not result in the Group losing control over the subsidiaries are accounted for as equity transactions. The carrying amounts of the Group's interests and the non-controlling interests are adjusted to reflect the changes in their relative interests in the subsidiaries. Any difference between the amount by which the non-controlling interests are adjusted and the fair value of the consideration paid or received is recognized directly in equity and attributed to owners of the Company.

When the Group loses control of a subsidiary, a gain or loss on disposal is calculated as the difference between (i) the aggregate of the fair value of the consideration received and the fair value of any retained interest; and (ii) the previous carrying amount of the assets (including goodwill) and liabilities of the subsidiary and any non-controlling interests. When assets of the subsidiary are carried at revalued amounts or fair values and the related cumulative gain or loss has been recognized in other comprehensive income and accumulated in equity, the amounts previously recognized in other comprehensive income and accumulated in equity are accounted for, as if the Company had directly disposed of the relevant assets (i.e., reclassified to profit or loss or transferred directly to retained earnings). The fair value of any investment retained in the former subsidiary at the date when control is lost is recognized as the fair value on initial recognition for subsequent accounting under K-IFRS 1039, Financial Instruments: Recognition and Measurement, or, when applicable, the cost on initial recognition of an investment in an associate or a joint venture.

(3) Business Combination

Acquisitions of businesses are accounted for using the acquisition method. The consideration transferred in a business combination is measured at fair value, which is calculated as the sum of the fair values of the assets transferred by the Group, liabilities incurred by the Group to the former owners of the acquiree and the equity interests issued by the Group in exchange for control of the acquiree. Acquisition-related costs are generally recognized in profit or loss as incurred.

At the acquisition date, the identifiable assets acquired and the liabilities assumed are recognized at their fair value at the acquisition date, except that:

- deferred tax assets or liabilities and liabilities or assets related to employee benefit arrangements are recognized and measured in accordance with K-IFRS 1012, *Income Taxes,* and K-IFRS 1019, *Employee Benefits,* respectively;
- liabilities or equity instruments related to share-based payment arrangements of the acquiree or share-based payment arrangements of the Group entered into to replace share-based payment arrangements of the acquiree are measured in accordance with K-IFRS 1102, *Share-based Payment,* at the acquisition date; and
- assets (or disposal groups) that are classified as held for sale in accordance with K-IFRS 1105, *Non-current Assets Held for Sale and Discontinued Operations*, are measured in accordance with that standard.

Goodwill is measured as the excess of the sum of a) the consideration transferred, b) the amount of any non-controlling interests in the acquiree, and c) the fair value of the acquirer's previously held equity interest in the acquiree (if any); over the net of the acquisition-date amounts of the identifiable assets acquired and the liabilities assumed. If, after reassessment, the net of the acquisition-date amounts of the identifiable assets acquired and liabilities assumed exceeds the sum of a) the consideration transferred, b) the amount of any non-controlling interests in the acquiree, and c) the fair value of the acquirer's previously held interest in the acquiree (if any); the excess is recognized immediately in profit or loss as a bargain purchase gain.

Non-controlling interests that are present ownership interests and entitle their holders to a proportionate share of the entity's net assets in the event of liquidation may be initially measured either at fair value or at the non-controlling interests' proportionate share of the recognized amounts of the acquiree's identifiable net assets. The choice of measurement basis is made on a transaction-by-transaction basis. Other types of non-controlling interests are measured at fair value or, when applicable, on the basis specified in another K-IFRS.

When the consideration transferred by the Group in a business combination includes assets or liabilities resulting from a contingent consideration arrangement, the contingent consideration is measured at its acquisition-date fair value and included as part of the consideration transferred in a business combination. Changes in the fair value of the contingent consideration that qualify as measurement period adjustments are adjusted retrospectively, with corresponding adjustments against goodwill. Measurement period adjustments are adjustments that arise from additional information obtained during the 'measurement period' (which cannot exceed one year from the acquisition date) about facts and circumstances that existed at the acquisition date

The subsequent accounting for changes in the fair value of the contingent consideration that do not qualify as measurement period adjustments depends on how the contingent consideration is classified. Contingent consideration that is classified as equity is not remeasured at subsequent reporting dates and its subsequent settlement is accounted for within equity. Contingent consideration that is classified as an asset or a liability is remeasured at subsequent reporting dates in accordance with K-IFRS 1039, *Financial Instruments: Recognition and Measurement*, or K-IFRS 1037, *Provisions, Contingent Liabilities and Contingent Assets*, as appropriate, with the corresponding gain or loss being recognized in profit or loss.

When a business combination is achieved in stages, the Group's previously held equity interest in the acquiree is remeasured to fair value at the acquisition date and the resulting gain or loss, if any, is recognized in profit or loss. Amounts arising from interests in the acquiree prior to the acquisition date that have previously been recognized in other comprehensive income are reclassified to profit or loss where such treatment would be appropriate if that interest were disposed of.

If the initial accounting for a business combination is incomplete by the end of the reporting period in which the combination occurs, the Group reports provisional amounts for the items for which the accounting is incomplete. Those provisional amounts are adjusted during the measurement period (see above), or additional assets or liabilities are recognized, to reflect new information obtained about facts and circumstances that existed at the acquisition date that, if known, would have affected the amounts recognized at that date.

(4) Investments in associates and joint ventures

An associate is an entity over which the Group has significant influence. Significant influence is the power to participate in the financial and operating policy decisions of the investee, but is not control or joint control over those policies.

A joint venture is a joint arrangement, whereby the parties that have joint control of the arrangement have rights to the net assets of the joint arrangement. Joint control is the contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities require unanimous consent of the parties sharing control.

The results and assets and liabilities of associates or joint ventures are incorporated in these consolidated financial statements using the equity method of accounting, except when the investment is classified as held for sale, in which case it is accounted for in accordance with K-IFRS 1105, *Non-current Assets Held for Sale and Discontinued Operations*. Under the equity method, an investment in an associate or a joint venture is initially recognized in the consolidated statements of financial position at cost and adjusted thereafter to recognize the Group's share of the profit or loss and other comprehensive income of the associate or joint venture. When the Group's share of losses of an associate or a joint venture exceeds the Group's interest in that associate or joint venture (which includes any long-term interests that, in substance, form part of the Group's net investment in the associate or joint venture), the Group discontinues recognizing its share of further losses. Additional losses are recognized only to the extent that the Group has incurred legal or constructive obligations or made payments on behalf of the associate or joint venture.

Any excess of the cost of acquisition over the Group's share of the net fair value of the identifiable assets, liabilities and contingent liabilities of an associate or a joint venture recognized at the date of acquisition is recognized as goodwill, which is included within the carrying amount of the investment. Any excess of the Group's share of the net fair value of the identifiable assets, liabilities and contingent liabilities over the cost of acquisition, after reassessment, is recognized immediately in profit or loss.

Upon disposal of an associate or a joint venture that results in the Group losing significant influence over that associate or joint venture, any retained investment is measured at fair value at that date, and the fair value is regarded as its fair value on initial recognition as a financial asset in accordance with K-IFRS 1039, *Financial Instruments: Recognition and Measurement*. The difference between the previous carrying amount of the associate or joint venture attributable to the retained interest and its fair value is included in the determination of the gain or loss on disposal of the associate or joint venture. In addition, the Group accounts for all amounts previously recognized in other comprehensive income in relation to that associate or joint venture on the same basis we would be required if that associate or joint venture had directly disposed of the related assets or liabilities. Therefore, if a gain or loss previously recognized in other comprehensive income by that associate or joint venture would be reclassified to profit or loss on the disposal of the related assets or liabilities, the Group reclassifies the gain or loss from equity to profit or loss (as reclassification adjustment) when it loses significant influence over that associate or joint venture.

When the Group reduces its ownership interest in an associate or a joint venture, but the Group continues to use the equity method, the Group reclassifies to profit or loss the proportion of the gain or loss that had previously been recognized in other comprehensive income relating to that reduction in ownership interest if that gain or loss would be reclassified to profit or loss on the disposal of the related assets or liabilities. In addition, the Group applies K-IFRS, 5 *Non-current Assets Held for Sale and Discontinued, Operations* to a portion of investment in an associate or a joint venture that meets the criteria to be classified as held for sale.

The requirements of K-IFRS 1039, *Financial Instruments: Recognition and Measurement,* are applied to determine whether it is necessary to recognize any impairment loss with respect to the Group's investment in an associate or a joint venture. When necessary, the entire carrying amount of the investment (including goodwill) is tested for impairment in accordance with K-IFRS 1036, *Impairment of Assets,* by comparing its recoverable amount (higher of value in use and fair value less costs to sell) with its carrying amount, any impairment loss recognized forms part of the carrying amount of the investment. Any reversal of that impairment loss is recognized in accordance with K-IFRS 1036, *Impairment of Assets,* to the extent that the recoverable amount of the investment subsequently increases.

The Group continues to use the equity method when an investment in an associate becomes an investment in a joint venture or an investment in a joint venture becomes an investment in an associate. There is no remeasurement to fair value upon such changes in ownership interests.

When a group entity transacts with an associate or a joint venture of the Group, profits and losses resulting from the transactions with the associate or joint venture are recognized in the Group's consolidated financial statements only to the extent of interests in the associate or joint venture that are not related to the Group.

(5) Interests in joint operations

A joint operation is a joint arrangement, whereby the parties that have joint control of the arrangement have rights to the assets, and obligations for the liabilities, relating to the arrangement. Joint control is the contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities require unanimous consent of the parties sharing control.

When a group entity undertakes its activities under joint operations, the Group as a joint operator recognises in relation to its interest in a joint operation:

- its assets, including its share of any assets held jointly;
- its liabilities, including its share of any liabilities incurred jointly;
- its revenue from the sale of its share of the output arising from the joint operation;
- its share of the revenue from the sale of the output by the joint operation; and
- its expenses, including its share of any expenses incurred jointly.

The Group accounts for the assets, liabilities, revenues and expenses relating to its interest in a joint operation in accordance with the K-IFRSs applicable to the particular assets, liabilities, revenues and expenses.

When a group entity transacts with a joint operation in which a group entity is a joint operator (such as a sale or contribution of assets), the Group is considered to be conducting the transaction with the other parties to the joint operation, and gains and losses resulting from the transactions are recognized in the Group's consolidated financial statements only to the extent of other parties' interests in the joint operation.

When a group entity transacts with a joint operation in which a group entity is a joint operator (such as a purchase of assets), the Group does not recognize its share of the gains and losses until it resells those assets to a third party.

(6) Goodwill

Goodwill resulting from an acquisition of a business is carried at cost as established at the date of acquisition of the business, less accumulated impairment losses, if any.

For the purpose of impairment testing, goodwill is allocated to each of the Group’s cash-generating units (or groups of cash-generating units) that is expected to benefit from the synergies of the combination.

A cash-generating unit to which goodwill has been allocated is tested for impairment annually, or more frequently when there is indication that the unit may be impaired. If the recoverable amount of the cash-generating unit is less than its carrying amount, the impairment loss is allocated first to reduce the carrying amount of any goodwill allocated to the unit and then to the other assets of the unit on a pro-rata basis based on the carrying amount of each asset in the unit. Any impairment loss for goodwill is recognized directly in profit or loss. An impairment loss recognized for goodwill is not reversed in subsequent periods.

On disposal of the relevant cash-generating unit, the attributable amount of goodwill is included in the determination of the profit or loss on disposal.

The Group's policy for goodwill resulting from the acquisition of an associate is described at Note 2. (4).

(7) Non-current assets held for sale

Non-current assets and disposal groups are classified as held for sale if their carrying amount will be recovered principally through a sale transaction rather than through continuing use. This condition is regarded as met only when the sale is highly probable and the non-current asset (or disposal group) is available for immediate sale in its present condition. Management must be committed to the sale, which should be expected to qualify for recognition as a completed sale within one year from the date of classification.

When the Group is committed to a sale plan involving loss of control of a subsidiary, all of the assets and liabilities of that subsidiary are classified as held for sale when the criteria described above are met, regardless of whether the Group will retain a non-controlling interest in its former subsidiary after the sale.

When the Group is committed to a sale plan involving disposal of an investment, or a portion of an investment, in an associate or joint venture, the investment or the portion of the investment that will be disposed of is classified as held for sale when the criteria described above are met, and the Group discontinues the use of the equity method in relation to the portion that is classified as held for sale. Any retained portion of an investment in an associate or a joint venture that has not been classified as held for sale continues to be accounted for using the equity method. The Group discontinues the use of the equity method at the time of disposal when the disposal results in the Group losing significant influence over the associate or joint venture.

After the disposal takes place, the Group accounts for any retained interest in the associate or joint venture in accordance with K-IFRS 1039, Financial Instruments: Recognition and Measurement, unless the retained interest continues to be an associate or a joint venture, in which case the Group uses the equity method.

Non-current assets (and disposal groups) classified as held for sale are measured at the lower of their previous carrying amount and fair value, less costs to sell.

(8) Revenue recognition

Revenue is measured at the fair value of the consideration received or receivable. Revenue is reduced for estimated customer returns, rebates and other similar allowances. The Group recognizes revenue when the amount of revenue can be reliably measured; when it is probable that future economic benefits will flow to the entity; and when specific criteria have been met for each of the Group's activities, as described below.

1) Sale of goods

Revenue from the sale of goods is recognized when the Group has transferred to the buyer the significant risks and rewards of ownership of the goods.

2) Rendering of services

Revenue from a contract to provide services is recognized by reference to the stage of completion of the contract. Depending on the nature of the transaction, the Group determines the stage of completion by reference to surveys of work performed, services performed to date as a percentage of total services to be performed or the proportion that costs incurred to date bear to the estimated total costs of the transaction, as applicable.

3) Dividend and interest income

Dividend income from investments is recognized when the shareholder’s right to receive payment has been established (provided that it is probable that the economic benefits will flow to the Group and the amount of income can be measured reliably).

Interest income from a financial asset is recognized when it is probable that the economic benefits will flow to the Group and the amount of income can be measured reliably. Interest income is accrued on a time basis, by reference to the principal outstanding and at the effective interest rate applicable, which is the rate that exactly discounts estimated future cash receipts through the expected life of the financial asset to that asset’s net carrying amount on initial recognition

4) Rental income

The Group’s policy for recognition of revenue from operating leases is described in Note 2 (10).

(9) Construction contracts

Where the outcome of a construction contract can be estimated reliably, revenue and costs are recognized by reference to the stage of completion of the contract activity at the end of the reporting period, measured based on the proportion of contract costs incurred for work performed to date relative to the estimated total contract costs, except where this would not be representative of the stage of completion. Variations in contract work, claims and incentive payments are included to the extent that the amount can be measured reliably and its receipt is considered probable.

Where the outcome of a construction contract cannot be estimated reliably, contract revenue is recognized to the extent of contract costs incurred that it is probable will be recoverable. Contract costs are recognized as expenses in the period in which they are incurred.

When it is probable that total contract costs will exceed total contract revenue, the expected loss is recognized as an expense immediately.

When contract costs incurred to date, plus recognized profits, less recognized losses exceed progress billing, the surplus is shown as amounts due from customers for contract work. For contracts where progress billings exceed contract costs incurred to date, plus recognized profits, less recognized losses, the surplus is shown as the amounts due to customers for contract work. Amounts received before the related work is performed are included in the consolidated statements of financial position, as a liability, as advances received. Amounts billed for work performed, but not yet paid by the customer are included in the consolidated statements of financial position under trade and other receivables.

(10) Lease

Leases are classified as finance leases whenever the terms of the lease transfer substantially all the risks and rewards of ownership to the lessee. All other leases are classified as operating leases.

1) The Group as lessor

Amounts due from lessees under finance leases are recognized as receivables at the amount of the Group’s net investment in the leases. Finance lease income is allocated to accounting periods so as to reflect a constant periodic rate of return on the Group’s net investment outstanding in respect of the leases.

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

2) The Group as lessee

Assets held under finance leases are initially recognized as assets of the Group at their fair value at the inception of the lease or, if lower, at the present value of the minimum lease payments. The corresponding liability to the lessor is included in the consolidated statements of financial position as a finance lease obligation.

