Korea National Oil Corporation and its subsidiaries

Consolidated financial statements for the years ended December 31, 2012 and 2011

Based on Korea International Financial Reporting Standards in issue at December 31, 2012

Ernst & Young

Korea National Oil Corporation and its subsidiaries
December 31, 2012 and 2011

Contents

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Independent auditors' report

To the Board of Directors and Owner
Korea National Oil Corporation

We have audited the accompanying consolidated financial statements of Korea National Oil Corporation (the "Company") and its subsidiaries (collectively referred to as the "Group"), which comprise the consolidated statements of financial position as of December 31, 2012 and 2011, and the consolidated statements of comprehensive loss, consolidated statements of changes in equity and consolidated statements of cash flows for the years then ended, all expressed in Korea 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 financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above expressed in Korean won present fairly, in all material respects, the financial position of Korea National Oil Corporation and its subsidiaries as of December 31, 2012, and 2011, and the results of its financial performance and cash flows for the years then ended in accordance with Korea International Financial Reporting Standards (KIFRS).

As described in Note 2 to the accompanying consolidated financial statements, United States dollar amounts presented as a comparison to the accompanying consolidated financial statements expressed in Korean won are solely for the convenience of the reader and are the same as the amounts of the financial statements of the Group prepared in the Company's functional currency.

As mentioned in the preceding paragraph, we have conducted our audit in accordance with auditing standards generally accepted in the Republic of Korea which may vary among countries. In addition, the procedures and practices utilized in the Republic of Korea to audit such financial statements may differ from those generally accepted and applied in other countries. Accordingly, this report and the accompanying financial statements are for use by those who are knowledgeable about Korean auditing standards and their application in practice.

Ernst & Young Han Young

February 28, 2013

This audit report is effective as of February 28, 2013, the independent auditors' report date. Accordingly, certain material subsequent events or circumstances may have occurred during the period from the auditors' report date to the time this report is used. Such events and circumstances could significantly affect the accompanying consolidated financial statements and may result in modifications to this report.

Korea National Oil Corporation and its subsidiaries
Consolidated statements of financial position
As of December 31, 2012 and 2011
(Korean won and US dollars in thousands)

		Korean won		US dollars (Note 2)	
	Notes	December 31, 2012	December 31, 2011	December 31, 2012	December 31, 2011
Assets					
Current assets:					
Cash and cash equivalents	6	₩ 592,278,168	₩ 1,223,064,068	$ 552,963	$ 1,060,491
Current financial assets	7, 38	354,054,763	147,538,860	330,552	127,928
Trade and other receivables	11, 38	1,003,866,957	1,501,089,928	937,230	1,301,561
Inventories	12	235,075,903	543,120,393	219,471	470,927
Current income tax assets		21,609,453	147,913	20,175	128
Current non-financial assets	13	258,268,034	195,224,655	241,124	169,276
		2,465,153,278	3,610,185,817	2,301,515	3,130,311
Non-current assets:					
Non-current financial assets	7, 38	1,087,814,993	511,681,956	1,015,605	443,668
Long-term trade and other receivables	11, 38	88,896,940	81,503,798	82,996	70,670
Property, plant and equipment	15	14,863,395,058	16,161,155,158	13,876,758	14,012,967
Goodwill	16	1,467,972,561	1,383,872,173	1,370,528	1,199,924
Intangible assets other than goodwill	17	4,422,318,366	5,289,898,561	4,128,763	4,586,750
Investments in associates and joint ventures	14	934,792,714	993,735,113	872,741	861,645
Deferred tax assets	36	236,537,454	208,385,508	220,836	180,686
Non-current non-financial assets	13	3,150,967,665	3,326,983,584	2,941,806	2,884,751
		26,252,695,751	27,957,215,851	24,510,033	24,241,061
Total assets		**₩ 28,717,849,029**	**₩ 31,567,401,668**	**$ 26,811,548**	**$ 27,371,372**
Liabilities and equity					
Current liabilities:					
Trade and other payables	18, 38	₩ 1,704,066,543	₩ 2,930,568,170	$ 1,590,950	$ 2,541,029
Current financial liabilities	19, 38	1,743,592,736	2,013,479,620	1,627,852	1,745,842
Current income tax liabilities		60,365,981	227,917,239	56,359	197,622
Current non-financial liabilities	25	113,055,130	75,121,198	105,550	65,136
Current provisions	24	167,417,160	243,234,165	156,304	210,902
		3,788,497,550	5,490,320,392	3,537,015	4,760,531
Non-current liabilities:					
Long-term trade and other payables	18, 38	167,459,255	657,388,677	156,343	570,007
Non-current financial liabilities	19, 38	9,493,770,692	9,955,549,116	8,863,571	8,632,228
Defined benefit liability	23	39,573,141	32,489,551	36,946	28,171
Deferred tax liabilities	36	1,984,802,638	2,341,327,808	1,853,051	2,030,112
Non-current provisions	24	2,509,019,204	2,322,881,810	2,342,470	2,014,117
		14,194,624,930	15,309,636,962	13,252,381	13,274,635
Total liabilities		**17,983,122,480**	**20,799,957,354**	**16,789,396**	**18,035,166**
Equity attributable to the owner of the parent:					
Issued capital	26	9,736,914,780	8,965,195,780	9,095,847	8,418,807
Retained earnings	27	201,543,314	1,106,034,182	118,102	945,271
Other components of equity	29	134,395,373	632,285,822	190,265	(83,305)
		10,072,853,467	10,703,515,784	9,404,214	9,280,773
Non-controlling interests		661,873,082	63,928,530	617,938	55,433
Total equity		**10,734,726,549**	**10,767,444,314**	**10,022,152**	**9,336,206**
Total liabilities and equity		**₩ 28,717,849,029**	**₩ 31,567,401,668**	**$ 26,811,548**	**$ 27,371,372**

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

Korea National Oil Corporation and its subsidiaries
Consolidated statements of comprehensive loss
For the years ended December 31, 2012 and 2011

(Korean won and US dollars in thousands)

