**DOOSAN CORPORATION AND SUBSIDIARIES**
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**
**AS OF AND FOR THE YEARS ENDED DECEMBER 31, 2012 AND 2011**

## 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 shares have been listed in the Korea Exchange (formerly Korea Stock Exchange). After several capital issues, the Parent's share capital as of December 31, 2012 is ₩132,778 million, including ₩26,984 million of preferred share.

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

| | Number of shares owned | Ownership percentage (%) |
|---|---|---|
| Related parties | 9,362,805 | 44.89 |
| Treasury stock | 4,403,614 | 21.11 |
| Others | 7,092,402 | 34.00 |
| Total | 20,858,821 | 100.00 |

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

## (2) Consolidated Subsidiaries

The details of consolidated subsidiaries as of December 31, 2012, are as follows:

| Subsidiary | Type of business | Ownership (%) | Asset | Liability | Sales | Net income | Location | Financial closing date |
|---|---|---|---|---|---|---|---|---|
| Oricom Inc. | Advertising | 71.10% | ₩ 122,315 | ₩ 73,833 | ₩ 108,574 | ₩ 4,707 | Korea | December 31 |
| Neovalue Co., Ltd. | Consulting | 66.71 | 5,576 | 3,631 | 338 | 131 | Korea | December 31 |
| Doosan Advertising (Beijing) Co., Ltd. | Advertising | 71.10 | 1,845 | 822 | 3,920 | 113 | China | December 31 |
| SRS Korea Co., Ltd. | Manufacturing | 100.00 | 170,241 | 55,097 | 142,554 | 73,661 | Korea | December 31 |
| Doosan Bears, Inc. | Sports | 100.00 | 14,642 | 13,402 | 35,493 | 829 | Korea | December 31 |
| Doosan Feed & Livestock Co., Ltd. | Manufacturing and sales | 100.00 | 78,799 | 55,171 | 136,883 | 3,213 | Korea | December 31 |
| Doosan Tower Co., Ltd. | Real estate | 100.00 | 541,697 | 364,651 | 64,616 | 14,714 | Korea | December 31 |
| Doosan Dong-A Co., Ltd. | Publishing | 100.00 | 170,595 | 147,579 | 196,958 | (12,587) | Korea | December 31 |
| DIP Holdings Co., Ltd. | Holding company | 100.00 | 453,065 | 211,392 | 17,156 | 11,265 | Korea | December 31 |
| Doosan DST Co., Ltd. | Defense | 50.91 | 644,098 | 302,485 | 650,321 | 18,065 | Korea | December 31 |
| N Shaper Corp. | Other | 100.00 | 19,161 | 6,767 | 17,871 | 4,697 | Korea | December 31 |
| Doosan Electro-Materials Singapore Pte Ltd. | Wholesale and retail | 100.00 | 1,689 | 6,012 | 17,310 | 742 | Singapore | December 31 |
| Doosan Hong Kong Ltd. | Wholesale and retail | 100.00 | 4,529 | 18,748 | 26,100 | 232 | China | December 31 |
| Doosan Electro-Materials (Shen Zhen) Limited. | Wholesale and retail | 100.00 | 3,539 | 3,204 | 5,694 | (29) | China | December 31 |
| Doosan Shanghai Chemical Materials Co., Ltd. | Wholesale and retail | 100.00 | 7,707 | 6,666 | 33,111 | 1,181 | China | December 31 |
| Doosan Electro-Materials (Changshu) Co., Ltd. | Manufacturing | 100.00 | 88,779 | 77,669 | 36,240 | (20,660) | China | December 31 |
| Doosan Real Estate Securitization Specialty Ltd. | Specialized in securitization | - | 7,292 | 2 | - | (715) | Korea | December 31 |
| Doosan Second Real Estate Securitization Specialty Ltd. | Specialized in securitization | - | 14,295 | 6,603 | 251 | 64 | Korea | December 31 |
| Doosan Third Real Estate Securitization Specialty Ltd. | Specialized in securitization | - | 41 | 2,985 | - | (17) | Korea | December 31 |
| Doosan Information and Communications America, LLC | IT service | 100.00 | 6,780 | 1,721 | 32,667 | 983 | USA | December 31 |
| Doosan Information and Communications China, LLC | IT service | 100.00 | 6,908 | 3,786 | 11,993 | 87 | China | December 31 |
| Doosan Mottrol (Jiangyin) Co., Ltd. | Manufacturing | 100.00 | 30,924 | 4,652 | 565 | (6,547) | China | December 31 |
| Doosan Industrial Vehicle Co., Ltd. | Manufacturing | 51.00 | 378,330 | 231,126 | 619,372 | 9,669 | Korea | December 31 |
| Doosan Industrial Vehicle Europe N.A. | Wholesale and retail | 51.00 | 43,627 | 27,095 | 59,153 | 882 | Belgium | December 31 |
| Doosan Industrial Vehicle U.K. | Wholesale and retail | 51.00 | 21,343 | 18,013 | 27,708 | 1,057 | UK | December 31 |
| Doosan Logistics Europe | Manufacturing | 51.00 | 4,884 | 1,634 | 6,526 | (209) | Germany | December 31 |
| Doosan Industrial Vehicle America Corp. | Wholesale and retail | 51.00 | 51,262 | 21,755 | 108,887 | 1,936 | USA | December 31 |
| Doosan Industrial Vehicle Yantai Co., Ltd. | Manufacturing | 51.00 | 39,416 | 28,080 | 51,342 | 1,140 | China | December 31 |
| Doosan Equipment Rental Vietnam Company Limited. | Equipment lease | 100.00 | 10,806 | 204 | 1,315 | 379 | Vietnam | December 31 |
| Doosan Electro-Materials America, LLC | Marketing | 100.00 | 82 | 7 | - | (203) | USA | December 31 |

(3) Changes in the scope of consolidation

Changes in the scope of consolidation for the year ended December 31, 2012, are as follows:

| Subsidiary | Change | Description |
|---|---|---|
| Doosan Equipment Rental Vietnam Company Limited. | Newly included | Newly incorporated |
| Doosan Electro-Materials America, LLC | Newly included | Newly incorporated |
| Neovalue Co., Ltd. | Newly included | New spin-off company |
| Neoplux Co., Ltd. | Excluded | Equity spin-off |
| Doosan SRS SPC | Excluded | Complete liquidation |

Changes in the scope of consolidation for the year ended December 31, 2011, are as follows:

| Subsidiary | Change | Description |
|---|---|---|
| Doosan Industrial Vehicle Co., Ltd. | Newly included | Acquisition of operation after newly incorporated |
| Doosan Industrial Vehicle Europe N.A. | Newly included | Acquisition of operation after newly incorporated |
| Doosan Industrial Vehicle U.K. | Newly included | Acquisition of operation after newly incorporated |
| Doosan Industrial Vehicle America Corp. | Newly included | Acquisition of operation after newly incorporated |
| Doosan Industrial Vehicle Yantai Co., Ltd. | Newly included | Acquisition of operation after newly incorporated |
| Doosan Electro-Materials (Changshu) Co., Ltd. | Newly included | Newly acquired |
| Doosan Logistics Europe | Newly included | Newly acquired |
| Doosan Information and Communications America, LLC | Newly included | Newly incorporated |
| Doosan Information and Communications China, LLC | Newly included | Newly incorporated |
| Doosan Mottrol (Jiangyin) Co., Ltd. | Newly included | Newly incorporated |

## 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES:

The Parent and its subsidiaries (the "Company") 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 Company has adopted K-IFRS for the annual period beginning on January 1, 2011, and prepared consolidated financial statements.

The significant accounting policies under K-IFRSs followed by the Company in the preparation of its consolidated financial statements are summarized below, and these accounting policies, except for the effects of the changes of accounting policies that are described below, have been applied consistently to the consolidated financial statements for the current period and the accompanying comparative period.

The accompanying consolidated financial statements have been prepared on historical cost basis except for certain non-current assets and financial instruments that are measured at revalued amounts or fair values. Historical cost is generally based on the fair value of the consideration given.

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

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

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

When the Company continues its involvement on the transferred assets although the transferred assets are derecognized in their entirety, the Company discloses the carrying amounts of the transferred assets and the associated liabilities and the information showing maximum exposure to loss. The disclosures due to the application of these amendments are disclosed in Note 33-(4).

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

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

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

| | 2012 | | 2011 | |
|---|---|---|---|---|
| | Before modification | After modification | Before modification (Note 1) | After modification |
| Sales | ₩ 3,833,824 | ₩ 3,833,824 | ₩ 3,884,412 | ₩ 3,884,412 |
| Cost of sales | (2,981,187) | (2,981,187) | (2,923,106) | (2,923,106) |
| Selling and administrative expenses | (647,689) | (647,689) | (561,396) | (561,396) |
| Other income | 13,027 | - | 59,850 | - |
| Other expenses | (33,654) | - | (16,477) | - |
| Operating income | 184,321 | 204,948 | 443,283 | 399,910 |
| Non-operating income and expenses | (62,222) | (82,849) | (50,856) | (7,483) |
| Income before income tax expense | ₩ 122,099 | ₩ 122,099 | ₩ 392,427 | ₩ 392,427 |

(Note 1) The effects on profit or loss from discontinued operations have been applied, and hence, the presentation of items modified as above.

The amendments do not result in any impact on net income and earnings per shares of owners of the parent company.

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

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. The amendments are effective for annual periods beginning on or after July 1, 2012. The Company does not anticipate that these amendments referred above will have a significant effect on the Company’s consolidated financial statements and disclosures.

Amendments to K-IFRS 1019 – *Employee Benefits*

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

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

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

Amendments to K-IFRS 1107 – *Financial Instruments*

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

K-IFRS 1110 – *Consolidated Financial Statements*

K-IFRS 1110 include a new definition of control that contains three elements: (a) power over an investee, (b) exposure, or rights, to variable returns from its involvement with the investee and (c) the ability to use its power over the investee to affect the amount of the investor's return. This standard is effective for annual periods beginning on or after January 1, 2013. The Company is reviewing the impact of the application of this standard on its consolidated financial statements.

K-IFRS 1111 – *Joint Arrangement*

K-IFRS 1111 deals with how a joint arrangement with two or more parties having joint control should be classified. Under K-IFRS 1111, joint arrangements are classified as joint operations or joint ventures, depending on the rights and obligations of the parties to the arrangements. If the Company is a joint operator, the Company is to recognize assets, liabilities, revenues and expenses proportionally to its investment and if the Company is joint venture, the Company is to account for that investment using the equity method accounting. This standard is effective for annual periods beginning on or after January 1, 2013. The Company is reviewing the impact of the application of this standard on its 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 is effective for annual periods beginning on or after January 1, 2013. The Company is reviewing the impact of the application of this standard on the Company's consolidated financial statements.

K-IFRS 1113 – *Fair Value Measurement*

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

(2) Consolidation

The consolidated financial statements incorporate the financial statements of the Company and entities (including special-purpose entities) controlled by the Company (its subsidiaries). Income and expenses of subsidiaries acquired or disposed during the year are included in the consolidated statement of comprehensive income from the effective date of acquisition and up to the effective date of disposal, as appropriate. 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 those used by the Company. All intragroup transactions, balances, income and expenses are eliminated in full on consolidation.

Changes in the Company's ownership interests in subsidiaries that do not result in the Company losing control over the subsidiaries are accounted for as equity transactions. The carrying amounts of the Company'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 Company loses control of a subsidiary, the profit 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 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 jointly controlled entity.

(3) Business Combination

Acquisitions of businesses are accounted for using the acquisition method. The consideration transferred in a business combination is measured at fair value, which is calculated as the sum of the acquisition-date fair values of the assets transferred by the Company, liabilities incurred by the Company to the former owners of the acquiree and the equity interests issued by the Company 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, respectively;
- Liabilities or equity instruments related to share-based payment arrangements of the acquiree or share-based payment arrangements of the Company entered in 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.

When the consideration transferred by the Company 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 qualifies 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.

When a business combination is achieved in stages, the Company's previously held equity interest in the acquiree is remeasured to fair value at the acquisition date (i.e., the date when the Company obtains control) 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.

(4) Investments in associates

An associate is the investee for the Company who can participate in the financial and operating policy decisions of the investee (significant influence). Generally, significant influence is deemed to exist when the Company has 20%–50% of share of the ownership of the associate entity with voting power.

The results and assets and liabilities of associates are incorporated in these consolidated financial statements using the equity method of accounting. Under the equity method, an investment in an associate is initially recognized in the consolidated statement of financial position at cost and adjusted thereafter to recognize the Company's share of the profit or loss and other comprehensive income of the associate. When the Company's share of losses of an associate exceeds the Company's interest in that associate (which includes any long-term interests that, in substance, form part of the Company's net investment in the associate), the Company discontinues recognizing its share of further losses. Additional losses are recognized only to the extent that the Company has incurred legal or constructive obligations or made payments on behalf of the associate.

Any excess of the cost of acquisition over the Company's share of the net fair value of the identifiable assets, liabilities and contingent liabilities of an associate recognized at the date of acquisition is recognized as goodwill, which is included within the carrying amount of the investment. Any excess of the Company'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 that results in the Company losing significant influence over that associate, 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 attributable to the retained interest and its fair value is included in the determination of the gain or loss on disposal of the associate. The Company reclassifies all amounts previously recognized in other comprehensive income in relation to that from equity to profit or loss.

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

When the Company transacts with its associate, profits and losses resulting from the transactions with the associate are recognized in the Company's consolidated financial statements only to the extent of interests in the associate that are not related to the Company.

(5) Investments in joint venture

A joint venture is a contractual arrangement; whereby the Company and other parties undertake an economic activity that is subject to joint control and when the strategic financial and operating policy decisions relating to the activities of the joint venture require the unanimous consent of the parties sharing control.

When the Company undertakes its activities under joint venture arrangements directly, the Company's share of jointly controlled assets and any liabilities incurred jointly with other venturers are recognized in the financial statements of the relevant entity and classified according to their nature.

Joint venture arrangements that involve the establishment of a separate entity in which each venturer has an interest are referred to as jointly controlled entities. The Company reports its interests in jointly controlled entities using proportionate consolidation, except when the investment is classified as held for sale, in which case it is accounted for in accordance with K-IFRS 1105.

(6) Foreign currency translation

1) Functional currency and presentation currency

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

(7) 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.

(8) Financial assets

1) Classification of financial assets

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

a) Financial assets at FVTPL
FVTPL includes financial assets classified as held for trading and financial assets designated at FVTPL upon initial recognition. A financial asset is classified as FVTPL if it has been acquired principally for the purpose of selling or repurchasing in the near term. All derivative assets, except for derivatives that are designated and effective hedging instruments, are classified as held-for-trading financial assets. 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 Company 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 Company'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 Company's right to receive the dividends is established.

3) Impairment of financial assets

- Financial assets measured at amortized cost
  The Company 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.

  Impairment loss 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 Company 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.

- AFS financial assets
  The Company assesses at the end of each reporting period whether there is any objective evidence that a financial asset or group of financial assets is impaired. For equity investments classified as AFS, a significant or prolonged decline in the fair value of the security below its cost is considered to be objective evidence of impairment. If there is objective evidence of impairment on AFS financial assets, the cumulative loss that has been recognized in other comprehensive income, less any impairment loss previously recognized in 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 a subsequent period, the fair value of a debt instrument classified as AFS increases and the increase can be objectively related to an event occurring after the impairment loss was recognized in 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 Company derecognizes a financial asset only when the contractual rights to the cash flows from the asset expire, or when it transfers the financial asset and substantially all the risks and rewards of ownership of the asset to another entity.

5) Offsetting financial assets and financial liabilities

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

(9) Trade receivable

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

(10) 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) exceeds 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.

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

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

(12) Property, plant and equipment

Property, plant and equipment are stated at cost, less subsequent accumulated depreciation and accumulated impairment losses. 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 their purchase or construction, including the initial estimate of the costs of dismantling and removing the item and restoring the site on which it is located.

Subsequent costs incurred to add 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 Company 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 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 Company 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 | 2–15 |
| 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 Company reviews the depreciation method, the estimated useful lives and residual values of property, plant and equipment at the end of each annual reporting period. If expectations differ from previous estimates, the changes are accounted for as a change in an accounting estimate.

The Company eliminates the carrying amount of 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 income line item.

(13) 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 acquiring 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) |
|---|---|
| Development costs | 5–10 |
| Industrial rights | 5 |
| Other intangible assets | 4–20 |

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 Company 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.

(14) 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, the book value of investment property is presented at the cost, less accumulated depreciation and accumulated impairment.

While land is not depreciated, all other investment property is depreciated using the straight-line method from 10 to 60 years.

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

(15) 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.

