

DOOSAN ENGINE CO., LTD.

SEPARATE FINANCIAL STATEMENTS AS OF AND FOR THE YEARS ENDED DECEMBER 31, 2012 AND 2011, AND INDEPENDENT AUDITORS' REPORT

Deloitte Anjin LLC

Independent Auditors' Report

English Translation of a Report Originally Issued in Korean

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

We have audited the accompanying separate financial statements of Doosan Engine Co., Ltd. (the "Company"). The financial statements consist of the separate statements of financial position as of December 31, 2012 and 2011, and the related separate statements of income, separate statements of comprehensive income, separate statements of changes in stockholders' equity and separate statements of cash flows, all expressed in Korean won, for the years ended December 31, 2012 and 2011. The Company's management is responsible for the preparation and fair presentation of the separate financial statements and our responsibility is to express an opinion on these separate financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the Republic of Korea. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2012 and 2011, and the results of its operations and its cash flows for the years ended December 31, 2012 and 2011, in conformity with Korean International Financial Reporting Standards ("K-IFRS").

Accounting principles and auditing standards and their application in practice vary among countries. The accompanying separate financial statements are not intended to present the financial position, results of operations and cash flows in accordance with accounting principles and practices generally accepted in countries other than the Republic of Korea. In addition, the procedures and practices utilized in the Republic of Korea to audit such financial statements may differ from those generally accepted and applied in other countries. Accordingly, this report and the accompanying separate financial statements are for use by those knowledgeable about Korean accounting principles and auditing standards and their application in practice.

March 14, 2013

Notice to Readers

This report is effective as of March 14, 2013, the auditors' report date. Certain subsequent events or circumstances may have occurred between the auditors' report date and the time the auditors' report is read. Such events or circumstances could significantly affect the separate financial statements and may result in modifications to the auditors' report.

DOOSAN ENGINE CO., LTD.

SEPARATE FINANCIAL STATEMENTS AS OF AND FOR THE YEARS ENDED DECEMBER 31, 2012 AND 2011

The accompanying separate financial statements, including all footnote disclosures, were prepared by, and are the responsibility of Doosan Engine Co., Ltd.

Cho, Nam-Suk Chief Executive Officer

DOOSAN ENGINE CO., LTD.

DOOSAN ENGINE CO., LTD. SEPARATE STATEMENTS OF FINANCIAL POSITION AS OF DECEMBER 31, 2012 AND, 2011 (In Korean won)

ASSETS	ETS Notes		December 31, 2011	
CURRENT ASSETS				
Cash and cash equivalents	4 and 10	₩ 94,678,541,896	₩ 320,469,576,651	
Short-term financial instruments	4 and 10	170,016,124,100	146,614,526,202	
Short-term loans receivable	10	1,128,650,000	1,247,550,000	
Trade and other receivables	4, 6, 10, 31 and 33	85,273,333,022	150,427,478,141	
Gross amount due from customers				
for contract work	24	5,930,477	55,876,191	
Current derivative instrument assets	3, 9 and 10	38,090,761,839	8,153,605,085	
Current firm commitment assets	9	20,627,029,543	66,708,349,474	
Inventories	7	205,200,840,990	247,231,575,247	
Other current assets		18,275,910,318	41,219,093,850	
Total current assets		633,297,122,185	982,127,630,841	
NON-CURRENT ASSETS				
Long-term financial instruments	4, 5 and 10	1,765,725,601	4,290,192,960	
Long-term investment securities	4, 8, 10	7,922,117,114	72,047,000	
Investments in subsidiary and				
associated companies	2, 3 and 11	363,994,102,690	365,024,719,731	
Long-term loans receivable	4 and 10	5,155,220,988	7,251,719,621	
Long-term other receivable	4, 6 and 10	14,958,733,970	8,131,176,298	
Property, plant and equipment	12	576,429,596,197	551,384,215,311	
Intangible assets	13	18,614,288,888	14,536,132,373	
Investment property	14	-	36,130,101,804	
Non-current derivative instrument				
assets	4, 9 and 10	12,352,565,282	3,752,006,943	
Non-current firm commitment assets	9	36,354,513,147	74,959,113,548	
Other non-current assets		2,124,322,657	3,821,555,338	
Total non-current assets		1,039,671,186,534	1,069,352,980,927	
TOTAL ASSETS		₩ 1,672,968,308,719	₩ 2,051,480,611,768	

(Continued)

DOOSAN ENGINE CO., LTD. SEPARATE STATEMENTS OF FINANCIAL POSITION AS OF DECEMBER 31, 2012 AND 2011 (CONTINUED)

STOCKHOLDERS' EQUITYNotesDecember 31, 2012CURRENT LIABILITIESTrade and other payable4, 10, 31 and 33₩ 171,795,452,937Gross amount due to customers2419,416,602,363Short-term borrowings4, 10, 15 and 3129,828,495,145Advance receipts31374,193,000,937Current portion of long-term564,266,000,000borrowings4, 10 and 1564,266,000,000Current portion of bonds4, 10 and 15-Income tax payable18,195,115,048Current derivative instrument1liabilities4, 9 and 103,330,156,254Current firm commitment liabilities926,500,340,834	December 31, 2011 ₩ 261,645,250,019 34,079,376,921 23,306,698,323 690,500,336,727 69,198,000,000 79,945,544,602 6,426,973,157 33,080,119,987 6,933,180,782 1,972,607,106
Trade and other payable4, 10, 31 and 33 \forall 171,795,452,937Gross amount due to customersfor contract work2419,416,602,363Short-term borrowings4, 10, 15 and 3129,828,495,145Advance receipts31374,193,000,937Current portion of long-termborrowings4, 10 and 1564,266,000,000Current portion of bonds4, 10 and 15-Income tax payable18,195,115,048Current derivative instrument3,330,156,254	34,079,376,921 23,306,698,323 690,500,336,727 69,198,000,000 79,945,544,602 6,426,973,157 33,080,119,987 6,933,180,782
Trade and other payable4, 10, 31 and 33 \forall 171,795,452,937Gross amount due to customersfor contract work2419,416,602,363Short-term borrowings4, 10, 15 and 3129,828,495,145Advance receipts31374,193,000,937Current portion of long-termborrowings4, 10 and 1564,266,000,000Current portion of bonds4, 10 and 15-Income tax payable18,195,115,048Current derivative instrument3,330,156,254	34,079,376,921 23,306,698,323 690,500,336,727 69,198,000,000 79,945,544,602 6,426,973,157 33,080,119,987 6,933,180,782
Gross amount due to customers for contract work2419,416,602,363Short-term borrowings4, 10, 15 and 3129,828,495,145Advance receipts31374,193,000,937Current portion of long-term borrowings4, 10 and 1564,266,000,000Current portion of bonds4, 10 and 15-Income tax payable18,195,115,048-Current derivative instrument liabilities4, 9 and 103,330,156,254	34,079,376,921 23,306,698,323 690,500,336,727 69,198,000,000 79,945,544,602 6,426,973,157 33,080,119,987 6,933,180,782
for contract work 24 19,416,602,363 Short-term borrowings 4, 10, 15 and 31 29,828,495,145 Advance receipts 31 374,193,000,937 Current portion of long-term - borrowings 4, 10 and 15 64,266,000,000 Current portion of bonds 4, 10 and 15 - Income tax payable 18,195,115,048 - Current derivative instrument - - liabilities 4, 9 and 10 3,330,156,254	23,306,698,323 690,500,336,727 69,198,000,000 79,945,544,602 6,426,973,157 33,080,119,987 6,933,180,782
Short-term borrowings4, 10, 15 and 3129,828,495,145Advance receipts31374,193,000,937Current portion of long-term borrowings4, 10 and 1564,266,000,000Current portion of bonds4, 10 and 15-Income tax payable18,195,115,048-Current derivative instrument liabilities4, 9 and 103,330,156,254	23,306,698,323 690,500,336,727 69,198,000,000 79,945,544,602 6,426,973,157 33,080,119,987 6,933,180,782
Advance receipts31374,193,000,937Current portion of long-term-borrowings4, 10 and 15Current portion of bonds4, 10 and 15Income tax payable-Current derivative instrument-liabilities4, 9 and 103,330,156,254	690,500,336,727 69,198,000,000 79,945,544,602 6,426,973,157 33,080,119,987 6,933,180,782
Current portion of long-term borrowings4, 10 and 1564,266,000,000Current portion of bonds4, 10 and 15-Income tax payable18,195,115,048Current derivative instrument liabilities4, 9 and 103,330,156,254	69,198,000,000 79,945,544,602 6,426,973,157 33,080,119,987 6,933,180,782
borrowings4, 10 and 1564,266,000,000Current portion of bonds4, 10 and 15-Income tax payable18,195,115,048Current derivative instrument3,330,156,254	79,945,544,602 6,426,973,157 33,080,119,987 6,933,180,782
Current portion of bonds4, 10 and 15-Income tax payable18,195,115,048Current derivative instrument4, 9 and 10liabilities4, 9 and 10	79,945,544,602 6,426,973,157 33,080,119,987 6,933,180,782
Income tax payable18,195,115,048Current derivative instrument4,9 and 10liabilities4,9 and 10	6,426,973,157 33,080,119,987 6,933,180,782
Current derivative instrument liabilities4, 9 and 103,330,156,254	33,080,119,987 6,933,180,782
liabilities 4, 9 and 10 3,330,156,254	6,933,180,782
	6,933,180,782
Current firm commitment liabilities926,500,340,834	1 072 607 106
Other current liabilities 3,406,692,496	1,972,607,106
Total current liabilities 710,931,856,014	1,207,088,087,624
NON-CURRENT LIABILITIES	
Long-term borrowings 4, 9, 10, 15, and 31 114,266,000,000	138,396,000,000
Bonds 4, 10, 15 and 31 99,461,490,305	-
Long-term other payable 10 1,057,450,866	2,332,156,206
Retirement benefit obligation 3 and 16 19,815,842,555	26,590,315,593
Non-current derivative instrument	20,570,515,575
liabilities 4, 9 and 10 2,112,892,517	17,936,849,494
Non-current firm commitment	17,950,049,494
liabilities 9 21,881,552,439	5,002,643,700
	349,001,248
······································	20,507,108,230
Deferred income tax liabilities 3 and 29 35,272,579,634	42,980,281,999
Total non-current liabilities 317,557,040,527	254,094,356,470
TOTAL LIABILITIES 1,028,488,896,541	1,461,182,444,094
STOCKHOLDERS' EQUITY	
Share capital 1 and 18 69,500,000,000	69,500,000,000
Capital surplus 18 367,214,701,425	367,214,701,425
Other capital items19397,167,523Accumulated other comprehensive	135,447,961
	(222 702 211)
	(333,792,311)
Retained earnings 21 207,504,397,801	153,781,810,599
TOTAL STOCKHOLDERS' EQUITY 644,479,412,178	590,298,167,674
TOTAL LIABILITIES AND	
STOCKHOLDERS' EQUITY	₩ 2,051,480,611,768
	2,001,100,011,700

(Concluded)

DOOSAN ENGINE CO., LTD. SEPARATE STATEMENTS OF INCOME FOR THE YEARS ENDED DECEMBER 31, 2012 AND 2011 (In Korean won)

	Notes	2012	2011	
SALES	3, 22, 23, 24 and 33	₩ 1,377,618,958,445	₩ 2,005,949,262,462	
COST OF SALES	25, 31 and 33	(1,224,471,146,479)	(1,643,634,050,361)	
GROSS PROFIT		153,147,811,966	362,315,212,101	
Selling, general and administrative expenses	25 and 26	(83,848,547,463)	(65,183,683,598)	
OPERATING INCOME	2	69,299,264,503	297,131,528,503	
Finance income Finance expense Other non-operating income Other non-operating expense Share of loss of associates	4, 10 and 27 4, 10 and 27 10 and 28 10 and 28 11	120,952,187,860 (119,418,727,442) 13,234,832,799 (11,812,205,822)	82,712,678,543 (76,290,640,093) 4,900,658,036 (23,244,862,628) (2,771,523,706)	
TAX EXPENSE	29	(17,888,846,837)	(72,801,358,898)	
NET INCOME		₩ 54,366,505,061	₩ 209,636,479,757	
EARNINGS PER SHARE: Basic earnings per share Diluted earnings per share	30	₩ 782 ₩ 782	₩ 3,016 ₩ 3,016	

DOOSAN ENGINE CO., LTD. SEPARATE STATEMENTS OF COMPREHENSIVE INCOME FOR THE YEARS ENDED DECEMBER 31, 2012 AND 2011 (In Korean won)

	Notes	2012	2011
NET INCOME		₩ 54,366,505,061	₩ 209,636,479,757
OTHER COMPREHENSIVE INCOME	20		
(LOSS)			
Gain on valuation of cash flow hedge	9 and 10		
derivatives		333,792,311	1,751,752,013
Actuarial loss	16	(643,917,859)	(3,296,634,638)
Losses on valuation of AFS			
financial assets	8	(136,854,571)	
Total other comprehensive loss		(446,980,119)	(1,544,882,625)
TOTAL COMPREHENSIVE INCOME		₩ 53,919,524,942	₩ 208,091,597,132

DOOSAN ENGINE CO., LTD. NON-CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY FOR THE YEARS ENDED DECEMBER 31, 2012 AND 2011 (In Korean won)