		Korean won		US dollars (Note 2)	
	Notes	**2012**	**2011**	**2012**	**2011**
Revenue	5, 30	₩ **10,553,952,525**	₩ **8,948,378,221**	$ **9,365,640**	$ **8,075,352**
Cost of sales	12, 37	(9,288,646,134)	(7,346,978,811)	(8,242,800)	(6,630,189)
Gross profit		**1,265,306,391**	**1,601,399,410**	**1,122,840**	**1,445,163**
Selling and administrative expenses	31, 37	(476,862,124)	(464,002,134)	(423,170)	(418,733)
Operating profit	5	**788,444,267**	**1,137,397,276**	**699,670**	**1,026,430**
Other income	32	176,027,711	191,510,775	156,208	172,827
Other expenses	32	(153,311,819)	(148,800,697)	(136,050)	(134,283)
Other income (losses), net	33	(1,068,865,558)	(195,062,149)	(948,518)	(176,031)
Finance income	34	180,238,958	257,921,348	159,945	232,758
Finance costs	35	(632,151,595)	(711,311,855)	(560,975)	(641,914)
Gain (loss) on investments in associates and joint ventures, net	14	11,722,816	(31,889,933)	10,403	(28,779)
Profit (loss) before income tax		**(697,895,220)**	**499,764,765**	**(619,317)**	**451,008**
Income tax expense	36	(206,135,909)	(652,517,203)	(182,926)	(588,857)
Loss for the period		₩ **(904,031,129)**	₩ **(152,752,438)**	$ **(802,243)**	$ **(137,849)**
Attributable to:					
The equity owner of the parent		₩ (920,989,345)	₩ (128,308,304)	$ (817,291)	$ (115,790)
Non-controlling interests		16,958,216	(24,444,134)	15,048	(22,059)
		(904,031,129)	(152,752,438)	(802,243)	(137,849)
Other comprehensive income (loss):					
Net gain on available-for-sale financial investments	9, 29	7,896,197	11,970,129	7,007	10,802
Net gain (loss) on cash flow hedge accounting	8, 29	(18,244,532)	6,611,526	(16,190)	5,966
Equity adjustments in equity method	14, 29	(7,891,929)	(602,013)	17,515	(543)
Actuarial losses on defined benefit plans	23, 29	(11,130,686)	(13,322,280)	(9,877)	(12,023)
Exchange differences on translation of foreign operations	29	(518,573,466)	(51,364,890)	262,584	(187,344)
		(547,944,416)	(46,707,528)	261,039	(183,142)
Total comprehensive loss for the period, net of tax		₩ **(1,451,975,545)**	₩ **(199,459,966)**	$ **(541,204)**	$ **(320,991)**
Attributable to:					
The equity owner of the parent		₩ (1,430,010,480)	₩ (204,431,310)	$ (553,599)	$ (324,655)
Non-controlling interests		(21,965,065)	4,971,344	12,395	3,664
		₩ (1,451,975,545)	₩ (199,459,966)	$ (541,204)	$ (320,991)

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

Korea National Oil Corporation and its subsidiaries
Consolidated statements of changes in equity
For the years ended December 31, 2012 and 2011
(Korean won and US dollars in thousands)

	Issued capital	Retained earnings	Other components of equity	Equity attributable to the owner of the parent	Non-controlling interests	Total equity
As of January 1, 2011	**₩ 8,130,195,780**	**₩ 1,281,488,820**	**₩ 695,086,548**	**₩ 10,106,771,148**	**₩ 58,957,186**	**₩ 10,165,728,334**
Loss for the period	-	(128,308,304)	-	(128,308,304)	(24,444,134)	(152,752,438)
Actuarial loss on defined benefit plans	-	(13,322,280)	-	(13,322,280)	-	(13,322,280)
Equity adjustments in equity method	-	-	(602,013)	(602,013)	-	(602,013)
Net gain on available-for-sale financial investments	-	-	11,970,129	11,970,129	-	11,970,129
Net gain on cash flow hedge accounting	-	-	6,611,526	6,611,526	-	6,611,526
Exchange differences on translation of foreign operations	-	-	(80,780,368)	(80,780,368)	29,415,478	(51,364,890)
Total comprehensive loss for the period, net of tax	-	(141,630,584)	(62,800,726)	(204,431,310)	4,971,344	(199,459,966)
Issue of share capital	835,000,000	-	-	835,000,000	-	835,000,000
Dividends	-	(33,824,054)	-	(33,824,054)	-	(33,824,054)
As of December 31, 2011	**₩ 8,965,195,780**	**₩ 1,106,034,182**	**₩ 632,285,822**	**₩ 10,703,515,784**	**₩ 63,928,530**	**₩ 10,767,444,314**
US dollars (Note 2)	**$ 8,418,807**	**$ 945,271**	**$ (83,305)**	**$ 9,280,773**	**$ 55,433**	**$ 9,336,206**
As of January 1, 2012	**₩ 8,965,195,780**	**₩ 1,106,034,182**	**₩ 632,285,822**	**₩ 10,703,515,784**	**₩ 63,928,530**	**₩ 10,767,444,314**
Loss for the period	-	(920,989,345)	-	(920,989,345)	16,958,216	(904,031,129)
Actuarial loss on defined benefit plans	-	(11,130,686)	-	(11,130,686)	-	(11,130,686)
Equity adjustments in equity method	-	-	(7,891,929)	(7,891,929)	-	(7,891,929)
Net gain on available-for-sale financial investments	-	-	7,896,197	7,896,197	-	7,896,197
Net loss on cash flow hedge accounting	-	-	(18,244,532)	(18,244,532)	-	(18,244,532)
Exchange differences on translation of foreign operations	-	-	(479,650,185)	(479,650,185)	(38,923,281)	(518,573,466)
Total comprehensive loss for the period, net of tax	-	(932,120,031)	(497,890,449)	(1,430,010,480)	(21,965,065)	(1,451,975,545)
Retained earnings adjustments in equity method	-	27,629,163	-	27,629,163	-	27,629,163
Issue of share capital	771,719,000	-	-	771,719,000	-	771,719,000
Disposal of investments in subsidiaries	-	-	-	-	619,909,617	619,909,617
As of December 31, 2012	**₩ 9,736,914,780**	**₩ 201,543,314**	**₩ 134,395,373**	**₩ 10,072,853,467**	**₩ 661,873,082**	**₩ 10,734,726,549**
US dollars (Note 2)	**$ 9,095,847**	**$ 118,102**	**$ 190,265**	**$ 9,404,214**	**$ 617,938**	**$ 10,022,152**

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

Korea National Oil Corporation and its subsidiaries
Consolidated statements of cash flows
For the years ended December 31, 2012 and 2011
(Korean won and US dollars in thousands)