(16) Impairment of assets

1) Impairment of non-financial assets, except for goodwill

At the end of each reporting period, the Company reviews the carrying amounts of its non-financial assets, except for goodwill, to determine whether there is any indication that those assets have suffered an impairment loss. If any such indication exists, the recoverable amount of the asset is estimated in order to determine the extent of the impairment loss (if any). Where it is not possible to estimate the recoverable amount of an individual asset, the Company estimates the recoverable amount of the cash-generating unit to which the asset belongs. Intangible assets with indefinite useful lives and intangible assets not yet available for use are tested for impairment at least annually regardless of an indication that the asset may be impaired.

If the recoverable amount of an asset (or a cash-generating unit) is estimated to be less than its carrying amount, the carrying amount of the asset (or the cash-generating unit) is reduced to its recoverable amount. An impairment loss is recognized immediately in profit or loss.

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

2) Impairment of goodwill

Goodwill arising on a business combination is carried at cost as established at the date of acquisition of the business, less accumulated impairment losses, if any. For the purpose of a test for impairment, goodwill is allocated to a cash-generating unit that has predicted synergy effect from an acquisition of a business.

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 in the consolidated statements of income. An impairment loss recognized for goodwill cannot be reversed in subsequent periods.

(17) Borrowings

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

(18) Financial guarantee contract liabilities

The Company 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.*

(19) Retirement benefit obligation

The Company operates a defined benefit pension plan. For defined benefit pension plans, the cost of providing benefits is determined using the projected unit credit method, with actuarial valuations being carried out at the end of each reporting period. Present value of the defined benefit obligation is calculated by discounting estimated future cash outflows by market yields on high-quality corporate bonds (public debt or national), with similar maturity.

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

The retirement benefit obligation recognized in the consolidated statements of financial position represents the present value of the defined benefit obligation as adjusted for unrecognized actuarial gains and losses and unrecognized past service cost, and as reduced by the fair value of plan assets. Any asset resulting from this calculation is limited to unrecognized actuarial losses and past service cost, plus the present value of available refunds and reductions in future contributions to the plan.

(20) Provisions

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

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; in the consolidated statements of income, a net amount is presented, being the anticipated cost of the obligation, less the reimbursement.

(21) 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 Company as lessor

Amounts due from lessees under finance leases are recognized as receivables at the amount of the Company's net investment in the leases. Interest income is recognized using the effective interest method on the part of the Company'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 Company as lessee

Assets held under finance leases are initially recognized as assets of the Company at their fair value at the inception of the lease or, if lower, at the present value of the minimum lease payments. 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 Company'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.

(22) Derivative financial instruments

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

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

1) Hedge accounting

The Company 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 Company documents whether the hedging instrument is highly effective in offsetting changes in fair values or cash flows of the hedged item.

a) Fair value hedges

Changes in the fair value of derivatives that are designated and qualified 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 Company revokes the hedging relationship; when the hedging instrument expires or is sold, terminated or exercised; or it no longer qualifies for hedge accounting. The adjusted amount of hedged item's carrying amount is depreciated and is recognized in profit or loss since hedge accounting is discontinued.

b) Cash flow hedges

The effective portion of change in the fair value of derivatives that are designated and qualify as cash flow hedges for decreasing risk incurred from change of future cash flow on forecast transaction is recognized in other comprehensive income. The gain or loss relating to the ineffective portion is recognized immediately in the other non-operating income (expense) line item in the consolidated statements of income.

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.

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

2) Other 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.

(23) Dividend

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

(24) Share-based payment arrangement

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

(25) Revenue recognition

Revenue is measured at the fair value of the consideration received or receivable for the sale of goods and rendering of services arising in the course of the ordinary activities of the Company. Revenue is reduced for value-added tax, estimated customer returns, rebates and trade discounts and is presented after eliminating intercompany transactions. The Company recognizes revenue when the amount of revenue can be measured reliably and it is probable that the economic benefits associated with the transaction will flow to the Company and when transaction meets the revenue recognition criteria specified by activity. When measuring revenue, the Company 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 Company 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 Company 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. The completion progress is determined by using a method that can measure services provided reliably according to the attributes of contracts. When there is higher possibility of total cost of a contract exceeding the revenue from the contract, the Company recognizes expected loss immediately.

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.

(26) Government grants

Government grants, whose primary condition is that the Company should acquire non-current assets, 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 Company offset them and recognizes in profit or loss.

(27) 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 Company’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 Company 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.

(28) Non-current assets held for sale

Non-current assets and disposal groups are classified as held for sale if their carrying amount will be recovered principally through a sale transaction rather than through 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.

(29) 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.

(30) Segment information

Operating segments are reported on the same basis as financial information is reported to management. The Company's management is responsible for evaluating the achievement of the operating segments and the resources that are allocated to the operating segments. Meanwhile, public notification relating to operating segments is presented in notes of consolidated financial statements.

(31) Approval of financial statements

The consolidation financial statements as and for the year ended December 31, 2012, were approved by the board of directors on February 4, 2013.

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

In the application of the Company's accounting policies, management is required to make judgments, estimates and assumptions about the carrying amounts of assets and liabilities that are not readily apparent from other sources. The estimates and associated assumptions are based on historical experience and other factors that are considered to be relevant. Actual results may differ from those estimates. The estimates and underlying assumptions are reviewed on an ongoing basis.

Revisions to accounting estimates are recognized in the period in which the estimate is revised if the revision affects only that period. The revisions are recognized in the period of revision and future periods if the revision affects both current and future periods.

(1) Revenue recognition

Revenue from 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

The Company performs test for goodwill impairment annually. Recoverable amount of cash-generating units are based on calculation of value in use. The value-in-use calculation requires accounting estimates, 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 Company operates a defined benefit pension plan, which is funded by the Company and managed by insurance companies and trustees, based on actuarial calculations performed periodically. The assumptions about the method are based on discount rate, expected rate of salary increase and expected rate of return on plan assets; these estimates may contain significant uncertainty.

(4) Warranty provision

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

(5) Deferred tax

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

## 4. FINANCIAL RISK MANAGEMENT:

The Company is exposed to various financial risks such as market risk (foreign currency risk and interest rate risk), credit risk and liquidity risk relating to the operations of the Company. 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 Company enters into derivative contracts to hedge against certain risks.

(1) Market risk

1) Foreign currency risk

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

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

| | December 31, 2012 | | | | | December 31, 2011 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | USD | EUR | JPY | Others (*) | Total | USD | EUR | JPY | Others (*) | Total |
| Assets | ₩183,351 | ₩42,410 | ₩1,499 | ₩43,027 | ₩270,287 | ₩162,513 | ₩5,773 | ₩1,802 | ₩25,048 | ₩195,136 |
| Liabilities | (230,522) | (30,174) | (9,018) | (29,937) | (299,651) | (118,905) | (2,284) | (3,668) | (18,736) | (143,593) |
| Net assets (liabilities) | ₩(47,171) | ₩12,236 | ₩(7,519) | ₩13,090 | ₩(29,364) | ₩43,608 | ₩3,489 | ₩(1,866) | ₩6,312 | ₩51,543 |

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

Net foreign currency translation gain (loss) for the years ended December 31, 2012 and 2011, is ₩437 million and ₩(415) million, respectively.

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

| | Year ended December 31, 2012 | | Year ended December 31, 2011 | |
|---|---|---|---|---|
| | 10% increase in KRW against foreign currency | 10% decrease in KRW against foreign currency | 10% increase in KRW against foreign currency | 10% decrease in KRW against foreign currency |
| Income before tax impact | ₩(2,936) | ₩2,936 | ₩5,154 | ₩(5,154) |

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

2) Interest rate risk

The Company's interest rate risk is related to borrowings and bank deposits with floating interest rates, and related interest income and expense are exposed to interest rate risk. The Company is exposed to interest rate risk mainly due to its borrowing with floating interest rates.

To manage its interest rate risk, the Company 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 Company manages its interest rate risk through regular monitoring and adjustments to the changing domestic and overseas markets conditions and nature of its interest rates.

The book value of the Company's financial assets and liabilities with floating interest rates exposed to interest rate risk as of December 31, 2012 and 2011 are as follows (in millions of Korean won):

| | December 31, 2012 | December 31, 2011 |
|---|---|---|
| Financial assets | ₩280,889 | ₩169,711 |
| Financial liabilities | (369,048) | (265,697) |
| Net assets (liabilities) | ₩(88,159) | ₩(95,986) |

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

| | Year ended December 31, 2012 | | Year ended December 31, 2011 | |
|---|---|---|---|---|
| | 1% increase | 1% decrease | 1% increase | 1% decrease |
| Income before tax impact | ₩(882) | 882 | ₩(960) | ₩960 |

3) Price risk

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

(2) Credit risk

The credit risk refers to risk of financial losses to the Company when the counterparty defaults on the obligations of the contract and arises from the Company's normal transaction and investing activity. To manage credit risk, the Company evaluates the creditworthiness of each customer or counterparty considering the financial status, past experience and other factors. The Company establishes credit limit for each customer and counterparty.

The purpose of credit risk management is to maintain an efficient management of credit risk, provide prompt support for decision making and minimize loss through safety measures for receivables.

1) The maximum credit risk exposure

The maximum credit risk exposure for financial assets maintained by the Company and the book value for the financial assets as of December 31, 2012 and 2011, are as follows (in millions of Korean won):

| | | December 31, 2012 | December 31, 2011 |
|---|---|---|---|
| Loans and receivables | Cash and cash equivalents (Note 1) | ₩441,712 | ₩358,764 |
| | Current and non-current financial instruments | 14,467 | 5,172 |
| | Accounts and other receivable | 584,824 | 802,608 |
| AFS financial assets (Note 2) | | 16,966 | 7 |
| Derivative assets | | 2,219 | 796 |
| Deposits | | 41,463 | 53,708 |
| | Total | ₩1,101,651 | ₩1,221,055 |

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

2) The Company's receivables aging analysis as of December 31, 2012 and 2011, is as follows (in millions of Korean won):

| | December 31, 2012 | | | | | | |
|---|---|---|---|---|---|---|---|
| | Individually impaired receivables | Receivables assessed for impairment on a collective basis | | | | | |
| | | Within due | 0–3 months | 3–6 months | 6–12 months | More than 12 months | Total |
| Trade receivables | ₩11,178 | ₩431,544 | ₩47,089 | ₩5,941 | ₩4,189 | ₩16,387 | ₩516,328 |
| Other receivables | 1,447 | 71,142 | 5,327 | 309 | 1,530 | 608 | 80,363 |
| Accrued income | - | 832 | - | - | - | - | 832 |
| Loans | 34 | 5,625 | - | - | - | 19 | 5,678 |
| Total | ₩12,659 | ₩509,143 | ₩52,416 | ₩6,250 | ₩5,719 | ₩17,014 | ₩603,201 |

| | December 31, 2011 | | | | | | |
|---|---|---|---|---|---|---|---|
| | Individually impaired receivables | Receivables assessed for impairment on a collective basis | | | | | |
| | | Within due | 0–3 months | 3–6 months | 6–12 months | More than 12 months | Total |
| Trade receivables | ₩5,237 | ₩498,217 | ₩53,777 | ₩72,918 | ₩85,570 | ₩16,762 | ₩732,481 |
| Other receivables | 1,954 | 75,478 | 3,142 | 512 | 834 | 685 | 82,605 |
| Accrued income | - | 1,862 | - | - | - | - | 1,862 |
| Loans | 370 | 5,575 | - | - | - | 5 | 5,950 |
| Total | ₩7,561 | ₩581,132 | ₩56,919 | ₩73,430 | ₩86,404 | ₩17,452 | ₩822,898 |

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. Groups of financial assets that are not individually significant and have similar credit risk characteristics are assessed for impairment on a collective basis. An allowance account is recognized based on aging analysis and the Company's past experience of receivables collection.

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

A summary of the Company's non-derivative liabilities maturity as of December 31, 2012 and 2011 is as follows (in millions of Korean won):

| | 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 | ₩2,077,525 | ₩2,090,783 | ₩992,303 | ₩503,532 | ₩513,254 | ₩81,694 |
| Interest on financial liabilities | - | 127,401 | 52,314 | 33,464 | 35,216 | 6,407 |
| Total | ₩2,077,525 | ₩2,218,184 | ₩1,044,617 | ₩536,996 | ₩548,470 | ₩88,101 |

| | December 31, 2011 | | | | | |
|---|---|---|---|---|---|---|
| | | 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 | ₩2,092,488 | ₩2,109,467 | ₩1,067,063 | ₩172,436 | ₩869,553 | ₩415 |
| Interest on financial liabilities | - | 112,701 | 37,374 | 28,182 | 46,991 | 154 |
| Total | ₩2,092,488 | ₩2,222,168 | ₩1,104,437 | ₩200,618 | ₩916,544 | ₩569 |

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, 2012, financial guarantee contract liabilities of the Company are explained in Note 33-(9).

(4) Capital risk

The Company 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 Company 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 Company's capital similar to overall industry practice.

Debt-to-equity ratios as of December 31, 2012 and 2011 are as follows (in millions of Korean won):

| | December 31, 2012 | December 31, 2011 |
|---|---|---|
| Total liabilities | ₩2,747,586 | ₩2,807,172 |
| Total equity | 3,203,085 | 3,489,049 |
| Debt-equity ratio | 85.78% | 80.46% |

## 5. RESTRICTED FINANCIAL ASSETS:

Details of restricted financial assets as of December 31, 2012 and 2011 are as follows (in millions of Korean won):

| | December 31, 2012 | December 31, 2011 | Description |
|---|---|---|---|
| Cash and cash equivalents | ₩782 | ₩ - | Establish the right of pledge |
| Short-term financial instruments | - | 1,003 | Establish the right of pledge |
| Long-term financial instruments | 970 | 2,170 | Bank transaction deposits and others |
| Deposits | 15 | 15 | Establish the right of pledge |
| Total | ₩1,767 | ₩3,188 | |

## 6. SHORT-TERM INVESTMENT SECURITIES:

Short-term investment securities as of December 31, 2012 and 2011 are summarized as follows (in millions of Korean won):

| | Type | December 31, 2012 | December 31, 2011 |
|---|---|---|---|
| AFS financial assets | Matching trust | ₩9,966 | ₩ - |

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, 2012 and 2011, consist of the following (in millions of Korean won):

| | December 31, 2012 | | | December 31, 2011 | | |
|---|---|---|---|---|---|---|
| | Gross | Allowance for doubtful accounts | Carrying value | Gross | Allowance for doubtful accounts | Carrying value |
| Current | | | | | | |
| Trade receivables | ₩516,147 | ₩(16,176) | ₩499,971 | ₩732,300 | ₩(17,110) | ₩715,190 |
| Other receivables | 79,972 | (1,595) | 78,377 | 82,147 | (2,137) | 80,010 |
| Accrued income | 832 | - | 832 | 1,862 | - | 1,862 |
| Loans | 1,548 | (5) | 1,543 | 1,252 | (5) | 1,247 |
| Total | ₩598,499 | ₩(17,776) | ₩580,723 | ₩817,561 | ₩(19,252) | ₩798,309 |
| Non-Current | | | | | | |
| Trade receivables | ₩181 | ₩(181) | ₩ - | ₩181 | ₩(181) | ₩ - |
| Other receivables | 391 | (391) | - | 458 | (458) | - |
| Loans | 4,130 | (29) | 4,101 | 4,698 | (399) | 4,299 |
| Total | ₩4,702 | ₩(601) | ₩4,101 | ₩5,337 | ₩(1,038) | ₩4,299 |

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

| | Year ended December 31, 2012 | | | | |
|---|---|---|---|---|---|
| | January 1, 2012 | Increase | Written off | Other | December 31, 2012 |
| Trade receivables | ₩(17,110) | ₩(620) | ₩896 | ₩658 | ₩(16,176) |
| Other receivables | (2,137) | (7) | 539 | 10 | (1,595) |
| Short-term loans | (5) | - | - | - | (5) |
| Long-term trade receivables | (181) | - | - | - | (181) |
| Long-term other receivables | (458) | 67 | - | - | (391) |
| Long-term loans | (399) | 12 | 358 | - | (29) |
| Total | ₩(20,290) | ₩(548) | ₩1,793 | ₩668 | ₩(18,377) |

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

Bad debt expense is included in selling, general and administrative expenses and other non-operating expenses item in the consolidated statements of income.

## 8. INVENTORIES:

Inventories as of December 31, 2012 and 2011 are summarized as follows (in millions of Korean won):

| | December 31, 2012 | | | December 31, 2011 | | |
|---|---|---|---|---|---|---|
| | Acquisition cost | Valuation allowance | Book value | Acquisition cost | Valuation allowance | Book value |
| Merchandise | ₩53,081 | ₩(15,716) | ₩37,365 | ₩50,350 | ₩(5,720) | ₩44,630 |
| Finished goods | 63,718 | (5,353) | 58,365 | 66,668 | (16,134) | 50,534 |
| Work in progress | 84,036 | (331) | 83,705 | 64,036 | (153) | 63,883 |
| Raw materials | 178,069 | (5,387) | 172,682 | 213,100 | (5,700) | 207,400 |
| Materials in transit | 34,840 | - | 34,840 | 52,479 | - | 52,479 |
| Others | 4,171 | - | 4,171 | 5,442 | (2) | 5,440 |
| Total | ₩417,915 | ₩(26,787) | ₩391,128 | ₩452,075 | ₩(27,709) | ₩424,366 |

Losses (reversals) on inventory valuation charged to the cost of sales amounted to ₩(922) million and ₩14,670 million for the years ended December 31, 2012 and 2011, respectively. Also, losses on inventory disposal are ₩4,076 million and ₩2,272 million for the years ended December 31, 2012 and 2011, respectively.