			Other equity	Accumulated other comprehensive	Retained earnings	
	Share capital	Capital surplus	items	income (loss)	(deficit)	Total
Balance at January 1, 2011 Total comprehensive income:	₩69,500,000,000	₩367,214,701,425	₩ -	(₩2,085,544,324)	(₩52,558,034,520)	₩382,071,122,581
Net income	-	-	-	-	209,636,479,757	209,636,479,757
Gain on valuation of cash flow hedge derivatives Actuarial losses on retirement	-	-	-	1,751,752,013	-	1,751,752,013
benefit obligations	-	_	-	-	(3,296,634,638)	(3,296,634,638)
Stock base payment	-	-	135,447,961	-	-	135,447,961
1 2						<u> </u>
Balance at December 31, 2011	₩69,500,000,000	₩367,214,701,425	₩135,447,961	(₩333,792,311)	₩153,781,810,599	₩590,298,167,674
Balance at January 1, 2012 Total comprehensive income:	₩69,500,000,000	₩367,214,701,425	₩135,447,961	(₩333,792,311)	₩153,781,810,599	₩590,298,167,674
Net income	-	-	-	-	54,366,505,061	54,366,505,061
Gain on valuation of cash flow hedge derivatives Losses on valuation of	-	-	-	333,792,311	-	333,792,311
AFS financial assets	-	-	-	(136,854,571)	-	(136,854,571)
Actuarial losses on retirement						
benefit obligations	-	-	-	-	(643,917,859)	(643,917,859)
Stock-based payment			261,719,562			261,719,562
Balance at December 31, 2012	₩69,500,000,000	₩367,214,701,425	₩397,167,523	(₩136,854,571)	₩207,504,397,801	₩644,479,412,178

DOOSAN ENGINE CO., LTD. SEPARATE STATEMENTS OF CASH FLOWS FOR THE YEARS ENDED DECEMBER 31, 2012 AND 2011

(In Korean won)

_	2012	2011	
CASH FLOWS FROM OPERATING ACTIVITIES			
Cash generated from operations	(₩176,284,567,571)	₩ 142,586,368,857	
Net income	54,366,505,061	209,636,479,757	
Adjustments	47,315,630,720	131,744,103,973	
Changes in operating assets and liabilities	(277,966,703,352)	(198,794,214,873)	
Interest received	14,153,701,528	17,768,136,595	
Interest paid	(9,195,894,449)	(12,619,715,213)	
Dividend received	-	137,155,040	
Income tax paid	(13,579,136,957)	(790,407,684)	
Net Cash Provided by (Used in) Operating Activities	(184,905,897,449)	147,081,537,595	
CASH FLOWS FROM INVESTING ACTIVITIES			
Cash inflows from investing activities:			
Decrease in short-term financial instruments	-	3,385,473,798	
Decrease in short-term loans	1,343,900,000	-	
Decrease in long-term financial instruments	2,524,467,359	-	
Decrease in long-term investment securities	-	155,000	
Decrease in long-term loans	1,496,624,257	10,038,488,521	
Disposal of property, plant and equipment	863,458,275	535,643,477	
Disposal of intangible assets	197,561,362	-	
Decrease in guarantee deposits	3,693,427,238	1,670,056,025	
Subtotal	10,119,438,491	15,629,816,821	
Cash outflows for investing activities:			
Increase in short-term financial instruments	23,401,597,898	-	
Increase in long-term financial instruments	-	2,029,141,760	
Increase in long-term loans	971,800,000	2,530,000,000	
Acquisition of long-term investment securities	7,000,000,000	-	
Acquisition of property, plant and equipment	13,288,098,532	15,693,354,733	
Acquisition of intangible assets	6,806,526,149	10,357,127,363	
Acquisition of investment property	-	18,553,079,365	
Increase in guarantee deposits	6,291,489,822	1,387,194,623	
Subtotal	(57,759,512,401)	(50,549,897,844)	
Net Cash Used in Investing Activities	(₩ 47,640,073,910)	(₩ 34,920,081,023)	

(Continued)

DOOSAN ENGINE CO., LTD. SEPARATE STATEMENTS OF CASH FLOWS (CONTINUED) FOR THE YEARS ENDED DECEMBER 31, 2012 AND 2011

	2012	2011		
CASH FLOWS FROM FINANCING ACTIVITIES				
Cash inflows from financing activities: Proceeds from short-term borrowings	₩ 6,521,796,822	₩ -		
Proceeds from long-term borrowings	50,000,000,000	vv -		
Proceeds from issuance of bonds	99,461,490,305	-		
roceds from issuance of bonds	,101,190,303			
Subtotal	155,983,287,127			
Cash outflows for financing activities:				
Repayment of short-term borrowings	-	10,143,870,938		
Repayment of long-term borrowings	69,198,000,000	68,334,000,000		
Repayment of bonds	80,000,000,000	50,000,000,000		
Subtotal	(149,198,000,000)	(128,477,870,938)		
Net Cash Provided by (used in) Financing Activities	6,785,287,127	(128,477,870,938)		
EFFECT OF EXCHANGE RATE CHANGES ON				
CASH AND CASH EQUIVALENTS	(30,350,523)	(91,487,512)		
NET DECREASE IN CASH AND CASH				
EQUIVALENTS	(225,791,034,755)	(16,407,901,878)		
CASH AND CASH EQUIVALENTS, BEGINNING OF				
YEAR	320,469,576,651	336,877,478,529		
CASH AND CASH EQUIVALENTS, END OF YEAR	₩ 94,678,541,896	₩ 320,469,576,651		

(Concluded)

DOOSAN ENGINE CO., LTD. NOTES TO SEPARATE FINANCIAL STATEMENTS AS OF AND FOR THE YEARS ENDED DECEMBER 31, 2012 AND 2011

1. GENERAL:

Doosan Engine Co., Ltd. (DE or the "Company"), 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 W1,000). As of December 31, 2012, the Company issued 69,500 thousand common shares of W69,500,000 thousand.

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

The Company's shares as of December 31, 2012, are owned as follows:

	Number of	Ownership
Name of stockholders	shares owned	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	2,115,584	3.04%
Others	22,319,416	32.12%
Total	69,500,000	100.00%

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES:

(1) Basis of preparation

The Company has prepared the separate financial statements in accordance with the Korean International Financial Reporting Standards ("K-IFRS") for the annual period beginning on January 1, 2011.

The Company's separate financial statements are prepared in accordance with K-IFRS 1027 Consolidated and Separated financial statements, in which the controlling company, investors of associates or participants of joint control company have presented investments based on its direct equity investment, not on investee's reported performance and net assets.

The significant accounting principles as applied in the consolidated financial statements correspond to those pertaining to the annual consolidated financial statements for the year ended December 31, 2011, except for the effects of the changes of accounting policies as follows.

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

The Company maintains its official accounting records in Korean won and prepares consolidated financial statements in conformity with K-IFRS, in the Korean language (Hangul). Accordingly, these consolidated financial statements are intended for use by those who are informed about K-IFRS and Korean practices.

1) Amendments to K-IFRS affecting amounts reported in the separate financial statements

The following amendments to K-IFRSs have been applied in the current year and have affected the amounts reported in these separate financial statements.

Amendments to K-IFRS 1107 Disclosures - Transfers of Financial Assets

The Company may have transferred financial assets in such a way that part or all of the transferred financial assets do not qualify for derecognition. The amendments to K-IFRS 1107 increase the disclosure requirements for transactions involving transfers of financial assets in order to provide greater transparency around the nature of the transferred assets, the nature of the risks and rewards of ownership to which the Company is exposed, description of the nature of the relationship between the transferred assets and the associated liabilities and carrying value of the associated liabilities.

When the Company continues its involvement on the transferred assets although the transferred assets are derecognized in their entirety, the Company discloses the carrying amounts of the transferred assets and the associated liabilities and the information showing maximum exposure to loss. The disclosures due to the application of these amendments are disclosed in Note 31 (12).

In accordance with the amendments to K-IFRS 1001 *Presentation of Financial Statements*, the Company presented operating income by deducting cost of sales and selling, general and administrative expenses from revenue line item. The amendments have been applied retrospectively for the comparative period.

The amendments have been applied retrospectively, and hence, the presentation of items of operating income has been modified as follows (in thousands of Korean won):

	201	12	2011			
	Before	After	Before	After		
	modified	modified	modified	modified		
Sales	₩ 1,372,244,281	₩ 1,377,618,958	₩ 2,003,793,073	₩ 2,005,949,262		
Cost of sales	(1,224,471,146)	(1,224,471,146)	(1,643,634,050)	(1,643,634,050)		
Selling, general and administrative						
expenses	(83,848,547)	(83,848,547)	(66,268,171)	(65,183,684)		
Other operating revenue	18,609,510	-	8,141,335	-		
Other operating expense	(11,812,206)	-	(23,244,863)	-		
Operating income	70,721,891	69,299,265	278,787,324	297,131,529		
Non-operating income and expense	1,533,460	2,956,087	3,650,515	(14,693,690)		
Income before income tax expense	₩ 72,255,352	₩ 72,255,352	₩ 282,437,839	₩ 282,437,839		

The amendments do not result in any impact on profit or loss and earning per shares.

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

The Company has not applied the following new and revised K-IFRS that have been issued, but are not yet effective.

The amendments to K-IFRS 1001 require items of other comprehensive income to be grouped into two categories in the other comprehensive income section: (a) items that will not be reclassified subsequently to profit or loss and (b) items that may be reclassified subsequently to profit or loss when specific conditions are met. The amendments are effective for annual periods beginning on or after July 1, 2012. The Company does not anticipate that these amendments referred above will have a significant effect on the Company's separate financial statements and disclosures.

Amendments to K-IFRS 1019 - Employee Benefits

The amendments to K-IFRS 1019 require the recognition of changes in defined benefit obligations and in fair value of plan assets when they occur and, hence, eliminate the 'corridor approach' permitted under the previous version of K-IFRS 1019 and accelerate the recognition of past service costs. The amendments to K-IFRS 1019 are effective for annual periods beginning on or after January 1, 2013. The Company anticipates that these amendments referred above will have no effect on the Company's separate financial statements and disclosures.

Amendments to K-IFRS 1032 - Financial Instruments: Presentation

The amendments to K-IFRS 1032 clarify existing application issue relating to the offset of financial assets and financial liabilities requirements. Specifically, the amendments clarify the meaning of 'currently has a legally enforceable right of setoff' and 'simultaneous realization and settlement'. Company's right to offset must not be conditional on the occurrence of future events, but enforceable anytime during the contract periods, during the ordinary course of business with counterparty, a default of counterparty and master netting agreement or in some forms of non-recourse debt. The amendments to K-IFRS 1032 are effective for annual periods beginning on January 1, 2014. The Company is in the process of evaluating the impact on the separate financial statements upon the adoption of amendments.

Amendments to K-IFRS 1107 - Financial Instruments: Disclosures

The amendments to K-IFRS 1107 are mainly focusing on presentation of the offset between financial assets and financial liabilities. The amendments to K-IFRS 1107 are effective for annual periods beginning on or after January 1, 2013. The Company does not anticipate that these amendments referred above will have a significant effect on the Company's separate financial statements and disclosures.

K-IFRS 1113 - Fair Value Measurement

K-IFRS 1113 establishes a single source of guidance for fair value measurements and disclosure about fair value measurements. The standard defines fair value, establishes a framework for measuring fair value, and requires disclosures about fair value measurements. This standard is effective for annual periods beginning on or after January 1, 2013. The Company is reviewing the impact of the application of this standard on the separate financial statements.

(2) Subsidiaries and associates

The Company's separate financial statements are prepared in accordance with the K-IFRS 1027 *Consolidated and Separate Financial Statements*. The Company has elected to use book value under previous GAAP as deemed cost for subsidiaries, joint ventures and associates at the date of transition to K-IFRS. After the date of transition, subsidiaries, joint ventures and associates are measured at cost. Dividends from subsidiaries, joint ventures and associates are recognized as income when the right to receive payment is established.

Dividends on subsidiary and associates are recognized in profit or loss when the Company's right to receive the dividends is established.

- (3) Foreign currency translation
 - 1) Functional currency and presentation currency

The Company's separate financial statements are presented in the currency of the primary economic environment in which it operates (its functional currency). The functional currency and the presentation currency for the separate financial statements of the Company is Korean won.

2) Foreign currency transaction and translation of balance

Transactions in currencies other than the Company's functional currency are recognized at the rates of exchange prevailing at the dates of the transactions. Foreign currency gain (loss) from settlements of foreign currency transactions or translation of monetary items denominated in foreign currencies is recognized in income or loss, whereas the gain (loss) from qualified cash flow hedge and net investment hedge for foreign operations is deferred as an equity item. (4) Cash and cash equivalents

Cash and cash equivalents include cash on hand, demand deposits and short-term, highly liquid investments with maturities (or date of redemption) of three months or less upon acquisition. Bank overdraft is included in short-term borrowing account in the separate statements of financial position.

(5) Financial instruments

1) Classification of financial assets

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

a) Financial assets at FVTPL

FVTPL includes financial assets classified as held for trading and financial assets designated at FVTPL upon initial recognition. A financial asset is classified as FVTPL if it has been acquired principally for the purpose of selling or repurchasing in the near term. All derivative assets, except for derivatives that are designated and effective hedging instruments, are classified as held for trading financial assets.

b) Loans and receivables

Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. Loans and receivables, which have maturities of more than 12 months from the end of the reporting period, are classified as non-current assets; otherwise, they are classified as current assets.

c) AFS financial assets

AFS financial assets are those non-derivative financial assets that are designated as AFS or are not classified as loans and receivables, held-to-maturity investments or financial assets at FVTPL. AFS financial assets are classified as non-current assets, unless management has the intention to sell them within 12 months.

d) Held-to-maturity investments

Held-to-maturity investments are non-derivative financial instruments with fixed or determinable payments and fixed maturity that the Company has the positive intention and ability to hold to maturity. Held-to-maturity investments, which have maturities of more than 12 months from the end of the reporting period, are classified as non-current assets; otherwise, they are classified as current assets.

2) Recognition and measurement of financial assets

All financial assets are recognized on trade date when the purchase or sale of a financial asset is under a contract whose terms require delivery of the financial asset within the time frame established by the market concerned and are initially measured at fair value, plus transaction costs, except for those financial assets classified as at FVTPL, which are initially measured at fair value and related transaction costs are recognized in income or loss.

Financial assets at FVTPL and AFS financial assets are subsequently measured at fair value. Loans and receivables and held-to-maturity investments are measured at amortized cost, using the effective interest method.