	Korean won		US dollars (Note 2)	
	2012	**2011**	**2012**	**2011**
Cash flows from operating activities:				
Loss for the period	₩ (904,031,129)	₩ (152,752,438)	$ (802,243)	$ (137,849)
Non-cash adjustment to reconcile loss for the period to net cash flows:				
Income tax expense	206,135,909	652,517,203	182,926	588,856
Finance income	(92,348,089)	(95,593,551)	(81,950)	(86,267)
Finance costs	506,891,304	352,983,968	449,818	318,546
Depreciation of property, plant and equipment	2,259,975,512	1,952,114,211	2,005,516	1,761,661
Amortization of intangible assets	119,370,780	69,613,695	105,930	62,822
Impairment loss on property, plant and equipment	659,627,774	16,144,754	585,358	14,570
Impairment loss on intangible assets other than goodwill	465,437,658	162,156,291	413,032	146,336
Share of loss (profit) in associates and joint ventures, net	(11,722,816)	31,889,933	(10,403)	28,779
Net pension plan costs	10,044,290	9,241,021	8,913	8,339
Other income	(154,253,648)	(91,522,205)	(136,886)	(82,593)
Other expenses	127,559,852	143,058,936	113,197	129,102
Others, net	(41,041,081)	1,269,977	(36,420)	1,146
Total adjustments	4,055,677,445	3,203,874,233	3,599,031	2,891,297
Changes in operating assets and liabilities:				
Inventories	283,095,424	(381,896,065)	251,221	(344,637)
Trade and other receivables	1,144,925,330	(545,900,661)	1,016,014	(492,641)
Other receivables relating to operating activities	(136,300,631)	(154,496,723)	(120,954)	(139,424)
Trade and other payables	(444,970,474)	895,394,544	(394,869)	808,038
Other payables relating to operating activities	(440,909,625)	203,020,156	(391,266)	183,213
Payment of defined benefit liability	(11,708,804)	(13,982,569)	(10,390)	(12,618)
Provisions	182,113,339	238,533,281	161,608	215,261
Dividend received	1,291,569	20,390	1,146	18
Interest paid	(532,664,207)	(407,402,968)	(472,689)	(367,656)
Interest received	16,551,693	50,485,619	14,688	45,560
Income tax paid	(625,332,406)	(513,194,197)	(554,924)	(463,126)
Net cash flows from operating activities	**2,587,737,524**	**2,421,702,602**	**2,296,373**	**2,185,436**
Cash flows from investing activities:				
Acquisition of a subsidiary, net of cash acquired	-	(570,208,000)	-	(514,577)
Proceeds from disposal of investments in associates and joint ventures	18,075	-	16	-
Acquisition of investments in associates and joint ventures	(979)	(90,946,223)	(1)	(82,073)
Proceeds from disposal of property, plant and equipment	123,471,593	50,266,362	109,569	45,362
Acquisition of property, plant and equipment	(2,074,020,155)	(3,815,634,042)	(1,840,498)	(3,443,371)
Proceeds from disposal of intangible assets other than goodwill	803,424	-	713	-
Acquisition of intangible assets other than goodwill	(1,014,806,002)	(1,970,786,847)	(900,545)	(1,778,512)
Proceeds from disposal of short-term trading financial assets	67,094,607	-	59,540	-
Acquisition of available-for-sale financial investments	(508,494,443)	(23,249,712)	(451,241)	(20,981)
Increase in long-term and short-term financial assets, net	(338,968,444)	(22,217,704)	(300,803)	(20,050)
Decrease (increase) in loans, net	(84,795,231)	67,711,239	(75,248)	61,105
Decrease in guarantee deposits, net	6,751,724	-	5,992	-
Settlement of derivatives	-	(17,112,595)	-	(15,443)
Net cash flows used in investing activities	**(3,822,945,831)**	**(6,392,177,522)**	**(3,392,506)**	**(5,768,540)**

(Continued)
The accompanying notes are an integral part of the consolidated financial statements.

Korea National Oil Corporation and its subsidiaries
Consolidated statements of cash flows (cont'd)
For the years ended December 31, 2012 and 2011
(Korean won and US dollars in thousands)

	Korean won		US dollars (Note 2)	
	2012	**2011**	**2012**	**2011**
Cash flows from financing activities:				
Proceeds from increase in issued capital	₩ 771,719,000	₩ 835,000,000	$ 677,040	$ 753,535
Repayment of short-term borrowings, net	(1,220,707,816)	(1,114,540,720)	(1,083,263)	(1,005,803)
Repayment of current portion of long-term liabilities	(696,932,637)	(194,892,347)	(618,462)	(175,878)
Proceeds from (repayment of) long-term borrowings, net	(76,150,234)	429,491,781	(67,576)	387,589
Increase in bonds payables, net	1,266,100,254	3,701,633,705	1,123,545	3,340,493
Dividends paid	-	(33,824,054)	-	(30,524)
Proceeds from partial disposition of interest in subsidiaries	619,909,617	-	550,111	-
Net cash flows from financing activities	**663,938,184**	**3,622,868,365**	**581,395**	**3,269,412**
Decrease in cash and cash equivalents before net effect of foreign exchange differences	(571,270,123)	(347,606,555)	(514,738)	(313,692)
Net effect of foreign exchange differences in cash and cash equivalents	(59,515,777)	17,688,579	7,210	10,602
Decrease in cash and cash equivalents	(630,785,900)	(329,917,976)	(507,528)	(303,090)
Cash and cash equivalents at January 1	1,223,064,068	1,552,982,044	1,060,491	1,363,581
Cash and cash equivalents at December 31	₩ **592,278,168**	₩ **1,223,064,068**	$ **552,963**	$ **1,060,491**

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

1. Corporate information

The organization and business of Korea National Oil Corporation (the “Company” or “KNOC”) and its consolidated subsidiaries, Harvest Operations Corp., Dana Petroleum plc and others (collectively referred to as the “Group”) are described below.

The Company was incorporated on March 3, 1979 to engage in the development of oil fields, distribution of crude oil, maintenance of petroleum reserves and the improvement of the petroleum distribution structure under the Korea National Oil Corporation Act. The Company’s head office is located in Anyang, Gyeonggi-do in Korea. The Company also operates 9 petroleum stockpile offices, 1 domestic gas field management office, 13 overseas offices in Vietnam and other countries and numerous overseas subsidiaries and affiliates in the United States and other countries.

As of December 31, 2012, the Company’s issued capital amounts to ₩9,737 billion, which is wholly owned by the Korean government.

The Company’s consolidated subsidiaries as of December 31, 2012 and 2011 are as follows:

Subsidiary	Principal activity	Country of incorporation	Equity interest (%) Dec. 31, 2012	Equity interest (%) Dec. 31, 2011
Harvest Operations Corp. and its subsidiaries (Harvest)	Exploration and production (E&P)	Canada	100	100
Dana Petroleum plc and its subsidiaries (Dana)	E&P	United Kingdom	100	100
KNOC Kaz B.V.	Holding company	Netherlands	100	100
KNOC White Hill B.V.	Holding company	Netherlands	85	85
KNOC Caspian LLP	E&P	Kazakhstan	85	85
KNOC Black Hill Ltd.	Holding company	Canada	95	95
Altius Holdings Inc.	E&P	Canada	95	95
ANKOR E&P Holdings Corporation (ANKOR E&P)	E&P	United States	100	100
KNOC Eagle Ford Corporation (Eagle Ford)	E&P	United States	100	100
KNOC Sumatra Ltd.	E&P	Indonesia	100	100
KNOC NEMONE	E&P	Indonesia	100	100
KNOC NEMTWO	E&P	Indonesia	100	100
KNOC Yemen Ltd.	E&P	Yemen	60	60
KNOC EPE Co.	Holding company	United States	100	-

Changes in scope of consolidation

Details of subsidiaries newly consolidated during the year ended December 31, 2012 and 2011 are as follows:

Subsidiary	Details
KNOC EPE Co.	Newly incorporated

2. Summary of significant accounting policies and basis of preparation

Basis of consolidated financial statement preparation
The consolidated financial statements of the Group have been prepared in accordance with Korea International Financial Reporting Standards (KIFRS) enacted by the Corporate External Audit Law in the Republic of Korea. The consolidated financial statements have been prepared on a historical cost basis, except for financial instruments that have been measured at fair value and when otherwise indicated. The consolidated financial statements are presented in Korean won and all values are presented in units, except in the notes to the financial statements, which have been rounded to the nearest thousands.