## 9. LONG-TERM INVESTMENT SECURITIES:

(1) Long-term investment securities as of December 31, 2012 and 2011, are summarized as follows (in millions of Korean won):

| | December 31, 2012 | December 31, 2011 |
|---|---|---|
| AFS financial assets | ₩147,811 | ₩209,173 |

(2) AFS financial assets

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

| | Type | December 31, 2012 | December 31, 2011 |
|---|---|---|---|
| Equity securities | | | |
| Investments in listed companies | Korea Aerospace Industries, Ltd. and others | ₩127,265 | ₩194,243 |
| Investments in non-listed companies | Korea Defense Industry Association and others | 13,542 | 14,919 |
| Subtotal | | 140,807 | 209,162 |
| Monetary Bond Trust Subordinate Beneficiary certificate | La-union and others | 7,004 | 4 |
| Debt securities | Government and public bonds | - | 7 |
| Total | | ₩147,811 | ₩209,173 |

Investment in non-listed company, beneficiary certificate, investments in funds and debt securities are carried at cost, because there is no quoted market price and their fair value cannot be measured.

2) Changes in unrealized gain on AFS financial assets for the years ended December 31, 2012 and 2011, are as follows (in millions of Korean won):

| | Year ended December 31, 2012 | | | |
|---|---|---|---|---|
| | January 1, 2012 | Valuation | Reclassification from equity to profit or loss | December 31, 2012 |
| Investments in listed companies | ₩140,911 | ₩(66,803) | ₩ - | ₩74,108 |
| Investments in non-listed companies | 1,413 | 687 | (956) | 1,144 |
| Tax effect | (34,282) | 16,062 | 212 | (18,008) |
| Consolidation adjustment | (17,484) | - | - | (17,484) |
| Total | ₩90,558 | ₩(50,054) | ₩(744) | ₩39,760 |

| | Year ended December 31, 2011 | | | |
|---|---|---|---|---|
| | January 1, 2011 | Valuation | Reclassification from equity to profit or loss | December 31, 2011 |
| Investments in listed companies | ₩662 | ₩140,314 | ₩(65) | ₩140,911 |
| Investments in non-listed companies | 3,714 | (1,725) | (576) | 1,413 |
| Tax effect | (801) | (33,613) | 132 | (34,282) |
| Consolidation adjustment | 101 | (17,585) | - | (17,484) |
| Total | ₩3,676 | ₩87,391 | ₩(509) | ₩90,558 |

## 10. DERIVATIVES:

(1) Details of these derivative contracts are as follows:

| Derivatives contracts | Purpose | Description |
|---|---|---|
| Foreign currency forwards | Cash flow hedge | Adjustment from foreign currency sales to Korean won to avoid cash flow risk arising from foreign currency forecast sales |
| | Derivative instrument not designated as a hedge | Recognized in profit or loss of fair value changes in foreign currency forward |
| Interest rate swap | Derivative instrument not designated as a hedge | Recognized in profit or loss of gap between floating interest rate and fixed interest rate |

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

| | December 31, 2012 | | | | | | |
|---|---|---|---|---|---|---|---|
| | Buy | | Sell | | | | |
| | Currency | Amount | Currency | Amount | Assets (liabilities) | Gains (losses) | Other comprehensive income (Note 1) |
| Foreign currency forwards | KRW | 207,832 | USD | 190,535 | ₩1,939 | ₩ - | ₩1,939 |
| | KRW | 17,513 | CNY | 101,700 | 112 | - | 112 |
| | KRW | 10,526 | GBP | 6,000 | 47 | - | 47 |
| | KRW | 7,144 | EUR | 5,000 | (16) | - | (16) |
| | USD | 6,035 | KRW | 6,468 | (1) | (1) | - |
| Interest rate swap | KRW | 1,721 | KRW | 1,950 | (226) | (160) | - |
| | USD | 1,072 | USD | 1,260 | (208) | (216) | - |
| | | | | | ₩1,647 | ₩(377) | ₩2,082 |

| | December 31, 2011 | | | | | | |
|---|---|---|---|---|---|---|---|
| | Buy | | Sell | | | | |
| | Currency | Amount | Currency | Amount | Assets (liabilities) | Gains (losses) | Other comprehensive income (Note 1) |
| Foreign currency forwards | KRW | 282,027 | USD | 246,838 | ₩(4,777) | ₩(144) | ₩(5,454) |
| | KRW | 10,298 | GBP | 5,700 | 99 | - | 99 |
| Interest rate swap | KRW | 3,761 | KRW | 3,808 | (47) | (47) | - |
| | | | | | ₩(4,725) | ₩(191) | ₩(5,355) |

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

Derivative instruments classified as financial assets at FVTPL and derivatives that are designated as hedging instruments are classified as non-current assets (liabilities) when their maturities are more than 12 months from the end of the reporting period; otherwise, they are classified as current assets (liabilities). Meanwhile, at applying cash flow hedge, there is no gain or loss relating to the ineffective portion, which is recognized in profit or loss for the year ended December 31, 2012.

## 11. FINANCIAL INSTRUMENTS:

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

| | December 31, 2012 | | | | | |
|---|---|---|---|---|---|---|
| | Financial assets at FVTPL | Loans and receivables | AFS financial assets | Derivatives designated as hedging instruments | Book value | Fair value |
| Cash and cash equivalents (Note 1) | ₩ - | ₩441,712 | ₩ - | ₩ - | ₩441,712 | ₩441,712 |
| Financial instruments | - | 14,467 | - | - | 14,467 | 14,467 |
| Investment securities | - | - | 157,777 | - | 157,777 | 157,777 |
| Trade and other receivables | - | 584,824 | - | - | 584,824 | 584,824 |
| Derivative assets | 6 | - | - | 2,213 | 2,219 | 2,219 |
| Deposits | - | 41,463 | - | - | 41,463 | 41,463 |
| Total | ₩6 | ₩1,082,466 | ₩157,777 | ₩2,213 | ₩1,242,462 | ₩1,242,462 |

| | December 31, 2012 | | | | |
|---|---|---|---|---|---|
| | Financial liabilities at FVTPL | Financial liabilities at amortized cost | Derivatives designated as hedging instruments | Book value | Fair value |
| Trade and other payables | ₩ - | ₩699,201 | ₩ - | ₩699,201 | ₩699,201 |
| Borrowings and bonds | - | 1,378,324 | - | 1,378,324 | 1,378,324 |
| Derivative liabilities | 441 | - | 131 | 572 | 572 |
| Total | ₩441 | ₩2,077,525 | ₩131 | ₩2,078,097 | ₩2,078,097 |

| | December 31, 2011 | | | | | |
|---|---|---|---|---|---|---|
| | Financial assets at FVTPL | Loans and receivables | AFS financial assets | Derivatives designated as hedging instruments | Book value | Fair value |
| Cash and cash equivalents (Note 1) | ₩ - | ₩358,764 | ₩ - | ₩ - | ₩358,764 | ₩358,764 |
| Financial instruments | - | 5,172 | - | - | 5,172 | 5,172 |
| Investment securities | - | - | 209,173 | - | 209,173 | 209,173 |
| Trade and other receivables | - | 802,608 | - | - | 802,608 | 802,608 |
| Derivative assets | 697 | - | - | 99 | 796 | 796 |
| Deposits | - | 53,708 | - | - | 53,708 | 53,708 |
| Total | ₩697 | ₩1,220,252 | ₩209,173 | ₩99 | ₩1,430,221 | ₩1,430,221 |

| | December 31, 2011 | | | | |
|---|---|---|---|---|---|
| | Financial liabilities at FVTPL | Financial liabilities at amortized cost | Derivatives designated as hedging instruments | Book value | Fair value |
| Trade and other payables | ₩ - | ₩805,102 | ₩ - | ₩805,102 | ₩805,102 |
| Borrowings and bonds | - | 1,287,386 | - | 1,287,386 | 1,287,386 |
| Derivative liabilities | 67 | - | 5,453 | 5,520 | 5,520 |
| Total | ₩67 | ₩2,092,488 | ₩5,453 | ₩2,098,008 | ₩2,098,008 |

(Note 1) Cash on hand is excluded.

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

| | December 31, 2012 | | | |
|---|---|---|---|---|
| | Level 1 | Level 2 | Level 3 | Total |
| Financial assets: | | | | |
| Financial assets at FVTPL | ₩ - | ₩6 | ₩ - | ₩6 |
| AFS financial assets | 127,265 | 9,966 | - | 137,231 |
| Derivatives designated as hedging instruments | - | 2,213 | - | 2,213 |
| Total | ₩127,265 | ₩12,185 | ₩ - | ₩139,450 |
| Financial liabilities: | | | | |
| Financial liabilities at FVTPL | ₩- | ₩ (441) | ₩- | ₩ (441) |
| Derivatives designated as hedging instruments | - | (131) | - | (131) |
| Total | ₩ - | ₩(572) | ₩ - | ₩(572) |

| | December 31, 2011 | | | |
|---|---|---|---|---|
| | Level 1 | Level 2 | Level 3 | Total |
| Financial assets: | | | | |
| Financial assets at FVTPL | ₩ - | ₩697 | ₩ - | ₩697 |
| AFS financial assets | 194,243 | - | 1,634 | 195,877 |
| Derivatives designated as hedging instruments | - | 99 | - | 99 |
| Total | ₩194,243 | ₩796 | ₩1,634 | ₩196,673 |
| Financial liabilities: | | | | |
| Financial liabilities at FVTPL | ₩ - | ₩(67) | ₩ - | ₩(67) |
| Derivatives designated as hedging instruments | - | (5,453) | - | (5,453) |
| Total | ₩ - | ₩(5,520) | ₩ - | ₩(5,520) |

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.

(3) Profit and loss by categories of financial instruments for the years ended December 31, 2012 and 2011, are as follows (in millions of Korean won):

| | Year ended December 31, 2012 | | | | | | |
|---|---|---|---|---|---|---|---|
| | Profit or loss | | | | | | Other comprehensive income (Note 1) |
| | Interest | Dividends | Valuation | Impairment | Disposal | Exchange rate fluctuations | |
| Financial assets: | | | | | | | |
| Financial assets at FVTPL | ₩ - | ₩ - | ₩6 | ₩ - | ₩406 | ₩ - | ₩ - |
| Loans and receivables | 13,889 | - | - | (548) | (1,283) | (14,041) | - |
| AFS financial assets | 442 | 1,247 | - | - | 188 | - | (67,072) |
| Derivatives designated as hedging instruments | - | - | - | - | - | - | 1,196 |
| Total | ₩14,331 | ₩1,247 | ₩6 | ₩(548) | ₩(689) | ₩(14,041) | ₩(65,876) |
| Financial liabilities: | | | | | | | |
| Financial liabilities at FVTPL | ₩ - | ₩ - | ₩(383) | ₩ - | ₩ - | ₩ - | ₩ - |
| Financial liabilities at amortized cost | (73,435) | - | - | - | (80) | 10,111 | - |
| Derivatives designated as hedging instruments | - | - | - | - | 487 | - | 6,241 |
| Total | ₩(73,435) | ₩ - | ₩(383) | ₩ - | ₩407 | ₩10,111 | ₩6,241 |

| | Year ended December 31, 2011 | | | | | | |
|---|---|---|---|---|---|---|---|
| | Profit or loss | | | | | | Other comprehensive income (Note 1) |
| | Interest | Dividends | Valuation | Impairment | Disposal | Exchange rate fluctuations | |
| Financial assets: | | | | | | | |
| Financial assets at FVTPL | ₩ - | ₩ - | ₩(162) | ₩ - | ₩1,830 | ₩ - | ₩ - |
| Loans and receivables | 12,814 | - | | (1,386) | (586) | 1,011 | - |
| AFS financial assets | 73 | 223 | - | - | - | - | 120,363 |
| Derivatives designated as hedging instruments | - | - | - | - | (26) | - | (689) |
| Total | ₩12,887 | ₩223 | ₩(162) | ₩(1,386) | ₩1,218 | ₩1,011 | ₩119,674 |
| Financial liabilities: | | | | | | | |
| Financial liabilities at FVTPL | ₩ - | ₩ - | ₩(29) | ₩ - | ₩ - | ₩ - | ₩ - |
| Financial liabilities at amortized cost | (65,258) | - | - | - | (71) | (538) | - |
| Derivatives designated as hedging instruments | - | - | - | - | - | - | (5,454) |
| Total | ₩(65,258) | ₩ - | ₩(29) | ₩ - | ₩(71) | ₩(538) | ₩(5,454) |

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

Meanwhile, profit and loss by categories of financial instruments included profit- and loss-relating financial instruments classified as discontinued operation.

## 12. INVESTMENT IN JOINT VENTURES AND ASSOCIATES:

(1) Investment in joint ventures and associates as of December 31, 2012 and 2011, consists of the following (in millions of Korean won):

| Company name | Percentage of ownership (%) | Acquisition cost | | Book value | | Proportionate share of net assets | |
|---|---|---|---|---|---|---|---|
| | | December 31, 2012 | December 31, 2011 | December 31, 2012 | December 31, 2011 | December 31, 2012 | December 31, 2011 |
| Doosan Heavy Industries & Construction Co., Ltd. ("DHC") (Note 1) | 49.02 | ₩407,252 | ₩407,252 | ₩2,185,323 | ₩2,291,185 | ₩2,208,598 | ₩2,317,051 |
| Guang Dong Xingpu Steel Center | 21.05 | 1,853 | 1,853 | 4,267 | 4,527 | 4,267 | 4,527 |
| Doosan Eco Biznet | 29.79 | 53 | 53 | 288 | 185 | 288 | 185 |
| MVP Capital Co. (Note 3) | 29.13 | 3,000 | 3,000 | 279 | 387 | 455 | 387 |
| Dong-A E&C Contents | 20.00 | 10 | 10 | 17 | 11 | 17 | 11 |
| Wilus Inc. | 40.00 | 374 | 374 | - | - | - | - |
| National Pension 07-4 Neoplux Venture Capital Fund (Note 2) | 17.86 | - | 625 | - | 1,914 | - | 1,914 |
| New Wave 4 venture capital fund (Note 2) | 25.00 | - | 6,752 | - | 6,276 | - | 6,276 |
| New Wave 5 venture capital fund for infant industries (Note 2) | 30.00 | - | 3,153 | - | 3,519 | - | 3,519 |
| KoFC-Neoplux Pioneer Champ2010-7 (Note 2) | 19.68 | - | 4,960 | - | 4,462 | - | 4,462 |
| 2010 KIF-Neoplux IT venture capital fund (Note 2) | 21.67 | - | 1,287 | - | 1,002 | - | 1,002 |
| National Pension 06-2 Neoplux CRF (Note 2) | 10.00 | - | 12,430 | - | 4,335 | - | 4,335 |
| Neoplux No. 1 Private Equity Fund (Note 2) | 15.00 | - | 28,105 | - | 18,639 | - | 18,639 |
| Sichuan Kelun-Doosan Biotechnology Company | 50.00 | 2,526 | 1,634 | 2,490 | 1,770 | 2,490 | 1,770 |
| Total | | ₩415,068 | ₩471,488 | ₩2,192,664 | ₩2,338,212 | ₩2,216,115 | ₩2,364,078 |

(Note 1) As of December 31, 2012, the difference between the book value of investment and the proportionate share of net assets is the remaining balance of unrealized income.

(Note 2) Investment funds, CRC funds, private investment company, etc., which are the investment sector of Neoplux Co., Ltd., were eliminated in consolidated financial statements through equity spin-off (see Note 40).

(Note 3) As of December 31, 2012, there was a liquidation process going on now.