Lease payments are apportioned between finance expenses and reduction of the lease obligation so as to achieve a constant rate of interest on the remaining balance of the liability. Finance expenses are recognized immediately in profit or loss, unless they are directly attributable to qualifying assets, in which case they are capitalized in accordance with the Group’s general policy on borrowing costs (see Note 2. (12)). Contingent rentals are recognized as expenses in the periods in which they are incurred.

Operating lease payments are recognized as an expense on a straight-line basis over the lease term, except where another systematic basis is more representative of the time pattern in which economic benefits from the leased asset are consumed. Contingent rentals arising under operating leases are recognized as an expense in the period in which they are incurred.

In the event that lease incentives are received to enter into operating leases, such incentives are recognized as a liability. The aggregate benefit of incentives is recognized as a reduction of rental expense on a straight-line basis, except where another systematic basis is more representative of the time pattern in which economic benefits from the leased asset are consumed.

(11) Foreign currencies

The individual financial statements of each group entity are presented in the currency of the primary economic environment in which the entity operates (its functional currency). For the purpose of the consolidated financial statements, the results and financial position of each group entity are expressed in Korean won, which is the functional currency of the entity and the presentation currency for the consolidated financial statements.

In preparing the financial statements of the individual entities, transactions in currencies other than the entity's functional currency (foreign currencies) are recognized at the rates of exchange prevailing at the dates of the transactions. At the end of each reporting period, monetary items denominated in foreign currencies are retranslated at the rates prevailing at that date. Non-monetary items carried at fair value that are denominated in foreign currencies are retranslated at the rates prevailing at the date when the fair value was determined. Non-monetary items that are measured in terms of historical cost in a foreign currency are not retranslated.

Exchange differences are recognized in profit or loss in the period in which they arise, except for:

- exchange differences on foreign currency borrowings relating to assets under construction for future productive use, which are included in the cost of those assets when they are regarded as an adjustment to interest costs on those foreign currency borrowings;
- exchange differences on transactions entered into in order to hedge certain foreign currency risks (see Note 2. (24) below for hedging accounting policies); and
- exchange differences on monetary items receivable from, or payable to, a foreign operation for which settlement is neither planned, nor likely to occur (therefore, forming part of the net investment in the foreign operation), which are recognized initially in other comprehensive income and reclassified from equity to profit or loss on disposal or partial disposal of the net investment.

For the purpose of presenting consolidated financial statements, the assets and liabilities of the Group's foreign operations are expressed in Korean won using exchange rates prevailing at the end of the reporting period. Income and expense items are translated at the average exchange rates for the period, unless exchange rates fluctuated significantly during that period, in which case the exchange rates at the dates of the transactions are used. Exchange differences arising, if any, are recognized in other comprehensive income and accumulated in equity (attributed to non-controlling interests as appropriate). On the disposal of a foreign operation (i.e., a disposal of the Group's entire interest in a foreign operation, or a disposal involving loss of control over a subsidiary that includes a foreign operation, or partial disposal of an interest in a joint arrangement or an associate that includes a foreign operation of which the retained interest becomes a financial asset), all of the accumulated exchange differences in respect of that operation attributable to the owners of the Group are reclassified to profit or loss. Any exchange differences that have previously been attributed to non-controlling interests are derecognized, but they are not reclassified to profit or loss.

In the case of a partial disposal (i.e., no loss of control) of a subsidiary that includes a foreign operation, the proportionate share of accumulated exchange differences are reattributed to non-controlling interests in equity and are not recognized in profit or loss. For all other partial disposals (i.e., partial disposals of associates or joint arrangements that do not result in the Group losing significant influence or joint control), the proportionate share of the accumulated exchange differences is reclassified to profit or loss.

Goodwill and fair value adjustments arising on the acquisition of a foreign operation are treated as assets and liabilities of the foreign operation and translated at the closing rate. Exchange differences arising are recognized in other comprehensive income.

(12) Borrowing costs

Borrowing costs directly attributable to the acquisition, construction or production of qualifying assets, which are assets that necessarily take a substantial period of time to get ready for their intended use or sale, are added to the cost of those assets, until such time as the assets are substantially ready for their intended use or sale.

Investment income earned on the temporary investment of specific borrowings pending their expenditure on qualifying assets is deducted from the borrowing costs eligible for capitalization.

All other borrowing costs are recognized in profit or loss in the period in which they are incurred.

(13) Retirement benefit costs and termination benefits

Contributions to defined contribution retirement benefit plans are recognized as an expense when employees have rendered service entitling them to the contributions.

For defined benefit retirement benefit plans, the cost of providing benefits is determined using the Projected Unit Credit Method, with actuarial valuations being carried out at the end of each reporting period. Remeasurement, comprising actuarial gains and losses, the effect of the changes to the asset ceiling (if applicable) and the return on plan assets (excluding interest), is reflected immediately in the consolidated statements of financial position, with a charge or credit recognized in other comprehensive income in the period in which they occur. Remeasurement recognized in other comprehensive income is reflected immediately in retained earnings, and will not be reclassified to profit or loss. Past service cost is recognized in profit or loss in the period of a plan amendment. Net interest is calculated by applying the discount rate at the beginning of the period to the net defined benefit liability or asset. Defined benefit costs are composed of service cost (including current service cost, past service cost, as well as gains and losses on curtailments and settlements), net interest expense (income), and remeasurement.

The Group presents the service cost and net interest expense (income) components in profit or loss, and the remeasurement component in other comprehensive income. Curtailment gains and losses are accounted for as past service costs.

The retirement benefit obligation recognized in the consolidated statements of financial position represents the actual deficit or surplus in the Group’s defined benefit plans. Any surplus resulting from this calculation is limited to the present value of any economic benefits available in the form of refunds from the plans or reductions in future contributions to the plans.

A liability for a termination benefit is recognized at the earlier of when the entity can no longer withdraw the offer of the termination benefit and when the entity recognizes any related restructuring costs.

(14) Share-based payment arrangements

Share-based payment transactions of the Company

Equity-settled share-based payments to employees and others providing similar services are measured at the fair value of the equity instruments at the grant date.

The fair value determined at the grant date of the equity-settled share-based payments is expensed on a straight-line basis over the vesting period, based on the Group's estimate of equity instruments that will eventually vest. At the end of each reporting period, the Group revises its estimate of the number of equity instruments expected to vest. The impact of the revision of the original estimates, if any, is recognized in profit or loss such that the cumulative expense reflects the revised estimate, with a corresponding adjustment in other component of equity.

(15) Taxation

Income tax expense represents the sum of the tax currently payable and deferred tax.

1) Current tax

The tax currently payable is based on taxable profit for the year. Taxable profit differs from profit as reported in the consolidated statements of profit or loss and comprehensive income because of items of income or expense that are taxable or deductible in other years and items that are never taxable or deductible. The Group's liability for current tax is calculated using tax rates that have been enacted or substantively enacted by the end of the reporting period.

2) Deferred tax

Deferred tax is recognized on temporary differences between the carrying amounts of assets and liabilities in the consolidated financial statements and the corresponding tax bases used in the computation of taxable profit. Deferred tax liabilities are generally recognized for all taxable temporary differences. Deferred tax assets are generally recognized for all deductible temporary differences to the extent that it is probable that taxable profits will be available against which those deductible temporary differences can be utilized. Such deferred tax assets and liabilities are not recognized if the temporary difference arises from goodwill or from the initial recognition (other than in a business combination) of other assets and liabilities in a transaction that affects neither the taxable profit nor the accounting profit.

Deferred tax liabilities are recognized for taxable temporary differences associated with investments in subsidiaries and associates, and interests in joint ventures, except where the Group is able to control the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future. Deferred tax assets arising from deductible temporary differences associated with such investments and interests are only recognized to the extent that it is probable that there will be sufficient taxable profits against which to utilize the benefits of the temporary differences and they are expected to reverse in the foreseeable future.

The carrying amount of deferred tax assets is reviewed at the end of each reporting period and reduced to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the asset to be recovered.

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

Deferred tax assets and liabilities are offset if, and only if, the Group has a legally enforceable right to set off current tax assets against current tax liabilities, and the deferred tax assets and liabilities relate to income taxes levied by the same taxation authority on either the same taxable entity or different taxable entities, which intend either to settle current tax liabilities and assets on a net basis, or to realize the assets and settle the liabilities simultaneously, in each future period in which significant amounts of deferred tax liabilities or assets are expected to be settled or recovered.

For the purpose of measuring deferred tax liabilities and deferred tax assets for investment properties that are measured using the fair value model, the carrying amounts of such properties are presumed to be recovered entirely through sale, unless the presumption is rebutted. The presumption is rebutted when the investment property is depreciable and is held within a business model whose objective is to consume substantially all of the economic benefits embodied in the investment properties over time, rather than through sale.

3) Current and deferred tax for the year

Current and deferred tax are recognized in profit or loss, except when they relate to items that are recognized in other comprehensive income or directly in equity, in which case, the current and deferred tax are also recognized in other comprehensive income or directly in equity, respectively. Where current tax or deferred tax arises from the initial accounting for a business combination, the tax effect is included in the accounting for the business combination.

(16) Property, Plant and Equipment

Property, plant and equipment are initially stated at cost and subsequently recorded at cost, less accumulated depreciation and accumulated impairment losses, except for land, which is recorded using revaluation model. The cost of an item of property, plant and equipment is directly attributable to their purchase or construction, which includes any costs directly attributable to bring the asset to the location and condition necessary for it to be capable of operating in the manner intended by management. It also includes the initial estimate of the costs of dismantling and removing the item, and restoring the site on which it is located.

Subsequent costs are recognized in carrying amount of an asset or as a separate asset if it is probable that future economic benefits associated with the assets will flow into the Group and the cost of an asset can be measured reliably. Routine maintenance and repairs are expensed as incurred.

The Group does not depreciate land. Depreciation expense is computed using the straight-line method based on the estimated useful lives of the assets as follows:

	Estimated useful lives (years)
Buildings	20–40
Structures	10–20
Machinery	5–20
Others	3–10

If each part of an item of property, plant and equipment has a cost that is significant in relation to the total cost of the item, it is depreciated separately.

The Group reviews the depreciation method, the estimated useful lives and residual values of property, plant and equipment at the end of each annual reporting period. If expectations differ from previous estimates, the changes are accounted for as a change in an accounting estimate.

An item of property, plant and equipment is derecognized upon disposal or when no future economic benefits are expected to arise from the continued use of the asset. Any gain or loss arising on derecognition of the property (calculated as the difference between the net disposal proceeds and the carrying amount of the asset) is included in profit or loss in the period in which the property is derecognized.

(17) Investment property

Investment properties are properties held to earn rentals and/or for capital appreciation (including property under construction for such purposes). Investment properties are measured initially at cost, including transaction costs. Subsequent to initial recognition, investment properties are reported at cost, less accumulated depreciation and accumulated impairment losses.

Subsequent costs are recognized in carrying amount of an asset or as a separate asset if it is probable that future economic benefits associated with the assets will flow into the Group, and the cost of an asset can be measured reliably. Routine maintenance and repairs are expensed as incurred.

While land is not depreciated, all other investment property is depreciated based on the respective assets estimated useful lives ranging from 20–40 years using the straight-line method.

The estimated useful lives, residual values and depreciation method are reviewed at the end of each reporting period, with the effect of any changes in estimate accounted for on a prospective basis.

An investment property is derecognized upon disposal or when the investment property is permanently withdrawn from use and no future economic benefits are expected from the disposal. Any gain or loss arising on derecognition of the property (calculated as the difference between the net disposal proceeds and the carrying amount of the asset) is included in profit or loss in the period in which the property is derecognized.

(18) Intangible Assets

1) Intangible assets acquired separately

Intangible assets with finite useful lives that are acquired separately are carried at cost, less accumulated amortization and accumulated impairment losses. Amortization is recognized on a straight-line basis over their estimated useful lives. The estimated useful life and amortization method are reviewed at the end of each reporting period, with the effect of any changes in estimate being accounted for on a prospective basis. Intangible assets with indefinite useful lives that are acquired separately are carried at cost, less accumulated impairment losses.

2) Internally generated intangible assets - research and development expenditure

Expenditure on research activities is recognized as an expense in the period in which it is incurred.

Expenditure arising from development (or from the development phase of an internal project) is recognized as an intangible asset if, only if, the development project is designed to produce new or substantially improved products, and the Group can demonstrate the technical and economical feasibility, and measure reliably the resources attributable to the intangible asset during its development.

Subsequent to initial recognition, internally generated intangible assets are reported at cost, less accumulated amortization and accumulated impairment losses, on the same basis as intangible assets that are acquired separately.

3) Intangible assets acquired in a business combination

Intangible assets that are acquired in a business combination are recognized separately from goodwill and are initially recognized at their fair value at the acquisition date (which is regarded as their cost). Subsequent to initial recognition, intangible assets acquired in a business combination are reported at cost, less accumulated amortization and accumulated impairment losses, on the same basis as intangible assets that are acquired separately.

4) Derecognition of intangible assets

An intangible asset is derecognized on disposal, or when no future economic benefits are expected from its use. Gains or losses arising from derecognition of an intangible asset, measured as the difference between the net disposal proceeds and the carrying amount of the asset, and are recognized in profit or loss when the asset is derecognized.

5) Depreciation of intangible assets

Intangible assets (membership) with indefinite useful lives are not amortized. Intangible assets other than not amortized intangible assets are using the straight-line method based on the estimated useful lives of the assets as follows:

	Estimated useful lives (years)
Development costs	5
Right of utilization	16
Software	5
Others	5

(19) Impairment of tangible and intangible assets other than goodwill

At the end of each reporting period, the Group reviews the carrying amounts of its tangible and intangible assets to determine whether there is any indication that those assets have suffered an impairment loss. If any such indication exists, the recoverable amount of the asset is estimated in order to determine the extent of the impairment loss (if any). When it is not possible to estimate the recoverable amount of an individual asset, the Group estimates the recoverable amount of the cash-generating unit to which the asset belongs. Where a reasonable and consistent basis of allocation can be identified, corporate assets are also allocated to individual cash-generating units, or otherwise, they are allocated to the smallest group of cash-generating units for which a reasonable and consistent allocation basis can be identified.

Intangible assets with indefinite useful lives and intangible assets not yet available for use are tested for impairment at least annually and whenever there is an indication that the asset may be impaired.

Recoverable amount is the higher of fair value, less costs to sell and value in use. If the recoverable amount of an asset (or a cash-generating unit) is estimated to be less than its carrying amount, the carrying amount of the asset (or the cash-generating unit) is reduced to its recoverable amount and the reduced amount is recognized in profit or loss.

Where an impairment loss subsequently reverses, the carrying amount of the asset (or a cash-generating unit) is increased to the revised estimate of its recoverable amount, but so that the increased carrying amount does not exceed the carrying amount that would have been determined had no impairment loss been recognized for the asset (or the cash-generating unit) in prior years. A reversal of an impairment loss is recognized immediately in profit or loss.

(20) Inventories

Inventories are stated at the lower of cost and net realizable value. Cost of inventories are measured under the specific identification method, and consists of the purchase price, cost of conversion and other costs incurred in bringing the inventories to their present location and condition. Net realizable value represents the estimated selling price for inventories, less all estimated costs of completion and costs necessary to make the sale.

When inventories are sold, the carrying amount of those inventories is recognized as an expense (cost of sales) in the period in which the related revenue is recognized. The amount of any write-down of inventories to net realizable value and all losses of inventories is 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, is recognized as a reduction in the amount of inventories recognized as an expense in the period in which the reversal occurs.

The cost of inventories is determined by the specific identification method for materials in transit. During the year, perpetual inventory systems are used to value inventories, which are adjusted to physical inventory counts performed at the end of the year.

(21) Provisions

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

The amount recognized as a provision is the best estimate of the consideration required to settle the present obligation at the end of the reporting period, taking into account the risks and uncertainties surrounding the obligation. When a provision is measured using the cash flows estimated to settle the present obligation, its carrying amount is the present value of those cash flows (where the effect of the time value of money is material). The discount rate used is a pretax rate that reflects current market assessments of the time value of money and the risks specific to the liability. Where discounting is used, the increase in the provision due to the passage is recognized in profit or loss as borrowing cost.

When some, or all, of the economic benefits required to settle a provision are expected to be recovered from a third party, a receivable is recognized as an asset if it is virtually certain that reimbursement will be received and the amount of the receivable can be measured reliably.