The Group maintains its official accounting records in Korean won and prepares statutory financial statements in the Korean language. Certain accounting principles applied by the Group that conform with KIFRS may not conform with generally accepted accounting principles in other countries. Accordingly, these consolidated financial statements are intended for use by those who are informed about KIFRS and practices. The accompanying consolidated financial statements have been condensed, restructured and translated into English (with certain expanded descriptions) from the Korean language financial statements. In the event of any differences in interpreting the financial statements or the independent auditors' report thereon, the Korean version, which is used for regulatory reporting purposes, shall prevail.

Financial statements translation
Items included in the financial statements of each of the Group's entities are measured using the currency of the primary economic environment that the entity operates in (referred to as "functional currency"). The accompanying consolidated financial statements were prepared in the Company's functional currency, the United States dollar and then presented in Korean won, the Group's presentation currency, for the financial reporting purposes in accordance with KIFRS 1021.

United States dollar amounts presented as a comparison to the accompanying consolidated financial statements expressed in Korean won are solely for the convenience of the reader and are the same as the amounts of the financial statements of the Group prepared in the Company's functional currency.

<u>Transactions and balances</u>
Transactions in foreign currencies are initially recorded by the Group entities at their respective functional currency spot rates at the date the transaction first qualifies for recognition.

Monetary assets and liabilities denominated in foreign currencies are retranslated at the functional currency spot rate of exchange at the reporting date.

All differences are taken to the statement of comprehensive income with the exception of all monetary items that are designated as part of the hedge of the Group's net investment of a foreign operation. These are recognized in other comprehensive income until the net investment is disposed, at which time, the cumulative amount is reclassified to the statement of comprehensive income. Tax charges and credits attributable to exchange differences in those monetary items are also recorded in other comprehensive income.

Non-monetary items that are measured in terms of historical cost in a foreign currency are translated using the exchange rates as at the dates of the initial transactions. Non-monetary items measured at fair value in a foreign currency are translated using the exchange rates at the date when the fair value is determined. The gain or loss arising in retranslation of non-monetary items is treated in line with the recognition of gain or loss on change in fair value of the item (i.e. translation differences on items whose fair value gain or loss is recognized in other comprehensive income or profit or loss is also recognized in other comprehensive income or profit or loss, respectively)

2. Summary of significant accounting policies and basis of preparation *continued*

Principles of consolidation

The consolidated financial statements comprise the financial statements of the Company and its subsidiaries as of December 31, 2012. Subsidiaries are fully consolidated from the date of acquisition, being the date on which the Company obtains control, and continue to be consolidated until the date that such control ceases. The financial statements of the subsidiaries are prepared for the same reporting period as the Company, using consistent accounting policies. All intra-group balances, income and expenses, unrealized gains and losses and dividends resulting from intra-group transactions are eliminated in full.

Non-controlling interests in a subsidiary is presented as a consolidated component of equity in the consolidated statement of financial position. Losses within subsidiaries are attributed to the non-controlling interests even if that results in a deficit balance, unless the non-controlling interest has a binding agreement of not being able to absorb the full losses, where the excess of such losses will be absorbed by the parent company. A change in the ownership interest of a subsidiary, without a change of control, is accounted for as an equity transaction. If the parent company loses control over a subsidiary, it:

- Derecognizes the assets (including goodwill) and liabilities of the subsidiary
- Derecognizes the carrying amount of any non-controlling interests
- Derecognizes the cumulative translation differences, recorded in equity
- Recognizes the fair value of the consideration received
- Recognizes the fair value of any investment retained
- Recognizes any surplus or deficit in profit or loss
- Reclassifies the parent’s share of components previously recognized in other comprehensive income to profit or loss.

Revenue recognition

Revenue is recognized to the extent that it is probable that the economic benefits will flow to the Group and the revenue can be reliably measured. Revenue is measured at the fair value of the consideration received, excluding discounts, rebates, and sales taxes or duty. The Group assesses its revenue arrangements based on whether if the Group is acting as principal or agent. When the Group has concluded that it is acting as an agent, the associated sales and purchase are reported as net amount.

Borrowing costs

Borrowing costs directly attributable to the acquisition, construction or production of an asset that necessarily takes a substantial period of time to get ready for its intended use or sale are capitalized as part of the cost of the respective assets. Borrowing costs attributable to the acquisition of exploration and evaluation assets are not generally capitalized as it is uncertain that they would result in future economic benefits. However, borrowing costs attributable to exploratory wells guaranteed with the minimum reserves resulting in guaranteeing future economic benefits are capitalized. Borrowing costs consist of interest and other costs that an entity incurs in connection with the borrowing of funds.

Government grants

Government grants are recognized where there is reasonable assurance that the grant will be received and all attached conditions will be complied with. When the grant relates to an expense item, it is recognized as income over the period necessary to match the grant on a systematic basis to the costs that it is intended to compensate. Where the grant relates to an asset, it is recognized as a deduction of such asset and released to income in equal amounts over the expected useful life of the related asset.

In case where the Group receives loans with interest rate lower than market rate, benefits from lower interest rate shall be recognized as government grants.

2. Summary of significant accounting policies and basis of preparation *continued*

Severance and retirement
The Group operates a defined benefit plan, under which amount to be paid as retirement benefits are determined by reference to a formula based on employee's earnings and years of service. The defined benefit asset or liability comprises the present value of the defined benefit obligation, less past service costs and actuarial gains and losses not yet recognized and less the fair value of plan assets out of which the obligations are to be settled.

The Group uses the projected unit credit method to determine the present value of its defined benefit obligations and the related current service cost. The discount rate used in calculating the present value of defined benefit obligations is determined by reference to market yields at the end of the reporting period on high quality corporate bonds of a term consistent with the term of the post-employment benefit obligations. The past service costs are recognized as an expense on a straight line basis over the average period until the benefits become vested. If the benefits have already vested, immediately following the introduction of, or changes to past service costs are recognized immediately.

