S-OIL Corporation and Subsidiary

Consolidated Financial Statements

December 31, 2012 and 2011

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Report of Independent Auditors

To the Shareholders and Board of Directors of
S-OIL Corporation

We have audited the accompanying consolidated statements of financial position of S-OIL Corporation and its subsidiary ("the Group") as of December 31, 2012 and 2011, and the related consolidated statements of comprehensive income, changes in equity and cash flows for the years then ended, expressed in Korean won. These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits.

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

In our opinion, the consolidated financial statements, referred to above, present fairly, in all material respects, the financial position of S-OIL Corporation and its subsidiary as of December 31, 2012 and 2011, and their financial performance and cash flows for the years then ended, in accordance with International Financial Reporting Standards as adopted by the Republic of Korea ("Korean-IFRS").

Auditing standards and their application in practice vary among countries. The procedures and practices used in the Republic of Korea to audit such financial statements may differ from those generally accepted and applied in other countries. Accordingly, this report is for use by those who are informed about Korean auditing standards and their application in practice.

Seoul, Korea
March 14, 2013

This report is effective as of March 14, 2013, the audit report date. Certain subsequent events or circumstances, which may occur between the audit report date and the time of reading this report, could have a material impact on the accompanying consolidated financial statements and notes thereto. Accordingly, the readers of the audit report should understand that there is a possibility that the above audit report may have to be revised to reflect the impact of such subsequent events or circumstances, if any.

S-OIL Corporation and Subsidiary
Consolidated Statements of Financial Position
December 31, 2012 and 2011

(In millions of Korean won)

	Notes		2012		2011
Assets					
Current assets					
Cash and cash equivalents	6,10	₩	434,414	₩	876,954
Trade receivables	7,10		2,293,500		2,639,085
Other receivables	7,10		726,036		400,075
Other current financial assets	8,10		722,274		278,928
Derivative financial instruments	9,10		10,765		2,643
Inventories	11		4,385,878		4,617,119
Other current assets			8,652		9,549
			8,581,519		8,824,353
Non-current assets					
Other receivables	7,10		74,547		86,503
Other non-current financial assets	8,10		94,543		77,816
Investments in jointly controlled entities	12		29,651		290,192
Property, plant and equipment	13,15		3,670,335		3,882,460
Intangible assets	14		42,881		37,000
Other non-current assets			3,903		4,417
			3,915,860		4,378,388
Total assets		₩	12,497,379	₩	13,202,741
Liabilities					
Current liabilities					
Trade payables	10,16	₩	2,450,410	₩	2,617,848
Other payables	10,16		662,752		901,160
Borrowings	10,17		2,827,009		3,255,606
Derivative financial instruments	9,10		7,796		4,662
Current income tax liabilities			169,267		316,506
Provisions for other liabilities and charges	18		7,707		8,094
Deferred revenues			28,611		28,885
Other current liabilities	16		121,569		103,227
			6,275,121		7,235,988

S-OIL Corporation and Subsidiary
Consolidated Statements of Financial Position
December 31, 2012 and 2011

(In millions of Korean won)	Notes	2012	2011
Non-current liabilities			
Other payables	10,16	17,356	17,859
Borrowings	10,17	673,230	487,515
Derivative financial instruments	9,10	-	269
Retirement benefit obligations	19	38,444	24,165
Deferred income tax liabilities	29	116,861	210,961
Other non-current liabilities	16	325	660
		846,216	741,429
Total liabilities		7,121,337	7,977,417
Equity			
Capital stock	21	291,512	291,512
Capital surplus	21	379,190	379,190
Reserves	24	1,003,090	993,865
Treasury stock	22	(1,876)	(1,876)
Retained earnings	23	3,704,126	3,562,633
Total equity		5,376,042	5,225,324
Total liabilities and equity		₩ 12,497,379	₩ 13,202,741

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

S-OIL Corporation and Subsidiary
Consolidated Statements of Comprehensive Income
Years ended December 31, 2012 and 2011

(In millions of Korean won, except per share data)	**Notes**	**2012**	**2011**
Revenue	5	₩ 34,723,291	₩ 31,913,863
Cost of sales	25	(33,410,816)	(29,695,742)
Gross profit		1,312,475	2,218,121
Selling expenses	26	(445,912)	(437,007)
Administrative expenses	26	(84,799)	(83,611)
Operating income		781,764	1,697,503
Other income	27	482,250	697,852
Other expenses	27	(706,021)	(761,617)
Finance income	28	369,502	326,405
Finance costs	28	(194,536)	(379,443)
Share of profit of jointly controlled entities	12	(14,013)	3,000
Profit before income tax		718,946	1,583,700
Income tax expense	29	(133,786)	(392,724)
Profit for the year		₩ 585,160	₩ 1,190,976
Other comprehensive income (loss), net of tax			
Change in value of available-for-sale financial assets	24	7,929	(15,877)
Cash flow hedges	24	1,360	1,664
Currency translation differences	24	3	(47)
Share of other comprehensive income in jointly controlled entities	24	(67)	12
Actuarial loss on post employment benefit obligations	19	(18,635)	(13,960)
Total comprehensive income for the year		₩ 575,750	₩ 1,162,768
Earnings per share			
Basic and diluted earnings per common share	32	₩ 5,025	₩ 10,229
Basic and diluted earnings per preferred share	32	₩ 5,050	₩ 10,254

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

S-OIL Corporation and Subsidiary
Consolidated Statements of Changes in Equity
Years ended December 31, 2012 and 2011

(In millions of Korean won)	Capital Stock	Capital Surplus	Reserves	Treasury Stock	Retained Earnings	Total Equity
Balance as of January 1, 2011	₩ 291,512	₩ 379,190	₩ 1,008,113	₩ (1,876)	₩ 2,828,111	₩ 4,505,050
Profit for the year					1,190,976	1,190,976
Other comprehensive income (loss)						
Change in value of available-for-sale financial assets	-	-	(15,877)	-	-	(15,877)
Cash flow hedges	-	-	1,664	-	-	1,664
Currency translation difference	-	-	12	-	-	12
Share of other comprehensive income of jointly controlled entities	-	-	(47)	-	-	(47)
Actuarial loss on retirement benefit obligations	-	-	-	-	(13,960)	(13,960)
Total comprehensive income (loss) for the year	-	-	(14,248)	-	1,177,016	1,162,768
Transaction with equity holders of the Company						
Cash dividends to equity holders of the Company for 2010	-	-	-	-	(256,221)	(256,221)
Interim dividends to equity holders of the Company for 2011	-	-	-	-	(186,273)	(186,273)
Balance as of December 31, 2011	₩ 291,512	₩ 379,190	₩ 993,865	₩ (1,876)	₩ 3,562,633	₩ 5,225,324

S-OIL Corporation and Subsidiary
Consolidated Statements of Changes in Equity
Years ended December 31, 2012 and 2011

(In millions of Korean won)	Capital Stock	Capital Surplus	Reserves	Treasury Stock	Retained Earnings	Total Equity
Balance as of January 1, 2012	₩ 291,512	₩ 379,190	₩ 993,865	₩ (1,876)	₩ 3,562,633	₩ 5,225,324
Profit for the year					585,160	585,160
Other comprehensive income (loss)						
Change in value of available-for-sale financial assets	-	-	7,929	-	-	7,929
Cash flow hedges	-	-	1,360	-	-	1,360
Currency translation difference	-	-	(67)	-	-	(67)
Share of other comprehensive income of jointly controlled entities	-	-	3	-	-	3
Actuarial loss on retirement benefit obligations	-	-	-	-	(18,635)	(18,635)
Total comprehensive income (loss) for the year	-	-	9,225	-	566,525	575,750
Transaction with equity holders of the Company						
Cash dividends to equity holders of the Company for 2011	-	-	-	-	(372,642)	(372,642)
Interim dividends to equity holders of the Company for 2012	-	-	-	-	(52,390)	(52,390)
Balance as of December 31, 2012	₩ 291,512	₩ 379,190	₩ 1,003,090	₩ (1,876)	₩ 3,704,126	₩ 5,376,042

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

S-OIL Corporation and Subsidiary
Consolidated Statements of Cash Flows
Years ended December 31, 2012 and 2011

(In millions of Korean won)	Notes	2012	2011
Cash flows from operating activities			
Cash generated from operations	34	₩ 1,149,052	₩ 653,048
Interest received		40,185	39,577
Interest paid		(87,314)	(57,192)
Income tax paid		(372,120)	(201,874)
Dividends received		5,590	6,484
Net cash generated from operating activities		735,393	440,043
Cash flows from investing activities			
Proceeds from sale of property, plant and equipment	34	4,090	468
Proceeds from sale of intangible assets		1,149	1,539
Decrease in other receivables		30,410	44,896
Settlement of derivative financial instruments		16,745	3,121
Decrease in other assets		3,872	5,273
Purchases of property, plant and equipment	13	(187,650)	(511,079)
Purchases of intangible assets	14	(2,768)	(4,890)
Increase in other receivables		(15,931)	(30,662)
Increase in other financial assets		(442,880)	(217,393)
Acquisition of jointly controlled entities, net of cash acquired	12	-	(267,315)
Increase in other assets		(4,616)	(4,085)
Net cash used in investing activities		(597,579)	(980,127)
Cash flows from financing activities			
Proceeds from borrowings		504,186	1,006,955
Repayment of borrowings		(659,437)	(1,304)
Dividends paid		(425,014)	(442,493)
Net cash provided by (used in) financing activities		(580,265)	563,158
Net increase (decrease) in cash and cash equivalents		(442,451)	23,074
Cash and cash equivalents at the beginning of year	6	876,954	853,864
Exchange gain/(loss)on cash and cash equivalents		(89)	16
Cash and cash equivalents at the end of year	6	₩ 434,414	₩ 876,954

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

1. General Information

The general information of S-OIL Corporation ("the Company"), and its subsidiary, S-International Ltd., (collectively referred to as "the Group") under Korean-IFRS 1027, are as follows:

The Company

S-OIL Corporation was established in 1976, under the commercial laws of the Republic of Korea to import and export crude oil, manufacture and sell oil refining products, lube products and petrochemical products and explore, extract and dispose of energy resources. The Company's headquarters is located in 471 Gongduk-dong, Mapo-gu, Seoul 121-805, Korea.

On May 8, 1987, the Company's shares of stock were listed in the Korean Stock Exchange.

As of December 31, 2012, the major shareholders of the Company and their respective shareholdings are as follows:

Name of shareholders	Number of Common stocks	Percentage of Ownership (%)
Aramco Overseas Co., B.V.	39,403,974	35.00
Hanjin Energy Co., Ltd.	31,983,586	28.41
Institutional and individual investors	41,195,232	36.59
Total	112,582,792	100.00

Subsidiary

Details of the subsidiary are as follows:

	Number of Shares	Percentage of Ownership (%)	Industry	Location	Statement of Financial Position Date
S-International Ltd.	10	100	Purchasing and sales of petroleum goods	Samoa	December 31

The summary of financial information of S-International Ltd. as of and for the years ended December 31, 2012 and 2011, are as follows:

	2012					
(In millions of Korean won)	**Total Assets**	**Total Liabilities**	**Equity**	**Revenues**	**Profit/(loss)**	**Comprehensive income(loss)**
S-International Ltd.	1,177	-	1,177	-	13	13

	2011					
(In millions of Korean won)	**Total Assets**	**Total Liabilities**	**Equity**	**Revenues**	**Profit**	**Comprehensive income**
S-International Ltd.	1,253	-	1,253	-	3	3

2. Significant accounting policies

The principal accounting policies applied in the preparation of these financial statements are set out below. These policies have been consistently applied to all the periods presented, unless otherwise stated.

2.1. Basis of Preparation

The Group maintains its accounting records in Korean won and prepares statutory financial statements in the Korean language (Hangul) in accordance with the International Financial Reporting Standards as adopted by the Republic of Korea (“Korean-IFRS”). The accompanying consolidated financial statements have been condensed, restructured and translated into English from the Korean language financial statements.

Certain information attached to the Korean language financial statements, but not required for a fair presentation of the Group's financial position, financial performance or cash flows, is not presented in the accompanying consolidated financial statements.

The Group’s financial statements for the annual period beginning on January 1, 2011, have been prepared in accordance with Korean-IFRS. These are the standards, subsequent amendments and related interpretations issued by the International Accounting Standards Board ("IASB") that have been adopted by the Republic of Korea.

The preparation of the financial statements requires the use of certain critical accounting estimates. It also requires management to exercise judgment in the process of applying the Group’s accounting policies. The areas involving a higher degree of judgment or complexity, or areas where assumptions and estimates are significant to the financial statements are disclosed in Note 4.

2.1.1 Changes in Accounting Policy and Disclosures

(a) New and amended standards adopted by the Group

The Group changed its accounting policy to present the operating income after deducting cost of sales, and selling and administrative expenses from revenue, in accordance with the amendment of Korean-IFRS 1001, *Presentation of Financial Statements.*

The Group applies the accounting policy retroactively in accordance with the amended standards and the comparative consolidated statement of the comprehensive income is restated by reflecting adjustments resulting from the retrospective application. As a result of the changes in the accounting policy, other income and expenses of ₩ 482,250 million and ₩ 706,021 million, respectively, for the year ended December 31, 2012 (2011: ₩ 697,852 million and ₩ 761,617 million, respectively), which include gains and losses on foreign currency translations or transactions, on derivative transactions or valuation of derivatives, on disposal of property, plant and equipment, classified as operating income under the previous standard, were excluded from operating income. Consequently, operating income for the years ended December 31, 2012 and 2011, was higher by ₩ 223,771 million and ₩ 63,765 million, respectively, as compared to the amounts under the previous standard. However, there is no material impact on net income and earnings per share for the years ended December 31, 2012 and 2011.

(b) New standards and interpretations not yet adopted

New standards, amendments and interpretations issued but not effective for the financial year beginning January 1, 2012, and not early adopted by the Group are as follows:

- Amendment of Korean-IFRS 1001, *Presentation of Financial Statements*

Korean-IFRS 1001, *Presentation of Financial Statements*, was amended to require other comprehensive income items to be presented into two groups on the basis of whether they are potentially reclassifiable to profit or loss subsequently. This is effective for annual periods beginning on or after July 1, 2012, with early adoption permitted. The Group is assessing the impact of application of this amendment on its financial statements as of the report date.

