DOOSAN CORPORATION AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
AS OF AND FOR THE YEARS ENDED DECEMBER 31, 2013 AND 2012

1. ORGANIZATION AND DESCRIPTION OF THE BUSINESS:

(1) Parent company

Doosan Corporation (the "Parent") was incorporated on December 18, 1933, under the name of Sohwa-Kirin Beer, Ltd., to manufacture and sell beer. The Parent has changed its name to Dongyang Beer, Ltd. in February 1948, to OB Beer, Ltd. in February 1996 and to Doosan Corporation on September 1, 1998. The Parent is a business-type holding company and operates in the Republic of Korea.

Since June 1973, the Parent's stocks have been listed in the Korea Exchange (formerly Korea Stock Exchange). After several capital issues, the Parent's capital stock as of December 31, 2013, is ₩132,894 million, including ₩26,984 million of preferred share.

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

	Number of stocks owned	Ownership percentage (%)
Related parties	9,362,805	44.84
Treasury stock	4,670,211	22.36
Others	6,849,055	32.80
Total	20,882,071	100.00

Meanwhile, 48.3% of preferred shares are owned by the largest shareholders and other and 51.7% of preferred stocks are owned by others.

(2) Consolidated Subsidiaries

1) The details of consolidated subsidiaries as of December 31, 2013 and 2012, are as follows:

Subsidiary	Type of business	Location	Ownership ratio of the Group (%)(*1) 2013	2012	Ownership ratio of non-controlling interests (%) (Note 1) 2013	2012	Financial closing date
Oricom Inc.	Advertising	Korea	70.00	71.10	30.00	28.90	December 31
Doosan Advertising (Beijing) Co., Ltd.	Advertising	China	100.00	100.00	30.00	28.90	December 31
Doosan Bears, Inc.	Sports	Korea	100.00	100.00	-	-	December 31
Doosan Feed & Livestock Co., Ltd.	Manufacturing and sales	Korea	100.00	100.00	-	-	December 31
Doosan Tower Co., Ltd.	Real estate	Korea	100.00	100.00	-	-	December 31
Doosan Dong-A Co., Ltd.	Publishing	Korea	100.00	100.00	-	-	December 31
Doosan Electro-Materials Singapore Pte Ltd.	Wholesale and retail	Singapore	100.00	100.00	-	-	December 31
Doosan Hong Kong Ltd.	Wholesale and retail	China	100.00	100.00	-	-	December 31
Doosan Electro-Materials (Shen Zhen) Limited.	Wholesale and retail	China	100.00	100.00	-	-	December 31
Doosan Shanghai Chemical Materials Co., Ltd.	Wholesale and retail	China	100.00	100.00	-	-	December 31
Doosan Electro-Materials (Changshu) Co., Ltd.	Manufacturing	China	100.00	100.00	-	-	December 31
Doosan Real Estate Securitization Specialty Ltd.	Specialized in securitization	Korea	-	-	100.00	100.00	December 31
Doosan Second Real Estate Securitization Specialty Ltd. (Note 2)	Specialized in securitization	Korea	-	-	100.00	100.00	December 31
Doosan Third Real Estate Securitization Specialty Ltd. (Note 2)	Specialized in securitization	Korea	-	-	100.00	100.00	December 31
Doosan Information and Communications America, LLC (Note 2)	IT service	USA	100.00	100.00	-	-	December 31
Doosan Information and Communications China, Co., Ltd.	IT service	China	100.00	100.00	-	-	December 31
Doosan Mottrol (Jiangyin) Co., Ltd.	Manufacturing	China	100.00	100.00	-	-	December 31
DIP Holdings Co., Ltd.	Holding company	Korea	100.00	100.00	-	-	December 31
Doosan DST Co., Ltd.	Defense	Korea	50.90	50.90	49.10	49.10	December 31
SRS Korea Co., Ltd.	Manufacturing	Korea	100.00	100.00	-	-	December 31
Doosan Industrial Vehicle Europe N.A.	Wholesale and retail	Belgium	100.00	100.00	-	49.00	December 31
Doosan Industrial Vehicle U.K. Ltd.	Wholesale and retail	UK	100.00	100.00	-	49.00	December 31
Doosan Logistics Europe GmbH	Manufacturing	Germany	100.00	100.00	-	49.00	December 31
Doosan Industrial Vehicle America Corp.	Wholesale and retail	USA	100.00	100.00	-	49.00	December 31
Doosan Industrial Vehicle Yantai Co., Ltd.	Manufacturing	China	100.00	100.00	-	49.00	December 31
Genesis Forklift Trucks Limited	Wholesale and retail	UK	76.10	76.10	23.90	61.20	December 31
Doosan Electro-Materials America, LLC	Marketing	USA	100.00	100.00	-	-	December 31
Doosan Heavy Industries & Construction Co., Ltd.("DHC") (Note 3)	Other engine and turbine	Korea	44.50	49.00	55.50	51.00	December 31

Subsidiary	Type of business	Location	Ownership ratio of the Group (%)(*1) 2013	Ownership ratio of the Group (%)(*1) 2012	Ownership ratio of non-controlling interests (%) (Note 1) 2013	Ownership ratio of non-controlling interests (%) (Note 1) 2012	Financial closing date
	manufacture						
Doosan Asset Management Company Co., Ltd	Real estate development	Korea	100.00	100.00	55.50	51.00	December 31
Doosan Hydro Technology Inc.	Manufacturing	USA	100.00	100.00	55.50	51.00	December 31
Doosan Heavy Industries Vietnam Co., Ltd.	Other machine and equipment manufacture	Vietnam	100.00	100.00	57.20	54.30	December 31
HF Controls Corp.	Manufacturing	USA	100.00	100.00	55.50	51.00	December 31
PT. Doosan Heavy Industries Indonesia	Manufacturing	Indonesia	55.00	55.00	75.50	73.00	December 31
Doosan Engineering & Services LLC	Engineering and service	USA	100.00	100.00	55.50	51.00	December 31
Doosan Heavy Industries America Corp.	Wholesale and retail	USA	100.00	100.00	55.50	51.00	December 31
Doosan Heavy Industries Japan Corp.	Wholesale and retail	Japan	100.00	100.00	55.50	51.00	December 31
S.C. Doosan IMGB S.A.	Manufacturing	Romania	99.80	99.80	55.60	51.10	December 31
Doosan Power Systems India Private Ltd.	Engineering and service	India	100.00	100.00	55.50	51.00	March 31
Doosan Enpure Ltd.	Engineering and service	UK	100.00	100.00	55.50	51.00	December 31
Doosan Heavy Industries America Holdings Inc.	Holding company	USA	100.00	100.00	55.50	51.00	December 31
Doosan Skoda Power s.r.o (former Skoda Power s.r.o)	Manufacturing	Czech	100.00	100.00	55.50	51.00	December 31
Skoda Power Private Ltd.	Engineering	India	100.00	100.00	55.50	51.00	March 31
Doosan Power Systems UK Investment Ltd.	Dormant corporation	UK	100.00	100.00	55.50	51.00	December 31
Doosan Power Systems Pension Trustee Company Ltd.	Specialized service	UK	100.00	100.00	55.50	51.00	December 31
Doosan Power Systems Overseas Investments Ltd.	Holding company	UK	100.00	100.00	55.50	51.00	December 31
Doosan Babcock Ltd. (former Doosan Power Systems Ltd.)	Engineering and service	UK	100.00	100.00	55.50	51.00	December 31
Doosan Power Systems Holdings Ltd.	Holding company	UK	100.00	100.00	55.50	51.00	December 31
Doosan Power Systems Europe Limited GmbH	Engineering and service	Germany	100.00	100.00	55.50	51.00	December 31
Doosan Power Systems Czech Investment a.s.	Holding company	Czech	100.00	100.00	55.50	51.00	December 31
Doosan Power Systems Brazil Ltda	Wholesale and retail	Brazil	100.00	100.00	55.50	51.00	December 31
Doosan Power Systems Americas LLC	Engineering and service, wholesale and retail	USA	100.00	100.00	55.50	51.00	December 31
Doosan Lentjes UK Limited	Specialized service	UK	100.00	100.00	56.00	51.50	December 31
Doosan Lentjes GmbH	Engineering and service	Germany	99.00	99.00	56.00	51.50	December 31
Doosan Power Systems S.A.	Holding company	Luxembourg	100.00	100.00	55.50	51.00	December 31
Doosan Babcock Energy Technologies (Shanghai) Ltd.	Engineering and service	China	100.00	100.00	55.50	51.00	December 31

Subsidiary	Type of business	Location	Ownership ratio of the Group (%)(*1) 2013	2012	Ownership ratio of non-controlling interests (%) (Note 1) 2013	2012	Financial closing date
Doosan Babcock Energy Services (Overseas) Ltd.	Engineering and service	UK	100.00	100.00	55.50	51.00	December 31
Doosan Babcock Energy Scotland Ltd.	Dormant corporation	UK	100.00	100.00	55.50	51.00	December 31
Doosan Babcock Energy Polska Sp z.o.o.	Engineering and service	Poland	98.90	98.90	56.00	51.50	December 31
Doosan Babcock Energy Germany GmbH	Engineering and service	Germany	100.00	100.00	55.50	51.00	December 31
Babcock Welding Products Ltd.	Dormant corporation	UK	100.00	100.00	55.50	51.00	December 31
Babcock Energy Ltd.	Dormant corporation	UK	100.00	100.00	55.50	51.00	December 31
Doosan Lentjes Czech s.r.o (former, AE & E Lentjes Praha s.r.o)	Specialized service	Czech	100.00	100.00	56.00	51.50	December 31
AE & E Lentjes Belgie N.V.	Dormant corporation	Belgium	100.00	100.00	56.00	51.50	December 31
Doosan Power Systems (Scotland) Ltd. Partnership	Real estate	UK	100.00	100.00	55.50	51.00	December 31
Doosan Construction Site Solution Vietnam Company Limited	Equipment rental	Korea	100.00	100.00	55.50	-	December 31
Doosan Infracore Co., Ltd. ("DI") (Note 3)	Manufacturing, Sales	Korea	36.40	44.80	83.80	78.10	December 31
Doosan Infracore China Co., Ltd. ("DICC")	Manufacturing, Sales	China	80.00	80.00	87.10	82.40	December 31
Doosan Infracore Machine Tools Yantai Co., Ltd.	Manufacturing, Sales	China	100.00	100.00	83.80	78.10	December 31
Doosan Infracore (China) Investment Co., Ltd.	Holding company	China	100.00	100.00	83.80	78.10	December 31
Doosan Infracore Suzhou Co., Ltd.	Manufacturing, Sales	China	100.00	100.00	86.20	81.30	December 31
Doosan Infracore U.K., Ltd.	Sales	UK	100.00	100.00	83.80	78.10	December 31
Doosan Infracore Germany GmbH.	Purchases, Sales	Germany	100.00	100.00	83.80	78.10	December 31
Doosan Infracore America Corp.	Purchases, Sales	USA	100.00	100.00	83.80	78.10	December 31
Doosan Infracore Japan Corp.	Purchases	Japan	100.00	100.00	83.80	78.10	December 31
Doosan International Mexico S.A. de C.V.	Sales	Mexico	100.00	100.00	83.80	78.10	December 31
Doosan Bobcat Chile S.A.	Sales	Chile	100.00	100.00	83.80	78.10	December 31
Bobcat Corp.	Sales	Japan	100.00	100.00	83.80	78.10	December 31
Doosan Infracore (Shandong) Co., Ltd.	Manufacturing, Sales	China	92.20	92.20	87.20	82.70	December 31
Doosan Infracore India Private Ltd.	Manufacturing, Sales	India	100.00	100.00	83.80	78.10	March 31
Doosan Infracore Norway AS	Manufacturing, Sales	Norway	100.00	100.00	83.80	78.10	December 31
Doosan Infracore South America Industria E Comercio De Maquinas De Construcao LTDA	Manufacturing, Sales	Brazil	100.00	100.00	83.80	78.10	December 31
Doosan Infracore International, Inc. ("DII")	Holding company	USA	100.00	100.00	83.50	78.20	December 31
Clark Equipment Co.	Manufacturing, Sales	USA	100.00	100.00	83.50	78.20	December 31
Bobcat Equipment Ltd.	Sales	Canada	100.00	100.00	83.50	78.20	December 31

Subsidiary	Type of business	Location	Ownership ratio of the Group (%)(*1) 2013	2012	Ownership ratio of non-controlling interests (%) (Note 1) 2013	2012	Financial closing date
Doosan Infracore Europe S.A.	Manufacturing, Sales	Belgium	100.00	100.00	83.20	78.30	December 31
Doosan Holdings Europe Ltd. ("DHEL")	Holding company	Ireland	100.00	100.00	83.20	78.30	December 31
Doosan Holdings International Ltd.	Holding company	Ireland	100.00	100.00	83.20	78.30	December 31
Doosan Holdings Germany GmbH	Holding company	Ireland	100.00	100.00	83.20	78.30	December 31
Doosan Holding France S.A.S.	Holding company	Ireland	100.00	100.00	83.20	78.30	December 31
Goldwave Ltd.	Holding company	Ireland	100.00	100.00	83.20	78.30	December 31
Doosan Techno Holding Co., Ltd. (Ireland)	Intellectual property rights management	Ireland	100.00	100.00	83.20	78.30	December 31
Doosan Benelux SA	Sales	Belgium	100.00	100.00	83.20	78.30	December 31
Doosan International Portable Power of Netherlands BV	Sales	Netherlands	100.00	100.00	83.20	78.30	December 31
Doosan International Italia S.r.L	Sales	Italy	100.00	100.00	83.20	78.30	December 31
CJSC Doosan International Russia	Sales	Russia	100.00	100.00	83.20	78.30	December 31
Doosan International UK Ltd.	Sales	UK	100.00	100.00	83.20	78.30	December 31
Doosan International Australia Pty Ltd.	Sales	Australia	100.00	100.00	83.20	78.30	December 31
Doosan Infracore Portable Power (Shanghai) Co., Ltd.	Sales	China	100.00	100.00	83.20	78.30	December 31
Doosan International China Co., Ltd.	Sales	China	100.00	100.00	83.20	78.30	December 31
Doosan International Manufacturing China Co., Ltd.	Sales	China	100.00	100.00	83.20	78.30	December 31
Doosan International South East Asia Pte. Ltd.	Sales	Singapore	100.00	100.00	83.20	78.30	December 31
Doosan International South Africa Ltd.	Sales	South Africa	100.00	100.00	83.20	78.30	December 31
Doosan Bobcat Manufacturing s.r.o.	Manufacturing	Czech	100.00	100.00	83.20	78.30	December 31
Doosan Bobcat Engineering s.r.o.	Research and development	Czech	100.00	100.00	83.20	78.30	December 31
Doosan Trading Ltd.	Shared service	Ireland	100.00	100.00	83.20	78.30	December 31
Bobcat Parts Services GmbH.	Sales	Germany	100.00	100.00	83.20	78.30	December 31
Doosan Beteiligungs GmbH.	Holding company	Germany	100.00	100.00	83.20	78.30	December 31
Bobcat Bensheim GmbH & Co KG	Sales	Germany	100.00	100.00	83.20	78.30	December 31
Bobcat Lyon SAS	Sales	France	100.00	100.00	83.20	78.30	December 31
Bobcat France S.A.	Manufacturing, Sales	France	100.00	100.00	83.20	78.30	December 31
Montabert	Manufacturing, Sales	France	100.00	100.00	83.20	78.30	December 31
Geith International Ltd.	Manufacturing, Sales	Ireland	100.00	100.00	83.20	78.30	December 31
Goldwave Holdings Ltd.	Holding company	Ireland	100.00	100.00	83.20	78.30	December 31
Geith Patents Ltd.	Intellectual property rights management	Ireland	100.00	100.00	83.20	78.30	December 31
Doosan International Luxemburg	Intellectual property rights management	Luxembourg	100.00	100.00	83.20	78.30	December 31
Doosan Engineering & Construction Co., Ltd.("DEC") (Note 3)	Construction	Korea	84.90	72.70	62.30	64.30	December 31
Rexcon Co., Ltd.	Concrete product manufacture and	Korea	100.00	100.00	62.30	64.30	December 31

Subsidiary	Type of business	Location	Ownership ratio of the Group (%)(*1) 2013	2012	Ownership ratio of non-controlling interests (%) (Note 1) 2013	2012	Financial closing date
	sales						
Doosan Cuvex Co., Ltd.	Leisure	Korea	100.00	100.00	62.30	64.30	December 31
Doosan Heavy Industries Vietnam Haiphong Co., Ltd.	Manufacturing	Vietnam	100.00	90.00	62.30	55.90	December 31
Doosan Engine Co., Ltd.("DE") (Note 3)	Internal combustion engine manufacture	Korea	42.70	42.70	81.00	79.10	December 31
Doosan Marine Industry (Dalian) Co., Ltd.		China	100.00	100.00	81.00	79.10	December 31

(Note 1) The ownership interest held by the parent represents the aggregated total of ownership interests directly held by each entity within the Group. The ownership interest held by non-controlling interests represents the proportion of ownership interests that is not attributable directly or indirectly to the entities within the Group, and it may differ from the aggregated total less the effective ownership interest held by the Group.

(Note 2) Although the Group does not own the equity of the special purpose company, the Group gets profits from its operation according to the agreement, with structured investment. As the Group has control to decide its operational activity, it also influences the profits significantly. Meanwhile, the Group has repaid all unsubordinated credit issued by structured entities, so all the obligations for supplying liquidity are dissipated, and the Group has no additional financial support burden as of December 31, 2013.

(Note 3) Potential voting rights held by the Group on above subsidiaries for assessing whether or not it controls the subsidiaries are 40% to 50%, but the Group concluded that he Group has de facto control over the subsidiaries. (see Note 2-(1))

2) Changes in the scope of consolidation

Changes in the scope of consolidation for the year ended December 31, 2013, are as follows:

Subsidiary	Change	Description
Genesis Forklift Trucks Limited	Newly included	Newly acquired
Doosan International Construction Equipment Espana, S.L.	Excluded	Complete liquidation
Doosan International do Brasil Commercial and Market Related Consulting Ltda.	Excluded	Complete liquidation
Neovalue Co., Ltd.	Excluded	Complete liquidation
Nshaper	Excluded	Merger among subsidiaries
Doosan Industrial Vehicle Co., Ltd.	Excluded	Merger among subsidiaries
Geith International UK Ltd.	Excluded	Complete liquidation
Clean Energy Solutions LLC	Excluded	Complete liquidation

3) Condensed financial information of the Group's significant consolidated subsidiaries(or intermediate parent) as of and for the year ended December 31, 2013, is as follows (in millions of Korean won):

Condensed statement of financial position	DHC and subsidiaries	DI and subsidiaries	DEC and subsidiaries	DE and subsidiaries
Current assets	₩4,504,822	₩3,706,206	₩2,534,636	₩489,183
Non-current assets	9,132,898	7,775,288	2,415,780	1,173,426
Total assets	13,637,720	11,481,494	4,950,416	1,662,609
Current liabilities	5,039,326	2,753,668	2,308,227	538,143
Non-current liabilities	3,199,312	5,178,805	626,746	334,428
Total liabilities	8,238,638	7,932,473	2,934,973	872,571
Total Equity	5,399,082	3,549,021	2,015,443	790,038
Total liabilities and Equity	₩13,637,720	₩11,481,494	₩4,950,416	₩1,662,609

Condensed statement of income	DHC and subsidiaries	DI and subsidiaries	DEC and subsidiaries	DE and subsidiaries
Sales	₩8,541,207	₩7,736,830	₩2,355,215	₩743,879
Operating income	514,715	369,500	57,370	721
Net income (loss)	49,941	(100,950)	(60,325)	(5,236)
Total comprehensive income	629,333	137,912	79,577	42,308

Condensed statement of cash flows	DHC and subsidiaries	DI and subsidiaries	DEC and subsidiaries	DE and subsidiaries
Cash flows from operating activities	₩246,326	₩481,935	₩ (501,750)	₩ (60,045)
Cash flows from investing activities	(1,164,944)	(595,347)	400,687	6,840
Cash flows from financing activities	249,118	(80,201)	123,372	(42)
Effect of exchange rate changes on cash and cash equivalents	(9,405)	18,957	(20)	7
Net increase in cash and cash equivalents	(678,905)	(174,656)	22,289	(53,240)
Cash and cash equivalents at beginning of year	1,134,431	462,494	135,832	94,835
Cash and cash equivalents at end of the year	₩455,526	₩287,838	₩158,121	₩41,595

Above condensed financial information is based on consolidated financial information of middle controlling company. But financial information of DHC and subsidiaries doesn't include financial information of DI, DEC and DE and subsidiaries, repectively.

4) The ownership interest held by non-controlling interests and details of financial position, result of operation and dividends vested in non-controlling interests by each of the major subsidiaries.

	DHC and subsidiaries	DI and subsidiaries	DEC and subsidiaries	DE and subsidiaries
Ownership interest held by non-controlling interests	55.50%	83.80%	62.30%	81.00%
Cumulative non-controlling interests	₩2,598,127	₩2,215,707	₩658,057	₩336,743
Net income(loss) vested in non-controlling interests	30,274	(53,125)	13,636	(3,798)
Comprehensive income vested in non-controlling interests	401,873	81,390	36,391	21,843
Dividends paid to non-controlling interests	34,049	17,862	-	-

(Note 1) Ownership interest held by non-controlling interests represents the interest less the effective ownership interest held by the Group out of 100%.

(Note 2) Oricom and others except for above subsidiaries paid dividends of ₩10,263 million vested in non-controlling interests.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES:

The Parent and its subsidiaries (the "Group") maintain their official accounting records in Korean won and prepare consolidated financial statements in conformity with Korean statutory requirements and Korean International Financial Reporting Standards ("K-IFRS"), in the Korean language (Hangul).

(1) Basis of preparation

The Group has prepared the consolidated financial statements in accordance with the K-IFRS for the annual reporting period beginning on January 1, 2011.
The significant accounting policies under K-IFRS followed by the Group in the preparation of its consolidated financial statements are summarized below, and these accounting policies, except for the effects of the changes in accounting policies that are described below and alteration of their accounting for land (property, plant and equipment) and investment in properties from cost model to revaluation model, have been applied consistently to the consolidated financial statements for the current period and the accompanying comparative period (see Note 2-(2)).

The accompanying consolidated financial statements have been prepared on the historical cost basis except for certain 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.

1) New and revised K-IFRS affecting amounts reported and/or disclosures in the consolidated financial statements

Amendments to K-IFRS 1001 –*Presentation of Financial Statements*

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. Other than this presentation change, the application of the amendments to K-IFRS 1001 does not result in any impact on the Group's consolidated financial position or financial performance. The amendments have been applied retrospectively for the comparative period, and hence the presentation of items of other comprehensive income has been modified to reflect the changes.

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. All actuarial gains and losses are recognized immediately through other comprehensive income (the option to recognize actuarial gains and losses in profit or loss has also been removed). Furthermore, the interest cost and expected return on plan assets used in the previous version of K-IFRS 1019 are replaced with a 'net interest' amount under K-IFRS 1019 (as revised in 2011), which is calculated by applying the discount rate to the net defined benefit liability or asset. The amendments to K-IFRS 1019 also require the recognition of past service cost as an expense at the earlier date of (a) when the plan amendment or curtailment occurs and (b) when the Group recognizes related restructuring costs or termination benefits.

The Group has applied these changes and restated the comparative amounts on a retrospective basis (see Note 2-(2)).

Amendments to K-IFRS 1107 –*Financial Instruments: Disclosures*

The amendments to K-IFRS 1107 mainly focus on presentation of the offset between financial assets and financial liabilities and require entities to disclose information about rights of offset and related arrangements (such as collateral agreements) for financial instruments under an enforceable master netting agreement or similar arrangement, irrespective of whether they would meet the offsetting criteria under K-IFRS 1032. The amendments have been applied retrospectively for the comparative period, and hence the information about the offset between financial assets and financial liabilities has been modified to reflect the changes (see Note 11-(5)).