(2) Changes in investment in joint ventures and associates for the years ended December 31, 2012 and 2011, consist of the following (in millions of Korean won):

| | Year ended December 31, 2012 | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Company name | 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 |
| DHC | ₩2,291,185 | ₩ - | ₩(32,734) | ₩19,201 | ₩(107,492) | ₩15,163 | ₩ - | ₩2,185,323 |
| 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 |
| Wilus Inc. | - | - | - | - | - | - | - | - |
| National Pension 07-4 Neoplux Venture Capital Fund | 1,914 | (88) | (1,139) | (200) | (87) | - | (400) | - |
| New Wave 4 venture capital fund | 6,276 | (2,646) | - | 327 | 290 | - | (4,247) | - |
| New Wave 5 venture capital fund for infant industries | 3,519 | (714) | - | 241 | (598) | - | (2,448) | - |
| KoFC-Neoplux Pioneer Champ2010-7 | 4,462 | 4,960 | - | (463) | 39 | - | (8,998) | - |
| 2010 KIF-Neoplux IT venture capital fund | 1,002 | 2,821 | - | (282) | (53) | - | (3,488) | - |
| National Pension 06-2 Neoplux CRF | 4,335 | (500) | - | 1,053 | 3 | - | (4,891) | - |
| Neoplux No. 1 Private Equity Fund | 18,639 | 3,251 | (542) | 1,101 | (1,755) | - | (20,694) | - |
| Sichuan Kelun-Doosan Biotechnology Company | 1,770 | 891 | - | (38) | (133) | - | - | 2,490 |
| Total | ₩2,338,212 | ₩7,867 | ₩(34,415) | ₩21,053 | ₩(110,050) | ₩15,163 | ₩(45,166) | ₩2,192,664 |

Meanwhile, the Company did not use the equity method of accounting to evaluate Wilus Inc. and MVP Capital Co. because net assets of Wilus Inc. were under zero (0) and MVP Capital Co. was in the process of liquidation.

| Company name | January 1, 2011 | Acquisition (disposal) | Dividends | Share of profit (loss) | Increase (decrease) in equity of associates | Other (Note 1) | December 31, 2011 |
|---|---|---|---|---|---|---|---|
| | Year ended December 31, 2011 | | | | | | |
| DHC | ₩2,316,702 | ₩ - | ₩(32,734) | ₩121,071 | ₩14,252 | ₩(128,106) | ₩2,291,185 |
| Guang Dong Xingpu Steel Center | 4,456 | - | - | (176) | 247 | - | 4,527 |
| Doosan Eco Biznet | 170 | - | - | 15 | - | - | 185 |
| MVP Capital Co. | 611 | - | (130) | - | - | (94) | 387 |
| Korea Aerospace Industries Co., Ltd. | 107,146 | (107,053) | (938) | 845 | - | - | - |
| Dong-A E&C Contents | 11 | - | (2) | 2 | - | - | 11 |
| Wilus Inc. | 245 | - | - | (245) | - | - | - |
| National Pension 05-5 Neoplux Venture Capital Fund | 1,347 | (837) | (229) | 467 | (748) | - | - |
| National Pension 07-4 Neoplux Venture Capital Fund | 2,982 | (1,764) | (422) | 1,713 | (595) | - | 1,914 |
| New Wave 3 venture capital fund | 1,912 | (1,835) | (345) | 573 | (305) | - | - |
| New Wave 4 venture capital fund | 6,361 | - | - | (111) | 26 | - | 6,276 |
| New Wave 5 venture capital fund for infant industries | 3,626 | (150) | (150) | 101 | 92 | - | 3,519 |
| KoFC-Neoplux Pioneer Champ2010-7 | 2,382 | 2,480 | - | (344) | (56) | - | 4,462 |
| 2010 KIF-Neoplux IT venture capital fund | 936 | 312 | - | (246) | - | - | 1,002 |
| Neoplux 03-2 CRF | 675 | (717) | - | 42 | - | - | - |
| National Pension 04-2 Neoplux CRF | 1,246 | (806) | - | (440) | - | - | - |
| National Pension 06-2 Neoplux CRF | 7,630 | (4,440) | - | 1,227 | (82) | - | 4,335 |
| Neoplux No. 1 Private Equity Fund | 10,205 | 7,200 | - | (827) | 2,061 | - | 18,639 |
| Sichuan Kelun-Doosan Biotechnology Company | - | 1,634 | - | (52) | 188 | - | 1,770 |
| Total | ₩2,468,643 | ₩(105,976) | ₩(34,950) | ₩123,615 | ₩15,080 | ₩(128,200) | ₩2,338,212 |

(Note 1) Other is changes in capital surplus, other capital item, and retained earnings of joint ventures and associates.

(3) The condensed financial information of the investees as of and for the years ended December 31, 2012 and 2011, is as follows (in millions of Korean won):

| | As of and for the year ended December 31, 2012 | | | | As of and for the year ended December 31, 2011 | | | |
|---|---|---|---|---|---|---|---|---|
| Companies | Total assets | Total liabilities | Sales | Net income (loss) | Total assets | Total liabilities | Sales | Net income (loss) |
| DHC | ₩13,524,414 | ₩9,014,834 | ₩9,627,184 | ₩38,045 | ₩13,589,169 | ₩8,792,241 | ₩8,495,506 | ₩274,781 |
| Guang Dong Xingpu Steel Center | 27,128 | 6,857 | 53,900 | 17 | 35,723 | 14,215 | 77,457 | (837) |
| Doosan Eco Biznet | 1,192 | 225 | 948 | 69 | 960 | 338 | 1,005 | (70) |
| MVP Capital Co. | 1,570 | 8 | - | 95 | 1,841 | 4 | 60 | (10) |
| Dong-A E&C Contents | 108 | 26 | 279 | (2) | 67,586 | 12,612 | 292,406 | 8,055 |
| Wilus Inc. | 950 | 1,048 | 2,508 | 39 | 929 | 978 | 2,973 | (726) |
| National Pension 07-4 Neoplux Venture Capital Fund | - | - | 1,435 | (1,119) | 10,740 | 24 | - | 9,592 |
| New Wave 4 venture capital fund | - | - | 3,940 | 1,308 | 25,254 | 149 | - | (443) |
| New Wave 5 venture capital fund for infant industries | - | - | 1,950 | 804 | 11,808 | 77 | - | 338 |
| KoFC-Neoplux Pioneer Champ2011-7 | - | - | 278 | (2,354) | 22,988 | 318 | - | (1,748) |
| 2011 KIF-Neoplux IT venture capital fund | - | - | 16 | (1,300) | 4,777 | 154 | - | (1,137) |
| National Pension 06-2 Neoplux CRF | - | - | 12,719 | 10,536 | 43,965 | 615 | 14,433 | 12,274 |
| Neoplux No. 1 Private Equity Fund | - | - | 9,926 | 7,339 | 127,968 | 3,708 | (4,329) | (5,514) |
| Sichuan Kelun-Doosan Biotechnology Company | 6,345 | 1,365 | - | (75) | 3,556 | 17 | - | (105) |

(4) Fair values of marketable investment in joint ventures and associates as of December 31, 2012 and 2011, are as follows (in millions of Korean won):

| | December 31, 2012 | | December 31, 2011 | |
|---|---|---|---|---|
| | Book value | Fair value | Book value | Fair value |
| DHC | ₩2,185,323 | ₩1,972,763 | ₩2,291,185 | ₩2,841,303 |

## 13. PROPERTY, PLANT AND EQUIPMENT:

(1) Changes in property, plant and equipment for the years ended December 31, 2012 and 2011, consist of the following (in millions of Korean won):

| | Year ended December 31, 2012 | | | | | |
|---|---|---|---|---|---|---|
| | Land | Buildings and structures | Machinery | Tools, furniture, fixtures and others | Construction in progress | Total |
| Balance at January 1, 2012 | ₩779,425 | ₩349,980 | ₩182,017 | ₩93,694 | ₩44,739 | ₩1,449,855 |
| Acquisition | 10,385 | 5,020 | 26,003 | 45,219 | 62,081 | 148,708 |
| Business combinations (Note 1) | 1,628 | 369 | - | 98 | - | 2,095 |
| Government subsidy | - | - | (81) | (96) | - | (177) |
| Reclassifications (Note 2) | (68,238) | 11,406 | 69,306 | (14,551) | (83,226) | (85,303) |
| Disposal | - | (107) | (7,281) | (11,691) | - | (19,079) |
| Depreciation | (43) | (15,108) | (31,036) | (23,230) | - | (69,417) |
| Impairment | - | (1,639) | - | - | - | (1,639) |
| Business transfer | - | - | (4,289) | (9,271) | - | (13,560) |
| Others (Note 3) | (13) | (1,340) | (1,882) | (365) | (994) | (4,594) |
| Balance at December 31, 2012 | ₩723,144 | ₩348,581 | ₩232,757 | ₩79,807 | ₩22,600 | ₩1,406,889 |
| Acquisition cost | ₩723,144 | ₩444,121 | ₩484,124 | ₩179,351 | ₩22,600 | ₩1,853,340 |
| Accumulated depreciation and impairment | - | (95,540) | (249,883) | (99,395) | - | (444,818) |
| Government subsidy | - | - | (1,484) | (149) | - | (1,633) |

(Note 1) The Company merged with DFMS for the year ended December 31, 2012 (see Note 39).

(Note 2) In addition to reclassification of construction in progress to other accounts, land and buildings in Anmyondo area for ranch and saltern business amounting to ₩69,283 million was reclassified as investment property for the year ended December 31, 2012.

(Note 3) The effect of foreign currency translation and others.

| | Year ended December 31, 2011 | | | | | |
|---|---|---|---|---|---|---|
| | Land | Buildings and structures | Machinery | Tools, furniture, fixtures and others | Construction in progress | Total |
| Balance at January 1, 2011 | ₩730,136 | ₩333,036 | ₩111,156 | ₩61,940 | ₩12,887 | ₩1,249,155 |
| Acquisition | 673 | 4,465 | 27,307 | 90,123 | 67,607 | 190,175 |
| Business combinations (Note 1) | 49,057 | 20,363 | 11,931 | 7,294 | 3,168 | 91,813 |
| Government subsidy | - | - | (361) | (22) | - | (383) |
| Reclassifications | - | 8,197 | 60,068 | (36,616) | (38,658) | (7,009) |
| Disposal | (257) | (933) | (585) | (2,989) | (1,066) | (5,830) |
| Depreciation | (43) | (15,149) | (26,958) | (26,037) | - | (68,187) |
| Impairment | - | - | (540) | - | - | (540) |
| Others (Note 2) | (141) | - | - | - | 801 | 660 |
| Balance at December 31, 2011 | ₩779,425 | ₩349,979 | ₩182,018 | ₩93,693 | ₩44,739 | ₩1,449,854 |
| Acquisition cost | ₩779,425 | ₩427,362 | ₩410,194 | ₩192,881 | ₩44,739 | ₩1,854,601 |
| Accumulated depreciation and impairment | - | (77,382) | (226,334) | (99,076) | - | (402,792) |
| Government subsidy | - | - | (1,843) | (111) | - | (1,954) |

(Note 1) In 2011, Doosan Industrial Vehicle Co., Ltd., and Doosan Electro-Materials (Changshu) Co., Ltd., were newly included in the consolidation.
(Note 2) The effect of foreign currency translation and others.

As of December 31, 2012, the Company's land and buildings are pledged as collateral for loans from Korea Development Bank and others. The Company has no right to pledge such assets as collateral or to sell (see Note 34).

(2) Property plant and equipment acquired through capital lease agreements as of December 31, 2012 and 2011, are as follows (in millions of Korean won):

| Details | December 31, 2012 | December 31, 2011 |
|---|---|---|
| Acquisition cost | ₩38,161 | ₩22,519 |
| Accumulated depreciation | (12,978) | (5,067) |
| Book value | ₩25,183 | ₩17,452 |

The actual increase amount of leased assets for the year ended December 31, 2012 is ₩19,015 million. Leased asset amounting to ₩4,349 million was acquired in 2011, and transferred to leased assets in 2012 through capital lease agreements.

Total minimum lease payments of finance lease liabilities and present value as of December 31, 2012 and 2011, are as follows (in millions of Korean won):

| | December 31, 2012 | | December 31, 2011 | |
|---|---|---|---|---|
| | Minimum lease payments | Present value | Minimum lease payments | Present value |
| Less than 1 year | ₩9,691 | ₩8,638 | ₩6,146 | ₩5,629 |
| 1–5 years | 17,758 | 16,733 | 8,536 | 8,072 |
| Total | 27,449 | ₩25,371 | 14,682 | ₩13,701 |
| Present value adjustment | (2,078) | | (981) | |
| Finance lease payables | ₩25,371 | | ₩13,701 | |

As of December 31, 2012, the Company's leased assets under finance lease are pledged as collateral for obligations under finance leases, which have a carrying amount of ₩25,371 million (see Note 34).

## 14. INTANGIBLE ASSETS:

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

| | Year ended December 31, 2012 | | | | |
|---|---|---|---|---|---|
| | Goodwill | Industrial rights | Development costs | Other intangible assets | Total |
| January 1, 2012 | ₩143,734 | ₩1,267 | ₩26,713 | ₩116,476 | ₩288,190 |
| Acquisition | - | 607 | 16,132 | 9,831 | 26,570 |
| Business combinations | 6,420 | - | - | 1,965 | 8,385 |
| Government subsidy | - | - | (104) | - | (104) |
| Reclassifications (Note 1) | - | - | - | 16,020 | 16,020 |
| Disposal | - | (4) | - | (1,123) | (1,127) |
| Amortization | - | (358) | (9,759) | (20,469) | (30,586) |
| Impairment | - | (4) | (774) | (2,648) | (3,426) |
| Business transfer | - | - | - | (628) | (628) |
| Others | (1,772) | (8) | - | (399) | (2,179) |
| December 31, 2012 | ₩148,382 | ₩1,500 | ₩32,208 | ₩119,025 | ₩301,115 |
| Acquisition cost | ₩148,382 | ₩3,243 | ₩65,370 | ₩170,507 | ₩387,502 |
| Accumulated depreciation and impairment | - | (1,744) | (32,619) | (46,079) | (80,442) |
| Government subsidy | - | - | (543) | (5,403) | (5,946) |

(Note 1) Construction in progress was reclassified as other intangible asset due to completion of building ERP.

| | Year ended December 31, 2011 | | | | |
|---|---|---|---|---|---|
| | Goodwill | Industrial rights | Development costs | Other intangible assets | Total |
| January 1, 2011 | ₩87,950 | ₩678 | ₩22,945 | ₩44,408 | ₩155,981 |
| Acquisition | - | 533 | 9,885 | 14,673 | 25,091 |
| Business combinations (Note 1) | 55,784 | 290 | 1,549 | 66,341 | 123,964 |
| Government subsidy | - | - | (103) | (5,855) | (5,958) |
| Reclassifications | - | - | - | 7,009 | 7,009 |
| Disposal | - | - | - | (867) | (867) |
| Amortization | - | (236) | (7,456) | (10,727) | (18,419) |
| Impairment | - | - | (107) | (1,976) | (2,083) |
| Others | - | 2 | - | 3,470 | 3,470 |
| December 31, 2011 | ₩143,734 | ₩1,267 | ₩26,713 | ₩116,476 | ₩288,190 |
| Acquisition cost | ₩143,734 | ₩2,645 | ₩49,238 | ₩144,840 | ₩340,457 |
| Accumulated depreciation and impairment | - | (1,378) | (22,016) | (22,509) | (45,903) |
| Government subsidy | - | - | (509) | (5,855) | (6,364) |

(Note 1) In 2011, Doosan Industrial Vehicle Co., Ltd., and Doosan Electro-Materials (Changshu) Co., Ltd., are newly included in the consolidation.

The carrying amount of membership with indefinite useful lives in other intangible assets item is ₩19,097 million and ₩23,468 million as of December 31, 2012 and 2011, respectively. Meanwhile, expenditure on research and development, which was recognized as an expense, amounted to ₩37,816 million and ₩33,527 million for the years ended December 31, 2012 and 2011, respectively.

(2) Impairment test of goodwill

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

| Cash-generating units | Description |
|---|---|
| Mottrol BG | Manufacturing and sale of hydraulic components |
| Information and communications BU | Operating and development of software |
| FM BU | Building maintenance service |
| Doosan Industrial Vehicle | Manufacturing and sale of industrial vehicle |
| Oricom | Advertising |

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, 2012 | December 31, 2011 |
|---|---|---|
| Mottrol BG | ₩84,562 | ₩84,562 |
| Information and communications BU | 2,015 | 2,015 |
| FM BU (Note 1) | 6,420 | - |
| Doosan Industrial Vehicle | 54,012 | 55,784 |
| Oricom | 1,373 | 1,373 |
| Total | ₩148,382 | ₩143,734 |

(Note 1) The Company merged with DFMS for the year ended December 31, 2012 (see Note 39).

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

| Description | Mottrol BG | Information and communications BU | FM BU | Doosan Industrial Vehicle | Oricom |
|---|---|---|---|---|---|
| Discount rate | 11.79% | 11.41% | 11.41% | 8.26% | 6.90% |

The Company uses cash flow projections based on financial budgets approved by the directors covering a five-year period 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 ‘zero (0)%’ growth rate, continuing the 5th year cash flow. Meanwhile, the discount rates used reflect relevant risks specific to the cash-generating units.

The result of recoverable amount the Company calculated based on a 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, 2012.