- Amendments to Korean-IFRS 1019, *Employee Benefits*

According to the amendments to Korean-IFRS 1019, *Employee Benefits*, the use of a ‘corridor’ approach is no longer permitted, and therefore all actuarial gains and losses incurred are immediately recognized in other comprehensive income. All past service costs incurred from changes in pension plan are immediately recognized, and expected returns on interest costs and plan assets that used to be separately calculated are now changed to calculating net interest expense (income) by applying discount rate used in measuring defined benefit obligation in net defined benefit liabilities (assets). This amendment will be effective for annual periods beginning on or after January 1, 2013, and the Group is assessing the impact of application of the amended Korean-IFRS 1019 on its consolidated financial statements as of the report date.

- Enactment of Korean-IFRS 1110, *Consolidated Financial Statements*

Korean-IFRS 1110, *Consolidated Financial Statements*, builds on existing principles by identifying the concept of control as the determining factor in whether an entity should be included in the consolidated financial statements of the Parent Company. An investor controls an investee when it is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee. The standard provides additional guidance to assist in the determination of control where this is difficult to assess. This enactment will be effective for annual periods beginning on or after January 1, 2013, and the Group is reviewing the impact of the enactment of Korean-IFRS 1110.

- Enactment of Korean-IFRS 1112, *Disclosures of Interests in Other Entities*

Korean-IFRS 1112, *Disclosures of Interests in Other Entities*, provides the disclosure requirements for all forms of interests in other entities, including a subsidiary, a joint arrangement, an associate, a consolidated structured entity and an unconsolidated structured entity. This enactment will be effective for annual periods beginning on or after January 1, 2013, and the Group is reviewing the impact of the enactment of Korean-IFRS 1112.

- Enactment of Korean-IFRS 1113, *Fair Value Measurement*

Korean-IFRS 1113, *Fair Value Measurement*, aims to improve consistency and reduce complexity by providing a precise definition of fair value and a single source of fair value measurement and disclosure requirements for use across Korean-IFRSs. Korean-IFRS 1113 does not extend the use of fair value accounting but provides guidance on how it should be applied where its use is already required or permitted by other standards within the Korean-IFRSs. This enactment will be effective for annual periods beginning on or after January 1, 2013, and the Group is reviewing the impact of application of this enactment on its financial statements as of the report date.

2.2 Consolidation

The Group has prepared the consolidated financial statements in accordance with Korean-IFRS 1027, '*Consolidated and Separate Financial Statements'*.

(a) Subsidiary

Subsidiary is all entities (including special purpose entities) over which the Parent Company has the power to govern the financial and operating policies generally accompanying a shareholding of more than one half of the voting rights. The existence and effect of potential voting rights that are currently exercisable or convertible are considered when assessing whether the Group controls another entity. The Group also assesses the existence of control where it does not have more than 50% of the voting power but is able to govern the financial and operating policies by virtue of de-facto control. De-facto control may arise in circumstances where the size of the Group's voting rights relative to the size and dispersion of holdings of other shareholders give the Group the power to govern the financial and operating policies and others. Subsidiary is fully consolidated from the date on which control is transferred to the Parent Company. It is de-consolidated from the date that control ceases.

The Group applies the acquisition method to account for business combinations. The consideration transferred for the acquisition of a subsidiary is measured as the fair values of the assets transferred, the liabilities incurred to the former owners of the acquiree and the equity interests issued by the Group. The consideration transferred includes the fair value of any asset or liability resulting from a contingent consideration arrangement. Identifiable assets acquired and liabilities and contingent liabilities assumed in a business combination are measured initially at their fair values at the acquisition date. Acquisition-related costs are expensed as incurred.

If the business combination is achieved in stages, the acquisition date fair value of the acquirer's previously held equity interest in the acquiree is remeasured to fair value at the acquisition date and the resulting gain or loss is recognized in profit or loss.
Any contingent consideration to be transferred by the Group is recognized at fair value at the acquisition date. Subsequent changes to the fair value of the contingent consideration that is deemed to be an asset or liability is recognized in accordance with Korean-IFRS 1039, either in profit or loss or as a change to other comprehensive income. Contingent consideration that is classified as equity is not remeasured, and its subsequent settlement is accounted for within equity.

Goodwill is initially measured as the excess of the aggregate of the consideration transferred and the fair value of non-controlling interest over the net identifiable assets acquired and liabilities assumed. If this consideration is lower than the fair value of the net assets of the subsidiary acquired, the difference is recognized in profit or loss.

Intercompany transactions, balances, income and expenses on transactions between Group companies are eliminated. Unrealized losses are also eliminated after recognizing impairment of transferred assets.

(b) Changes in ownership interests in subsidiaries without change of control

Transactions with non-controlling interests that do not result in loss of control are accounted for as equity transactions; that is, as transactions with the owners in their capacity as owners. The difference between fair value of any consideration paid and the relevant share acquired of the carrying value of net assets of the subsidiary is recorded in equity. Gains or losses on disposals to non-controlling interests are also recorded in equity.

(c) Disposal of subsidiaries

When the Group ceases to have control, any retained interest in the entity is re-measured to its fair value at the date when control is lost, with the change in carrying amount recognized in profit or loss. The fair value is the initial carrying amount for the purposes of subsequently accounting for the retained interest as an associate, joint venture or financial asset. In addition, any amounts previously recognized in other comprehensive income in respect of that entity are accounted for as if the Group had directly disposed of the related assets or liabilities.

(d) Associates

Associates are all entities over which the Group has significant influence but not control, generally accompanying a shareholding of between 20% and 50% of the voting rights. Investments in associates are accounted for using the equity method of accounting. Under the equity method, the investment is initially recognized at cost, and the carrying amount is increased or decreased to recognize the investor's share of the profit or loss of the investee after the date of acquisition. The Group's investment in associates includes goodwill identified on acquisition, net of any accumulated impairment loss.

If the ownership interest in an associate is reduced but significant influence is retained, only a proportionate share of the amounts previously recognized in other comprehensive income is reclassified to profit or loss where appropriate.

The Group's share of post-acquisition profit or loss is recognized in profit or loss, and its share of post-acquisition movements in other comprehensive income is recognized in other comprehensive income with a corresponding adjustment to the carrying amount of the investment. When the Group's share of losses in an associate equals or exceeds its interest in the associate, including any other unsecured receivables, the Group does not recognize further losses, unless it has incurred legal or constructive obligations or made payments on behalf of the associate.

The Group determines at each reporting date whether there is any objective evidence that the investment in the associate is impaired. If this is the case, the Group calculates the amount of impairment as the difference between the recoverable amount of the associate and its carrying value and recognizes the amount as 'impairment loss on investment in an associate' in the consolidated statement of comprehensive income within 'other expenses'

Unrealized gains on transactions between the Group and its associates are eliminated to the extent of the Group's interest in the associates. Unrealized losses are also eliminated unless the transaction provides evidence of an impairment of the asset transferred. Accounting policies of associates have been changed where necessary to ensure consistency with the policies adopted by the Group. Dilution gains and losses arising in investments in associates are recognized as profit or loss in the consolidated statement of comprehensive income.

(e) Joint ventures

A joint venture is a contractual arrangement whereby two or more parties (co-venturers) exercise joint control. As with associates, investments in jointly controlled entities are accounted for using the equity method of accounting and are initially recognized at cost. The Group's investment in jointly controlled entities includes goodwill identified on acquisition, net of accumulated impairment loss.

The Group does not recognize its share of profits or losses from the joint venture that result from the Group's purchase of assets from the joint venture until it re-sells the assets to an independent party. However, a loss on the transaction is recognized immediately if the loss provides evidence of a reduction in the net realizable value of current assets, or an impairment loss.

2.3 Foreign currency translation

(a) *Functional and presentation currency*

Items included in the financial statements of each of the Group's entities are measured using the currency of the primary economic environment in which the entity operates ("the functional currency"). The consolidated financial statements are presented in 'Korean won', which is the controlling entity's functional and presentation currency.

(b) *Transactions and balances*

Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transactions or valuation where items are re-measured. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at year-end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognized in the consolidated statement of comprehensive income, except when deferred in other comprehensive income as qualifying cash flow.

Foreign exchange gains and losses that relate to borrowings and cash and cash equivalents are presented in the consolidated statement of comprehensive income within 'finance income or costs'. All other foreign exchange gains and losses are presented in the consolidated statement of comprehensive income within 'other income or expenses'.

Changes in the fair value of monetary securities denominated in foreign currency classified as available-for-sale are analyzed between translation differences resulting from changes in the amortized cost of the security and other changes in the carrying amount of the security. Translation differences related to changes in amortized cost are recognized in profit or loss, and other changes in carrying amount are recognized in other comprehensive income.

Translation differences on non-monetary financial assets and liabilities such as equities held at fair value through profit or loss are recognized in profit or loss as part of the fair value gain or loss. Translation differences on financial assets at fair value through profit or loss are included in the consolidated statement of comprehensive income, while non-monetary financial assets, such as equities classified as available-for-sale, are included in other comprehensive income.

(c) *Translation to presentation currency*

The results and financial position of subsidiary that have a functional currency different from the presentation currency of the Group are translated into the presentation currency of the Group as follows:

- assets and liabilities for each statement of financial position presented are translated at the closing rate at the end of the reporting period;
- income and expenses for each income statement are translated at average exchange rates; and
- all resulting exchange differences are recognized in other comprehensive income.

2.4 Cash and cash equivalents

Cash and cash equivalents include cash on hand, deposits held at call with banks, and other short-term highly liquid investments with original maturities of three months or less.

2.5 Trade receivables

Trade receivables are amounts due from customers for merchandise sold performed in the ordinary course of business. If collection is expected in one year or less, they are classified as current assets. If not, they are presented as non-current assets. Trade receivables are recognized initially at fair value and subsequently measured at amortized cost using the effective interest method, less provision for impairment.

2.6 Financial instruments

2.6.1 Classification

The Group classifies its financial instruments in the following categories: financial assets and liabilities at fair value through profit or loss, loans and receivables, available-for-sale financial assets, and other financial liabilities at amortized cost. The classification depends on the purpose for which the financial instruments were acquired and the nature of the instruments. Management determines the classification of financial instruments at initial recognition.

a) Financial assets and liabilities at fair value through profit or loss

Financial assets and liabilities at fair value through profit or loss are financial instruments held for trading. Financial assets and liabilities are classified in this category if acquired or incurred principally for the purpose of selling or repurchasing it in the near term. Derivatives that are not subject to hedge accounting and financial instruments having embedded derivatives are also included in this category. The Group's financial assets and liabilities at fair value through profit or loss comprise 'derivative financial instruments' in the consolidated statement of financial position.

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. They are included in current assets, except for maturities greater than 12 months after the end of the reporting period. These are classified as non-current assets. The Group's loans and receivables comprise 'cash and cash equivalents', 'trade receivables', 'other receivables' and 'other financial assets'.

c) Available-for-sale financial assets

Available-for-sale financial assets are non-derivatives that are either designated in this category or not classified in any of the other categories. They are included in 'other financial assets' as non-current assets unless maturities are less than 12 months or management intends to dispose of them within 12 months after the end of the reporting period.

d) Financial liabilities carried at amortized cost

The Group classifies non-derivative financial liabilities as financial liabilities carried at amortized cost, except for financial liabilities at fair value through profit or loss or financial liabilities that arise when a transfer of a financial asset does not qualify for derecognition. Financial liabilities measured at amortized cost are included in non-current liabilities, except for maturities less than 12 months after the end of the reporting period, which are classified as current liabilities.

2.6.2 Recognition and Measurement

a) Assets carried at amortized cost

Regular purchases and sales of financial assets are recognized on the trade date. Investments are initially recognized at fair value plus transaction costs for all financial assets not carried at fair value through profit or loss. Financial assets carried at fair value through profit or loss is initially recognized at fair value, and transaction costs are expensed in the consolidated statement of comprehensive income. Available-for-sale financial assets and financial assets at fair value through profit or loss are subsequently carried at fair value. Loans and receivables are subsequently carried at amortized cost using the effective interest rate method.

Gains or losses arising from changes in the fair value of the financial assets carried at fair value through profit or loss are presented in the consolidated statement of comprehensive income within 'other income or expenses' and 'finance income and costs' in the period in which they arise.

Changes in the fair value of monetary and non-monetary securities classified as available for sale are recognized in other comprehensive income. When securities classified as available-for-sale are sold or impaired, the accumulated fair value adjustments recognized in equity are reported in the consolidated statement of comprehensive income as 'other income or expenses'. Interest on available-for-sale securities calculated using the effective interest method is recognized in the consolidated statement of comprehensive income as part of 'finance income'. Dividends on available-for-sale equity instruments are recognized in the consolidated statement of comprehensive income as part of 'other income' when the Group's right to receive payments is established.

2.6.3 Offsetting financial instruments

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

2.6.4 Derecognition

Financial assets are derecognized when the contractual rights to receive cash from the investments have expired or have been transferred, and the Group has substantially transferred all risks and rewards of ownership or when the risk and rewards of ownership of transferred assets have not been substantially retained or transferred and the Group has not retained control over these assets.

2.6.5 *Impairment of financial assets*

(a) Assets carried at amortized cost

The Group assesses at the end of each reporting period whether there is objective evidence that a financial asset or group of financial assets is impaired. A financial asset or a group of financial assets is impaired and impairment losses are incurred only if there is objective evidence of impairment as a result of one or more events that occurred after the initial recognition of the asset (a 'loss event') and that loss event (or events) has an impact on the estimated future cash flows of the financial asset or a group of financial assets that can be reliably estimated.

The criteria that the Group uses to determine that there is objective evidence of an impairment loss include:

- Significant financial difficulty of the issuer or obligor;
- Breach of contract such as non-execution or delinquency in interest or principal payments
- For economic or legal reasons relating to the borrower's financial difficulty, granting to the borrower a concession that the lender would not otherwise consider;
- It becomes probable that the borrower will undergo bankruptcy or other financial reorganization;
- The disappearance of an active market for that financial asset because of financial difficulties; or
- Observable data suggesting that there is a measurable decrease in the estimated future cash flows from a portfolio of financial assets since the initial recognition of those assets, even though the decrease cannot be identified with respect to individual financial assets in the portfolio, such as:

    (i) adverse changes in the payment status of borrowers in the portfolio;
    (ii) national or local economic conditions that correlate with defaults on the assets in the portfolio.

Impairment loss is measured as the difference between the assets' carrying amount and the present value of estimated future cash flows (excluding future credit losses that have not been incurred) discounted using the initial effective interest rate. The carrying amount of the asset is reduced by the impairment loss amount and the amount of the loss is recognized in the statement of income. If a financial asset has a variable interest rate, the discount rate for measuring any impairment loss is the current effective interest rate determined under the contract. In practice, the Group may measure impairment loss based on the fair value of financial asset using an observable market price.