K-IFRS 1110 –*Consolidated Financial Statements*

K-IFRS 1110 replaces the parts of K-IFRS 1027, *Consolidated and Separate Financial Statements,* that deal with consolidated financial statements and K-IFRS 2012, *Consolidation –Special Purpose Entities*, and establishes a single basis for consolidation for all entities, including structured entities (the term from K-IFRS 2012, 'special purpose entities', is no longer used). Under K-IFRS 1110, an investor controls an investee when the investor is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee. The Group has applied these changes and restated the comparative amounts on a retrospective basis (see Note 2-(2)).

K-IFRS 1111 –*Joint Arrangement*

K-IFRS 1111 deals with how a joint arrangement of which two or more parties have joint control should be classified either as a joint operation or a joint venture. The classification of joint arrangements under K-IFRS 1111 is determined based on the rights and obligations of parties to the joint arrangements by considering the structure, the legal form of the arrangements, the contractual terms agreed by the parties to the arrangement, and, when relevant, other facts and circumstances. A joint operation is a joint arrangement whereby the parties that have joint control of the arrangement (i.e., joint operators) have rights to the assets, and obligations for the liabilities, relating to the arrangement. A joint venture is a joint arrangement whereby the parties that have joint control of the arrangement (i.e., joint venturers) have rights to the net assets of the arrangement. If the Group is a joint operator, the Group is to recognize assets, liabilities, revenues and expenses in relation to its interest in a joint operation and if the Group is a joint venturer, the Group is to account for that investment using the equity method. The application of K-IFRS 1111 has not had any material impact on the Group's consolidated financial statements.

K-IFRS 1112 –*Disclosure of Interest in Other Entities*

K-IFRS 1112 is a disclosure standard and is applicable to entities that have interests in subsidiaries, joint arrangements, associates or unconsolidated structured entities. This standard requires an entity to disclose the nature of, and risks associated with, its interests in other entities and the effects of those interests on its consolidated financial position, financial performance and cash flows.

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. K-IFRS 1113 defines fair value as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Fair value is measured by taking into account the characteristics of the asset or liability that market participants would take when pricing the asset or liability at the measurement date. A fair value measurement under K-IFRS 1113 requires an entity to determine the particular asset or liability that is subject of the measurement, the principal (or most advantageous) market for the asset or liability and the valuation technique(s) appropriate for the measurement. In addition, K-IFRS 1113 requires extensive disclosures about fair value measurements.

The list above does not include some other amendments such as the tax effect of distribution to holders of equity instruments (the amendments to K-IFRS 1032), which has not resulted in any material effects on the Group's consolidated financial statements.

2) The Group has not applied the following new or revised K-IFRS that have been issued but are not yet effective:

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 set-off' and 'simultaneous realization and settlement'.

The Group'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 or after January 1, 2014.

Amendments to K-IFRS 1039 –*Financial Instruments: Recognition and Measurement*

The amendments to K-IFRS 1039 allow the continuation of hedge accounting when a derivative is novated to a clearing counterparty or entity acting in a similar capacity and certain conditions are met. The amendments to K-IFRS 1039 are effective for annual periods beginning on or after January 1, 2014.

Amendments to K-IFRS 1110, K-IFRS 1112 and K-IFRS 1027*, Investment Entities*

The amendments introduce an exception to the principle under K-IFRS 1110 that all subsidiaries shall be consolidated and require a reporting entity that meets the definition of an investment entity not to consolidate its subsidiaries but instead to measure its subsidiaries at fair value through profit or loss (FVTPL) in its consolidated and separate financial statements. In addition, consequential amendments have been made to K-IFRS 1112 and K-IFRS 1027 to introduce new disclosure requirements for investment entities. The investment entities amendments are effective for annual periods beginning on or after January 1, 2014.

K-IFRS 2121- *Levies*

K-IFRS 2121 defines a levy as a payment to the government for which an entity receives no specific goods or services. The interpretation requires that a liability is recognized when the obligating event occurs. The obligating event is the activity that triggers payment of the levy and is typically specified in the legislation that imposes the levy. The interpretation is effective for annual periods beginning on or after January 1, 2014.

The list above does not include some other amendments such as the Amendments to K-IFRS 1036 relating to recoverable amount disclosures for non-financial assets that are effective from January 1, 2014, with earlier application permitted.

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

(2) Changes in accounting policy

Changes in accounting policy applied by the Group and the impact on the consolidated financial statements are as follows.

1) Changed contents

a) K-IFRS 1110 –*Consolidated Financial Statements*
Companies that are newly included as subsidiaries by application of K-IFRS 1110 as of January 1, 2013, are as follows.

Company	Voting right ownership on subsidiary (%)
DHC and 38 subsidiaries	49.02
DI and 52 subsidiaries	44.77
DEC and 2 subsidiaries	40.43 (Note 1)
DE and 1 subsidiary	42.66

(Note 1) The actual percentage of ownership on DEC, as of January 1, 2013, is 72.74%, but voting right ownership considering potential exercise possibility of establish diluting security (exchangeable bond) is 40.43%.

The basis of changes in thhe scope of consolidation due to K-IFRS 1110 – *Consolidated Financial Statements,* is as follows.

- Potential voting rights held by the Group on subsidiaries are 40% to 50%, but the other ratios of shareholdings are very low and widely dispersed

- Ratio of the Group's shareholdings compared with the attending shareholders at previous general meetings for the past few years is at the level of maintaining (de facto) control.

- The size of the investor's holding of voting rights relative to the size and dispersion of holdings of the other vote holders and voting patterns at previous general meetings.

Accordingly, the Group is judged to (de facto) control Doosan Heavy Industries & Construction Co., Ltd.; DI; Doosan Engineering & Construction Co., Ltd.; and Doosan Engine Co., Ltd., and hence the consolidated financial statements are restated retrospectively.

b) K-IFRS 1016 –*Revaluation Model on Land* (*Property, Plant and Equipment)*
For more relevant financial information, subsequent measurement method is altered from cost model to revaluation mode only for land, which is classified as property, plant and equipment. Revalued amount of land is recognized on consolidated financial statements.

c) K-IFRS 1040 –*Fair Value Model on Investment Property* (*Investment Property)*
Subsequent measurement method of investment property is altered from cost model to fair value model in which economic reality is reflected

d) K-IFRS 1019 –*Employee Benefits*
The Group has changed the method of recognizing past service cost and restated the comparative amounts on a retrospective basis.

2) Impacts on the consolidated financial statements

a) Adjustments of financial position as of January 1, 2012 (in millions of Korean won):

	Assets	Liabilities	Equity
Before adjustments	₩6,296,221	₩2,807,172	₩3,489,049
Adjustments			
K-IFRS 1110	26,590,458	23,122,597	3,467,862
K-IFRS 1040	38,974	9,432	29,542
K-IFRS 1019	-	(23,938)	23,938
Total	26,629,432	23,108,091	3,521,342
After adjustments	₩32,925,653	₩25,915,263	₩7,010,391

b) Adjustments of the financial position and result of operation as of December 31, 2012 (in millions of Korean won):

	Asset	Liability	Capital	Sales	Profit or loss	Total comprehensive income
Before adjustments	₩5,950,671	₩2,747,586	₩3,203,085	₩3,833,824	₩109,803	₩(64,412)
Adjustments						
K-IFRS 1110	25,495,947	21,683,358	3,812,589	20,518,446	94,815	(93,595)
K-IFRS 1040	66,133	16,004	50,129	-	6,355	20,607
K-IFRS 1019	(7,850)	(19,937)	12,087	-	(9,465)	(10,144)
Total	25,554,230	21,679,425	3,874,805	20,518,446	91,705	(83,132)
After adjustments	₩31,504,901	₩24,427,011	₩7,077,890	₩24,352,270	₩201,508	₩(147,544)

c) Adjustments of the financial position and result of operation as of and for the year ended December 31, 2013 (in millions of Korean won):

	Assets	Liabilities	Equity	Sales	Net income (loss)	Total comprehensive income
Before adjustments	₩29,789,660	₩21,769,659	₩8,020,001	₩21,936,534	₩132,348	₩133,231
Adjustments						
K-IFRS 1016	1,289,636	317,408	972,228	-	(17,588)	972,228
K-IFRS 1040	86,746	20,992	65,754	-	15,408	15,624
Total	1,376,382	338,400	1,037,982	-	(2,180)	987,852
After adjustments	₩31,166,042	₩22,108,059	₩9,057,983	₩21,936,534	₩130,168	₩1,121,083

(3) Basis of Consolidation

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

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

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

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

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

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

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

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

(4) Business Combination

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

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

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

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

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

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

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

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

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

(5) Investments in joint ventures and associates

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

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

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

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

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

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

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

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

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

(6) Goodwill

Goodwill arising on an acquisition of a business is carried at cost as established at the date of acquisition of the business less accumulated impairment losses, if any. For the purpose of impairment testing, goodwill is allocated to each of the Group's cash-generating units (or groups of cash-generating units) that is expected to benefit from the synergies of the combination.

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

On disposal of the relevant cash-generating unit, the attributable amount of goodwill is included in the determination of the profit or loss on disposal. The Group's policy for goodwill arising on the acquisition of an associate is described at Note 2-(5).

(7) Foreign currency translation

1) Functional currency and presentation currency

The individual financial statements of each group entity are presented in the currency of the primary economic environment in which the entity operates (its functional currency). The functional currency of the Group and the presentation currency for the consolidated financial statements of the Group are Korean Won.

2) Foreign currency transaction and translation of balance

Transactions in currencies other than the entity'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.

3) Translation of foreign operations

For the purpose of presenting consolidated financial statements, the assets and liabilities of the Company's foreign operations having functional currencies different from the Company's currency are translated in presentation currency of the Company using exchange rates prevailing at the end of the reporting period. Income and expense items are translated at the average exchange rates for the period, unless exchange rates fluctuated significantly during that period, in which case the exchange rates at the dates of the transactions are used. Exchange differences arising, if any, are recognized in other comprehensive income and accumulated in equity (attributed to non-controlling interests as appropriate).

Exchange differences from the net investment in the foreign operation and borrowings and other foreign currency instruments designated as hedging instrument for the net investment in the foreign operation are recognized in other comprehensive income. On the disposal of a foreign operation resulting in loss of control, all of the accumulated exchange differences in respect of that operation are reclassified to income or loss. Goodwill and fair value adjustments arising on the acquisition of a foreign operation are treated as assets and liabilities of the foreign operation and translated at the closing rate.

(8) 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 consolidated statements of financial position.

(9) Financial assets

1) Classification of financial assets

Financial assets are classified into the following specified categories: 'financial assets at 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 it 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. Assets in this category are classified as current assets or non-current assets according to their settlement date.

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 that 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 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 intention to sell them within 12 months as of the end of the reporting period.

d) Held-to-maturity investments

Held-to-maturity investments are non-derivative financial instruments with fixed or determinable payments and fixed maturity that the Group has the positive intention and ability to hold to maturity. Held-to-maturity investments that 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 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 that are initially measured at fair value, and related transaction costs are recognized in profit 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 other non-operating income (expenses) line item in the consolidated statements of income. Dividends on financial assets at FVTPL are recognized in the finance income line item when the Group’s right to receive the dividends is established.

The changes in fair value of monetary or non-monetary securities, which were classified as AFS financial assets, are recognized as other comprehensive income. When AFS financial assets are disposed or are determined to be impaired, the cumulative gain or loss previously accumulated in the AFS revaluation reserve is reclassified to profit or loss.

Interest calculated using the effective interest method is recognized in the finance income line item. Dividends on AFS financial assets are recognized in the finance income line item when the Group’s right to receive the dividends is established.

3) Impairment of financial assets

a) Financial assets measured at amortized cost

The Group assesses at the end of each reporting period whether there is any objective evidence that a financial asset is impaired. Financial assets are considered to be impaired when there is objective evidence that, as a result of one or more events that occurred after the initial recognition of the financial asset, 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, excluding future credit losses that have not been incurred, discounted at the financial asset's original effective interest rate at initial recognition. The carrying amount of the financial asset is reduced by the impairment loss, and the amount of the loss is recognized in profit or loss. The Group measures impairment loss based on 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 profit or loss.

b) AFS financial assets

The Group 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 the 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 profit or loss, is reclassified from equity to profit or loss. Impairment losses recognized in profit or loss for an investment in an equity instrument classified as AFS are not reversed through profit or loss.

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

4) Derecognition of financial assets

The Group 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 consolidated statements of financial position only when the Group 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.

(10) Trade receivables

Trade receivables are the amount owed by the customer for products and services provided in the ordinary course of business. Trade receivables expected to be collected within one year are classified as current assets; otherwise, they are classified as non-current assets. The Group recognizes trade receivables as fair value with present net value when it occurs, offsetting the allowance for bad debts calculated by using the bad debt and analysis about each receivable.

(11) Due from customers for contract work and due to customers for contract work

The gross amount due from customers for contract work is the net amount of:
(a) costs incurred, plus recognized profit, less
(b) the sum of recognized losses and progress billings

for all contracts in progress for which costs are incurred, plus recognized profits (less recognized losses), in excess of progress billings. The costs incurred shall comprise costs that relate directly to the specific contract and costs that are attributable to contract activity in general and can be allocated to the contract, including fixed and variable overhead costs allocated based on the normal level.

If the costs incurred, plus recognized profit (or losses), exceed progress billings, a due from customer amount is recognized as an asset; and if the progress billing exceeds the cost incurred, plus recognized profit (or losses), a due to customer amount is recognized as a liability.

(12) 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 using the averaging method except for materials in transit (the specific identification method) and the merchandise of Glonet business unit (the moving-average method). 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 Group 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.

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

(13) Property, plant and equipment

Property, plant and equipment are stated at cost, less subsequent accumulated depreciation and accumulated impairment losses other than land for which revaluation model is applied after initial recognition. When the useful life of each part of an item of property, plant and equipment is different from that of the item, that part is recognized separately. The cost of an item of property, plant and equipment is directly attributable to its 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 to 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 Group and the cost of the asset can be measured reliably including 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 with the acquiring costs, except residual value of assets based on the estimated useful lives of the assets as below. For the lease assets, the Group depreciates during the minimum of lease contract period and useful lives of the lease assets if it is not certain to acquire the ownership of the lease assets till the end of the lease contract.

	Estimated useful lives (years)
Buildings	4–50
Structures	2–40
Machinery	2–20
Tools, furniture, fixtures and other	2–20

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

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

The Group eliminates the carrying amount of an asset when it is hard to expect inflow of future economic benefits incurred by disposal or using it. The gain or loss on derecognition of an item of property, plant and equipment is determined as the difference between the net disposal amounts and the carrying amount of the item and is recognized in the other non-operating income (expense) line item in the period in which the item of property, plant and equipment is eliminated.

(14) 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 acquisition cost, except residual value, with the amortization beginning when the asset is available for use. The estimated useful lives of the assets are as follows:

	Estimated useful lives (years)
Industrial rights	5
Development costs	4–12
Other intangible assets	2–20

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 Group and they are not amortized, and tested for impairment once a year.

The expenditure on development is capitalized if, and only if, all of the following can be demonstrated:

- the technical feasibility of completing the intangible asset, so that it will be available for use or sale;
- the intention to complete the intangible asset and use or sell it;
- the ability to use or sell the intangible asset;
- how the intangible asset will generate probable future economic benefits;
- the availability of adequate technical, financial and other resources to complete the development and to use or sell the intangible asset; and
- the ability to measure reliably the expenditure attributable to the intangible asset during its development.

Capitalized development costs include expenditure on materials, salaries, wages and other employment-related costs of personnel directly engaged in generating assets and related overhead costs, which are systematically allocated. 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 or amortization in selling, general and administrative expenses. The expenditure on research and development that 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 redone each period, with the effect of any changes in estimate being accounted for on a prospective basis.

(15) Investment properties

Investment properties are properties held to earn rentals and/or for capital appreciation. Investment properties are measured initially at cost, including transaction costs. Subsequent to initial recognition, investment properties are stated at fair value, with any gains or losses arising on fair value fluctuation recognized in profit or loss.

(16) 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 profit or loss in the period in which they are incurred.

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

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

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

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

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

(18) Financial liabilities and equity instruments

1) Classification as debt or equity

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

2) Equity instruments

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

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

3) Compound instruments

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

4) Financial liabilities

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

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

5) Financial liabilities at FVTPL

Financial liabilities are classified as at FVTPL when the financial liability is either held for trading or is designated as FVTPL. A financial liability other than a financial liability held for trading may be designated as at FVTPL upon initial recognition. Financial liabilities at FVTPL are stated at fair value, with any gains or losses arising on remeasurement recognized in profit or loss. The net gain or loss recognized in profit or loss incorporates any interest paid on the financial liability and is included in the other non-operating income (expense) line item in the consolidated statements of comprehensive income.

6) Other financial liabilities

Other financial liabilities are subsequently measured at amortized cost using the effective interest method, with interest expense recognized on an effective yield basis. The effective interest method is a method of calculating the amortized cost of a financial liability and of allocating interest expense over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash payments, including all fees and points paid or received and transaction costs and other premiums or discounts through the expected life of the financial liability, or (where appropriate) a shorter period, to the net carrying amount on initial recognition.

(19) Financial guarantee contract liabilities

The Group has financial guarantee contract liabilities, which are obligations to pay specific amounts for indemnity about creditors' loss on insolvency of specific debtors according to initial and revised contract condition of liabilities on the payment date. Financial guarantee contract liabilities are initially measured at their fair value except direct cost relating the issuance. Subsequently, financial guarantee contract liabilities are 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 is less than the cumulative amortization recognized in accordance with the K-IFRS 1018, *Revenue.*

(20) Retirement benefit costs and termination benefits

The Group 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. Remeasurement, comprising actuarial gains and losses, the effect of the changes to the asset ceiling and the return on plan assets (excluding interest), is reflected immediately in the consolidated statement of financial position with a charge or credit recognized in other comprehensive income in the period in which they occur. Remeasurement recognized in other comprehensive income is reflected immediately in retained earnings and will not be reclassified to profit or loss. Past service cost is recognized in profit or loss in the period of a plan amendment. Net interest is calculated by applying the discount rate at the beginning of the period to the net defined benefit liability or asset. Defined benefit costs are composed of service cost (including current service cost, past service cost, as well as gains and losses on curtailments and settlements), net interest expense (income), and remeasurement.

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

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

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

(21) Provisions

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

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

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

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

(22) Leases

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

1) The Group as lessor

Amounts due from lessees under finance leases are recognized as receivables at the amount of the Group’s net investment in the leases. Interest income is recognized using the effective interest method on the part of the Group’s net investment in the leases, which is not collected yet.

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

2) The Group as lessee

Assets held under finance leases are initially recognized as assets of the Group at their fair value at the inception of the lease or, if lower, at the present value of the minimum lease payments. The corresponding liability to the lessor is included in the consolidated statement of financial position as a finance lease obligation. Lease payments are apportioned between finance expenses and reduction of the lease obligation, so as to achieve a constant rate of interest on the remaining balance of the liability. Finance expenses are recognized immediately in profit or loss, unless they are directly attributable to qualifying assets, in which case they are capitalized in accordance with the Group's general policy on borrowing costs. Adjusted lease payments are recognized as expenses in the periods in which they are incurred.

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

(23) 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 Group operates fair value hedges to avoid the risk of fair value change, which is incurred from specific risk on assets, liabilities and firm contracts, and cash flow hedges to avoid the risk of future cash flow change, which is incurred from specific risk on expecting contracts.

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

2) Fair value hedges

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

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

3) 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.

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 statement of comprehensive income as the recognized hedged item.

Hedge accounting is discontinued when the Group revokes the hedging relationship, when the hedging instrument expires or is sold, terminated or exercised, or 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.

4) Other derivative financial instruments

Derivative financial instruments other than the effective portion of derivative financial instruments that are designated as the hedging instruments are measured at fair value. Gain or loss on valuation incurred from change of fair value is recognized in profit or loss.

(24) Dividend

Dividend payable is recognized as liability when declaration of the dividend is approved at the shareholders’ meeting.

(25) Share-based payment arrangement

The Group 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 Group determines fair value of share option using the Black-Scholes model.

(26) 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 Group. Revenue is reduced for value-added tax, estimated customer returns, rebates and trade discounts and is presented after eliminating intercompany transactions. The Group 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 Group and when transaction meets the revenue recognition criteria specified by activity. When measuring revenue, the Group reliably estimates on contingencies related to sales based on historical data, such as customer type, transaction type and trading terms.

1) Sales of goods

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

2) Rendering of services

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

3) Other revenue

Royalty revenue is recognized on an accrual basis in accordance with the substance of the relevant agreement. Dividend income from investments is recognized when the 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 operating leases is recognized on a straight-line basis over the term of the relevant lease.

(27) Construction contracts

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

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

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

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

(28) Government grants

Government grants related to asset acquisitions are recognized as deduction of received assets or temporary assets for investing received assets before the related assets are acquired. When the related assets are acquired, they are recorded as a deduction from the acquired assets.

Meanwhile, government grants that have no specific condition to use are recognized in operating income when it is directly related to main operation. If not, government grants are recognized in other non-operating income. If there is a specific expense dealing with government grants, the Group offsets them and recognizes in profit or loss.

(29) Income tax and deferred tax

Income tax expense is composed of current and deferred taxes. Current and deferred taxes are recognized in profit or loss, except when they relate to items that are recognized in other comprehensive income or directly in equity, in which case the current and deferred taxes are also recognized in other comprehensive income or directly in equity.

Income tax (current tax) expense is the sum of corporate tax for each fiscal year and tax added to corporate tax under corporate income tax law and other laws. Additional income taxes or tax refunds for the prior periods are included in income tax expense for the current period when recognized. The Group's liability for current tax is calculated using tax rates that have been enacted or substantively enacted by the end of the reporting period.

Deferred tax is recognized on temporary differences between the carrying amounts of assets and liabilities in the 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 profit nor the accounting profit. Deferred tax assets and liabilities are measured at the tax rates that are expected to be applied 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 it is no longer probable that sufficient taxable profits will be available to allow all or part of the asset to be recovered.

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

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

(30) 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 continued 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.

(31) Distributions of non-cash assets to owners

Liability relating to distributions of non-cash assets to owners is recognized as fair value of asset that will be divided from the initial recognition. Meanwhile, the difference between the carrying amount of asset that will be divided and carrying amount of dividends payable is recognized in profit or loss.

(32) Segment information

Operating segments are reported on the same basis as financial information is reported to management. The Group's management is responsible for evaluating the achievement of the operating segments and the resources that are allocated to the operating segments.

(33) Fair value

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

(34) Approval of financial statements

The consolidation financial statements as and for the year ended December 31, 2013, were approved by the board of directors on March 4, 2014.

3. SIGNIFICANT ACCOUNTING JUDGMENTS AND KEY SOURCES OF ESTIMATION UNCERTAINTIES:

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

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 a contract to provide services is recognized by reference to the stage of completion of the contract. The stage of completion of the contract is determined as reasonable estimation and is subject to change as related factors change.

(2) Impairment of goodwill

Determining whether goodwill is impaired requires an estimation of the value in use of the cash-generating units to which goodwill has been allocated. 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.

(3) Defined benefit obligation

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

(4) Warranty provision

Provisions for the expected cost of warranty obligations are recognized at the best estimate of the expenditure required to settle the Group's current and future obligations. Provisions are determined by the estimate based on past experience.

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

As stated in Notes 13 and 15, the Group uses evaluation methods, including inputs that are not based on observable market data to approximate revalued amount of land classified as property, plant and equipment and fair value of investment property. The Group's management believes that evaluation technique and assumptions that are used for revaluation model on land and fair value model on investment in real properties are fair.

(6) 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 Group is exposed to various financial risks, such as market risk (foreign currency risk and interest rate risk), credit risk and liquidity risk relating to the operations of the Group. The purpose of risk management policy is to minimize potential risks, which could have adverse effect on financial performance.

Financial risk management activities are performed by treasury and international finance department in accordance with the aforementioned documented risk management policies. In addition, the Group enters into derivative contracts to hedge against certain risks.