At the end of each reporting period, the remaining provision balance is reviewed and assessed to determine if the current best estimate is being recognized. If the existence of an obligation to transfer economic benefit is no longer probable, the related provision is reversed during the period.

(22) Financial Instruments

Financial assets and financial liabilities are recognized when an entity becomes a party to the contractual provisions of the instruments. Financial assets and financial liabilities are initially measured at fair value. Transaction costs that are directly attributable to the acquisition or issue of financial assets and financial liabilities are added to or deducted from the fair value of the financial assets or financial liabilities, as appropriate, on initial recognition. Transaction costs directly attributable to the acquisition of financial assets or financial liabilities at fair value through profit or loss (FVTPL) are recognized immediately in profit or loss.

Financial assets are classified into the following specified categories: ‘financial assets at FVTPL’, ‘held-to-maturity investments’, ‘available-for-sale (AFS) financial assets’ and ‘loans and receivables’. The classification depends on the nature and purpose of the financial assets, and is determined at the time of initial recognition.

1) Effective interest method

The effective interest method is a method of calculating the amortized cost of a debt instrument and of allocating interest income over the relevant period. The effective-interest rate is the rate that exactly discounts estimated future cash receipts (including all fees and points paid or received that form an integral part of the effective-interest rate, transaction costs and other premiums or discounts) through the expected life of the debt instrument, or, where appropriate, a shorter period, to the net carrying amount on initial recognition.

Income is recognized on an effective interest basis for debt instruments other than those financial assets classified as at FVTPL.

2) Effective interest method

Financial assets are classified as at FVTPL when the financial asset is either held for trading or it is designated as at FVTPL. A financial asset is classified as held for trading, if it has been acquired principally for the purpose of selling it in the near term; or on initial recognition, it is part of a portfolio of identified financial instruments that the Group manages together and has a recent actual pattern of short-term profit-taking; or it is a derivative that is not designated and effective as a hedging instrument. Financial assets at FVTPL are stated at fair value, with any gains or losses arising on remeasurement recognized in profit or loss.

3) Held-to-maturity investments

Non-derivative financial assets with fixed or determinable payments and fixed-maturity dates that the Group has the positive intent and ability to hold to maturity are classified as held-to-maturity investments. Held-to-maturity investments are measured at amortized cost using the effective interest method, less any impairment, with revenue recognized on an effective-yield basis.

4) AFS financial assets

AFS financial assets are non-derivatives that are either designated as AFS or are not classified as (a) loans and receivables, (b) held-to-maturity investments or (c) financial assets at FVTPL.

They are subsequently measured at fair value at the end of each reporting period. Changes in the carrying amount of AFS monetary financial assets relating to changes in foreign currency rates, interest income calculated using the effective interest method and dividends on AFS equity investments are recognized in profit or loss. Other changes in the carrying amount of AFS financial assets are recognized in other comprehensive income (as investments revaluation reserve). When the investment is disposed of, or is determined to be impaired, the cumulative gain or loss previously accumulated in other comprehensive income is reclassified to profit or loss.

Dividends on AFS equity instruments are recognized in profit or loss when the Group’s right to receive the dividends is established.

AFS equity investments that do not have a quoted market price in an active market and whose fair value cannot be reliably measured and derivatives that are linked to and must be settled by delivery of such unquoted equity investments are measured at cost, less any identified impairment losses at the end of each reporting period.

5) Loans and receivables

Trade receivables, loans and other receivables that have fixed or determinable payments that are not quoted in an active market are classified as 'loans and receivables'. Loans and receivables are measured at amortized cost using the effective interest method, less any impairment. Interest income is recognized by applying the effective-interest rate, except for short-term receivables when the effect of discounting is immaterial.

6) Impairment of financial assets

Financial assets, other than those at FVTPL, are assessed for indicators of impairment at the end of each reporting period. Financial assets are considered to be impaired when there is objective evidence that more events that occurred after the initial recognition of the financial asset, the estimated future cash flows of the investment have been affected.

For AFS equity investments, a significant or prolonged decline in the fair value of the security below its cost is considered to be objective evidence of impairment.

For certain categories of financial asset, such as trade receivables, assets that are assessed not to be impaired individually are, in addition, assessed for impairment on a collective basis. Objective evidence of impairment for a portfolio of receivables could include the Group's past experience of collecting payments, an increase in the number of delayed payments in the portfolio past the average credit period of 30 days, as well as observable changes in national or local economic conditions that correlate with default on receivables.

For financial assets carried at amortized cost, the amount of the impairment loss recognized is the difference between the asset's carrying amount and the present value of estimated future cash flows, discounted at the financial asset's original effective-interest rate.

For financial assets that are carried at cost, the amount of the impairment loss recognized is the difference between the asset's carrying amount and the present value of estimated future cash flows, discounted at the current market rate of return for a similar financial asset. Such impairment loss will not be reversed in subsequent periods.

When an AFS financial asset is considered to be impaired, cumulative gains or losses previously recognized in other comprehensive income are reclassified to profit or loss in the period.

For financial assets measured at amortized cost, 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 is reversed through profit or loss to the extent that the carrying amount of the investment at the date the impairment is reversed does not exceed what the amortized cost would have been had the impairment not been recognized.

In respect of AFS equity securities, impairment losses previously recognized in profit or loss are not reversed through profit or loss. Any increase in fair value subsequent to an impairment loss is recognized in other comprehensive income. In respect of AFS debt securities, impairment losses are subsequently reversed through profit or loss if an increase in the fair value of the investment can be objectively related to an event occurring after the recognition of the impairment loss.

7) Derecognition of financial assets

The Group derecognizes a financial assets, only when the contractual rights to the cash flows from the asset expire, or when it transfers the financial asset and substantially all the risks and rewards of ownership of the asset to another entity. If the Group neither transfers, nor retains substantially all the risks and rewards of ownership and continues to control the transferred asset, the Group recognizes its retained interest in the asset and an associated liability for amounts it may have to pay. If the Group retains substantially all the risks and rewards of ownership of a transferred financial asset, the Group continues to recognize the financial asset and also recognizes a collateralized borrowing for the proceeds received.

On derecognition of financial assets in its entirety, the difference between the asset's carrying amount and the sum of the consideration received and receivable and the cumulated gain or loss that had been recognized in other comprehensive income and accumulated in equity is recognized in profit or loss.

On derecognition of a financial assets other than in its entirety (e.g., when the Group retains an option to repurchase part of a transferred asset, or it retains a residual interest, and such a retained interest indicates that the transferor has neither transferred, nor retained substantially all the risks and rewards of ownership and has retained control of the transferred asset), the Group allocates the previous carrying amount of the financial asset between the part it continues to recognize under continuing involvement and the part it no longer recognizes on the basis of the relative fair value of those parts on the date of the transfer. The difference between the carrying amount allocated to the part that is no longer recognized and the sum of the consideration received for the part that is no longer recognized and any cumulative gain or loss allocated to it that had been recognized in other comprehensive income is recognized in profit or loss. A cumulative gain or loss that had been recognized in other comprehensive income is allocated between the part that continues to be recognized and the part that is no longer recognized on the basis of the relative fair value of those parts.

(23) Financial liabilities and equity instruments

1) Classification as debt or equity

Debt and equity instruments are classified as either financial liabilities or as equity in accordance with the substance of the contractual arrangement and the definitions of financial liability and an equity instrument.

2) Equity instruments

An equity instrument is any contract that evidences a residual interest in the assets of an entity after deducting all of its liabilities. Equity instruments issued by the Group are recognized at the proceeds received, net of direct issue costs.

Repurchase of the Group's own equity instruments is recognized and deducted directly in equity. No gain or loss is recognized in profit or loss on the purchase, sale, issue or cancellation of the Group's own equity instruments.

3) Compound instruments

The component parts of compound instruments (convertible bonds) issued by the Group are classified separately as financial liabilities and equity in accordance with the substance of the contractual arrangements and the definitions of a financial liability and equity instrument. Conversion option that will be settled by the exchange of a fixed amount of cash or another financial asset for a fixed number of the Group's own equity instruments is an equity instrument.

At the date of issue, the fair value of the liability component is estimated using the prevailing market-interest rate for a similar non-convertible instrument. This amount is recorded as a liability on an amortized cost basis using the effective interest method until extinguished upon conversion or at the instrument's maturity date.

The conversion option classified as equity is determined by deducting the amount of the liability component from the fair value of the compound instrument as a whole. This is recognized and included in equity, net of income tax effects, and is not subsequently remeasured. In addition, the conversion option classified as equity will remain in equity until the conversion option is exercised, in which case, the balance recognized in equity will be transferred to share premium. No gain or loss is recognized in profit or loss upon conversion or expiration of the conversion option.

4) Financial liabilities

Financial liabilities are recognized when the Group becomes a party to the contractual provisions of the instruments. Financial liabilities are initially measured at fair value. Transaction costs that are directly attributable to the issue of financial liabilities are deducted from the fair value of the financial liabilities on initial recognition. Transaction costs directly attributable to acquisition of financial liabilities at FVTPL are recognized immediately in profit or loss.

Financial liabilities are classified as either financial liabilities at FVTPL or other financial liabilities.

5) Financial liabilities at FVTPL

Financial liabilities are classified as at FVTPL when the financial liability is either held for trading or it is designated as FVTPL.

Financial liabilities at FVTPL are stated at fair value, with any gains or losses arising on remeasurement recognized in profit or loss. The net gain or loss recognized in profit or loss incorporates any interest paid on the financial liability, and is included in the ‘Other non-operating income and expense’ line item in the consolidated statements of income.

6) Other financial liabilities

Other financial liabilities are subsequently measured at amortized cost using the effective interest method, with interest expense recognized on an effective-yield basis.

7) Financial guarantee contracts

A financial guarantee contract is a contract that requires the issuer to make specified payments to reimburse the holder for a loss it incurs because a specified debtor fails to make payments when due in accordance with the terms of a debt instruments.

Financial guarantee contract liabilities are initially measured at their fair values and, if not designated as at FVTPL, are subsequently measured at the higher of:

- the amount of the obligation under the contract, as determined in accordance with K-IFRS 1037, *Provisions, Contingent Liabilities and Contingent Assets*; and
- the amount initially recognized less, cumulative amortization recognized in accordance with the K-IFRS 1018, *Revenue*

8) Derecognition of financial liabilities

The Group derecognize financial liabilities when the Group’s obligation are discharged, canceled or they expire. The difference between the carrying amount of the financial liability derecognized and the consideration paid and payable is recognized in profit or loss.

(24) Derivative financial instruments

The Group enters into a variety of derivative financial instruments to manage its exposure to interest rate and foreign exchange rate risk, including foreign exchange forward contracts, interest rate swaps and cross currency swaps.

Derivatives are initially recognized at fair value at the date the derivative contract is entered into, and are subsequently remeasured to their fair value at the end of each reporting period. The resulting gain or loss is recognized in profit or loss immediately, unless the derivative is designated and effective as a hedging instrument, in such case, the timing of the recognition in profit or loss depends on the nature of the hedge relationship.

A derivative with a positive fair value is recognized as a financial asset; a derivative with a negative fair value is recognized as a financial liability. A derivative is presented as a non-current asset or a non-current liability if the remaining maturity of the instrument is more than 12 months, and it is not expected to be realized or settled within 12 months. Other derivatives are presented as current assets or current liabilities.

1) Embedded derivatives

Derivatives embedded in non-derivative host contracts are treated as separate derivatives when they meet the definition of a derivative; their risks and characteristics are closely related to those of the host contracts and the contracts are not measured at FVTPL.

2) Hedge accounting

The Group designates certain hedging instruments, which include derivatives, embedded derivatives and non-derivatives in respect of foreign currency risk, as either fair value hedges, cash flow hedges or hedges of net investments in foreign operations. Hedges of foreign exchange risk on firm commitments are accounted for as cash flow hedges.

At the inception of the hedge relationship, the entity documents the relationship between the hedging instrument and the hedged item, along with its risk management objectives and its strategy for undertaking various hedge transactions. Furthermore, at the inception of the hedge and on an ongoing basis, the Group documents whether the hedging instrument is highly effective in offsetting changes in fair values or cash flows of the hedged item.

3) Fair value hedges

Changes in the fair value of derivatives that are designated and qualify as fair value hedges are recognized in profit or loss immediately, together with any changes in the fair value of the hedged asset or liability that are attributable to the hedged risk. The change in the fair value of the hedging instrument and the change in the hedged item attributable to the hedged risk are recognized in the line of the consolidated statements of income relating to the hedged item.

Hedge accounting is discontinued when the Group revokes the hedging relationship, when the hedging instrument expires or is sold, terminated or exercised, or when it no longer qualifies for hedge accounting. The fair value adjustment to the carrying amount of the hedged item arising from the hedged risk is amortized to profit or loss from that date.

4) Cash flow hedges

The effective portion of changes in the fair value of derivatives that are designated and qualify as cash flow hedges is recognized in other comprehensive income. The gain or loss relating to the ineffective portion is recognized immediately in profit or loss, and is included in the ‘finance income and expense’ line item.

Amounts previously recognized in other comprehensive income and accumulated in equity are reclassified to profit or loss in the periods when the hedged item is recognized in profit or loss, in the same line of the consolidated statements of comprehensive income as the recognized hedged item. However, when the forecast transaction that is hedged results in the recognition of a non-financial asset or a non-financial liability, the gains and losses previously accumulated in equity are transferred from equity and included in the initial measurement of the cost of the non-financial asset or non-financial liability.

Hedge accounting is discontinued when the Group revokes the hedging relationship, when the hedging instrument expires or is sold, terminated or exercised, or it no longer qualifies for hedge accounting. Any gain or loss accumulated in equity at that time remains in equity and is recognized when the forecast transaction is ultimately recognized in profit or loss. When a forecast transaction is no longer expected to occur, the gain or loss accumulated in equity is recognized immediately in profit or loss.

(25) Fair value

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date, regardless of whether that price is directly observable or estimated using another valuation technique. In estimating the fair value of an asset or a liability, the Group takes into account the characteristics of the asset or liability if market participants would take those characteristics into account when pricing the asset or liability at the measurement date. Fair value for measurement and/or disclosure purposes in these consolidated financial statements is determined on such a basis, except for share-based payment transactions that are within the scope of K-IFRS 1102, Share-Based Payment, leasing transactions that are within the scope of K-IFRS 1017, Leases, and measurements that have some similarities to fair value but are not fair value, such as net realizable value in K-IFRS 1002, Inventories, or value in use in K-IFRS 1036, Impairment of Assets.

In addition, for financial reporting purposes, fair value measurements are categorized into Levels 1, 2 or 3, based on the degree to which the inputs to the fair value measurements are observable and the significance of the inputs to the fair value measurement in its entirety, which are described at Note 10.

(26) Approval of separate financial statements

The consolidated financial statements for the year ended December 31, 2014, were approved by the Board of Directors on February 27, 2015.

3. SIGNIFICANT ACCOUNTING JUDGMENTS AND KEY SOURCES OF ESTIMATION UNCERTAINTIES

In the application of the Group's accounting policies that are described at Note 2, management is required to make judgments, estimates and assumptions about the carrying amounts of assets and liabilities that are not readily apparent from other sources. The estimates and underlying assumptions are reviewed on an ongoing basis.

The following are critical assumptions and key sources of estimation uncertainty at the end of reporting period that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year.

(1) Revenue recognition

Revenue from service or construction projects is recognized based on percentage-of-completion method. It needs to estimate a rate that can measure the service provided by the Group.

(2) Defined benefit obligation

The Group's defined benefit obligation is determined based on the actuarial valuation carried out at the end of each annual reporting period. Actuarial assumptions are the Group's best estimates of the variables in determining the cost of providing postretirement benefits, such as discount rates, rates of expected future salary increases and mortality rates.

(3) Provisions

Provisions for the expected cost of warranty obligations are recognized at the best estimate of the past expenditure experiences periodically.

(4) Revaluation model on land and fair value model on investment in real properties

As stated in Note 12, the Group uses evaluation technique, including inputs that are not based on observable market data, to approximate revalued amount of land classified as property, plant and equipment and fair value of investment property. Management assuming evaluation method has been considered appropriate.

(5) Deferred tax

Recognition and measurement of deferred tax assets and liabilities require the management's judgment, in particular, whether to recognize if the scope of deferred tax assets is affected by management's judgment and assumption in the future.