## 15. INVESTMENT PROPERTIES:

Changes in investment properties for the years ended December 31, 2012 and 2011 are as follows (in millions of Korean won):

| | Year ended December 31, 2012 | | |
|---|---|---|---|
| | Land | Buildings | Total |
| January 1, 2012 | ₩145,666 | ₩18,083 | ₩163,749 |
| Acquisition | - | 530 | 530 |
| Disposal | (4,035) | (256) | (4,291) |
| Depreciation | - | (2,494) | (2,494) |
| Reclassifications | 68,456 | 827 | 69,283 |
| Impairment | (779) | - | (779) |
| December 31, 2012 | ₩209,308 | ₩16,690 | ₩225,998 |
| Acquisition cost | ₩210,087 | ₩24,426 | ₩234,513 |
| Accumulated depreciation and impairment | (779) | (7,736) | (8,515) |

| | Year ended December 31, 2011 | | |
|---|---|---|---|
| | Land | Buildings | Total |
| January 1, 2011 | ₩151,140 | ₩18,072 | ₩169,212 |
| Acquisition | 13 | 1,506 | 1,519 |
| Disposal | (5,487) | (637) | (6,124) |
| Depreciation | - | (858) | (858) |
| December 31, 2011 | ₩145,666 | ₩18,083 | ₩163,749 |
| Acquisition cost | ₩145,666 | ₩24,545 | ₩170,211 |
| Accumulated depreciation and impairment | - | (6,462) | (6,462) |

The Company'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 Company has no right of assets to sell or pledge as collateral for another loans (see Note 34).

The book value of investment property is presented at the cost and the fair values of the Company's investment property at December 31, 2012 and 2011 are as follows (in millions of Korean won):

| | December 31, 2012 | December 31, 2011 |
|---|---|---|
| Land | ₩239,530 | ₩152,991 |
| Buildings | 33,503 | 16,221 |
| Total | ₩273,033 | ₩169,212 |

The recognized amount of rental income from investment property for the years ended December 31, 2012 and 2011, is ₩3,473 million and ₩3,521 million, respectively.

## 16. BONDS AND BORROWINGS:

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

| Type | Annual interest rate (%) | December 31, 2012 | December 31, 2011 |
|---|---|---|---|
| The 279-3rd | 6.55 | ₩ - | ₩97,000 |
| The 280-1st | 4.44 | 40,000 | 40,000 |
| The 280-2nd | 5.64 | 50,000 | 50,000 |
| The 281-1st | 4.95 | 70,000 | 70,000 |
| The 281-2nd | 5.21 | 80,000 | 80,000 |
| The 282-1st | 4.40 | 50,000 | 50,000 |
| The 282-2nd | 4.99 | 80,000 | 100,000 |
| The 283-1st | 3.84 | 20,000 | - |
| The 283-2nd | 4.27 | 80,000 | - |
| Subtotal | | 470,000 | 487,000 |
| Doosan Dong-A Co., Ltd. | | 10,000 | 30,000 |
| Doosan Tower Co., Ltd. | | 110,000 | 110,000 |
| Subtotal | | 120,000 | 140,000 |
| Total | | 590,000 | 627,000 |
| Less: Current portion of long-term bonds | | (80,000) | (117,000) |
| Discount on current portion of long-term bonds | | 190 | 81 |
| Discount on non-current portion of long-term bonds | | (1,870) | (2,296) |
| | | - | |
| Long-term bonds | | ₩508,130 | ₩507,704 |

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

1) Short-term borrowings

| Type | Lender | Annual interest rate (%) | December 31, 2012 | December 31, 2011 |
|---|---|---|---|---|
| Short-term borrowings in Korean won | Hana Bank and others | 4.24–6.74 | ₩259,497 | ₩203,303 |
| Short-term borrowings in foreign currency | Agricultural Bank of China and others | 4.29–6.00 | 7,022 | - |
| Usance (document against acceptance and payment) | Woori Bank and others | 0.18–2.70 | 54,420 | 79,905 |
| Total | | | ₩320,939 | ₩283,208 |

Short-term borrowings, above, include loans recognized as a result of transfer of accounts receivable, which do not satisfy requirements for derecognition of financial assets. The transferred accounts receivable is pledged as collateral for loans (see Note 33-(4)).

## 2) Long-term borrowings

| Type | Lender | Annual interest rate (%) | December 31, 2012 | December 31, 2011 |
|---|---|---|---|---|
| Borrowings in Korean won | Korea Development Bank | 1.00–6.74 | ₩50,325 | ₩85,962 |
| | Hana Bank | 5.55–5.91 | 17,000 | 50,000 |
| | Kwangju Bank | MOR 3M+2.22 | 10,000 | 10,000 |
| | Korea Housing Guarantee | 1.00 | 2,904 | 2,904 |
| | Kookmin Bank | 3.00 | 194 | 226 |
| | Woori Bank | 5.27 ~ 5.96 | 60,010 | 2,513 |
| | Korea EximBank | 5.13 | 20,000 | 20,000 |
| | Shinhan Bank | 4.93 | 40,000 | 40,000 |
| | Korea Development Bank and others | 5.97–6.20 | 125,110 | 140,000 |
| | National Agricultural Cooperative Federation | 1.00–4.98 | 30,007 | 29 |
| | La-union | 4.80 | 50,000 | - |
| | Subtotal | | 405,550 | 351,634 |
| Borrowings in foreign currency | Korea EximBank | Libor(3M)+2.35 | 27,009 | 28,749 |
| | | Libor(3M)+3.15 | 16,205 | - |
| | | Libor(3M)+2.90 | 5,402 | - |
| | Korea Development Bank | Libor(3M)+2.95 | 16,205 | - |
| | Doosan Infracore Germany GmbH. | 5.00 | - | 676 |
| | Subtotal | | 64,821 | 29,425 |
| | Total | | 470,371 | 381,059 |
| Less: Current portion of long-term borrowings | | | (80,577) | (38,446) |
| Discount on current portion of long-term borrowings | | | 10 | 29 |
| Discount on non-current portion of long-term borrowings | | | (917) | (1,475) |
| | Net | | ₩388,877 | ₩341,138 |

## 17. RETIREMENT BENEFIT OBLIGATION:

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

| | December 31, 2012 | December 31, 2011 |
|---|---|---|
| Present value of funded defined benefit obligation | ₩195,358 | ₩184,888 |
| Present value of unfunded defined benefit obligation | - | 1,398 |
| Fair value of plan assets | (50,870) | (59,038) |
| Total | ₩144,488 | ₩127,248 |

(2) Expenses recognized in profit and loss for the years ended December 31, 2012 and 2011, are as follows (in millions of Korean won):

| | Year ended December 31, 2012 | Year ended December 31, 2011 |
|---|---|---|
| Current service cost | ₩32,768 | ₩23,752 |
| Interest cost | 8,822 | 6,861 |
| Expected return on plan assets | (2,079) | (2,566) |
| Effect of downscale and liquidation | (154) | - |
| Total | ₩39,357 | ₩28,047 |

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

| | Year ended December 31, 2012 | Year ended December 31, 2011 |
|---|---|---|
| Cost of sales | ₩18,901 | ₩13,804 |
| Selling and administrative expenses | 17,905 | 12,010 |
| Research and development cost | 752 | 669 |
| Profit from discontinued operations | 1,799 | 1,564 |
| Total | ₩39,357 | ₩28,047 |

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

| | Year ended December 31, 2012 | Year ended December 31, 2011 |
|---|---|---|
| Beginning balance | ₩186,286 | ₩139,746 |
| Current service cost | 32,768 | 23,752 |
| Transfer in | 2,474 | 1,306 |
| Transfer out | (4,584) | (1,370) |
| Interest cost | 8,822 | 6,861 |
| Benefit paid | (39,786) | (24,108) |
| Actuarial loss | 16,664 | 28,891 |
| Effect of downscale and liquidation | (154) | - |
| Business combinations | 2,779 | 11,208 |
| Business transfer | (8,134) | - |
| Equity spin-off | (1,777) | - |
| Ending balance | ₩195,358 | ₩186,286 |

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

| | Year ended December 31, 2012 | Year ended December 31, 2011 |
|---|---|---|
| Beginning balance | ₩59,038 | ₩58,125 |
| Expected return on plan assets | 2,079 | 2,566 |
| Contributions by employer directly to plan assets | 1,300 | - |
| Transfer in | (457) | (386) |
| Actuarial loss | (434) | (946) |
| Benefit paid | (9,615) | (5,322) |
| Business combinations | 1,320 | 5,001 |
| Business transfer | (1,681) | - |
| Equity spin-off | (680) | - |
| Ending balance | ₩50,870 | ₩59,038 |

Realized return on plan assets amounted to ₩1,645 million and ₩1,620 million for the years ended December 31, 2012 and 2011, respectively.

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

| | December 31, 2012 | December 31, 2011 |
|---|---|---|
| Discount rate for defined benefit obligations | 3.7% | 5.0% |
| Expected rate of return on plan assets | 3.7% | 3.7–4.5% |
| Expected rate of salary increase (Note 1) | Employee 5.0–8.0%<br>Director 5.3–8.0% | Employee 5.0–8.0%<br>Director 8.0% |

(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, 2012 and 2011, are as follows (in millions of Korean won):

| | December 31, 2012 | December 31, 2011 |
|---|---|---|
| Equity instruments | ₩358 | ₩727 |
| Debt instruments | 4,459 | 18,596 |
| Others (Note 1) | 46,053 | 39,715 |
| Total | ₩50,870 | ₩59,038 |

(Note 1) Other plan assets include demand deposits, loans receivable, commercial paper and note.

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

## 18. PROVISIONS:

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

| | Year ended December 31, 2012 | | | | | | |
|---|---|---|---|---|---|---|---|
| | January 1, 2012 | Accrual | Use | Others (Note 1) | December 31, 2012 | Current | Non-current |
| Provision for product warranties | ₩8,370 | ₩1,270 | ₩(2,573) | ₩ - | ₩7,067 | ₩7,067 | ₩ - |
| Provision for product returned goods | 5,693 | 9,202 | (9,328) | - | 5,567 | 5,567 | - |
| Asset retirement obligations | 4,303 | 162 | (195) | (1,030) | 3,240 | 100 | 3,140 |
| Provision for loss compensation | - | 13,423 | - | - | 13,423 | - | 13,423 |
| Total | ₩18,366 | ₩24,057 | ₩(12,096) | ₩(1,030) | ₩29,297 | ₩12,734 | ₩16,563 |

(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, 2012 and 2011 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, 2011 | ₩25,042,611 | ₩5,769,814 | ₩125,213 | ₩28,849 | ₩154,062 | ₩312,772 |
| Exercising share options | 46,600 | - | 233 | - | 233 | 3,859 |
| Balance at December 31, 2011 | ₩25,089,211 | ₩5,769,814 | ₩125,446 | ₩28,849 | ₩154,295 | ₩316,631 |
| Balance at January 1, 2012 | ₩25,089,211 | ₩5,769,814 | ₩125,446 | ₩28,849 | ₩154,295 | ₩316,631 |
| Exercising share options | 10,800 | - | 55 | - | 55 | 1,455 |
| Retirement of shares through retained earnings | (300,000) | - | - | - | - | - |
| 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 |

The Parent's number of shares authorized is 400,000,000 shares with a par value of ₩5,000 per share. The number of shares issued by the Parent is 20,858,821 of common stock and 5,396,759 of preferred stock as of December 31, 2012. There is a difference arising from retirement of shares through retained earnings, capital stock amount to ₩132,778 million is not the same as total par value of shares issued amount to ₩131,278 million.

The number of shares that are having limitation on voting right under commercial law is 4,403,614 and 8,406,208 as of December 31, 2012 and 2011, respectively.

## 20. OTHER CAPITAL SURPLUS:

Other capital surplus as of December 31, 2012 and 2011 is summarized as follows (in millions of Korean won):

| | December 31, 2012 | December 31, 2011 |
|---|---|---|
| Gain from merger | ₩1,390 | ₩1,390 |
| Asset revaluation reserve | 277,542 | 277,542 |
| Other capital surplus | 340,914 | 397,663 |
| Total | ₩619,846 | ₩676,595 |

## 21. OTHER CAPITAL ITEMS:

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

| | December 31, 2012 | December 31, 2011 |
|---|---|---|
| Treasury stock | ₩(202,676) | ₩(336,536) |
| Loss on disposal of treasury stock | (16,738) | (16,738) |
| Share option | 13,058 | 9,570 |
| Loss on capital reduction | (127,319) | - |
| Other capital items | (79,815) | (104,557) |
| Total | ₩(413,490) | ₩(448,261) |

(2) Treasury stock

The Parent acquired registered common stock and non-voting preferred stock and recognized them as other capital items for the stabilization of stock price. Then treasury stock will be retired or issued. Changes of treasury stock for the year ended December 31, 2012, 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, 2012 | 8,406,208 | 746,109 | 9,152,317 | ₩330,221 | ₩6,315 | ₩336,536 |
| Acquisition (Note 1) | 370,384 | - | 370,384 | 47,030 | - | 47,030 |
| Retirement of shares through retained earnings (Note 2) | (300,000) | - | (300,000) | (43,236) | - | (43,236) |
| Capital reduction without refund (Note 3) | (4,072,978) | (373,055) | (4,446,033) | (146,391) | (3,158) | (149,549) |
| Merger (Note 4) | - | 300,000 | 300,000 | - | 11,895 | 11,895 |
| December 31, 2012 | 4,403,614 | 673,054 | 5,076,668 | ₩187,624 | ₩15,052 | ₩202,676 |

(Note 1) Treasury stock was acquired through KRX for the stabilization of stock price.

(Note 2) Retirement of shares through retained earnings had been done as of February 14, 2012 as per the board of directors' resolutions on October 27, 2011. Carrying amount of treasury stock and retained earnings were set off without change of capital.

(Note 3) Capital reduction had been done as of May 2, 2012, as per a resolution of general meeting of stockholders on March 30, 2012. Loss on capital reduction amounted to ₩127,319 million, which is a difference between carrying amount of treasury stock and capital stock and was recognized.

(Note 4) As per merger with DFMS on November 1, 2012, carrying amount of preferred stocks of the Company that predecessor company had were transferred to treasury stock.

### (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, 2012, 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 |
|---|---|---|---|---|---|
| 6th | 2006.2.27 | 1,400 | 2009.2.27–2016.2.26 | ₩32,700 | ₩13,925 |
| 8th | 2007.3.16 | 4,400 | 2010.3.16–2017.3.15 | 59,600 | 28,930 |
| 9th | 2008.3.21 | 27,000 | 2011.3.21–2018.3.20 | 165,100 | 68,846 |
| 10th | 2009.3.27 | 4,950 | 2012.3.27–2019.3.26 | 106,500 | 53,382 |
| 12th | 2010.3.26 | 101,260 | 2013.3.26–2020.3.26 | 116,500 | 56,460 |
| 13th | 2011.3.25 | 58,600 | 2014.3.25–2021.3.25 | 137,500 | 68,045 |
| 14th | 2012.3.30 | 63,600 | 2015.3.30–2022.3.30 | 156,200 | 63,647 |
| | Total | 261,210 | | | |

Changes in share option for the year ended December 31, 2012, are as follows:

1) Number of common shares to be issued:

| Details | Date of grant | January 1, 2012 | Granted | Exercised | Forfeited | December 31, 2012 |
|---|---|---|---|---|---|---|
| 6th | 2006.2.27 | 1,400 | - | - | - | 1,400 |
| 8th | 2007.3.16 | 5,300 | - | (900) | - | 4,400 |
| 9th | 2008.3.21 | 28,400 | - | - | (1,400) | 27,000 |
| 10th | 2009.3.27 | 9,450 | - | (4,500) | - | 4,950 |
| 11th | 2009.7.28 | 5,400 | - | (5,400) | - | - |
| 12th | 2010.3.26 | 103,360 | - | - | (2,100) | 101,260 |
| 13th | 2011.3.25 | 59,600 | - | - | (1,000) | 58,600 |
| 14th | 2012.3.30 | - | 63,600 | - | - | 63,600 |
| | Total | 212,910 | 63,600 | (10,800) | (4,500) | 261,210 |

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

| Details | Date of grant | January 1, 2012 | Granted | Exercised | Forfeited | December 31, 2012 |
|---|---|---|---|---|---|---|
| 6th | 2006.2.27 | ₩19 | ₩ - | ₩ - | ₩ - | ₩19 |
| 8th | 2007.3.16 | 153 | - | (26) | - | 127 |
| 9th | 2008.3.21 | 1,956 | - | - | (96) | 1,860 |
| 10th | 2009.3.27 | 505 | - | (240) | - | 265 |
| 11th | 2009.7.28 | 229 | - | (229) | - | - |
| 12th | 2010.3.26 | 5,149 | 692 | - | (119) | 5,722 |
| 13th | 2011.3.25 | 1,559 | 2,005 | - | (35) | 3,529 |
| 14th | 2012.3.30 | - | 1,536 | - | - | 1,536 |
| | Total | ₩9,570 | ₩4,233 | ₩(495) | ₩(250) | ₩13,058 |

The weighted-average price of shares on their respective exercise dates for the year ended December 31, 2012, is ₩135,373. The weighted-average remaining contractual period of share options is 8.12 years. Expense recognized related to the share option grant amounted to ₩4,233 million and ₩4,594 million for the years ended December 31, 2012 and 2011, respectively. Expense to be recognized in the future period amounted to ₩2,976 million.