(1) Market risk

1) Foreign currency risk

The Group is exposed to foreign currency risk since it makes transactions in foreign currencies. Foreign currency risk arises from forecast transactions, recognized assets and liabilities and net investments in foreign operations.

Foreign currency risk is managed by the Group's policy on foreign currencies. The Group's basis for foreign currency management is to reduce income/loss volatility. The Group reduces exposure to foreign currency risk by matching the inflow and the outflow of foreign currencies (natural hedge) and manages foreign currency risk by using currency derivatives, such as currency forwards, for the remaining exposure.

The book value of the Group's monetary assets and liabilities denominated in foreign currencies, which represents the maximum exposure to foreign currency risk, as of December 31, 2013 and 2012, is as follows (in millions of Korean won):

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	December 31, 2013					
	USD	EUR	JPY	GBP	Others (*)	Total
Assets	₩1,662,292	₩249,902	₩8,931	₩42,290	₩390,100	₩2,353,515
Liabilities	(3,232,544)	(526,261)	(43,933)	(40,586)	(343,024)	(4,186,348)
Net assets (liabilities)	₩(1,570,252)	₩(276,359)	₩(35,002)	₩1,704	₩47,076	₩(1,832,833)

	December 31, 2012					
	USD	EUR	JPY	GBP	Others (*)	Total
Assets	₩1,687,994	₩217,154	₩3,327	₩17,809	₩211,942	₩2,138,226
Liabilities	(2,960,900)	(802,739)	(246,445)	(43,511)	(169,900)	(4,223,495)
Net assets (liabilities)	₩(1,272,906)	₩(585,585)	₩(243,118)	₩(25,702)	₩42,042	₩(2,085,269)

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

Net foreign currency translation gain (loss) for the years ended December 31, 2013 and 2012, is ₩(3,886) million and ₩53,328 million, respectively.

A sensitivity analysis on the Group's income before tax for the period, assuming a 10% increase and decrease in currency exchange rates, for the years ended December 31, 2013 and 2012, is as follows (in millions of Korean won):

	Year ended December 31, 2013		Year ended December 31, 2012	
	10% increase in Korean won against foreign currency	10% decrease in Korean won against foreign currency	10% increase in Korean won against foreign currency	10% decrease in Korean won against foreign currency
Income before tax impact	₩(183,283)	₩183,283	₩(208,527)	₩208,527

The above sensitivity analysis is based on monetary assets and liabilities denominated in foreign currencies other than the Group's functional currency as of December 31, 2013 and 2012.

2) Interest rate risk

The Group's interest rate risk is related to borrowings and bank deposits with floating interest rates, and related interest income and expense are exposed to interest rate risk. The Group is exposed to interest rate risk mainly due to its borrowing with floating interest rates. The purpose of interest rate risk management is to minimize uncertainty and financial expense arising from interest rate fluctuation.

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

The book value of the Group's financial assets and liabilities with floating interest rates exposed to interest rate risk as of December 31, 2013 and 2012, is as follows (in millions of Korean won):

	December 31, 2013	December 31, 2012
Financial assets	₩559,668	₩1,166,910
Financial liabilities	(4,897,784)	(4,882,785)
Net assets (liabilities)	₩(4,338,116)	₩(3,715,875)

A sensitivity analysis on the Group's income before tax assuming a 1% increase and decrease in interest rates as of December 31, 2013 and 2012, is as follows (in millions of Korean won):

	Year ended December 31, 2013		Year ended December 31, 2012	
	1% increase	1% decrease	1% increase	1% decrease
Income before tax impact	₩(43,381)	₩43,381	₩(37,159)	₩37,159

3) Price risk

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

(2) Credit risk

The credit risk refers to risk of financial losses to the Group when the counterparty defaults on the obligations of the contract. The credit risk arises from AFS financial assets which are not equity securities, deposits in financial institution, financial derivatives and guarantee limit as well as from the Group's normal transaction and investing activity. To manage credit risk, the Group evaluates the creditworthiness of each customer or counterparty considering the financial status, past experience and other factors. The Group establishes credit limit for each customer and counterparty.

The Group evaluates the credit worthiness using opened financial information and information provided by credit rating institution when the Group contracts with new customers. The Group decides credit transaction limit and is provided with collateral and guarantee based on evaluation.

Also, the Group revaluates customers' credit worthiness periodically, reassesses credit transaction limit and readjust level of collateral. The Group reports the present condition of delayed collection and collection measures periodically to financial assets which has delayed collection and takes measures by causes of delay.

The maximum exposure amount of credit risk of financial assets maintained by the Group and the book value for the financial assets as of December 31, 2013 and 2012, are as follows (in millions of Korean won):

		December 31, 2013	December 31, 2012
Loans and receivables	Cash and cash equivalents (Note 1)	₩1,258,450	₩2,273,339
	Current and non-current financial instruments	882,577	596,368
	Accounts and other receivable	4,709,452	4,777,604
	Deposits	266,051	265,740
Held-to-maturity financial assets		192	1,757
AFS financial assets (Note 2)		47,470	48,095
Derivative assets		243,719	556,064
	Total	₩7,407,911	₩8,518,967

(Note 1) Cash on hand is excluded.
(Note 2) They are the Group's debt securities.

Apart from the above financial assets, the maximum exposure of the Group related to financial guarantee contract is the maximum amount to be paid if the guarantee will be charged (see Note 33).

The aging analysis of the Group's receivables as of December 31, 2013 and 2012, is as follows (in millions of Korean won):

	December 31, 2013						
	Receivables assessed for impairment on an individual basis	Receivables assessed for impairment on a collective basis					
		Within due	0–3 months	3–6 months	6–12 months	More than 12 months	Total
Trade receivables	₩2,582,025	₩1,364,998	₩253,601	₩105,075	₩105,842	₩136,135	₩4,547,676
Other receivables and loans	1,720,165	86,310	23,463	25,596	11,345	14,033	1,880,912
Accrued income	122,318	16,737	102	-	-	-	139,157
Total	₩4,424,508	₩1,468,045	₩277,166	₩130,671	₩117,187	₩150,168	₩6,567,745

	December 31, 2012						
	Receivables assessed for impairment on an individual basis	Receivables assessed for impairment on a collective basis					
		Within due	0–3 months	3–6 months	6–12 months	More than 12 months	Total
Trade receivables	₩2,437,442	₩1,382,221	₩525,697	₩155,250	₩116,260	₩208,254	₩4,825,124
Other receivables and loans	1,444,673	78,872	69,689	1,631	2,869	17,668	1,615,402
Accrued income	112,291	8,721	20,417	-	-	-	141,429
Total	₩3,994,406	₩1,469,814	₩615,803	₩156,881	₩119,129	₩225,922	₩6,581,955

An allowance for above individually impaired receivables as of December 31, 2013 and 2012, is ₩1,662,712 million and ₩1,721,936 million, respectively.

Among Receivables assessed for impairment on an individual basis, not impaired receivables are as follows (in millions of Korean won):

	December 31, 2013				
	0–3 months	3–6 months	6–12 months	More than 12 months	Total
Accounts receivable	₩91,331	₩28,133	₩38,634	₩133,614	₩291,712
Other receivable and loans	211,748	25,234	61,063	296,185	594,230
Accrued income	3,718	3,517	6,985	23,766	37,986
Total	₩306,797	₩56,884	₩106,682	₩453,565	₩923,928

	December 31, 2012				
	0–3 months	3–6 months	6–12 months	More than 12 months	Total
Accounts receivable	₩73,489	₩15,637	₩27,679	₩232,552	₩349,357
Other receivable and loans	52,740	13,687	28,972	206,760	302,159
Accrued income	3,998	5,285	4,865	12,153	26,301
Total	₩130,227	₩34,609	₩61,516	₩451,465	₩677,817

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 Group's past experience of receivables collection.

AFS financial assets, held-to-maturity financial assets, deposits in financial institutions and derivative instruments are individually assessed to be impaired.

(3) Liquidity risk

Liquidity risk is the risk that the Group will encounter difficulty in meeting its financial liability obligations related to financing its operation. The Group forecasts cash flows from operating, investing and financing activities through a cash flow budget.

A summary of the Group's non-derivative liabilities maturity as of December 31, 2013 and 2012, is as follows (in millions of Korean won):

	December 31, 2013					
		Nominal cash flows according to contract				
	Book value	Total	Less than 1 year	1–2 years	2–5 years	More than 5 years
Financial liabilities	₩16,557,719	₩16,631,951	₩8,302,351	₩3,192,527	₩4,789,323	₩347,750
Interest on financial liabilities	-	1,265,608	502,098	358,192	365,169	40,149

	December 31, 2012					
		Nominal cash flows according to contract				
	Book value	Total	Less than 1 year	1–2 years	2–5 years	More than 5 years
Financial liabilities	₩18,007,809	₩18,115,858	₩9,347,126	₩2,943,601	₩5,534,301	₩290,830
Interest on financial liabilities	-	1,216,038	431,472	255,822	509,809	18,935

The above maturity analysis is based on undiscounted cash flow according to contract, which is different from non-derivative liabilities in the consolidated statements of financial position. Apart from the above non-derivative liabilities, as of December 31, 2013, financial guarantee contract liabilities of the Group are explained in Note 33.

(4) Capital risk

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

The Group manages its capital structure through dividend payments to shareholders, returns capital to shareholders and issues new shares and sells its assets for debt reduction. Debt-to-equity ratio calculated as total liabilities divided by equity is used as an index to manage the Group's capital similar to overall industry practice.

Debt-to-equity ratios as of December 31, 2013 and 2012, are as follows (in millions of Korean won):

	December 31, 2013	December 31, 2012
Total liabilities	₩22,108,058	₩24,427,011
Total equity	9,057,983	7,077,890
Debt-to-equity ratio	244.07%	345.12%

5. RESTRICTED FINANCIAL ASSETS:

Details of restricted financial assets as of December 31, 2013 and 2012, are as follows (in millions of Korean won):

	December 31, 2013	December 31, 2012	Description
Cash and cash equivalents	₩ 70,560	₩38,732	Provisional seizure, bid and Project Financing collateral
Short-term financial instruments	347,587	96,700	National project (Note 1), Establish the right of pledge
Long-term financial instruments	57,892	40,567	Bank transaction deposits and beneficiary certificate (Note 2)
Deposits	15	15	Establish the right of pledge
Total	₩476,054	₩176,014	

(Note 1) It can be used only for the purpose for implementing the national policy research and development specific issues.

(Note 2) Carbon fund, shared growth fund, securities depository deposit.

6. SHORT-TERM INVESTMENT SECURITIES:

Short-term investment securities as of December 31, 2013 and 2012 are summarized as follows (in millions of Korean won):

	Type	December 31, 2013	December 31, 2012
AFS financial assets	Beneficiary certificate	₩11,907	₩10,193
Held-to-maturity financial assets	Debt Securities	11	510
Total		₩11,918	₩10,703

Short-term investment securities are measured at cost or fair value depending on the presence or absence of market prices being advertised in an active market. A difference between acquisition cost and fair value was recognized as gain (loss) on valuation of financial assets AFS (see Note 9-(2)-2)).

7. ACCOUNTS AND OTHER RECEIVABLES:

(1) Accounts and other receivables as of December 31, 2013 and 2012 consist of the following (in millions of Korean won):

	December 31, 2013				December 31, 2012			
	Gross	Present value discount	Allowance for doubtful accounts	Book value	Gross	Present value discount	Allowance for doubtful accounts	Book value
Current								
Accounts receivable	₩4,539,127	₩(5,208)	₩(1,510,034)	₩3,023,885	₩4,814,797	₩ (3,020)	₩ (1,481,631)	₩3,330,146
Other receivables	485,248	-	(88,327)	396,921	491,247	-	(84,107)	407,140
Accrued income	139,157	-	(2,378)	136,779	141,429	-	(2,070)	139,359
Loans	631,214	-	(11,925)	619,289	1,068,898	(4)	(229,620)	839,274
Total	5,794,746	(5,208)	(1,612,664)	4,176,874	6,516,371	(3,024)	(1,797,428)	4,715,919
Non-Current								
Accounts receivable	8,549	(25)	(218)	8,306	10,327	(195)	(1,095)	9,037
Other receivables	444	(125)	(35)	284	890	(226)	(391)	273
Loans	764,006	(458)	(239,560)	523,988	54,367	(542)	(1,450)	52,375
Total	₩772,999	₩(608)	₩(239,813)	₩532,578	₩65,584	₩(963)	₩(2,936)	₩61,685

(2) The changes in allowance for doubtful accounts for the year ended December 31, 2013 are as follows (in millions of Korean won):

	December 31, 2013				
	January 1, 2013	Increase	Written off	Others (Note 1)	December 31, 2013
Current					
Accounts receivable	₩1,481,631	₩122,773	₩(92,938)	₩(1,432)	₩1,510,034
Other receivables	84,107	6,982	(2,776)	14	88,327
Accrued income	2,070	308	-	-	2,378
Short-term loans	229,620	(7,746)	(1,207)	(208,742)	11,925
Non-Current					
Accounts receivable	1,095	-	(849)	(28)	218
Other receivables	391	(60)	(296)	-	35
Loans	1,450	28,890	-	209,220	239,560
Total	₩1,800,364	₩151,147	₩(98,066)	₩(968)	₩(1,852,477)

(Note 1) The variation dues to reclassification between non-current and current asset or exchange rate differences, etc.

Bad debt expense to impaired accounts receivable is included in selling, general and administrative expenses and bad debt expense to impaired other receivables is included in other non-operating expenses in the separate statements of income.

8. INVENTORIES:

Inventories as of December 31, 2013 and 2012, are summarized as follows (in millions of Korean won):

	December 31, 2013			December 31, 2012		
	Acquisition cost	Valuation allowance	Book value	Acquisition cost	Valuation allowance	Book value
Merchandise	₩402,528	₩(34,117)	₩368,410	₩384,521	₩(31,468)	₩353,053
Finished goods	598,368	(45,732)	552,636	692,898	(54,893)	638,005
Work in progress	580,613	(19,388)	561,225	549,011	(42,303)	506,708
Raw materials	781,462	(41,297)	740,165	1,012,484	(35,707)	976,777
Materials in transit	347,804	-	347,804	348,672	-	348,672
Stores	20,596	(104)	20,492	17,151	(79)	17,072
Others	885	-	886	5,850	-	5,850
Total	₩2,732,256	₩(140,638)	₩2,591,618	₩3,010,587	₩(164,450)	₩2,846,137

Losses (reversals) on inventory valuation charged to the cost of sales amounted to ₩(23,812) million and ₩2,308 million for the years ended December 31, 2013 and 2012, respectively.

9. LONG-TERM INVESTMENT SECURITIES:

(1) Long-term investment securities as of December 31, 2013 and 2012, are summarized as follows (in millions of Korean won):

	December 31, 2013	December 31, 2012
AFS financial assets	₩358,962	₩435,720
Held-to-maturity financial assets (government bonds)	181	1,247
Total	₩359,143	₩436,967

(2) AFS financial assets as of December 31, 2013 and 2012, are summarized as follows (in millions of Korean won):

	Type	December 31, 2013	December 31, 2012
Investments in listed companies	Korea Aerospace Industries, Ltd. and others	₩143,788	₩129,019
Investments in non-listed companies	Korea Defense Industry Association and others	179,611	268,799
Beneficiary certificate	La-union and others	35,239	35,326
Debt securities	Government and public bonds	324	2,576
Total		₩358,962	₩435,720

Long-term investment securities are measured at cost or fair value depending on the presence or absence of market prices being advertised in an active market. A difference between acquisition cost and fair value was recognized as unrealized gain (loss) on valuation of financial assets AFS.

(3) Changes in unrealized gain on AFS financial assets for the years ended December 31, 2013 and 2012, are as follows (in millions of Korean won):

	Year ended December 31, 2013			
	January 1, 2013	Valuation	Reclassification from equity to profit or loss	December 31, 2013
Investments in listed companies	₩70,019	₩15,907	₩(1,550)	₩84,376
Investments in non-listed companies	35,218	(1,436)	(24,765)	9,017
Debt securities	50	32	(12)	70
Tax effect	(24,243)	(4,000)	5,830	(22,413)
Consolidation adjustment	(41,651)	415	11,996	(29,240)
Total	₩39,393	₩10,918	₩ (8,501)	₩41,810

	Year ended December 31, 2012			
	January 1, 2013	Valuation	Reclassification from equity to profit or loss	December 31, 2013
Investments in listed companies	₩136,345	₩(66,839)	₩513	₩70,019
Investments in non-listed companies	74,733	(1,038)	(38,477)	35,218
Debt securities	62	65	(77)	50
Tax effect	(47,928)	23,536	149	(24,243)
Consolidation adjustment	(58,136)	(2,437)	18,922	(41,651)
Total	₩105,076	₩(46,713)	₩(18,970)	₩39,393

10. DERIVATIVES:

Details of gain and loss on valuation of derivatives as of December 31, 2013 and 2012, are as follows (in thousands of foreign currencies and millions of Korean won):

	December 31, 2013							
	Buy		Sell					
	Currency	Amount	Currency	Amount	Assets (liabilities)	Gains (losses)	Other comprehensive income (Note 1)	Financial guarantee contract asset
Foreign currency forwards	KRW	8,279,795	USD	7,492,713	₩252,395	₩181,826	₩56,513	₩(285,438)
	KRW	401,203	EUR	271,540	1,788	812	459	(1,107)
	KRW	372,173	JPY	30,619,493	38,866	15,587	28,596	(15,602)
	USD	2,758,884	KRW	3,094,502	(139,062)	(71,240)	(40,329)	81,090
	EUR	334,641	KRW	505,731	(11,821)	(4,094)	(5,583)	4,287
	JPY	33,406,835	KRW	475,327	(111,356)	(6,833)	(85,849)	1,269
	GBP, etc.		EUR, etc.		(26,582)	1,130	(23,105)	(2,495)
Interest rate swap	USD 25,000, 3.36%		USD 25,000 , LIBOR 6M+2.35%		(89)	126	-	-
Foreign currency long-term debt (Note 2)	KRW	90,876	USD	60,000	-	-	-	4,313
Embedded derivatives (Note 3)					32,707	35,865	-	-
Put back options (Note 4)					-	2,196	-	-
	Total				₩36,846	₩155,375	₩(69,298)	₩(213,683)

	December 31, 2012								
	Buy		Sell						
	Currency	Amount	Currency	Amount	Asset (liabilities)	Gains (losses)	Other comprehensive income (Note 1)	Financial guarantee contract asset
Foreign currency forwards	KRW	11,132,770	USD	9,813,633	₩429,364	₩435,012	₩97,427	₩(347,321)
	KRW	456,3911	EUR	304,657	17,518	11,125	6,498	(14,665)
	KRW	511,6377	JPY	37,786,089	17,871	(13,963)	31,841	(3,592)
	USD	3,692,505	KRW	4,200,016	(176,707)	(109,667)	(66,557)	138,335
	EUR	508,001	KRW	770,898	(33,964)	(11,036)	(22,823)	10,652
	JPY	53,549,925	KRW	792,257	(92,632)	(7,335)	(70,829)	324
	GBP, etc.		EUR, etc.		1,980	4,279	26,683	(5,768)
Interest rate swap	KRW 40,000, 4,93%		KRW 40,000, CD 3M+1.55%		(226)	(160)	-	-
	USD 25,000, 3.36%		USD 25,000 , LIBOR 6M+2.35%		(208)	(216)	-	-
	USD 50,000, 4.65%		USD 50,000, LIBOR 3M+3.5%		(235)	-	(235)	-
Exchange risk insurance	KRW	47,139	USD	48,535	(4,906)	4,127	-	4,906
	KRW	2,861	JPY	294,325	(814)	713	-	814
Foreign currency long-term debt (Note 2)	KRW	417,424	USD	400,000	-	-	(7,756)	4,235
Embedded derivatives (Note 3)					(3,157)	5,592	-	-
Maturity					-	28,535	-	-
Put back options (Note 4)					(38,523)	(31,394)	-	-
Total					₩115,361	₩315,612	₩ (5,751)	₩(212,080)

(Note 1) Other comprehensive income does not reflect corporate tax effect.

(Note 2) The Group designated its long-term borrowings as hedging instruments to hedge the fluctuations of foreign currency-denominated sales.

(Note 3) In connection with the issuance of redeemable convertible preferred stock by DEC, DHC entered into the contracts with preferred shareholders. The details of contract are as follows (see Note 33-(11)):

	Description
Settlement	For all the redeemable convertible preferred stock, DHC and the investor shall settle the contract in cash for the amount of net selling price less issuance price on December 16, 2016. If the settlement amount is positive (net selling price exceeds issuance price), the investor pays the amount to DHC; otherwise, the Company makes payment to the investor.
Early settlement	The investor, under certain circumstances, may request a settlement to DHC even before the settlement date, for the amount calculated by the same method as above.
Early call option	DHC may request, from September 14 to 16, 2015, for the purchase of up to 30% of the redeemable convertible preferred stock owned by the investor at the issuance price plus a certain level of incentive.
Settlement call option	DHC may request, from September 14 to 16, 2016, for the purchase of a whole or part of the redeemable convertible preferred stock owned by the investor, at the issuance price.

(Note 4) DEC, as a member of construction investors in developmental projects, such as Cheongna International Business Town and others, entered into the following option contracts with respect to the shares acquired by financial investors for the year ended December 31, 2012.

	Type	Option holder	Exercise period	Exercise price
Cheongna International Business Town (*1)	Put option	① PANGAEA BLUE HILL B.V. ② Standard Chartered Bank	① 2013.09.28 –2013.10.28	Stock purchase price plus stipulated amount
	Call option	Construction investors including DEC	① 2012.01.01– 2013.12.27	Stock purchase price plus stipulated amount
Sangam DMC (*2)	Put option	① Korea Development Bank ("KDB") and Others ② Korean Teachers' Mutual Fund (SI)	① Within three months after construction completion ② Within a year after construction completion (Expected time of completion: April 23, 2016)	Stock purchase price plus stipulated amount
Gwanggyo Power Center	Put option	① KDB ② KT	① Within six months from completion (December 31, 2016)	Stock purchase price plus stipulated amount

(Note 5) Represents amounts related to the exchange rights on exchangeable bonds issued by DHC.