Gains or losses arising from changes in fair value of financial assets at FVTPL are recognized in the other non-operating income and expense line item in the separate statements of comprehensive income. Dividends on financial assets at FVTPL are recognized in the other gains when the Company's right to receive the dividends is established.

Other AFS financial assets are measured at fair value. Gains and losses arising from changes in fair value are recognized in other comprehensive income and accumulated in the investments revaluation reserve. When the investment is disposed of or is determined to be impaired, the cumulative gain or loss previously accumulated in the investments revaluation reserve is reclassified to the other gains and losses line item in the separate statements of comprehensive income.

Interest calculated using the effective interest method is recognized in financial income or loss. Dividends on AFS equity instruments are recognized in income or loss when the Company's right to receive the dividends is established.

3) Impairment of financial assets

a) Financial assets measured at amortized cost

Financial assets 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 events have occurred after the initial recognition of the financial asset and the estimated future cash flows of the investment have been affected.

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. The carrying amount of the financial asset is reduced by the impairment assets and changes in the carrying amount of the allowance account are recognized in profit or loss in the period. The Company measures impairment loss based on the fair value of financial assets from observable market data.

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 and recognized in income or loss.

b) AFS financial assets

The Company assesses at the end of each reporting period whether there is any objective evidence that a financial asset or group of financial assets is impaired. For equity investments classified as AFS, a significant or prolonged decline in the fair value of the security below its cost is considered to be objective evidence of impairment. If there is objective evidence of impairment on AFS financial assets, the cumulative loss that has been recognized in other comprehensive income, less any impairment loss previously recognized in income or loss is reclassified from equity to income or loss. Impairment losses recognized in income or loss for an investment in an equity instrument classified as AFS are not reversed through income or loss.

Meanwhile, if, in a subsequent period, the fair value of a debt instrument classified as AFS increases and the increase can be objectively related to an event occurring after the impairment loss was recognized in income or loss, the impairment loss is reversed through income or loss.

4) Derecognition of financial assets

The Company derecognizes a financial asset 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.

5) Offsetting financial assets and financial liabilities

Financial assets and financial liabilities are offset as a net amount in the separate statements of financial position when the Company has a legally enforceable right to set off the recognized amounts of the assets and liabilities and intends to settle on a net basis, or to realize the assets and the liabilities simultaneously.

(6) Accounts receivable

Accounts receivable are the amount owed by customer for products and services provided in the ordinary course of business. Receivables expected to be collected within one year are classified as current assets; otherwise, they are classified as non-current assets. Accounts receivable are initially measured at fair value and presented as net amount after measuring allowance. An allowance is individually recognized for receivables that can be assessed individually for impairment. For financial assets that are not individually significant and have similar credit risk characteristics, impairment is recognized based on aging analysis and the Company's past experience of accounts receivable collecting rate.

(7) The gross amounts due from (to) customers

The gross amount due from customers for contract work is the net amount of costs incurred, plus recognized profits and the sum of recognized losses and progress billings for all contract in progress for which costs incurred, plus recognized profits exceed progress billings. Total costs include cost to specific contract and fixed and variable common cost, which are distributed in normal operation.

Contracts in progress for which costs incurred, plus recognized profits (less recognized losses) exceed progress billings, a gross amount due from customers for contract work is recognized as an asset in the separate statements of financial position. Similarly, at each separate statement of financial position date, for all contracts in progress for which progress billings exceed costs incurred, plus recognized profits (less recognized losses), a gross amount due to customers for contract work is recognized as a liability in the separate statements of financial position.

(8) Inventories

Inventories are stated at the lower of cost and net realizable value. Cost of inventories includes fixed and variable manufacturing overhead costs, which are systematically allocated to inventories by appropriate methods based on each category of inventory. The cost of inventories is determined by the specific identification method for inventories 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.

The Company periodically reviews changes in net realizable value of inventories due to damage, obsolescence, decline in selling prices and others and recognizes loss on inventory valuation. Net realizable value for merchandise, finished goods and work in progress represents the estimated selling price for inventories, less all estimated costs of completion and costs necessary to make the sale and current replacement cost for raw materials.

Loss on inventory valuation is charged to cost of sales when it is ordinary and to other expense when it is extraordinary. When the circumstances that previously caused inventories to be written down below cost no longer exist and the new market value of inventories subsequently recovers, the valuation loss is reversed to the extent of the original valuation loss and the reversal is deducted from cost of sales.

(9) Property, plant and equipment

Property, plant and equipment are stated at cost, less subsequent accumulated depreciation and accumulated impairment losses. When useful life of each part of an item of property, plant and equipment is different compared to that of the item, that part is recognized separately. The cost of an item of property, plant and equipment is directly attributable to their purchase or construction, including the initial estimate of the costs of dismantling and removing the item and restoring the site on which it is located.

Subsequent costs incurred to add or replace part of previously recognized item of property, plant and equipment are added to the carrying amount of an asset or recognized as a separate asset if it is probable that future economic benefits associated with the assets will flow into the Company and the cost of an asset can be measured reliably, and the carrying amount of what was replaced is derecognized. Routine maintenance and repairs are expensed as incurred.

Depreciation expense for property, plant and equipment other than land is computed using the straight-line method, which reflects most closely the pattern in which the asset's economic benefits are expected to be consumed by the Company over the estimated useful lives of the assets as follows:

Buildings	20–40
Structures	10–20
Machinery	5–20
Vehicles	3–5
Tools	10
Office equipment	3–5

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

Estimated useful lives (years)

The Company 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.

Upon the derecognition of a property, plant and equipment, the gain or loss arising is determined as the difference between the net disposal proceeds, if any, and the carrying amount of the item and recognized in other non-operating income (expense) line item.

(10) Intangible assets

Intangible assets are initially measured at cost and are carried at cost, less accumulated amortization and accumulated impairment losses. Subsequent expenditure on an intangible asset is capitalized only when it is probable that the expected future economic benefits that are attributable to the asset will increase.

Intangible assets other than goodwill and intangibles with indefinite useful lives are amortized using the straight-line method with no residual value, with amortization beginning when the asset is available for use.

The estimated useful lives of the assets are as follows:

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

However, useful lives of membership and other intangible assets are determined to be indefinite as there is no foreseeable limit to the period over which the assets are expected to generate net cash inflows for the Company, and they are not amortized and tested for impairment once a year.

Capitalized development costs include expenditure on materials, salaries, wages and other employment-related costs of personnel directly engaged in generating assets and related overhead cost, which is systematically allocated. Capitalized development costs are presented at the acquisition cost, less accumulated amortization and accumulated impairment losses. Capitalized development costs are amortized using the straight-line method over the estimated useful life, and amortization expenses are included in cost of goods manufactured and amortization in selling, general and administrative expenses. The expenditure on research and development, which does not meet the conditions noted above, is recognized as an expense when it is incurred.

The estimated useful life and amortization method for intangible assets with finite useful lives are reviewed at the end of each reporting period; and for the assets that have been assessed as having indefinite useful life, the assessment is revisited each period, with the effect of any changes in estimate being accounted for on a prospective basis

(11) Investment property

Investment properties are properties held to earn rentals and/or capital appreciation. Investment properties are measured initially at cost, including transaction costs. Subsequent to initial recognition, the book value of investment property is presented at the cost, less accumulated depreciation and accumulated impairment.

While land is not depreciated, all other investment property is depreciated using the straight-line method over 20 years.

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.

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

(13) Impairment of non-financial assets, except for goodwill

At the end of each reporting period, the Company reviews the carrying amounts of its non-financial assets, except for goodwill 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). Where it is not possible to estimate the recoverable amount of an individual asset, the Company estimates the recoverable amount of the cash-generating unit to which the asset belongs. 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.

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. An impairment loss is recognized immediately 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 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.

(14) Borrowings

Borrowings are measured at fair value, net of transaction costs and subsequently measured at amortized cost using the effective interest method, with interest expense being recognized on an effective yield basis. The difference between the amount received and the redemption amount is amortized using the effective interest method and recognized in income or loss. Borrowings are classified as non-current liabilities when the Company has an unconditional right to defer settlement of the liability for at least 12 months after the end of the reporting period. Otherwise, borrowings are classified as current liabilities.

(15) Financial guarantee contract liabilities

The Company measures payments required to reimburse the holder for a loss it incurs because a specified debtor fails to make payment when due in accordance with the original or modified terms of a debt instrument and recognizes financial liability. 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*
- (16) Retirement benefit obligation

The Company operates a defined benefit pension plan. 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. Present value of the defined benefit obligation is calculated by discounting estimated future cash outflows by market yields on high-quality corporate bonds (public debt or national), with similar maturity.

Actuarial gain or loss from changes in actuarial assumptions or differences between actuarial assumptions and actual results is recognized in other comprehensive income in the separate statements of comprehensive income, which is immediately recognized as retained earnings. Actuarial gains and losses recognized in other comprehensive income are not reclassified to profit or loss, but are immediately recognized in retained earnings. Past service cost is recognized immediately to the extent that the benefits are already vested, if not vested, the cost is amortized on a straight-line basis over the average period until the benefits become vested.

The present value of the defined benefit obligation is denominated in the same currency in which the benefits are expected to be paid and is calculated at the discount rate, which is the yield at the reporting date on high-quality corporate bonds that have maturity dates approximating the terms of the Company's obligation.

(17) Provisions

Provisions are recognized when the Company has a present obligation (legal or constructive) as a result of a past event, it is probable that the Company will be required to settle the obligation, and a reliable estimate can be made of the amount of the obligation. A provision is measured using the present value of the cash flows estimated to settle the present obligation when the effect of the time value of money is material. 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. The increase in provision due to passage of time is recognized as interest expense. If the existence of an obligation to transfer economic benefit is no longer probable, the related provision is reversed during the period.

(18) Derivative financial instruments

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; and 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) Hedge accounting

The Company designates certain derivatives as either hedges of recognized assets or liabilities or firm commitments (fair value hedges), hedges of highly probable forecast transactions or hedges of foreign currency risk of firm commitments (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 Company documents whether the hedging instrument is highly effective in offsetting changes in the fair values or cash flows of the hedged item.

a) Fair value hedges

Changes in the fair value of derivatives that are designated and qualify as fair value hedges are recognized in income or loss immediately, together with any changes in the fair value of the hedged asset or liability that are attributable to the hedged risk.

Hedge accounting is discontinued when the Company 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.

b) 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 'other gains and losses' 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 income statement as the recognized hedged item.

Hedge accounting is discontinued when the Company 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.

2) Other derivatives

Derivatives, except for those designated and qualify as effective hedging instruments, are measured at fair values and the changes in fair values are recognized in income or loss.

(19) Dividend

Dividend payable is recognized as liability when declaration of the dividend is approved at the stockholders' meeting.

(20) Share-based payment arrangement

The Company recognizes share options granted to employees at the fair value at the grant date. The fair value determined at the grant date of the share option is expensed on a straight-line basis over the vesting period. The Company determines fair value of share option using the Black-Scholes model.

(21) Revenue recognition

Revenue is measured at the fair value of the consideration received or receivable for the sale of goods and rendering of services arising in the course of the ordinary activities of the Company. Revenue is reduced for value-added tax, estimated customer returns, rebates and trade discounts, and is presented after eliminating intercompany transactions. The Company recognizes revenue when the amount of revenue can be measured reliably and it is probable that the economic benefits associated with the transaction will flow to the Company and when transaction meets the revenue recognition criteria specified by activity.

1) Sale of goods

Revenue from the sale of goods is recognized when the Company has transferred to the buyer the significant risks and rewards of ownership of the goods. Revenue is recognized on initial delivery of the goods, net of expected discounts and returns estimated based on historical data. The Company estimates and recognizes provision for warranty and sales return arising from sale of goods.

2) Rendering of service

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.

The reliable method to measure the value of the services performed is determined based on the nature of transaction. The process involved in the execution of the task is studied to understand the percentage of completeness and measure the progress by calculating the ratio of accumulated costs incurred to the total estimated costs.

3) Other revenue

Dividend income from investments is recognized when the stockholders' right to receive payment has been established.

Interest income is accrued on a timely 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.

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

(22) Income tax and deferred tax

Income tax expense is composed of current and deferred tax. Current and deferred taxes are recognized in income 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 taxes are also recognized in other comprehensive income or directly in equity.

Income tax expense is sum of tax regarding to the Corporate Tax Act and tax added to the income tax. It contains additional payment or refund incurred by past year. Current income tax liability is calculated by using a tax rate, which is established or substantially established until the end of financial statement date.

Deferred tax is recognized on temporary differences between the carrying amounts of assets and liabilities in the separate financial statements and the corresponding tax bases used in the computation of taxable profit. Deferred tax assets and liabilities are not recognized if the temporary difference arises from the initial recognition (other than in a business combination) of other assets and liabilities in a transaction that affects neither the taxable income nor the accounting income.

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 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 income will be available to allow all or part of the asset to be recovered.

(23) 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.

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.

(24) Non-current assets held for sale

Sales department has been reported as a briefing paper to be reported to the management of the Company. The Company's management is responsible for evaluating the achievement of the sales department and the resources that are allocated to the sales department.

(25) Approval of financial statements

The separate financial statements for the year ended December 31, 2012, were approved by the board of directors on March 7, 2013.

3. <u>CRITICAL JUDGMENTS IN APPLYING ACCOUNTING POLICIES:</u>

In the application of the Company's accounting policies, 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 associated assumptions are based on historical experience and other factors that are considered to be relevant. Actual results may differ from those estimates.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimate is revised if the revision affects only that period. The revisions are recognized in the period of revision and future periods if the revision affects both current and future periods.

(1) Revenue recognition

Revenue from service or construction projects is recognized based on percentage -of-completion method. It needs to estimate a rate which can measure the service provided by the company, and can be critically changed by relevant factors.

(2) Provision for construction losses

The Company provides warranty for product at the time of related revenue recognition (at the time of sale). Provisions for the expected cost of warranty obligations are recognized at the best estimate of the expenditure required to settle the Company's current and future obligations. These estimates could be changed in the future period by additional provision under local legislation and practice.