Actuarial gains and losses result from increases or decreases in either the present value of a defined benefit obligation or the fair value of plan assets. The Group recognizes the actuarial gains and losses in the period in which they occur in other comprehensive income. The actuarial gains and losses recognized in other comprehensive income are recognized immediately in retained earnings and they shall not be reclassified to profit or loss in a subsequent period.

The Group also operates a defined contribution plan, which is subject to the employees option, and under which the Group pays a fixed monthly contribution of at least 1/12th of an employee's annual salary for each year of service to a separately administered fund, which is managed by the plan's administrator. Contributions to such plan are recognized as an expense as incurred.

Income taxes
Current income tax
Current income tax assets and liabilities for the current and prior periods are measured at the amount expected to be recovered from or paid to the taxation authorities. The tax rates and tax laws used to compute the amount are those that are enacted or substantively enacted, by the reporting date, in the countries where the Group operates and generates taxable income.

Current income tax relating to items recognized directly in equity is recognized in equity and not in the statements of comprehensive income. Management periodically evaluates positions taken in the tax returns with respect to situations in which applicable tax regulations are subject to interpretation and establishes provisions where appropriate.

Deferred tax
Deferred tax is provided using the liability method on temporary differences at the reporting date between the tax bases of assets and liabilities and their carrying amounts for financial reporting purposes.

Deferred tax liabilities are recognized for all taxable temporary differences, except:

i) Where the deferred tax liability arises from the initial recognition of goodwill or of an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither the accounting profit nor taxable profit or loss.
ii) In respect of taxable temporary differences associated with investments in subsidiaries, associates and interests in joint ventures, where the timing of the reversal of the temporary differences can be controlled and it is probable that the temporary differences will not reverse in the foreseeable future.

2. Summary of significant accounting policies and basis of preparation *continued*

Income taxes *continued*

Deferred tax *continued*

Deferred tax assets are recognized for all deductible temporary differences, carry forward of unused tax credits and unused tax losses, to the extent that it is probable that taxable profit will be available against which the deductible temporary differences, and the carry forward of unused tax credits and unused tax losses can be utilized except:

i) Where the deferred tax asset relating to the deductible temporary difference arises from the initial recognition of an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither the accounting profit nor taxable profit or loss.
ii) In respect of deductible temporary differences associated with investments in subsidiaries, associates and interests in joint ventures, deferred tax assets are recognized only to the extent that it is probable that the temporary differences will reverse in the foreseeable future and taxable profit will be available against which the temporary differences can be utilized.

The carrying amount of deferred tax assets is reviewed at each reporting date and reduced to the extent that it is no longer probable that sufficient taxable profit will be available to allow all or part of the deferred tax asset to be utilized. Unrecognized deferred tax assets are reassessed at each reporting date and are recognized to the extent that it has become probable that future taxable profits will allow the deferred tax asset to be recovered.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply in the year when the asset is realized or the liability is settled, based on tax rates (and tax laws) that have been enacted or substantively enacted at the reporting date.

Deferred tax relating to items recognized outside profit or loss is recognized outside profit or loss. Deferred tax items are recognized in correlation to the underlying transaction either in other comprehensive income or directly in equity.

Deferred tax assets and deferred tax liabilities are offset, if a legally enforceable right exists to set off current tax assets against current income tax liabilities and the deferred taxes relate to the same taxable entity and the same taxation authority.

Property, plant and equipment

Property, plant and equipment is stated at cost, net of accumulated depreciation and accumulated impairment losses, if any. Such cost includes the cost of replacing part of the property, plant and equipment and borrowing costs for long-term construction projects if the recognition criteria are met. When significant parts of property, plant and equipment are required to be replaced in intervals, the Group recognizes such parts as individual assets with specific useful lives and depreciation, respectively. Likewise, when a major inspection is performed, its cost is recognized in the carrying amount of the property, plant and equipment as a replacement if the recognition criteria are satisfied. All other repair and maintenance costs are recognized in the statements of comprehensive income as incurred.

Expenditure on the construction, installation or completion of infrastructure facilities and drilling cost during the development phase and purchase price or construction cost, any costs directly attributable to bringing the asset into operation, the initial estimate of the decommissioning obligation are capitalized as oil and gas properties within development and production assets. The production assets are depreciated from the commencement of commercial production on a unit-of-production basis over the proved reserves of the field concerned.

2. Summary of significant accounting policies and basis of preparation *continued*

Property, plant and equipment *continued*

Depreciation of property, plant and equipment except for land, oil and gas properties is provided using the straight-line method over the estimated useful life of the assets as follows:

Description	Useful lives	Description	Useful lives
Buildings	20 ~ 40 years	Vehicles	5 years
Structures	20 ~ 40 years	Furniture, fixtures and others	5 years
Machinery and equipment	5 ~ 20 years	Oil prospecting vessel	20 years

An item of property, plant and equipment and any significant part initially recognized is derecognized upon disposal or when no future economic benefits are expected from its use or disposal. Any gain or loss arising on derecognition of the asset (calculated as the difference between the net disposal proceeds and the carrying amount of the asset) is included in the statements of comprehensive income when the asset is derecognized. The assets' residual values, useful lives and methods of depreciation are reviewed at each financial year end, and adjusted prospectively, if appropriate.

Intangible assets other than goodwill

Intangible assets other than goodwill are carried at cost less any accumulated amortization and any accumulated impairment losses. Internally generated intangible assets, excluding capitalized development costs, are not capitalized and expenditure is reflected in the statements of comprehensive income in the year in which the expenditure is incurred.

During the exploration and evaluation phase, costs associated with acquisition of exploration rights, geological, geophysical and geographical research, drilling costs and evaluation of technical and commercial viability of economic production are capitalized as exploration and evaluation assets. All such costs are subject to review for impairment when facts and circumstances suggest that the carrying amount of the assets may exceed their recoverable amount.

The useful lives of intangible assets are assessed as either finite or indefinite. Intangible assets with finite lives are amortized over the useful economic life and assessed for impairment whenever there is an indication that the intangible asset may be impaired. The amortization period and the amortization method for an intangible asset with a finite useful life are reviewed at least at each financial year end. Changes in the expected useful life or the expected pattern of consumption of future economic benefits embodied in the asset is accounted for by changing the amortization period or method, as appropriate, and are treated as changes in accounting estimates. The amortization expense on intangible assets with finite lives is recognized in the statements of comprehensive income in the expense category consistent with the function of the intangible asset.

Intangible assets with indefinite useful lives such as membership are not amortized, but are tested for impairment annually, either individually or at the cash generating unit level. The assessment of indefinite life is reviewed annually to determine whether the indefinite life continues to be supportable. If not, the change in useful life from indefinite to finite is made on a prospective basis. Intangible assets with definite useful lives are amortized using the straight line method over estimated useful lives of 5 to 20 years.