11. FINANCIAL INSTRUMENTS:

(1) Categories of financial instruments as of December 31, 2013 and 2012, are as follows (in millions of Korean won):

	December 31, 2013						
	Financial assets at FVTPL	Loans and receivables	AFS financial assets	Held-to-maturity financial assets	Derivatives designated as hedging instruments	Book value	Fair value
Cash and cash equivalents	₩-	₩1,258,450	₩-	₩-	₩-	₩1,258,450	₩1,258,450
Financial instruments	-	882,577	-	-	-	882,577	882,577
Investment securities	-	-	370,869	192	-	371,061	371,061
Trade and other receivables	-	4,709,452	-	-	-	4,709,452	4,709,452
Derivative assets	34,759	-	-	-	208,960	243,719	243,719
Deposits	-	266,051	-	-	-	266,051	266,051
Total	₩34,759	₩7,116,530	₩370,869	₩192	₩208,960	₩7,731,310	₩7,731,310

	December 31, 2013					
	Financial liabilities at FVTPL	Financial liabilities at amortized cost	Derivatives designated as hedging instruments	Financial guarantee contract	Book value	Fair value
Trade and other payables	₩-	₩3,907,757	₩-	₩-	₩3,907,757	₩3,907,757
Borrowings and bonds	-	12,649,962	-	-	12,649,962	12,649,962
Derivative liabilities	15,259	-	191,614	-	206,873	206,873
Financial guarantee liabilities	-	-	-	110,683	110,683	110,683
Total	₩15,259	₩16,557,719	₩191,614	₩110,683	₩16,875,275	₩16,875,275

	December 31, 2012						
	Financial assets at FVTPL	Loans and receivables	AFS financial assets	Held-to-maturity financial assets	Derivatives designated as hedging instruments	Book value	Fair value
Cash and cash equivalents	₩-	₩2,273,339	₩-	₩-	₩	₩2,273,339	₩2,273,339
Financial instruments	-	596,368	-	-	-	596,368	596,368
Investment securities	-	-	445,913	1,757	-	447,670	447,670
Trade and other receivables	-	4,777,604	-	-	-	4,777,604	4,777,604
Derivative assets	280	-	-	-	555,784	556,064	556,064
Deposits	-	265,740	-	-	-	265,740	265,740
Total	₩280	₩7,913,051	₩445,913	₩1,757	₩555,784	₩8,916,785	₩8,916,785

	December 31, 2012					
	Financial liabilities at FVTPL	Financial liabilities at amortized cost	Derivatives designated as hedging instruments	Financial guarantee contract	Book value	Fair value
Trade and other payables	₩-	₩4,159,509	₩-	₩-	₩4,159,509	₩4,159,509
Borrowings and bonds	-	13,848,300	-	-	13,848,300	13,848,300
Derivative liabilities	44,164	-	396,539	-	440,703	440,703
Financial guarantee liabilities	-	-	-	56,104	56,104	56,104
Total	₩44,164	₩18,007,809	₩396,539	₩56,104	₩18,504,616	₩18,504,616

(2) Fair value measurements of financial instruments by fair value hierarchy levels as of December 31, 2013 and 2012, are as follows (in millions of Korean won):

	December 31, 2013			
	Level 1	Level 2	Level 3	Total
Financial assets:				
Financial assets at FVTPL	₩-	₩34,759	₩-	₩34,759
AFS financial assets	144,028	1,308	122,961	268,297
Derivatives designated as hedging instruments	-	208,960	-	208,960
Total	₩144,028	₩245,027	₩122,961	₩512,016
Financial liabilities:				
Financial liabilities at FVTPL	₩-	₩(15,259)	₩-	₩(15,259)
Derivatives designated as hedging instruments	-	(191,614)	-	(191,614)
Total	₩-	₩(206,873)	₩-	₩(206,873)

	December 31, 2012			
	Level 1	Level 2	Level 3	Total
Financial assets:				
Financial assets at FVTPL	₩-	₩280	₩-	₩280
AFS financial assets	129,019	11,469	168,156	308,644
Derivatives designated as hedging instruments	-	555,784	-	555,784
Total	₩129,019	₩567,533	₩168,156	₩864,708
Financial liabilities:				
Financial liabilities at FVTPL	₩-	₩(44,164)	₩-	₩(44,164)
Derivatives designated as hedging instruments	-	(396,539)	-	(396,539)
Total	₩-	₩(440,703)	₩-	₩(440,703)

(3) Assumptions used in the fair value of AFS financial assets that have been rated as Level 3 out of AFS financial assets measured at fair value are as follows as of December 31, 2013.

AFS Assets	Evaluation	Discounted rate	Remarks
Daegu South Circulation Road Corporation and others	Dividend discount model, etc.	7.46%–13.14%	Expected dividend cash flows
Busan New Port The 2nd Rear Road Co., Ltd. and others	Past transaction model	-	Amount of recent capital increase
Korea Housing Guarantee Co., Ltd.	Free cash flow to equity model	4.03%	Free cash flow to equity
Others	Net Asset Value Assessment, etc.	-	Fair value of net asset, etc.

Consists of changes in the carrying amount of AFS financial assets that have been rated as Level 3 of fair value hierarchy are as follows for the years ended December 31, 2013 and 2012 (in millions of Korea won):

Year	January 1	Acquisition	Disposal	Total Comprehensive income		Reclassification (Note 1)	December 31
				Profit or loss	Other comprehensive income		
2013	₩168,156	₩17,732	₩(85,201)	₩6,238	₩(26,130)	₩52,166	₩122,961
2012	144,784	3,236	-	-	(1,005)	21,141	168,156

(Note 1) Some of non-marketable securities reclassified as Level 3 for the years ended December 31, 2013 and 2012

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

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

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.

(4) Profit and loss by categories of financial instruments for the years ended December 31, 2013 and 2012, are as follows (in millions of Korean won):

	Year ended December 31, 2013						
	Profit or loss						Other comprehensive income (Note 1)
				Impairment and reversal			
	Interest	Dividends	Financial guarantee	Provision	Others	Disposal	
Financial assets:							
Loans and receivables	₩79,401	₩-	₩-	₩(151,147)	₩-	₩(24,035)	₩-
AFS financial assets	4,034	2,466	-	-	(24,447)	30,780	(11,824)
Held-to-maturity investments	16	-	-	-	-	(12)	-
Total	₩83,451	₩2,466	₩-	₩ (151,147)	₩ (24,447)	₩6,733	₩ (11,824)
Financial liabilities:							
Financial liabilities at amortized cost	₩ (779,975)	₩-	₩-	₩-	₩-	₩ (4,286)	₩-
Financial guarantee contract	-	-	14,521	-	-	-	-
Total	₩(779,975)	₩-	₩14,521	₩-	₩-	₩(4,286)	₩-

	Year ended December 31, 2012						
	Profit or loss						Other comprehensive income (Note 1)
				Impairment and reversal			
	Interest	Dividends	Financial guarantee	Provision	Others	Disposal	
Financial assets:							
Loans and receivables	₩129,689	₩-	₩-	₩(865,371)	₩-	₩(40,244)	₩-
AFS financial assets	2,519	2,732	-	-	(8,776)	27,050	(105,776)
Held-to-maturity investments	849	-	-	-	(1,960)	-	-
Total	₩133,057	₩2,732	₩-	₩ (865,371)	₩ (10,736)	₩ (13,194)	₩ (105,776)
Financial liabilities:							
Financial liabilities at amortized cost	₩ (894,166)	₩-	₩-	₩-	₩-	₩ (1,058)	₩-
Financial guarantee contract	-	-	12,899	-	-	-	-
Total	₩(894,166)	₩-	₩12,899	₩-	₩-	₩(1,058)	₩-

Apart from the financial instruments above, other comprehensive income (loss) by derivatives for the years ended December 31, 2013 and 2012, is as follows:

	December 31, 2013			December 31, 2012		
	Profit or loss		Other comprehensive income (Note 1)	Profit or loss		Other comprehensive income (Note 1)
	Valuation	Disposal		Valuation	Disposal	
Derivative instrument not designated as a hedge	₩28,419	₩(12,368)	₩-	₩(27,876)	₩(12,441)	₩-
Derivative instrument designated as a fair value hedge	136,879	(3,546)	-	361,274	4,034	-
Derivatives designated as a cash flow hedge	(9,923)	(17,503)	(63,547)	(17,786)	(10,016)	38,229
Total	₩155,375	₩(33,417)	(63,547)	₩315,612	₩(18,423)	₩38,229

(Note 1) Other comprehensive income does not reflect corporate tax effect.

Differences arising from foreign currency transactions (in terms of foreign currency transactions gains and income) are mostly occurred in financial assets classified of loans and receivables and financial liabilities measured in amortized cost.

(5) Financial assets and liabilities subject to an enforceable master netting arrangement or similar agreement as of December 31, 2013, are as follows (in millions of Korea won):

	Subject of applicability in enforceable master netting arrangement		
	Before enforceable master netting	enforceable master netting	After enforceable master netting
Financial assets and liabilities:			
Accounts receivable	₩20,094	₩(6,153)	₩13,941
Other receivables	4,057	(2,044)	2,013
Accounts payable	(35,166)	8,197	(26,969)
Gain on valuation of derivatives	224,679	(118,948)	105,731
Loss on valuation of derivatives	(289,391)	118,948	(170,443)
Long-term debt	(250,000)	50,000	(200,000)

12. INVESTMENT IN JOINT VENTURES AND ASSOCIATES:

(1) Investment in joint ventures and associates as of December 31, 2013 and 2012, consists of the following (in millions of Korean won):

Company name	Countries	Percentage of ownership (%)	Acquisition cost December 31, 2013	Acquisition cost December 31, 2012	Book value December 31, 2013	Book value December 31, 2012
Associates						
Guang Dong Xingpu Steel Center	China	21.05	₩1,853	₩1,853	₩4,229	₩4,267
Doosan Eco Biznet	Korea	29.79	53	53	197	288
MVP Capital Co.	Korea	29.13	3,000	3,000	-	279
Dong-A E&C Contents	Korea	20.00	10	10	17	17
Wilus Inc.	Korea	40.00	374	374	-	-
Doosan Capital	Korea	33.30	166,000	96,000	105,511	61,902
Tamra Offshore Wind Power Co., Ltd	Korea	36.00	9,864	7,452	9,622	7,221
Doosan (China) Financial Leasing Corp.	China	49.00	96,248	96,248	101,370	98,935
Dalian Samyoung Doosan Metal Product Co. Ltd. (Note 2)	China	10.80	2,675	2,675	3,391	3,434
Shinbundang Railroad Co., Ltd. (Note 3)	Korea	29.03	62,552	62,552	67,785	91,769
Kyunggi Railroad Co., Ltd	Korea	31.33	7,049	7,049	4,946	5,803
Neo Trans Co., Ltd	Korea	42.86	43	43	10,745	5,846
Others	-	10.00	4,340	3,256	801	68
Subtotal			354,061	280,565	308,614	279,829
Joint venture (Note 1):						
Sichuan Kelun-Doosan Biotechnology Company Limited	China	50.00	2,526	2,526	2,555	2,490
Haman Industrial Complex Company	Korea	80.00	3,600	3,600	2,394	-
Hanjung Power Ltd.	Papua New Guinea	51.00	4,364	4,364	6,066	9,310
Xuzhou Xugong Doosan Engine Co., Ltd.	China	50.00	16,232	16,232	-	8,762
Doosan Babcock WLL	Qatar	49.00	290	-	290	-
Subtotal			27,012	26,722	11,305	20,562
Total			₩381,073	₩307,287	₩319,919	₩300,391

(Note 1) By agreement between the shareholders, the Group cannot exercise exclusive control over so that classified as joint venture.

(Note 2) Ownerships are less than 20% ownership, but exercising voting rights are available in the board of directors of the investee companies so that classified as associates.

(Note 3) Shares are pledged as collateral for PF.

(2) Changes in investment in joint ventures and associates for the years ended December 31, 2013 and 2012, consist of the following (in millions of Korean won):

	Year ended December 31, 2013						
Company name	January 1, 2013	Acquisitio n (disposal)	Dividends	Share of profit (loss)	Increase (decrease) in equity of associates	Other	December 31, 2013
Associates							
Guang Dong Xingpu Steel Center	₩4,267	₩-	₩-	₩ (95)	₩57	₩-	₩4,229
Doosan Eco Biznet	288	-	-	(91)	-	-	197
MVP Capital Co.	279	(279)	-	-	-	-	-
Dong-A E&C Contents	17	-	-	-	-	-	17
Wilus Inc.	-	-	-	-	-	-	-
Doosan Capital(Note 1)	61,902	70,000	-	(25,725)	(56)	(610)	105,511
Tamra Offshore Wind Power Co., Ltd	7,221	2,412	-	1	(12)	-	9,622
Doosan(China) Financial Leasing Corp.	98,935	-	-	1,201	-	1,234	101,370
Dalian Samyoung Doosan Metal Product Co. Ltd. (Note 2)	3,434	-	-	(89)	46	-	3,391
Shinbundang Railroad Co., Ltd.	91,769	-	-	(23,984)	-	-	67,785
Kyunggi Railroad Co., Ltd.	5,803	-	-	(857)	-	-	4,946
Neo Trans Co., Ltd	5,846	-	-	4,899	-	-	10,745
Others	68	298	-	(392)	-	827	801
Subtotal	279,829	72,431	-	(45,132)	35	1,451	308,614
Joint venture :							
Sichuan Kelun-Doosan Biotechnology Company Limited	2,490	-	-	34	31	-	2,555
Haman Industrial Complex Company	-	-	-	2,394	-	-	2,394
Hanjung Power Ltd.	9,310	-	(4,462)	3,586	(2,368)	-	6,066
Xuzhou Xugong Doosan Engine Co., Ltd.	8,762	-	-	(8,762)	-	-	-
Doosan Babcock WLL	-	290	-	-	-	-	290
Subtotal	20,562	290	(4,462)	(2,748)	(2,337)	-	11,305
Total	₩300,391	₩72,721	₩ (4,462)	₩(47,880)	₩ (2,302)	₩1,451	₩319,919

(Note 1) The Group acquired all of issued convertible preferred stock for the year ended December 31, 2013

Company name	Year ended December 31, 2012 January 1, 2012	Acquisition (disposal)	Dividends	Share of profit (loss)	Increase (decrease) in equity of associates	Other (Note 1)	Equity spin-off	December 31, 2012
Associates								
Guang Dong Xingpu Steel Center	₩4,527	₩-	₩-	₩4	₩(264)	₩-	₩-	₩4,267
Doosan Eco Biznet	185	-	-	103	-	-	-	288
MVP Capital Co.	387	(108)	-	-	-	-	-	279
Dong-A E&C Contents	11	-	-	6	-	-	-	17
National Pension 07-4 Neoplux Venture Capital Fund (Note 2)	1,914	(88)	(1,139)	(200)	(87)	-	(400)	-
New Wave 4 venture capital fund (Note 2)	6,276	(2,646)	-	327	290	-	(4,247)	-
New Wave 5 venture capital fund for infant industries (Note 2)	3,519	(714)	-	241	(598)	-	(2,448)	-
KoFC-Neoplux Pioneer Champ 2010-7 (Note 2)	4,462	4,960	-	(463)	39	-	(8,998)	-
2010 KIF-Neoplux IT venture capital fund (Note 2)	1,002	2,821	-	(282)	(53)	-	(3,488)	-
National Pension 06-2 Neoplux CRF (Note 2)	4,335	(500)	-	1,053	3	-	(4,891)	-
Neoplux No. 1 Private Equity Fund (Note 2)	18,639	3,251	(542)	1,101	(1,755)	-	(20,694)	-
Doosan Capital	95,424	-	-	(31,927)	(1,595)	-	-	61,902
Tamra Offshore Wind Power Co., Ltd	590	6,862	-	(195)	(36)	-	-	7,221
Doosan (China) Financial Leasing Corp.	93,831	6,410	-	4,725	-	(6,031)	-	98,935
Dalian Samyoung Doosan Metal Product Co. Ltd.	3,978	-	-	(780)	236	-	-	3,434
Shinbundang Railroad Co., Ltd.	142,120	-	-	(50,351)	-	-	-	91,769
Kyunggi Railroad Co., Ltd	6,591	-	-	(788)	-	-	-	5,803
Neo Trans	-	-	-	5,803	-	43	-	5,846
Kyunggi Highway Co., Ltd.	22,571	-	-	-	-	(22,571)	-	-
Doosan Power Systems (Scotland) Limited Partnership	9,184	-	-	-	-	(9,184)	-	-
CASCO Co., Ltd.	1,247	-	-	(269)	(128)	(850)	-	-
Others	242	-	-	(165)	(7)	(2)	-	68
Subtotal	421,035	20,248	(1,681)	(72,057)	(3,955)	(38,595)	(45,166)	279,829
Joint venture :								
Sichuan Kelun-Doosan Biotechnology Company Limited	1,770	891	-	(38)	(133)	-	-	2,490
Haman Industrial Complex Company	4,514	-	-	(4,514)	-	-	-	-
Hanjung Power Ltd.	11,702	-	(4,971)	3,677	(1,098)	-	-	9,310
Xuzhou Xugong Doosan Engine Co., Ltd.	16,104	-	-	(6,654)	-	(688)	-	8,762
Subtotal	34,090	891	(4,971)	(7,529)	(1,231)	(688)	-	20,562
Total	₩455,125	₩21,139	₩(6,652)	₩(79,586)	₩(5,186)	₩(39,283)	₩(45,166)	₩300,391

(Note 2) Other is consist of changes in capital surplus, other capital item and retained earnings of joint ventures and associates.

(Note 3) Because of the spin-off of Neoplux Co., Ltd., these investment funds have been eliminated from consolidated financial statements (see Note 37).

(3) The condensed financial information of the investees as of and for the years ended December 31, 2013 and 2012, is as follows (in millions of Korean won):

	As of and for the year ended December 31, 2013			
Companies	Total assets	Total liabilities	Sales	Net income (loss)
Associates				
Guang Dong Xingpu Steel Center	₩26,387	₩6,299	₩41,631	₩(454)
Doosan Eco Biznet	1,036	375	1,210	(306)
Dong-A E&C Contents	108	25	-	-
Wilus Inc.	1,545	1,009	2,380	(35)
Doosan Capital	2,346,866	2,072,421	187,711	(28,998)
Tamra Offshore Wind Power Co., Ltd	26,728	-	-	(12)
Doosan(China) Financial Leasing Corp.	933,690	726,812	72,055	2,449
Dalian Samyoung Doosan Metal Product Co. Ltd.	52,000	20,606	19,912	(829)
Shinbundang Railroad Co., Ltd.	1,082,671	849,172	49,321	(82,617)
Kyunggi Railroad Co., Ltd	66,939	51,150	-	(2,693)
Neo Trans Co., Ltd	30,069	5,000	52,557	11,430
Joint venture :				
Sichuan Kelun-Doosan Biotechnology Company Limited	7,297	2,186	787	68
Haman Industrial Complex Company	58,747	54,313	26,046	3,883
Hanjung Power Ltd.	14,815	2,919	42,090	6,668
Doosan Babcock WLL	592	-	-	-

Companies	As of and for the year ended December 31, 2012			
	Total assets	Total liabilities	Sales	Net income (loss)
Associates				
Guang Dong Xingpu Steel Center	₩27,128	₩6,857	₩53,900	₩17
Doosan Eco Biznet	1,192	225	948	69
MVP Capital Co.	1,570	8	-	95
Dong-A E&C Contents	108	26	279	(2)
Wilus Inc.	950	1,048	2,508	39
Doosan Capital	2,750,749	2,520,348	254,090	(94,659)
Tamra Offshore Wind Power Co., Ltd	20,058	2	-	(72)
Doosan(China) Financial Leasing Corp.	1,082,355	909,218	95,794	14,049
Dalian Samyoung Doosan Metal Product Co. Ltd.	55,815	24,021	23,851	(5,345)
Shinbundang Railroad Co., Ltd.	1,143,790	827,673	42,279	(115,085)
Kyunggi Railroad Co., Ltd	65,684	47,162	-	(2,517)
Neo Trans Co., Ltd	21,015	7,376	52,195	12,742
Joint venture :				
Sichuan Kelun-Doosan Biotechnology Company Limited	6,345	1,365	-	(75)
Haman Industrial Complex Company	91,103	90,631	56,972	4,087
Doosan Babcock WLL	21,482	2,863	48,539	6,846

(4) Adjustments from net assets of joint ventures and associates to carrying amount of investment in joint ventures and associates as of December 31, 2013 and 2012, are as follows (in millions of Korean won):

	December 31, 2013					
				Adjustment amounts		
Companies	Net asset value as of Dec. 31, 2013	Percentage of ownership (%)	Ownership of net asset value	Removed investment balance	Internal transactions, etc.	Book value
Associates						
Guang Dong Xingpu Steel Center	₩20,088	21.05	₩4,229	₩-	₩-	₩4,229
Doosan Eco Biznet	661	29.79	197	-	-	197
Dong-A E&C Contents	83	20	17	-	-	17
Wilus Inc.	536	40.00	214		(214)	-
Doosan Capital	274,445	33.30	91,390	9,997	4,124	105,511
Tamra Offshore Wind Power Co., Ltd	26,728	36	9,622	-	-	9,622
Doosan(China) Financial Leasing Corp.	178,560	49	87,494	13,876	-	101,370
Dalian Samyoung Doosan Metal Product Co. Ltd.	31,394	10.80	3,391	-	-	3,391
Shinbundang Railroad Co., Ltd.	233,499	29.03	67,785	-	-	67,785
Kyunggi Railroad Co., Ltd	15,789	31.33	4,947	-	(1)	4,946
Neo Trans Co., Ltd	25,069	42.86	10,745	-	-	10,745
Joint venture :						
Sichuan Kelun-Doosan Biotechnology Company Limited	5,111	50	2,556	-	(1)	2,555
Haman Industrial Complex Company	4,434	80	3,547	-	(1,153)	2,394
Hanjung Power Ltd.	11,896	51	6,067	-	(1)	6,066
Doosan Babcock WLL	592	49	290	-	-	290
Xuzhou Xugong Doosan Engine Co., Ltd.	-	50	-	-	-	-

Companies	December 31, 2012					
				Adjustment amounts		
	Net asset value as of Dec. 31, 2013	Percentage of ownership (%)	Ownership of net asset value	Removed investment balance	Internal transactions etc.	Book value
Associates						
Guang Dong Xingpu Steel Center	₩20,271	21.05	₩4,267	₩-	₩-	₩4,267
Doosan Eco Biznet	967	29.79	288	-	-	288
Dong-A E&C Contents	82	20.00	17	-	-	17
Wilus Inc.	(98)	40.00	(39)	-	39	-
Doosan Capital	144,024	16.65	23,980	13,943	23,979	61,902
Tamra Offshore Wind Power Co., Ltd	20,056	36.00	7,220	-	1	7,221
Doosan(China) Financial Leasing Corp.	173,137	49.00	84,837	14,098	-	98,935
Dalian Samyoung Doosan Metal Product Co. Ltd.	31,794	10.80	3,434	-	-	3,434
Shinbundang Railroad Co., Ltd.	316,117	29.03	91,769	-	-	91,769
Kyunggi Railroad Co., Ltd.	18,522	31.33	5,803	-	-	5,803
Neo Trans Co., Ltd.	13,639	42.86	5,846	-	-	5,846
Joint venture :						
Sichuan Kelun-Doosan Biotechnology Company Limited	4,980	50.00	2,490	-		2,490
Haman Industrial Complex Company	472	80.00	378	-	(378)	-
Hanjung Power Ltd.	18,619	51.00	9,496	-	(186)	9,310
Xuzhou Xugong Doosan Engine Co., Ltd.	17,524	50.00	8,762	-	-	8,762

13. PROPERTY, PLANT AND EQUIPMENT:

(1) Changes in property, plant and equipment for the years ended December 31, 2013 and 2012, consist of the following (in millions of Korean won):

	Year ended December 31, 2013					
	Land	Buildings and structures	Machinery	Tools, furniture, fixtures and others	Construction in progress	Total
Balance at January 1, 2013	₩3,736,054	₩1,877,952	₩1,289,208	₩313,312	₩296,086	₩7,512,612
Acquisition(Note 1)	1,205	42,470	60,546	119,279	286,627	510,127
Reclassification (Note 2)	(34,995)	59,919	188,392	31,320	(346,336)	(101,700)
Disposal	(31,345)	(22,980)	(4,858)	(11,274)	(234)	(70,691)
Increase (decrease) in revaluation	1,289,636	-	-	-	-	1,289,636
Depreciation	(43)	(102,038)	(254,435)	(108,268)	-	(464,784)
Impairments	-	-	(1,710)	(36)	(2,548)	(4,294)
Others (Note 3)	(4,185)	(3,780)	(5,070)	4,904	(2,807)	(10,938)
Balance at December 31, 2013	₩4,956,327	₩1,851,543	₩1,272,073	₩349,237	₩230,788	₩8,659,968
Acquisition cost	3,666,691	2,654,868	3,236,239	959,673	231,322	10,748,793
Accumulated depreciation and impairment	-	(803,325)	(1,964,166)	(610,436)	(534)	(3,378,461)
Revaluation surplus	1,289,636	-	-	-	-	1,289,636

	Year ended December 31, 2012					
	Land	Buildings and structures	Machinery	Tools, furniture, fixtures and others	Construction in progress	Total
Balance at January 1, 2013	₩3,776,429	₩1,837,115	₩1,186,741	₩308,283	₩311,378	₩7,419,946
Acquisition (Note 1)	19,329	33,459	197,726	118,629	475,754	844,897
Reclassification (Note 2)	(51,124)	158,892	195,487	32,936	(429,534)	(93,343)
Disposal	(19,511)	(26,283)	(50,126)	(33,816)	-	(129,736)
Increase (decrease) in revaluation (Note 4)	18,542	234	-	-	-	18,776
Depreciation	(43)	(100,491)	(225,596)	(101,052)	-	(427,182)
Impairments	-	(983)	(1,340)	(6)	-	(2,329)
Others (Note 3)	(7,568)	(23,991)	(13,684)	(11,662)	(61,512)	(118,417)
Balance at December 31, 2012	₩3,736,054	₩1,877,952	₩1,289,208	₩313,312	₩296,086	₩7,512,612
Acquisition cost	3,717,512	2,622,080	3,088,539	846,587	296,086	10,570,804
Accumulated depreciation and impairment	-	(744,362)	(1,799,331)	(533,275)	-	(3,076,968)
Revaluation surplus	18,542	234	-	-	-	18,776

(Note 1) The acquisition includes in millions increases of financial leased asset not involving cash payments.
(Note 2) Reclassifications as intangible asset and investment property.
(Note 3) Effect of exchange rate differences and others
(Note 4) Revaluation surplus includes difference between fair value and book value as of reclassification arisen from changes of purpose of use.