(3) Defined benefit obligation

The Company operates a defined benefit pension plan, which is funded by the Company and managed by insurance companies and trustees, based on actuarial calculations periodically performed. The assumptions about the method are based on discount rate, expected rate of salary increase and expected rate of return on plan assets; these estimates may contain significant uncertainty.

(4) Measurement of carrying amount

Determining whether non-financial asset is impaired requires an estimation of the value in use of individual asset units or the cash-generating units. The value-in-use calculation requires the directors to estimate the future cash flows expected to arise from the cash-generating unit and a suitable discount rate in order to calculate present value.

(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.

4. FINANCIAL RISK MANAGEMENT:

The Company is exposed to various financial risks, such as market, credit and liquidity. The purpose of financial risk management of the Company 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 Company focuses on minimizing effect of financial risk through regular monitoring.

(1) Market risk

1) Foreign exchange risk

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

The Company 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 Company's monetary assets and liabilities denominated in foreign currencies, which represents the maximum exposure to foreign currency risk, as of December 31, 2012 and 2011, is as follows (in thousands of Korean won):

December 31, 2012			December 31, 2011						
USD	EUR	CNY	Others (*)	Total	USD	EUR	CNY	Others (*)	Total
₩56,714,253	₩130,227	₩259,422	₩69,683	₩57,173,585	₩193,506,230	₩62,001	₩208,333	₩79,255	₩193,855,819
(136,346,001)	(21,637,843)		(7,872,807)	(165,856,651)	(211,931,764)	(22,023,549)		(37,224,585)	(271,179,898)
(₩79,631,748)	(₩21,507,616)	₩259,422	(₩7,803,124)	(₩108,683,066)	(₩18,425,534)	(₩21,961,548)	₩208,333	(₩37,145,330)	(₩77,324,079)
	₩56,714,253 (136,346,001)	USD EUR ₩56,714,253 ₩130,227 (136,346,001) (21,637,843)	USD EUR CNY ₩56,714,253 ₩130,227 ₩259,422 (136,346,001) (21,637,843) -	USD EUR CNY Others (*) ₩56,714,253 ₩130,227 ₩259,422 ₩69,683 (136,346,001) (21,637,843) - (7,872,807)	USD EUR CNY Others (*) Total ₩56,714,253 ₩130,227 ₩259,422 ₩69,683 ₩57,173,585 (136,346,001) (21,637,843) - (7,872,807) (165,856,651)	USD EUR CNY Others (*) Total USD ₩56,714,253 ₩130,227 ₩259,422 ₩69,683 ₩57,173,585 ₩193,506,230 (136,346,001) (21,637,843) - (7,872,807) (165,856,651) (211,931,764)	USD EUR CNY Others (*) Total USD EUR \#56,714,253 \#130,227 \#259,422 \#69,683 \#57,173,585 \#193,506,230 \#62,001 (136,346,001) (21,637,843) - (7,872,807) (165,856,651) (211,931,764) (22,023,549)	USD EUR CNY Others (*) Total USD EUR CNY \#56,714,253 \#130,227 \#259,422 \#69,683 \#57,173,585 \#193,506,230 \#62,001 \#208,333 (136,346,001) (21,637,843) - (7,872,807) (165,856,651) (211,931,764) (22,023,549) -	USD EUR CNY Others (*) Total USD EUR CNY Others (*) \#56,714,253 \#130,227 \#259,422 \#69,683 \#57,173,585 \#193,506,230 \#62,001 \#208,333 \#79,255 (136,346,001) (21,637,843) - (7,872,807) (165,856,651) (211,931,764) (22,023,549) - (37,224,585)

(*) 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, 2012 and 2011, is $\forall 9,492,542$ thousand and ($\forall 1,877,303$) thousand, respectively.

A sensitivity analysis on the Company's income before tax for the period, assuming a 10% increase and decrease in currency exchange rates, as of December 31, 2012 and 2011, is as follows (in thousands of Korean won):

	December	31, 2012	December 31, 2011		
	10% increase in KRW against foreign currency	10% decrease in KRW against foreign currency	10% increase in KRW against foreign currency	10% decrease in KRW against foreign currency	
Income before tax					
impact	(₩10,868,307)	₩10,868,307	(₩7,732,408)	₩7,732,408	

The sensitivity analysis above is based on monetary assets and liabilities denominated in foreign currencies other than functional currency as of December 31, 2012 and 2011.

2) Interest rate risk

The Company'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 Company is exposed to interest rate risk mainly due to its borrowings with floating interest rates. Borrowings and bank deposits with fixed-interest rates do not have influence on net income and equity by 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 Company 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 Company 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 Company's financial assets and liabilities with floating-interest rates exposed to interest rate risk as of December 31, 2012 and 2011, is as follows (in thousands of Korean won):

	December 31, 2012	December 31, 2011		
Financial assets	₩ 31,820,591	₩ 50,715,795		
Financial liabilities	(128,532,000)	(172,995,000)		
Net assets (liabilities)	(₩ 96,711,409)	(₩ 122,279,205)		

A sensitivity analysis on the Company's income before tax assuming a 1% increase and decrease in interest rates as of December 31, 2012 and 2011, is as follows (in thousands of Korean won):

	December 3	1, 2012	December 3	1, 2011	
	1% 1%		1%	1%	
	increase	decrease	increase	decrease	
ncome before tax impact	(₩967,114	₩967,11	(₩1,222,792	₩1,222,79	

3) Price risk

The Company is exposed to equity price risks arising from its listed equity investments among AFS equity investments. The Company 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 Company's portfolio are individually managed, and acquisition and disposal are approved by the management of the Company.

(2) Credit risk

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

When the Company 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 Company reassesses the credit rating of customers periodically, reconsiders maximum credit limit and readjusts security level. The Company reports the delinquent account receivable situation and proper measures about financial assets that delayed collection.

The maximum exposure amount of credit risk of financial assets as of December 31, 2012 and 2011, is as follows (in thousands of Korean won):

		December 31,	December 31,
		2012	2011
Loans and receivables	Cash and cash equivalents	₩94,678,542	₩320,469,577
	Financial instruments	171,781,850	150,904,719
	Accounts and other		
	receivables	85,273,333	150,427,478
	Loans	6,283,871	8,499,270
	Long-term others receivables	14,958,734	8,131,176
Held-to-maturity investme	ents	7,000,000	-
Derivative assets		50,443,327	11,905,612
	Total	₩430,419,657	₩650,337,832

Meanwhile, the Company's guarantee amount is equal to (see Note 32) contingent liabilities, which is the maximum amount for claiming a warrantee by a financial guarantee contract, except financial assets.

Aging analysis of the Company's receivables as of December 31, 2012 and 2011, is as follows (in thousands of Korean won):

	December 31, 2012								
	Individually		Receivables assessed for impairment on a collective basis						
	impaired					More than			
	receivables	Within due	0–3 months	3–6 months	6-12 months	12 months	Total		
Accounts receivable	₩	₩ 58,147,108	₩16,989,814	₩4,720,012	₩ 395,915	₩5,939,295	₩86,192,144		
Other receivable		- 1,757,746	-	-	-	-	1,757,746		
Accrued income		- 1,385,592	-	-	-	-	1,385,592		
Long-term accounts									
receivable		4,460,205					4,460,205		
Total	₩	- ₩ 65,750,651	₩16,989,814	₩4,720,012	₩ 395,915	₩5,939,295	₩93,795,687		

	December 31, 2011							
	Individu	ually	Receivables assessed for impairment on a collective basis					
	impaired receivables						More than	
			Within due (0–3 months	3–6 months	6–12 months	12 months	Total
Accounts receivable	₩	-	₩105,332,830	₩22,286,327	₩153,125	₩6,057,820	₩242,534	₩134,072,636
Other receivable		-	17,873,045	-	-	-	-	17,873,045
Accrued income		-	2,478,837					2,478,837
Total	₩	-	₩125,684,712	₩22,286,327	₩153,125	₩6,057,820	₩242,534	₩154,424,518

An allowance account is recognized by applying appropriate 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 Company's past experience of receivables collection.

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

(3) Liquidity risk

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

The Company 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 Company's major non-derivative liabilities as of December 31, 2012 and 2011, are matured as follows (in thousands of Korean won):

		December 31, 2012							
		Nominal cash flows according to contract (*)							
			Less than More than						
	Book value	Total	1 year	1-2 years	2-5 years	5 years			
Financial liability	₩480,674,889	₩481,213,399	₩265,889,948	₩65,323,451	₩150,000,000	₩-			
Interest expense		33,364,587	10,070,762	8,238,824	15,055,000	-			
Total	₩480,674,889	₩514,577,986	₩275,960,710	₩73,562,275	₩165,055,000	₩-			

			December 31, 2011						
			Nominal cash flows according to contract (*)						
			Less than More than						
	Book value	Total	1 year	1 year 1-2 years		5 years			
Financial liability	₩574,823,649	₩574,878,105	₩434,149,948	₩71,530,156	₩69,198,000	₩-			
Interest expense		14,655,349	9,839,168	3,210,787	1,605,394	-			
Total	₩574,823,649	₩589,533,454	₩443,989,116	₩74,740,943	₩70,803,394	₩-			

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

(4) Capital risk

The Company performs capital risk management to maintain its ability to continuously provide income to stockholders 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 Company'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, 2012	December 31, 2011
Debt	₩ 1,028,488,897	₩ 1,461,182,444
Equity	644,479,412	590,298,168
Debt-to-equity ratio	159.58%	247.53%

5. <u>RESTRICTED DEPOSITS:</u>

Details of restricted deposits as of December 31, 2012 and 2011, are as follows (in thousands of Korean won):

Account	December 31 2012		December 312011		Remarks
Long-term financial instruments		5,500 - 50,226	₩	4,284,693	Guarantee deposits for checking account Pledged as collateral for note Employee stock ownership loan secured by deposits
Total	₩ 1,76	5,726	₩	4,290,193	

6. ACCOUNTS AND OTHER RECEIVABLES:

(1) Accounts and other receivables as of December 31, 2012 and 2011, consist of the following (in thousands of Korean won):

		December 31, 2012		December 31, 2011			
		Allowance					
		for doubtful	Carrying		Allowance for		
	Gross	accounts	value	Gross	doubtful accounts	Carrying value	
CURRENT							
Trade receivables	₩86,192,144	(₩4,125,329)	₩82,066,815	₩134,072,636	(₩4,060,220)	₩130,012,416	
Other receivables	1,757,746	-	1,757,746	17,873,045	-	17,873,045	
Accrued income	1,385,592	-	1,385,592	2,478,837	-	2,478,837	
Guarantee deposits	63,180	<u> </u>	63,180	63,180		63,180	
Subtotal	89,398,662	(4,125,329)	85,273,333	154,487,698	(4,060,220)	150,427,478	
NON-CURRENT							
Other receivables	4,234,765	-	4,234,765	-	-	-	
Guarantee deposits	10,723,969	-	10,723,969	8,131,176	-	8,131,176	
Subtotal	14,958,734	-	14,958,734	8,131,176	-	8,131,176	
			· · ·			, , ,	
Total	₩104,357,396	(₩4,125,329)	₩100,232,067	₩162,618,874	(₩4,060,220)	₩158,558,654	

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

	2012					
	January 1, 2012	Increase	Reversal	December 31, 2012		
Trade receivable	(₩4,060,220)	(₩65,109)	₩-	(₩4,125,329)		

Receivables past due are assessed as impaired. An allowance account is individually recognized for receivables that can be assessed individually for impairment. An allowance account is recognized based on aging analysis and the Company's past experience of receivables collection for the Company of financial assets that are not individually significant and have similar credit risk characteristics.

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 expense.

7. INVENTORIES:

Details of inventory valuation securities as of December 31, 2012 and 2011, are summarized as follows (in thousands of Korean won):

		December 31, 2012		December 31, 2011			
	Acquisition cost	ost Valuation allowance Book value		Acquisition cost	Valuation allowance	Book value	
Work in progress	₩97,857,640	(₩28,642,954)	₩69,214,686	₩237,971,441	(₩34,901,030)	₩203,070,411	
Raw materials	125,658,125	(4,494,921)	121,163,204	38,161,543	(3,188,369)	34,973,174	
Materials in transit	14,822,951		14,822,951	9,187,990		9,187,990	
Total	₩238,338,716	(₩33,137,875)	₩205,200,841	₩285,320,974	(₩38,089,399)	₩247,231,575	

The Company recorded loss on inventory valuation totaling ($\mathbb{W}4,951,524$) thousand and $\mathbb{W}26,846,273$ thousand for the years ended December 31, 2012 and 2011, respectively.

8. LONG-TERM INVESTMENT SECURITIES:

(1) Long-term investments as of December 31, 2012 and 2011, are as follows (in thousands of Korean won):

ecember 31, 2012	December 31, 2011	
₩ 922,117	₩ 72,047	
7,000,000		
₩ 7,922,117	₩ 72,047	
	7,000,000	

(2) AFS securities as of December 31, 2012 and 2011, are summarized as follows (in thousands of Korean won):

,000
,047
-
,047

Equity securities of Casco are transferred to AFS financial assets from securities of associate for the year ended December 31, 2012 (see Note 11-(1)).