If, in a subsequent period, the amount of impairment loss decreases and the decrease can be related objectively to an event occurring after the impairment was recognized (for example, an improvement in debtor's credit rating), the reversal of the previously recognized impairment loss is recognized in the statement of income.

(b) Assets classified as available-for-sale

The Group assesses at the end of each reporting period whether there is objective evidence that a financial asset or a group of financial assets is impaired. For debt securities, the Group uses the criteria referred to in (a) above. In the case of equity investments classified as available-for-sale, a significant or prolonged decline in the fair value of the security below its cost is also evidence that the asset is impaired. If any such evidence exists for available-for-sale financial assets, the cumulative loss – measured as the difference between the acquisition cost and the current fair value, less any impairment loss on that financial asset previously recognized in profit or loss – is removed from equity and recognized in the statement of income. Impairment losses recognized in the consolidated statement of income on equity instruments are not reversed through the statement of income. If, in a subsequent period, the fair value of a debt instrument classified as available-for-sale increases and the increase can be objectively related to an event occurring after the impairment loss was recognized in profit or loss, the impairment loss is reversed through the consolidated statement of income.

2.7 Derivative financial instruments and hedging activities

Derivatives are initially recognized at fair value on the date a derivative contract is entered into and are subsequently re-measured at their fair value. The method of recognizing the resulting gain or loss depends on whether the derivative is designated as a hedging instrument, and if so, the nature of the item being hedged.

The resulting gain or loss is recognized in 'other income or expenses' or 'finance income or costs' according to the nature of transactions. The effective portion of changes in the fair value of derivatives that are designated and qualify as cash flow hedges is recognized in other comprehensive income. The gain or loss relating to the ineffective portion is recognized immediately in the consolidated statement of comprehensive income within ‘other income or expenses’ and ‘finance income or costs’.

The Group documents at the inception of the transaction the relationship between hedging instruments and hedged items, as well as its risk management objectives and strategy for undertaking various hedging transactions. The Group also documents its assessment, both at hedge inception and on an ongoing basis, of whether the derivatives that are used in hedging transactions are highly effective in offsetting changes in fair values or cash flows of hedged items.

The changes in fair values of various derivative instruments used for hedging purposes and movements on the hedging reserve in other comprehensive income are disclosed in Note 9.

The full fair value of a hedging derivative is classified as a non-current asset or liability when the remaining hedged item is more than 12 months and as a current asset or liability when the remaining maturity of the hedged item is less than 12 months. Trading derivatives are classified as a current asset or liability.

Amounts accumulated in equity are reclassified to profit or loss in the periods when the hedged item affects profit or loss.

When a hedging instrument expires or is sold, or when a hedge no longer meets the criteria for hedge accounting, any cumulative gain or loss existing in equity at that time remains in equity and is recognized when the forecast transaction is ultimately recognized in the consolidated statement of income. When a forecast transaction is no longer expected to occur, the cumulative gain or loss that was reported in equity is immediately transferred to the consolidated statement of income within ‘other income or expenses’ or ‘finance income or costs’.

2.8 Inventories

Inventories are stated at the lower of cost and net realizable value (current market price for raw materials is current replacement cost).

Cost is determined using the first-in, first-out (FIFO) method except for in-transit inventories which are determined using the specific identification method and supplies which are determined using the moving weighted average method. The cost of finished goods and work in progress comprises raw materials, direct labor, other direct costs and related production overheads (based on normal operating capacity). It excludes borrowing costs. Net realizable value is the estimated selling price in the ordinary course of business, less applicable variable selling expenses.

2.9 Property, plant and equipment

All property, plant and equipment are stated at historical cost or deemed cost less accumulated depreciation and accumulated impairment loss. When the deemed cost is applied, the revaluation amount of property, plant and equipment is considered as fair value at the date of the revaluation under the previous standard.

Subsequent costs are included in the asset’s carrying amount or recognized as a separate asset, as appropriate, only when it is probable that future economic benefits associated with the item will flow to the Group and the cost of the item can be measured reliably. The carrying amount of the replaced part is derecognized. All other repairs and maintenance are charged to the consolidated statement of comprehensive income during the financial period in which they are incurred.

Land is not depreciated. Depreciation on other assets is calculated using the straight-line method (except for catalysts using the units-of-production method) to allocate the difference between their cost and their residual values over their estimated useful lives, as follows:

	Estimated useful lives
Buildings	20 - 40 years
Structures	20 - 40 years
Machinery and equipment	15 years
Vehicles	5 years
Other property, plant and equipment	3 – 5 years

The assets' depreciation method, residual values and useful lives are reviewed, and adjusted if appropriate, at the end of each reporting period. An asset's carrying amount is written down immediately to its recoverable amount if the asset's carrying amount is greater than its estimated recoverable amount. Gains and losses on disposals are determined by comparing the proceeds with the carrying amount and are recognized within 'other income or expenses' in the consolidated statement of comprehensive income. Catalysts, substances that deplete as they accelerate or decelerate the chemical reaction, are classified as other property, plant and equipment and depreciated using the units-of-production method.

2.10 Borrowing costs

General and specific borrowing costs directly attributable to the acquisition, construction or production of qualifying assets, which are assets that necessarily take a substantial period of time to get ready for their intended use or sale, are added to the cost of those assets, until such time as the assets are substantially ready for their intended use or sale. Investment income earned on the temporary investment of specific borrowings pending their expenditure on qualifying assets is deducted from the borrowing costs eligible for capitalization. All other borrowing costs are recognized in profit or loss in the period in which they are incurred.

2.11 Intangible assets

Intangible assets are shown at historical cost less accumulated amortization and accumulated impairment losses. Intangible assets are comprised of facility usage rights and other intangible assets. Amortization is calculated using the straight-line over their estimated useful lives with zero residual value. Membership rights are regarded as intangible assets with indefinite useful life and not amortized because there is no foreseeable limit to the period over which the asset is expected to be utilized.

	Estimated useful lives
Facility usage rights	Contract periods
Other intangible assets	5 years
Membership rights	Indefinite

2.12 Impairment of non-financial assets

Membership rights or intangible assets with indefinite useful lives are not subject to amortization and are tested annually for impairment. Assets that are subject to amortization are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognized for the amount by which the asset's carrying amount exceeds its recoverable amount. For the purposes of assessing impairment, assets are grouped at the lowest levels for which there are separately identifiable cash flows (cash-generating units).

2.13 Trade payables

Trade payables are obligations to pay for goods that have been acquired in the ordinary course of business from suppliers. Accounts payable are classified as current liabilities if payment is due within one year or less. If not, they are presented as non-current liabilities. Trade payables are recognized initially at fair value and subsequently measured at amortized cost using the effective interest method.

2.14 Borrowings

Borrowings are recognized initially at fair value, net of transaction costs incurred. Borrowings are subsequently carried at amortized cost; any difference between the proceeds (net of transaction costs) and the redemption value is recognized in the consolidated statement of comprehensive income over the period of the borrowings using the effective interest method. The Group recognizes borrowings as current unless it has an unconditional right to delay the settlement of the borrowing for longer than 12 months after the reporting date.

2.15 Current and deferred income tax

The tax expense for the period comprises current and deferred tax. Tax is recognized in the profit or loss within the consolidated statement of comprehensive income, except to the extent that it relates to items recognized in other comprehensive income or directly in equity. In this case, the tax is also recognized in other comprehensive income or directly in equity, respectively.

The current income tax charge is calculated on the basis of the tax laws enacted or substantively enacted at the statement of financial position date in the countries where the Group operates and generates taxable income.

Deferred income tax is recognized, using the liability method, on temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the financial statements. However, deferred tax assets and liabilities are not recognized if they arise from initial recognition of an asset or liability in a transaction other than a business combination that at the time of the transaction affects neither accounting nor taxable profit nor loss. Deferred income tax is determined using tax rates and laws that have been enacted or substantially enacted by the statement of financial position date and are expected to apply when the related deferred income tax asset is realized or the deferred income tax liability is settled.

Deferred income tax assets are recognized only to the extent that it is probable that future taxable profit will be available against which the temporary differences can be utilized.

Deferred income tax is provided on temporary differences arising on investments in subsidiary and jointly controlled entities, except for deferred income tax liability where the timing of the reversal of the temporary difference is controlled by the Group and it is probable that the temporary difference will not reverse in the foreseeable future. Regarding temporary differences arising from the assets, deferred income tax assets are recognized only to the extent that it is probable that future taxable profit will be available against which the temporary differences can be utilized.

Deferred income tax assets and liabilities are offset when there is a legally enforceable right to offset current tax assets against current tax liabilities and when the deferred income taxes assets and liabilities relate to income taxes levied by the same taxation authority on either the same taxable entity or different taxable entities where there is an intention to settle the balances on a net basis.

2.16 Retirement benefit obligations

The Group has defined benefit plan as its pension scheme. Defined benefit plans define an amount of pension benefit that an employee will receive on retirement, usually dependent on one or more factors such as age, years of service and compensation.

The liability recognized in the consolidated statement of financial position in respect of defined benefit pension plans is the present value of the defined benefit obligation at the end of the reporting period less the fair value of plan assets. The defined benefit obligation is calculated annually by independent actuaries using the projected unit credit method. The present value of the defined benefit obligation is determined by discounting the estimated future cash outflows using interest rates of high-quality corporate bonds that are denominated in the currency in which the benefits will be paid, and that have terms to maturity approximating to the terms of the related pension obligation.

Actuarial gains and losses arising from experience adjustments and changes in actuarial assumptions are charged or credited to equity in other comprehensive income in the period in which they arise.

2.17 Provisions for other liabilities and charges

Provisions are recognized when: the Group has a present legal or constructive obligation as a result of past events; it is probable that an outflow of resources will be required to settle the obligation; and the amount has been reliably estimated. Provisions in relation to environmental restoration are recognized within the consolidated statement of financial position. Provisions are not recognized for future operating losses.

2.18 Share capital

Ordinary shares and preferred shares that are not mandatorily redeemable are classified as equity.

Where the Company purchases its own equity share capital (treasury shares), the consideration paid, including any directly attributable incremental costs is deducted from equity attributable to the subsequently reissued, any consideration received is included in equity attributable to the Company’s equity holders.

2.19 Revenue recognition

Revenue is measured at the fair value of the consideration received or receivable, and represents amounts receivable for goods and services supplied, stated net of discounts, returns and value added taxes.

The Group recognizes revenue when the amount of revenue can be reliably measured; when it is probable that future economic benefits will flow to the entity; and when specific criteria have been met for each of the Group’s activities, as described below.

a. Sales of goods

The Group recognizes revenue when the significant risks and rewards of ownership of goods are transferred to the buyer.

b. Interest income

Interest income is recognized using the effective interest method according to the time passed. When a loan and receivable is impaired, the Group reduces the carrying amount to its recoverable amount and continues unwinding the discount as interest income. Interest income on impaired loan and receivables is recognized using the original effective interest rate.

c. Dividend income

Dividend income is recognized when the right to receive payment is established.

2.20 Lease

Leases in which a significant portion of the risks and rewards of ownership are retained by the lessor are classified as operating leases. Payments made under operating leases are charged to the consolidated statement of comprehensive income on a straight-line basis over the period of the lease.

2.21 Dividend distribution

Dividend distribution to the Group’s shareholders is recognized as a liability in the consolidated financial statements in the period in which the dividends are approved by the Group’s shareholders.

2.22 Earnings per share

Basic earnings per share is calculated by dividing the profit attributable to equity holders of the Group by the weighted average number of ordinary shares in issue during the year. Basic earnings per preferred share is also calculated by dividing the profit attributable to participating shares with right to participate in distribution of earnings by the weighted average number of preferred shares in issue during the year.

2.23 Segment reporting

Operating segments are reported in a manner consistent with the internal reporting provided to the Group's management. The Group's management is responsible for allocating resources and assessing performance of the operating segments.

2.24 Approval of Issuance of the Financial Statements

The issuance of the December 31, 2012 financial statements of the Company was approved by the Board of Directors on February 28, 2013.

3. Financial risk management

3.1 Financial risk factors

The Group's activities expose it to a variety of financial risks: market risk, credit risk and liquidity risk. The Group's overall risk management program focuses on the unpredictability of financial markets and seeks to minimize potential adverse effects on the Group's financial performance.

Risk management is carried out by each relevant department under policies approved by the Board of Directors. The Group identifies, evaluates and hedges financial risks in close co-operation with the Group's operating units.

The Group uses derivative financial instruments to hedge foreign exchange risk, product margin risk and interest rate risk. The Group documents at the inception of the transaction the relationship between hedging instruments and hedged items, as well as its risk management objectives and strategy for undertaking various hedging transactions.

(1) Market risk

a. Foreign exchange risk

The Group operates internationally and is exposed to foreign exchange risk arising from various currency exposures, primarily with respect to the US dollar. Foreign exchange risk arises from future commercial transactions, recognized as assets and liabilities, which are not denominated in the functional currency.

The purpose of foreign exchange risk management is to maximize the Group's value by minimizing the uncertainty and volatility of foreign exchange gains and losses from foreign exchange rate fluctuations.

The Group maintains foreign exchange risk management system to offset foreign exchange effects arising from recognized income/expense and assets/liabilities.

As of December 31, 2012, if the Korean won had weakened/strengthened by 10% against the foreign currencies with all other variables held constant, profit before income tax for the year would have been decreased/ increased by ₩ 305,982 million (2011: ₩ 345,902 million) in relation to foreign currency-denominated trade receivables, trade payables, and usance borrowings. However, the Group's foreign exchange risk is controlled effectively as the above foreign exchange risk has offsetting effect with other foreign exchange effects affecting profit before income tax for the year.

The Group's financial instruments denominated in major foreign currencies as of December 31, 2012 and 2011, are converted into Korean won as follows:

(In millions of Korean won)		2012		2011
Trade receivables				
KRW	₩	380,039	₩	375,748
USD		1,913,456		2,263,255
EUR		5		82
Total	₩	2,293,500	₩	2,639,085
Trade payables				
KRW		75,117		18,566
USD		2,375,293		2,599,282
Total	₩	2,450,410	₩	2,617,848
Borrowings				
KRW		875,991		572,822
USD		2,624,248		3,170,299
Total	₩	3,500,239	₩	3,743,121

b. Product margin risk

The Group is exposed to product margin risk arising from difference in timing of purchase and sale.

The purpose of product margin risk management is to maximize the Group's value by minimizing the uncertainty of volatility of product margin.