As of December 31, 2013, the Company's land and buildings are pledged as collateral for loans from KDB and others. The Company has no right to pledge that asset as collateral or to sell (see Note 34).

(2) The details of revaluation model which the Group applies to measurement of the land are as follows:

For the year ended December 31, 2013, the Group initially measured all land assets using fair value at the date of the revaluation. As of December 31, 2013 the fair value of land assets is determined from appraisal that is undertaken by independently qualified valuators, the First Appraisal & Consulting Co., Ltd (FACC) and others, on October 31, 2013. FACC and others are members of Korea Association of Property Appraisers and comprise of certified professionals that have a significant amount of industry experience.

Fair value of the land is measured by considering officially assessed land price and the latest trading price of similar land within the adjacent area.

A. Classification of land that is measured at fair value by fair value hierarchy levels as of December 31, 2013, is as follows:

	December 31, 2013			
	Level 1	Level 2	Level 3	Total
Property:				
Land	₩-	₩-	₩4,956,327	₩4,956,327

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

Valuation method	Significant but not observable input factors	Correlation between unobservable inputs and fair value
Official Assessed Reference Land Price("OARLP")	Fluctuation rate of land price and others	Fair value increases (decrease) if rate of land price increases (decreases)
OARLP of similar parcels nearby the subject land, reflating corrections necessary for differences between the subject and the comparable	Parcel conditions and others	Fair value increases (decrease) if correction of parcel condition and others increase (decrease)
	Land conditions affecting the sales price and others	Fair value increases (decrease) if correction of land conditions affecting the sales price increases (decreases)

(4) Change in land due to application of revaluation model for the year ended December 31, 2013 is as follows:

Balance at January 1, 2013	Acquisition	Investment property	Disposal	Increase in revaluation: Revaluation surplus	Increase in revaluation: Deferred tax liabilities	Decrease in revaluation	Balance at December 31, 2013
₩ 3,736,054	₩1,205	₩ (39,223)	₩ (31,345)	₩990,032	₩317,689	₩(18,085)	₩4,956,327

(5) Property, plant and equipment acquired through capital lease agreements as of December 31, 2013 and 2012, are as follows (in millions of Korean won):

Details	December 31, 2013	December 31, 2012
Acquisition cost	₩43,720	₩37,939
Accumulated depreciation	(22,366)	(12,978)
Book value	₩21,354	₩24,961

Total minimum lease payments of finance leases liabilities and present value as of December 31, 2013 and 2012, are as follows (in millions of Korean won):

	December 31, 2013		December 31, 2012	
	Minimum lease payments	Present value	Minimum lease payments	Present value
Less than 1 year	₩9,833	₩8,955	₩9,691	₩8,638
1–5 years	14,194	13,676	17,758	16,733
Total	24,027	₩22,631	27,449	₩25,371
Present value adjustment	(1,396)		(2,078)	
Finance lease payables	₩22,631		₩25,371	

As of December 31, 2013, the Company's leased assets under finance lease are pledged as collateral for obligations under finance leases (see Note 32).

(6) For the years ended December 31, 2013 and 2012, the capitalized borrowing cost of property is as follows: (in millions of Korea won):

	December 31, 2013	December 31, 2012
Capitalized borrowing cost	5,040	2,718
Capitalization interest rate (%)	4.48–5.68	4.70–5.78

(7) Depreciation in each account for the years ended December 31, 2013 and 2012, is as follows (in millions of Korean won):

	December 31, 2013	December 31, 2012
Cost of sales	₩393,807	₩341,932
Selling, general and administrative expens	53,488	61,247
Ordinary development expense	17,489	24,003
Total	₩464,784	₩427,182

14. INTANGIBLE ASSETS:

(1) Changes in intangible assets for the years ended December 31, 2013 and 2012, are as follows (in millions of Korean won):

	Year ended December 31, 2013				
	Goodwill	Industrial rights	Development costs	Other intangible assets	Total
January 1, 2013	₩4,951,088	₩1,190,746	₩697,598	₩332,282	₩7,171,714
Acquisition	-	1,581	247,252	25,777	274,610
Reclassifications (Note 1)	(2,814)	1,226	(25,245)	78,103	51,270
Disposal	-	(11)	-	(5,905)	(5,916)
Amortization	-	(19,156)	(77,385)	(71,812)	(168,353)
Impairment	-	-	(46,065)	(4,573)	(50,638)
Reversal of impairment loss	-	-	-	50	50
Others (Note 2)	(56,879)	3,486	(2,307)	(3,394)	(59,094)
December 31, 2013	₩4,891,395	₩1,177,872	₩793,848	₩350,528	₩7,213,643
Acquisition cost	₩4,899,830	₩1,302,208	₩977,248	₩600,343	₩7,779,629
Accumulated depreciation and impairment	(8,435)	(124,336)	(183,400)	(249,815)	(565,986)

	Year ended December 31, 2012				
	Goodwill	Industrial rights	Development costs	Other intangible assets	Total
January 1, 2012	₩5,234,335	₩1,282,430	₩559,254	₩313,776	₩7,389,795
Acquisition	-	1,500	234,631	44,319	280,450
Reclassifications(Note 1)	(29,038)	10,727	(11,642)	71,691	41,738
Disposal	-	(4)	-	(5,807)	(5,811)
Amortization	-	(22,511)	(65,875)	(75,467)	(163,853)
Impairment	(6,420)	(307)	(9,776)	(15,530)	(32,033)
Others (Note 2)	(247,789)	(81,089)	(8,994)	(700)	(338,572)
December 31, 2012	₩4,951,088	₩1,190,746	₩697,598	₩332,282	₩7,171,714
Acquisition cost	₩4,959,523	₩1,298,896	₩872,787	₩560,634	₩7,691,840
Accumulated depreciation and impairment	(8,435)	(108,150)	(175,189)	(228,352)	(520,126)

(Note 1) Reclassification from properties (construction in progress).

(Note 2) Variations arisen from differences in exchange rates, etc.

The carrying amount of membership with indefinite useful lives in other intangible assets item is ₩5,858,317 million and ₩5,913,817 million as of December 31, 2013 and 2012, respectively. Meanwhile, expenditure on research and development, which was recognized as an expense, amounted to ₩317,222 million and ₩307,738 million for the years ended December 31, 2013 and 2012, respectively.

(2) Impairment test of goodwill

1) Goodwill has been allocated for impairment testing purposes to the following cash-generating units and is tested for impairment annually.

Company	Cash-generating units	Description
Doosan	Mottrol BG (hydraulic components)	Manufacturing and sale of hydraulic components
	Doosan Industrial Vehicle (industrial forklift)	Manufacturing and sale of industrial vehicle
Doosan Heavy Industries & Construction Co., Ltd.	Power Plants	Manufacturing and sale of power plants
	WATER	Manufacturing and sale of desalination and water treatment plants
Doosan Infracore	Construction Machinery	Manufacturing and sale of construction machinery, etc.
Doosan Construction	Construction industry	Housing and infrastructure Construction
	Chemical engineering equipment	Production of Chemical industry facilities and gas industry equipment
DST	Defense industry	Defense industry
Oricom	Advertising	Advertising services

2) Before recognition of impairment losses, the carrying amount of goodwill was allocated to cash-generating units as follows (in millions of Korean won):

Cash-generating units	December 31, 2013	December 31, 2012
Mottrol BG (hydraulic components)	₩84,562	₩84,562
Doosan Industrial Vehicle (industrial forklift)	53,491	51,183
Power Plants	674,174	695,814
WATER	6,237	5,048
Construction Machinery	3,916,138	3,957,688
Construction industry	76,869	76,869
Chemical engineering equipment	4,441	4,441
Defense industry	74,110	74,110
Advertising	1,373	1,373
Total	₩4,891,395	₩4,951,088

3) The recoverable amount of cash-generating unit is determined based on a value-in-use calculation and a discount rate used as follows.

	Doosan		Doosan Heavy Industries & Construction Co., Ltd.		Doosan Infracore	Doosan Construction	DST	Oricom
Description	Mottrol	Doosan Industrial Vehicle	ower lants	WATER	Construction Machinery	Construction industry	Defense industry	Advertising
Discount rate	10.80%	10.50%	8.00%	8.80%	9.36%	8.61%	9.60%	10.20%

4) The Group uses cash flow projections based on financial budgets approved by the directors covering five-year periods for a value-in-use calculation. The financial budgets are determined based on historical result and expectation of market growth. Cash flows beyond that five-year periods have been extrapolated using a '0%–3%' growth rate, continuing the 5th year cash flow. The growth rate does not exceed long-term average growth rate of market and the discount rates used reflect relevant risks specific to the cash-generating units.

The result of recoverable amount the Group calculated based on value-in-use calculation was not to cause the aggregate carrying amount to exceed the aggregate recoverable amount of the cash-generating unit. Therefore, no impairment loss is recognized based on the impairment test for the year ended December 31, 2013.

(3) For the years ended December 31, 2013 and 2012, the consist of cpitalized borrowing cost of intangible assets is as follows: (in Millions of Korea won):

	December 31,2013	December 31,2012
Capitalized borrowing cost	6,978	2,705
Capitalization interest rate(%)	3.76~5.6	4.70~4.76

(4) Amortizations in each accounts for the years ended December 31, 2013 and 2012 are as follows (in millions of Korean won):

	December 31,2013	December 31,2012
Cost of Sales	₩85,773	₩78,710
Selling general administrative expenses	82,396	85,133
Ordinary development expense	184	10
Total	₩168,353	₩163,853

15. INVESTMENT PROPERTIES:

(1) Changes in investment properties for the years ended December 31, 2013 and 2012, are as follows (in millions of Korean won):

	Year ended December 31, 2013		
	Land	Buildings	Total
January 1, 2013	₩315,132	₩126,805	₩441,937
Acquisition	767	1,752	2,519
Disposal	(41,296)	(16,656)	(57,952)
Changes in fair value	16,371	(1,313)	15,058
Reclassifications	34,130	16,157	50,287
December 31, 2013	₩325,104	₩126,745	₩451,849

	Year ended December 31, 2012		
	Land	Buildings	Total
January 1, 2012	₩252,933	₩140,369	₩393,302
Acquisition	-	530	530
Disposal	(5,180)	(749)	(5,929)
Changes in fair value	5,768	(3,339)	2,429
Reclassifications	61,611	(10,006)	51,605
December 31, 2012	₩315,132	₩126,805	₩441,937

The Group's land and buildings (Gun-po plant) included in the above investment property are pledged as collateral for loans from Hana Bank and others. The Group has no right of assets to sell or pledge as collateral for another loans (see Note 34).

The recognized amount of rental income from investment property for the years ended December 31, 2013 and 2012, is ₩46,329 million and ₩60,561 million, respectively.

(2) Details of fair value model which the Group applies to measurement of investment properties are as follows:

For the year ended December 31, 2013, the Group initially measured investment properties using fair value at the date of the revaluation. As of December 31, 2013 and 2012 the fair value of investment properties is determined from appraisal that is undertaken by independently qualified valuators, the First Appraisal & Consulting Co., Ltd (FACC) and Mirae & saehan, on October 31, 2013 and December 31, 2012. FACC and Mirae & saehan are members of Korea Association of Property Appraisers and comprise of certified professionals that have a significant amount of industry experience.

Fair value of the land is measured by considering officially assessed land price and the latest trading price of similar land within the adjacent area.

Fair value of building is based on the estimated price of cost model which is considering structure, building materials, actual condition in construction, building equipment, purpose of use and condition in maintenance.

Fair value of partitioned building is based on comparative method analyzing sales comparable which is similar to the object in all pricing factors; site, environment condition, actual condition in use, usefulness of each site or floor. The estimated value of each object is divided into each land and building by price allocation ratio of each.

(3) Classification of investment properties that are measured at fair value by fair value hierarchy levels as of December 31, 2013, is as follows:

	December 31, 2013			
	Level 1	Level 2	Level 3	Total
Property:				
Land	₩-	₩-	₩325,104	₩325,104
Buildings	-	-	126,745	126,745

(4) Details of the valuation method used for fair value of land and the unobservable inputs which are significant for fair value measurement are as follows:

Valuation method	Significant but not observable input factors	Correlation between not observable input factors and measurement of fair value
OARLP OARLP of similar parcels nearby the subject land, reflating corrections necessary for differences between the subject and the comparable	Fluctuation rate of land price and others	Fair value increases (decrease) if rate of land price increases (decreases)
	Parcel conditions and others	Fair value increases (decrease) if correction of parcel condition and others increase (decrease)
	Land conditions affecting the sales price and others	Fair value increases (decrease) if correction of land conditions affecting the sales price increases (decreases)
Sales comparison approach Fair value is based on sales comparison of similar object based on marketability with target object while measuring fair value is compared with circumstance correction, time correction and individual factors	Circumstance correction	Fair value increases (decrease) if circumstance correction increase (decrease)
	Regional factors	Fair value increases (decrease) if regional factors increase (decrease)
	Comparative value of individual factors	The comparative value of individual factors increase (decrease), the fair value increases (decreases)
Estimated cost price approach Fair value is based on depreciation and replacement cost considered with structure, building materials, construction condition, building equipment, end use, present condition and management condition,	Replacement cost	Fair value decreases (increase) if replacement cost increase (decrease)

16. BONDS AND BORROWINGS:

(1) Bonds as of December 31, 2013 and 2012, are as follows (in millions of Korean won):

Type	Annual interest rate (%)	December 31, 2013	December 31, 2012
Public issue	2.66–8.00	₩4,238,896	₩4,629,591
Private placement bond	4.68–7.8	230,000	250,000
Exchangeable bond	1.50	219,999	219,999
Convertible bond	4.00	15,059	35,144
Bond with warrant	2.00	13,811	99,999
Bonds payables in foreign currency	7.49	28,493	-
Total		4,746,258	5,234,733
Less: Conversion rights adjustment		(24,995)	(43,719)
More: Premium on bonds		40,096	52,204
Less: Discount on bonds		(19,433)	(22,378)
Less: Current portion of long-term bonds		(1,346,521)	(1,611,961)
		-	
Long-term bonds		₩3,395,405	₩3,608,879

(2) The conditions of exchangeable bond, convertible bond and bond with warrant are as follows.

Type	Exchangeable bond	Convertible bond	Bond with warrant
The date of issue (the day of maturity)	2011.6.14 (2016.6.14)	2011.5.24 (2014.5.24)	2011.5.24 (2014.5.24)
Interest rate	1.50%	4.00%	2.00%
Guaranteed return	4.5%(116.72% of principle)	7.5%(111.65% of principle)	5.5%(111.33% of principle)
Exercise period	2011.6.15–2016.5.14	2011.6.24–2014.4.24	2011.6.24–2014.4.24
Exercise price	₩6,000 per share from the day of issue Price adjustable when the reason of revision occurs	₩5,270 per share	₩5,270 per share
Issuing price	₩220,000 millions	₩97,570 millions	₩97,538 millions
The option of redemption	Right exercisable after 3 years from the day of issue	Right exercisable right after 1.5 years from the day of issue	Right exercisable after 2 years from day of issue
The modification of exercise price	Exercising price adjustable due to increase of capital stock without consideration, stock dividend	Exercising price adjustable due to Increase of capital stock without consideration, stock dividend	Exercising price adjustable due to Increase of capital stock without consideration, stock dividend
Stock for conversion	Common share of DEC	Common share of DEC	Common share of DEC

(3) Short-term borrowings as of December 31, 2013 and 2012, are as follows (in millions of Korean won):

Type	Firm	Lender	Annual interest rate (%)	December 31, 2013	December 31, 2012
Borrowings in Korean won	Doosan Corporation	KDB and others	3.95–6.93	₩199,577	₩259,497
	DHC	Kookmin Bank and others	3.87–4.98	443,000	246,073
	DI	Korea Exim Bank and others	3.41–6.00	236,978	219,419
	DEC	Kwangju Bank and others	1.65–12.31	533,076	541,718
		Subtotal		1,412,631	1,266,707
Borrowings in foreign currency	Doosan Corporation	National Agricultural Cooperative Federation and others	0.27–7.3	89,788	61,442
	DHC	HSBC and others	0.33–12.25	645,647	777,320
	DI	Hana Bank and others	0.72–9.25	510,370	1,129,517
	DE.	Woori Bank and others	1.08–5.85	5,874	56,063
	DEC	Korea Exchange Bank and others	LIBOR+1.70–4.50	26,199	29,216
		Subtotal		1,277,878	2,053,558
		Total		₩2,690,509	₩3,320,265

Financial liabilities related to transferred trade receivables which did not meet the derecognition criteria amounted to ₩20,438 million and ₩260,354 million as of December 31, 2013 and 2012, respectively. The trade receivables were pledged as collateral for these liabilities (see Note 33-(3))

(4) Long-term borrowings as of December 31, 2013 and 2012, are as follows (in millions of Korean won):

Type	Firm	Lender	Annual interest rate (%)	December 31, 2013	December 31, 2012
Borrowings in Korean won	Doosan Corporation	Korea Housing Guarantee and others	1.00–6.11	₩323,316	₩405,550
	DHC	Industrial Bank of Korea and others	3.2–5.57	1,215,431	1,070,000
	DI	KDB and others	4.63–5.28	643,000	366,000
	DE	La-union	5.15	50,000	50,000
	DEC	Shinhan Bank and others	1.00–8.20	186,166	122,769
		Subtotal		2,417,913	2,014,319
Borrowings in foreign currency	Doosan Corporation	Korea Exchange Bank and others	3.34–3.62	47,763	64,830
	DHC.	KDB and others	Euribor+1.50 –4.15	335,756	377,938
	DI	KDB and others	2.29–8.00	2,101,011	2,436,541
	DE	KDB and others	LIBOR+1.6, 6.22	66,451	131,628
		Subtotal		2,550,981	3,010,937
		Total		4,968,894	5,025,256
Less: Discount on current portion of long-term borrowings				(21,367)	(24,861)
Current portion of long-term borrowings				(343,980)	(567,058)
		Net		₩4,603,547	₩4,433,337

(5) Securitized debt

The principal feature of the securitization of the Group's transactions is that future receivables from various construction projects are initially transferred to a special-purpose entity ("SPE"), which in turn will issue an asset-backed security (future receivables).

Type	Annual interest rate (%)	December 31, 2013	December 31, 2012
Securitization debt(18, 27, 28, 29th)	7.5–9.4	₩270,000	₩306,800
Less: Current portion of securitized debt		(270,000)	(176,000)
Net		₩-	₩130,800

17. RETIREMENT BENEFIT OBLIGATION:

The Group operates a defined benefit plan for employees and the actuarial valuation of plan assets and the defined benefit liability is performed by a reputable actuary using the projected unit credit method. Meanwhile, contributions to defined contribution retirement benefit plan are recognized as an expense when employees have rendered service entitling them to the contributions.

(1) Details of retirement benefit obligation as of December 31, 2013 and 2012, are as follows (in millions of Korean won):

	December 31, 2013	December 31, 2012
Present value of defined benefit obligation	₩2,324,554	₩2,459,371
Fair value of plan assets	(1,303,416)	(1,173,342)
Total	₩1,021,138	₩1,286,029

(2) Expenses recognized in profit and loss for the years ended December 31, 2013 and 2012, are as follows (in millions of Korean won):

	Year ended December 31, 2013	Year ended December 31, 2012
Current service cost	₩166,090	₩155,132
Net interest cost	49,646	44,498
Effect of downscale and liquidation	(196)	(122)
Total	₩215,540	₩199,508

(3) Details of the total expense recognized in the consolidated statements of income for the years ended December 31, 2013 and 2012, are as follows (in millions of Korean won):

	Year ended December 31, 2013	Year ended December 31, 2012
Cost of sales	₩102,271	₩109,428
Selling and administrative expenses	101,041	80,295
Research and development cost	12,228	9,785
Total	₩215,540	₩199,508

(4) Changes in defined benefit obligations for the years ended December 31, 2013 and 2012, are as follows (in millions of Korean won):

	Year ended December 31, 2013	Year ended December 31, 2012
Beginning balance	₩2,459,371	₩2,409,457
Current service cost	166,090	155,132
Transfer in	6,695	7,179
Transfer out	(7,736)	(8,416)
Interest cost	93,913	109,223
Remeasurements of defined benefit liabilities	(247,729)	91,224
- Actuarial gains (loss) arising from changes in demographic assumptions	(1,334)	32
- Actuarial gains(loss) arising from changes in financial assumptions	(207,101)	70,741
- Actuarial gains (loss) arising from others	(39,294)	20,451
Business combinations	-	2,779
Business transfer	-	(8,134)
Effect of downscale and liquidation	(196)	(122)
Contributions by employer directly to plan assets	2,353	2,165
Benefit payment	(145,618)	(210,826)
Others	(2,589)	(90,290)
Ending balance	₩2,324,554	₩2,459,371

(5) Changes in plan assets for the years ended December 31, 2013 and 2012, are as follows (in millions of Korean won):

	Year ended December 31, 2013	Year ended December 31, 2012
Beginning balance	₩1,173,342	₩1,209,111
Expected return on plan assets	44,267	64,725
Transfer in	497	180
Transfer out	(723)	(1,746)
Remeasurements of plan assets	12,073	19,587
Contributions by employer directly to plan assets	2,182	2,159
Contributions by employee directly to plan assets	167,664	51,083
Business combinations	-	(434)
Business transfer	-	(9,615)
Effect of downscale and liquidation	-	1,320
Benefit payment	(89,731)	(102,160)
Others	(6,155)	(60,868)
Ending balance	₩1,303,416	₩1,173,342

Realized return on plan assets amounted to ₩54,465 million and ₩84,312 million for the years ended December 31, 2013 and 2012, respectively.

(6) Assumptions used on actuarial valuation as of December 31, 2013 and 2012, are as follows:

Type		December 31, 2013	December 31, 2012
Discount rate		3.70%–8.10%	3.70%– 8.50%
Expected rate of salary increase (Note 1)	Controlling company	5.00%–7.00%	5.00%–7.00%
	DHC and subsidiaries	2.40%–8.00%	2.50%–8.00%
	DI and subsidiaries	4.07%–8.00%	3.00%–5.40%
	DEC and subsidiaries	3.00%–5.30%	5.00%–8.00%
	DE and subsidiaries	2.40%–5.30%	5.00%–8.00%

(Note 1) Assumptions of expected rate of salary increase differ by business segment.

Assumption about death in future 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 who is professionally qualified.

(7) Details of plan assets as of December 31, 2013 and 2012, are as follows (in millions of Korean won):

	December 31, 2013	December 31, 2012
Equity instruments	₩422,462	₩387,819
Debt instruments	528,018	538,632
Deposit and others	352,936	246,891
Total	₩1,303,416	₩1,173,342

Plan assets are mostly invested in assets those that have a quoted market price in an active market.