(6) Estimated useful lives of property, plant and equipment and intangible assets

Useful lives for depreciation require the management's estimation.

4. FINANCIAL RISK MANAGEMENT:

The Group is exposed to various financial risks, such as market, credit and liquidity. The purpose of financial risk management of the Group is to enhance efficiency of financial management and improve the financial structure to create a stable and continuous management performance.

Financial risk management activities, such as identification, evaluation and hedge, are mostly performed by Treasury department under close cooperation of the relevant department. The Group focuses on minimizing the effect of financial risk through regular monitoring.

(1) Market risk

1) Foreign exchange risk

The Group is exposed to foreign currency risk as it makes transactions in foreign currencies. The Group's goal about foreign exchange risk control is to minimize uncertainty and income/loss volatility by exchange fluctuations. Foreign exchange risk control is managed by the Group's policy on foreign exchange risk management. Foreign exchange management of speculative purpose is strictly prohibited.

The Group reduces exposure to foreign currency risk by matching the inflow and the outflow of foreign currencies (natural hedge) and manages foreign currency risk by using currency derivatives, such as currency forwards, for the remaining exposure

The book value of the Group's monetary assets and liabilities denominated in foreign currencies as of December 31, 2014 and 2013, is as follows (in thousands of Korean won):

	December 31, 2014				
	USD	EUR	CNY	Others (*)	Total
Assets	₩85,180,968	₩536,882	₩909,868	₩106,537	₩86,734,255
Liabilities	(13,376,616)	(22,968,235)	(12,600,870)	(5,744,506)	(54,690,227)
Net assets (liabilities)	₩71,804,352	(₩22,431,353)	(₩11,691,002)	(₩5,637,969)	₩32,044,028

	December 31, 2013				
	USD	EUR	CNY	Others (*)	Total
Assets	₩27,476,354	₩4,052,072	₩1,346,019	₩100,977	₩32,975,422
Liabilities	(69,317,542)	(15,602,111)	(15,235,544)	(3,890,433)	(104,045,630)
Net assets (liabilities)	(₩41,841,188)	(₩11,550,039)	(₩13,889,525)	(₩3,789,456)	(₩71,070,208)

(*) Others are assets and liabilities denominated in foreign currencies other than USD, EUR and CNY.

Net foreign currency translation gain/loss for the nine months ended December 31, 2014 and 2013, is ₩763,861 thousand and ₩556,984 thousand, respectively.

A sensitivity analysis on the Group's income before tax for the period, assuming a 10% increase and 10% decrease in currency exchange rates, as of December 31, 2014 and 2013, is as follows (in thousands of Korean won):

	December 31, 2014		December 31, 2013	
	10% increase in Korean won against foreign currency	10% decrease in Korean won against foreign currency	10% increase in Korean won against foreign currency	10% decrease in Korean won against foreign currency
Income before tax impact	₩3,204,403	(₩3,204,403)	(₩7,107,021)	₩7,107,021

The sensitivity analysis above is based on monetary assets and liabilities denominated in foreign currencies other than functional currency as of December 31, 2014 and 2013.

2) Interest rate risk

The Group's interest rate risk is related to borrowings and bank deposits with floating interest rates, and related interest income and expense are exposed to interest rate risk. The Group is exposed to interest rate risk mainly due to its borrowing with floating interest rates. Borrowings and bank deposits with fixed-interest rates do not have influence on net income and equity due to the changes in market interest rates. The purpose of interest rate risk management is to minimize uncertainty and financial cost by interest rate volatility.

To manage its interest rate risk, the Group minimizes external borrowings using internal funds and reduces borrowings with high interest rates, and maintains the appropriate balance between borrowings with floating interest rate and fixed-interest rate and short-term and long-term borrowings. The Group manages its interest rate risk through regular monitoring and adjustments to the changing domestic and overseas market conditions and nature of its interest rates.

The book value of the Group's financial assets and liabilities, with floating interest rates exposed to interest-rate risk as of December 31, 2014 and 2013, is as follows (in thousands of Korean won):

	December 31, 2014	December 31, 2013
Financial assets	₩44,704,281	₩31,275,520
Financial liabilities	(36,183,224)	(72,325,995)
Net assets (liabilities)	₩8,521,057	(₩41,050,475)

A sensitivity analysis on the Group's income before tax assuming a 100bp increase and 100bp decrease in interest rates as of December 31, 2014 and 2013, is as follows (in thousands of Korean won):

	December 31, 2014		December 31, 2013	
	100bp increase	100bp decrease	100bp increase	100bp decrease
Income before tax impact	₩85,211	(₩85,211)	(₩410,505)	₩410,505

3) Price risk

The Group is exposed to equity price risks arising from its listed equity investments among AFS equity investments. The Group periodically measures the risk that the fair value or future cash flows of equity investments may fluctuate due to the changes in market prices. Important investments in the Group's portfolio are individually managed, and acquisition and disposal are approved by the Board of Directors.

(2) Credit risk

As one of the parties to financial instrument may fail to perform the duty, the Group is exposed to credit risk, which may inflict financial losses to the other party. Credit risk primarily affects account receivables and other receivables for customers, as well as AFS investments, deposits, financial derivatives and payment guarantees. The Group transacts with customers that are above an acceptable level in order to manage credit risk and operates policy and procedure to reinforce financial assets.

When the Group enters into contracts with new customers, it will be provided with security or payment guarantees based on open financial information and information provided by credit-rating agencies.

Also, the Group reassesses the credit rating of customers periodically, reconsiders maximum credit limit and readjusts security level. The Group reports the delinquent accounts receivable situation and proper measures about financial assets with delayed collection.

The maximum exposure amount of credit risk of financial assets as of December 31, 2014 and 2013, is as follows (in thousands of Korean won):

		December 31, 2014	December 31, 2013
Loans and receivables	Cash and cash equivalents	₩44,998,938	₩41,595,115
	Long-term and short-term financial instruments	39,744,859	146,803,168
	Trade and other receivables	72,188,501	25,567,477
	Long-term and short-term loans	4,216,940	13,909,247
	Long-term other receivables	10,701,073	9,693,320
Held-to-maturity investments	Long-term and short-term investment securities	7,000,000	7,000,000
Derivative assets		3,212,151	46,440,795
	Total	₩182,062,462	₩291,009,122

Meanwhile, the Group's guarantee amount is equal to (see Note 31) contingent liabilities, which is the maximum amount for claiming a warranty by a financial guarantee contract, except financial assets.

Aging analysis of the Group's receivables as of December 31, 2014 and 2013, is as follows (in thousands of Korean won):

	December 31, 2014						
	Individually impaired receivables	Receivables assessed for impairment on a collective basis					
		Within due	0–3 months	3–6 months	6–12 months	More than 12 months	Total
Short-term loans	₩-	₩1,100,900	₩-	₩-	₩-	₩-	₩1,100,900
Trade receivable	-	57,022,500	6,119,278	180,927	689,420	246,970	64,259,095
Other receivable	6,495,591	634,949	-	-	-	-	7,130,540
Accrued income	-	939,894	-	-	-	-	939,894
Long-term loans	-	3,398,735	-	-	-	-	3,398,735
Long-term accounts receivables	-	5,488,065	-	-	-	-	5,488,065
Total	₩6,495,591	₩68,585,043	₩6,119,278	₩180,927	₩689,420	₩246,970	₩82,317,229

	December 31, 2013						
	Individually impaired receivables	Receivables assessed for impairment on a collective basis					
		Within due	0–3 months	3–6 months	6–12 months	More than 12 months	Total
Short-term loans	₩-	₩9,155,850	₩-	₩-	₩-	₩-	₩9,155,850
Trade receivable	-	15,459,677	1,924,468	1,280,108	966,963	761,109	20,392,325
Other receivable	6,236	4,412,084	-	-	-	-	4,418,320
Accrued income	-	1,273,289	-	-	-	-	1,273,289
Long-term loans	-	5,124,452	-	-	-	-	5,124,452
Long-term accounts receivables	-	3,284,133	-	-	-	-	3,284,133
Total	₩6,236	₩38,709,485	₩1,924,468	₩1,280,108	₩966,963	₩761,109	₩43,648,369

Receivables past due are assessed as impaired. An allowance account is recognized by applying individually recognized allowance rate for receivables that can be assessed to be impaired individually due to insolvency, bankruptcy and others. Group of financial assets that are not individually significant and have similar credit risk characteristics are assessed for impairment on a collective basis. An allowance account is recognized based on aging analysis and the Group's past experience of receivables' collection.

Other receivables AFS, held-to-maturity financial assets, deposit in financial institution and derivative instruments are individually assessed for impairment.

(3) Liquidity risk

Liquidity risk is the risk that the Group will encounter difficulty in meeting its financial liability obligations related to the financing for its operation.

The Group forecasts cash flows from operating, investing and financing activities through a cash flow budget regularly. This secures and retains a necessary liquidity scale in advance. Also, this manages a possible liquidity risk for the future.

The Group's major non-derivative liabilities as of December 31, 2014 and 2013, have matured as follows (in thousands of Korean won):

		December 31, 2014				
		Nominal cash flows according to contract (*)				
	Book value	Total	Less than 1 year	1-2 years	2–5 years	More than 5 years
Financial liability	₩431,439,434	₩432,179,698	₩195,138,695	₩2,041,003	₩235,000,000	₩-
Interest expense	-	35,927,463	12,312,713	10,591,000	13,023,750	-
Total	₩431,439,434	₩468,107,161	₩207,451,408	₩12,632,003	₩248,023,750	₩-

		December 31, 2013				
		Nominal cash flows according to contract (*)				
	Book value	Total	Less than 1 year	1-2 years	2–5 years	More than 5 years
Financial liability	₩402,252,137	₩403,207,521	₩160,328,416	₩52,879,105	₩190,000,000	₩-
Interest expense	-	43,235,832	12,493,056	10,047,776	20,695,000	-
Total	₩402,252,137	₩446,443,353	₩172,821,472	₩62,926,881	₩210,695,000	₩-

(*) Maturity analysis above is based on undiscounted cash flows per the contracts, which differs from the financial liability recognized in the consolidated statements of financial position. The above amount also includes guarantee amounts (see Note 32).

(4) Capital risk

The Group performs capital risk management to maintain its ability to continuously provide income to shareholders and parties in interest, and to maintain optimum capital structure to reduce capital expenses.

Debt-to-equity ratio, calculated as total liabilities divided by equity, is used as an index to manage the Group's capital similar to overall industry practice.

Debt-to-equity ratios at the end of the reporting date are as follows (in thousands of Korean won):

	December 31, 2014	December 31, 2013
Debt	₩839,594,911	₩872,571,145
Equity	700,701,677	790,037,462
Debt-to-equity ratio	119.81%	110.45%

5. RESTRICTED FINANCIAL INSTRUMENTS:

Details of restricted financial instruments as of December 31, 2014 and 2013, are as follows (in thousands of Korean won):

Account	December 31 2014	December 31 2013	Remarks
Short-term financial instruments	₩810,000	₩-	Establishment of a pledge to Korea Gas Corporation
Long-term financial instruments	6,500	6,500	Guarantee deposits for checking account
	1,928,359	1,796,668	Employee stock ownership loan secured by deposits
Total	₩2,744,859	₩1,803,168	

6. TRADE AND OTHER RECEIVABLES:

(1) Accounts and other receivables as of December 31, 2014 and 2013, consist of the following (in thousands of Korean won):

	December 31, 2014			December 31, 2013		
	Gross	Allowance for doubtful accounts	Carrying value	Gross	Allowance for doubtful accounts	Carrying value
CURRENT:						
Trade receivables	₩64,259,095	(₩197,312)	₩64,061,783	₩20,392,325	(₩588,933)	₩19,803,392
Other receivables	7,130,540	(6,236)	7,124,304	4,418,320	(6,236)	4,412,084
Accrued income	939,894	-	939,894	1,273,289	-	1,273,289
Guarantee deposits	62,520	-	62,520	78,712	-	78,712
Subtotal	72,392,049	(203,548)	72,188,501	26,162,646	(595,169)	25,567,477
NON-CURRENT:						
Other receivables	4,886,885	-	4,886,885	3,159,442	-	3,159,442
Guarantee deposits	5,814,188	-	5,814,188	6,533,878	-	6,533,878
Subtotal	10,701,073	-	10,701,073	9,693,320	-	9,693,320
Total	₩83,093,122	(₩203,548)	₩82,889,574	₩35,855,966	(₩595,169)	₩35,260,797

(2) The changes in allowance for doubtful accounts are as follows (in thousands of Korean won):

	2014			
	January 1, 2014	Increase	Reversal	December 31, 2014
Trade receivable	(₩588,933)	₩-	₩391,621	(₩197,312)
Other receivables	(6,236)	-	-	(6,236)
	(₩595,169)	₩-	₩391,621	(₩203,548)

Bad debt expense from trade receivables is included in selling, general and administrative expenses, and bad debt expense from other receivables is included in other non-operating expenses.

7. INVENTORIES:

Details of inventory valuation securities as of December 31, 2014 and 2013, are summarized as follows (in thousands of Korean won):

	December 31, 2014			December 31, 2013		
	Acquisition cost	Valuation allowance	Book value	Acquisition cost	Valuation allowance	Book value
Work in progress	₩108,971,070	(₩14,136,463)	₩94,834,607	₩97,821,089	(₩14,444,478)	₩83,376,611
Raw materials	94,449,805	(4,528,115)	89,921,690	77,864,105	(3,403,154)	74,460,951
Materials in transit	13,770,550	-	13,770,550	20,236,118	-	20,236,118
Total	₩217,191,425	(₩18,664,578)	₩198,526,847	₩195,921,312	(₩17,847,632)	₩178,073,680

The Group recorded gain (loss) on inventory valuation totaling (-)₩816,946 thousand and ₩15,290,243 thousand for the years ended December 31, 2014 and 2013, respectively.

8. LONG-TERM AND SHORT-TERM INVESTMENT SECURITIES:

Long-term and short-term investment securities as of December 31, 2014 and 2013, are as follows (in thousands of Korean won):

	December 31, 2014		December 31, 2013	
	Current	Non-current	Current	Non-current
AFS:				
Investment in capital of partnership:				
Korea Marine Equipment Association	₩-	₩20,000	₩-	₩20,000
Electronic Contractors' Financial Cooperative	-	52,047	-	52,047
Equity securities:				
Casco	-	1	-	1
Subtotal	-	72,048		72,048
Long-term held-to-maturity financial assets:				
Debt security:				
Subordinated beneficiary certificate	7,000,000	-	-	7,000,000
Total	₩7,000,000	72,048	-	₩7,072,048

Long-term held-to-maturity financial assets is expired on March 30, 2015. AFS financial assets are measured at acquisition cost as they cannot be reliably measured at fair value.