Gains or losses arising from derecognition of an intangible asset are measured as the difference between the net disposal proceeds and the carrying amount of the asset and are recognized in the statement of comprehensive income when the asset is derecognized.

Business combinations and goodwill

Business combinations are accounted for using the acquisition method. The cost of an acquisition is measured as the aggregate of the consideration transferred, measured at acquisition date fair value and the amount of any non-controlling interest in the acquiree. For each business combination, the acquirer measures the non-controlling interest in the acquiree either at fair value or at the proportionate share of the acquiree's identifiable net assets. Acquisition costs incurred are expensed and included in administrative expenses.

2. Summary of significant accounting policies and basis of preparation *continued*

Business combinations and goodwill *continued*

When the Group acquires a business, it assesses the financial assets and liabilities assumed for appropriate classification and designation in accordance with the contractual terms, economic circumstances and pertinent conditions as at the acquisition date. This includes the separation of embedded derivatives in host contracts by the acquiree.

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 as at the acquisition date through profit and loss.

Any contingent consideration to be transferred by the acquirer will be recognized at fair value at the acquisition date. Subsequent changes to the fair value of the contingent consideration which is deemed to be an asset or liability will be recognized in accordance with KIFRS 1039 either in profit or loss or as change to other comprehensive income. If the contingent consideration is classified as equity, it shall not be remeasured until it is finally settled within equity. Subsequent settlement is accounted for within equity. In instances where the contingent consideration does not fall within the scope of KIFRS 1039, it is measured in accordance with the appropriate KIFRS.

Goodwill is initially measured at cost, being the excess of the consideration transferred and the amount recognized for 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.

After initial recognition, goodwill is measured at cost less any accumulated impairment losses. For the purpose of impairment testing, goodwill acquired in a business combination is, from the acquisition date, allocated to each of the group's cash generating units that are expected to benefit from the combination, irrespective of whether other assets or liabilities of the acquiree are assigned to those units.

Where goodwill forms part of a cash-generating unit and part of the operation within that unit is disposed of, the goodwill associated with the operation disposed of is included in the carrying amount of the operation when determining the gain or loss on disposal of the operation. Goodwill disposed of in this circumstance is measured based on the relative values of the operation disposed of and the portion of the cash-generating unit retained.

The Group regards a business combination involving entities or businesses under common control as transaction which has no economic substance but results in changes in the legal form. Therefore, the Group recognizes the assets and liabilities of the acquiree at their acquisition date carrying amounts on the consolidated financial statements of the ultimate parent and the difference between the consideration and the carrying amount of net asset acquired is reflected in equity.

Investments in associates and joint ventures

The Group's investments in its associates and jointly controlled entities are accounted for using the equity method. An associate is an entity in which the Group has significant influence. The Group has an interest in a joint venture which is a jointly controlled entity, whereby the venturers have a contractual arrangement that establishes joint control over the economic activities of the entity.

Under the equity method, the investments in the associates and jointly controlled entities is carried in the statement of financial position at cost plus post acquisition changes in the Group's share of net assets of the associates. Goodwill relating to the associates is included in the carrying amount of the investment and is neither amortized nor individually tested for impairment.

2. Summary of significant accounting policies and basis of preparation *continued*

Investments in associates and joint ventures *continued*

The statement of comprehensive income reflects the Group's share of the results of operations of the associates. Where there has been a change recognized directly in the equity of the associates, the Group recognizes its share of any changes and discloses this, when applicable, in the statement of changes in equity. Unrealized gains and losses resulting from transactions between the Group and the associates are eliminated to the extent of the interest in the associates. If the Group's share of loss of the associates equals or exceeds its interest in the associates, it suspends recognizing its share of further losses. However, if the Group has other long-term interests in the associates, it continues recognizing its share of further losses to the extent of the carrying amount of such long-term interests. The share of profit of associates is shown on the face of the statement of comprehensive income. This is the profit attributable to equity holders of the associates and therefore is profit after tax and non-controlling interests in the subsidiaries of the associates.

The financial statements of the associates are prepared for the same reporting period as the Group. Where necessary, adjustments are made to bring the accounting policies in line with those of the Group.

After application of the equity method, the Group determines whether it is necessary to recognize an additional impairment loss on the Group's investment in its associates and jointly controlled entities. The Group determines at each reporting date whether there is any objective evidence that the investment in the associates is impaired. If this is the case, the Group calculates the amount of impairment as the difference between the recoverable amount of the associates and its carrying value and recognizes the amount in the statement of comprehensive income.

Upon loss of significant influence over the associate and joint control over the jointly controlled entities, the Group measures and recognizes any retained investment at its fair value. Any difference between the carrying amount of the associates upon loss of significant influence and the fair value of the retained investment and proceeds from disposal is recognized in profit or loss.

Inventories

Inventories are valued at the lower of cost or net realizable value, with cost being determined using the weighted moving-average method and the specific identification method for materials in-transit. The cost of finished goods include cost of raw materials, direct labor costs and other direct costs, manufacturing overheads. Net realizable value is the estimated selling price in the ordinary course of business, less estimated costs of completion and the estimated costs necessary to make the sale.

The Group records valuation allowance on a periodic basis, when significant changes with an adverse effect (an oversupply, an obsolete or decline in the price of goods) on the entity have taken place during the period, or will take place in the near future, and loss from inventory revaluation is recognized as cost of sales.

Oil stockpiles

The Group stockpiles crude oil, petroleum products and others to stabilize domestic demand and market prices and classifies those assets as oil stockpiles (Non-current non-financial assets) of which the cost is determined using the moving-average method. The Group performs annual impairment test for oil stockpiles.

2. Summary of significant accounting policies and basis of preparation *continued*

Provisions

Provisions are recognized when the Group has a present obligation (legal or constructive) as a result of a past event, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation. Where the Group expects some or all of a provision to be reimbursed, for example under an insurance contract, the reimbursement is recognized as a separate asset but only when the reimbursement is virtually certain. The expense relating to any provision is presented in the statement of comprehensive income net of any reimbursement. If the effect of the time value of money is material, provisions are discounted using a current pre-tax rate that reflects, where appropriate, the risks specific to the liability. Where discounting is used, the increase in the provision due to the passage of time is recognized as a finance cost.

A contingent liability is disclosed, but not recognized when it is not probable that an outflow of resources embodying economic benefits will be required to settle the obligation or the amount of the obligation cannot be measured with sufficient reliability.