In order to minimize the product margin risk, the Group tries to sell products in the month produced. For the products that need to be stored for a longer period, the Group secures the product margin by executing product swap.

c. Interest rate risk

The Group is exposed to interest rate risk through changes in interest-bearing liabilities or assets. The risk mainly arises from borrowings and financial deposits with variable interest rates linked to market interest rate changes in the future.

The objective of interest rate risk management lies in maximizing corporate value by minimizing uncertainty caused by fluctuations in interest rates and minimizing net interest expense.

To mitigate unexpected interest rate risk of long-term foreign currency borrowings bearing floating interest rate, the Company used currency swap to convert to long-term borrowings of fixed interest.

The table below demonstrates fair value of financial assets and liabilities in regard to interest rate risk as of December 31, 2012 and 2011:

	2012		**2011**	
(In millions of Korean won)	**Fixed rate**	**Floating rate**	**Fixed rate**	**Floating rate**
Financial assets	₩ 3,755,274	-	₩ 4,057,588	-
Financial liabilities	₩ 6,180,882	₩ 134,806	₩ 6,579,448	₩ 139,051

d. Price risk of available-for-sale financial assets

The Group is exposed to equity securities price risk because of investments held by the Group and classified on the consolidated statement of financial position as available-for-sale. To manage its price risk arising from investments in equity securities, the Group diversifies its portfolio.

The table below summarizes the impact of increases/decreases of the equity index and increases/decreases of prices of unlisted stocks on the Group’s other comprehensive income for the year (change in value of available-for-sale financial assets). The analysis is based on the assumption that the equity index had increased/decreased by 10% with all other variables held constant.

(In millions of Korean won)	**2012**	**2011**
Listed stocks	₩ 3,740	₩ 2,966
Unlisted stocks	5,226	4,298

(2) Credit risk

Credit risk arises from receivables, cash and cash equivalents, derivative financial instruments and deposits with banks and financial institutions. For banks and financial institutions, only independently rated parties with high ratings are accepted. If customers are independently rated, these ratings are used. If there is no independent rating, the credit quality of the customer is evaluated taking into account its financial position, past experience and other factors.

Individual risk limits are set based on internal or external ratings in accordance with limits set by the board. The utilization of credit limits is strictly monitored.

(3) Liquidity risk

Liquidity risk is defined as the risk that the Group is unable to meet its short-term payment obligations on time due to deterioration of its business performance or inability to access financing.

The Group monitors rolling forecasts of the Group's liquidity requirements to ensure it has sufficient cash to meet operational needs while maintaining sufficient headroom on its undrawn committed borrowing facilities at all times so that the Group does not breach borrowing limits or covenants on any of its borrowing facilities. Such forecasting takes into consideration the Group's debt financing plans, covenant compliance, compliance with internal statement of financial position ratio targets and if applicable, external regulatory or legal requirements.

The below table analyzes the Company's liquidity risk.

(In millions of Korean won)		**Less than 1 year**	**Less than 2 years**	**Over 2 years**	**Total**
December 31, 2012					
Trade payables		₩ 2,450,410	-	-	₩ 2,450,410
Other payables		670,959	4,973	4,576	680,508
Borrowings		2,870,141	176,595	581,890	3,628,626
Currency Swap	Outflow	(112,900)	-	-	(112,900)
	Inflow	107,110	-	-	107,110
Currency Forward	Outflow	(696,215)	-	-	(696,215)
	Inflow	697,044	-	-	697,044
Commodity Swap		1,101	-	-	1,101
Total		₩ 5,987,650	₩ 181,568	₩ 586,466	₩ 6,755,684
December 31, 2011					
Trade payables		₩ 2,617,848	-	-	₩ 2,617,848
Other payables		901,160	12,946	5,616	919,722
Borrowings		3,284,326	331,640	176,055	3,792,021
Currency Swap	Outflow	(112,900)	-	-	(112,900)
	Inflow	115,330	-	-	115,330
Currency Forward	Outflow	(907,518)	-	-	(907,518)
	Inflow	907,875	-	-	907,875
Commodity Swap		1,038	-	-	1,038
Total		₩ 6,807,159	₩ 344,586	₩ 181,671	₩ 7,333,416

The amounts disclosed in the table are undiscounted cash flows.

3.2 Capital management

The Group's objectives when managing capital are to safeguard the Group's ability to continue as a going concern in order to provide returns for shareholders and benefits for other shareholders and to maintain an optimal capital structure to reduce the cost of capital.

The Group monitors financial ratios, such as debt/equity ratio and net borrowing/equity ratio each month and implements required action plan to maintain or adjust the capital structure.

Debt-to-equity ratio and net borrowings ratio are as follows:

(In millions of Korean won, except for ratios)	December 31, 2012	December 31, 2011
Interest bearing liability (A)	₩ 3,500,239	₩ 3,743,121
Cash and cash equivalents and current financial deposits (B)	1,156,314	1,154,746
Net borrowings (C=A-B)	2,343,925	2,588,375
Equity (D)	5,376,042	5,225,324
Debt to equity ratio (A/D)	65%	72%
Net borrowings/equity ratio (C/D)	44%	50%

3.3 Fair value estimation

The Group classifies fair value measurements using a fair value hierarchy that reflects the significance of the inputs used in measurements.

- Level 1: quoted prices (unadjusted) in active markets for identical assets or liabilities

The fair value of financial instruments traded in active markets is based on quoted market prices at the statement of financial position date. A market is regarded as active if quoted prices are readily and regularly available from an exchange, dealer, broker, an entity within the same industry, pricing service, or regulatory agency, and those prices represent actual and regularly occurring market transactions on an arm's length basis. The quoted market price used for financial assets held by the Group is the current bid price. These instruments are included in Level 1. Instruments included in Level 1 comprise primarily KOSPI index equity investments classified as available-for-sale.

- Level 2: inputs, other than quoted prices, that are observable for the asset or liability, either directly or indirectly. The Group uses various valuation techniques and makes judgments based on current market conditions.

The fair value of interest rate swaps is calculated as the present value of the estimated future cash flows based on observable yield curves and the fair value of forward foreign exchange contracts is determined using forward exchange rates at the statement of financial position date.

- Level 3: inputs for the asset or liability that are not based on observable market data (that is, unobservable inputs)

The fair value of available-for-sale equity securities is determined by specialized external rating agencies using more than one valuation techniques among DCF (Discounted Cash Flow method) and IMV (Imputed Market Value Model) which considered to appropriately represent the characteristic of the object evaluated. The discount rate used in the valuation undertaken as of December 31, 2012, was 8.1%~12.1% (2011: 9.6%).

The following table presents the Group's financial assets and financial liabilities that are measured at fair value at December 31, 2012:

	2012			
(In millions of Korean won)	Level 1	Level 2	Level 3	Total
Available-for-sale financial assets				
- Equity securities	₩ 37,396	-	₩ 52,256	₩ 89,652
- Debt securities	-	-	5,252	5,252
Financial assets at fair value through profit or loss				
- Trading derivatives	-	10,765	-	10,765
	₩ 37,396	₩ 10,765	₩ 57,508	₩ 105,669
Financial liabilities at fair value through profit or loss				
- Trading derivatives	-	1,101	-	1,101
Derivatives used for hedging	-	6,695	-	6,695
	-	₩ 7,796	-	₩ 7,796

The following table presents the Group's assets and liabilities that are measured at fair value at December 31, 2011:

	2011			
(In millions of Korean won)	Level 1	Level 2	Level 3	Total
Available-for-sale financial assets				
- Equity securities	₩ 29,660	-	₩ 42,979	₩ 72,639
- Debt securities	-	-	6,300	6,300
Financial assets at fair value through profit or loss				
- Trading derivatives	-	2,643	-	2,643
	₩ 29,660	₩ 2,643	₩ 49,279	₩ 81,582
Financial liabilities at fair value through profit or loss				
- Trading derivatives	-	₩ 4,662	-	₩ 4,662
Derivatives used for hedging	-	269	-	269
	-	₩ 4,931	-	₩ 4,931

The following table presents the changes in available-for-sale financial assets included in Level 3:

(In millions of Korean won)		**2012**		**2011**
Beginning balance	₩	49,279	₩	45,729
Purchases		268		3,786
Transfers (Note 12)		6,553		-
Sales		(1,317)		(236)
Gains and losses recognized in other comprehensive income		2,725		-
Ending balance	₩	57,508	₩	49,279

(4) The fair value of financial instruments traded in active markets is based on quoted market prices at the statement of financial position date. The fair value of financial instruments that are not traded in an active market is determined by specialized external rating agencies using more than one valuation techniques among DCF (Discounted Cash Flow method) and IMV (Imputed Market Value Model) which considered to appropriately represent the characteristic of the object evaluated. The discount rate used in the valuation undertaken as of December 31, 2012, was 8.1%~12.1% (2011: 9.6%).

4. Critical accounting estimates and judgments

The Group makes estimates and assumptions concerning the future. The resulting accounting estimates will, by definition, seldom equal the related actual results. Estimations and assumptions are continuously evaluated with consideration to factors such as events reasonably predictable in the foreseeable future within the present circumstance according to historical experience. The estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are addressed below.

a. Retirement benefit obligations

The present value of the retirement benefit obligations depends on a number of factors that are determined on an actuarial basis using a number of assumptions. The assumptions used in determining the net cost (income) for pensions include the discount rate. In determining the appropriate discount rate, the Group considers the interest rates of high-quality corporate bonds that are denominated in the currency in which the benefits will be paid, and that have terms to maturity approximating the terms of the related pension liability. Other key assumptions for defined benefit liability are based in part on current market conditions.

b. Fair value of derivative instruments and other financial instruments

The fair value of financial instruments that are not traded in an active market is determined by using discounted cash flow analysis. The Group uses its judgment to select a variety of methods and make assumptions that are mainly based on market conditions existing at the end of each reporting period.

c. Income taxes

The Group recorded, based on its best estimate, current taxes and deferred taxes that the Group will be liable in the future for the operating results as of the financial year end. However, the final tax outcome in the future may be different from the amounts that were initially recorded. Such differences will impact the current and deferred income tax assets and liabilities in the period in which such determination is made.

d. Provisions for other liabilities and charges

As of December 31, 2012, the Group records environmental restoration provisions. Assumptions used for the provisions are based on the Group's experiences.

5. Segment information

The reportable operating segments of the Group are oil refining business, lube oil business and petrochemical business.

Financial information by business segment as of and for the years ended December 31, 2012 and 2011, follows:

	2012			
(In millions of Korean won)	**Oil Refining Business**	**Lube Oil Business**	**Petrochemical Business**	**Total**
Gross sales	₩ 28,172,069	₩ 2,254,216	₩ 4,297,006	₩ 34,723,291
Inter-segment sales	11,086,766	1,195,837	4,291,429	16,574,032
Total sales	39,258,835	3,450,053	8,588,435	51,297,323
Operating profit	₩ (376,062)	₩ 330,470	₩ 827,356	₩ 781,764
Property, plant, equipment and intangible assets	1,869,707	51,411	1,792,097	3,713,215
Depreciation and amortization	256,321	14,266	120,606	391,193

	2011			
(In millions of Korean won)	**Oil Refining Business**	**Lube Oil Business**	**Petrochemical Business**	**Total**
Gross sales	₩ 25,960,201	₩ 2,462,592	₩ 3,491,070	₩ 31,913,863
Inter-segment sales	9,901,213	1,129,669	3,687,718	14,718,600
Total sales	₩ 35,861,414	₩ 3,592,261	₩ 7,178,788	₩ 46,632,463
Operating profit	₩ 525,049	₩ 718,619	₩ 453,835	₩ 1,697,503
Property, plant, equipment and intangible assets	₩ 1,964,076	₩ 57,753	₩ 1,897,631	₩ 3,919,460
Depreciation and amortization	₩ 267,909	₩ 12,059	₩ 95,811	₩ 375,779

Net sales by geographic region are as follows:

(In millions of Korean won)	**2012**	**2011**
Korea	₩ 12,537,409	₩ 11,476,391
Southeast Asia	4,656,663	4,779,378
China	5,871,348	5,777,440
Japan	4,168,122	3,556,051
Australia	2,229,472	1,123,567
USA	1,654,290	1,089,886
Europe	759,953	1,290,130
Others	2,846,034	2,821,020
Total	₩ 34,723,291	₩ 31,913,863

6. Cash and cash equivalents

Cash and cash equivalents as of December 31, 2012 and 2011, are as follows:

(In millions of Korean won)	**2012**	**2011**
Cash and cash equivalents		
Cash on hand	₩ 73	₩ 44
Checking accounts	13	15
Passbook accounts	13,351	30,855
Foreign currency deposits	88,896	99,130
Time deposits	250,000	428,000
MMDA and others	82,080	318,910
Total	₩ 434,413	₩ 876,954

Cash and cash equivalents include short-term highly liquid investments with variable interest rate conveying market interest rate. Therefore, the differences in fair value and carrying amount of cash equivalents are immaterial.

Cash and cash equivalents recognized in the consolidated statement of financial position and cash flows are identical.

The maximum exposure of cash and cash equivalents to credit risk at the reporting date as of December 31, 2012 and 2011, is ₩ 434,340 million and ₩ 876,910 million, respectively.

7. Trade and other receivables

Trade and other receivables as of December 31, 2012 and 2011, are as follows:

(In millions of Korean won)	2012		2011	
	Current	**Non-Current**	**Current**	**Non-Current**
Trade receivables	₩ 2,299,713	-	₩ 2,649,083	-
Less : provision for impairment	(6,213)	-	(9,998)	-
	2,293,500	-	2,639,085	-
Non-trade receivables	705,008	-	383,153	-
Accrued revenues	8,399	-	3,474	-
Less : provision for impairment	(5)	-	-	-
Loans	12,634	50,136	13,448	58,054
Less : provision for impairment	-	(165)	-	-
Deposits received	-	24,576	-	28,449
	726,036	74,547	400,075	86,503
Net book amount	₩ 3,019,536	₩ 74,547	₩ 3,039,160	₩ 86,503

The aging analysis of trade receivables as of December 31, 2012 and 2011, is as follows:

(In millions of Korean won)	2012	2011
Receivables not past due	₩ 2,286,334	₩ 2,639,048
Up to 1 month	6,845	4,860
1 to 3 months	1,798	673
3 to 6 months	490	123
6 to 12 months	430	1,383
Over one year	3,816	2,996
Total	₩ 2,299,713	₩ 2,649,083

As of December 31, 2012, trade receivables of ₩618,575 million (2011: ₩ 623,602 million) are pledged as collateral. Among the trade receivables pledged, ₩ 5,828 million (2011: ₩ 4,716 million) is past due but not impaired.