The Company 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 (Note 1) | Expected exercisable period | Expected volatility | Expected dividend yield ratio |
|---|---|---|---|---|---|
| 6th | 2006.2.27 | 4.87% | 3.00 | 48.21% | 0% |
| 8th | 2007.3.16 | 4.79% | 3.00 | 46.73% | 0% |
| 9th | 2008.3.21 | 5.18% | 3.00 | 58.89% | 0% |
| 10th | 2009.3.27 | 3.71% | 3.53 | 69.82% | 22% |
| 11th | 2009.7.28 | 4.17% | 3.27 | 70.11% | 21% |
| 12th | 2010.3.26 | 3.82% | 3.27 | 71.67% | 35% |
| 13th | 2011.3.25 | 3.66% | 3.29 | 73.42% | 40% |
| 14th | 2012.3.30 | 3.57% | 3.41 | 62.76% | 43% |

(Note 1) Risk-free interest rate is based on a three-year treasury bond yield rate.

Oricom Inc., consolidated subsidiary, granted share options to its executives. The compensation costs of share options amounted to ₩218 million and ₩159 million for the years ended December 31, 2012 and 2011, respectively. Meanwhile expense to be recognized in the future periods amounted to ₩137 million.

## 22. ACCUMULATED OTHER COMPREHENSIVE INCOME:

(1) Accumulated other comprehensive income as of December 31, 2012 and 2011, is summarized as follows (in millions of Korean won):

| | December 31, 2012 | December 31, 2011 |
|---|---|---|
| Unrealized gain on AFS securities | ₩39,760 | ₩90,480 |
| Increase (decrease) in equity of associates | (168,570) | (64,559) |
| Gain (loss) on translation of foreign operations | (314) | 4,618 |
| Unrealized gain (loss) on valuation of derivatives | 1,134 | (3,367) |
| Total | ₩(127,990) | ₩27,172 |

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

| | December 31, 2012 | | | December 31, 2011 | | |
|---|---|---|---|---|---|---|
| Description | Before tax | Tax effect | After tax | Before tax | Tax effect | After tax |
| Unrealized gain on AFS securities | ₩57,768 | ₩(18,008) | ₩39,760 | ₩124,761 | ₩(34,281) | ₩90,480 |
| Increase (decrease) in equity of associates | (172,343) | 3,773 | (168,570) | (66,518) | 1,959 | (64,559) |
| Gain (loss) on translation of foreign operations | (414) | 100 | (314) | 6,092 | (1,474) | 4,618 |
| Unrealized gain (loss) on valuation of derivatives | 1,496 | (362) | 1,134 | (4,442) | 1,075 | (3,367) |
| Total | ₩(113,493) | ₩(14,497) | ₩(127,990) | ₩59,893 | ₩(32,721) | ₩27,172 |

## 23. RETAINED EARNINGS:

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

| | December 31, 2012 | December 31, 2011 |
|---|---|---|
| Legal reserve | ₩29,111 | ₩20,184 |
| Voluntary reserve | 108,130 | 73,585 |
| Unappropriated retained earnings | 2,264,597 | 2,372,853 |
| Total | ₩2,401,838 | ₩2,466,622 |

The Commercial Code of the Republic of Korea requires the Company 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, 2012 and 2011, are as follows (in millions of Korean won):

| | Year ended December 31, 2012 | Year ended December 31, 2011 |
|---|---|---|
| Beginning balance | ₩2,466,622 | ₩2,297,303 |
| Profit for the year | 83,805 | 305,191 |
| Actuarial gain and loss directly recognized in retained earnings | (11,119) | (18,391) |
| Retained earnings of investments in associates | (4,868) | (59,321) |
| Payment of dividends | (65,303) | (57,927) |
| Retirement of treasury stock through retained earnings | (43,236) | - |
| Dividends to stockholder incurred by equity spin off | (24,028) | - |
| Others | (35) | (233) |
| Ending balance | ₩2,401,838 | ₩2,466,622 |

(3) The amount of dividends and dividends per share for the years ended December 31, 2012 and 2011, are as follows:

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

| Description | 2012 | | | 2011 | | |
|---|---|---|---|---|---|---|
| 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) | ₩2,045 | ₩467 | ₩8,319 | ₩2,045 | ₩467 | ₩8,482 |

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

| Description | 2012 | | | 2011 | | |
|---|---|---|---|---|---|---|
| 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% | 51% | 50% | 50% |
| Dividend amount (in millions of Korean won) | ₩11,560 | ₩2,800 | ₩49,375 | ₩10,430 | ₩2,334 | ₩41,707 |

Dividend for the year 2012 will be paid in April 2013 and the dividend for the year 2011 was paid in April 2012.

3) Dividend payout ratio and dividend yield ratio

| Description | 2012 | | | 2011 | | |
|---|---|---|---|---|---|---|
| Shares eligible for dividends | Preferred shares (old) | Preferred shares (new) | Common share | Preferred shares (old) | Preferred shares (new) | Common share |
| Dividend payout ratio | 16.23% | 3.90% | 68.84% | 4.09% | 0.92% | 16.45% |
| Dividend yield ratio | 9.44% | 9.41% | 2.71% | 8.73% | 8.33% | 2.10% |

## 24. SEGMENT INFORMATION:

The Company's operating segments are as follows:

| Business segment | Main products |
|---|---|
| Defense | Military hardware |
| Service | Leasing, food and groceries, advertisements, maintenance, repair and operation, venture capital and others |
| Manufacturing | Industrial vehicles, oil hydraulic equipment, copper-clad laminates, books, foraging and others |

(1) Information for each business segment as of and for the years ended December 31, 2012 and 2011, is as follows (in millions of Korean won):

| | Year ended December 31, 2012 | | | | |
|---|---|---|---|---|---|
| | Sales | Intercompany | Net sales | Operating income | Net income |
| Defense | ₩650,321 | ₩ - | ₩650,321 | ₩17,597 | ₩18,065 |
| Service | 1,609,919 | (274,619) | 1,335,300 | 153,880 | 133,753 |
| Manufacturing | 2,174,844 | (326,641) | 1,848,203 | 85,182 | 42,816 |
| Subtotal | 4,435,084 | ₩(601,260) | ₩3,833,824 | 256,659 | 194,634 |
| Elimination | (601,260) | | | (51,711) | (84,831) |
| Total | ₩3,833,824 | | | ₩204,948 | ₩109,803 |

| | Year ended December 31, 2011 | | | | |
|---|---|---|---|---|---|
| | Sales | Intercompany | Net sales | Operating income | Net income |
| Defense | ₩911,001 | ₩(1) | ₩911,000 | ₩75,950 | ₩64,292 |
| Service | 1,109,470 | (43,275) | 1,066,195 | 173,086 | 148,984 |
| Manufacturing | 2,061,510 | (154,292) | 1,907,218 | 135,836 | 101,566 |
| Subtotal | 4,081,981 | ₩(197,568) | ₩3,884,413 | 384,872 | 314,842 |
| Elimination | (197,568) | | | 15,038 | 37,569 |
| Total | ₩3,884,413 | | | ₩399,910 | ₩352,411 |

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

(2) Total assets and liabilities of each business segment as of December 31, 2012 and 2011, are as follows (in millions of Korean won):

| | December 31, 2012 | | December 31, 2011 | |
|---|---|---|---|---|
| | Assets | Liabilities | Assets | Liabilities |
| Defense | ₩644,098 | ₩302,485 | ₩755,509 | ₩401,182 |
| Service | 4,075,021 | 1,785,006 | 3,919,091 | 1,650,235 |
| Manufacturing | 1,315,284 | 779,267 | 1,414,892 | 850,760 |
| Subtotal | 6,034,403 | 2,866,758 | 6,089,492 | 2,902,177 |
| Elimination | (83,732) | (119,172) | 206,729 | (95,005) |
| Total | ₩5,950,671 | ₩2,747,586 | ₩6,296,221 | ₩2,807,172 |

(3) Sales information by geographical segment for the years ended December 31, 2012 and 2011, is as follows (in millions of Korean won):

| | Year ended December 31, 2012 | | | Year ended December 31, 2011 | | |
|---|---|---|---|---|---|---|
| | Sales | Intercompany | Net sales | Sales | Intercompany | Net sales |
| Domestic | ₩4,012,554 | ₩(549,516) | ₩3,463,038 | ₩3,733,999 | ₩(181,404) | ₩3,552,595 |
| Asia | 187,589 | (46,403) | 141,186 | 145,117 | (10,684) | 134,433 |
| Other | 234,941 | (5,341) | 229,600 | 202,865 | (5,480) | 197,385 |
| Subtotal | 4,435,084 | ₩(601,260) | ₩3,833,824 | 4,081,981 | ₩(197,568) | ₩3,884,413 |
| Elimination | (601,260) | | | (197,568) | | |
| Total | ₩3,833,824 | | | ₩3,884,413 | | |

## 25. REVENUES:

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

| | Year ended December 31, 2012 | Year ended December 31, 2011 |
|---|---|---|
| 1. Sales of goods | | |
| -Manufactured products | ₩2,377,252 | ₩2,522,751 |
| -Merchandise | 508,287 | 493,819 |
| 2. Share of profit (loss) of associates | 21,053 | 123,615 |
| 3. Others (Note 1) | 927,232 | 744,228 |
| Total | ₩3,833,824 | ₩3,884,413 |

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

## 26. CONSTRUCTION CONTRACT:

(1) Details of the Company's accumulated construction income and assets and liabilities related to construction contracts as of and for the years ended December 31, 2012 and 2011, are as follows (in millions of Korea won):

| | 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 |
| Research and Development of trial manufactured goods and other | ₩225,624 | ₩210,511 | ₩89,265 | ₩915 | ₩61,386 | ₩1,780 |

| | Year ended December 31, 2011 | | | | | |
|---|---|---|---|---|---|---|
| | | | | Receivable from construction contract | | |
| | Accumulated construction revenue | Accumulated construction cost | Advances from construction contract | Claimed | Unclaimed | Due to customers for contract work |
| Research and Development of trial manufactured goods and other | ₩238,893 | ₩221,933 | ₩66,209 | ₩3,350 | ₩44,867 | ₩3,502 |

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

| Ordering organization | Year ended December 31, 2012<br>Project | Period | January 1, 2012 | Increase (decrease) | Revenue recognized | December 31, 2012 |
|---|---|---|---|---|---|---|
| Defense acquisition program administration and other | Research and development of trial manufactured goods and other | 2006.12.26 –2015.5.31 | ₩184,882 | ₩57,224 | ₩(91,652) | ₩150,454 |

| Ordering organization | Year ended December 31, 2011<br>Project | Period | January 1, 2011 | Increase (decrease) | Revenue recognized | December 31, 2011 |
|---|---|---|---|---|---|---|
| Defense acquisition program administration and other | Research and development of trial manufactured goods and other | 2006.12.26 –2015.5.31 | ₩214,324 | ₩45,299 | ₩(74,741) | ₩184,882 |

## 27. EXPENSES CLASSIFIED BY NATURE:

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

| | Year ended December 31, 2012 | Year ended December 31, 2011 |
|---|---|---|
| Employee benefits | ₩577,003 | ₩467,855 |
| Depreciation and amortization | 102,497 | 87,463 |
| Total | ₩679,500 | ₩555,318 |

## 28. SELLING AND ADMINISTRATIVE EXPENSES:

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

| | Year ended December 31, 2012 | Year ended December 31, 2011 |
|---|---|---|
| Salaries | ₩213,377 | ₩195,329 |
| Provision for retirement and severance benefits | 17,905 | 12,010 |
| Share-based payment | 4,386 | 4,654 |
| Employee welfare | 37,553 | 28,195 |
| Travel | 14,892 | 12,789 |
| Communications | 2,867 | 3,032 |
| Utilities | 7,087 | 5,828 |
| Sales commission | 28,340 | 14,186 |
| Printing | 510 | 893 |
| Office expense | 2,727 | 2,341 |
| Miscellaneous administrative | 3,134 | 2,119 |
| Taxes and dues | 8,437 | 7,515 |
| Rent | 39,081 | 34,125 |
| Leases | 305 | 212 |
| Depreciation | 15,640 | 14,158 |
| Repairs and maintenance | 2,952 | 2,963 |
| Insurance | 2,483 | 2,304 |
| Entertainment | 7,206 | 7,422 |
| Advertising | 20,481 | 20,649 |
| Automobile maintenance | 2,016 | 1,907 |
| Packaging | 3,103 | 4,543 |
| Research and development | 35,849 | 31,379 |
| Education and training | 16,921 | 13,201 |
| Freight and custody | 21,931 | 23,632 |
| Sales promotion | 801 | 765 |
| Royalty | 9,220 | 7,598 |
| Service fees | 58,842 | 60,913 |
| Maintenance on office | 8,314 | 7,363 |
| Outsourcing fee | 14,852 | 15,486 |
| Sample | 3,464 | 5,056 |
| Bad debt expense | 659 | 813 |
| Amortization | 25,559 | 16,761 |
| Marketing | 22 | 16 |
| Maintenance of overseas branch | 347 | 990 |
| Loss compensation costs | 13,423 | - |
| Warranty | 1,129 | 44 |
| Others | 1,874 | 205 |
| Total | ₩647,689 | ₩561,396 |

## 29. FINANCE INCOME AND EXPENSES:

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

| | Year ended December 31, 2012 | Year ended December 31, 2011 |
|---|---|---|
| Finance income: | | |
| Interest income | | |
| -Cash and cash equivalents | ₩11,033 | ₩8,506 |
| -Long-term and short-term financial instruments | 638 | 536 |
| -Trade and other receivable | 1,246 | 2,629 |
| -Long-term investment securities | 442 | 73 |
| -Others | 48 | 95 |
| Subtotal | 13,407 | 11,839 |
| Dividend income | | |
| - AFS securities | 1,247 | 223 |
| Gain on foreign currency transaction | 24,113 | 28,267 |
| Gain on foreign currency translation | 6,064 | 5,428 |
| Gain on derivative transactions | 980 | 3,558 |
| Gain on valuation of derivatives | 6 | - |
| Others | - | 110 |
| Total | 45,817 | 49,425 |
| Finance expenses: | | |
| Interest expenses | | |
| -Long-term and short-term borrowings | 37,912 | 30,370 |
| -Bonds | 29,319 | 29,018 |
| -ABS liabilities | - | 187 |
| -Financial lease debt | 859 | 431 |
| -Others | 5,071 | 4,965 |
| Subtotal | 73,161 | 64,971 |
| Loss on foreign currency transaction | 28,480 | 27,379 |
| Loss on foreign currency translation | 5,627 | 5,843 |
| Loss on derivative transactions | 87 | 1,754 |
| Loss on valuation of derivatives | 383 | 191 |
| Loss on retirement of bonds | 80 | 71 |
| Others | 221 | 73 |
| Total | 108,039 | 100,282 |
| Net financial expense | ₩(62,222) | ₩(50,857) |

## 30. OTHER NON-OPERATING INCOME AND EXPENSES:

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

| | Year ended December 31, 2012 | Year ended December 31, 2011 |
|---|---|---|
| Other non-operating income: | | |
| Rental income | ₩40 | ₩37 |
| Gain on disposal of short-term investment securities | 471 | - |
| Gain on sale of investments in associates | - | 34,864 |
| Gain on disposal of property, plant and equipment | 1,069 | 348 |
| Gain on disposal of intangible assets | 538 | 450 |
| Gain on disposal of investment property | - | 891 |
| Gain on disposal of other investment assets | - | 46 |
| Recovery of loss on impairment of intangible assets | - | 22 |
| Gain from bargain purchase | - | 1,956 |
| Gain on litigation | - | 6,387 |
| Others | 10,909 | 14,849 |
| Subtotal | 13,027 | 59,850 |
| Other non-operating expenses: | | |
| Loss on sale of trade receivables | 1,283 | 586 |
| Loss on disposal of long-term investment securities | 283 | - |
| Loss on disposal of investments in associates | 8,421 | - |
| Loss on disposal of property, plant and equipment | 3,112 | 2,503 |
| Loss on disposal of intangible assets | 83 | 79 |
| Loss on disposal of investment property | 744 | 6 |
| Other bad debt expense | 586 | 767 |
| Impairment loss of investments in associates | - | 94 |
| Impairment loss of property, plant and equipment | 1,639 | 540 |
| Impairment loss of investment property | 779 | - |
| Impairment loss of intangible assets | 3,423 | 2,105 |
| Donation | 7,750 | 6,610 |
| Disaster loss | 241 | - |
| Others | 5,311 | 3,187 |
| Subtotal | 33,655 | 16,477 |
| Total | ₩(20,628) | ₩43,373 |