(3) Long-term held-to-maturity financial assets as of December 31, 2012 and 2011, are summarized as follows (in thousands of Korean won):

	December 31, 2012	December 31, 2011
Subordinated beneficiary certificate	₩7,000,000	₩ -

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
	Foreign exchange fluctuation	risk of exchange rate When receiving the foreign receivables, it fixes the
	insurance	value of Korean won at maturity about exposed fluctuation risk of exchange rate
	Long-term foreign currency	When receiving the foreign receivables, it fixes the
	borrowings	value of Korean won at maturity about exposed fluctuation risk of exchange rate
Cash flow hedge	Interest rate swap	A contract to receive floating rate indexed to (London InterBank Offered Rate (LIBOR) in
		foreign currency and pay fixed interest in foreign currency at the date of payment to avoid risk of
		increasing LIBOR

(2) Details of gain and loss on valuation of derivatives as of December 31, 2012 and 2011, are as follows (in thousands of Korean won):

	December 31, 2012							
					Other			
	Pi	urchase	Sale Assets		Gains	comprehensive	Firm	
	Currency	Amount	Currency	Amount	(liabilities)	(losses)	income (*)	commitment
Foreign currency	KRW	1,069,515,571	USD	939,422,616	₩ 50,040,614	₩ 62,790,797	₩ -	(₩2,543,792)
forwards	KRW	4,892,394	EUR	3,224,000	250,241	250,241	-	(250,241)
	EUR	69,956,000	KRW	106,093,746	(5,225,493)	(4,293,414)	-	7,094,360
	CHF	2,034,000	KRW	2,501,533	(65,084)	(65,084)	-	64,316
Borrowings in foreign								
currency	KRW	125,272,463	USD	120,000,000	-	_		4,235,006
Total				-	₩ 45,000,278	₩ 58,682,540	₩ -	₩ 8,599,649

	December 31, 2011							
	Purchase Sale			Assets	Gains	Other comprehensive	Firm	
	Currency	Amount	Currency	Amount	(liabilities)	(losses)	income (*)	commitment
Foreign currency	KRW	1,772,628,682	USD	1,553,979,950	(₩ 35,606,043)	(₩ 43,758,615)	₩-	₩ 112,514,081
forwards	EUR	109,671,000	KRW	169,925,153	(3,090,172)	(3,090,172)	-	3,090,172
	KRW	2,385,342	USD	2,033,000	25,217	(22,924)	-	(25,217)
Borrowings in foreign currency	KRW	192,184,282	USD	180,000,000	_	-	-	14,152,603
Interest rate swap				, ,	(440,359)		(440,359)	
Total					(₩ 39,111,357)	(₩ 46,871,711)	(₩ 440,359)	₩ 129,731,639

(*) Other comprehensive income does not reflect corporate tax effect.

Derivative instruments classified as financial assets at FVTPL are classified as current assets or current liability. Derivatives that are designated as hedging instruments are classified as non-current assets (liabilities) when their maturities are more than 12 months from end of the reporting period; otherwise, they are classified as current assets (liabilities). On the other hand, if cash flow hedge is applied, risk aversion, which recognizes the profits and losses for the current term, is not ineffective part.

10. FINANCIAL INSTRUMENTS:

(1) Categories of financial instruments as of December 31, 2012 and 2011, are as follows (in thousands of Korean won):

			Dec	ember 31, 2012	2				
	Derivatives Held-to- designated as								
	Financial assets	Loans and	AFS	maturity	hedging				
	at FVTPL	receivables	financial assets	investments	instruments	Book value	Fair value		
Cash and cash									
equivalents	₩-	₩94,678,542	₩-	₩-	₩-	₩94,678,542	₩94,678,542		
Long- and short-term									
financial instruments	-	171,781,850	-	-	-	171,781,850	171,781,850		
Trade and other									
receivables	-	85,273,333	-	-	-	85,273,333	85,273,333		
Derivative assets	-	-	-	-	50,443,327	50,443,327	50,443,327		
Long- and short-term									
loans	-	6,283,871	-	-	-	6,283,871	6,283,871		
Long-term investments									
securities	-	-	922,117	7,000,000	-	7,922,117	7,922,117		
Long-term other									
receivables		14,958,734		-		14,958,734	14,958,734		
Total	W-	₩372,976,330	₩922,117	₩7,000,000	₩50,443,327	₩431,341,774	₩431,341,774		

	December 31, 2012							
	Financial liabilities at FVTPL	Financial liabilities at amortized cost	Derivatives designated as hedging instruments	Book value	Fair value			
Trade and other								
payables	₩-	₩171,795,453	₩-	₩171,795,453	₩171,795,453			
Borrowings and bonds	-	307,821,985	-	307,821,985	307,821,985			
Derivative liabilities	-	-	5,443,049	5,443,049	5,443,049			
Long-term non-trade								
payables	-	1,057,451	-	1,057,451	1,057,451			
Financial guarantee								
liabilities		4,121,160	<u> </u>	4,121,160	4,121,160			
Total	₩-	₩484,796,049	₩5,443,049	₩490,239,098	₩490,239,098			

	December 31, 2011							
	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	₩-	₩320,469,577	₩-	₩-	₩-	₩320,469,577	₩320,469,577	
Long and Short-term								
financial instruments	-	150,904,719	-	-	-	150,904,719	150,904,719	
Trade and other								
receivables	-	150,427,478	-	-	-	150,427,478	150,427,478	
Derivative assets	-	-	-	-	11,905,612	11,905,612	11,905,612	
Long and short-term								
loans	-	8,499,270	-	-	-	8,499,270	8,499,270	
Long-term investment								
securities	-	-	72,047	-	-	72,047	72,047	
Long-term other								
receivables		8,131,176				8,131,176	8,131,176	
Total	₩-	₩638,432,220	₩72,047	₩-	₩11,905,612	₩650,409,879	₩650,409,879	

		December 31, 2011								
		Derivatives designated								
	Financial liabilities	Financial liabilities	Financial liabilities as hedging							
	at FVTPL	at amortized cost	instruments	Book value	Fair value					
Trade and other										
payables	₩-	₩ 261,645,250	₩-	₩ 261,645,250	₩ 261,645,250					
Borrowings and bonds	-	310,846,243	-	310,846,243	310,846,243					
Derivative liabilities	-	-	51,016,969	51,016,969	51,016,969					
Long-term other										
payable	-	2,332,156	-	2,332,156	2,332,156					
Financial guarantee										
liabilities		349,001		349,001	349,001					
Total	₩-	₩575,172,650	₩51,016,969	₩626,189,619	₩626,189,619					

(2) Fair value measurements of financial instruments by fair value hierarchy levels as of December 31, 2012 and 2011, are as follows (in thousands of Korean won):

		December 31, 2012					
Туре	Level 1	Level 2	Level 3	Total			
Financial Assets:							
Derivatives designated as hedging							
instruments	₩-	₩50,443,327	₩-	₩50,443,327			
Long-term investment securities	<u> </u>		850,070	850,070			
Total	₩-	₩50,443,327	₩850,070	₩51,293,397			
Financial Liabilities:							
Derivatives designated as hedging							
instruments	₩-	(₩5,443,049)	₩-	(₩5,443,049)			
Total	₩-	(₩5,443,049)	₩-	(₩5,443,049)			
		December 3	1, 2011				
Туре	Level 1	Level 2	Level 3	Total			
Financial Assets:							
Derivatives designated as hedging							
instruments	₩-	₩11,905,612	₩-	₩11,905,612			
Total	₩-	₩11,905,612	₩-	₩11,905,612			
Financial Liabilities:		y y -		y y -			
Derivatives designated as hedging							
instruments	₩-	(\\$51,016,969)	₩-	(₩51,016,969)			
Total	₩-	(₩51,016,969)	₩-	(₩51,016,969)			

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 separate 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.

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.

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

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

(3) Profit and loss by categories of financial instruments as of December 31, 2012 and 2011, are as follows (in thousands of Korean won)

		2012							
	Interest	Dividend	Valuation	Impairment	Disposal	Foreign exchange	Others	Other comprehensive income (*)	
Financial asset at FVTPL	₩ -	₩ -	₩ -	₩ -	₩ -	₩ -	₩ -	₩ -	
Loans and receivables	12,734,995	-	-	(65,109)	-	(6,417,016)	-	-	
AFS financial assets	-	-	-	-	-	-	-	(180,548)	
Held-to-maturity investments	538,726	-	-	-	-	-	-	-	
Derivatives designated as hedging instruments		<u> </u>	46,349,343	<u> </u>	1,840,090				
Total	₩ 13,273,721	₩ -	₩ 46,349,343	(₩ 65,109)	₩ 1,840,090	(₩ 6,417,016)	₩-	(₩180,548)	
Financial liabilities at FVTPL Financial liabilities	₩-	₩-	₩-	₩-	₩-	₩-	₩-	₩-	
at amortized cost Derivatives designated as	(9,250,350)	-	-	-	-	13,768,145	384,463	-	
hedging instruments	<u>-</u>		12,333,198		(389,452)	<u> </u>		440,359	
Total	(₩9,250,350)	₩-	₩12,333,198	₩-	(₩389,452)	₩13,768,145	₩384,463	₩440,359	

(*) Other comprehensive income does not reflect corporate tax effect.

		2011							
	Interest	Dividend	Valuation	Impairment	Disposal	Foreign exchange	Others	Other comprehensive income(*)	
Financial asset at FVTPL	W-	₩-	W-	₩-	₩-	W-	₩-		
Loans and receivables	20,160,223	-	-	1,084,487	-	(1,534,107)	-	-	
AFS financial assets	-	137,155	-	-	-	-	-	-	
Held-to-maturity investments	-	-	-	-	-	-	-	-	
Derivatives designated as hedging instruments			(3,321,559)		(582,998)				
Total	₩20,160,223	₩137,155	(₩3,321,559)	₩1,084,487	(₩582,998)	(₩1,534,107)		₩-	
Financial liabilities at FVTPL	₩-	₩-	₩-	₩-	₩-	₩-	₩-	₩-	
Financial liabilities at amortized cost Derivatives designated as	(12,811,509)	-	-	-	-	(1,758,704)	3,400,911	-	
hedging instruments			(43,550,152)		1,099,908			2,297,081	
Total	(₩12,811,509)	₩-	(₩43,550,152)	₩-	₩1,099,908	(₩1,758,704)	₩3,400,911	₩2,297,081	

(*) Other comprehensive profit or loss does not reflect corporate tax effect.

11. INVESTMENTS IN ASSOCIATES AND SUBSIDIARIES:

(1) Investments in associates and subsidiaries as of December 31, 2012 and 2011, are summarized as follows (in thousands of Korean won):

	Country	Percentage	December 31, 2012	December 31, 2011
Subsidiary:				
Doosan Marine Industry (Dalian) Co., Ltd.	China	100.00%	₩17,579,757	₩17,579,757
Associates:				
Dalian Samyoung Doosan Metal Product Co., Ltd. (*1)	China	10.80%	3,853,794	3,853,794
Casco (*3)	Korea	-%	-	1,030,618
Doosan Infracore International, Inc. (*2)	America	11.59%	146,521,807	146,521,807
Doosan Holdings Europe Ltd. (*2)	Island	21.73%	196,038,744	196,038,744
Subtotal			346,414,345	347,444,963
Total		-	₩363,994,102	₩365,024,720

- (*1) Although the Company's ownership in each of these companies is less than 20%, the Company has significant influence over these companies through participation in various management decisions of these companies. As a result, the Company accounts for these investments using the equity method.
- (*2) Investees have agreement with Doosan Infracore, related party of the Company, about appointment of representative director, etc., and the Company recognizes DII and DHEL as a single CGU for impairment tests of securities of associate.
- (*3) The Company's ratio of shareholding decreased to less than 10%, and the Company lost its significant influence over an investee as a result of not participating in unequal paid-in capital increase. Therefore, the Company reclassifies securities of associate to AFS.

The Company does not have securities of subsidiaries and associates with posted market price.

12. PROPERTY, PLANT AND EQUIPMENT:

Changes in property, plant and equipment for the years ended December 31, 2012 and 2011, are as follows (in thousands of Korean won):

	2012							
	Land	Buildings and structures	Machinery	Others	Construction Others in progress			
January 1, 2012	₩ 210,006,099	₩ 201,589,735	₩ 128,695,455	₩ 9,100,750	₩ 1,992,176	₩ 551,384,215		
Acquisition	1,204,211	2,687,333	5,008,207	1,996,946	2,391,402	13,288,099		
Transfer	25,741,385	11,158,986	1,011,426	156,200	(1,937,896)	36,130,101		
Disposal	-	-	(534,431)	(114,500)	-	(648,931)		
Depreciation		(6,974,471)	(12,123,155)	(4,626,261)		(23,723,887)		
December 31, 2012	₩236,951,695	₩208,461,582	₩122,057,502	₩6,513,135	₩2,445,682	₩576,429,596		
-Acquisition cost	₩236,951,695	₩246,747,019	₩233,770,941	₩56,095,398	₩2,445,682	₩776,010,735		
-Accumulated								
depreciation	-	(38,285,437)	(111,713,439)	(49,582,263)	-	(199,581,139)		

	2011							
	Land	Buildings and			Construction			
	Land	structures Machinery		Others	Others in progress			
January 1, 2011	₩ 204,247,324	₩ 203,271,946	₩ 138,784,169	₩ 14,032,290	₩ 784,800	₩ 561,120,529		
Acquisition	5,758,775	4,843,850	2,039,616	1,818,938	1,232,176	15,693,355		
Transfer	-	-	-	24,800	(24,800)	-		
Disposal	-	(32,750)	(86,614)	(317,547)	-	(436,911)		
Depreciation		(6,493,311)	(12,041,716)	(6,457,731)		(24,992,758)		
December 31, 2011	₩210,006,099	₩201,589,735	₩128,695,455	₩9,100,750	₩1,992,176	₩551,384,215		
-Acquisition cost	₩210,006,099	₩232,083,997	₩229,184,430	₩55,358,838	₩1,992,176	₩728,625,540		
-Accumulated								
depreciation	-	(30,494,262)	(100,488,975)	(46,258,088)	-	(177,241,325)		

13. <u>INTANGIBLE ASSETS:</u>

(1) The changes in intangible assets for the years ended December 31, 2012 and 2011, are as follows (in thousands of Korean won):

	2012							
	Development costs	Rights of utilization	Software	Others	Total			
January 1, 2012	₩ 221,440	₩ 832,385	₩10,135,687	₩3,346,620	₩14,536,132			
Acquisition	4,649,795	-	1,664,457	492,274	6,806,526			
Disposal	-	-	-	(150,500)	(150,500)			
Amortization	-	(208,096)	(2,054,879)	-	(2,262,975)			
Impairment				(314,895)	(314,895)			
December 31, 2012	₩4,871,235	₩624,289	₩9,745,265	₩3,373,499	₩18,614,288			
-Acquisition cost	₩4,871,235	₩3,329,540	₩12,772,102	₩4,779,934	₩25,752,811			
amortization	-	(2,705,251)	(3,026,837)	(1,406,435)	(7,138,523)			

			2011		
	Development	Rights of			
	costs	utilization	Software	Others	Total
January 1, 2011	₩ -	₩1,040,481	₩ -	₩3,935,189	₩ 4,975,670
Acquisition	221,440	-	10,135,687	-	10,357,127
Amortization	-	(208,096)	-	-	(208,096)
Impairment		-		(588,569)	(588,569)
December 31, 2011	₩221,440	₩832,385	₩10,135,687	₩3,346,620	₩14,536,132
-Acquisition cost	₩221,440	₩3,329,540	₩11,107,645	₩4,438,160	₩19,096,785
-Accumulated					
amortization	-	(2,497,155)	(971,958)	(1,091,540)	(4,560,653)

Other intangible assets' book value, which has nonrestrictive durable years, is $\Im 3,373,499$ thousand and $\Im 3,346,620$ thousand for the years ended December 31, 2012 and 2011, respectively.