(8) The sensitivity analysis for the significant actuarial assumptions as of December 31, 2013, is as follows (in millions of Korean won):

	Amount	Rate
Discount rate :		
1% Increase	₩(184,099)	(7.9%)
1% Decrease	224,718	9.70%
Salary increase rate :		
1% Increase	72,542	3.10%
1% Decrease	(63,699)	(2.7%)

18. PROVISIONS:

Changes in provisions for the year ended December 31, 2013, are as follows (in millions of Korean won):

	Year ended December 31, 2013						
	January 1, 2013	Accrual	Use	Others (Note 1)	December 31, 2013	Current	Non-current
Provision for product warranties	₩423,247	₩107,792	₩(111,124)	₩3,624	₩423,539	₩152,775	₩270,764
Provision for product returned goods	6,212	6,136	(6,978)	-	5,370	5,370	-
Provision for restoration	3,240	373	(148)	83	3,548	-	3,548
Provision for loss compensation	13,422	(7,551)	(4,720)	-	1,151	-	1,151
Other Provisions	-	2,270	-	-	2,270	2,270	-
Total	₩446,121	₩109,020	₩ (122,970)	₩3,707	₩435,878	₩160,415	₩275,463

(Note 1) Others include amounts from changes of foreign currency exchange rates and others.

The Company estimates expenditure required to settle the Company's obligations from product warranty, refund, related after service and others based on warranty period, historical claim rate and recognized provision.

19. SHARE CAPITAL AND SHARE PREMIUM:

Changes in share capital and share premium of Parent for the years ended December 31, 2013 and 2012, are as follows (in millions of Korean won and number of shares):

	Number of shares		Share capital			
	Common shares	Preferred shares	Common shares	Preferred shares	Total	Share premium
Balance at January 1, 2012	25,089,211	5,769,814	₩125,446	₩28,849	₩154,295	₩316,631
Retirement of shares through retained earnings	(300,000)	-	-	-	-	-
Exercising share options	10,800	-	55	-	55	1,455
Capital reduction	(4,072,978)	(373,055)	(20,365)	(1,865)	(22,230)	-
Issuance due to Merger	131,788	-	658	-	658	15,550
Balance at December 31, 2012	20,858,821	5,396,759	₩105,794	₩26,984	₩132,778	₩333,636
Balance at January 1, 2013	20,858,821	5,396,759	₩105,794	₩26,984	₩132,778	₩333,636
Exercising share options	23,250	-	116	-	116	3,638
Balance at December 31, 2013	20,882,071	5,396,759	₩105,910	₩26,984	₩132,894	₩337,274

The Parent's number of shares authorized is 400,000,000 with a par value of ₩5,000 per share. The number of shares issued by the Parent is 20,882,071 of common stock and 5,396,759 of preferred stock as of December 31, 2013. There is a difference arising from retirement of shares through retained earnings, capital stock amounting to ₩132,894 million is not the same as total par value of shares issued amounting to ₩131,394 million.

The number of shares that are having limitation on voting right under commercial law is 4,670,211 and 4,403,614 as of December 31, 2013 and 2012, respectively.

20. OTHER CAPITAL SURPLUS:

Other capital surplus as of December 31, 2013 and 2012, is summarized as follows (in millions of Korean won):

	December 31, 2013	December 31, 2012
Share premium	₩337,274	₩333,636
Gain from merger	1,390	1,390
Asset revaluation reserve	277,542	277,542
Other capital surplus	339,822	474,598
Total	₩956,028	₩1,087,166

21. OTHER CAPITAL ITEMS:

(1) Other capital items as of December 31, 2013 and 2012, are summarized as follows (in millions of Korean won):

	December 31, 2013	December 31, 2012
Treasury stock	₩(238,810)	₩(202,676)
Loss on disposal of treasury stock	(16,738)	(16,738)
Share option	14,834	13,058
Loss on capital reduction	(127,319)	(127,319)
Other capital items	(417)	(798)
Total	₩(368,450)	₩(334,473)

(2) Treasury stock

The Parent acquired registered common stock and non-voting preferred stock for the stabilization of stock price. Treasury stock will be retired or issued.

Changes in treasury stock for the year ended December 31, 2013, are as follows (in millions of Korean won):

	Number of treasury stock			Carrying amount		
Description	Common stock	Preferred stock	Total	Common stock	Preferred stock	Total
January 1, 2013	4,403,614	673,054	5,076,668	₩187,624	₩15,052	₩202,676
Acquisition	266,597	-	266,597	36,134	-	36,134
December 31, 2013	4,670,211	673,054	5,343,265	₩223,758	₩15,052	₩238,810

(3) Share-based payment

The Parent has granted share options to its directors several times. Share options are settled based on the board of directors' decision by issuance of new stock, treasury stock or cash settlement. Vesting condition offers two-year service after the resolution at the shareholders' meeting. Number of granted options as of December 31, 2013, is as follows (in millions of Korean won, except for share data).

Details	Date of grant	Number of granted options	Exercisable period	Exercisable price	Expected fair value at the date of grant
8th	2007.3.16	3,500	2010.3.16 - 2017.3.15	₩59,600	₩28,930
9th	2008.3.21	24,300	2011.3.21 - 2018.3.20	165,100	68,846
10th	2009.3.27	4,300	2012.3.27 - 2019.3.26	106,500	53,382
12th	2010.3.26	71,860	2013.3.26 - 2020.3.26	116,500	56,460
13th	2011.3.25	55,100	2014.3.25 - 2021.3.25	137,500	68,045
14th	2012.3.30	60,200	2015.3.30 - 2022.3.30	156,200	63,647
15th	2013.3.29	100,100	2016.3.29 - 2023.3.28	128,100	43,353
	Total	319,360			

Changes in share option for the year ended December 31, 2013, are as follows:

1) Number of common shares to be issued:

Details	January 1, 2013	Granted	Exercised	Forfeited	December 31, 2013
6th	1,400	-	(1,400)	-	-
8th	4,400	-	(900)	-	3,500
9th	27,000	-	-	(2,700)	24,300
10th	4,950	-	(650)	-	4,300
12th	101,260	-	(20,300)	(9,100)	71,860
13th	58,600	-	-	(3,500)	55,100
14th	63,600	-	-	(3,400)	60,200
15th	-	100,100	-	-	100,100
Total	261,210	100,100	(23,250)	(18,700)	319,360

2) Valuation amount (in millions of Korean won):

Details	January 1, 2013	Granted	Exercised	Forfeited	December 31, 2013
6th	₩19	₩-	₩(19)	₩-	₩-
8th	127	-	(26)	-	101
9th	1,860	-	-	(186)	1,674
10th	265	-	(35)	-	230
12th	5,722	-	(1,146)	(514)	4,062
13th	3,529	453	-	(238)	3,744
14th	1,536	1,942	-	(108)	3,370
15th	-	1,653	-	-	1,653
Total	₩13,058	₩4,048	₩(1,226)	₩(1,046)	₩14,834

The weighted-average price of shares on their respective exercise dates for the year ended December 31, 2013, is ₩124,499. The weighted-average remaining contractual period of share options is 7.87 years. Expense of controlling company, recognized related to the share option grant amounted to ₩3,701 million and ₩4,233 million for the years ended December 31, 2013 and 2012, respectively. Expense of subsidiaries companies, recognized related to the share option grant amounted to ₩6,456 million and ₩7,742 million for the years ended December 31, 2013 and 2012, respectively.

The Group calculated expenses applying fair value approach. Assumptions used in determining fair value of share options are as follows:

Details	Date of grant	Risk-free interest rate	Expected exercisable period	Expected volatility	Expected dividend yield ratio
6th	2006.2.27	4.87%	3.00	48.21%	0.00%
8th	2007.3.16	4.79%	3.00	46.73%	0.00%
9th	2008.3.21	5.18%	3.00	58.89%	0.00%
10th	2009.3.27	3.71%	3.53	69.82%	22.00%
11th	2009.7.28	4.17%	3.27	70.11%	21.00%
12th	2010.3.26	3.82%	3.27	71.67%	35.00%
13th	2011.3.25	3.66%	3.29	73.42%	40.00%
14th	2012.3.30	3.57%	3.41	62.76%	43.00%
15th	2013.3.29	2.45%	3.42	49.22%	46.00%

Risk-free interest rate is based on a three-year Treasury bond yield rate.

22. ACCUMULATED OTHER COMPREHENSIVE INCOME:

Accumulated other comprehensive income as of December 31, 2013 and 2012, is summarized as follows (in millions of Korean won):

	December 31, 2013	December 31, 2012
Unrealized gain on AFS securities	₩41,810	₩39,393
Increase (decrease) in equity of associates	(3,552)	(2,291)
Gain (loss) on translation of foreign operations	(53,225)	(17,633)
Unrealized gain (loss) on valuation of derivatives	9,397	29,058
Revaluation surplus	470,676	14,232
Total	₩465,106	₩62,759

23. RETAINED EARNINGS:

(1) Retained earnings as of December 31, 2013 and 2012, are as follows (in millions of Korean won):

	December 31, 2013	December 31, 2012
Legal reserve	₩28,108	₩20,652
Voluntary reserve	79,716	68,000
Unappropriated retained earnings	1,745,117	1,670,903
Total	₩1,852,941	₩1,759,555

The Commercial Code of the Republic of Korea requires the Parent to appropriate an amount equal to a minimum of 10% of annual cash dividends declared as a legal reserve, until the reserve equals 50% of its issued share capital.

(2) Changes in retained earnings for the years ended December 31, 2013 and 2012, are as follows (in millions of Korean won):

	Year ended December 31, 2013	Year ended December 31, 2012
Beginning balance	₩1,759,555	₩1,812,792
Profit for the year	123,553	95,410
Remeasurements of defined benefit liabilities	47,037	(16,081)
Payment of dividends	(77,271)	(65,302)
Retirement of treasury stock through retained earnings	-	(43,236)
Dividends to shareholders incurred by equity spin-off	-	(24,028)
Others	67	-
Ending balance	₩1,852,941	₩1,759,555

(3) The amounts of dividends and dividends per share for the years ended December 31, 2013 and 2012, are as follows:

1) Interim dividends (in Korean won and number of shares)

Description	2013			2012		
Number of shares eligible for dividends	Preferred share (old)	Preferred share (new)	Common share	Preferred share (old)	Preferred share (new)	Common share
Face value per share	₩5,000	₩5,000	₩5,000	₩5,000	₩5,000	₩5,000
Dividend rate	10%	10%	10%	10%	10%	10%
Dividend amount (in millions of Korean won)	₩1,895	₩467	₩8,203	₩2,045	₩467	₩8,319

2) Year-end dividends (in Korean won and number of shares)

Description	2013			2012		
Shares eligible for dividends	Preferred share (old)	Preferred share (new)	Common share	Preferred share (old)	Preferred share (new)	Common share
Face value per share	₩5,000	₩5,000	₩5,000	₩5,000	₩5,000	₩5,000
Dividend rate	61%	60%	60%	61%	60%	60%
Dividend amount (in millions of Korean won)	₩11,560	₩2,800	₩48,636	₩11,560	₩2,800	₩49,375
Dividend payout ratio	10.89%	2.64%	46.00%	14.26%	3.42%	60.47%
Dividend yield ratio	6.35%	6.24%	2.51%	9.44%	9.41%	2.71%

24. SEGMENT INFORMATION:

(1) The Group is engaged in the business service industry, such as heavy industry, machinery manufacturing, apartments and construction industry; key products and services of each division are as follows.

Business segment	Main products
Electro-Materials BG	Copper-clad laminates and others
Mottrol BG	Oil hydraulic equipment and others
Industrial Vehicle BG	Forklift and others
Information and Communication BU	Development and maintenance service of information technology system and others
Others	Advertisement and substituting office work and others
DHC	Generating unit, casting, forging and others
DI	Internal combustion engine, construction machinery of every kind, transportation equipment and others
DE	Marine engine, internal combustion engine, nuclear power plant emergency generator and others
DEC	Construction of apartment buildings and others

(2) Information for each business segment for the years ended December 31, 2013 and 2012, is as follows (in millions of Korean won):

	Year ended December 31, 2013				
	Sales	Intercompany	Net sales	Operating income	Net income
Electro-Materials BG	₩784,924	₩(37,454)	₩747,470	₩46,606	₩35,238
Mottrol BG	378,740	(150,811)	227,929	4,389	876
Industrial Vehicle BG	839,673	(188,261)	651,412	46,685	29,025
Information and Communication BU	249,947	(241,731)	8,216	34,362	25,851
Others	1,704,956	(518,937)	1,186,019	249,973	233,991
DHC	9,071,112	(622,531)	8,448,581	516,107	55,632
DI	10,317,664	(2,609,922)	7,707,742	369,500	(100,950)
DE	749,044	(10,806)	738,238	721	(5,236)
DEC	2,420,849	(199,922)	2,220,927	57,370	(60,325)
Subtotal	26,516,909	₩(4,580,375)	₩21,936,534	1,325,713	214,102
Elimination	(4,580,375)			(170,836)	(83,934)
Total	₩21,936,534			₩1,154,877	₩130,168

	Year ended December 31, 2012				
	Sales	Intercompany	Net sales	Operating income	Net income
Electro-Materials BG	₩844,373	₩(82,324)	₩762,049	₩54,215	₩39,607
Mottrol BG	319,391	(125,076)	194,315	2,556	(91)
Industrial Vehicle BG	872,987	(205,454)	667,533	34,663	14,474
Information and Communication BU	292,200	(279,029)	13,171	36,990	26,091
Others	2,106,132	(563,964)	1,542,168	128,461	119,038
DHC	10,283,870	(860,002)	9,423,868	592,313	(272,549)
DI	11,392,338	(3,299,271)	8,093,067	362,417	393,343
DE	1,387,722	(16,194)	1,371,528	69,766	190,380
DEC	2,436,088	(151,517)	2,284,571	(449,136)	(654,077)
Subtotal	29,935,101	₩(5,582,831)	₩24,352,270	832,245	(143,784)
Elimination	(5,582,831)			(33,059)	345,292
Total	₩24,352,270			₩799,186	₩201,508

Sales transactions between the Company's segments are conducted on an arm's-length basis.

(3) Total assets and liabilities of each business segment as of December 31, 2013 and 2012, are as follows (in millions of Korean won):

	December 31, 2013		December 31, 2012	
	Assets	Liabilities	Assets	Liabilities
Electro-Materials BG	₩442,989	₩226,809	₩471,937	₩274,121
Mottrol BG	305,011	140,988	269,900	85,141
Industrial Vehicle BG	463,580	177,436	538,862	327,702
Information and Communication BU	132,243	82,222	135,831	96,340
Others	4,381,897	1,950,618	4,734,661	2,219,198
Doosan Heavy Industries & Construction Co., Ltd.	13,847,988	8,603,310	13,410,601	9,276,954
DI	11,481,494	7,932,473	11,544,990	8,536,191
Doosan Engine Co., Ltd.	1,662,609	872,571	1,786,203	1,038,431
Doosan Engineering & Construction Co., Ltd.	4,950,416	2,934,973	4,065,743	3,457,955
Subtotal	37,668,227	22,921,400	36,958,728	25,312,033
Elimination	(6,502,185)	(813,342)	(5,453,827)	(885,022)
Total	₩31,166,042	₩22,108,058	₩31,504,901	₩24,427,011

(4) Sales information by geographical segment for the years ended December 31, 2013 and 2012, is as follows (in millions of Korean won):

	Year ended December 31, 2013			Year ended December 31, 2012		
	Sales	Intercompany	Net sales	Sales	Intercompany	Net sales
Domestic	₩12,735,746	₩(2,482,916)	₩10,252,830	₩13,779,555	₩(3,023,409)	₩10,756,146
America	3,390,378	(602,774)	2,787,603	3,727,256	(748,308)	2,978,948
Asia	3,779,579	(623,018)	3,156,561	4,048,649	(816,080)	3,232,569
Middle East	2,969,868	(36,332)	2,933,536	4,272,520	(52,792)	4,219,728
Europe	3,537,197	(835,335)	2,701,863	3,966,919	(942,242)	3,024,677
Others	104,141	-	104,141	140,202	-	140,202
Subtotal	26,516,909	₩(4,580,375)	₩21,936,534	29,935,101	₩(5,582,831)	₩24,352,270
Elimination	(4,580,375)			(5,582,831)		
Total	₩21,936,534			₩24,352,270		

25. REVENUES:

Details of revenues for the years ended December 31, 2013 and 2012, are as follows (in millions of Korean won):

	Year ended December 31, 2013	Year ended December 31, 2012
1. Sales of goods	₩13,480,639	₩14,655,007
2. Sales of Constructions	8,124,791	9,347,900
3. Others (Note 1)	331,104	349,363
Total	₩21,936,534	₩24,352,270

(Note 1) Service revenues generated in system maintenance services, transport forwarding services and real estate rental services

26. CONSTRUCTION CONTRACT:

(1) Details of the Group's accumulated construction income and assets and liabilities related to construction contracts as of and for the years ended December 31, 2013 and 2012, are as follows (in millions of Korea won):

	As of and for the year ended December 31, 2013					
				Receivable from construction contract		
	Accumulated construction revenue	Accumulated construction cost	Advances from construction contract	Claimed	Unclaimed	Due to customers for contract work
DHC	₩32,993,094	₩27,858,865	₩5,134,229	₩1,060,740	₩1,373,139	₩1,066,450
DST	224,618	219,548	5,070	12,779	31,389	3,382
DEC	8,600,172	7,555,325	1,044,847	1,560,416	658,568	231,672
DE	167,748	128,992	38,756	-	10,721	3,773
Foreign subsidiaries (DPS S.A., etc.)	6,002,165	5,199,634	802,531	234,759	302,758	356,129
Total	₩47,987,797	₩40,962,364	₩7,025,433	₩2,868,694	₩2,376,575	₩1,661,406

	As of and for the year ended December 31, 2012					
				Receivable from construction contract		
	Accumulated construction revenue	Accumulated construction cost	Advances from construction contract	Claimed	Unclaimed	Due to customers for contract work
DHC	₩32,650,316	₩27,435,264	₩5,215,052	₩1,152,046	₩1,550,621	₩1,456,281
DST	225,624	210,511	15,113	915	61,386	1,780
DEC	8,191,219	7,168,233	1,022,986	1,648,422	384,664	205,236
DE	222,032	201,389	20,643	-	6	19,417
Foreign subsidiaries (DPS S.A., etc.)	6,206,853	5,691,912	514,941	279,964	13,946	402,355
Total	₩47,496,044	₩40,707,309	₩6,788,735	3,081,347	₩2,010,623	₩2,085,069

(2) Details of changes in construction contract for the years ended December 31, 2013 and 2012, are as follows (in millions of Korean won):

		Year ended December 31, 2013					
Ordering organization	Ordering organization	Project	Period	January 1, 2013	Increase (decrease)	Revenue recognized	December 31, 2013
DHC(Note 1)	SEC, etc.	Rabigh Power Plant and others	2010.9 –2017.12	₩16,354,006	₩3,623,327	₩(6,706,814)	₩13,270,519
DST	Defense Acquisition Program Administration and others	Prototype research and development and others	2006.12 –2018.5	150,454	47,050	(80,331)	117,173
DEC	Haeundae Jugong Apts Construction Union and others	Haeundae Jugong Apts and others	2007.5 –2017.6	9,104,762	280,155	(2,189,914)	7,195,003
DE	KHNP, etc.	Singori #3 and #4 emergency generators, alternative alternating current (AC) power diesel engine and other 10	2005.2 –2017.3	121,423	(1,507)	(35,329)	84,587
Foreign subsidiaries (DPS S.A., etc.)	GMR , etc.	Raipur and others	2008.12 –2030.12	2,315,097	2,010,505	(1,868,531)	2,457,071

(Note 1) The DHC made a contribution-in-kind of its HRSG business unit to DEC during the year ended December 31, 2013. Accordingly, the changes in contract amounts above reflect transfers of ₩290,395 million on the remaining contract amount for the HRSG business unit.

Ordering organization	Ordering organization	Project	Period	Year ended December 31, 2012			
				January 1, 2013	Increase	Revenue recognized	December 31, 2013
DHC	SEC, etc.	Rabigh Power Plant	2007.04 –2015.5	₩20,289,405	₩3,921,370	₩(7,856,769)	₩16,354,006
DST	Defense Acquisition Program Administration and others	Prototype research and development and others	2006.12 –2015.5	184,882	57,224	(91,652)	150,454
DEC	I&TDC and others	Ilsan Zenith and others	2007.5 –2016.2	9,778,492	1,515,595	(2,189,325)	9,104,762
DE	KHNP, etc.	Singori #3 and #4 emergency generators and alternative AC power diesel engine	2005.2 –2017.3	71,391	108,556	(58,524)	121,423
Foreign subsidiaries (DPS S.A., etc.)	GMR , etc.	Raipur and others	2008.12 –2016.12	2,661,315	1,424,197	(1,770,415)	2,315,097

27. EXPENSES CLASSIFIED BY NATURE:

Expenses classified by nature for the years ended 2013 and 2012, are as follows (in millions of Korean won):

	Year ended December 31, 2013	Year ended December 31, 2012
Changes in inventories	₩(65,315)	₩(215,918)
Purchases of raw materials and goods	9,892,777	10,618,236
Employee benefits	2,994,525	3,083,047
Depreciation and amortization	633,137	591,035
Total	₩13,455,124	₩14,076,400

28. SELLING AND ADMINISTRATIVE EXPENSES:

Selling and administrative expenses for the years ended December 31, 2013 and 2012, are as follows (in millions of Korean won):

	Year ended December 31, 2013	Year ended December 31, 2012
Salaries	₩885,041	₩947,895
Provision for retirement and severance benefits	119,471	96,273
Employee welfare	175,458	196,001
Travel	79,391	93,466
Utilities	13,120	17,132
Sales commission	82,237	97,549
Taxes and dues	32,263	33,492
Rent	86,733	104,515
Depreciation	53,488	61,247
Insurance	35,264	37,092
Entertainment	14,846	20,124
Advertising	73,468	115,343
Packaging	15,263	13,007
Research and development	292,443	275,746
Education and training	28,111	48,979
Freight and custody	32,385	18,117
Sales promotion cost	15,072	3,525
Royalty	10,909	15,111
Service fees	183,209	199,876
Maintenance of office	4,843	13,022
Outsourcing fee	17,882	24,590
Bad debt expense	120,606	674,771
Amortization	82,396	85,133
Defect repair cost	25,962	27,673
Cost of developing overseas market	29,264	26,165
Others	14,208	51,455
Total	₩2,523,333	₩3,297,299

29. FINANCE INCOME AND EXPENSES:

Finance income and expenses for the years ended December 31, 2013 and 2012, are summarized as follows (in millions of Korean won):

	Year ended December 31, 2013	Year ended December 31, 2012
Finance income:		
Interest income	₩83,451	₩133,057
Dividend income	2,466	2,732
Gain on foreign currency transaction	288,565	255,064
Gain on foreign currency translation	71,743	120,982
Gain on derivative transaction	304,163	137,715
Gain on valuation of derivatives	251,257	561,626
Gain on valuation of firm contracts	81,990	168,602
Gain on debenture redemption	-	2
Income on financial guarantee	14,521	12,899
Subtotal	1,098,156	1,392,679
Finance expenses:		
Interest expenses	779,975	894,166
Loss on foreign currency transaction	259,098	203,964
Loss on foreign currency translation	75,629	67,654
Loss on derivative transactions	337,580	156,138
Loss on valuation of derivatives	95,882	246,014
Loss on valuation of firm contracts	212,593	540,769
Loss on repayment of debt	1,679	-
Loss on retirement of bonds	2,607	1,059
Loss on payment guarantee	101,077	95,477
Subtotal	1,866,120	2,205,241
Net financial expense	₩(767,964)	₩(812,562)

30. OTHER NON-OPERATING INCOME AND EXPENSES:

Other non-operating income and expenses for the years ended December 31, 2013 and 2012, consist of the following (in millions of Korean won):

	Year ended December 31, 2013	Year ended December 31, 2012
Other non-operating income:		
Gain on disposal of short-term investment securities	₩2,818	₩471
Gain on disposal of long-term investment securities	27,989	29,311
Gain on disposal of property, plant and equipment	59,562	14,138
Gain on disposal of intangible assets	338	1,009
Gain on disposal of investment properties	8,826	-
Gain on valuation of investment properties	17,069	6,728
Reversal of impairment losses on intangible assets	50	-
Gain on disposal of assets scheduled to sell	3,277	-
Gain on business transfer	-	81,056
Others	60,309	89,468
Subtotal	180,238	222,181
Other non-operating expenses:		
Loss on disposal of trade receivables	₩24,035	₩40,244
Loss on disposal of short-term investment securities	-	1,200
Loss on disposal of long-term investment securities	39	2,732
Impairment loss on long-term investment securities	24,447	9,536
Loss on disposal of property, plant and equipment	13,135	16,794
Loss on disposal of intangible assets	372	485
Impairment loss on property, plant and equipment	4,294	2,329
Impairment loss of intangible assets	50,638	32,033
Loss on disposal of investment properties	34	864
Loss on valuation of investment properties	2,011	4,299
Loss on revaluation of land	18,085	-
Other bad debt expense	28,771	197,760
Donations	40,169	45,743
Others	99,965	79,109
Subtotal	305,995	433,128
Net other non-operating income	₩(125,757)	₩(210,947)

31. INCOME TAX EXPENSE:

(1) Components of income tax expense for the years ended December 31, 2013 and 2012, are as follows (in millions of Korean won):

	Year ended December 31, 2013	Year ended December 31, 2012
Current income tax expense	₩203,669	₩245,567
Deferred income tax	271,507	(782,128)
Transferred deferred income tax due to business combinations	-	830
Deferred income tax directly charged to equity	(392,069)	30,315
Income tax expense	₩83,107	₩(505,416)

(2) Changes in deferred tax assets and liabilities for the years ended December 31, 2013 and 2012, are as follows (in millions of Korean won):

	January 1, 2013	Change: Income (expense)	Change: Equity	December 31, 2013
Accrued income	₩(114)	₩77	₩ -	₩(37)
Inventories	4,040	315	-	4,355
AFS securities	(9,582)	(1,570)	(3,327)	(14,479)
Property, plant and equipment	(434,428)	49,437	(317,689)	(702,680)
Accrued expenses	17,482	(1,700)	-	15,782
Retirement benefit obligation	138,902	165,569	(90,008)	214,463
Reserve for research and human resource	(166,531)	(2,928)	-	(169,459)
Investment properties	(16,004)	(4,989)	-	(20,060)
Revenue recognition	7,962	(7,659)	-	303
Others	1,224,950	(77,180)	15,568	1,162,405
Consolidation adjustment	(30,642)	1,190	3,387	(26,065)
Total	₩736,035	₩120,562	₩(392,069)	₩464,528

	January 1, 2012	Change: Income (expense)	Change: Equity	December 31, 2012
Accrued income	₩(233)	₩119	₩ -	₩(114)
Inventories	5,484	(1,444)	-	4,040
AFS securities	(26,608)	753	16,273	(9,582)
Property, plant and equipment	(469,952)	35,524	-	(434,428)
Accrued expenses	19,240	(1,758)	-	17,482
Retirement benefit obligation	122,766	(7,065)	23,201	138,902
Reserve for research and human resource	(130,717)	(35,814)	-	(166,531)
Investment properties	(9,432)	(2,029)	(4,543)	(16,004)
Revenue recognition	854	7,108	-	7,962
Others	448,670	782,909	(6,629)	1,224,950
Consolidation adjustment	(6,165)	(26,490)	2,013	(30,642)
Total	₩(46,093)	₩751,813	₩30,315	₩736,035

The Group offsets deferred tax assets and deferred tax liabilities if the Group has a legally enforceable right to set off current tax assets against current tax liabilities and the deferred tax assets against deferred tax liabilities relating to income taxes levied by the same taxation authority.