The aging analysis of these other receivables as of December 31, 2012 and 2011, is as follows:

(In millions of Korean won)		2012		2011
Receivables not past due	₩	800,237	₩	486,452
Up to 1 month		54		8
1 to 3 months		62		62
3 to 6 months		154		56
6 to 12 months		123		-
Over one year		123		-
Total	₩	800,753	₩	486,578

Movements on the provision for impairment of trade receivables are as follows:

(In millions of Korean won)		2012		2011
Beginning balance	₩	9,998	₩	4,370
Bad debts expense		(3,561)		7,344
Other		(224)		(1,716)
Ending balance	₩	6,213	₩	9,998

Movements on the provision for impairment of for other receivables as of December 31, 2012 and 2011, are as follows:

(In millions of Korean won)		2012		2011
Beginning balance		-	₩	462
Reversal of unused amounts		-		(462)
Bad debts expense		170		-
Ending balance	₩	170		-

The maximum exposure of trade and other receivables to credit risk at the reporting date as of December 31, 2012 and 2011, is as follows:

	2012					
(In millions of Korean won)	**Before adjustment**		**Accumulated impairment**		**Carrying value (Maximum exposure)**	
Trade receivables	₩	2,299,713	₩	(6,213)	₩	2,293,500
Other receivables		800,753		(170)		800,583
Total	₩	3,100,466	₩	(6,383)	₩	3,094,083

	2011					
(In millions of Korean won)	**Before adjustment**		**Accumulated impairment**		**Carrying value (Maximum exposure)**	
Trade receivables	₩	2,649,083	₩	(9,998)	₩	2,639,085
Other receivables		486,578		-		486,578
Total	₩	3,135,661	₩	(9,998)	₩	3,125,663

The carrying amount as of December 31, 2012 and 2011, is a reasonable approximation of fair value for trade and other receivables, with the effect of the discount being insignificant.

8. Other financial assets

Other financial assets as of December 31, 2012 and 2011, are as follows:

(In millions of Korean won)	**2012**		**2011**	
Current				
Short-term available-for-sale financial assets	₩	374	₩	1,136
Short-term financial instruments		721,900		277,792
		722,274		278,928
Non-Current				
Long-term deposit		13		13
Long-term available-for-sale financial assets		94,530		77,803
		94,543		77,816
Total	₩	816,817	₩	356,744

None of other financial assets were past due or impaired.

Available-for-sale financial assets as of December 31, 2012 and 2011, are as follows:

(In millions of Korean won)	**2012**		**2011**	
Current				
Government and public bonds	₩	374	₩	1,136
Non-Current				
Listed equities		37,396		29,660
Non-listed equities		52,256		42,979
Government and public bonds		4,878		5,164
		94,530		77,803
Total	₩	94,904	₩	78,939

The fair value of financial instruments that are not traded in an active market is determined using discounted cash flow analysis based on the risk adjusted yield.

The changes in available-for-sale financial assets for the years ended December 31, 2012 and 2011, are as follows:

(In millions of Korean won)	**2012**		**2011**	
At January 1	₩	78,939	₩	96,618
Additions		268		4,233
Disposals		(1,317)		(21,250)
Net gains (losses) transfer to equity		10,461		(662)
Transfers (Note 12)		6,553		-
At December 31	₩	94,904	₩	78,939
Less: Non-current portion		94,530		77,803
Current portion		374		1,136

The maximum exposure of short-term financial instruments, long-term deposits and debt securities classified as available-for-sale instruments to credit risk at the reporting date is the carrying value of each class. The Group does not hold any collateral as security.

The carrying amount is a reasonable approximation of fair value for short-term financial instruments and long-term deposit, with the effect of the discount being insignificant.

9. Derivative financial instruments

Derivative financial instruments as of December 31, 2012 and 2011, are as follows:

	2012		2011	
(In millions of Korean won)	**Assets**	**Liabilities**	**Assets**	**Liabilities**
Trading derivative				
Forward foreign exchange	₩ 10,765	-	₩ 2,643	₩ 3,624
Commodity Swap	-	1,101	-	1,038
Hedging derivative				
Currency Swap	-	6,695	-	269
	₩ 10,765	₩ 7,796	₩ 2,643	₩ 4,931
Current	10,765	7,796	2,643	4,662
Non-current	-	-	-	269

Trading derivatives are classified as a current asset or liability. The full fair value of a hedging derivative is classified as a non-current asset or liability if the remaining period to maturity of the hedged item is more than 12 months and, as a current asset or liability, if the remaining period to maturity of the hedged item is less than 12 months.

As of December 31, 2012, the Group has currency swap agreements to hedge the future cash flows arising from the volatility of the interest rates and the foreign currency exchange rates from the Group's USD 100 million floating rates bond. The expected maximum period when the Group is exposed to the cash flow fluctuations is until May 26, 2013, as the cash flow hedge accounting is applied. As of December 31, 2012, the Group records loss on valuation of ₩ 8,220 million within financial costs and gain on valuation of derivatives of ₩ 1,794 million including the income tax effect of ₩ 434 million under accumulated other comprehensive income/expense. As of December 31, 2011, the Group recorded gain on valuation of derivatives of ₩ 1,440 million within financial income and loss on valuation of derivatives of ₩ 2,058 million including the income tax effect of ₩ 394 million under accumulated other comprehensive income/expense.

The maximum exposure to credit risk at the reporting date is the fair value of the derivative financial instruments.

10. Financial instruments by category

Categorizations of financial assets and liabilities as of December 31, 2012 and 2011, are as follows:

(In millions of Korean won)	2012 Loans and receivables	2012 Assets at fair value through the profit and loss	2012 Assets classified as available-for-sale financial assets	2012 Total
Assets				
Cash and cash equivalents	₩ 434,414	-	-	₩ 434,414
Trade receivables	2,293,500	-	-	2,293,500
Other receivables	199,778	-	-	199,778
Other financial assets	721,913	-	94,904	816,817
Derivative financial instruments	-	10,765	-	10,765
Total	₩ 3,649,605	₩ 10,765	₩ 94,904	₩ 3,755,274

(In millions of Korean won)	2012 Financial liabilities at amortized cost	2012 Liabilities at fair value through the profit and loss	2012 Derivatives used for hedging	2012 Total
Liabilities				
Trade payables	₩ 2,450,410	-	-	₩ 2,450,410
Other payables	357,243	-	-	357,243
Borrowings	3,500,239	-	-	3,500,239
Derivative financial instruments	-	1,101	6,695	7,796
Total	₩ 6,307,892	₩ 1,101	₩ 6,695	₩ 6,315,688

(In millions of Korean won)	2011 Loans and receivables	2011 Assets at fair value through the profit and loss	2011 Assets classified as available-for-sale financial assets	2011 Total
Assets				
Cash and cash equivalents	₩ 876,954	-	-	₩ 876,954
Trade receivables	2,639,085	-	-	2,639,085
Other receivables	182,162	-	-	182,162
Other financial assets	277,805	-	78,939	356,744
Derivative financial instruments	-	2,643	-	2,643
Total	₩ 3,976,006	₩ 2,643	₩ 78,939	₩ 4,057,588

	2011							
(In millions of Korean won)		**Financial liabilities at amortized cost**		**Liabilities at fair value through the profit and loss**		**Derivatives used for hedging**		**Total**
Liabilities								
Trade payables	₩	2,617,848		-		-	₩	2,617,848
Other payables		352,599		-		-		352,599
Borrowings		3,743,121		-		-		3,743,121
Derivative financial instruments		-		4,662		269		4,931
Total	₩	6,713,568	₩	4,662	₩	269	₩	6,718,499

Income and loss of financial instruments by category for the years ended December 31, 2012 and 2011, are as follows:

(In millions of Korean won)		2012		2011
Loans and receivables				
Interest income	₩	44,933	₩	40,948
Interest expenses		(1,319)		(1,335)
Foreign currency gain (loss)		(160,738)		41,840
Bad debt expenses		3,561		(7,344)
Other bad debt expenses		(170)		-
Reversal of bad debts allowance		-		462
Assets and liabilities at fair value through profit or loss				
Derivative financial instruments gain (loss)		20,207		4,406
Cash flow hedges		1,794		2,058
Assets classified as available-for-sale				
Gain(Loss) on valuation (Other comprehensive income (loss))		10,461		(662)
Gain(Loss) on disposal/disposal (Reclassification)		-		(18,374)
Gain(Loss) on disposal/disposal (Profit or loss)		-		19,272
Interest income		172		154
Dividends received		1,390		1,584
Financial liabilities at amortized cost				
Foreign currency gain (loss)		368,321		(103,727)
Interest expenses		(84,232)		(57,087)

11. Inventories

Inventories as of December 31, 2012 and 2011 are as follows:

(In millions of Korean won)	2012	2011
Finished goods	₩ 1,071,704	₩ 883,023
Reserve for finished goods	(24,095)	(8,125)
Work in progress	400,387	403,250
Reserve for work in progress	(13,833)	(5,219)
Raw materials and materials-in-transit	2,831,128	3,251,020
Reserve for raw materials and materials-in-transit	(261)	(58)
Supplies	120,848	93,228
Total	₩ 4,385,878	₩ 4,617,119

The cost of inventories recognized as expense and included in ‘cost of sales’ amounted to ₩ 30,550,006 million (2011: ₩ 27,243,439 million). The Company recognized loss on inventory valuation of ₩ 24,787 million for the year ended December 31, 2012, and reversal of allowance of ₩ 12,661 million for the year ended December 31, 2011.

12. Investments in jointly controlled entities

Details of jointly controlled entities as of December 31, 2012 and 2011, are as follows:

(In millions of Korean won)

Investee	Location	Closing month	Number of Shares	Percentage of Ownership (%)	Acquisition cost	2012	2011
Jointly controlled entities							
S-OIL TOTAL Lubricants Co.,Ltd.[1]	Korea	December	3,500,001	50	₩ 20,134	₩ 29,651	₩ 25,422
HanKook Silicon Co.,Ltd.[2]	Korea	December	41,042,750	33.4	267,315	-	264,770
Total					₩ 287,449	₩ 29,651	₩ 290,192

[1] In accordance with the joint venture contract with Total Raffinage Marketing S.A., the Group acquired 50% plus one share of S-OIL TOTAL Lubricants Co., Ltd.’s outstanding shares.

[2] On June 28, 2011, the Company acquired 33.4% ownership of HanKook Silicon Co., Ltd. As HanKook Silicon applied for corporate rehabilitation proceeding at the Seoul Central District Court on November 28, 2012, the Company lost its significant influence. According to the impairment test performed as of December 31, 2012, the Company recognized impairment loss on investment in jointly controlled entities amounting to ₩ 235,779 million in the comprehensive income statement within ‘other expenses’ (Note 27) and transferred the residual book value of ₩ 6,553 million to available-for-sale financial assets. Impairment loss is not subject to classification or distribution by each operating segment.

The Group's share of the results of its jointly controlled entities and its aggregated assets and liabilities are as follows:

	2012					
(In millions of Korean won)	**Assets**	**Liabilities**	**Equity**	**Revenues**	**Profit (loss)**	**Total comprehensive income**
S-OIL TOTAL Lubricants Co., Ltd.	₩43,673	₩ 13,614	₩ 30,059	₩ 146,955	₩ 8,238	₩ 8,242

	2011					
(In millions of Korean won)	**Assets**	**Liabilities**	**Equity**	**Revenues**	**Profit (loss)**	**Total comprehensive income**
S-OIL TOTAL Lubricants Co., Ltd.	₩ 44,831	₩ 18,814	₩ 26,017	₩ 141,683	₩ 5,342	₩ 5,280
HanKook Silicon Co., Ltd.	293,667	158,530	135,137	16,729	51	51

Summarized financial status of jointly controlled entities as of December 31, 2012 and 2011, is as follows:

2012

(In millions of Korean won)	**S-OIL TOTAL Lubricants Co., Ltd.**
Current assets	₩ 69,578
Non-current assets	17,769
Total assets	87,347
Current liabilities	27,228
Non-current liabilities	-
Total liabilities	27,228
Total equity	60,119
Revenue	293,910
Operating income	21,248
Profit before income tax	21,140
Profit for the year	16,476
Total comprehensive income for the year	16,484

2011

(In millions of Korean won)	**S-OIL TOTAL Lubricants Co., Ltd.**	**HanKook Silicon Co., Ltd.**
Current assets	₩ 72,291	₩ 334,864
Non-current assets	17,372	544,379
Total assets	89,663	879,243
Current liabilities	37,629	399,606
Non-current liabilities	-	75,036
Total liabilities	37,629	474,642
Total equity	52,034	404,601
Revenue	283,366	150,390
Operating income	14,231	22,573
Profit before income tax	14,092	13,383
Profit for the year	10,685	8,961
Total comprehensive income for the year	10,560	8,961

Changes in investments in subsidiary and jointly controlled entities are as follows:

	2012		
(In millions of Korean won)	**S-OIL TOTAL Lubricants Co., Ltd.**	**HanKook Silicon Co., Ltd.**	**Total**
Beginning balance	₩ 25,422	₩ 264,770	₩ 290,192
Acquisition	-	-	-
Share of profit	8,238	(18,330)	(10,092)
Unrealized gain (loss)	187	(4,108)	(3,921)
Dividends received	(4,200)	-	(4,200)
Other equity movement	4	-	4
Impairment	-	(235,779)	(235,779)
Transfers (Note 8)	-	(6,553)	(6,553)
Ending balance	₩ 29,651	-	₩ 29,651

	2011		
(In millions of Korean won)	**S-OIL TOTAL Lubricants Co., Ltd.**	**HanKook Silicon Co., Ltd.**	**Total**
Beginning balance	₩ 24,839	-	₩ 24,839
Acquisition	-	267,315	267,315
Share of profit	5,343	(2,545)	2,798
Unrealized gain (loss)	202	-	202
Dividends received	(4,900)	-	(4,900)
Other equity movement	(62)	-	(62)
Ending balance	₩ 25,422	₩ 264,770	₩ 290,192

13. Property, plant and equipment

Changes in carrying amounts of property, plant and equipment for the years ended December 31, 2012 and 2011, are as follows:

(In millions of Korean won)	2012								
	Land	**Buildings**	**Structures**	**Machinery and equipment**	**Vehicles**	**Others**	**Catalysts**	**Construction-in-progress**	**Total**
At January 1, 2012									
Acquisition cost	₩ 1,251,810	₩ 256,286	₩ 695,226	₩ 3,397,431	₩ 11,945	₩ 222,331	₩ 575,229	₩ 326,823	₩ 6,737,081
Accumulated depreciation	-	(50,072)	(340,939)	(1,959,540)	(10,498)	(124,431)	(369,141)	-	(2,854,621)
Net book value	1,251,810	206,214	354,287	1,437,891	1,447	97,900	206,088	326,823	3,882,460
Changes during 2012									
Opening net book value	1,251,810	206,214	354,287	1,437,891	1,447	97,900	206,088	326,823	3,882,460
Additions	33	91	425	7	367	13,560	82,845	90,322	187,650
Transfers	8,021	2,758	36,297	27,802	-	3,139	204	(87,720)	(9,499)
Disposals	(1,895)	(1,218)	(277)	(223)	-	(587)	-	-	(4,200)
Depreciation	-	(6,437)	(32,104)	(184,465)	(555)	(43,458)	(119,058)	-	(386,077)
Closing net book value	1,257,969	201,408	358,628	1,281,012	1,259	70,554	170,079	329,425	3,670,334
At December 31, 2012									
Cost or valuation	1,257,969	257,160	731,002	3,422,883	11,919	232,427	594,331	329,425	6,837,116
Accumulated depreciation	-	(55,752)	(372,374)	(2,141,871)	(10,660)	(161,873)	(424,252)	-	(3,166,782)
Net book value	₩ 1,257,969	₩ 201,408	₩ 358,628	₩ 1,281,012	₩ 1,259	₩ 70,554	₩ 170,079	₩ 329,425	₩ 3,670,334

	2011								
(In millions of Korean won)	**Land**	**Buildings**	**Structures**	**Machinery and equipment**	**Vehicles**	**Others**	**Catalysts**	**Construction-in-progress**	**Total**
At January 1, 2011									
Acquisition cost	₩ 1,067,051	₩ 150,463	₩ 535,263	₩ 2,227,615	₩ 11,503	₩ 182,129	₩ 423,065	₩ 1,698,954	₩ 6,296,043
Accumulated depreciation	-	(44,749)	(314,846)	(1,775,623)	(10,299)	(97,281)	(300,891)	-	(2,543,689)
Net book value	1,067,051	105,714	220,417	451,992	1,204	84,848	122,174	1,698,954	3,752,354
Changes during 2011									
Opening net book value	1,067,051	105,714	220,417	451,992	1,204	84,848	122,174	1,698,954	3,752,354
Additions	472	26	425	183	769	17,480	153,499	338,225	511,079
Transfers	184,552	106,098	160,486	1,169,633	-	30,243	50,775	(1,710,356)	(8,569)
Disposals	(265)	(161)	(298)	-	-	(422)	-	-	(1,146)
Depreciation	-	(5,463)	(26,743)	(183,917)	(526)	(34,249)	(120,360)	-	(371,258)
Closing net book value	1,251,810	206,214	354,287	1,437,891	1,447	97,900	206,088	326,823	3,882,460
At December 31, 2011									
Cost or valuation	1,251,810	256,286	695,226	3,397,431	11,945	222,331	575,229	326,823	6,737,081
Accumulated depreciation	-	(50,072)	(340,939)	(1,959,540)	(10,498)	(124,431)	(369,141)	-	(2,854,621)
Net book value	₩ 1,251,810	₩ 206,214	₩ 354,287	₩ 1,437,891	₩ 1,447	₩ 97,900	₩ 206,088	₩ 326,823	₩ 3,882,460

Depreciation expense of ₩ 362,577 million (2011: ₩ 349,888 million) has been charged to 'cost of sales', ₩ 18,399 million (2011: ₩17,526 million) to 'selling expenses' and ₩ 5,101 million (2011: ₩3,844 million) to 'administrative expense'.

As of December 31, 2012, a certain portion of property, plant and equipment is pledged as collateral for various loans (Note 17).

During the year, the Group has capitalized borrowing costs amounting to ₩ 304 million (2011: ₩ 12,079 million) on qualifying assets. Borrowing costs were capitalized at the weighted average rate of its general borrowings of 1.5 % (2011: 1.1 %) and capitalized borrowing costs for specific borrowings are same as that of debentures (Note 17).

14. Intangible assets

Changes in intangible assets for the years ended December 31, 2012 and 2011 are as follows:

(In millions of Korean won)	2012			
	Facility usage rights	**Others**	**Membership rights**	**Total**
At January 1, 2012				
Acquisition cost	₩ 8,113	₩ 37,116	₩ 16,744	₩ 61,973
Accumulated amortization	(2,583)	(22,390)	-	(24,973)
Net book value	5,530	14,726	16,744	37,000
Changes during 2012				
Opening net book value	5,530	14,726	16,744	37,000
Additions	-	387	2,381	2,768
Transfers	-	9,499	-	9,499
Disposals	-	(8)	(1,262)	(1,270)
Amortization	(406)	(4,710)	-	(5,116)
Closing net book value	5,124	19,894	17,863	42,881
At December 31, 2012				
Cost or valuation	8,113	46,974	17,863	72,950
Accumulated amortization	(2,989)	(27,080)	-	(30,069)
Net book value	₩ 5,124	₩ 19,894	₩ 17,863	₩ 42,881

(In millions of Korean won)	2011			
	Facility usage rights	**Others**	**Membership rights**	**Total**
At January 1, 2011				
Acquisition cost	₩ 8,113	₩ 27,998	₩ 14,805	₩ 50,916
Accumulated amortization	(2,178)	(18,274)	-	(20,452)
Net book value	5,935	9,724	14,805	30,464
Changes during 2011				
Opening net book value	5,935	9,724	14,805	30,464
Additions	-	549	4,341	4,890
Transfers	-	8,569	-	8,569
Disposals	-	-	(2,402)	(2,402)
Amortization	(405)	(4,116)	-	(4,521)
Closing net book value	5,530	14,726	16,744	37,000
At December 31, 2011				
Cost or valuation	8,113	37,116	16,744	61,973
Accumulated amortization	(2,583)	(22,390)	-	(24,973)
Net book value	₩ 5,530	₩ 14,726	₩ 16,744	₩ 37,000

Amortization expense of ₩ 1,718 million (2011: ₩ 1,733 million) is included in ‘cost of sales’, ₩ 1,129 million (2011: ₩ 990 million) in ‘selling expenses’ and ₩ 2,269 million (2011: ₩ 1,798 million) in ‘administrative expense’.

Membership impairment reviews are undertaken annually. As a result of the impairment test, the Group expects the carrying value of membership is higher than the recoverable amount.

15. Assets pledged as collaterals

As of December 31, 2012, assets pledged as collaterals are as follows:

(In millions of Korean won and millions of other foreign currencies)

Pledged Assets as Collateral	Secured Amount	Creditors	Related Borrowings/ Guarantees	Balance of Borrowings
Land, Buildings, BTX and others	₩ 19,350 USD 144 FRF 155 JPY 11,781	The Korea Development Bank	Usance Borrowings	₩ 305,347 (USD 285,077,803)
R2R Debottlenecking and others	Security for transfer	Hana Bank	Loans for facility	₩ 14,339
Time deposits	₩ 4,120	Defense Acquisition Program Administration	Contractual guarantee	-
Time deposits	₩ 122	Korea Midland Power Co. Ltd.	Contractual guarantee	-

16. Trade payables, other payables and other liabilities

Trade payables and other payables as of December 31, 2012 and 2011 are as follows:

	2012		2011	
(In millions of Korean won)	**Current**	**Non-Current**	**Current**	**Non-Current**
Trade payables	₩ 2,450,410	-	₩ 2,617,848	-
Other payables				
Non-trade payables	653,182	-	889,749	-
Accrued expenses	9,383	-	11,241	-
Dividend payables	187	-	170	-
Rental deposit payables	-	17,356		17,859
	662,752	17,356	901,160	17,859
Total	₩ 3,113,162	₩ 17,356	₩ 3,519,008	₩ 17,859

Other liabilities as of December 31, 2012 and 2011, are as follows:

	2012		2011	
(In millions of Korean won)	**Current**	**Non-Current**	**Current**	**Non-Current**
Advances from customers	₩ 118,658	-	₩ 94,234	-
Withholdings	2,911	-	8,993	-
Long-term unearned revenues	-	325	-	660
Total	₩ 121,569	₩ 325	₩ 103,227	₩ 660

The carrying amount is a reasonable approximation of the fair value for current trade payables and other payables.

17. Borrowings

Details of borrowings as of December 31, 2012 and 2011, are as follows:

(In millions of Korean won)	**2012**	**2011**
Current		
Banker's usance	₩ 2,517,138	₩ 3,054,108
Current maturities of debentures	306,946	199,774
Current maturities of long-term borrowings	2,925	1,724
	2,827,009	3,255,606
Non-current		
Debentures	648,420	349,189
Foreign currency debentures	-	115,192
Long-term borrowings	24,810	22,135
Foreign currency long-term borrowings	-	999
	673,230	487,515
Total	₩ 3,500,239	₩ 3,743,121

Details of bank borrowings as of December 31, 2012 and 2011, are as follows:

(In millions of Korean won)	**Creditor**	**Maturity date**	**Interest rate (%) Dec 31, 2012**	**2012**	**2011**
Short-term borrowings					
Banker's usance	Korea Development Bank and others	Feb 4, 2013 and others	0.91 ~ 1.44	₩ 2,517,138	₩ 3,054,108
Current maturities of long-term borrowings					
Loans for facilities from energy usage rationalization fund	Hana Bank	Mar 15, 2013 and others	1.50 ~ 1.75	1,524	925
Loans for facilities from energy usage rationalization fund	Korea Exchange Bank	Mar 15, 2013	1.75	633	317
Environment improvement supporting funds loans	Hana Bank	Mar 31, 2013	3.04	768	482
				2,925	1,724
Long-term borrowings					
Loans for facilities from energy usage rationalization fund	Hana Bank	Dec 15, 2016 and others	1.50 ~ 1.75	18,845	14,768
Environment improvement supporting funds loans	Hana Bank	Mar 31, 2019	3.04	3,749	4,518
Loans for facilities from energy usage rationalization fund	Korea Exchange Bank	Jun 15, 2017	1.75	2,216	2,849
				24,810	22,135
Foreign currency long-term borrowings					
Success repayable loan	Korea National Oil Corporation	-	-	-	999
				-	999
Total				₩ 2,544,873	₩ 3,078,966

Details of debentures as of December 31, 2012 and 2011, are as follows:

(In millions of Korean won)	**Issuance date**	**Maturity date**	**Interest Rates (%) Dec 31, 2012**	**2012**		**2011**
Public bonds (43-1)	Sep 18, 2009	Sep 18, 2012	5.08	-	₩	200,000
Public bonds (43-2)	Sep 18, 2009	Sep 18, 2014	5.45	150,000		150,000
Public bonds (44-1)	May 26, 2010	May 26, 2013	Libor+0.9	107,110		115,330
Public bonds (44-2)	May 26, 2010	May 26, 2013	4.12	200,000		200,000
Public bonds (45-1)	Aug 26, 2012	Aug 28, 2017	3.18	350,000		-
Public bonds (45-2)	Aug 28, 2012	Aug 28, 2019	3.33	100,000		-
Public bonds (45-3)	Aug 28, 2012	Aug 28, 2022	3.53	50,000		-
				957,110		665,330
Less: Present value discount				(1,744)		(1,175)
Total				₩ 955,366	₩	664,155

The exposure of the Group's borrowings to interest rate changes and the contractual repricing dates at the end of the reporting period are as follows:

(In millions of Korean won)		**December 31, 2012**		**December 31, 2011**
6 months or less				
Debentures (including present value discount)	₩	107,071	₩	115,192
Current maturities of long-term borrowings		2,925		1,724
Long-term borrowings		24,810		22,135
Total	₩	134,806	₩	139,051

As of December 31, 2012 and 2011, a certain portion of property, plant and equipment is pledged as collateral for various loans (Note 15).

The carrying amount is a reasonable approximation of the fair value for long-term borrowings, with the effect of discount being insignificant.

18. Provisions for other liabilities and charges

Changes in provisions for other liabilities and charges for the years ended December 31, 2012 and 2011, are as follows:

(In millions of Korean won)	Environmental Restoration			
	2012		2011	
Beginning balance	₩	8,094	₩	2,711
Additional provisions adjustment		5,030		8,771
Used during year		(5,417)		(3,388)
Ending balance	₩	7,707	₩	8,094

19. Retirement benefit obligations

The amounts of retirement benefit obligations recognized in the consolidated statements of financial position as of December 31, 2012 and 2011, are as follows:

(In millions of Korean won)	2012		2011	
Present value of funded defined benefit liability	₩	152,945	₩	115,405
Fair value of plan assets [1]		(114,501)		(91,240)
Liability in the consolidated statement of financial position	₩	38,444	₩	24,165

[1] As of December 31, 2012 and 2011, the fair value of plan assets includes contributions to the National Pension Fund of ₩ 567 million as of December 31, 2012 (2011: 583 million).

The movements in the carrying amount of defined benefit obligations for the years ended December 31, 2012 and 2011, are as follows:

(In millions of Korean won)	2012		2011	
Beginning balance	₩	115,405	₩	108,902
Current service cost		16,487		14,928
Interest expense		5,860		6,336
Benefits paid		(9,106)		(32,713)
Actuarial (gains) / losses		24,299		17,952
Ending Balance	₩	152,945	₩	115,405

The movement in the fair value of plan assets for the years ended December 31, 2012 and 2011, are as follows:

(In millions of Korean won)		**2012**		**2011**
Beginning balance	₩	91,240	₩	92,090
Expected return on plan assets		4,619		4,774
Contributions		24,000		15,500
Benefits paid		(5,072)		(20,366)
Actuarial gains / (losses)		(286)		(758)
Ending balance	₩	114,501	₩	91,240

The amounts recognized on the consolidated statement of comprehensive income for the years ended December 31, 2012 and 2011, are as follows:

(In millions of Korean won)		**2012**		**2011**
Current service cost	₩	16,487	₩	14,928
Interest expenses		5,860		6,336
Expected return on plan assets		(4,619)		(4,774)
Total	₩	17,728	₩	16,490

Of the total charges, ₩ 9,743 million (2011: ₩ 9,782 million), ₩ 5,322 million (2011: ₩ 4,552 million) and ₩ 2,663 million (2011: ₩ 2,043 million) were included in 'cost of sales', 'selling expenses' and 'administrative expenses', respectively. And of the total charges accounted for 2011, ₩ 113 million was included in 'construction-in-progress'. The actual return on plan assets was ₩ 4,333 million (2011: ₩ 4,016 million).