(2) Expenditure on research and development recognized as expenses amounted to \Im 1,272,321 thousand and \Re 6,439,851 thousand for the years ended December 31, 2012 and 2011, respectively.

14. <u>INVESTMENT PROPERTIES:</u>

(1) Changes in investment properties for the year ended December 31, 2012, are as follows (in thousands of Korean won):

	2012		
	Land	Building	Total
January 1, 2012 Transfer	₩ 25,386,996 (25,386,996)	₩ 10,743,105 (10,743,105)	₩ 36,130,101 (36,130,101)
December 31, 2012	₩-	₩-	₩-

For the year ended December 31, 2012, investment properties are transferred to fixed asset for the purpose of owner-occupied property (see Note 12).

	2011		
	Land	Building	Total
January 1, 2011	₩ 12,082,210	₩ 5,820,500	₩ 17,902,710
Acquisition	13,304,786	5,248,293	18,553,079
Depreciation		(325,687)	(325,687)
December 31, 2011	₩25,386,996	₩10,743,106	₩36,130,102
-Acquisition cost	₩25,386,996	₩11,559,810	₩36,946,806
-Accumulated depreciation	-	(816,704)	(816,704)

15. BONDS AND LONG-TERM BORROWINGS:

(1) Bonds as of December 31, 2012 and 2011, are as follows (in thousands of Korean won):

Details	Interest rate (%)	December 31, 2012	December 31, 2011
The 5th	-	₩ -	₩80,000,000
The 6th	4.16	100,000,000	
Subtotal		100,000,000	80,000,000
Less: Current portion of			
bonds		-	(79,945,545)
Less: Discount on bonds		(538,510)	(54,455)
Net		₩99,461,490	₩ -

- (2) Long-term and short-term borrowings as of December 31, 2012 and 2011, are as follows (in thousands of Korean won):
 - 1) Short-term borrowings

Туре	Lender	Annual interest rate (%)	December 31, 2012	December 31, 2011
Short-term borrowings in Korean won	Woori Bank and others	1.08–1.1	₩29,828,495	₩23,306,698
	Total		₩29,828,495	₩23,306,698

Short-term borrowings, above, incurred from the transaction which a financial asset is transferred but the transferor retains some level of continuing exposure. Transferred asset is offered as collateral (see Note 31-(2)).

2) Long-term borrowings

Туре	Lender	Interest rate (%)	December 31, 2012	December 31, 2011
Syndicate loans				
(Domestic currency)	La-union	5.15	₩ 50,000,000	₩ -
Syndicate loans	Korea Development			
(Foreign currency)	Bank	6M LIBOR+1.6	42,844,000	69,198,000
	The Export-Import			
	Bank of Korea	6M LIBOR+1.6	21,422,000	34,599,000
	Shinhan Bank	6M LIBOR+1.6	17,137,600	27,679,200
	Industrial Bank of			
	Korea	6M LIBOR+1.6	12,853,200	20,759,400
	Woori Bank	6M LIBOR+1.6	17,137,600	27,679,200
	Korea Exchange			
	Bank	6M LIBOR+1.6	3,855,960	6,227,820
	Hana Bank	6M LIBOR+1.6	6,426,600	10,379,700
	Kookmin Bank	6M LIBOR+1.6	3,427,520	5,535,840
	HSBC	6M LIBOR+1.6	1,713,760	2,767,920
	First Gulf Bank	6M LIBOR+1.6	1,713,760	2,767,920
	Subtotal((Foreign			
	currency)		128,532,000	207,594,000
Subtotal			178,532,000	207,594,000
Less: Current portion			(64,266,000)	(69,198,000)
Net			₩ 114,266,000	₩ 138,396,000

16. <u>RETIREMENT BENEFIT OBLIGATION:</u>

(1) Details of retirement benefit obligation as of December 31, 2012 and 2011, are as follows (in thousands of Korean won):

December 31, 2012	December 31, 2011
₩ 24,670,006	₩ 32,783,618
(4,854,163)	(6,193,303)
₩ 19,815,843	₩26,590,315
	₩ 24,670,006 (4,854,163)

- (*) The fair value of plan assets includes ₩1,422 thousand and ₩3,678 thousand of National Pension Fund as of December 31, 2012 and 2011, respectively.
- (2) Expenses recognized in income and loss for the years ended December 31 2012 and 2011, are as follows (in thousands of Korean won):

2012	2011
₩ 6,716,871	₩ 5,356,915
1,560,385	1,275,348
(214,254)	(276,952)
31,569	
₩ 8,094,571	₩ 6,355,311
	₩ 6,716,871 1,560,385 (214,254) 31,569

(3) Details of the total expense recognized in separate statements of income for the years ended December 31, 2012 and 2011, are as follows (in thousands of Korean won):

	2012	2011
Cost of sales	₩ 6,512,157	₩ 4,972,663
Selling and administrative expenses	1,582,414	1,382,648
Total	₩ 8,094,571	₩ 6,355,311

(4) Changes in defined benefit obligations for the years ended December 31, 2012 and 2011, are as follows (in thousands of Korean won):

	2012	2011
Beginning balance	₩ 32,783,618	₩ 25,973,706
Current service cost	6,716,871	5,356,915
Transfer in	175,547	26,331
Transfer out	(1,177,824)	(32,286)
Interest cost	1,560,385	1,275,348
Actuarial gain or loss	836,327	4,376,521
Effect of reduction and liquidation	31,569	-
Benefit paid	(16,256,487)	(4,192,917)
Ending balance	₩ 24,670,006	₩ 32,783,618

(5) Changes in plan assets for the years ended December 31, 2012 and 2011, are as follows (in thousands of Korean won):

	2012	2011
Beginning balance	₩ 6,193,303	₩ 7,012,540
Expected return on plan assets	214,254	276,952
Actuarial gain or loss	(13,170)	(34,645)
Benefit payment	(1,540,224)	(1,061,544)
Ending balance	₩ 4,854,163	₩ 6,193,303

Meanwhile, the actual revenue of plan assets as of December 31, 2012 and 2011, is #201,084 thousand and #242,307 thousand, respectively.

(6) Assumptions used on actuarial as of December 31, 2012 and 2011, are as follows:

December 31, 2012	December 31, 2011
3.70%	5.00%
3.70%	4.50%
5.00%	5.40%
8.00%	8.00%
	3.70% 3.70% 5.00%

Assumption about death is based on the statistics and experiences, and the main estimates of assumptions used on actuarial valuation are based on the report of external actuary's who is professionally qualified.

(7) Details of plan assets at the end of the reporting period as of December 31, 2012 and 2011, are as follows (in thousands of Korean won):

	December 31, 2012	December 31, 2011	
Debt instruments	₩ 548,754	₩ 5,502,592	
Loans	16,133	13,701	
Deposits	4,287,855	673,332	
Pension	1,421	3,678	
Total	₩ 4,854,163	₩ 6,193,303	

The expected return on plan assets is determined considering applicable expected return on plan assets under current investment policy. The expected return on debt securities are based on redemption yields at the end of the reporting period. The expected return on equity securities and other assets reflect historical market return data by asset category.

17. PROVISIONS:

Changes in provisions for the year ended December 31, 2012, are as follows (in thousands of Korean won):

	2012					
	January 1,			December 31,		
	2012	Accrual	Use	2012	Current	Non-current
Provision for construction						
warranties	₩20,507,108	₩1,109,508	(₩4,048,544)	₩17,568,071	₩-	₩17,568,071
Provision for litigation		2,000,000		2,000,000	-	2,000,000
Total	₩20,507,108	₩3,109,508	(₩4,048,544)	₩19,568,071	₩-	₩19,568,071

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

In addition, in the case of criminal proceedings related to obtaining and using trade secrets, the Company was defeated in the first trial. Appeal for the second trial is at the end of the current year. The Company has set the provision for the first trial litigation (see Note 31).

18. CAPITAL STOCK AND CAPITAL SURPLUS:

(1) Changes in capital stock and capital surplus for the year ended December 31, 2012, are as follows (in thousands of Korean won):

	Number of shares	Capital stock	Capital surplus
Beginning balance (2012.1.1)	69,500,000	₩ 69,500,000	₩ 367,214,701
Ending balance (2012.12.31)	69,500,000	₩ 69,500,000	₩ 367,214,701

The Company's authorized number of shares are 120,000,000 shares with par value of W1,000 per share. There are no issued shares with restricted voting rights under commercial law.

19. OTHER CAPITAL ITEMS:

(1) Other capital items as of December 31, 2012 and 2011, are summarized as follows (in thousands of Korean won):

Description	December 31, 2012	December 31, 2011
Share option	₩ 397.168	₩ 135.448
Share option	W 377,108	133,440

(2) Share-based payment

The Company granted share options to its directors. Share options are settled based on the board of directors' decision of 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, 2012, is as follows:

	Number of		Exercisable	Expected fair value
Date of grant	granted options	Exercisable period	price	at the date of grant
2011.03.25	33,900	2014.03.25-2021.03.24	₩ 21,600	₩ 10,343
2012.03.30	48,600	2015.03.30-2022.03.29	₩ 13,300	₩ 4,653

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

	Risk-free interest	Expected	Expected	Expected dividend
Date of grant	rate (*)	exercisable period	volatility	yield ratio
2011.03.25	3.66%	3 years	68.77%	-%
2012.03.30	3.57%	3 years	55.03%	-%

(*) 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, 2012, are as follows:

a) Number of common shares to be issued:

Date of grant	January 1, 2012	Granted	Exercised	December 31, 2012
2011.03.25	33,900	-		- 33,900
2012.03.30		48,600		- 48,600
Total	33,900	48,600		- 82,500

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

Date of grant	January 1, 2012	Granted	Exercised	December 31, 2012
2011.03.25	₩ 135,448	₩ 175,794	₩ -	₩ 311,242
2012.03.30		85,926	-	85,926
Total	₩ 135,448	₩ 261,720	₩ -	₩ 397,168

Expense recognized related to the share-option grant amounted to #261,720 thousand and #135,448 thousand for the years ended December 31, 2012 and 2011, respectively. Expense to be recognized in the future period amounted to #179,906 thousand.

20. ACCUMULATED OTHER COMPREHENSIVE INCOME (LOSS):

(1) Changes in accumulated other comprehensive income (loss) at the end of the reporting period are as follows (in thousands of Korean won):

	December 31, 2012	December 31, 2011
Unrealized gain on valuation of derivatives	₩ -	(₩333,792)
Gain(Loss) on valuation of AFS financial assets	(136,855)	<u>-</u>
Total	(₩136,855)	(₩333,792)

(2) Tax effects directly recognized in accumulated other comprehensive income (loss) as of December 31, 2012 and 2011, are as follows (in thousands of Korean won):

	December 31, 2012		
	Deferred		
		income tax assets	
Description	Before tax	(liabilities)	After tax
Unrealized gain on valuation of			
derivatives	₩ -	₩-	₩ -
Gain(Loss) on valuation of AFS			
financial assets	(180,547)	43,692	(136,855)
Total	(₩ 180,547)	₩ 43,692	(₩ 136,855)
		December 31, 2011	
		Deferred	
		income tax assets	
Description	Before tax	(liabilities)	After tax
Unrealized gain on valuation of			
derivatives	(₩ 440,359)	₩ 106,567	(₩ 333,792)
Gain (Loss) on valuation of AFS			
financial assets			
Total	(₩ 440,359)	₩ 106,567	(₩ 333,792)

21. <u>RETAINED EARNINGS (DEFICIT):</u>

(1) Retained earnings as of December 31, 2012 and 2011, are as follows (in thousands of Korean won):

December 31, 2012	December 31, 2011
₩ 1,200,000	₩ 1,200,000
2,700,000	3,700,000
203,604,398	148,881,811
₩207,504,398	₩153,781,811
	₩ 1,200,000 2,700,000 203,604,398

- (*) Retained earnings appropriated to the legal reserve cannot be used as cash dividends under the applicable laws and regulations. The Korean Commercial Code requires the Company to appropriate an amount equal to at least 10% of the cash dividend until the reserve equals 50% of stated capital.
- (2) Changes in retained earnings for the years ended December 31, 2012 and 2011, are as follows (in thousands of Korean won):

2012	2011
₩153,781,811	(₩52,558,035)
54,366,505	209,636,480
(643,918)	(3,296,634)
₩207,504,398	₩153,781,811
	₩153,781,811 54,366,505 (643,918)

(3) Changes in retained earnings (deficit) for the years ended December 31, 2012 and 2011, are as follows (in thousands of Korean won):

	2012	2011
Unappropriated retained earnings		
Beginning of year	₩149,881,811	(₩57,458,035)
Net income for year	54,366,505	209,636,480
Actuarial gains (losses)	(643,918)	(3,296,634)
End of year	203,604,398	148,881,811
Appropriations		
Reserve for research and human resource development	<u> </u>	1,000,000
Unappropriated retained earnings to be carried forward to next year	₩203,604,398	₩149,881,811

The appropriations of retained earnings for the year ended December 31, 2012, will be approved by general stockholders' meeting on March 29, 2013.