(3) Temporary differences, net loss and tax credit carryforwards, which have not been recognized as deferred income tax assets and expired or unused as of December 31, 2013 and 2012, are as follows (in millions of Korean won):

	December 31, 2013	December 31, 2012
Tax deficit	₩1,403,788	₩1,131,684

The probability of realizing deferred tax assets depends on the Company’s ability to generate taxable income in future years, economic situation and industry forecast. The Group periodically reviews these matters.

(4) Temporary differences from associated investments in subsidiaries, which are not recognized as deferred tax assets, are as follows (in millions of Korean won):

	December 31, 2013	December 31, 2012
Subsidiaries	₩(792,445)	₩(413,070)
Associated company and joint venture	297,435	205,139
Total	₩(495,010)	₩(207,931)

(5) A reconciliation of income tax expense and accounting income before income tax expense for the years ended December 31, 2013 and 2012, is as follows (in millions of Korean won):

	Year ended December 31, 2013	Year ended December 31, 2012
Profit before income tax expense	₩213,276	₩(303,908)
Income tax expense at statutory income tax rate	52,653	(71,638)
Adjustment:		
Non-temporary difference	14,762	16,406
Temporary difference not recognized as deferred income tax	29,717	(428,610)
Tax credits	(24,986)	(30,189)
Effect of tax rate change	(230)	1,626
Additional income tax and tax refund for prior periods	5,405	13,043
Others	5,786	(6,054)
Income tax expense	₩83,107	₩(505,416)
Effective tax rate	38.97%	(Note 1)

(Note 1) Effective tax rate is not computed for net loss before income tax expense.

32. EARNINGS (LOSS) PER SHARE:

Earnings per share for the years ended December 31, 2013 and 2012, are computed as follows (in Korean won, except for share data).

(1) Basic earnings per share

Basic earnings per share are computed by dividing profit or dividing net income attributable to owners of the parent company by the weighted-average number of common shares outstanding during the period, excluding treasury shares.

	Year ended December 31, 2013	Year ended December 31, 2012
Net income	₩123,553,155,097	₩95,410,354,029
Dividends for preferred share	27,819,362,858	22,129,037,602
Net income available to common share	95,733,792,239	73,281,316,427
Weighted-average number of common shares outstanding (Note 1)	16,367,016	16,625,166
Basic net income per share	₩5,849	₩4,408

(Note 1) The weighted-average number of common shares outstanding used in basic earnings (loss) per share calculation is as follows:

	Year ended December 31, 2013	Year ended December 31, 2012
Beginning outstanding shares	16,455,207	16,683,003
Effect of share options exercised	14,437	4,277
Issuance of share capital	-	21,965
Acquired treasury stock (Note 2)	(102,628)	(84,079)
Weighted-average number of common shares outstanding	16,367,016	16,625,166

(Note 2) Acquired treasury stock was calculated by weighted-average change of treasury stock incurred by acquisition, retirement of shares through retained earnings, capital reduction without refund, etc., for the years ended December 31, 2013 and 2012.

(2) Diluted earnings per share

Diluted earnings per share are calculated on the basis of the weighted-average number of common and diluted potential common shares outstanding. The denominator of the diluted net income per share is adjusted to include the number of share options that have a dilutive effect as if they were issued at the beginning of the year.

	Year ended December 31, 2013	Year ended December 31, 2012
Controlling interest in net income	₩95,733,792,239	₩73,281,316,427
Share-based compensation cost	-	-
Adjusted net income available to common shares	95,733,792,239	73,281,316,427
Adjusted weighted-average number of common shares outstanding (Note 3)	16,380,712	16,632,299
Diluted net income per share	₩5,844	₩4,406

(Note 3) The adjusted weighted-average number of common shares outstanding used in the diluted earnings per share calculation is as follows:

	Year ended December 31, 2013	Year ended December 31, 2012
Weighted-average number of common shares outstanding	16,367,016	16,625,166
Effect of share option exercise	13,696	7,133
Adjusted weighted-average number of common shares outstanding	16,380,712	16,632,299

For the year ended December 31, 2013, share option grants 6^{th}, 8^{th}, 10^{th} and 12^{th} were included in the diluted earnings per share as they have dilutive effect during the period, and share option grants 9^{th}, 13^{th}, 14^{th} and 15^{th} were excluded from the diluted earnings per share calculation as they have an antidilutive effect during the period.

Share options are excluded from the diluted earnings per share calculation as they have an antidilutive effect during 2013 and 2012 and are as follows:

	2013	2012
Share options	239,700	250,460

33. COMMITMENTS AND CONTINGENCIES:

(1) The Group pledged several notes and checks to financial institutions as collateral for long-term borrowings and performance guarantee agreements.

(2) Financial covenant

1) DI

In relation to borrowings of USD 1,720,000 (in millions of Korean won) of DII, and DHEL, under this loan agreement entered among DII, DHEL, KDB and other seven banks, the Company should maintain earnings before interest, taxes and amortization more than or equal to 1.5 times or higher of net interest and financial liabilities of 2.0 times or lower of equity in the combined financial statements of DII and DHEL, as included in the DI's consolidated financial statements in accordance with K-IFRS. In case of breach of these debt covenants, appropriate remedies to make additional cash inflow, such as capital injections or borrowings of shareholders, are required and this may result in DI's obligation to make additional funding.

For the year ended December 31, 2011, DI issued 18th and 19th foreign currency-denominated bonds for USD 130 million and USD 350 million, respectively. When issuing the 18th foreign currency-denominated bond, the Parent entered into an agreement to maintain its debt ratio under 800% and to liquidate no more than ₩5 trillion annually.

In addition, the issued 18th and 19th foreign currency-denominated bonds have an early redemption clause of when and if the Parent's guarantor, KDB, becomes privatized, and the funds required for such redemption will be provided by KDB to the Parent. In turn, DI has provided its 20,429 shares of DII, acquired on November 25, 2011, as collateral to KDB.

As of December 31, 2013, DI, a shareholder of DICC entered into an agreement with unrelated financial investors under which DI and the unrelated financial investors, as they mutually agree, may collectively dispose of all shares of DICC, belonging to each of them, to a third party. Upon exercise of the agreement by the unrelated financial investors, DI has a right to sell its shares of DICC pursuant to the agreement or otherwise repurchase the shares held by the unrelated financial investors.

2) DE

DE entered into a loan agreement with the KDB and nine other financial institutions for long-term borrowings (as of December 31, 2013, USD 60 million) in connection with its capital contributions to DII and DHEL. The agreement requires DE to maintain, on a separate basis, its earnings before interest, taxes, depreciation, and amortization (“EBITDA”) of more than 1.5 times of its net interest expense and its financial liabilities of less than 6.0 times of its EBITDA. As of December 31, 2013, DE’s financial liabilities exceeded 6.0 times of its EBITDA. However, on February 6, 2013, DE confirmed the deferment of payment from lenders and received the related grace period.

3) DEC

DEC entered into construction contracts with INTDC Co., Ltd. and Daewon Plus Constructions Co., Ltd., to develop Ilsan Zenith project and Haeundae Zenith project, respectively. DEC has provided guarantees to customers, who purchase the Ilsan Zenith and Haeundae Zenith apartments, for the consideration paid to purchase the apartments during the repurchase guarantee periods (2~3 years after the date of sale), should customers apply for such guarantees (see Note 33-8).

(3) Accounts receivable discounted

Outstanding trade receivables sold with recourse by the Group are in the amount of ₩20,438 million and ₩260,354 million as of December 31, 2013 and 2012, respectively. Because the Group retains some level of risks and rewards relating to trade receivables, the Group has recognized their carrying amount and cash receipt from transfer as borrowings-short term in consolidated statements of financial position (see Note 16-(2)-1)).

(4) Litigation in progress

Details of major lawsuits are as follows (in millions of Korean won):

Subsidiary, or Affiliate	Claim	Claimed amount
Doosan Corporation	Claims for damages, etc.	₩11,050
DHC	Claims for damages, etc.	220,564
DI	Claims for damages, etc.	125,777
DEC	Claims for damages, etc.	108,805
DE	Claims for damages, etc.	4,976
Doosan DST Co., Ltd.	Administrative litigation	31
SRS Korea Co., Ltd.	Claims for damages	21
Total.		₩471,224

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

(5) Technology introduction

DE and others have technical license agreements for the purpose of manufacturing specific products with MAN, MHI, YRI, for the year ended December 31, 2013, the Company paid ₩91,686 million as license fee.

(6) Operating leases

Details of noncancelable operating leases contract for the year ended December 31, 2013, are as follows (in millions of Korean won):

Description	Under 1 year	1 year– 5 years	More than 5 year	Total
Minimum lease payment	₩14,932	₩59,198	₩128,005	₩202,135

(7) As of December 31, 2013, the Group has entered into bank overdraft agreements amounting to ₩13,234,722 million with various financial institutions, including Hana Bank.

(8) Certification of payment

1) As of December 31, 2013, guarantees provided by the Group for third parties or received from third parties are as follows (in millions of Korean won):

Description	Provider	Provided to	Amount
Guarantees provided by the Group	Doosan Heavy Industries & Construction Co., Ltd.	Customers	₩200,449
	Doosan Infracore, Co., Ltd.	DAEWOO ENGINEERING & CONSTRUCTION CO., LTD., etc..	635,680
	Doosan Engineering & Construction Co., Ltd.	Customers	1,761,236
	Doosan Engine Co., Ltd.	Employee stock ownership association	14,472
		Total	₩2,611,837
Guarantees received from financial institutions	Korea Defense Industry Association and others	The Parent	₩63,520
	Seoul Guarantee Insurance		28,243
	Shinhan Bank		190
	Woori Bank, etc.		22,128
	Seoul Guarantee Insurance	Doosan Dong-A	3,989
	Seoul Guarantee Insurance	Oricom Inc.	174
	Hana Bank		430
	Seoul Guarantee Insurance	Doosan Feed & Livestock Co., Ltd.	₩936
	Seoul Guarantee Insurance	SRS Korea	₩481
	Seoul Guarantee Insurance	Doosan DST Co., Ltd.	18,551
	Woori Bank		33
	Korea Defense Industry Association		479,397
	Seoul Guarantee Insurance	Doosan Tower Co., Ltd.	77
	Seoul Guarantee Insurance	Doosan Bears	1,040
	Korea Trade Insurance Corporation	DHC	641,016
	Seoul Guarantee Insurance		1,060,996
	National Agricultural Cooperative Federation		331,734
	Machinery Financial Cooperative		847,009
	Construction Guarantee Cooperative		433,898
	Mashreq		337,989
	An export-import bank		513,723
	Korea Federation of Small and Medium Business		287,109
	Others		2,104,273
	KDB	DI	506,544
	Seoul Guarantee Insurance and		57,685

Machinery Financial Cooperative		
Korea Exchange Bank, etc.		1,916
Korea Exchange Bank	DE	56,690
Woori Bank		74,814
Kookmin Bank		10,550
National Agricultural Cooperative Federation		8,547
Hana Bank		3,005
Seoul Guarantee Insurance		10,978
Construction Guarantee Cooperative	DEC	1,908,998
Korea Housing Guarantee		765,086
Seoul Guarantee Insurance		137,944
Dongbu Corporation, etc.		493,255
Korea Exchange Bank		91,211
Woori Bank		74,718
Hana Bank		65,447
KDB		51,337
Shinhan Bank		2,627
An export-import bank		72,530
Machinery Financial Cooperative		99,363
	Total	₩11,703,336

2) Joint liability guarantee.

As of December 31, 2013, the Parent has responsibility of joint liability guarantee with Neoholdings Co., Ltd., from the previous year, which is a spin-off company for existing liabilities prior to spin-off. DHC received guarantees of ₩15,212 million in relation to performing construction contract. Additionally, DEC provided guarantees of ₩815,626 million.

3) Certification of payment related to PF

As of December 31, 2013, certifications of payment to Doosan Engineering & Construction Co., Ltd., and Doosan Heavy Industries & Construction Co., Ltd., for PF of developer are as follows (in millions of Korean won):

Description	Business name	Bond institution	The term of guarantee	Limit of guarantee	The balance	Details
Asset-backed commercial paper	Seoul Forest Doosan Weve	SK Securities Co., Ltd., etc.	2013.05.03–2014.04.29	₩210,000	₩210,000	Takeover of obligation
	Yongin Administrative concessions Town	SK Securities Co., Ltd.	2013.04.10–2014.04.07	300,000	300,000	
	Sangdo-dong Doosan Weve 2	Kiwoom Securities Co., Ltd.	2013.05.30–2014.05.29	220,000	220,000	
		Subtotal		730,000	730,000	
Loan	Seoul Forest Doosan Weve	Saemaeul Bank National Federation	2013.05.03–2014.04.29	250,000	250,000	Takeover of obligation
	Sangdo-dong Doosan Weve 2	KT Capital	2013.05.30–2014.05.29	10,000	10,000	
	Gunbuk Industrial Complex Develop business	Kyongnam Bank, etc.	2008.11.07–2014.10.10	6,000	6,000	
	West Suwon-Osan-Pyeongtaek Freeway	Shinhan Bank	2005.12.30–2023.12.31	825	825	
	Banwol-dong, Hwaseong	Woori Bank	2008.03.31–2014.03.31	169,000	130,000	Joint liability on guarantee
	Osong Centi	Busan Bank	2012.07.03–2015.01.02	2,990	2,300	
	Pohang New Port	Shinhan Bank, etc.	2010.03.26–2025.12.31	7,447	7,447	
	Daejeon Cheonbyeon	Hana Bank	2004.05.06–2014.05.06	8,167	8,167	
		Subtotal		454,429	414,739	

Description	Business name	Bond institution	The term of guarantee	Limit of guarantee	The balance	Details
A short-term debenture	Yongin 3 ga	Meritz Securities	2011.11.23–2014.02.13	130,000	100,000	Joint liability on guarantee
	Cheonan Cheongdang-dong	Shin Young Securities, etc.	2012.04.20–2014.03.28	65,000	50,000	
	Ulsan Daehyeondong	SK Securities	2013.07.11–2014.01.10	41,600	32,000	
	Seoul Forest Doosan Weve	SK Securities, etc.	2013.05.03–2014.04.29	155,000	155,000	Takeover of obligation
	Namwonju Doosan Weve	Kyobo Securities	2013.10.15–2014.10.15	6,000	6,000	
	Golf Hongcheon mogok	Buguk Securities, etc.	2013.10.23–2014.10.22	170,000	170,000	
	Hanam Doosan Weve	Hanwha Securities, etc.	2013.11.14–2014.11.13	80,000	80,000	
	Subtotal			647,600	593,000	
	Total			₩1,832,029	₩1,737,739	

(9) Covenant related to unconsolidated structured entities

Details of unconsolidated structured entities as of December 31, 2013, are as follows (in millions of Korean won):

Entity	Nature of interests in unconsolidated structured entities or provision of financial support	Liability amount of interests in unconsolidated structured entities	Maximum exposure to the loss of unconsolidated structured entities
Doosan Cuvex 1st Securitization Specialty Co., Ltd.	Obligation for financial Support, including principle, interest, etc.	₩95,000	₩95,000
DS Gangnam Bundang Inc.	Obligation for financial Support, including principle, interest, etc.	45,000	45,000
DS SOLBAT the 1st Co., Ltd.	Obligation for financial Support, including principle, interest, etc.	130,000	130,000
Doosan ENC 1st Co., Ltd.	Obligation for financial Support, including principle, interest, etc.	110,000	110,000

(10) Capital securities

Description	Detail
Issue company	DOOSAN INFRACORE CO., LTD.
Issue price (Korean won equivalent)	$500,000,000 (₩556,650 million)
Issue day	2012. 10. 5
Maturity date	30 years and automatic revolving
Dividend condition	- Amount: 3.25% at par value, reset every five years - According to a "Step up" clause, 5% will be added up after five years and 2% will be added up after seven years additionally. - Distribution: Semiannually in arrears, option of deferral of distributions is available
Others	- DI can call the capital securities at year five and semiannually afterwards - Investor can put the capital securities to Core Partners Limited, a SPE if DI does not exercise its call option - If investors exercise their put option and Core Partners Limited, a SPE, acquires the capital securities after five years since issue date, the SPE has a right to put the capital securities back to DI (the "Stock Exchange Right") under which the SPE can exchange the capital securities with a par value of $15.4 for a share of DI's common stock.

The capital securities are classified as equity as of December 31, 2013, as they do not contain a contractual financial obligation for DI to settle in cash and the Stock Exchange Right confers at issue date a right to receive a fixed number of DI's common stock.

(11) Redeemable convertible preferred stock

Description	Detail
Issue company	DOOSAN ENGINEERING & CONSTRUCTION CO., LTD.
Issue price	₩399,999,987,200
Issue day	2013. 12. 16
Conversion period	From March 16, 2017, to March 15, 2018
Dividend condition	Based on the issue price, 6.5% per year
Others	① If issue company has profit available for dividends, it can redeem all or some portion of preferred stock on December 16, 2015 or 2016 ② Limited to 30% of total issued amount ③ Issue company has the redeemable right in connection with the redeemable convertible preferred stock ④ No voting right was given. However, in the case where no dividend payment for preferred stock are declared at a shareholders' meeting , one voting right per share will be given from the next shareholders' meeting up to the shareholders' meeting where dividend payment for preferred stock are declared ⑤ Covenant related to conversion - Conversion right: Both preferred shareholders and DEC hold conversion right. In the case of exercising early conversion right, only preferred shareholders have the conversion right. - Early conversion: Preferred shareholders can convert on December 16, 2015, and two business days prior to such date - Conversion ratio: One common stock for one preferred stock
Option	In connection with the settlement of redeemable convertible preferred stock, DHC entered into the contracts related to call option with preferred shareholders

(12) Ordinary wages

The Group may have to pay additional wages if regular bonuses and other salaries that were paid are relevant to ordinary wages. However, the Group sees the possibility of the likeliness of having to pay related amounts to be low based on the Supreme Court decision.

34. PLEDGED ASSETS:

(1) The Company pledged certain assets as collateral for its long-term and short-term borrowings as of December 31, 2013, as follows (in thousands of foreign currency and millions of Korean won):

1) DI and DE

DII and DHEL in consolidated entity entered into new loan agreement with the creditors to borrow USD 1,720,000 thousand on November 30, 2011. The new loan is secured by all shares of DII and DHEL, including all shares of subsidiaries of DII and DHEL held by DI and Doosan Engine., Ltd., respectively. At that time, certain tangible and intangible assets of Doosan Infracore International, Inc. and DHEL and their subsidiaries.

DII and DHEL in consolidated entity entered into new loan agreement with the creditors to borrow USD 1,720,000 thousand on November 31, 2011. The new loan is secured by all shares of DII and DHEL held by Doosan Infracore and Doosan Engine and certain tangible and intangible assets of DII and DHEL

DI has provided its 3,188 shares of DII and its 3,413 shares of DHEL as collateral to TY Solution 1st Co., Ltd. and other six parties for borrowings amounting to ₩145,000 million. In addition, DI has provided its 4,540 shares of DII and its 4,859 shares of DHEL as collateral to Woori Bank and other two parties for borrowings amounting to ₩200,000 million.

DI has provided its 20,429 shares of DII as collateral related to 18th domestic currency bonds and 19th foreign bonds.

2) DEC

DEC has provided its 400,000 shares of Rexcon and its 1,200,000 shares of Doosan Cuvex. Collateral related to Woori Bank limit loan agreement was ₩230,000 million. (As of December 31, 2013, the amount borrowed was ₩233,610 million.)

DEC has provided its 24.76% of the total equity in Doosan Heavy Industries Vietnam Co. Ltd., as collateral related to KDB limit loan agreement of ₩79,653 million. (As of December 31, 2013, the amount borrowed was ₩17,184 million.)

DEC has provided some of tangible assets to Woori Investment & Securities and took out cash amounting to ₩20,000 million from Grand Eighth Co., Ltd. The pledged asset's book value is ₩245,729 million.

3) Pledged assets by consolidated entity other than the above

Asset	Institution	Borrowings	Collateralized value
Inventories	The Export-Import bank of Korea	₩-	₩5,850
Short-term financial instruments	IBK	100,000	30,000
Short-term investment securities	Korea Housing Guarantee Co and other	21,241	11,480
Shares of subsidiaries and affiliated company	KDB and other	36,000	162,444
Property, plant and equipment, net	KDB and other	1,192,442	1,997,730
Investment property	Hana Bank and other	268,610	182,412
Total		₩1,618,293	₩ 2,389,916

Benefit entitlement on certain tangible assets and inventories had been provided as collateral to KDB.