9. DERIVATIVES:

(1) Details of the derivatives and risk aversion accounting are as follows:

Purpose	Derivative instruments	Contract description
Risk aversion of fair value	Foreign currency forwards	When receiving the foreign receivables, determined foreign payables to fix the value of Korean won at maturity about exposed fluctuation risk of exchange rate
	Long-term foreign currency borrowings	When receiving the foreign receivables, it fixes the value of Korean won at maturity about exposed fluctuation risk of exchange rate

(2) Details of gain and loss on valuation of derivatives as of December 31, 2014 and 2013, are as follows (in thousands of Korean won):

	December 31, 2014						
	Buy		Sell		Assets	Gains	Firm
	Currency	Amount	Currency	Amount	(liabilities)	(losses)	commitment
Foreign currency forwards	KRW	752,196,632	USD	693,038,000	(₩13,870,143)	(₩19,654,828)	₩31,200,074
	EUR	61,928,000	KRW	88,752,216	(4,976,801)	(4,933,113)	7,918,277
	CHF	2,739,000	KRW	3,226,908	(113,552)	(139,961)	101,938
Total					(₩18,960,496)	(₩24,727,902)	₩39,220,289

	December 31, 2013						
	Buy		Sell		Assets	Gains	Firm
	Currency	Amount	Currency	Amount	(liabilities)	(losses)	commitment
Foreign currency forwards	KRW	980,501,554	USD	874,516,016	₩45,805,211	₩32,569,776	(₩17,760,943)
	KRW	1,455,617	EUR	959,000	53,373	(8,417)	(6,302)
	EUR	76,841,000	KRW	115,738,313	(2,431,635)	(392,053)	4,120,036
	CHF	3,033,000	KRW	3,674,256	10,523	14,969	(10,523)
	CNY	11,456,276	USD	1,786,312	108,012	172,303	-
Borrowings in foreign currency	KRW	62,668,463	USD	60,000,000	-	-	4,313,118
Total					₩43,545,484	₩32,356,578	(₩9,344,614)

10. FINANCIAL INSTRUMENTS:

(1) Categories of financial instruments as of December 31, 2014 and 2013, are as follows (in thousands of Korean won):

	December 31, 2014						
	Financial assets at FVTPL	Loans and receivables	AFS financial assets	Held-to-maturity investments	Derivatives designated as hedging instruments	Book value	Fair value
Cash and cash equivalents	₩-	₩44,998,938	₩-	₩-	₩-	₩44,998,938	₩44,998,938
Long- and short-term financial instruments	-	39,744,859	-	-	-	39,744,859	39,744,859
Trade and other receivables	-	72,188,501	-	-	-	72,188,501	72,188,501
Derivative assets	-	-	-	-	3,212,151	3,212,151	3,212,151
Long- and short-term loans	-	4,216,940	-	-	-	4,216,940	4,216,940
Long-term short-term investment securities	-	-	72,048	7,000,000	-	7,072,048	7,072,048
Long-term other receivables	-	10,701,073	-	-	-	10,701,073	10,701,073
Total	₩-	₩171,850,311	₩72,048	₩7,000,000	₩3,212,151	₩182,134,510	₩182,134,510

	December 31, 2014					
	Financial liabilities at FVTPL	Financial liabilities at amortized cost	Derivatives designated as hedging instruments	Financial guaranty contracts	Book value	Fair value
Trade and other payables	₩-	₩125,098,378	₩-	-	₩125,098,378	₩125,098,378
Borrowings and bonds	-	304,300,053	-	-	304,300,053	304,300,053
Derivative liabilities	-	-	22,172,647	-	22,172,647	22,172,647
Long-term non-trade payables	-	2,041,003	-	-	2,041,003	2,041,003
Financial guarantee liabilities	-	-	-	4,614,294	4,614,294	4,614,294
Total	₩-	₩431,439,434	₩22,172,647	₩4,614,294	₩458,226,375	₩458,226,375

	December 31, 2013						
	Financial assets at FVTPL	Loans and receivables	AFS financial assets	Held-to-maturity investments	Derivatives designated as hedging instruments	Book value	Fair value
Cash and cash equivalents	₩-	₩41,595,115	₩-	₩-	₩-	₩41,595,115	₩41,595,115
Long- and short-term financial instruments	-	146,803,168	-	-	-	146,803,168	146,803,168
Trade and other receivables	-	25,567,477	-	-	-	25,567,477	25,567,477
Derivative assets	108,012	-	-	-	46,332,783	46,440,795	46,440,795
Long- and short-term loans	-	13,909,247	-	-	-	13,909,247	13,909,247
Long-term short-term investment securities	-	-	72,048	7,000,000	-	7,072,048	7,072,048
Long-term other receivables	-	9,693,320	-	-	-	9,693,320	9,693,320
Total	₩108,012	₩237,568,327	₩72,048	₩7,000,000	₩46,332,783	₩291,081,170	₩291,081,170

	December 31, 2013					
	Financial liabilities at FVTPL	Financial liabilities at amortized cost	Derivatives designated as hedging instruments	Financial guaranty contracts	Book value	Fair value
Trade and other payables	₩-	₩89,569,231	₩-	₩-	₩89,569,231	₩89,569,231
Borrowings and bonds	-	311,370,611	-	-	311,370,611	311,370,611
Derivative liabilities	-	-	2,895,311	-	2,895,311	2,895,311
Long-term non-trade payables	-	1,312,295	-	-	1,312,295	1,312,295
Financial guarantee liabilities	-	-	-	2,977,125	2,977,125	2,977,125
Total	₩-	₩402,252,137	₩2,895,311	₩2,977,125	₩408,124,573	₩408,124,573

(2) Fair value measurements of financial instruments by fair value levels as of December 31, 2014 and 2013, are as follows (in thousands of Korean won):

Type	December 31, 2014 Level 1	Level 2	Level 3	Total
Financial assets:				
Financial assets at FVTPL	₩-	₩-	₩-	₩-
Derivatives designated as hedging instruments	-	3,212,151	-	3,212,151
Subtotal	₩-	₩3,212,151	₩-	₩3,212,151
Financial liabilities:				
Derivatives designated as hedging instruments	₩-	(₩22,172,647)	₩-	(₩22,172,647)
Total	₩-	(₩18,960,496)	₩-	(₩18,960,496)

Type	December 31, 2013 Level 1	Level 2	Level 3	Total
Financial assets:				
Financial assets at FVTPL	₩-	₩108,012	₩-	₩108,012
Derivatives designated as hedging instruments	-	46,332,783	-	46,332,783
Subtotal	₩-	₩46,440,795	₩-	₩46,440,795
Financial liabilities:				
Derivatives designated as hedging instruments	₩-	(₩2,895,311)	₩-	(₩2,895,311)
Total	₩-	₩43,545,484	₩-	₩43,545,484

For the convenience of practical, fair value of long-term investment securities that have been evaluated with a closing Level 3 before, we used the substitute value of fair value net assets of the investee.

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

The fair value of financial instruments traded in active markets is based on quoted market prices at the dates of the consolidated statements of financial position. These instruments are included in Level 1. Instruments included in Level 1 comprise primarily listed equity investments classified as trading securities or AFS financial assets.

The fair value of financial instruments that are not traded in an active market (for example, over-the-counter derivatives) is determined by using valuation techniques. These valuation techniques maximize the use of observable market data where it is available and rely as little as possible on entity-specific estimates. If all significant inputs required to fair value an instrument are observable, the instrument is included in Level 2. On the other hand, derivatives designated as hedging instruments that were classified as Level 2 were used as the input forward exchange rates for the reporting period-end date.

If one or more of the significant inputs are not based on observable market data, the instrument is included in Level 3.

On the other hand, as for trade and other receivables, the book value approximates a reasonable estimate of fair value.

(3) Valuation methodologies and inputs used for derivatives designated as hedging instruments (Level 2) are as follows:

Valuation methodology	Observable inputs	Explanation of inputs
Discounted cash flow method	Forward exchange rate	It is based on forward exchange rate, disclosed on the market, its remaining period is the same to maturity of forward contracts. If the forward exchange rate is not disclosed on the market, it is calculated by using of interpolation method.
	Discount rate	It is determined by using yield curve that is disclosed at the end of reporting period.

(4) Profit and loss by categories of financial instruments as of December 31, 2014 and 2013, are as follows (in thousands of Korean won):

	Profit and loss as of December 31, 2014							Other comprehensive income
	Interest	Dividend	Valuation	Impairment	Disposal	Foreign exchange	Others	
Financial asset at FVTPL	₩-	₩-	₩-	₩-	₩-	₩-	₩-	₩-
Loans and receivables	4,180,623	-	-	391,621	-	4,084,957	-	-
AFS financial assets	-	-	-	-	-	-	-	-
Held-to-maturity investments	588,000	-	-	-	-	-	-	-
Total	4,768,623	-	-	391,621	-	4,084,957	-	-
Financial liabilities at FVTPL	-	-	-	-	-	-	-	-
Financial liabilities at amortized cost	(13,514,428)	-	-	-	-	690,513	-	-
Financial guaranty contracts	-	-	-	-	-	-	1,245,571	-
Total	(₩13,514,428)	₩-	₩-	₩-	₩-	₩690,513	₩1,245,571	₩-

	Profit and loss as of December 31, 2013							Other comprehensive income
	Interest	Dividend	Valuation	Impairment	Disposal	Foreign exchange	Others	
Financial asset at FVTPL	₩-	₩-	₩-	₩-	₩-	₩-	₩-	₩-
Loans and receivables	6,247,935	-	-	3,530,160	-	(77,005)	-	-
AFS financial assets	-	827	-	(850,069)	-	-	-	-
Held-to-maturity investments	585,498	-	-	-	-	-	-	-
Total	6,833,433	827	-	2,680,091	-	(77,005)	-	-
Financial liabilities at FVTPL	-	-	-	-	-	-	-	-
Financial liabilities at amortized cost	(14,169,843)	-	-	-	-	(240,145)	-	-
Financial guaranty contracts	-	-	-	-	-	-	1,202,422	-
Total	(₩14,169,843)	₩-	₩-	₩-	₩-	(₩240,145)	₩1,202,422	₩-

Apart from the above, the comprehensive income generated by the derivatives designated as hedging instruments is as follows.

	December 31, 2014			December 31, 2013		
	Valuation	Disposal	Other comprehensive income	Valuation	Disposal	Other comprehensive income
Derivatives of sale	₩-	(₩11,444)	₩-	₩172,303	(₩1,507)	₩-
Derivatives designated as hedging instruments	(24,727,902)	1,348,755	₩-	32,184,275	(4,666,544)	-
Total	(₩24,727,902)	₩1,337,311	₩-	₩32,356,578	(₩4,668,051)	₩-

11. INVESTMENTS IN ASSOCIATES:

(1) Investments in associates as of December 31, 2014 and 2013, are summarized as follows (in thousands of Korean won):

Company	Country	Percentage of ownership (%)	Acquisition cost		Book value		Proportionate share of net assets	
			December 31, 2014	December 31, 2013	December 31, 2014	December 31, 2013	December 31, 2014	December 31, 2013
Dalian Samyoung Doosan Metal Product Co., Ltd. (“DSDMP”) (*1)	China	10.80	₩2,675,402	₩2,675,402	₩3,647,199	₩3,390,480	₩3,647,199	₩3,390,480
Doosan Infracore International, Inc. (“DII”) (*2)	America	11.59	355,596,311	355,596,311	302,483,746	282,649,053	296,769,249	276,934,556
Doosan Holdings Europe Ltd. (“DHEL”) (*2)	Island	21.73	382,594,143	382,594,143	102,435,138	174,279,649	102,435,138	174,279,649
Total			₩740,865,856	₩740,865,856	₩408,566,083	₩460,319,182	₩402,851,586	₩454,604,685

(*1) Although the Group’s ownership in each of these companies is less than 20%, the Group has significant influence over these companies through participation in various management decisions of these companies. As a result, the Group accounts for these investments using the equity method.

(*2) Investees have agreement with Doosan Infracore (“DI”), related party of the Group, for appointment to representative director, etc. In addition, the Group provides share of DII and DHEL for its loans as collateral (see Note 31-(2)).

The Group does not have securities of associates with posted market price.

(2) Changes in investments in associates for the years ended December 31, 2014 and 2013, are as follows (in thousands of Korean won):

Group	Year ended December 31, 2014					
	January 1, 2014	Acquisition (disposal)	Share of profit (loss)	Increase (decrease) in equity of associates	Other	December 31, 2014
DSDMP	₩3,390,480	₩-	₩196,970	₩59,749	₩-	₩3,647,199
DII	282,649,053	-	19,762,410	4,970,540	(4,898,257)	302,483,746
DHEL	174,279,649	-	(27,379,365)	(43,281,188)	(1,183,958)	102,435,138
Total	₩460,319,182	₩-	(₩7,419,985)	(₩38,250,899)	(₩6,082,215)	₩408,566,083

Group	Year ended December 31, 2013					
	January 1, 2013	Acquisition (disposal)	Share of profit (loss)	Increase (decrease) in equity of associates	Other	December 31, 2013
DSDMP	₩3,433,805	₩-	(₩89,491)	₩46,166	₩-	₩3,390,480
DII	256,127,127	-	16,594,088	(4,514,062)	14,441,900	282,649,053
DHEL	190,891,819	-	(12,357,744)	(5,401,661)	1,147,235	174,279,649
Total	₩450,452,751	₩-	₩4,146,853	(₩9,869,557)	₩15,589,135	₩460,319,182

(3) The condensed financial information of the investees as of and for the years ended December 31, 2014 and 2013, is as follows (in thousands of Korean won):

	As of and for the year ended December 31, 2014							
	Assets		Liabilities		Sales	Net income (loss)	Comprehensive Income (loss)	Dividends
Group	Current	Non-current	Current	Non-current				
DSDMP	₩29,870,875	₩24,277,714	₩11,723,024	₩8,655,203	₩25,813,348	₩1,823,792	₩2,377,024	-
DII	776,258,197	3,603,664,050	661,192,187	1,157,753,226	2,689,687,049	170,540,157	171,163,923	-
DHEL	644,842,341	1,949,971,199	1,019,992,910	1,103,403,187	1,304,936,367	(126,002,759)	(330,636,111)	-

	As of and for the year ended December 31, 2013							
	Assets		Liabilities		Sales	Net income (loss)	Comprehensive Income (loss)	Dividends
Group	Current	Non-current	Current	Non-current				
DSDMP	₩26,164,104	₩25,835,503	₩20,606,270	₩-	₩19,912,406	(₩828,620)	(₩828,620)	-
DII	1,133,209,847	2,881,918,801	428,265,022	1,197,050,715	2,539,226,799	143,199,061	219,208,310	-
DHEL	589,983,666	2,078,836,291	771,617,919	1,095,148,485	1,326,145,383	(56,871,660)	(32,356,817)	-

(4) Reconciliation of book value of investments in associates as of December 31, 2014 and 2013, is as follows (in thousands of Korean won):

	2014				
	Net assets (a)	Ratio% (b)	Net asset value (a*b)	Investment balance	Book value
DSDMP	₩33,770,362	10.80	₩3,647,199	₩-	₩3,647,199
DII	2,560,976,834	11.59	296,769,249	5,714,497	302,483,746
DHEL	471,417,443	21.73	102,435,138	-	102,435,138
Total	₩3,066,164,639		₩402,851,586	₩5,714,497	₩408,566,083

	2013				
	Net assets (a)	Ratio% (b)	Net asset value (a*b)	Investment balance	Book value
DSDMP	₩31,393,337	10.80	₩3,390,480	₩-	₩3,390,480
DII	2,389,812,911	11.59	276,934,556	5,714,497	282,649,053
DHEL	802,053,553	21.73	174,279,649	-	174,279,649
Total	₩3,223,259,801		₩454,604,685	₩5,714,497	₩460,319,182

12. PROPERTY, PLANT AND EQUIPMENT:

(1) Changes in property, plant and equipment for the years ended December 31, 2014 and 2013, are as follows (in thousands of Korean won):

	2014					
	Land	Buildings and structures	Machinery	Others	Construction in progress	Total
January 1, 2014	₩283,761,955	₩217,820,489	₩117,972,044	₩4,666,641	₩3,224,529	₩627,445,658
Acquisition	-	259,779	745,235	256,381	525,640	1,787,035
Transfer	-	-	3,114,650	34,708	(2,894,758)	254,600
Disposal	-	-	(12,710)	(23,027)	-	(35,737)
Depreciation	-	(7,610,841)	(13,298,411)	(1,723,145)	-	(22,632,397)
Foreign difference	-	218,840	58,950	7,061	326	285,177
December 31, 2014	₩283,761,955	₩210,688,267	₩108,579,758	₩3,218,619	₩855,737	₩607,104,336
-Acquisition cost	₩236,132,293	₩265,738,593	₩250,245,260	₩57,735,730	₩855,737	₩810,707,613
-Accumulated depreciation	-	(55,050,326)	(141,665,502)	(54,517,111)	-	(251,232,939)
-Revaluation surplus	47,629,662	-	-	-	-	47,629,662

	2013					
	Land	Buildings and structures	Machinery	Others	Construction in progress	Total
January 1, 2013	₩236,951,695	₩218,549,020	₩127,632,144	₩7,365,865	₩2,445,682	₩592,944,406
Acquisition	-	1,782,661	2,128,104	444,919	3,170,730	7,526,414
Transfer(*1)	(819,402)	4,996,748	1,267,531	174,062	(2,391,402)	3,227,537
Net changes from Revaluation	47,629,662	-	-	-	-	47,629,662
Disposal	-	-	(7,464)	(1,005)	-	(8,469)
Depreciation	-	(7,519,361)	(13,134,156)	(3,331,785)	-	(23,985,302)
Foreign difference	-	11,421	85,885	14,585	(481)	111,410
December 31, 2013	₩283,761,955	₩217,820,489	₩117,972,044	₩4,666,641	₩3,224,529	₩627,445,658
-Acquisition cost	₩236,132,293	₩265,199,777	₩246,433,773	₩57,732,382	₩3,224,529	₩808,722,754
-Accumulated depreciation	-	(47,379,288)	(128,461,729)	(53,065,741)	-	(228,906,758)
-Revaluation surplus	47,629,662	-	-	-	-	47,629,662

(*1) Amounts related to transfer from construction in progress to original account and from property, plant and equipment (land and building) to assets held for sale

The Company has confirmed subsequent measurement as a revaluation for land, and the amount of land stated at cost is 236,132,293 thousand won as of December 31, 2014 and 2013.