When there is a legal or contractual obligation for dismantling, removing facilities and restoring sites on which they are located to their original condition at the end of the useful lives of the facilities, the present value of the estimated future restoration costs are capitalized at the acquisition date as additions to the cost of oil and gas properties and are accounted for as a provision. The Group subsequently depreciates the restoration costs using the unit-of-production method and the difference between estimated restoration costs and their present value is charged to current operations by applying the effective-interest-rate method.

Financial assets

Initial recognition and measurement

Financial assets within the scope of KIFRS 1039 are classified as financial assets at fair value through profit or loss, loans and receivables, held-to-maturity investments, available-for-sale financial investments, or as derivatives designated as hedging instruments in an effective hedge, as appropriate. The Group determines the classification of its financial assets at initial recognition.

All financial assets are recognized initially at fair value plus, in the case of investments not at fair value through profit or loss, directly attributable transaction costs.

Subsequent measurement

The subsequent measurement of financial assets depends on their classification as follows:

Financial assets at fair value through profit or loss:

Financial assets at fair value through profit or loss include financial assets held for trading and financial assets designated upon initial recognition at fair value through profit or loss. Financial assets are classified as held for trading if they are acquired for the purpose of selling or repurchasing in the near term. This category includes derivative financial instruments entered into by the Group that are not designated as hedging instruments in hedge relationships as defined by KIFRS 1039. Derivatives, including separated embedded derivatives are also classified as held for trading unless they are designated as effective hedging instruments. Financial assets at fair value through profit or loss are carried in the statement of financial position at fair value with changes in fair value recognized in finance income or finance cost in the statements of comprehensive income.

Loans and receivables:

Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. After initial measurement, such financial assets are subsequently measured at amortized cost using the effective interest rate method (EIR), less impairment. Amortized cost is calculated by taking into account any discount or premium on acquisition and fee or costs that are an integral part of the EIR. The EIR amortization is included in finance income in the statements of comprehensive income. The losses arising from impairment are recognized in the statements of comprehensive income in finance costs.

2. Summary of significant accounting policies and basis of preparation *continued*

Subsequent measurement *continued*

Held-to-maturity investments:
Non-derivative financial assets with fixed or determinable payments and fixed maturities are classified as held-to maturity when the Group has the positive intention and ability to hold it to maturity. After initial measurement, held-to-maturity investments are measured at amortized cost using the effective interest method, less impairment. Amortized cost is calculated by taking into account any discount or premium on acquisition and fee or costs that are an integral part of the EIR. The EIR amortization is included in finance income in the statements of comprehensive income. The losses arising from impairment are recognized in the statements of comprehensive income as finance costs.

Available-for-sale financial investments:
Available-for-sale financial investments include equity and debt securities. Equity investments classified as available-for sale are those, which are neither classified as held for trading nor designated at fair value through profit or loss. Debt securities in this category are those which are intended to be held for an indefinite period of time and which may be sold in response to needs for liquidity or in response to changes in the market conditions. After initial measurement, available-for-sale financial investments are subsequently measured at fair value with unrealized gains or losses recognized as other comprehensive income in the available-for-sale reserve until the investment is derecognized, at which time the cumulative gain or loss is recognized in other operating profit, or determined to be impaired, at which time the cumulative loss is recognized in other expenses in the statements of comprehensive income and removed from the available-for-sale reserve.

Derecognition

A financial asset (or, where applicable a part of a financial asset or part of a group of similar financial assets) is derecognized when:

- The rights to receive cash flows from the asset have expired.
- The Group has transferred its rights to receive cash flows from the asset or has assumed an obligation to pay the received cash flows in full without material delay to a third party under a ‘pass-through’ arrangement; and either (a) the Group has transferred substantially all the risks and rewards of the asset, or (b) the Group has neither transferred nor retained substantially all the risks and rewards of the asset, but has transferred control of the asset.

When the Group has transferred its rights to receive cash flows from an asset or has entered into a pass-through arrangement, and has neither transferred nor retained substantially all the risks and rewards of the asset nor transferred control of the asset, the asset is recognized to the extent of the Group’s continuing involvement in the asset. In that case, the Group also recognizes an associated liability. The transferred asset and the associated liability are measured on a basis that reflects the rights and obligations that the Group has retained. Continuing involvement that takes the form of a guarantee over the transferred asset is measured at the lower of the original carrying amount of the asset and the maximum amount of consideration that the Group could be required to repay.

Impairment of financial assets

The Group assesses at each reporting date whether there is any objective evidence that a financial asset or a group of financial assets is impaired. A financial asset or a group of financial assets is deemed to be impaired if, and only if, there is objective evidence of impairment as a result of one or more events that has occurred after the initial recognition of the asset (an incurred ‘loss event’) and that loss event has an impact on the estimated future cash flows of the financial asset or the group of financial assets that can be reliably estimated. Evidence of impairment may include indications that the debtors or a company of debtors is experiencing significant financial difficulty, default or delinquency in interest or principal payments, the probability that they will enter bankruptcy or other financial reorganization and where observable data indicate that there is a measurable decrease in the estimated future cash flows, such as changes in arrears or economic conditions that correlate with defaults.

2. Summary of significant accounting policies and basis of preparation *continued*

Impairment of financial assets *continued*

Financial assets carried at amortized cost:

If there is objective evidence that an impairment loss has incurred, the amount of the loss is measured as the difference between the asset's carrying amount and the present value of estimated future cash flows (excluding future expected credit losses that have not yet been incurred). The present value of the estimated future cash flows is discounted at the financial assets original effective interest rate. If a loan has a variable interest rate, the discount rate for measuring any impairment loss is the current effective interest rate. The carrying amount of the asset is reduced through the use of an allowance account and the amount of the loss is recognized in the statements of comprehensive income. Interest income continues to be accrued on the reduced carrying amount and is accrued using the rate of interest used to discount the future cash flows for the purpose of measuring the impairment loss. The interest income is recorded as part of finance income in the statement of comprehensive income.

Loans together with the associated allowance are written off when there is no realistic prospect of future recovery and all collateral has been realized or has been transferred to the Group. If, in a subsequent year, the amount of the estimated impairment loss increases or decreases because of an event occurring after the impairment was recognized, the previously recognized impairment loss is increased or reduced by adjusting the allowance account. If a future write-off is later recovered, the recovery is credited to other expenses in the statement of comprehensive income. Impairment loss of financial assets that have no fair value from active market or reliable method to measure the fair value is the difference between the asset's book value and the present value of the estimated future cash flows discounted at the current market rate of return for a similar financial asset. Such impairment loss will not be reversed in subsequent periods.

Available-for-sale financial investments

For available-for-sale financial investments, the Group assesses at each reporting date whether there is objective evidence that an investment or a group of investments is impaired. Where there is evidence of impairment, the cumulative loss - measured as the difference between the acquisition cost and the current fair value, less any impairment loss on that investment previously recognized in the statement of comprehensive income - is removed from other comprehensive income and recognized in the statement of comprehensive income. Impairment losses on equity investments are not reversed through the statement of comprehensive income; increases in their fair value after impairment are recognized directly in other comprehensive income.