(2) Pledged assets to parties other than consolidated entity

Mortgage providers	Asset	Book value	Institution	Benefit recipients
DEC	Investments in joint ventures and associates	₩67,785	KDB	New Bundang Line
		798	Kyungnam Bank	Haman Industrial Complex
	Long-term investment securities	39,131	KDB	Metropolitan West Highway
DHC	Assets held for sale	22,572	Shinhan Bank	Gyeonggi Highway
Total		₩130,286		

35. RELATED-PARTY TRANSACTIONS:

Related-party disclosures for the years ended December 31, 2013 and 2012, are as follows:

(1) Nature of relationship

Relationship with the Company	Company name
Associates	Guang Dong Xingpu Steel Center, Doosan Eco Biznet, MVP Capital Co., Dong-A E&C Contents, Wilus Inc., Doosan Capital Co., Ltd., Tamra Offshore Wind Power Co., Ltd., Doosan (China) Financial Leasing Corp., DSDMP, Shinbundang Railroad Co., Ltd., Kyunggi Railroad Co., Ltd., Neo Trans, etc.
Joint ventures	Sichuan Kelun-Doosan Biotechnology Company Limited, HANJUNG POWER Limited, HAMAN Industrial Complex, Xuzhouxungong Doosan Engine co., Ltd., and Doosan Babcock WLL
Unconsolidated structured entities	RC 1st Securitization Specialty Co., Ltd., Doosan Cuvex 1st Securitization Specialty Co., Ltd., DUY 1st Co., Ltd. , DS Cheongju 1st Co., Ltd., Poseidon We've Co., Ltd., DS Gangnam Bundang Inc., DS SOLBAT the 1st Co., Ltd., and Izenith 2nd Co., Ltd.
Other related party	Kyunggi Highway Co., Ltd., Doosan Credit Union, Yeongang Foundation, Neoplux, JHUNG-ANG University, Trance Route Doosan Co., Ltd., etc.

(2) Significant transactions

1) For the year ended December 31, 2013, significant transactions between the Group and related parties are as follows (in millions of Korean won):

		Sales, etc.		Purchases, etc.	
Description	Corporate name	Sales	Others sales	Purchases	Other purchases
Associates	Doosan Capital Co., Ltd.	₩3	₩3,053	₩2,872	₩-
	Neo Trans	5,741	-	1	-
	Doosan China Financial Leasing Corp.	-	4,684	-	-
	Kyunggi Railroad Co., Ltd.	97,221	-	231	-
	Others	5	-	267	199
	Subtotal	102,970	7,737	3,371	199
Joint ventures	HAMAN Industrial Complex	221	-	-	-
	Others	2,394	-	-	-
	Subtotal	2,615	-	-	-
Unconsolidated structured entities	Doosan Cuvex 1st Securitization Specialty Co., Ltd.	-	-	-	7,206
	DS Gangnam Bundang Inc.	-	-	-	10,434
	DS SOLBAT the 1st Co., Ltd.	-		-	6,081
	Doosan E&C First Co., Ltd.	-	-	-	197
	Others	-	-	-	11,789
	Subtotal	-	-	-	35,707
Other related party	Yeongang Foundation	2,178	487	53	6,189
	Doosan Credit Union	629	-	1,140	3,451
	Kyunggi Highway Co., Ltd.	3,216	-	3	-
	JHUNG-ANG University	25,369	-	37	24,110
	JHUNG-ANG University Hospital	21	-	1,129	2,799
	Others	877	29	-	1,021
	Subtotal	32,290	516	2,362	37,570
	Total	₩137,875	₩8,253	₩5,733	₩73,476

2) For the year ended December 31, 2012, significant transactions between the Group and related parties are as follows (in millions of Korean won):

Description	Corporate name	Sales, etc.		Purchases, etc.		
		Sales	Others sales	Purchases	Property purchase	Other purchases
Associates	Doosan Capital Co., Ltd.	₩3,270	₩-	₩3,446	₩-	₩203
	Tamra Offshore Wind Power Co., Ltd.	15,966	563	-	-	-
	Doosan China Financial Leasing Corp.	302	7,514	-	-	-
	Kyunggi Railroad Co., Ltd.	71,164	-	405	-	-
	Others	2,075	-	28	-	158
	Subtotal	92,777	8,077	3,879	-	361
Joint ventures	HAMAN Industrial Complex	27,476	-	-	-	-
	Hanjung Power Ltd.	2,340	5,172	-	-	-
	Others	1,380	250	-	-	-
	Subtotal	31,196	5,422	-	-	-
Unconsolidated structured entities	DS 14st Co., Ltd.	-	-	-	-	3,834
	RC 1st Securitization Specialty Co., Ltd.	-	-	-	-	3,897
	Doosan Cuvex 1st Securitization Specialty Co., Ltd.	-	-	-	-	7,860
	Myeongji Poseidon 1st Co., Ltd.	-	-	-	-	5,655
	Cheongjugwell 1st Co., Ltd.	-	-	-	-	3,414
	DS Gangnam Bundang Inc.	-	-	-	-	5,659
	DUY 1st Co., Ltd.	-	-	-	-	1,927
	DS Cheongju 1st Co., Ltd.	-	-	-	-	61
	Others	-	-	-	-	3,432
	Subtotal	-	-	-	-	35,739
Other related party	Yeongang Foundation	256	34	48	-	8,639
	DFMS	751	-	-	-	5,766
	Icheon Ballpark	-	-	-	9,104	237
	Doosan Credit Union	343	-	2,306	-	3,630
	JHUNG-ANG University	8,267	-	107	-	25,857
	JHUNG-ANG University Hospital	41	-	1,046	-	1,507
	Neoplux	86	-	4,475	-	7,032
	Others	466	-	4	-	4
	Subtotal	10,210	34	7,986	9,104	52,672
Total		₩134,183	₩13,533	₩11,865	₩9,104	₩88,772

(3) Significant balances related to the transactions between the Group and related parties (in millions of Korean won):

1) For the year ended December 31, 2013

		Receivables		Payables		
Description	Corporate name	Trade receivables	Other receivables	Trade payables	Other payables	Borrowings
Associates	Kyunggi Railroad Co., Ltd.	₩15,905	₩9	₩-	₩-	₩-
	Shinbundang Railroad Co., Ltd.	11,023	-	-	-	-
	Doosan China Financial Leasing Corp.	-	5,913	-	-	-
	Others	557	2,986	73	198	-
	Subtotal	27,485	8,908	73	198	-
Joint ventures	HAMAN Industrial Complex	14,373	5,921	-	64	-
	Others	1,017	171	-	-	-
	Subtotal	15,390	6,092	-	64	-
Unconsolidated structured entities	Doosan Cuvex 1st Securitization Specialty Co., Ltd.	-	-	-	-	95,000
	DS Gangnam Bundang Inc.	-	-	-	-	45,000
	DS SOLBAT the 1st Co., Ltd.	-	-	-	-	130,000
	Doosan E&C First Co., Ltd.	-	-	-	-	110,000
	Subtotal	-	-	-	-	380,000
Other related party	Yeongang Foundation	215	2,013	3	506	-
	Doosan Credit Union	57	4	-	989	-
	Others	50	178	225	1,075	-
	Subtotal	322	2,195	228	2,570	-
Total		₩43,197	₩17,195	₩301	₩2,832	₩380,000

2) For the year ended December 31, 2012

Description	Corporate name	Receivables: Trade receivables	Receivables: Other receivables	Receivables: Loans	Payables: Trade payables	Payables: Other payables	Payables: Borrowings
Associates	Doosan China Financial Leasing Corp.	₩-	₩380	₩20,612	₩-	₩-	₩-
	Kyunggi Railroad Co., Ltd.	13,340	9	-	-	-	-
	Shinbundang Railroad Co., Ltd.	11,023	-	-	-	-	-
	Others	252	210	-	-	400	-
	Subtotal	24,615	599	20,612	-	400	-
Joint ventures	HAMAN Industrial Complex	16,173	6,034	-	-	-	-
	Others	867	114	-	-	-	-
	Subtotal	17,040	6,148	-	-	-	-
Unconsolidated entities	RC 1st Securitization Specialty Co., Ltd.	-	-	-	-	-	30,800
	Doosan Cuvex 1st Securitization Specialty Co., Ltd.	-	-	-	-	-	115,000
	DS Gangnam Bundang Inc.	-	-	-	-	-	66,000
	DUY 1st Co., Ltd.	-	-	-	-	-	45,000
	DS Cheongju 1st Co., Ltd.	-	-	-	-	-	50,000
	Subtotal	-	-	-	-	-	306,800
Other related party	Yeongang Foundation	856	2,699	-	3	447	-
	Others	1,296	51	-	63	1,488	-
	Subtotal	2,152	2,750	-	66	1,935	-
	Total	₩43,807	₩9,497	₩20,612	₩66	₩2,335	₩306,800

(4) Fund and equity transaction for the years ended December 31, 2013 and 2012, between the Group and related parties are as follows (in millions of Korean won):

1) For the years ended December 31, 2013

Description	Related party's name	Loans		Borrowings		Investments		Dividend	
		Loans	Collection	Borrowings	Refunding	Received	Provided	Income	Payout
Associates	Tamra Offshore Wind Power Co., Ltd.	₩-	₩-	₩-	₩-	₩-	₩2,412	₩-	₩-
	Doosan China Financial Leasing Corp.	-	20,613	-	-	-	-	-	-
	Doosan Capital Co., Ltd.	-	-	-	-	70,000	-	-	-
	New Seoul Railway	-	-	-	-	-	1,123	-	-
Joint ventures	Hanjung Power Ltd.	-	-	-	-	-	-	4,462	-
	Doosan Babcock WLL	-	-	-	-	-	290	-	-
Unconsolidated entities	RC 1st Securitization Specialty Co., Ltd.	-	-	-	30,800	-	-	-	-
	Doosan Cuvex 1st Securitization Specialty Co., Ltd.	-	-	-	20,000	-	-	-	-
	DUY 1st Co., Ltd.	-	-	-	45,000	-	-	-	-
	DS Cheongju 1st Co., Ltd.	-	-	-	50,000	-	-	-	-
	Poseidon Weave 1st Co., Ltd.	-	-	50,000	50,000	-	-	-	-
	DS Gangnam Bundang Inc.	-	-	150,000	171,000	-	-	-	-
	DS SOLBAT the 1st Co., Ltd.	-	-	280,000	150,000	-	-	-	-
	IZenith 2nd Co., Ltd.	-	-	140,000	140,000	-	-	-	-
	Doosan E&C First Co., Ltd.	-	-	110,000	-	-	-	-	-
	Park jung won and other 26 people (Doosan Engineering & Construction Co., Ltd.)	-	-	-	-	16,116	-	-	-
	Yeongang Foundation	-	-	-	-	1,006	-	-	-
Other related party	Employee stock ownership associate (Doosan Engineering & Construction Co., Ltd.)	-	-	-	-	65,245	-	-	-
	Representative director (Doosan Engineering & Construction Co., Ltd.)	-	-	-	-	170	-	-	-
	Total	₩-	₩20,613	₩730,000	₩656,800	₩152,537	₩3,825	₩4,462	₩-

2) For the years ended December 31, 2012

		Loans		Borrowings		Investments		Dividend	
Description	Related party’s name	Loans	Collection	Borrowings	Refunding	Received	Provided	Income	Payout
Associates	Tamra Offshore Wind	₩-	₩-	₩-	₩-	₩-	₩6,862	₩-	₩-
	Doosan Capital Co., Ltd.	-	-	-	-	-	-	-	-
	Doosan China Financial Leasing Corp.	-	42,598	-	-	6,410	-	-	-
Joint ventures	Hanjung Power Ltd.	-	-	-	-	-	-	4,971	-
	Sichuan Kelun- Doosan Biotechnology Company Limited	-	-	-	-	-	891	-	-
Unconsolidated entities	DS 14 ho	-	-	-	19,484	-	-	-	-
	RC 1st Securitization Specialty Co., Ltd.	-	-	-	29,200	-	-	-	-
	Doosan Cuvex 1st Securitization Specialty Co., Ltd.	-	-	-	15,000	-	-	-	-
	DS Jangsung	-	-	-	16,404	-	-	-	-
	Myeongji Poseidon	-	-	-	92,837	-	-	-	-
	Chungju Gwell 1 st Co., Ltd.	-	-	50,000	50,000	-	-	-	-
	DS Gangnam Bundang Inc.	-	-	100,000	34,000	-	-	-	-
	DS Haeundae Jenis Co., Ltd.	-	-	50,000	50,000	-	-	-	-
	DUY 1 st Co., Ltd.	-	-	80,000	35,000	-	-	-	-
	DS Chungju 1 st Co., Ltd.	-	-	50,000	-	-	-	-	-
	Total	₩-	₩42,598	₩330,000	₩341,925	₩6,410	₩7,753	₩4,971	₩-

(5) The Group defines key management personnel as registered officer and non-registered officer who have the authority and responsibility for planning, operation and control and are in charge of business or division unit. Compensation to key management personnel of the Group for the years ended December 31, 2013 and 2012, is as follows (in millions of Korean won):

Description	Year ended December 31, 2013	Year ended December 31, 2012
Short-term employee benefits	₩144,238	₩148,530
Severance benefits	11,592	11,068
Share-based payments	9,998	11,808
Total	₩165,828	₩171,406

As of December 31, 2013, the Group provides guarantees and warranties for related party. (Notes 33 and 34)

36. CONSOLIDATED STATEMENTS OF CASH FLOWS:

(1) The adjustments and changes in operating assets and liabilities in the consolidated statements of cash flows for the years ended December 31, 2013 and 2012, are as follows (in millions of Korean won):

	Year ended December 31, 2013	Year ended December 31, 2012
Adjustments:		
Expenses not involving cash payments and others:		
Bad debt expense	₩120,606	₩674,771
Cost of goods sold (allowance for inventory)	(23,812)	2,308
Depreciation	464,784	427,182
Amortization	168,353	163,853
Severance indemnities	215,540	199,508
Compensation expenses of share-based payments	10,157	11,975
Interest income	(83,451)	(133,057)
Dividend income	(2,466)	(2,732)
Gain on foreign currency translation	(71,743)	(120,982)
Gain on valuation of derivatives	(251,257)	(561,626)
Gain on valuation of fixed-price contract	(81,990)	(168,602)
Gain on financial warranty	14,521	12,889
Interest expenses	779,975	894,166
Loss on foreign currency translation	75,629	67,654
Loss on valuation of derivatives	95,882	246,014
Loss on valuation of fixed-price contract	212,593	540,769
Loss on retirement of bonds	2,607	1,059
Loss on retirement of redemption fund	1,679	-
Gain on disposal of short-term investment securities	(2,818)	(471)
Gain on disposal of long-term investment securities	(27,989)	(29,311)
Gain on disposal of properties	(59,562)	(14,138)
Gain on disposal of intangible assets	(338)	(1,009)
Gain on disposal of investment in real properties	(8,826)	-
Gain on disposal of properties scheduled to disposal	(3,277)	-
Gains on valuation of investment in real properties	(17,069)	(6,728)
Reversal of impairment losses on intangible assets	(50)	-
Gain on transfer of business	-	81,056
Loss on disposal of accounts receivable	24,035	40,244
Loss on impairment of short-term investment securities	-	1,200
Loss on disposal of long-term investment securities	39	2,732
Loss on impairment of long-term investment securities	24,447	9,536
Loss on disposal of properties	13,135	16,794
Loss on disposal of intangible asset	372	485
Loss on disposal of investment in real properties	34	864
Loss on valuation of investment in real properties	2,011	4,299
Loss from revaluation of land	18,085	-
Loss on impairment of properties	4,294	2,329
Loss on impairment of intangible asset	50,638	32,033
Other bad debt expense	28,771	197,760

	Year ended December 31, 2013	Year ended December 31, 2012
Share of loss of equity-accounted investees	47,880	79,587
Income tax expense (gain)	83,108	(505,416)
Other gains	(54,349)	(49,066)
Subtotal	₩1,770,178	₩2,117,929
Changes in operating assets and liabilities:		
Increase or decrease in trade receivables	₩87	₩553,858
Increase or decrease in other receivables	(64,737)	57,682
Increase or decrease in due from customers for contract work	(326,611)	(189,296)
Increase or decrease in derivative assets (liability)	171,841	(55,140)
Increase or decrease in inventories	271,593	109,031
Increase or decrease in other current assets	235,286	172,259
Increase or decrease in other long-term receivables	2,456	3,975
Increase or decrease in other non-current assets	(14,649)	4,878
Increase or decrease in trade payable	(23,003)	(409,454)
Increase or decrease in other payable	(122,936)	(269,927)
Increase or decrease in due to customers for contract work	(485,994)	(18,360)
Increase or decrease in provisions	(122,970)	(126,690)
Increase or decrease in other current liabilities	(129,662)	(479,676)
Increase or decrease in other long-term payable	61,701	(5,256)
Increase or decrease in other non-current liabilities	(10,381)	(20,691)
Payment of severance benefits	(145,618)	(210,826)
Increase or decrease in plan assets	(80,166)	57,030
Increase or decrease in assets and liabilities related with other operation	113,376	(20,904)
Total	₩(670,387)	₩(847,507)

(2) Significant non-cash transactions for the years ended December 31, 2013 and 2012, are as follows (in millions of Korean won):

	Year ended December 31, 2013	Year ended December 31, 2012
Reclassification of construction in progress to buildings, machinery and others	₩101,425	₩93,343
Retirement of shares through retained earnings	-	43,236
Capital reduction without refund	-	22,230
Total	₩101,425	₩158,809

The Group reported on a net basis cash receipts and payments arising from transactions occurring frequently and short-term financial instruments, loans and borrowings.

37. PROPERTIES SCHEDULED TO DISPOSAL:

(1) The properties scheduled to disposal for the years ended December 31, 2013 and 2012, are as follows (in millions of Korean won):

Detail	Consolidated subsidiary	Year ended December 31, 2013	Year ended December 31, 2012
Properties scheduled to disposal:			
Gyeonggi Expressway	Doosan Heavy Industries & Construction Co., Ltd.	₩22,572	₩22,572
Doosan Infracore Xinjiang Machinery	DI	440	2,645
Total		₩23,012	₩25,217

38. SUBSEQUENT EVENTS:

(1) Lawsuit

In November 2004, DI and a co-defendant, Korea Aerospace Industries, Ltd., were filed with a Russia-based court, alleging their illegal use of software. On January 27, 2014, in the second trial, they received a court ruling from the Court of Arbitration at Moscow that they need to pay USD 49,749,048 to plaintiff. DI now plans to appeal against the decision of the court, and accordingly, the ultimate outcome of the lawsuit cannot be predicted. Meanwhile, DI assumes that a court ruling from the Russian court cannot be made effective in Korea.

(2) Capital reduction without refund in subsidiaries

Doosan E&C has decided capital reduction without refund to enhance enterprise value and shareholders' value at extraordinary general meeting of Shareholders on December 13, 2014. Capital reduction without refund procedures has completed on January 13, 2014. The details of capital reduction without refund are shown below.

Type of capital reduction shares	Number of shares	Percentage of capital reduction	As of capital reduction	Capital stock before capital reduction / number of shares issued	Capital stock after capital reduction / number of shares issued
Registered common shares	496,667,079	90.00%	2014,01,13	₩2,769,261,550,000/ 551,852,310	₩285,926,155,000/ 55,185,231

As above, exchange price of exchangeable bonds has been changed to ₩50,480 on January 14, 2014. Doosan Heavy Industries & Construction issued exchangeable bonds for terms of share exchange.

(3) Guarantee provided by the Group

After December 31, 2013, DHC, subsidiary, provided payment guarantees amounting to ₩1,784 hundred million to Korea Asset In Trust for the trusted assets.

39. BUSINESS TRANSFER:

(1) In 2012, the Group transferred "Burger King," food culture and the food business divisions. Details of business transfers are summarized as follows (in millions of Korean won):

Details	Burger King/Food culture/Food business
Main products and services	Food service industry (Burger King/Food culture/Food business)
Business transfer date	November 30, 2012
Method	Transfer part of business
Acquiring company	VOGO second private investment company
Transfer price	₩110,000

(2) Details of gain on business transfer are as follows (in millions of Korean won):

Description	Price of net asset transferred	Business transfer			Gain on business transfer
		Value of assets transferred	Value of liabilities transferred	Net assets	
Amount	₩110,000	₩64,352	₩35,408	₩28,944	₩81,056

The Group does not classify this business transfer as discontinued operations because the effect of transfer occupies a small portion of sales of the Group's total revenue.

(3) Net cash flows incurred by business transfers for the year ended December 31, 2012, are as follows (in millions of Korean won):

Price of net asset transferred	Cash of transferred business	Net cash inflows
₩110,000	₩(8,825)	₩101,175

40. ADDITIONAL ACQUISITION OF CONSOLIDATED SUBSIDIARY:

The effect to equity of consolidated financial position, incurred by changing of ownership ratio without losing control, is as follows (in millions of Korean won):

	FY2013			FY2012
Details	Doosan Industrial Vehicle Co., Ltd.	Doosan Heavy Industries Vietnam Haiphong, etc.	Total	SRS Korea
Ownership change	Before: 51% After: 100%	Before: 90% After: 100%		Before: 50.91% After: 100%
Acquisition cost	₩107,500	₩4,331	₩111,831	₩81,000
Carrying amount of acquired non-controlling interests	(83,304)	(2,576)	(85,880)	(26,575)
Amount recognized in equity of consolidated financial position (capital surplus)	₩(24,196)	₩(1,755)	₩(25,951)	₩(54,425)

41. BUSINESS COMBINATION:

(1) Details of business combination are summarized as follows (in millions of Korean won):

Details	FY2012
Acquired company	DFMS
Object	To enhance the competitiveness and the corporate value
Principal activity	Facility management and maintenance service
Date of acquisition	November 1, 2012
Acquired shares	Merger through issuance of new shares
Purchase price (Note 1)	₩16,210
Merger accounting method	Acquisition

(Note 1) Fair value of the 131,788 new shares issued for merger and closing price of ₩123,000 on the merger day.

(2) Fair values of assets and liabilities at acquisition date from business combinations are as follows (in millions of Korean won):

	DFMS
	November 1, 2012
Current assets	₩8,145
Non-current assets	15,272
Fair value of assets acquired	23,417
Fair value of liabilities acquired	15,208
Fair value of net assets acquired	8,209
Fair value of liabilities and net assets acquired	₩23,417

(4) Goodwill in business combinations for the year ended December 31, 2012, is as follows (in millions of Korean won):

Purchase price	Less fair value of the identifiable net assets acquired	Less other intangible assets	Goodwill
₩16,210	₩8,209	₩1,581	₩6,420

(5) Net cash flows in business combinations for the year ended December 31, 2012, are as follows (in millions of Korean won):

Consideration paid in cash	Acquired cash and cash equivalents	Net cash flows
₩-	₩196	₩196

42. SPIN-OFF:

(1) The Company spun off investment division of Neoplux Co., Ltd., to Neo Holdings Co., Ltd., on December 28, 2012. Details of the spin-off are summarized as follows:

Details	Contents
Spin-off method	Capital reduction without refund
Remaining spin-off company	Doosan corporation (parent company)
New spin-off company	Neo Holdings Co., Ltd.
Spin-off date	December 28, 2012
Accounting method	K-IFRS 2117, *Distributions of Non-cash Assets to Owners*

(2) The assets and liabilities transferred to the new spin-off company are summarized as follows (in millions of Korean won):

Assets		Liabilities		Net assets	
Current assets	₩9,219	Current liabilities	₩3,662	Equity attributable to owners of the Parent	₩38,628
Non-current assets	51,979	Non-current liabilities	1,097	Non-controlling interests	17,811
Total	₩61,198	Total	₩4,759	Total	₩56,439

Net cash flows incurred by spin-off are ₩6,559 million.

(3) Accounting method of spin-off is as follows (in millions of Korean won):

Debit		Credit	
Retained earnings (Note 1)	₩24,028	Net asset of spin-off	₩56,439
Investment in associates	6,179		
Non-controlling interests	17,811		
Loss on disposal of investment in associates	₩8,421		

(Note 1) Retained earnings measured fair value of non-cash assets transferred.

In addition, income from the investment division of Neoplux Co., Ltd., is not classified as discontinued operations due to the sales portion, which is accounted for as immaterial for the Group.