(2) The Group revalued its land assets as of December 31, 2014 and 2013, as follows:

For the year ended December 31, 2013, the Group initially remeasured all land assets using fair value at the date of the revaluation. As of December 31, 2013, the fair value of land assets is determined from appraisal that is undertaken by independently qualified valuators, Pacific Appraisal Group Limited (Pacific), on October 31, 2013. Fair value of land assets is not remeasured because the change of its value from December 31, 2013, to December 31, 2014, is not significant.

The Pacific is a member of Korea Association of Property Appraisers and comprises certified professionals that have a significant amount of industry experience.

(3) Fair value measurements of land assets by fair value hierarchy level as of December 31, 2014 and 2013, are as follows (in thousands of Korean won):

	2014			2013		
Type	Level 1	Level 2	Level 3	Level 1	Level 2	Level 3
Land	₩-	₩-	₩283,761,955	₩-	₩-	₩283,761,955

(4) Valuation methodologies and inputs used for fair value measurements of land assets (Level 3) are as follows:

Valuation methodology	Significant inputs that are not based on observable market data (unobservable inputs)	Correlation between unobservable inputs and fair value arguments
OARLP	Fluctuation rate of land price and others	Fair value increases (decreases) if rate of land price increases (decreases)
OARLP of similar parcels nearby the subject land and reflating corrections necessary for differences between the subject and the comparables	Parcel conditions and others	Fair value increases (decreases) if correction of parcel conditions and others increase (decreases)
	Land conditions affecting the sales price and others	Fair value increases (decreases) if correction of land conditions affecting the sales price increases (decreases)

(5) Changes in land whose degree of fair value is classified as Level 3 for the year ended December 31, 2013, are as follows (in thousands of Korean won):

		Revaluation increase			
January 1, 2013	Transfer	Revaluation surplus	Deferred income tax liabilities	Revaluation decrease	December 31, 2013
₩236,951,695	(₩819,402)	₩36,207,540	₩11,559,663	(₩137,541)	₩283,761,955

(6) Classification of depreciation expenses for the years ended December 31, 2014 and 2013, is as follows (in thousands of Korean won):

	2014	2013
Cost of sales	₩22,009,470	₩23,179,139
Selling and administrative expenses	338,808	521,972
Development costs	284,119	284,191
Total	₩22,632,397	₩23,985,302

13. INTANGIBLE ASSETS:

(1) Changes in intangible assets for the years ended December 31, 2014 and 2013, are as follows (in thousands of Korean won):

	2014				
	Development costs	Rights of utilization	Software	Others	Total
January 1, 2014	₩12,850,498	₩416,193	₩8,658,758	₩3,078,225	₩25,003,674
Acquisition	16,563,904	-	38,000	2,736,788	19,338,692
Transfer	1,601,176	-	-	-	1,601,176
Disposal	-	-	-	(544,000)	(544,000)
Amortization	-	(208,096)	(3,070,582)	(433,197)	(3,711,875)
Impairment	-	-	-	(5,940)	(5,940)
Foreign difference	-	-	(1,693)	-	(1,693)
December 31, 2014	₩31,015,578	₩208,097	₩5,624,483	₩4,831,876	₩41,680,034
-Acquisition cost	₩31,015,578	₩3,329,540	₩14,705,831	₩5,932,701	₩54,983,650
-Accumulated amortization	-	(3,121,443)	(9,081,348)	(1,100,825)	(13,303,616)

	2013				
	Development costs	Rights of utilization	Software	Others	Total
January 1, 2013	₩4,871,235	₩624,289	₩9,945,338	₩3,373,499	₩18,814,361
Acquisition	7,890,514	-	454,666	-	8,345,180
Transfer	820,204	-	883,276	-	1,703,480
Abandon	(731,455)	-	-	-	(731,455)
Amortization	-	(208,096)	(2,629,570)	-	(2,837,666)
Impairment	-	-	-	(295,274)	(295,274)
Foreign difference	-	-	5,048	-	5,048
December 31, 2013	₩12,850,498	₩416,193	₩8,658,758	₩3,078,225	₩25,003,674
-Acquisition cost	₩12,850,498	₩3,329,540	₩14,659,251	₩4,774,867	₩35,614,156
-Accumulated amortization	-	(2,913,347)	(6,000,493)	(1,696,642)	(10,610,482)

Other intangible assets' book value, which have non-restrictive durable years, is ₩2,875,765 thousand and ₩3,078,225 thousand as of December 31, 2014 and 2013, respectively.

Expenditure on research and development recognized as expenses amounted to ₩5,673,011 thousand and ₩5,773,802 thousand for the years ended December 31, 2014 and 2013, respectively.

(2) Borrowing costs added to the cost of intangible assets for the years ended December 31, 2014 and 2013, are as follows (in thousands of Korean won):

	2014	2013
Borrowing costs added to the cost of intangible assets	₩913,496	₩264,724
Interest rate (%)	4.36%	3.76%

(3) Classification of amortization expense for the years ended December 31, 2014 and 2013, is as follows (in thousands of Korean won):

	2014	2013
Cost of sales	₩1,851,886	₩2,236,061
Selling and administrative expenses	1,739,989	601,605
Development costs	120,000	-
Total	₩3,711,875	₩2,837,666

14. BORROWINGS AND BONDS:

(1) Bonds as of December 31, 2014 and 2013, are as follows (in thousands of Korean won):

Details	Interest rate (%)	December 31, 2014	December 31, 2013
The 6th	4.16	₩100,000,000	₩100,000,000
The 7th	5.00	90,000,000	90,000,000
Subtotal		190,000,000	190,000,000
Less: Discount on bonds		(740,264)	(955,383)
Net		₩189,259,736	₩189,044,617

(2) Short-term borrowings as of December 31, 2014 and 2013, are as follows (in thousands of Korean won):

1) Short-term borrowings

Type	Lender	Annual interest rate (%)	December 31, 2014	December 31, 2013
Short-term borrowings in foreign currency	Korea Exchange Bank	1.08–1.10	₩3,857,093	₩-
	Korea Exchange Bank	5.50–5.94	9,943,794	5,874,375
	Korea export-import Bank	LIBOR+2.27	4,648,140	-
	Total		₩18,449,027	₩5,874,375

Short-term borrowings are provided as collateral for the accounts receivable debt transactions that occurred in the assigning receivables that do not meet the requirements for removal of financial instruments (see Note 30-(2)).

2) Long-term borrowings

Type	Lender	Interest rate (%)	December 31, 2014	December 31,2013
Long-term borrowings in domestic currency	La-union	5.15	₩50,000,000	₩50,000,000
	NH Bank	MOR+2.0	20,000,000	-
	Korea Development Bank	4.42	25,000,000	-
	Sub-total		95,000,000	50,000,000
Long-term borrowings in foreign currency	Korea Development Bank	6M LIBOR+1.6	-	21,106,000
	The Export-Import Bank of Korea	6M LIBOR+1.6	-	10,553,000
	Shinhan Bank	6M LIBOR+1.6	-	8,442,400
	Industrial Bank of Korea	6M LIBOR+1.6	-	6,331,800
	Woori Bank	6M LIBOR+1.6	-	8,442,400
	Korea Exchange Bank	6M LIBOR+1.6	-	1,899,540
	Hana Bank	6M LIBOR+1.6	-	3,165,900
	Kookmin Bank	6M LIBOR+1.6	-	1,688,480
	HSBC	6M LIBOR+1.6	-	844,240
	First Gulf Bank	6M LIBOR+1.6	-	844,240
	China Construction Bank (*1)	6.4	1,591,290	3,133,620
	Subtotal		1,591,290	66,451,620
Subtotal			96,591,290	116,451,620
Less: Current portion			(51,591,290)	(63,318,000)
Net			₩45,000,000	₩53,133,620

(*1) Subsidiary’s buildings are provided as collateral (See Note to 31-(2)).

15. RETIREMENT BENEFIT OBLIGATION:

The Group operates a retirement defined benefit plans for its employees. For defined benefit retirement benefit plans and plan assets, the cost of providing benefits is determined using the projected unit credit method, with actuarial valuations being carried out at the end of each reporting period by external actuary who is professionally qualified.

(1) Details of retirement benefit obligation as of December 31, 2014 and 2013, are as follows (in thousands of Korean won):

	December 31, 2014	December 31, 2013
Present value of defined benefit obligation	₩31,811,723	₩22,972,104
Fair value of plan assets	(19,946,058)	(12,363,157)
Total	₩11,865,665	₩10,608,947

(2) Expenses recognized in income and loss for the years ended December 31, 2014 and 2013, are as follows (in thousands of Korean won):

	2014	2013
Current service cost	₩5,272,021	₩5,832,361
Net interest cost (interest cost – expected return on plan assets)	469,569	708,982
Total	₩5,741,590	₩6,541,343

(3) Details of the total expense recognized in the consolidated statements of income for the years ended December 31, 2014 and 2013, are as follows (in thousands of Korean won):

	2014	2013
Cost of sales	₩4,201,224	₩4,411,846
Selling and administrative expenses	1,256,804	1,858,208
Development	283,562	271,289
Total	₩5,741,590	₩6,541,343

(4) Changes in defined benefit obligations for the years ended December 31, 2014 and 2013, are as follows (in thousands of Korean won):

	2014	2013
Beginning balance	₩22,972,104	₩24,670,006
Current service cost	5,272,021	5,832,361
Transfer in	52,077	174,293
Transfer out	(242,933)	(289,650)
Interest cost	969,018	881,061
Remeasurements of defined benefit liabilities:	3,846,663	(7,001,256)
- Actuarial loss (gain) arising from changes in demographic assumptions	1,095,264	(102,475)
- Actuarial loss (gain) arising from changes in financial assumptions	2,187,452	(5,668,269)
- Others	563,947	(1,230,512)
Benefit paid	(1,057,227)	(1,294,711)
Ending balance	₩31,811,723	₩22,972,104

(5) Changes in plan assets for the years ended December 31, 2014 and 2013, are as follows (in thousands of Korean won):

	2014	2013
Beginning balance	₩12,363,157	₩4,854,163
Expected return on plan assets	499,449	172,080
Remeasurements of plan assets	(183,425)	(2,053)
Contributions by employer directly to plan assets	8,405,523	7,505,000
Benefit payment	(1,057,227)	(127,570)
Transfer in	19,158	7,825
Transfer out	(100,577)	(44,866)
National Pension Fund	-	(1,422)
Ending balance	₩19,946,058	₩12,363,157

(6) Assumptions used on actuarial valuation as of December 31, 2014 and 2013, are as follows:

	December 31, 2014	December 31, 2013
Discount rate for defined benefit obligations	3.40%	4.40%
Expected rate of salary increase:		
Employee	2.40%	2.40%
Officer	3.40%	5.30%

(7) Details of plan assets as of December 31, 2014 and 2013, are as follows (in thousands of Korean won):

	December 31, 2014	December 31, 2013
Debt instruments	₩1,295,835	₩505,182
Securities	247,888	-
Loans	84,782	36,825
Deposits	18,251,926	11,800,483
Pension	65,627	20,667
Total	₩19,946,058	₩12,363,157

Most of the plan assets are invested in certain assets being traded on the price quoted by active markets.

(8) Sensitivity analysis as of December 31, 2014 and 2013, showing how the defined benefit obligation would have been affected by changes in the relevant actuarial assumption are as follows (in thousands of Korean won):

	2014			
	Discount rate		Salary increase rate	
	1% increase	1% decrease	1% increase	1% decrease
Amount	(₩1,376,883)	₩1,525,215	₩1,525,065	(₩1,402,538)
Ratio	(-)4.33%	4.79%	4.79%	(-)4.41%

	2013			
	Discount rate		Salary increase rate	
	1% increase	1% decrease	1% increase	1% decrease
Amount	(₩1,661,059)	₩1,928,477	₩1,948,256	(₩1,706,271)
Ratio	(-)7.23%	8.39%	8.48%	(-)7.43%

(9) Maturity of the defined benefit obligation as of December 31, 2014 is as follows (in thousands of Korean won):

	Less than 1 year	1 – 2 years	2 – 5 years	5 – 10 years	Total
Payment	₩4,588,493	₩6,809,797	₩14,885,066	₩21,555,345	₩47,838,701

The Group plans to contribute 9,507,173 thousand for the defined benefit plans in 2015.

16. PROVISIONS:

Changes in provisions for the years ended December 31, 2014 and 2013, are as follows (in thousands of Korean won):

	2014						
	January 1, 2014	Accrual	Use	Others (*)	December 31, 2014	Current	Non-current
Provision for construction warranties	₩10,097,900	(₩3,282,509)	(₩4,060,524)	₩1,111,168	₩3,866,035	₩1,916,319	₩1,949,716
Provision for litigation	-	-	-	-	-	-	-
Total	₩10,097,900	(₩3,282,509)	(₩4,060,524)	₩1,111,168	₩3,866,035	₩1,916,319	₩1,949,716

	2013						
	January 1, 2013	Accrual	Use	Others (*)	December 31, 2013	Current	Non-current
Provision for construction warranties	₩17,568,072	(₩8,130,136)	(₩3,350,359)	₩4,010,323	₩10,097,900	₩-	₩10,097,900
Provision for litigation	2,000,000	-	(2,000,000)	-	-	-	-
Total	₩19,568,072	(₩8,130,136)	(₩5,350,359)	₩4,010,323	₩10,097,900	₩-	₩10,097,900

(*) The amounts represent those settled by professional engineers who are responsible for the warranty.

The Group estimates expenditure required to settle the Group’s obligation for product warranty, refund, related after-sales service and other based on warranty period, historical claim rate and other.

17. CAPITAL STOCK AND CAPITAL SURPLUS:

Changes in capital stock and capital surplus for the year ended December 31, 2014, are as follows (in thousands of Korean won):

	Number of shares	Capital stock	Capital surplus
Balance at December 31, 2014	₩69,500,000	₩69,500,000	₩367,214,701

The Company’s number of authorized shares is 120,000,000 shares, with par value of ₩1,000 per share. There are no issued shares with restricted voting rights under commercial law.

18. OTHER CAPITAL ITEMS:

(1) Other capital items as of December 31, 2014 and 2013, are summarized as follows (in thousands of Korean won):

Description	December 31, 2014	December 31, 2013
Share option	₩550,159	₩355,390

(2) Share-based payment

The Company granted share options to its directors. Share options are settled based on the board of directors' decision on issuance of new shares, treasury shares or cash settlement. These share options carry a two-year service vesting condition, subsequent to the resolution at the stockholders' meeting.

1) Number of granted options as of December 31, 2014, is as follows:

Date of grant	Number of granted options	Exercisable period	Exercisable price	Expected fair value at the date of grant
2011.03.25	10,900	2014.03.25–2021.03.24	₩21,600	₩10,343
2012.03.30	30,000	2015.03.30–2022.03.29	₩13,300	₩4,653
2013.03.29	87,100	2016.03.29–2023.03.28	₩9,050	₩3,383
2014.04.28	27,700	2017.03.28 - 2024.03.27	₩9,490	₩3,583

2) The Company calculated expenses applying fair value approach. Assumptions used in determining fair value of stock options are as follows:

Date of grant	Risk-free interest rate (*)	Expected exercisable period	Expected volatility	Expected dividend yield ratio
2011.03.25	3.66%	3 years	68.77%	0.00%
2012.03.30	3.57%	3 years	55.03%	0.00%
2013.03.29	2.45%	3 years	52.35%	0.00%
2014.04.28	2.88%	3 years	52.27%	0.00%

(*) Risk-free interest rate is based on a three-year treasury bond yield rate.