## 31. INCOME TAX EXPENSE:

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

| | Year ended December 31, 2012 | Year ended December 31, 2011 |
|---|---|---|
| Current income tax expense | ₩75,949 | ₩48,374 |
| Deferred income tax | (1,005) | 20,078 |
| Transferred deferred income tax due to business combinations | 830 | - |
| Total income tax expense | 75,774 | 68,452 |
| Deferred income tax directly charged to equity | 21,302 | (17,698) |
| Income tax expense recognized in discontinued operations | (26,288) | (2,886) |
| Income tax expense | ₩70,788 | ₩47,868 |

(2) Details of income tax expense recognized in discontinued operations are as follows (in millions of Korean won):

| | Year ended December 31, 2012 | Year ended December 31, 2011 |
|---|---|---|
| Current income tax | ₩23,672 | ₩ - |
| Changes in temporary differences | 2,616 | 2,886 |
| Income tax expense recognized in discontinued operations | ₩26,288 | ₩2,886 |

(3) Changes in deferred tax assets and liabilities for the years ended December 31, 2012 and 2011, are as follows (in millions of Korean won):

| | | Change | | |
|---|---|---|---|---|
| | January 1, 2012 | Income (Expense) | Equity | December 31, 2012 |
| Accrued income | ₩(233) | ₩119 | ₩ - | ₩(114) |
| Allowance for inventories | 5,484 | (1,444) | - | 4,040 |
| AFS securities | (26,608) | 753 | 16,273 | (9,582) |
| Investment in associates | (19,917) | (2,386) | 1,814 | (20,489) |
| Property, plant and equipment | (55,699) | 2,825 | - | (52,874) |
| Accrued expenses | 19,240 | (1,758) | - | 17,482 |
| Retirement benefit obligation | 22,645 | (3,354) | 4,227 | 23,518 |
| Reserve for research and human resource | (30,771) | (1,208) | - | (31,979) |
| Revenue recognition | 854 | 7,108 | - | 7,962 |
| Others | 14,030 | 3,182 | (3,025) | 14,187 |
| Consolidation adjustment | (23,126) | (24,134) | 2,013 | (45,247) |
| Total | ₩(94,101) | ₩(20,297) | ₩21,302 | ₩(93,096) |

| | January 1, 2011 | Change Income (Expense) | Equity | December 31, 2011 |
|---|---|---|---|---|
| Accrued income | ₩(208) | ₩(25) | ₩ - | ₩(233) |
| Allowance for inventories | 2,188 | 3,296 | - | 5,484 |
| AFS securities | 5,617 | 1,256 | (33,481) | (26,608) |
| Investment in associates | (19,973) | 651 | (595) | (19,917) |
| Property, plant and equipment | (53,887) | (1,812) | - | (55,699) |
| Accrued expenses | 15,409 | 3,831 | - | 19,240 |
| Retirement benefit obligation | 11,378 | 3,905 | 7,362 | 22,645 |
| Reserve for research and human resource | (21,527) | (9,244) | - | (30,771) |
| Revenue recognition | 6,282 | (5,428) | - | 854 |
| Others | 16,132 | (4,035) | 1,933 | 14,030 |
| Consolidation adjustment | (35,434) | 5,225 | 7,083 | (23,126) |
| Total | ₩(74,023) | ₩(2,380) | ₩(17,698) | ₩(94,101) |

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

(4) Temporary differences, net loss and tax credit carryforwards, which have not been recognized as deferred income tax assets and expired and unused as of December 31, 2012 and 2011, are as follows (in millions of Korean won):

| | December 31, 2012 | December 31, 2011 |
|---|---|---|
| Deductible temporary differences | ₩38,000 | ₩22,095 |

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 Company periodically reviews these matters.

(5) 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, 2012 | December 31, 2011 |
|---|---|---|
| Subsidiaries | ₩(42,824) | ₩(74,352) |
| Associated company | (1,572,204) | (1,668,060) |
| Total | ₩(1,615,028) | ₩(1,742,412) |

(6) A reconciliation of income tax expense and accounting income before income tax expense for the years ended December 31, 2012 and 2011, is as follows (in millions of Korean won):

| | Year ended December 31, 2012 | Year ended December 31, 2011 |
|---|---|---|
| Profit before income tax | ₩122,099 | ₩392,427 |
| Income tax expense at statutory income tax rate | 30,167 | 94,169 |
| Adjustment: | | |
| Non-temporary difference | (2,548) | (3,667) |
| Temporary difference not recognized as deferred income tax | 38,616 | (27,673) |
| Tax credits | (6,819) | (7,420) |
| Effect of tax rate change | 1,843 | 4,680 |
| Additional income tax and tax refund for prior periods | 13,033 | (10,871) |
| Others | (3,504) | (1,350) |
| Income tax expense | ₩70,788 | ₩47,868 |
| Effective tax rate | 57.98% | 12.20% |

## 32. EARNINGS (LOSS) PER SHARE:

Earnings per share for the years ended December 31, 2012 and 2011 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, 2012 | | | Year ended December 31, 2011 | | |
|---|---|---|---|---|---|---|
| | Continuing operations | Discontinued operations | Total | Continuing operations | Discontinued operations | Total |
| Net income | ₩22,989,739,978 | ₩60,814,912,097 | ₩83,804,652,075 | ₩301,193,341,784 | ₩3,997,925,704 | ₩305,191,267,488 |
| Dividends for preferred share | 5,337,323,820 | 14,118,858,207 | 19,456,182,027 | 67,597,001,847 | 897,256,857 | 68,494,258,704 |
| Net income available to common share | 17,652,416,158 | 46,696,053,890 | 64,348,470,048 | 233,596,339,937 | 3,100,668,847 | 236,697,008,784 |
| Weighted-average number of common shares outstanding (Note 1) | 16,625,166 | 16,625,166 | 16,625,166 | 17,412,511 | 17,412,511 | 17,412,511 |
| Basic net income per share | ₩1,062 | ₩2,809 | ₩3,871 | ₩13,415 | ₩178 | ₩13,594 |

(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, 2012 | Year ended December 31, 2011 |
|---|---|---|
| Beginning outstanding shares | 16,683,003 | 18,340,721 |
| Effect of share options exercised | 4,277 | 36,225 |
| Issuance of share capital | 21,965 | - |
| Acquired treasury stock (Note 2) | (84,079) | (964,435) |
| Weighted-average number of common shares outstanding | 16,625,166 | 17,412,511 |

(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, 2012 and 2011.

(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, 2012 | | | Year ended December 31, 2011 | | |
|---|---|---|---|---|---|---|
| | Diluted continuing operations | Diluted discontinued operations | Diluted total | Diluted continuing operations | Diluted discontinued operations | Diluted total |
| Controlling interest in net income | ₩17,652,416,158 | ₩46,696,053,890 | ₩64,348,470,048 | ₩233,596,339,937 | ₩3,100,668,847 | ₩236,697,008,784 |
| Share-based compensation cost | - | - | - | - | - | - |
| Adjusted net income available to common shares | 17,652,416,158 | 46,696,053,890 | 64,348,470,048 | 233,596,339,937 | 3,100,668,847 | 236,697,008,784 |
| Adjusted weighted-average number of common shares outstanding | 16,632,299 | 16,632,299 | 16,632,299 | 17,445,110 | 17,445,110 | 17,445,110 |
| Diluted net income per share | ₩1,061 | ₩2,808 | ₩3,869 | ₩13,390 | ₩178 | ₩13,568 |

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

| | Year ended December 31, 2012 | Year ended December 31, 2011 |
|---|---|---|
| Weighted-average number of common shares outstanding | 16,625,166 | 17,412,511 |
| Effect of share option exercise | 7,133 | 32,599 |
| Adjusted weighted-average number of common shares outstanding | 16,632,299 | 17,445,110 |

For the year ended December 31, 2012, share option grants 6th, 8th, 10th and 11th were included from the diluted earnings per share as they have dilutive effect during the period, and share option grants 9th, 12th, 13th and 14th 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 2012 and 2011 are as follows:

| | 2012 | 2011 |
|---|---|---|
| Share options | 250,460 | 206,210 |

## 33. COMMITMENTS AND CONTINGENCIES:

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

(2) As of December 31, 2012, the Company has entered into bank overdraft agreements amounting to ₩99,600 million with various financial institutions, including Hana Bank.

(3) Doosan Industrial Vehicle (DIV), the Company's subsidiary, entered into a loan agreement with lenders, including Korea Development Bank, Hana Bank and Woori Bank for long-term borrowing in connection with the acquisition of industrial vehicle business segment of Doosan Infracore Co., Ltd., and subsidiaries. This agreement requires DIV to maintain a ratio based on net interest expense divided by earnings before interest, taxes, depreciation and amortization, to be less than one, at each reporting period. In case of a breach of this debt covenant, DIV's shareholders may be required to make additional funding. On the other hand, in this case, completion date of supplemental funding letter is within 30 days after the reporting date of audit report or semiannual review report; absence of supplemental funding until completion date, DIV can lose its benefit of time.

(4) Outstanding trade receivables sold with recourse by the Company are in the amount of ₩10,885 million and ₩27,722 million as of December 31, 2012 and 2011, respectively. Because the Company retains some level of risks and rewards relating to trade receivables, the Company has recognized carrying amount of it and cash receipt from transfer as borrowings in consolidated statements of financial position (see Note 16-(2)-1) ).

(5) The Company is involved in lawsuits as a defendant with claims exposure of ₩10,475 million as of December 31, 2012. The ultimate outcome of the lawsuit cannot presently be determined. Details of major lawsuits are as follows (in millions of Korean won):

| Court | Claim | Plaintiff | Defendant | Claimed amount | Status |
|---|---|---|---|---|---|
| Seoul High Court | Claims for damages | Bukwang Co., Ltd. and Jeil Farming PK Co., Ltd. | The Parent | ₩526 | Appeal, plaintiff has lost a case at first trial. |
| Seoul Central District Court | Request of manpower aid | Dae seung frontier Co., Ltd. | The Parent | 1,000 | Setting a date to plead a case after a mediation |
| Seoul Central District Court | Request of contract accountant | Lee, Man Ho | The Parent, Lee, Seung Jun | 316 | - |
| Changwon District Court | Wage claim | Kang, Gil su and other 97 people (Korean Metal Worker's Union) | The Parent | 1,082 | Setting a date to plead a case |
| Seoul Central District Court | Return of unjust enrichment | Kim, Jong Ho | The Parent | 200 | Setting a date to plead a case |
| Seoul Central District Court | Demand for payment | Korea Book Promotion Co., Ltd. | The Parent and Lee Seung Jun | 650 | - |
| Seoul Central District Court | Claim for damages | Galaxia Communications Co., Ltd. | The Parent and Lee Seung Jun | 1,875 | - |
| Gwangju District Court | Refund of price of purchase and sale | Kukje nonferrous metal | World Scraps and the Parent | 355 | Setting a date to plead a case |
| Seoul Administrative Court | Cancellation of limitation of bidding participation | Doosan DST Co., Ltd. | President of Defense Acquisition Program Administration | 20 | Won the first trial and in the process of appeal |
| Seoul Central District Court | Claim for damages | Republic of Korea | Doosan DST Co., Ltd. | 31 | In the process of first trial |
| Seoul High Court | Claim for damages | Bukwang Co., Ltd. and Jeil Farming PK Co., Ltd. | The Parent and SRS Korea Co., Ltd. | 526 | Appeal, plaintiff has lost a case at first trial |
| Jeonju District Court | Dispossession of Building | Lotte Shopping Co., Ltd. | SRS Korea Co., Ltd. | 34 | Receipt of compulsory mediation |

(6) The Company has technical license agreements for the purpose of manufacturing specific products with Nabtesco, Horstman, YRI (“Yum Restaurant International”), etc., for the year ended December 31, 2012, the Company paid ₩7,274 million as license fee.

(7) The Company entered into operating lease agreements of bus for baseball players and others. Lease payment schedule as of December 31, 2012 and 2011, is as follows (in millions of Korean won):

| Description | December 31, 2012 | December 31, 2011 |
|---|---|---|
| Under 1 year | 3,407 | 334 |
| 1–5 years | 11,072 | 192 |
| Total | 14,479 | 526 |

(8) As of December 31, 2012, guarantees indemnifying for affiliated companies are as follows (in thousands of foreign currency, in millions of Korean won):

| Provider | Provided to | Amount |
|---|---|---|
| The Parent | Doosan Shanghai Chemical Limited | USD 1,000 |
| | Doosan Hong Kong Limited. | USD 3,000 |
| | Doosan Electro-Materials (Changshu) Co., Ltd. | USD 55,000 |
| | SRS Korea Co., Ltd. (Note 1) | ₩861 |
| Doosan Industrial Vehicle Co., Ltd. | Doosan Industrial Vehicle Yantai Co., Ltd | RMB 18,000 |
| | | USD 10,000 |
| | | ₩861 |
| | Total | USD 69,000 |
| | | RMB 18,000 |

(Note 1) The Parent and DIP Holdings Co., Ltd., consolidated subsidiary, have joint liability guarantee.

(9) As of December 31, 2012, guarantees provided by the Company for third parties or received from third parties are as follows (in thousands of foreign currency and millions of Korean won):

| Description | Provider | Provided to | Amount |
|---|---|---|---|
| Guarantees provided by the Company | Doosan Industrial Vehicle Co., Ltd. | Federale Overheidsdienst Financien and others | USD 124 |
| Guarantees received from financial institutions | Seoul Guarantee Insurance | The Parent | ₩3,876 |
| | Korea Defense Industry Association and others | | 44,152 |
| | Woori Bank, Korea Exchange Bank, Shinhan Bank | | USD 9,503 |
| | Korea Development Bank and others | | USD 18,792 |
| | Seoul Guarantee Insurance | Doosan Dong-A | 3,304 |
| | Woori Bank | | 212 |
| | Seoul Guarantee Insurance | Oricom Inc. | 305 |
| | Hana Bank | | 430 |
| | Seoul Guarantee Insurance | Doosan Feed & Livestock Co., Ltd | 1,485 |
| | Seoul Guarantee Insurance | SRS Korea | 564 |
| | Seoul Guarantee Insurance | Doosan DST Co., Ltd. | 131,604 |
| | Korea Defense Industry Association | | 353,609 |
| | Woori Bank | | 4,123 |
| | Machinery Financial Cooperative | Doosan Industrial Vehicle Co., Ltd. | 803 |
| | | | ₩544,467 |
| | | Total | USD 28,295 |

Meanwhile, the Parent has responsibility of joint liability guarantee with Neoholdings Co., Ltd., which is a spin-off company for existing liabilities prior to spin-off.

## 34. PLEDGED ASSETS:

The Company pledged certain assets as collateral for its long-term and short-term borrowings as of December 31, 2012, as follows (in thousands of foreign currency and millions of Korean won):

| Institution | Asset | Borrowings | Collateralized value |
|---|---|---|---|
| Hana Bank | Property, plant and equipment, investment property, securities and financial instruments | ₩17,000<br>USD 937<br>EUR 96 | ₩147,086 |
| Korea Development Bank | Property, plant and equipment, deposit and securities | 170,326<br>USD 6,319 | 371,311<br>USD 320,793 |
| Kookmin Bank | Property, plant and equipment | 194 | 605 |
| Shinhan Bank | Property, plant and equipment | - | 12,600 |
| Woori Bank and others | Property, plant and equipment | 10,000<br>USD 4,027<br>EUR 304 | 68,000 |
| Korea Development Bank, Woori Bank, Hana Bank | Property, plant and equipment (Note 1) | 125,000 | 48,896 |
| Standard Chartered Bank Korea | Property, plant and equipment | 14,000 | 43,080 |
| Korea Securities Finance Corporation | Securities | 10,700 | 34,820 |
| Korea Housing Guarantee Co., Ltd. | Securities | 2,904 | 464 |
| HP Financial Service and others | Financial lease assets | 25,371 | 25,183 |

(Note 1) The right to receive insurance of property, plant and equipment and inventory has been provided to Korea Development Bank, Woori Bank and Hana Bank as collateral.

## 35. RELATED-PARTY TRANSACTIONS:

Related-party disclosures for the years ended December 31, 2012 and 2011 are as follows.