Actuarial gains and losses recognized as other comprehensive income for the years ended December 31, 2012 and 2011, are as follows:

(In millions of Korean won)		**2012**		**2011**
Actuarial gains (losses) before income tax	₩	24,585	₩	18,710
Income tax effects		(5,950)		(4,750)
Actuarial gains (losses) after income tax	₩	18,635	₩	13,960

Accumulated actuarial gains and losses recognized as other comprehensive income amount to ₩ 53,383 million (2011: ₩ 28,798 million) as of December 31, 2012.

The principal actuarial assumptions as of December 31, 2012 and 2011, were as follows:

	2012	**2011**
Discount rate	4.50%	5.25%
Expected return on plan assets	4.70%	4.70%
Future salary increases	5.24%	4.38%

Plan assets as of December 31, 2012 and 2011, consist of financial assets including deposits. Expected contributions to plan assets for the year ending December 31, 2013, are ₩ 18,655 million.

Adjustments for the differences between initial assumptions and actual figures are as follows:

(In millions of Korean won)	December 31, 2012	December, 31 2011	December 31, 2010	January 1, 2010
Present value of defined benefit obligation	₩ 152,945	₩ 115,405	₩ 108,902	₩ 112,485
Fair value of plan assets	(114,501)	(91,240)	(92,090)	(98,642)
Deficit of the funded plans	38,444	24,165	16,812	13,843
Experience adjustments on plan liabilities	4,940	10,566	9,256	-
Experience adjustments on plan assets	286	758	225	-

The sensitivity of the overall pension liability to changes in the weighted principal assumptions is:

	Changes in principal assumption	Impact on overall liability	
		December 31, 2012	December, 31 2011
Salary growth rate	1% increase	11.29% increase	9.61% increase
	1% decrease	9.91% decrease	8.51% decrease
Discount rate	1% increase	9.88% decrease	8.39% decrease
	1% decrease	11.50% increase	9.65% increase

20. Contingencies

As of December 31, 2012, one blank check is held as collaterals by Korea National Oil Corporation (“KNOC”).

As of December 31, 2012, the Company has banker’s usance agreements of up to a maximum of ₩ 5,763 billion with Korea Development Bank and 19 other banks.

As of December 31, 2012, Korea Exchange Bank has provided guarantees of ₩ 28,939 million for the Company’s repayment of remaining bonus points over the guarantee periods starting from November 1, 2012 to January 31, 2013.

As of December 31, 2012, the Group is either a defendant or a plaintiff in various legal actions arising from the normal course of business, and the major pending litigations are as follows:

(A) In February 2001, the Ministry of National Defense ("MND") brought a civil lawsuit of compensation loss claiming ₩ 158,420 million against five oil refiners, including the Company, at the Seoul Central District Court. On December 30, 2009, the Seoul High Court ruled that the amount of ₩ 130,992 million should be paid jointly and severally by the said five oil refiners including interests for their delayed payment to the MND. Based on the court decision, the Company paid ₩ 38,000 million to the MND and recorded ₩ 11,350 million, exceeding the previously accrued amount of ₩ 26,650 million, as others expenses. The Company appealed to the Supreme Court on January 22, 2010. Subsequently, on July 28, 2011 the Supreme Court annulled the decision of the second trial ruled by Seoul High Court claiming that the penalty of ₩130,992 million to the said five oil refiners was problematically computed, and returned the case to Seoul High Court to recalculate.

(B) The Ulsan district tax office and the Ulju county office imposed ₩ 5,180 million on the Company for the illegal tax refund through forging confirmation of the tax exemption oil supply by certain gas stations. The Company recorded the said amount as other expenses through 2008 to 2009 and filed an administrative lawsuit at the Ulsan district court in March 2010. The Ulsan District Court ruled in the Company's favor in June 2011, but Busan High Court decided that the main tax(₩ 3,565 million) should be paid and additional tax amount (₩ 1,615 million) should be refunded on August 22, 2012 . Accordingly, the Company appealed to the Supreme Court in September 2012.

(C) On December 2, 2009, the FTC decided that the six LPG providers, including the Company, were involved in the price collusion from 2003 to 2008 charging a penalty of ₩ 669 billion (₩ 39 billion for the Company). The Company recorded the said penalty as other expenses and paid the penalty in September 2010. The Company filed an administrative lawsuit at the Seoul High Court in May 2010 but the court decided in the FTC's favor in January 2012. The Company filed an appeal to the Supreme Court.

(D) On September 20, 2011, the FTC judged four oil refiners, including the Company, colluded among themselves to limit competition among gas stations by refraining from opening new stations near existing ones operated by rivals. As a result, the FTC notified the Company of a penalty amounting to ₩ 43,871 million and the Company recorded the said amount as other expenses in 2011. The case was filed as an administrative litigation at Seoul High Court in October 2011. The Seoul High Court ruled in the Company's favor in August 2012, but the FTC appealed to the Supreme Court in September 2012.

(E) On March 17, 2008, KNOC notified the Company of the excess refund of tariff amounting to ₩ 32,009 million, which the Company recorded as other expenses and paid in full during the year ended December 31, 2008. The Company filed an objection to the Board of Audit and Inspection of Korea ("BAI"), but its request was overruled on March 13, 2012. The Company filed an administrative lawsuit at the Suwon district court in June 2012.

(F) The Board of Audit and Inspection audited the military procurements and pointed out that the Defense Acquisition Program Administration ("DAPA") had overpaid the four refinery companies regarding the purchase of military fuel. As a result, on September 13, 2012, the DAPA billed the Company for the amount of ₩ 32,834 million as alleged excessive profits and additional charges, for the period of 2007 to 2011. The DAPA offset those amounts and the Company's September and October 2012 receivables. Accordingly, the Company appealed to the Seoul Central District Court on November 21, 2012.

21. Capital stock and capital surplus

Capital stock and capital surplus as of December 31, 2012 and 2011, are as follows:

(In millions of Korean won, except number of shares)	**Number of shares issued (Common Stock)**	**Number of shares issued (Preferred Stock)**	**Common Stocks**	**Preferred Stocks**	**Capital Surplus**	**Total**
December 31, 2011	112,582,792	4,021,927	₩281,457	₩ 10,055	₩ 379,190	₩ 670,702
December 31, 2012	112,582,792	4,021,927	₩281,457	₩ 10,055	₩ 379,190	₩ 670,702

Under its Articles of Incorporation, the Company is authorized to issue 60 million shares that are cumulative, participating preferred stock that are non-voting and entitled to a minimum cash dividend at 9% of par value. As all of the preferred stock as of December 31, 2012, was issued before March 27, 1998, it receives 1% more dividends over common stock under the Articles of Incorporation.

The Company is authorized to issue non-voting convertible stock up to 4 million shares. Each share of this non-voting convertible stock was converted to one common share. As of December 31, 2012, there is no outstanding convertible stock issued by the Company.

The Company may grant options to purchase the Company's common stock to key employees or directors who have contributed or are expected to contribute to the management and technological innovation of the Company with the approval of the shareholders. The grant limit of the options is 15% of outstanding shares and the options may be granted with the special resolution of the shareholders. As of December 31, 2012, no option has been granted.

The Company is authorized to issue 180,000,000 shares of common stock with a par value of ₩2,500 per share and 112,582,792 shares are issued. The Company is authorized to issue 60,000,000 shares of cumulative, participating preferred stock with par value of ₩2,500 per share and 4,021,927 shares are issued.

22. Treasury stock

As of December 31, 2012, the Company holds 184,080 treasury shares of preferred stock amounting to ₩ 1,876 million and is deducted from shareholders' equity. The Company intends to dispose of the treasury stock depending on the market conditions.

23. Retained earnings

Retained earnings as of December 31, 2012 and 2011, consists of:

(In millions of Korean won)		2012		2011
Legal reserve				
Earned surplus reserve [1]	₩	145,756	₩	145,756
Discretionary reserve				
Reserve for improvement of financial structure		55,700		55,700
Reserve for business rationalization		103,145		103,145
Reserve for market development		1,901,498		1,278,998
		2,060,343		1,437,843
Revaluation reserve		984,648		984,648
Unappropriated retained earnings		513,379		994,386
	₩	3,704,126	₩	3,562,633

[1] The Commercial Code of the Republic of Korea requires the Company to appropriate, as a legal reserve, an amount equal to a minimum of 10% of annual cash dividends paid, until such reserve equals 50% of its issued capital stock. As the Company's reserve exceeds 50% of its issued capital stock, additional reserve is unnecessary. The reserve is not available for the payment of cash dividends.

Changes in retained earnings for the years ended December 31, 2012 and 2011, are as follows:

(In millions of Korean won)		2012		2011
Beginning balance	₩	3,562,633	₩	2,828,111
Profit for the year		585,160		1,190,976
Dividends paid relating to prior year		(372,642)		(256,221)
Interim dividends		(52,390)		(186,273)
Actuarial gains and losses		(18,635)		(13,960)
Ending Balance	₩	3,704,126	₩	3,562,633

Year-end cash dividends for 2011 amounting to ₩ 372,642 million (₩ 3,200 per common share, ₩ 3,225 per preferred share) were paid out in April 2012.

In accordance with the Articles of Incorporation, on July 17, 2012, the Board of Directors declared interim cash dividends of ₩ 450 per share as of June 30, 2012:

(In millions of Korean won, except number of shares)

	No. of shares Issued [1]	Amount	Dividend rate	Cash Dividends
Common stock	112,582,792	₩ 281,457	18%	₩ 50,663
Preferred stock	3,837,847	9,595	18%	1,727
	116,420,639	₩ 291,052		₩ 52,390

[1] Treasury stocks are excluded from the number of shares issued.

24. Reserves

Changes in reserves for the years ended December 31, 2012 and 2011, are as follows:

(In millions of Korean won)	Gain on disposal of treasury stocks	Changes in value of available for sale financial instruments	Unrealized gain on equity-method investments	Cash flow hedges	Unrealized translation gains (losses) on foreign operation	Total
Balance at January 1, 2012	₩ 952,311	₩ 35,436	₩ (34)	₩ (2,046)	₩ 8,198	₩ 993,865
Available-for-sale assets	-	7,929	-	-	-	7,929
Cash flow hedges	-	-	-	1,360	-	1,360
Unrealized translation gains on foreign operation	-	-	-	-	(67)	(67)
Increase in capital from equity method	-	-	3	-	-	3
Balance at December 31, 2012	₩ 952,311	₩ 43,365	₩ (31)	₩ (686)	₩ 8,131	₩ 1,003,090
Balance at January 1, 2011	₩ 952,311	₩ 51,313	₩ 13	₩ (3,710)	₩ 8,186	₩ 1,008,113
Available-for-sale assets	-	(15,877)	-	-	-	(15,877)
Cash flow hedges	-	-	-	1,664	-	1,664
Unrealized translation gains on foreign operation	-	-	-	-	12	12
Increase in capital from equity method	-	-	(47)	-	-	(47)
Balance at December 31, 2011	₩ 952,311	₩ 35,436	₩ (34)	₩ (2,046)	₩ 8,198	₩ 993,865

25. Cost of sales

Cost of sales for the years ended December 31, 2012 and 2011, are as follows:

(In millions of Korean won)		2012		2011
Finished goods, beginning	₩	874,898	₩	765,529
Net purchases		2,042,833		1,830,885
Manufacturing cost for the year		34,653,157		30,399,895
Transfer from other accounts		-		19,615
Transfer to other accounts		(2,116,100)		(1,545,388)
Finished goods, ending		(1,047,609)		(874,898)
Adjustments		(996,363)		(899,896)
Cost of sales	₩	33,410,816	₩	29,695,742

26. 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)	Selling expenses				Administrative expenses			
		2012		2011		2012		2011
Salaries	₩	48,652	₩	45,907	₩	25,113	₩	23,364
Severance benefits		5,322		4,552		2,663		2,043
Employee benefits		26,124		32,314		12,264		14,147
Depreciation and amortization		19,528		18,516		7,370		5,642
Commission and service charge		7,718		8,046		2,546		3,270
Export expenses		137,409		124,804		-		-
Bad debts expense		(3,561)		7,344		-		-
Others		204,720		195,524		34,843		35,145
Total	₩	445,912	₩	437,007	₩	84,799	₩	83,611

27. Other income and expenses

Other income and expenses for the years ended December 31, 2012 and 2011, are as follows:

Other income

(In millions of Korean won)		**2012**		**2011**
Gains from disposal of property, plant and equipment	₩	1,133	₩	74
Gains from disposal of intangible assets		-		240
Dividend income		1,390		1,584
Gains from disposal of available-for-sale financial instruments		-		19,272
Reversal of allowance for bad debts		-		462
Gain on foreign currency transactions		393,674		567,805
Gain on foreign currency translation		12,278		26,453
Gain on derivative transactions		47,033		51,014
Gain on valuation of derivatives		10,765		2,695
Others		15,977		28,253
Total	₩	482,250	₩	697,852

Other expenses

(In millions of Korean won)		**2012**		**2011**
Loss on disposal of property, plant and equipment	₩	1,243	₩	752
Loss on disposal of intangible assets		121		1,103
Donations		14,259		10,473
Loss on foreign currency transactions		409,596		602,484
Loss on foreign currency translation		12,405		16,503
Loss on derivative transactions		28,270		46,029
Loss on valuation of derivatives		1,101		4,714
Others		3,077		79,559
Other bad debt expenses		170		-
Impairment losses on investments in jointly controlled entities		235,779		-
Total	₩	706,021	₩	761,617

28. Finance income and costs

Finance income and costs for the years ended December 31, 2012 and 2011, consist of the following:

Finance income

(In millions of Korean won)		2012		2011
Interest income	₩	45,105	₩	41,102
Gain on foreign currency transactions		235,900		275,713
Gain on foreign currency translation		88,497		8,150
Gain on valuation of derivatives		-		1,440
Total	₩	369,502	₩	326,405

Finance costs

(In millions of Korean won)		2012		2011
Interest expenses	₩	85,551	₩	58,422
Loss on foreign currency transactions		100,750		195,386
Loss on foreign currency translation		15		125,635
Loss on valuation of derivatives		8,220		
Total	₩	194,536	₩	379,443

29. Deferred income tax and income tax expense

Income tax expense for the years ended December 31, 2012 and 2011, consists of:

(in millions Korean won)		2012		2011
Current tax:				
Current tax on profits for the year	₩	256,587	₩	379,700
Adjustments in respect of prior years		(31,705)		(755)
Total current tax		224,882		378,945
Deferred tax:				
Origination and reversal of temporary differences		(91,096)		(2,116)
Impact of change in Korean tax rate		-		15,895
Total deferred tax		(91,096)		13,779
Income tax expense	₩	133,786	₩	392,724

Reconciliation between profit before income taxes and income tax expenses for the years ended December 31, 2012 and 2011, is as follows:

(In millions of Korean won)	**2012**	**2011**
Profit before income taxes	₩ 718,946	₩ 1,583,700
Income tax based on statutory rate	₩ 173,523	₩ 383,229
Income not subject to tax	(6,553)	(1,721)
Expenses not deductible for tax purposes	1,396	10,988
Adjustments in respect of prior years	(31,705)	(755)
Deductions and others	(2,875)	(14,912)
Re-measurement of deferred tax – change in the Korean tax rate	-	15,895
Income tax expenses	₩ 133,786	₩ 392,724

The weighted average applicable tax rate was 24.2% in 2012 (2011: 24.2%).