3) Changes in share option for the year ended December 31, 2014, are as follows:

a) Number of common shares to be issued:

Date of grant	January 1, 2014	Granted	Exercised	Canceled	December 31, 2014
2011.03.25	10,900	-	-	-	10,900
2012.03.30	30,000	-	-	-	30,000
2013.03.29	92,800	-	-	(5,700)	87,100
2014.04.28	-	27,700	-	-	27,700
Total	133,700	27,700	-	(5,700)	155,700

b) Valuation amount (in thousands of Korean won):

Date of grant	January 1, 2014	Granted	Exercised	Canceled	December 31, 2014
2011.03.25	₩112,739	₩-	₩-	₩-	₩112,739
2012.03.30	122,931	16,659	-	-	139,590
2013.03.29	119,720	157,187	-	(17,009)	259,898
2014.04.28	-	37,932	-	-	37,932
Total	₩355,390	₩211,778	₩-	(₩17,009)	₩550,159

Expense to be recognized in the future period amounted to ₩96,078 thousand.

19. ACCUMULATED OTHER COMPREHENSIVE INCOME (LOSS):

Changes in accumulated other comprehensive income (loss) for the years ended December 31, 2014 and 2013, are as follows (in thousands of Korean won):

	December 31, 2014	December 31, 2013
Overseas operation translation credit	₩496,739	₩408,478
Decrease in equity of associates	(70,428,519)	(32,177,620)
Revaluation surplus of land	36,207,540	36,207,540
Total	(₩33,724,240)	₩4,438,398

20. RETAINED EARNINGS:

(1) Retained earnings as of December 31, 2014 and 2013, are as follows (in thousands of Korean won):

	December 31, 2014	December 31, 2013
Legal reserve	₩1,200,000	₩1,200,000
Optional reserve	2,700,000	2,700,000
Retained earnings before appropriations	293,261,056	344,628,972
Total	₩297,161,056	₩348,528,972

(2) Changes in retained earnings for the years ended December 31, 2014 and 2013, are as follows (in thousands of Korean won):

	2014	2013
Beginning balance	₩348,528,972	₩332,870,772
Profit for the period	(42,230,894)	(5,236,332)
Actuarial loss and losses recognized in retained earnings	(3,054,807)	5,305,396
Change of retained earnings in associates	(6,082,215)	15,589,136
Ending balance	₩297,161,056	₩348,528,972

21. SALES:

Details of sales for the years ended December 31, 2014 and 2013, are as follows (in thousands of Korean won):

	2014	2013
Sales of goods	₩862,314,180	₩703,186,469
Construction sales	20,726,389	35,329,121
Others	5,785,386	5,362,995
Total	₩888,825,955	₩743,878,585

22. SEGMENT INFORMATION:

The Group has a single reportable segment determined by considering the characteristics of the nature of goods and assets to create sales.

(1) The following table provides sale information by geographical segment for the years ended December 31, 2014 and 2013 (in thousands of Korean won):

	2014	2013
Domestic	₩451,556,093	₩468,740,537
Overseas	445,652,319	280,303,037
Subtotal	897,208,412	749,043,574
Adjustments	(8,382,457)	(5,164,989)
After consolidation	₩888,825,955	₩743,878,585

(2) There is a single external customer who accounted for 10% or more of the Group's sales for the years ended December 31, 2014 and 2013 (in thousands of Korean won):

	2014	2013
Samsung Heavy Industries Co., Ltd.	₩102,549,771	₩64,938,459
Daewoo Shipbuilding & Marine Engineering Co., Ltd.	208,448,596	268,583,594
Total	₩310,998,367	₩333,522,053

23. CONSTRUCTION CONTRACTS:

(1) Details of profit and unbilled (overbilled) construction receivables (payables) under construction contract for the years ended December 31, 2014 and 2013, are as follows (in thousands of Korean won):

	2014					
				Contract receivables		
	Construction revenue	Construction cost	Construction profit	Claimed	Not claimed	Gross amount due to customers
Diesel engine	₩188,147,457	₩147,311,231	₩40,836,226	₩-	₩12,999,974	₩14,568,458

	2013					
				Contract receivables		
	Construction revenue	Construction cost	Construction profit	Claimed	Not claimed	Gross amount due to customers
Diesel engine	₩167,747,983	₩128,992,095	₩38,755,888	₩-	₩10,720,649	₩3,773,450

(2) Details of construction contract for the years ended December 31, 2014 and 2013, are as follows (in thousands of Korean won):

	2014				
Order	Description	January 1, 2014	Increase by contract	Decrease by sales	December 31, 2014
KHNP and other five companies	Singori No. 3 and No. 4 emergency generators, alternative AC power diesel engine and other 13	₩84,587,474	₩33,641,027	(₩20,726,389)	₩97,502,112

	2013				
Order	Description	January 1, 2013	Increase by contract	Decrease by sales	December 31, 2013
KHNP and other five companies	Singori No. 3 and No. 4 emergency generators, alternative AC power diesel engine and other 10	₩121,423,210	(₩1,506,615)	(₩35,329,121)	₩84,587,474

24. EXPENSES CLASSIFIED BY NATURE:

Expenses classified by nature for the years ended December 31, 2014 and 2013, are as follows (in thousands of Korean won):

	2014	2013
Changes in inventories	(₩20,453,167)	₩27,001,910
Purchase of raw materials	652,931,993	462,361,576
Employee benefits	72,958,432	77,113,567
Other employee benefits	13,120,334	15,029,819
Depreciation and amortization	25,940,152	26,538,777
Commission expenses	73,419,063	58,183,793
Others	110,505,578	76,927,793
Total	₩928,422,385	₩743,157,235

25. SELLING AND ADMINISTRATIVE EXPENSES:

Selling and administrative expenses for the years ended December 31, 2014 and 2013, are as follows (in thousands of Korean won):

Account	2014	2013
Salaries	₩17,280,210	₩22,131,241
Other employee benefits	3,466,410	4,869,797
Provision for retirement and severance benefits	1,256,804	2,012,139
Commission expenses	6,156,615	10,145,512
Depreciation	338,808	521,972
Amortization	1,739,989	601,605
Advertising and marketing expenses	430,633	2,791,675
Rental expenses	1,353,438	1,324,725
Reversal of allowance for bad debt	(391,621)	(3,536,396)
Research and ordinary development costs	5,673,011	5,773,802
Others	3,963,011	5,279,759
Total	₩41,267,308	₩51,915,831

26. FINANCE INCOME AND EXPENSES:

Finance income and expenses for the years ended December 31, 2014 and 2013, are summarized as follows (in thousands of Korean won):

Account	2014	2013
Finance income:		
Interest income	₩4,768,623	₩6,833,433
Dividend income	-	827
Income from financial guarantee	1,245,571	1,202,422
Gain on foreign currency transaction	20,212,394	18,217,487
Gain on foreign currency translation	1,722,337	1,226,406
Gain on derivative transaction	20,974,260	17,685,466
Gain on valuation of derivatives	520,055	33,832,113
Gain on valuation of firm commitments	41,795,628	21,931,340
Subtotal	91,238,868	100,929,494
Finance expenses:		
Interest expenses	13,514,428	14,169,843
Expense for financial guarantee	473,344	407,339
Loss on foreign currency transaction	16,200,785	19,091,623
Loss on foreign currency translation	958,476	669,422
Loss on derivative transaction	19,636,950	22,353,515
Loss on valuation of derivatives	25,247,957	1,475,535
Loss on valuation of firm commitments	18,765,706	49,092,919
Subtotal	(94,797,646)	(107,260,196)
Net finance expenses	(₩3,558,778)	(₩6,330,702)

27. OTHER NON-OPERATING INCOME AND EXPENSES:

Other non-operating income and expenses for the years ended December 31, 2014 and 2013, consist of the following (in thousands of Korean won):

Account	2014	2013
Other non-operating income:		
Rental income	₩220,455	₩230,750
Gain on disposal of property, plant and equipment	72,175	29,466
Gain on disposal of intangible assets	699	-
Gain on disposal of assets held for sale	-	1,385,970
Other income	1,358,176	3,020,245
Subtotal	1,651,505	4,666,431
Other non-operating expenses:		
Impairment of AFS financial assets	-	850,069
Loss on disposal of property, plant and equipment	14,239	2,938
Revaluation loss on land	-	137,541
Loss on disposal of intangible assets	67,909	-
Loss on intangible assets abandoned	-	731,455
Impairment loss of intangible assets	5,940	295,274
Donations	154,862	2,726,776
Other bad debt expenses	-	6,236
Other loss	2,460,162	3,751,738
Subtotal	(2,703,112)	(8,502,027)
Net non-operating expenses	(₩1,051,607)	(₩3,835,596)

28. INCOME TAX EXPENSE:

(1) Components of income tax expense for the years ended December 31, 2014 and 2013, are as follows (in thousands of Korean won):

Details	2014	2013
Current income tax expense	(₩1,127,841)	₩3,852,280
Changes in deferred income tax assets (liabilities) related to temporary differences	(9,243,348)	9,339,427
Deferred income tax assets (liabilities) directly reflected in stockholders' equity	975,281	(13,253,470)
Income tax profit	(₩9,395,908)	(₩61,763)

(2) Changes in deferred tax assets and liabilities for the years ended December 31, 2014 and 2013, are as follows (in thousands of Korean won):

Details	January 1, 2014	Change: Income	Change: Capital	December 31, 2014
Foreign currency translation, net	₩1,585,239	(₩1,773,056)	₩-	(₩187,817)
Depreciation	1,753,382	584,781	-	2,338,163
Allowance for doubtful accounts	43,656	(43,656)	-	-
Accrued income	(308,136)	202,692	-	(105,444)
Loss on inventory obsolescence	4,664,942	130,369	-	4,795,311
Currency forwards	(10,538,871)	15,127,311	-	4,588,440
Firm commitment assets	2,261,396	(11,752,706)	-	(9,491,310)
Loss on equity-accounted investees	970,458	-	-	970,458
Long-term loan	(58,338)	58,338	-	-
Subcost on membership	420,920	(243,841)	-	177,079
Accrued expenses	1,278,740	(203,620)	-	1,075,120
Unearned revenue	(2,644,405)	401,415	-	(2,242,990)
Long-term borrowings	172,788	(172,788)	-	-
Financial guarantee liabilities	(48,310)	(18,072)	-	(66,382)
Provision for construction warranties	2,443,692	(1,508,112)	-	935,580
Transfer price to DMI	806,191	(806,191)	-	-
Omission to sale of ship steel	167,810	(167,810)	-	-
Provision for severance indemnities	1,808,972	(681,702)	975,281	2,102,551
Gain on revaluation of land and buildings	(53,261,636)	-	-	(53,261,636)
Advance payments	-	444,427	-	444,427
Others	152,955	(88,554)	-	64,401
Subtotal	(48,328,555)	(510,775)	975,281	(47,864,049)
Tax credits	931,422	744,380	-	1,675,802
Donations in excess of tax limit	659,880	37,476	-	697,356
Unrealized income	2,686,117	7,996,986	-	10,683,103
Subtotal	4,277,419	8,778,842	-	13,056,261
Total	(₩44,051,136)	₩8,268,067	₩975,281	(₩34,807,788)

Details	January 1, 2013	Change Income	Capital	December 31, 2013
Foreign currency translation, net	₩3,144,901	(₩1,559,662)	₩-	₩1,585,239
Depreciation	904,550	848,832	-	1,753,382
Allowance for doubtful accounts	777,951	(734,295)	-	43,656
Accrued income	(335,313)	27,177	-	(308,136)
Loss on inventory obsolescence	8,627,904	(3,962,962)	-	4,664,942
Currency forwards	(10,902,409)	363,538	-	(10,538,871)
Firm commitment assets	(2,081,115)	4,342,511	-	2,261,396
Loss on equity-accounted investees	721,049	249,409	-	970,458
Long-term loan	(72,837)	14,499	-	(58,338)
Subcost on membership	349,463	71,457	-	420,920
Accrued expenses	739,268	539,472	-	1,278,740
Unearned revenue	(3,565,154)	920,749	-	(2,644,405)
Long-term borrowings	804,408	(631,620)	-	172,788
Financial guarantee liabilities	(27,493)	(20,817)	-	(48,310)
Provision for construction warranties	4,251,473	(1,807,781)	-	2,443,692
Litigation reserve	484,000	(484,000)	-	-
Transfer price to DMI	-	806,191	-	806,191
Omission to sale of ship steel	-	167,810	-	167,810
Provision for severance indemnities	3,737,878	(235,099)	(1,693,807)	1,808,972
Gain on revaluation of land and buildings	(42,554,399)	852,426	(11,559,663)	(53,261,636)
Others	90,360	62,595	-	152,955
Subtotal	(34,905,515)	(169,570)	(13,253,470)	(48,328,555)
Unrealized income	93,000	838,422	-	931,422
Tax credits	-	659,880	-	659,880
Unrealized income	100,805	2,585,312		2,686,117
Subtotal	193,805	4,083,614	-	4,277,419
Total	(₩34,711,710)	₩3,914,044	(₩13,253,470)	(₩44,051,136)

(3) Temporary differences, net loss and tax credit carryforwards, which have not been recognized as deferred income tax assets, are expired and unused for the years ended December 31, 2014 and 2013.

Detail	2014	2013	Remarks
Unrealized income	2,144,852	-	No possibility of realization

(4) Maturity of temporary difference, net loss, which have not been recognized as deferred income tax assets, are as follows (in thousands of Korean won):

Detail	2014	2013
Less than 1 year	₩-	₩-
1 – 2 years	-	-
2 – 3 years	103,696	-
More than 3 years	2,041,156	-
Total	₩2,144,852	₩-

The probability of deferred tax assets being realized depends on the Group's ability to generate taxable income in future years, the economic situation and industry forecast. The Group periodically reviews such matters.

(5) Temporary differences associated with investments in subsidiary, which are not recognized as deferred tax assets, as of December 31, 2014 and 2013, are as follows (in thousands of Korean won):

Details	December 31, 2014	December 31, 2013	Remarks
Subsidiary	₩2,164,181	(₩1,439,100)	The Group is able to control the reversal of the temporary difference
Associates	332,299,774	280,546,674	It is probable that the temporary difference will not reverse in the foreseeable future
Total	₩334,463,955	₩279,107,574	

(6) Deferred income tax assets (liabilities) and income tax benefits (expense) added to (deducted from) stockholders' equity as of December 31, 2014 and 2013, are as follows (in thousands of Korean won):

Details	December 31, 2014			December 31, 2013		
	Gross	Tax effect	Net of tax	Gross	Tax effect	Net of tax
Actuarial gain or loss	(₩4,429,215)	₩1,071,870	(₩3,357,345)	(₩399,127)	₩96,589	(₩302,538)
Revaluation surplus of land	47,767,203	(11,559,663)	36,207,540	47,767,203	(11,559,663)	36,207,540
Total	₩43,337,988	(₩10,487,793)	₩32,850,195	₩47,368,076	(₩11,463,074)	₩35,905,002

(7) An explanation of the relationship between income tax expense and accounting income (loss) before income tax expense for the years ended December 31, 2014 and 2013, is as follows (in thousands of Korean won):

Details	2014	2013
Income before income tax expense	(₩51,626,801)	(₩5,298,095)
Income tax expense at statutory income tax rate (less than ₩200 million: 11% more than ₩200 million: 24.2%)	(12,493,686)	(1,282,139)
Differences (Note 1)	3,097,778	1,220,376
Income tax expense (profit)	(₩9,395,908)	(₩61,763)
Effective tax rate	(Note 2)	(Note 2)

(Note 1) Difference:		
Additional payment (refund) of income tax	(₩1,099,478)	₩3,874,287
Non-temporary difference	134,184	(668,151)
Tax credit	(744,379)	(838,423)
Unrecognized difference related to equity method investment securities	3,869,159	(1,003,539)
Others	938,292	(143,798)
Total	₩3,097,778	₩1,220,376

(Note 2) Net loss before tax does not calculate the effective tax rate

29. EARNINGS PER SHARE:

(1) Basic earnings per share

Basic earnings per share are computed by dividing net income attributable to owners of the Group by the weighted-average number of common shares outstanding during the period (in thousands of Korean won, except for share data).