(1) Nature of relationship

| Relationship with the Company | Company name |
|---|---|
| Associates | Doosan Heavy Industries & Construction Co., Ltd., Guang Dong Xingpu Steel Center, Doosan Eco Biznet, MVP Capital Co., Dong-A E&C Contents, Wilus Inc., Sichuan Kelun-Doosan Biotechnology Company Limited, etc. |
| Other related parties (Note 1) | Doosan Heavy Industries & Construction Co., Ltd.'s subsidiaries; Doosan Infracore Co., Ltd., and subsidiaries; Doosan Capital Co., Ltd., and subsidiaries; Doosan Engine Co., Ltd., and subsidiaries; Doosan Credit Union; Yeongang Foundation; Trance Route Doosan Co., Ltd.; Neo Trans; HANJUNG POWER Limited; Doosan Infracore Xinjiang Machinery Co., Ltd.; etc. |

(Note 1) Other related parties include associates and subsidiaries of associates.

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

| | Year ended December 31, 2012 | | Year ended December 31, 2011 | |
|---|---|---|---|---|
| Description | Sales and others | Purchases and others | Sales and others | Purchases and others |
| Associates | ₩290,259 | ₩9,295 | ₩148,002 | ₩8,638 |
| Other related parties | 559,645 | 99,952 | 519,464 | 120,288 |
| Total | ₩849,904 | ₩109,247 | ₩667,466 | ₩128,926 |

(3) As of December 31, 2012 and 2011, significant balances related to the transactions between the Company and related parties are as follows (in millions of Korean won):

| Description | December 31, 2012 | | December 31, 2011 | |
|---|---|---|---|---|
| | Receivables | Payables | Receivables | Payables |
| Associates | ₩61,043 | ₩703 | ₩48,472 | ₩2,015 |
| Other related parties | 145,390 | 20,481 | 164,154 | 15,968 |
| Total | ₩206,433 | ₩21,184 | ₩212,626 | ₩17,983 |

(4) The Company defines key management personnel as registered officer and non-registered officer who have the authority and responsibility for planning, operation and control and are in charge of business or division unit. Compensation to key management personnel of the Company for the years ended December 31, 2012 and 2011, is as follows (in millions of Korean won):

| Description | Year ended December 31, 2012 | Year ended December 31, 2011 |
|---|---|---|
| Short-term employee benefits | ₩39,027 | ₩45,539 |
| Severance benefits | 2,544 | 1,199 |
| Share-based payments | 4,233 | 4,595 |
| Total | ₩45,804 | ₩51,333 |

## 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, 2012 and 2011, are as follows (in millions of Korean won):

| | Year ended December 31, 2012 | Year ended December 31, 2011 |
|---|---|---|
| Adjustments: | | |
| Expenses not involving cash payments and others: | | |
| Interest expenses | ₩73,435 | ₩65,258 |
| Loss on foreign currency translation | 5,627 | 5,843 |
| Loss on valuation of derivatives | 383 | 191 |
| Loss on disposal of long-term investment securities | 283 | - |
| Loss on disposal of investment in associate | 8,421 | - |
| Loss on retirement of bonds | 80 | 71 |
| Depreciation | 71,911 | 69,045 |
| Amortization | 30,586 | 18,418 |
| Loss on disposal of property, plant and equipment | 3,652 | 2,588 |
| Loss on impairment of property, plant and equipment | 1,639 | 540 |
| Loss on disposal of intangible assets | 97 | 79 |
| Impairment of intangible assets | 3,426 | 2,105 |
| Loss on disposal of investment property | 744 | 6 |
| Loss on impairment of investment property | 779 | - |
| Severance indemnities | 39,357 | 28,047 |
| Income tax expense | 97,076 | 50,754 |
| Bad debt expense | 620 | 813 |
| Other bad debt expense | 586 | 767 |
| Loss on disposal of accounts receivable | 1,283 | 586 |
| Loss on valuation of inventories | - | 14,670 |
| Loss on disposal of inventories | 4,076 | 2,272 |
| Contribution to provision | 10,472 | 9,902 |
| Loss compensation cost | 13,423 | - |
| Share of loss of equity-accounted investees | 983 | 2,266 |
| Loss on impairment of investment in associate | - | 94 |
| Share-based payment | 4,451 | 4,754 |
| Donations in kind | 335 | - |
| Others | 36 | 1,979 |
| Subtotal | 373,761 | 281,048 |

| | Year ended December 31, 2012 | Year ended December 31, 2011 |
|---|---|---|
| Income not involving cash receipts and others: | | |
| Interest income | 14,331 | 12,887 |
| Dividend income | 1,247 | 223 |
| Gain on foreign currency translation | 6,064 | 5,428 |
| Gain on valuation of derivatives | 6 | - |
| Gain on disposal of short-term investment securities | 471 | - |
| Gain on disposal of investment in associate | - | 34,864 |
| Gains on disposal of business segment | 81,056 | - |
| Gain on disposal of property, plant and equipment | 1,081 | 359 |
| Gain on disposal of intangible asset | 538 | 450 |
| Recovery of loss on impairment of intangible asset | - | 22 |
| Gain on disposal of investment property | - | 891 |
| Gain on disposal of other investment asset | - | 46 |
| Gain on bargain purchase | - | 1,956 |
| Recovery of impairment of inventory | 922 | - |
| Share of profit of equity-accounted investees | 22,036 | 125,881 |
| Others | 579 | 2,454 |
| Subtotal | (128,331) | (185,461) |
| Total | ₩245,430 | ₩95,587 |

| | Year ended December 31, 2012 | Year ended December 31, 2011 |
|---|---|---|
| Changes in operating assets and liabilities: | | |
| Decrease in trade receivables | ₩209,949 | ₩30,530 |
| (Increase) decrease in due from customers for contract work | (16,616) | 387 |
| Decrease in other receivables | 302 | 28,529 |
| Decrease in inventories | 24,450 | 134,265 |
| Decrease in derivative assets | 697 | 1,809 |
| Decrease in other current assets | 26,693 | 51,049 |
| Decrease in other long-term receivables | 12 | - |
| (Increase) decrease in other non-current assets | (4,234) | 10,989 |
| Decrease in trade payable | (81,617) | (164,698) |
| Decrease in due to customers for contract work | (1,722) | (6,939) |
| Decrease in other payable | (29,174) | (14,433) |
| Decrease in provisions | (11,774) | (8,136) |
| Decrease in other current liabilities | (55,661) | (146,263) |
| Increase in other long-term payable | 6,711 | 4,866 |
| Decrease in other non-current liabilities | (2,922) | (4,631) |
| Payment of severance benefits | (39,786) | (24,108) |
| Accrued severance benefits transferred from (in) affiliated companies | (2,110) | (64) |
| Decrease in plan assets | 8,772 | 5,708 |
| Total | ₩31,970 | ₩(101,140) |

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

| | Year ended December 31, 2012 | Year ended December 31, 2011 |
|---|---|---|
| Reclassification of property, plant and equipment to investment property | ₩69,283 | ₩ - |
| Reclassification of construction in progress to buildings, machinery and others | 83,226 | 38,658 |
| Reclassification of bonds | 80,000 | 117,000 |
| Reclassification of long-term debts | 80,456 | 37,417 |
| Retirement of shares through retained earnings | 43,236 | - |
| Capital reduction without refund | 22,230 | - |
| Dividends to shareholder, incurred for equity spin-off | 24,028 | - |

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

## 37. BUSINESS TRANSFER AND DISCONTINUED OPERATION

(1) In 2012, the Company 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 |
| Public announcement date | September 13, 2012 |
| Business transfer date | November 30, 2012 |
| Method | Transfer after split-off |
| Acquiring company | VOGO second private investment company |
| Transfer price | ₩110,000 |

(2) The book value of disposed net assets as of transfer date are as follows (in millions of Korean won):

| Assets | | Liabilities | | Net assets | |
|---|---|---|---|---|---|
| Current assets | ₩26,214 | Current liabilities | ₩25,336 | Net assets | ₩28,944 |
| Non-current assets | 38,138 | Non-current liabilities | 10,072 | | |
| Total | ₩64,352 | Total | ₩35,408 | | |

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

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

(4) 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 |

(5) Details of income from discontinued operations for the disposals for years ended December 31, 2012 and 2011, are as follows (in millions of Korean won):

| | 2012 | 2011 |
|---|---|---|
| Operating income from discontinued operations | ₩155,251 | ₩148,900 |
| Operating expense from discontinued operations | (152,051) | (139,237) |
| Financial income (expenses) from discontinued operations | 730 | 781 |
| Other non-operating income (expenses) from discontinued operations | 80,850 | 295 |
| Income tax expenses from discontinued operations | (26,288) | (2,886) |
| Total | ₩58,492 | ₩7,853 |

(6) Details of net cash flows from operating activities, investing activities and financing activities attributable to discontinued operations for the disposal years ended December 31, 2012 and 2011, are as follows (in millions of Korean won):

| Details | 2012 | 2011 |
|---|---|---|
| Cash flows from operating activities | ₩(5,696) | ₩2,040 |
| Cash flows from investing activities | 100,030 | 6,179 |
| Cash flows from financing activities | (6,428) | (8,246) |
| Total | ₩87,906 | ₩(27) |

## 38. TRANSACTIONS WITH NON-CONTROLLING INTERESTS (ADDITIONAL ACQUISITION OF CONSOLIDATED SUBSIDIARY):

DIP Holdings Co., Ltd., consolidated subsidiary, additionally acquired 49.09% of non-controlling interests of SRS Korea Co., Ltd., consolidated subsidiary, at ₩81,000 million, as of November 30, 2012, and is owning 100% of SRS Korea Co., Ltd. The effect to equity of consolidated financial position, incurred by changing of ownership ratio is as follows (in millions of Korean won):

| Details | 2012 |
|---|---|
| Acquisition cost | ₩81,000 |
| Carrying amount of acquired non-controlling interests | (26,575) |
| Amount recognized in equity of consolidated financial position (capital surplus) | ₩(54,425) |

Meanwhile, net cash outflow of ₩81,000 million was incurred by transaction with non-controlling interests.

## 39. SMALL-SCALE MERGER:

(1) The company merged with DFMS Company to enhance the competitiveness and the corporate value, and details are summarized as follows (in millions of Korean won):

| Details | Contents |
|---|---|
| Principal activity | Facility management and maintenance service |
| Date of acquisition | November 1, 2012 |
| Purchase price | ₩16,210 |
| Shares acquired | 100% |
| Merger accounting method | Acquisition |

(2) Merger consideration

The stock price per share for the Company and DFMS was estimated at ₩126,500 (face value: ₩5,000) and ₩11,533 (face value: ₩500), respectively. Based upon which, the Company issued 0.0911668 shares of its common stock for each share of DFMS.

As a result, the merger consideration is ₩16,210 million by issuing the 131,788 new shares of the transferee corporation (closing price of ₩123,000 on the merger day).

(3) 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 | |
| Property, plant and equipment | 2,095 |
| Other non-current assets | 13,177 |
| Subtotal | 15,272 |
| Fair value of assets acquired | 23,417 |
| Current liabilities | 12,865 |
| Non-current liabilities | 2,163 |
| Fair value of liabilities acquired | 15,028 |
| Share capital | 659 |
| Capital surplus | 7,550 |
| Fair value of net assets acquired | ₩8,209 |

(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 customer relationships (other intangible assets) | Less backlog of orders (other intangible assets) | Goodwill |
|---|---|---|---|---|
| ₩16,210 | ₩8,209 | ₩1,166 | ₩415 | ₩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 | Cash of merged company | Net cash flows |
|---|---|---|
| ₩ - | ₩196 | ₩196 |

**40. 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 Interpretations 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 |

(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.

(4) Net cash flows incurred by spin-off are as follows (in millions of Korean won):

| Consideration paid in cash | Cash of spin-off division | Net cash flows |
|---|---|---|
| ₩ - | ₩(6,559) | ₩(6,559) |

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 Company.

## 41. ACQUISITIONS OF BUSINESS SEGMENT:

Details of acquisition of vehicle business segment of Doosan Infracore Co., Ltd., and its subsidiaries in 2011 are as follows:

(1) General information

| Transfer company | Doosan Infracore Co., Ltd. | Doosan Infracore Europe S.A | Doosan Infracore U.K., Ltd. | Doosan Infracore America Corp. | Doosan Infracore Yantai Co., Ltd. |
|---|---|---|---|---|---|
| Business segment | Industrial vehicle | Industrial vehicle | Industrial vehicle | Industrial vehicle | Industrial vehicle |
| Acquisition company | Doosan Industrial Vehicle Co., Ltd.("DIV") | DIV Europe N.A. | DIV U.K. | DIV America Corp. | DIV Yantai Co., Ltd. |
| Location | Korea | Belgium | England | USA | China |
| Type of business | Manufacturing and sales | Sales | Sales | Sales | Sales |
| Date of transfer | June 30, 2011 | June 30, 2011 | June 30, 2011 | July 31, 2011 | November 30, 2011 |
| Date of approval | April 28, 2011 | April 28, 2011 | April 28, 2011 | April 28, 2011 | April 28, 2011 |

(2) Condensed financial information of acquired business segment is as follows (in millions of Korean won):

| | Amounts |
|---|---|
| Current assets | ₩269,616 |
| Non-current assets | |
| Property, plant and equipment | 64,892 |
| Intangible assets | 12,083 |
| Other non-current assets | 4,711 |
| Subtotal | 81,686 |
| Fair value of assets acquired | 351,302 |
| Current liabilities | 181,646 |
| Non-current liabilities | 8,225 |
| Fair value of liabilities acquired | 189,871 |
| Fair value of net assets acquired | ₩161,431 |

(3) Differences between consideration given and fair value of net assets acquired are as follows (in millions of Korean won):

| | Consideration given | Fair value of net assets acquired | Customer relationship | Technology | Gain (loss) on translation of foreign operations | Goodwill |
|---|---|---|---|---|---|---|
| DIV | ₩215,377 | ₩149,634 | ₩26,958 | ₩22,898 | ₩ - | ₩15,887 |
| DIV Europe N.A. | 15,957 | (6,106) | - | - | 430 | 21,633 |
| DIV U.K. | (227) | (4,061) | - | - | (1,170) | 5,004 |
| DIV America Corp. | 32,233 | 17,459 | 808 | - | 1,704 | 12,263 |
| DIV Yantai Co., Ltd. | 5,275 | 4,504 | - | - | (227) | 997 |
| Total | ₩268,615 | ₩161,430 | ₩27,766 | ₩22,898 | ₩737 | ₩55,784 |

(4) Net cash flows incurred by acquisition of business segment are as follows (in millions of Korean won):

| Consideration paid in cash (Note 1) | Less: Paid from non-controlling interests | Net cash flows |
|---|---|---|
| ₩258,775 | ₩66,150 | ₩192,625 |

(Note 1) Difference from transferred amount is other payable.

## 42. ACQUISITION OF SHARE:

Business combinations due to equity investment in subsidiary are as follows (in millions of Korean won):

(1) Details of equity investment

| Details | Doosan Electro-Materials (Changshu) Co., Ltd. | Doosan Logistics Europe |
|---|---|---|
| Type of business | Manufacturing and sale of copper-clad laminates | Sales of industrial vehicle and related parts |
| Acquisition date | 2011.5.31 | 2011.6.30 |
| Business group | Electro-material | Industrial vehicles |
| Ownership (%) | 100 | 100 |
| Transfer price | ₩24,854 | ₩2,230 |

(2) Fair value of acquired assets and liabilities incurred by business combination for the year ended December 31, 2011, is as follows (in millions on Korean won):

| | Doosan Electro-Materials (Changshu) Co., Ltd. | Doosan Logistics Europe |
|---|---|---|
| Current assets | ₩3,274 | ₩2,395 |
| Non-current assets | | |
| Property, plant and equipment | 17,348 | 2,033 |
| Intangible assets | 7,163 | 321 |
| Other non-current assets | 1,313 | - |
| Subtotal | 25,824 | 2,354 |
| Fair value of assets acquired | ₩29,098 | ₩4,749 |
| Fair value of liabilities acquired | | |
| Current liabilities | ₩2,515 | ₩884 |
| Non-current liabilities | 1,729 | - |
| Fair value of liabilities acquired | ₩4,244 | ₩884 |
| Fair value of net assets acquired | ₩24,854 | ₩3,865 |

(3) Differences between consideration given and fair value of net assets acquired are as follows (in millions of Korean won):

| | Doosan Electro-Materials (Changshu) Co., Ltd. | Doosan Logistics Europe |
|---|---|---|
| Consideration given | ₩24,854 | ₩2,230 |
| Fair value of net assets acquired | (24,854) | (3,865) |
| Goodwill (gain on bargain purchase) | ₩ - | ₩(1,635) |

(4) Details of cash outflow occurred upon acquisition are as follows (in millions of Korean won):

| Consideration paid in cash | Acquired cash and cash equivalents | Net cash flows |
|---|---|---|
| ₩27,084 | ₩(2,754) | ₩24,330 |

Difference between cash outflow occurred upon acquisition ₩(24,330 million) and purchase of investments in subsidiaries in consolidated statements of cash flows, ₩(25,609) million, is payment to DHC due to acquisition of N Shaper Corp.