22. <u>SALES:</u>

(1) Details of sales for the years ended December 31, 2012 and 2011, are as follows (in thousands of Korean won):

	2012	2011
Sales of goods	₩ 1,313,720,647	₩ 1,967,195,914
Construction sales	58,523,635	36,597,158
Others	5,374,676	2,156,190
Total	₩ 1,377,618,958	₩ 2,005,949,262

23. SEGMENT INFORMATION:

The Company 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, 2012 and 2011 (in thousands of Korean won):

	2012	2011
Domestic	₩ 702,836,130	₩ 1,304,174,230
Foreign parts	674,782,828	701,775,032
Total	₩ 1,377,618,958	₩ 2,005,949,262

(2) There is a single external customer who accounted for 10% or more of the Company's sales for the years ended December 31, 2012 and 2011 (in thousands of Korean won):

2012	2011
₩ 188,721,483	₩ 580,770,991
320,541,592	364,401,332
169,749,061	
₩ 679,012,136	₩ 945,172,323
	₩ 188,721,483 320,541,592 169,749,061

24. CONSTRUCTION CONTRACTS:

(1) Details of profit and unbilled (overbilled) construction receivables (payables) under construction contract for the years ended December 31, 2012 and 2011, are as follows (in thousands of Korean won):

			2012			
				Contract red	ceivables	
	Construction	Construction	Construction			Gross amount due to
	cost	revenue	profit	Claimed	Not claimed	customers
Diesel engine	₩ 222,031,899	₩ 201,388,804	₩ 20,643,095	₩ -	₩ 5,930	₩ 19,416,602

			2011			
				Contract ree	ceivables	
	Construction cost	Construction revenue	Construction profit	Claimed	Not claimed	Gross amount due to customers
	031	revenue	pront	Claimed	Not claimed	customers
Diesel engine	₩ 239,953,814	₩ 220,895,885	₩ 19,057,929	₩ 106,385	₩ 55,876	₩ 34,079,377

(2) Details of construction contract for the years ended December 31, 2012 and 2011, are as follows (in thousands of Korean won):

		201	2		
Order	Description	January 1, 2012	Increase by contract	Decrease by sales	December 31, 2012
KHNP and other five companies	Singori #3 and #4 emergency generators, alternative AC power diesel engine and other 14	₩71,390,789	₩108,556,056	(₩58,523,635)	₩121,423,210
		201	1		
		January 1,	Increase by	Decrease by	December 31,
Order	Description	2011	contract	sales	2011
KHNP and other five companies	Singori #3 and 4 emergency generators, alternative AC power diesel engine and other 13	₩159,479,714	(₩51,491,767)	(₩36,597,158)	₩71,390,789

25. EXPENSES CLASSIFIED BY NATURE:

Expenses classified by nature for the years ended December 31, 2012 and 2011, are as follows (in thousands of Korean won):

	2012	2011
Changes in inventories	₩ 42,030,734	₩ 49,329,128
Purchase of raw materials	853,182,922	1,224,336,073
Employee benefits	111,078,097	100,609,410
Other employee benefits	19,997,018	15,737,115
Depreciation and amortization	25,986,862	25,526,541
Commission expenses	114,611,217	139,352,668
Transportation expenses	20,217,993	16,271,535
Commissions	47,794,675	23,174,554
Amount paid to subcontractors	16,482,354	19,457,260
Outsourcing	24,771,130	18,691,136
Others	32,166,692	76,332,314
Total	₩ 1,308,319,694	₩ 1,708,817,734

26. <u>SELLING AND ADMINISTRATIVE EXPENSES:</u>

Selling and administrative expenses for the years ended December 31, 2012 and 2011, are as follows (in thousands of Korean won):

Account	2012	2011
Salaries	₩ 25,342,222	₩ 25,005,432
Other employee benefits	6,540,565	4,037,803
Provision for retirement and severance	16,427,840	
benefits		1,382,648
Commission expenses	19,118,407	14,828,195
Depreciation	916,985	1,294,223
Amortization	328,802	-
Advertising and marketing expenses	4,230,849	3,830,686
Transportation expenses	111,626	6,029
Rental expenses	1,355,568	1,243,720
Bad debt expenses	65,109	(1,084,487)
Research and ordinary development	1,272,321	
costs		6,439,851
Others	8,138,253	8,199,584
Total	₩ 83,848,547	₩ 65,183,684

27. FINANCE INCOME AND EXPENSES:

Finance income and expenses for the years ended December 31, 2012 and 2011, are summarized as follows (in thousands of Korean won):

Account	2012	2011	
Finance income:			
Interest income	₩ 13,273,721	₩ 20,160,223	
Dividend income	-	137,155	
Income from financial guarantee	384,463	3,400,911	
Gain on foreign currency transaction	23,508,193	4,659,091	
Gain on foreign currency translation	10,849,404	1,073,295	
Gain on derivative transaction	5,240,688	2,188,439	
Gain on valuation of derivatives	63,110,805	1,524,525	
Gain on valuation of firm commitments	4,584,914	49,569,040	
Subtotal	120,952,188	82,712,679	
Finance expenses:			
Interest expenses	9,250,350	12,811,509	
Expense for financial guarantee	968,533	1,317,816	
Loss on foreign currency transaction	25,649,607	6,074,599	
Loss on foreign currency translation	1,356,862	2,950,598	
Loss on derivative transaction	3,790,050	1,671,529	
Loss on valuation of derivatives	4,428,264	48,396,236	
Loss on valuation of firm commitments	73,975,062	3,068,353	
Subtotal	(119,418,728)	(76,290,640)	
Net finance income	₩ 1,533,460	₩ 6,422,039	

28. OTHER NON-OPERATING INCOME AND EXPENSES:

(1) Detail of other operating income and expenses

Other operating income and expenses for the years ended December 31, 2012 and 2011, consist of the following (in thousands of Korean won):

Account	2012	2011
Other operating income:		
Commission	₩ 524,571	₩ 628,249
Rental income	22,232	136,913
Gain on disposal of property, plant and equipment	223,357	196,294
Gain on disposal of intangible assets	54,552	-
Other income	12,410,121	3,939,202
Subtotal	13,234,833	4,900,658
Other operating expenses:		
Donations	8,096,140	10,029,177
Loss on disposal of property, plant and equipment	8,830	97,562
Loss on disposal of intangible assets	7,491	-
Impairment loss of intangible assets	314,895	588,569
Other loss	3,384,850	12,529,555
Subtotal	(11,812,206)	(23,244,863)
Total	₩ 1,422,627	(₩ 18,344,205)

29. INCOME TAX EXPENSE:

(1) Components of income tax expense for the years ended December 31, 2012 and 2011, are as follows (in thousands of Korean won):

Details		2012		2011
Current income tax expense	₩	25.453.846	₩	8,874,767
Changes in deferred income tax assets(liabilities)	vv	25,455,640	vv	0,074,707
related to temporary differences (*1)		(7,707,702)		63,357,389
Deferred income tax assets directly				
reflected in stockholders' equity (*2)		142,703	. <u></u>	569,202
Income tax expense	₩	17,888,847	₩	72,801,358

(*1) Changes in deferred income tax assets (liabilities) related to temporary differences for the years ended December 31, 2012 and 2011, are as follows (in thousands of Korean won):

Details	2012	2011
Beginning deferred income tax assets, net Ending deferred income tax assets(liabilities), net	(₩ 42,980,281) (35,272,579)	₩ 20,377,108 (42,980,281)
Changes in deferred income tax assets	(₩ 7,707,702)	₩ 63,357,389

(*2) Changes in deferred income tax assets (liabilities) directly added to (deducted from) stockholders' equity for the years ended December 31, 2012 and 2011, are as follows (in thousands of Korean won):

Details	2012	2011
Beginning deferred income tax liabilities Ending deferred income tax liabilities	₩ 1,691,385 1,834,088	₩ 1,122,1831,691,385
Changes in deferred income tax liabilities	₩ 142,703	₩ 569,202

(2) The Company offsets deferred tax assets and deferred tax liabilities if the Company has a legally enforceable right to set off current tax assets against current tax liabilities, and the deferred tax assets and the deferred tax liabilities relate to income taxes levied by the same taxation authority. Changes in deferred tax assets and liabilities for the years ended December 31, 2012 and 2011, are as follows (in thousands of Korean won):

		Change		
Details	January 1, 2012	Income	Capital	December 31, 2012
Foreign currency translation, net	₩ 4,409,556	(₩ 1,264,655)	₩ -	₩ 3,144,901
Depreciation	233,386	671,164	-	904,550
Allowance for doubtful accounts	587,851	190,100	-	777,951
Accrued income	(599,879)	264,566	-	(335,313)
Loss on inventory obsolescence	9,659,101	(1,205,627)	-	8,453,474
Currency forwards	9,464,948	(20,248,448)	(106,567)	(10,890,067)
Firm commitment assets	(31,395,057)	29,313,942	-	(2,081,115)
Loss on investment assets	-	721,049	43,692	764,741
Loss on equity-method investees	670,709	(670,709)	-	-
Long-term loan	(119,911)	47,075	-	(72,836)
Subcost on membership	273,259	76,204	-	349,463
Accrued expenses	1,414,624	(973,334)	-	441,290
Unearned revenue	(9,357,452)	5,792,298	-	(3,565,154)
Long-term borrowings	4,787,244	(3,982,836)	-	804,408
Financial guarantee liabilities	84,458	(111,951)	-	(27,493)
Provision for construction warranties	4,962,720	(711,247)	-	4,251,473
Litigation reserve	-	484,000	-	484,000
Provision for severance indemnities	4,451,447	(919,147)	205,578	3,737,878
Gain on revaluation of land and buildings	(42,554,397)	-	-	(42,554,397)
Others	47,112	(445)		46,667
Subtotal	(42,980,281)	7,471,999	142,703	(35,365,579)
Tax credits		93,000		93,000
Total	(₩42,980,281)	₩7,564,999	₩142,703	(₩35,272,579)

		Change		
Details	January 1, 2011	Income	Capital	December 31, 2011
Foreign currency translation, net	₩ 6,414,000	(₩ 2,004,444)	₩ -	₩ 4,409,556
Depreciation	1,654,374	(1,420,988)	-	233,386
Donations in excess of tax limit	5,035,229	(5,035,229)	-	-
Allowance for doubtful accounts	917,175	(329,324)	-	587,851
Accrued income	(32,398)	(567,481)	-	(599,879)
Loss on inventory obsolescence	6,200,044	3,459,057	-	9,659,101
Currency forwards	(7,344,417)	17,354,694	(545,329)	9,464,948
Firm commitment assets	(54,873,283)	23,478,226	-	(31,395,057)
Loss on equity-method investees	-	670,709	-	670,709
Long-term loan	-	(119,911)	-	(119,911)
Subcost on membership	8,278	264,981	-	273,259
Accrued expenses	751,980	662,644	-	1,414,624
Unearned revenue	(14,997,064)	5,639,612	-	(9,357,452)
Long-term borrowings	5,351,319	(564,075)	-	4,787,244
Financial guarantee liabilities	-	84,458	-	84,458
Provision for construction warranties	3,179,510	1,783,210	-	4,962,720
Provision for severance indemnities	2,910,232	2,011,502	(470,287)	4,451,447
Appropriated retained earnings for				
technological development	(242,000)	242,000	-	-
Gain on revaluation of land and buildings	(38,685,815)	(3,868,582)	-	(42,554,397)
Others	26,995,227	(26,948,115)		47,112
Subtotal	(56,757,609)	14,792,944	(1,015,616)	(42,980,281)
Tax credits	69,703,377	(69,703,377)	-	-
Tax loss carryforwards	7,431,340	(7,431,340)		
Total	₩ 20,377,108	(₩ 62,341,773)	(₩1,015,616)	(₩42,980,281)

(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, 2012 and 2011.

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

(4) Temporary differences associated with investments in subsidiaries, which are not recognized as deferred tax assets, as of December 31, 2012 and 2011, are as follows (in thousands of Korean won):

	December 31, 2012	December 31, 2011
Subsidiaries	(₩ 5,242,062)	(₩ 5,242,062)
Associates	394,451,511	394,659,530
Total	₩ 389,209,449	₩ 389,417,468

(5) Deferred income tax assets (liabilities) and income tax benefits (expense) added to (deducted from) stockholders' equity as of December 31, 2012 and 2011, are as follows (in thousands of Korean won):

	December 31, 2012			De	ecember 31, 20	011
Details	Gross	Tax effect	Net of tax	Gross	Tax effect	Net of tax
Loss on valuation of						
derivatives	₩-	₩-	₩-	(₩440,359)	₩106,567	(₩333,792)
Loss on valuation of						
marketable securities	(180,547)	43,692	(136,855)	-	-	-
Actuarial gain or loss	(7,398,331)	1,790,396	(5,607,935)	(6,548,835)	1,584,818	(4,964,018)
Total	(₩7,578,878)	₩1,834,088	(₩5,744,790)	(₩6,989,194)	₩1,691,385	(₩5,297,810)

(6) An explanation of the relationship between income tax expense and accounting income (loss) before income tax expense for the years ended December 31, 2012 and 2011, is as follows (in thousands of Korean won):

Details	2012	2011	
Income (loss) before income tax expense Income tax expense at statutory income tax rate (Less than ₩200 million: 11%	₩ 72,255,352	₩ 282,437,839	
Over ₩200 million: 24.2%)	15,476,177	68,323,557	
Differences (Note 1)	2,412,670	4,477,802	
Income tax expense	₩ 17,888,847	₩ 72,801,359	
Effective tax rates	24.76%	25.78%	

(Note 1) Differences:		
Additional Payment of Income Taxes	₩ 2,270,685	₩-
Non-temporary difference	117,059	233,456
Temporary difference not recognized as		
deferred income tax	(87,160)	2,495,223
Difference of tax rates	-	2,511,684
Others	112,086	(762,561)
Total	₩ 2,412,670	₩ 4,477,802

30. EARNINGS PER SHARE:

(1) Basic earnings per share

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

	2012	2011
Net income available to common shares Weighted-average number of common shares	₩54,366,505	₩209,636,480
outstanding (*1)	69,500,000	69,500,000
Basic net income per share	₩ 782	₩ 3,016

- (*1) The weighted-average number of common shares outstanding for the years ended December 31, 2012 and 2011, are equal to the number of shares outstanding.
- (2) Diluted earnings per share

The Company does not compute diluted earnings per common share for the years ended December 31, 2012 and 2011, because there is no item related to dilution. Diluted earnings per share are equal to earnings per share for the years ended December 31, 2012 and 2011.