	2014	2013
Net income available to common shares	(₩42,230,894)	(₩5,236,332)
Weighted-average number of common shares outstanding (*)	69,500,000	69,500,000
Basic net income per share	(₩608)	(₩75)

(*) The weighted-average number of common shares outstanding for the years ended December 31, 2014 and 2013, is equal to the number of shares outstanding.

(2) Diluted earnings per share

The Group does not compute diluted earnings per common share for the years ended December 31, 2014 and 2013, because there is no item related to dilution. Diluted earnings per share are equal to earnings per share for the years ended December 31, 2014 and 2013.

Due to the antidilutive effect for the years ended December 31, 2014 and 2013, the Group is not considering share option, which could dilute the basic earnings per share in the future.

	2014	2013
Number of common shares to be issued	155,700	133,700

30. COMMITMENTS AND CONTINGENCIES:

(1) Notes and checks provided as collateral

As of December 31, 2014, the Group has provided five (as of December 31, 2013: Four) blank promissory notes and 20 (as of December 31, 2013: 50) promissory notes amounting to USD 10,829,062 (as of December 31, 2013: USD 25,102,190) to Daewoo Shipbuilding & Marine Engineering Co., Ltd., and five other companies as security in connection with contract performance guarantees and guarantees for advance receipts.

(2) Trade receivables sold at discount

Financial liabilities related to transferred trade receivables that did not meet the derecognition criteria amounted to ₩3,857,093 thousand as of December 31, 2014. The amount of trade receivables was recognized as short-term borrowing (see Note 14-(2)).

(3) Pending litigation (in thousands of Korean won)

Site	Plaintiff	Defendant	Claim	Claimed amount	Progress
Greece	GAEI (Guam Advance Enterprises Inc.)	Doosan Engine Co., Ltd.	Damages for cancellation of contract (related to Greece Chios diesel plant)	EUR 3,059,635	Pending in the court of second instance
				EUR 473,162	Pending in the court of first instance
				EUR 300,000	Pending in the court of first instance
Seoul Central District Court	Steamar Transportes Maritimos LDA and other 1	Doosan Engine Co., Ltd. and other 1	Damages for stopping sailing	USD 125,163	Pending in the court of first instance
				EUR 266,865	Pending in the court of first instance
Chang won District Court	Lee, Sangwoo and other 461	Doosan Engine Co., Ltd.	Wage claims for normal wage of workers	₩2,310,000	Pending in the court of first instance
	Kim, Kyoungho and other 59			₩6,000	Pending in the court of first instance

As of December 31, 2014, the outcome of the cases is unpredicted.

The Group is accused in lawsuits that are in relation to subcontract of power plant on Chois island in 2008, and Court of Greece decided the Group to pay EUR 2,204,705 to the plaintiff on November 20, 2013. Meanwhile, the Group assumes that it is less likely to pay the amount to plaintiff domestically.

(4) Commitments with financial institutions

As of December 31, 2014, major commitments with various financial institutions are as follows (in foreign currency and thousands of Korean won):

Commitment	Financial institution	Credit limit		Used amount	
Bank overdraft facilities	Korea Exchange Bank		₩1,000,000		₩-
General loan facilities	Korea Exchange Bank		30,000,000		-
	Korea Development Bank		40,000,000		-
	Woori Bank		30,000,000		-
	Kookmin Bank		30,000,000		-
	Kyoungnam Bank		60,000,000		-
	NH Bank		30,000,000		-
Electronic loan facilities	Woori Bank		30,000,000		20,509,841
	Kookmin Bank		18,000,000		700,217
	Hana Bank		20,000,000		239,027
	Industrial Bank of Korea		20,000,000		4,827,568
	Kyongnam Bank		10,000,000		2,102,058
Issuance of letter of credit	Korea Exchange Bank	USD	60,000,000	USD	3,313,000
	Woori Bank	USD	40,000,000	USD	12,291,676
	Hana Bank	USD	10,000,000	USD	107,773
	Kookmin Bank	USD	3,000,000	USD	596,253
	Korea Development Bank	USD	20,000,000	USD	4,356,247
Other guarantees	Korea Exchange Bank	USD	60,000,000	USD	51,127,405
				EUR	498,590
		CNY	51,000,000	CNY	50,712,500
	Woori Bank	USD	110,000,000	USD	50,146,953
	Hana Bank	USD	40,000,000	USD	2,901,000
	NH Bank	USD	30,000,000	USD	18,081,349
	Kookmin Bank	USD	27,000,000	USD	5,927,660
	Korea Exchange Bank		20,000,000		11,443,189
	Woori Bank		10,000,000		5,533,973

(5) Technology transfer contract

The Group has eight technical license agreements with several foreign companies for the purpose of manufacturing engines. In accordance with the agreements, the Group is committed to pay a royalty calculated based on the cumulative horse power of engines manufactured during the year. The royalty amounted to ₩73,419,063 thousand and ₩58,183,793 thousand for the years ended December 31, 2014 and 2013, respectively.

(6) Wage claims for normal wage of workers in accordance with the Supreme Court ruling

We have paid a regular salary in past, including bonuses that were not included in the existing ordinary wages paid. If the item is usually available for wages paid in future then it can be classified as additionally payable. The Supreme Court ruling dated December 18, 2013, is usually associated with wages on the basis of additional benefits associated with regular bonuses and other payments to the excessive financial burden due to the expected management Group that will likely result in accounting difficulties, therefore, we have presumed the amount to be low. On the other hand, related impact on the consolidated financial statements of K-IFRS 1037, Provisions, Contingent Liabilities and Contingent Assets, paragraph 92 according to the comments is omitted.

31. GUARANTEES AND PLEDGED ASSETS:

(1) Guarantees

1) Guarantees received by the Group from third parties as of December 31, 2014, are as follows (in foreign currencies and thousands of Korean won):

Guarantee received from	Guaranteed amount (foreign currency)		Description of guarantee
Korea Exchange Bank	USD	51,127,405	Guarantee for advance receipts, intermediate payment and defect
	EUR	498,590	Guarantee for bidding and fulfillment of a contract
	KRW	11,443,189	Guarantee for advance receipts, fulfillment of a contract and defect
Woori Bank	USD	50,146,953	Guarantee for advance receipts, defect and fulfillment of a contract
	KRW	5,533,973	
Hana Bank	USD	2,901,000	Guarantee for advance receipts
NH Bank	USD	18,081,349	Guarantee for advance receipts
Kookmin Bank	USD	5,927,660	Guarantee for advance receipts
Total	USD	128,184,367	
	EUR	498,590	
	KRW	16,977,162	

2) Guarantees provided by the Group as of December 31, 2014, are as follows (in thousands of Korean won):

Warrantee	Amount	Description of guarantee	Institution	Related party
Employee stock ownership association	₩7,307,143	Guarantee for the borrowings	Korea Securities Finance Co., Ltd.	Stockholders

(2) Pledged assets

On May 28, 2014, DII and DHEL repaid all the borrowings of amount USD 1,720,000 thousand funded in 2011 and entered into new loan agreement under which they raised a total of USD 1,700,000 thousand. The Group provided stocks of DII and DHEL as collateral to the credit banks, amounting to USD 1,300,000 thousand and borrowing limit amounting to USD 100,000 thousand. Collateral provided by the Group as of December 31, 2014, are as follows (see Note 11) (in foreign currencies and thousands of Korean won):

Institution	Borrowing amount (foreign currency)	Asset	Book value	Related party
Citigroup Global Markets Inc. and other	USD 1,193,500,000	DII DHEL	₩302,483,746 102,435,138	Associates

Also, the Group has been providing the long-term financial instruments as collateral in relation to ESOP loans (see Note 5).

Meanwhile, collateral provided by the subsidiary as of December 31, 2014, is as follows (in foreign currencies and thousands of Korean won):

Institution	Borrowing amount (foreign currency)	Asset	Collateralized value	Book value
China Construction Bank	CNY 9,000,000	Land use right Building	CNY 69,540,000	₩840,993 14,959,876

32. TRANSACTIONS AND BALANCES WITH RELATED PARTIES:

Significant transactions and account balances with related parties for the years ended December 31, 2014 and 2013, are as follows:

(1) Relationship between the Group as of December 31, 2014, is as follows:

Relationship with the Company	Company name
Ultimate controlling party	Doosan Corporation ("DS")
Next most senior parent	Doosan Heavy Industries Construction Co., Ltd. ("DHIC")
Associates	Dalian Samyoung Doosan Metal Product Co., Ltd.("DSDMP")
	Doosan Infracore International, Inc. ("DII")
	Doosan Holdings Europe Ltd. ("DHEL")
Other related parties	Doosan Infracore Co., Ltd.
	Doosan Infracore Bobcat Holdings Co., Ltd. ("DIBH")
	Doosan Engineering & Construction Co., Ltd. ("Doosan E&C")
	Doosan Cuvex Co., Ltd.
	Doosan Tower Co., Ltd. ("Doosan Tower")
	Doosan Defense Systems & Technology Co., Ltd.
	Oricom Inc. ("Oricom")
	Doosan Bears Inc.

(2) Significant transactions with related parties for the years ended December 31, 2014 and 2013, are summarized as follows (in thousands of Korean won):

		December 31, 2014				
Description	The name of the related parties	Sales	Other income	Purchases	Acquisition of property, plant and equipment and intangible assets	Other expenses
Ultimate controlling party	DS	₩2,024,054	₩795,088	₩4,779,734	₩554,418	₩5,136,727
Next most senior parent	DHIC	12,848	-	103,227,220	-	-
Associates	DSDMP	214,898	-	-	-	-
	DII		587,776	-	-	-
	DHEL		592,272	-	-	-
Other related parties	Doosan E&C	3,030,449	-	174,965	-	-
	Others	-	-	449,641	92,796	263,585
Total		₩5,282,249	₩1,975,136	₩108,631,560	₩647,214	₩5,400,312

Description	The name of the related parties	December 31, 2013 Sales	Other income	Purchases	Acquisition of property, plant and equipment and intangible assets	Other expenses
Ultimate controlling party	DS	₩1,972,855	₩745,440	₩12,205,346	₩488,458	₩7,504,423
Next most senior parent	DHIC	-	-	66,345,969	-	-
Associates	DSDMP	34,542	-	54,784	-	-
	DII	-	490,715	-	-	-
	DHEL	-	634,657	-	-	-
Other related parties	Doosan E&C	2,656,682	258,566	181,892	-	-
	Others	-	7,991	1,539,470	46,398	4,722,702
Total		₩4,664,079	₩2,137,369	₩80,327,461	₩534,856	₩12,227,125

(3) As of December 31, 2014 and 2013, related significant balances are as follows (in thousands of Korean won):

Description	The name of the related parties	December 31, 2014 Trade receivables	Other receivables	Loans	Trade payables	Other payables
Ultimate controlling party	DS	₩-	₩11,708	₩-	₩1,502,883	₩1,926,863
Next most senior parent	DHIC	-	-	-	8,354,026	2,768
Associates	DSDMP	11,897	-	-	-	-
	DII	-	2,619,298	-	-	-
	DHEL	-	2,267,588	-	-	-
Other related parties	Doosan E&C	-	9,033,008	-	-	15,086
	Others	-	138,179	-	207,060	89,385
Total		₩11,897	₩14,069,781	₩-	₩10,063,969	₩2,034,102

Description	The name of the related parties	December 31, 2013 Trade receivables	Other receivables	Loans	Trade payables	Other payables
Ultimate controlling party	DS	₩-	₩221,228	₩-	₩3,740,920	₩1,829,969
Next most senior parent	DHIC	-	-	-	2,085,037	2,767
Associates	DII	-	1,377,035	-	-	-
	DHEL	-	1,782,407	-	-	-
Other related parties	Doosan E&C	-	6,441,970	-	-	65,849
	Others	-	910,915	-	441,269	203,420
Total		₩-	₩10,733,555	₩-	₩6,267,226	₩2,102,005

The Group does not recognize amount of allowance for doubtful accounts of the related party's receivables.

(4) As of December 31, 2014, guarantees by the Group for related parties are disclosed in Note 31.

(5) The Group defines key management personnel as registered officer and non-registered officer who have the authority and responsibility for planning, operation and control, and are in charge of business or division unit. Compensation to key management personnel of the Group for the years ended December 31, 2014 and 2013, is as follows (in thousands of Korean won):

Description	2014	2013
Employee benefits	₩4,423,045	₩4,748,129
Retirement benefits	423,460	380,585
Share-based payment	194,769	(41,778)
Total	₩5,041,274	₩5,086,936

33. CONSOLIDATED STATEMENTS OF CASH FLOWS:

(1) The adjustments and changes in operating assets and liabilities in the consolidated statements of cash flows for the years ended December 31, 2014 and 2013, are as follows (in thousands of Korean won):

Description	2014	2013
Adjustments:		
Expenses not involving cash outflows:		
Interest expenses	₩13,514,428	₩14,169,843
Income tax profit	(9,395,907)	(61,763)
Retirement benefits	5,458,028	6,270,054
Loss from valuation of inventories	816,946	-
Depreciation	22,348,277	23,701,111
Amortization	3,591,875	2,837,666
Other bad debt expenses	-	6,236
Share-based payment	194,769	(41,778)
Loss on foreign currency translation	958,476	669,422
Loss on valuation of derivatives	25,247,957	1,475,535
Loss on valuation of firm commitments	18,765,706	49,092,919
Impairment of AFS financial assets	-	850,069
Loss on disposal of property, plant and equipment	14,239	2,938
Loss on revaluation of land	-	137,541
Loss on disposal of intangible assets	67,909	-
Loss on intangible assets abandoned	-	731,455
Impairment loss of intangible assets	5,940	295,274
Loss on equity method	27,379,365	12,447,235
Income not involving cash inflows:		
Interest income	(4,768,623)	(6,833,433)
Dividend income	-	(827)
Reversal of write-down of inventories	-	(15,290,243)
Reversal of allowance for doubtful accounts	(3,282,509)	(8,130,136)
Reversal of bad debt expenses	(391,621)	(3,536,396)
Income on financial guarantee	(1,245,571)	(1,202,422)
Gain on foreign currency translation	(1,722,337)	(1,226,406)
Gain on valuation of derivatives	(520,055)	(33,832,113)
Gain on valuation of firm commitments	(41,795,628)	(21,931,340)
Gain on disposal of property, plant and equipment	(72,175)	(29,466)
Gain on disposal of assets held for sale	-	(1,385,970)
Gain on disposal of intangible assets	(699)	-
Gain on equity method	(19,959,380)	(16,594,088)
Total	₩35,209,410	₩2,590,917

Description	2014	2013
Changes in operating assets and liabilities:		
Accounts receivable – trade	(₩43,810,590)	₩65,850,843
Accounts receivable – other	(2,604,524)	(2,127,430)
Unbilled construction receivables	(2,279,325)	(10,714,719)
Inventories	(21,257,331)	42,278,565
Other current assets	(970,479)	4,417,331
Long-term accounts receivable – other	1,836,335	3,506,083
Other non-current assets	49,839	(1,713,383)
Derivative instruments	37,776,118	33,860,036
Firm commitments	(25,534,981)	(9,217,316)
Accounts payable – trade	35,111,888	(49,547,722)
Accounts payable – other	(1,951,005)	(28,740,415)
Overbilled construction payables	10,795,007	(15,643,152)
Advance receipts	(50,173,635)	(52,224,511)
Other current liabilities	4,150,837	(1,776,406)
Other non-current liabilities	728,251	55,725
Plan assets	(7,266,878)	(7,338,968)
Payment of severance benefits	(1,057,227)	(1,294,711)
Transfer in	52,077	174,293
Transfer out	(242,933)	(289,650)
Provision for construction warranties	(2,949,357)	(1,340,036)
Total	(₩69,597,913)	(₩31,825,543)

(2) Significant non-cash transactions for years ended December 31, 2014 and 2013, are as follows (in thousands of Korean won):

Description	2014	2013
Reclassification of guarantee deposits to property, plant and equipment	₩-	₩1,873,500
Reclassification of construction in progress to property, plant and equipment	3,149,358	2,391,402
Reclassification of long-term borrowings to current portion of long-term borrowing	51,591,290	63,318,000
Reclassification of held-to-maturity investments financial assets	7,000,000	-
Reclassification of provision for construction warranties	1,916,319	-