The income tax (charged)/credited directly to equity as of December 31, 2012 and 2011, is as follows:

	2012		
(in millions Korean won)	**Before tax**	**Tax (charge) credit**	**After tax**
Fair value gains from available-for-sale financial assets	₩ 10,461	₩ (2,532)	₩ 7,929
Share of other comprehensive income of jointly controlled entities	1,794	(434)	1,360
Loss on valuation of derivative instruments	5	(2)	3
Currency translation differences	(89)	22	(67)
Actuarial loss on retirement benefit obligations	(24,585)	5,950	(18,635)
Total	₩ (12,414)	₩ 3,004	₩ (9,410)

	2011		
(in millions Korean won)	**Before tax**	**Tax (charge) credit**	**After tax**
Fair value gains from available-for-sale financial assets	₩ (19,037)	₩ 3,160	₩ (15,877)
Share of other comprehensive income of jointly controlled entities	2,058	(394)	1,664
Loss on valuation of derivative instruments	(62)	15	(47)
Currency translation differences	16	(4)	12
Actuarial loss on retirement benefit obligations	(18,710)	4,750	(13,960)
Total	₩ (35,735)	₩ 7,527	₩ (28,208)

The analysis of deferred tax assets and deferred tax liabilities as of December 31, 2012 and 2011, is as follows:

(In millions of Korean won)		**2012**		**2011**
Deferred tax assets				
Deferred tax asset to be recovered after more than 12 months	₩	(95,131)	₩	(25,491)
Deferred tax asset to be recovered within 12 months		(23,959)		(22,458)
		(119,090)		(47,949)
Deferred tax liabilities				
Deferred tax liability to be recovered after more than 12 months		209,289		203,864
Deferred tax liability to be recovered within 12 months		26,662		55,046
		235,951		258,910
Deferred tax assets(liabilities), net	₩	116,861	₩	210,961

The gross movement on the deferred income tax account for the years ended December 31, 2012 and 2011, is as follows:

(In millions of Korean won)		**2012**		**2011**
Beginning balance	₩	(210,961)	₩	(204,709)
Tax charged to the consolidated statement of comprehensive income		91,096		(13,779)
Tax charged/(credited) directly to equity		3,004		7,527
Ending balance	₩	(116,861)	₩	(210,961)

The movements in the deferred income taxes assets and liabilities during the year are as follows:

(In millions of Korean won)	2012			
	Beginning Balance	**Statement of income**	**Equity**	**Ending Balance**
Depreciation	₩ 12,405	₩ (188)	-	₩ 12,217
Loss on impairment of investments	3,657	(661)	-	2,996
Salaries and wages payable	8,631	194	-	8,825
Gain (loss) on foreign currency translation	240	-	-	240
Accrued liabilities	9,731	(289)	-	9,442
Share of profit/(loss) of jointly controlled entities	937	61,466	-	62,403
Gain (loss) on valuation of derivative instruments	(240)	267	-	27
Loss on impairment of property, plant and equipment	1,444	-	-	1,444
Change in inventory costing method	(30,434)	25,925	-	(4,509)
Customs duties receivable	(21,560)	1,860	-	(19,700)
Accrued interest income	(823)	(1,186)	-	(2,009)
Defined benefit liability	(1,551)	3,194	-	1,643
Financial instruments	(520)	40	-	(480)
Employee benefits	3,269	274	-	3,543
Revaluation of lands	(189,909)	186	-	(189,723)
Others	(14)	14	-	-
Gain on valuation of available for sale financial instruments	(11,313)	-	(2,532)	(13,845)
Currency translation differences and share of other comprehensive income of jointly controlled entities	(2,533)	-	20	(2,513)
Loss on valuation of derivatives	653	-	(434)	219
Actuarial gain (loss)	6,969	-	5,950	12,919
Tax credit carryforwards	-	-	-	-
Total	₩ (210,961)	₩ 91,096	₩ 3,004	₩ (116,861)

(In millions of Korean won)	2011 Beginning Balance	2011 Statement of income	2011 Equity	2011 Ending Balance
Depreciation	₩ 11,889	₩ 516	₩ -	₩ 12,405
Loss on impairment of investments	3,152	505	-	3,657
Salaries and wages payable	12,547	(3,916)	-	8,631
Gain (loss) on foreign currency translation	(8,730)	8,970	-	240
Accrued liabilities	8,520	1,211	-	9,731
Share of profit/(loss) of jointly controlled entities	1,008	(71)	-	937
Gain (loss) on valuation of derivative instruments	233	(473)	-	(240)
Loss on impairment of property, plant and equipment	1,313	131	-	1,444
Change in inventory costing method	(21,706)	(8,728)	-	(30,434)
Customs duties receivable	(26,321)	4,761	-	(21,560)
Accrued interest income	(416)	(407)	-	(823)
Defined benefit liability	(5,971)	4,420	-	(1,551)
Financial instruments	(649)	129	-	(520)
Employee benefits	2,992	277	-	3,269
Revaluation of lands	(173,107)	(16,802)	-	(189,909)
Others	(13)	(1)	-	(14)
Gain on valuation of available for sale financial instruments	(14,473)	-	3,160	(11,313)
Currency translation differences and share of other comprehensive income of jointly controlled entities	(2,313)	(231)	11	(2,533)
Loss on valuation of derivatives	1,047	-	(394)	653
Actuarial gain (loss)	2,219	-	4,750	6,969
Tax credit carryforwards	4,070	(4,070)	-`	-
Total	₩ (204,709)	₩ (13,779)	₩ 7,527	₩ (210,961)

30. Expenses by nature

Expenses by nature for the years ended December 31, 2012 and 2011, are as follows:

(In millions of Korean won)	2012	2011
Raw materials used	₩ 30,711,240	₩ 27,472,816
Changes in inventories of finished goods and work in progress	(161,234)	(229,377)
Employee benefit expense	238,047	224,480
Utility expenses	2,150,559	1,749,760
Depreciation and amortization	391,193	375,779
Transportation expenses	127,762	116,049
Advertising costs	17,093	18,541
Other expenses	466,867	488,312
Total cost of sales, selling and administrative expenses	₩ 33,941,527	₩ 30,216,360

31. Employee benefit expense

Details of components of employee benefit expense consist of:

(In millions of Korean won)		**2012**		**2011**
Wages and salaries	₩	196,153	₩	189,546
Social security costs		24,166		18,557
Pension costs – defined benefit plans		17,728		16,377
Pension costs – defined contribution plans		8		
Total	₩	238,055	₩	224,480

32. Earnings per share

Basic earnings per common share is calculated by dividing the profit attributable to common shareholders of the Company by the weighted average number of ordinary shares in issue during the year. As the Company's preferred shares are participating shares with right to participate in distribution of earnings, earnings per share on preferred share is also calculated.

Basic earnings per common share for the years ended December 31, 2012 and 2011, is calculated as follows:

(In millions of Korean won, except per share data)		**2012**		**2011**
Profit for the year	₩	585,160	₩	1,190,976
Adjustments:				
Dividends for preferred stock		(96)		(96)
Additional dividends for preferred stock		(19,287)		(39,258)
Profit attributable to common stock shareholders		565,777		1,151,622
Weighted average number of shares of common stock		112,582,792		112,582,792
Basic earnings per common share	₩	5,025	₩	10,229

Basic earnings per preferred share for the years ended December 31, 2012 and 2011, is calculated as follows:

(In millions of Korean won, except per share data)		**2012**		**2011**
Profit attributable to preferred stock shareholders	₩	19,383	₩	39,354
Weighted average number of shares of preferred stock[1]		3,837,847		3,837,847
Basic earnings per preferred share	₩	5,050	₩	10,254

[1] 184,080 treasury shares are excluded in calculating weighted average number of shares of preferred share.

As there are no dilutive items outstanding, diluted earnings per share is identical to basic earnings per share.

33. Related party Transactions

Details of related parties for the years ended December 31, 2012 and 2011, are as follows:

	2012	2011
The investors which have significant influence	Aramco Overseas Co.,B,V., Hanjin Energy Co., Ltd.	Aramco Overseas Co.,B,V., Hanjin Energy Co., Ltd.
Subsidiary	S-International Ltd.	S-International Ltd.
Jointly controlled entities	S-OIL TOTAL Lubricants Co., Ltd.	S-OIL TOTAL Lubricants Co., Ltd., HanKook Silicon Co., Ltd.[1]
Other related parties	Saudi Arabian Oil Company, Korean Air Lines Co., Ltd.	Saudi Arabian Oil Company, Korean Air Lines Co., Ltd.

[1] The Company lost its significant influence on HanKook Silicon Co., Ltd. as it applied for corporate rehabilitation proceeding to Seoul Central District Court during current year. Accordingly, it was excluded from the scope of related parties as of December 31, 2012.

Significant transactions with related parties for the years ended December 31, 2012 and 2011, and the related receivables and payables as of December 31, 2012 and 2011, are as follows:

(In millions of Korean won)	Sales		Purchases	
	2012	2011	2012	2011
Jointly controlled entity				
S-OIL TOTAL Lubricant Co., Ltd.	₩ 127,603	₩ 136,181	₩ 649	₩ 708
Others				
Saudi Arabian Oil Company	73,446	-	26,913,050	26,240,819
Korean Air Lines Co., Ltd.	449,835	404,255	1,708	48
Total	₩ 650,884	₩ 540,436	₩ 26,915,407	₩ 26,241,575

	Receivables		Payables	
(In millions of Korean won)	2012	2011	2012	,2011
Jointly controlled entity				
S-OIL TOTAL Lubricant Co., Ltd.	₩ 891	₩ 3,130	₩ 62	₩ 56
Others				
Saudi Arabian Oil Company	-	-	2,206,279	2,364,432
Korean Air Lines Co., Ltd.	34,962	42,671	1,219	53
Total	₩ 35,853	₩ 45,801	₩ 2,207,560	₩ 2,364,541

The Group has allowance of bad debts on receivables from related parties of ₩ 1 million and ₩ 7 million as of December 31, 2012 and 2011, respectively. There is no bad debt expense in 2011 and reversal of allowance amounting to ₩ 6 million was recognized in 2012.

Transactions with shareholders, management, and employees

During the year ended December 31, 2012 and 2011, changes in loans to shareholders, management, and employees are as follows:

	2012			
(In millions of Korean won)	**Beginning**	**Increase**	**Decrease**	**Ending**
Short-term loans receivable	₩ 816	₩ 1,245	₩ (1,211)	₩ 850
Long-term loans receivable	7,294	975	(1,245)	7,024

	2011			
(In millions of Korean won)	**Beginning**	**Increase**	**Decrease**	**Ending**
Short-term loans receivable	₩ 910	₩ 1,200	₩ (1,294)	₩ 816
Long-term loans receivable	7,166	1,694	(1,566)	7,294

Loans receivable represent rentals to buy a house or leased funds for employees.

The compensation paid or payable to key management for employee services as of December 31, 2012 and 2011, consists of:

(In millions of Korean won)	**2012**	**2011**
Short-term employee benefits	884	1,058
Post-employment benefits	100	123
Total	₩ 984	₩ 1,181

Key management consists of registered executive officers who have the authority and responsibility in the planning, directing and control of the Group’s operations.

34. Cash generated from operations

Cash generated from operation for the years ended December 31, 2012 and 2011, is as follows:

(In millions of Korean won)		**2012**		**2011**
Profit for the year	₩	585,160	₩	1,190,976
Adjustments :				
Income tax expense		133,786		392,724
Depreciation expense		386,077		371,258
Amortization expense		5,116		4,521
Bad debts expense		(3,561)		7,344
Interest expense		85,551		58,422
Loss on foreign currency translation		12,405		142,138
Loss on derivative transactions		28,270		46,029
Loss on valuation of derivatives		9,321		4,714
Loss on disposal of property, plant, and equipment		1,243		752
Loss on disposal of intangible assets		121		1,103
Loss on valuation of inventories		24,787		12,661
Share of profit of jointly controlled entities		14,013		(3,000)
Impairment losses on investments in jointly controlled entities		235,779		-
Interest income		(45,105)		(41,102)
Gain on foreign currency translation		(100,754)		(34,603)
Reversal of allowance for bad debts		-		(462)
Gain on disposal of property, plant, and equipment		(1,133)		(74)
Gain on disposal of intangible assets		-		(240)
Gain on derivative transactions		(47,033)		(51,014)
Gain on valuation of derivatives		(10,765)		(4,135)
Dividend income		(1,390)		(1,584)
Gain on disposal of available-for-sale securities		-		(19,272)
Others		(228)		3,391
Changes in net working capital				
Increase in trade receivables		336,964		(864,665)
Increase in other receivables		(322,147)		(11,885)
Decrease in other current assets		2,068		(2,602)
Increase in inventories		206,454		(1,695,016)
Increase in trade payables		(156,534)		817,502
Increase in other payables		(235,576)		305,823
Decrease in other liabilities		6,163		23,344
Cash generated from operations	₩	1,149,052	₩	653,048

Proceeds from sale of property, plant and equipment in the statement of cash flows comprise:

(In millions of Korean won)		**2012**		**2011**
Net book amount	₩	4,200	₩	1,146
Gain on disposal of property, plant and equipment		1,133		74
Loss on disposal of property, plant and equipment		(1,243)		(752)
Proceeds from sale of property, plant and equipment	₩	4,090	₩	468

Significant transactions not affecting cash flows for the years ended December 31, 2012 and 2011, are as follows:

(In millions of Korean won)		**2012**		**2011**
Reclassification of construction in-progress to property, plant and equipment and intangible assets	₩	87,720	₩	1,710,356
Current portion of long-term borrowings and debentures		309,871		201,498
Current portion of long-term loans receivable		22,708		34,169