Due to the antidilutive effect for the years ended December 31, 2012 and 2011, the Company is not considering share option, which could dilute the basic earnings per share in the future.

	2012	2011
Share option	82,500	33,900

31. COMMITMENTS AND CONTINGENCIES:

(1) Notes and checks provided as collateral

As of December 31, 2012, the Company has provided 3 (as of December 31, 2011: 3) blank promissory notes and 50 (as of December 31, 2011: 117) promissory notes amounting to USD 25,102,190 (as of December 31, 2011: USD 61,030,834) to Daewoo Shipbuilding & Marine Engineering Co., Ltd., and four other companies as security in connection with contract performance guarantees and guarantees for advance receipts.

(2) Trade receivables sold at discount

Outstanding trade receivables sold with recourse by the Company are in the amount of 29,828,495 thousand and 23,306,698 thousand as of December 31, 2012 and 2011, respectively.

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

Site	Plaintiff	Defendant	Claim	Claimed amount	Progress
Greece	GAEI	Doosan Engine	Damages for	EUR 3,059,635	Pending in the
	(Guam Advance	Co., Ltd.	cancellation of		court of first
	Enterprises. Inc.)		contract		instance
			(related Greece		
			Chios diesel plant)		
Ulsan	Ulsan District Public	Doosan Engine	Criminal case regarding	₩ 2,000,000	Scheduled
District	Presecutor's Office	Co., Ltd.	the use and acquisition		in the court of
Court			of trade secret		second
					instance

As of December 31, 2012, the outcome of the cases is unpredicted.

(4) Commitments with financial institutions

As of December 31, 2012, major commitments with various financial institutions are as follows (in foreign currency and thousands of Korean won):

Commitment	Financial institution	Credit limit Used amou		
Bank overdraft facilities	Korea Exchange Bank	₩ 1,000,000	₩ -	
General loan facilities	Korea Exchange Bank	40,000,000	-	
	Woori Bank	30,000,000	-	
	Kookmin Bank	16,000,000	-	
	Kyoungnam Bank	20,000,000	-	
Electronic loan facilities	Woori Bank	80,000,000	33,518,530	
	Kookmin Bank	18,000,000	584,826	
	Hana Bank	20,000,000	9,903,871	
	Kyongnam Bank	20,000,000	1,079,525	
Issuance of letter of credit	Korea Exchange Bank	USD 30,000,000	USD 2,864,999	
	Woori Bank	USD 50,000,000	USD 6,142,534	
	Hana Bank	USD 30,000,000	USD 5,981,619	
	Korea Development Bank	USD 20,000,000	USD 11,182,421	
Other guarantees	Korea Exchange Bank	USD 100,000,000	USD 35,639,958	
	Woori Bank	USD 200,000,000	USD 46,315,179	
	Hana Bank	USD 40,000,000	USD 28,809,356	
	Nonghyup Bank	USD 60,000,000	USD 7,962,000	
	Kookmin Bank	USD 45,000,000	USD 9,997,085	
	Seoul Guarantee Insurance	-	EUR 17,351,521	
	Korea Exchange Bank	₩ 20,000,000	₩ 2,594,150	
	Woori Bank	30,000,000	5,083,789	
	Seoul Guarantee Insurance	-	5,419,081	

The Company entered into a loan agreement with lenders consisting of the Korea Development Bank and nine other financial institutions for the long-term borrowing (as of December 31, 2012, USD 120,000 thousand) in connection with the Company's capital contributions to DII and DHEL. The agreement requires the Company to maintain its EBITDA more than 1.5 times of its net interest expense and its financial debt less than six times of its EBITDA. If it is not in compliance with the debt covenants, the Company may be able to lose benefit of time in case of creditor's demand.

(5) Technology transfer contract

The Company has seven technical license agreements with several foreign companies for the purpose of manufacturing engines. In accordance with the agreements, the Company is committed to pay a royalty calculated based on the cumulative horse power of engines manufactured during the year. The royalty amounted to \$114,611,217 thousand and \$139,352,668 thousand for the years ended December 31, 2012 and 2011, respectively.

32. GUARANTEES AND PLEDGED ASSETS:

(1) Guarantees received by the Company from third parties as of December 31, 2012, are as follows (in foreign currencies and thousands of Korean won):

		aranteed ant (foreign	
Guarantee received from		urrency)	Description of guarantee
Korea Exchange Bank			Guarantee for advance receipts, defect and
	USD	35,623,383	contract performance guarantee
	EUR	12,535	Guarantee for defect
			Guarantee for defect and contract
	KRW	2,594,150	performance guarantee
Waari Darda			Guarantee for advance receipts and
Woori Bank	USD	46,315,179	contract performance guarantee
			Guarantee for advance receipts and
	KRW	5,083,789	contract performance guarantee
Kookmin Bank			Guarantee for advance receipts, defect and
KOOKIIIIII Balik	USD	9,997,085	contract performance guarantee
Nonghyup Bank	USD	7,962,000	Guarantee for advance receipts
Hana Bank	USD	28,809,356	Guarantee for advance receipts
			Guarantee for advance receipts and
Seoul Guarantee Insurance	EUR	17,351,521	contract performance guarantee
			Guarantee for advance receipts and
	KRW	5,419,081	contract performance guarantee
Total	USD	128,707,003	
	EUR	17,364,056	
	KRW	13,097,020	

(2) Guarantees provided by the Company to unrelated parties as of December 31, 2012, are as follows (in thousands of Korean won):

Guarantee	Guaranteed amount	Description of guarantee
Korea Securities Finance Co., Ltd	₩ 15,934,592	Guarantee for the borrowings

(3) The Company provided stocks of DII and DHEL as collateral to the lender who appoints Korea Development Bank as an agent for the long-term borrowing of DII and DHEL as of December 31, 2012, as follows (in foreign currencies and thousands of Korean won):

		Borrowing amount	Collateralized
Institution	Asset	(foreign currency)	value
Korea Development Bank	DII	USD 1,720,000,000	₩ 146,521,807
and other	DHEL	0.5D 1,720,000,000	₩ 196,038,744

DII and DHEL have signed a new long-term borrowing of USD 750,000 thousand and USD 970,000 thousand, respectively, on November 30, 2011. The Company provided the stock of DII and DHEL as collateral on September 28, 2012 and October 11, 2012.

33. TRANSACTIONS AND BALANCES WITH RELATED PARTIES:

Significant transactions and account balances with related parities as of and for the years ended December 31, 2012 and 2011, are as follows:

(1) Relationship between parents and subsidiaries as of December 31, 2012, is as follows:

Relationship	The name of the related parties
Stockholders with significant influence	Doosan Corporation
	Doosan Heavy Industries Construction Co., Ltd. ("DHIC")
Subsidiary	Doosan Marine Industry (Dalian) Co., Ltd. ("DMI")
Associates	Dalian Samyoung Doosan Metal Product Co., Ltd.
	Doosan Infracore International, Inc. ("DII")
	Doosan Holdings Europe Ltd.("DHEL")
Other related parties	Doosan Infracore Co., Ltd.
	Doosan Construction & Engineering Co., Ltd.
	Doosan Donga Co., Ltd. ("Doosan Donga")
	Doosan Cuvex Co., Ltd.
	Yeongang Foundation
	N. Shaper Corp.
	Doosan Tower Co., Ltd. ("Doosan Tower")
	Doosan Defense Systems & Technology Co., Ltd.
	Oricom Inc. ("Oricom")
	Doosan Eco Biznet
	Doosan Bears Inc.

(2) Significant transactions with related parties for the years ended December 31, 2012 and 2011, are summarized as follows (in thousands of Korean won):

	2012		20	11
	Sales	Purchases	Sales	Purchases
Description	and others	and others	and others	and others
Stockholders with				
significant influence	₩ 2,544,179	₩ 211,052,028	₩ 2,470,488	₩ 296,547,613
Subsidiary	520,683	8,944,096	635,114	10,587,989
Associates	300,712	-	4,243,335	29,493,462
Other related parties	2,805,883	10,007,172	4,002	36,136,051
Total	₩ 6,171,457	₩ 230,003,296	₩ 7,352,939	₩ 372,765,115

(3) As of December 31, 2012 and 2011, related significant balances are as follows (in thousands of Korean won):

	December 31, 2012		December	31, 2011
Description	Receivables	Payables	Receivables	Payables
Stockholders with				
significant influence	₩ 462,977	₩ 36,797,416	₩ 331,422	₩ 12,802,735
Subsidiary	494,391	2,141,837	653,870	1,579,684
Associates	4,234,765	-	16,821,104	3,381,529
Other related parties	4,890,253	1,842,466	834,201	1,917,358
Total	₩ 10,082,386	₩ 40,781,719	₩ 18,640,597	₩ 19,681,306

(4) The Company 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 Company for the years ended December 31, 2012 and 2011, is as follows (in thousands of Korean won):

Description	2012	2011	
Short-term employee benefits and other	₩ 6,216,164	₩ 9,529,449	
Provision for retirement and severance benefits	681,897	364,140	
Share-based payment	261,720	135,448	
Total	₩ 7,159,781	₩ 10,029,037	

The Company provided guarantees and other to associates and other related parties as of December 31, 2012 (see Note 32).

34. SEPARATE STATEMENTS OF CASH FLOWS:

(1) The adjustments and changes in operating assets and liabilities in the separate statements of cash flows for the years ended December 31, 2012 and 2011, are as follows (in thousands of Korean won):

Description	2012	2011
Adjustments:		
Expenses not involving cash outflows:		
Interest expenses	₩ 9,250,350	₩ 12,811,509
Income tax expense	17,888,847	72,801,359
Bad debt expenses	65,109	-
Loss on foreign currency translation	1,356,862	2,950,598
Depreciation	23,723,887	25,318,444
Amortization	2,262,975	208,096
Loss on valuation of inventories	-	26,846,273
Provision for construction warranties	1,109,508	6,540,752
Loss on disposal of property, plant and equipment	8,830	97,562
Loss on disposal of intangible assets	7,491	-
Impairment loss of intangible assets	314,895	588,569
Loss on valuation of derivatives	4,428,264	48,396,236
Loss on valuation of firm commitments	73,975,062	3,068,353
Loss on impairment of investment in associate	-	2,771,524
Share-based payment	261,720	135,448
Retirement benefits	8,094,571	6,355,311
Provision for litigation	2,000,000	-
Income not involving cash inflows:		
Interest income	(13,273,721)	(20,160,223)
Dividend income	-	(137,155)
Gain on foreign currency translation	(10,849,404)	(1,073,295)
Reversal of write-down of inventories	(4,951,524)	-
Reversal of allowance for doubtful accounts	-	(1,084,487)
Gain on disposal of property, plant and equipment	(223,357)	(196,294)
Gain on disposal of intangible assets	(54,552)	-
Income on financial guarantee	(384,463)	(3,400,911)
Gain on valuation of derivatives	(63,110,805)	(1,524,525)
Gain on valuation of firm commitments	(4,584,914)	(49,569,040)
Total	₩ 47,315,631	₩ 131,744,104

Description	2012	2011
Changes in operating assets and liabilities:		
Accounts receivable – trade	₩ 46,879,289	₩ 6,256,772
Accounts receivable – other	16,616,743	555,084
Unbilled construction receivables	49,946	21,763
Advance payments	9,152,384	3,106,132
Prepaid expenses	4,957,096	(9,289,877)
Inventories	46,982,258	22,482,855
Other current assets	8,833,704	1,490,454
Long-term advance payments	(46,972)	(76,472)
Long-term prepaid expenses	1,694,378	(1,857,195)
Derivative instruments	(25,095,303)	25,022,154
Firm commitments	51,741,841	73,213,360
Accounts payable – trade	(45,980,395)	(33,877,485)
Accounts payable – other	(14,434,055)	15,576,936
Accrued expenses	(28,834,296)	(42,628,446)
Overbilled construction payables	(14,662,775)	14,373,630
Advance receipts	(316,169,685)	(268,737,274)
Other current liabilities	1,390,930	(1,128,064)
Payment of severance benefits	(16,256,487)	(4,192,917)
Plan assets	1,540,224	1,061,544
Transfer in	175,547	26,333
Transfer out	(1,177,824)	(32,286)
Non-current accrued expenses	(1,274,705)	2,332,157
Provision for construction warranties	(4,048,544)	(2,493,373)
Total	(₩ 277,966,703)	(₩ 198,794,215)

(2) Significant non-cash transactions for the years ended December 31, 2012 and 2011, are as follows (in thousands of Korean won) :

Description	2012	2011
Reclassification of associates to AFS		
financial assets	₩ 850,070	₩ -
Reclassification of construction in progress to		
property, plant and equipment	1,937,896	24,800
Reclassification of investment properties (lands) to		
property, plant and equipment	25,386,996	-
Reclassification of investment properties (buildings) to		
property, plant and equipment	10,743,105	-
Reclassification of bonds to current portion of bonds	-	79,945,545
Reclassification of long-term borrowings to current		
portion of long-term borrowing	64,266,000	69,198,000
Total	₩ 103,184,067	₩ 149,168,345

The Company presented net cash increase or decrease incurred from the transactions of short-term financial instrument, short-term loan and short-term borrowing, which have short-term maturities and are according to the frequent transaction, total amount of cash in and out is huge.