In the case of debt instruments classified as available-for-sale, impairment is assessed based on the same criteria as financial assets carried at amortized cost. However, the amount recorded for impairment is the cumulative loss measured as the difference between the amortized cost and the current fair value, less any impairment loss on that investment previously recognized in the statement of comprehensive income.

Future interest income continues to be accrued based on the reduced carrying amount of the asset and is accrued using the rate of interest used to discount the future cash flows for the purpose of measuring the impairment loss. The interest income is recorded as part of finance income. If, in a subsequent year, the fair value of a debt instrument increases and the increase can be objectively related to an event occurring after the impairment loss was recognized in the statement of comprehensive income, the impairment loss is reversed through the statement of comprehensive income.

Financial liabilities

Initial recognition and measurement

Financial liabilities within the scope of KIFRS 1039 are classified as financial liabilities at fair value through profit or loss, loans and borrowings, or as derivatives designated as hedging instruments in an effective hedge, as appropriate. The Group determines the classification of its financial liabilities at initial recognition.

All financial liabilities are recognized initially at fair value plus in the case of loans and borrowings directly attributable transaction costs.

2. Summary of significant accounting policies and basis of preparation *continued*

Subsequent measurement
The measurement of financial liabilities depends on their classification as follows:

Financial liabilities at fair value through profit or loss:
Financial liabilities at fair value through profit or loss includes financial liabilities held for trading and financial liabilities designated upon initial recognition as at fair value through profit or loss. Financial liabilities are classified as held for trading if they are acquired for the purpose of selling in the near term. This category includes derivative financial instruments entered into by the Group that are not designated as hedging instruments in hedge relationships as defined by KIFRS 1039.

Separated embedded derivatives are also classified as held for trading unless they are designated as effective hedging instruments. Gains or losses on liabilities held for trading are recognized in the statement of comprehensive income.

Borrowings:
After initial recognition, interest bearing borrowings are subsequently measured at amortized cost using the effective interest rate method. Gains and losses are recognized in the statement of comprehensive income when the liabilities are derecognized as well as through the effective interest rate method (EIR) amortization process. Amortized cost is calculated by taking into account any discount or premium on acquisition and fee or costs that are an integral part of the EIR. The EIR amortization is included in finance cost in the statement of comprehensive income.

Financial guarantee contracts:
Financial guarantee contracts issued by the Group are those contracts that require a payment to be made to reimburse the holder for a loss it incurs because the specified debtor fails to make a payment when due in accordance with the terms of a debt instrument. Financial guarantee contracts are recognized initially as a liability at fair value, adjusted for transaction costs that are directly attributable to the issuance of the guarantee. Subsequently, the liability is measured at the higher of the best estimate of the expenditure required to settle the present obligation at the reporting date and the carrying amount less cumulative amortization.

Derecognition
A financial liability is derecognized when the obligation under the liability is discharged or cancelled or expires. When an existing financial liability is replaced by another from the same lender on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification is treated as a derecognition of the original liability and the recognition of a new liability, and the difference in the respective carrying amounts is recognized in the statements of comprehensive income.

Derivative finance instruments and hedge accounting
The Group uses derivative financial instruments such as forward currency contracts, interest rate swaps and forward commodity contracts to hedge its foreign currency risks, interest rate risks and commodity price risks, respectively. Such derivative financial instruments are initially recognized at fair value on the date on which a derivative contract is entered into and are subsequently remeasured at fair value. Derivatives are carried as financial assets when the fair value is positive and as financial liabilities when the fair value is negative.

Any gains or losses arising from changes in fair value on derivatives are taken directly to the statements of comprehensive income, except for the effective portion of cash flow hedges, which is recognized in other comprehensive income.

2. Summary of significant accounting policies and basis of preparation *continued*

New and amended standards and interpretations

The accounting policies adopted are consistent with those of the previous financial year, except for the following amendments to KIFRS effective as of January 1, 2012

KIFRS 1012 Income Taxes (Amendment)
The amendment clarified the determination of deferred tax on investment property measured at fair value and introduces a rebuttable presumption that deferred tax on investment property measured using the fair value model in *KIFRS 1040* should be determined on the basis that its carrying amount will be recovered through sale. It includes the requirement that deferred tax on non-depreciable assets that are measured using the revaluation model in *KIFRS 1016* should always be measured on a sale basis. The amendment is effective for annual periods beginning on or after January 1, 2012 and has had no effect on the Group's financial position, performance or its disclosures

KIFRS 1107 Financial Instruments: Disclosures (Amendment)
The amendment requires additional disclosure about financial assets that have been transferred but not derecognized to enable the user of the Group's financial statements to understand the relationship with those assets that have not been derecognized and their associated liabilities. In addition, the amendment requires disclosures about the entity's continuing involvement in derecognized assets to enable the users to evaluate the nature of, and risks associated with, such involvement. The amendment is effective for annual periods beginning on or after July 1, 2011. The Group does not have any assets with these characteristics so there has been no effect on the presentation of its financial statements.

KIFRS 1001 Presentation of Financial Statements (Amendment)
The amendment to KIFRS 1001 presents operating profit as revenue less cost of sales and selling and administrative expenses on the statement of comprehensive income. The amendment becomes effective for annual periods ending on or after December 31, 2012.

The Group's prior year's operating profit, prepared in accordance with management's accounting policies for the presentation of financial statements, was calculated as revenue less cost of sales and selling and administrative expenses, less other income and other expenses. As a result of the amendment to KIFRS 1001 stated above, the presentation of the Group's operating profit increased by ₩1,046,149,665 thousand for the year ended December 31, 2012 compared with the Group's presentation method under the prior year. Operating profit in the 2011 financial statements had been restated to conform to the 2012 presentation. The restatement resulted in an increase of ₩152,352,071 thousand for the year ended December 31, 2011, compared with the amount as previously reported.

KIFRS 1001 Presentation of Items of Other Comprehensive Income - Amendments to KIFRS 1001
The amendments to KIFRS 1001 change the grouping of items presented in other comprehensive income (OCI). Items that could be reclassified (or 'recycled') to profit or loss at a future point in time (for example, net gain on hedge of net investment, exchange differences on translation of foreign operations, net movement on cash flow hedges and net loss or gain on available-for-sale financial assets) would be presented separately from items that will never be reclassified (for example, actuarial gains and losses on defined benefit plans and revaluation of land and buildings). The amendment affects presentation only and has no impact on the Group's financial position or performance. Although the amendment becomes effective for annual periods beginning on or after July 1, 2012, the Group determined to early adopt this standard as of January 1, 2012, and the comparative financial statements as of and for the year ended December 31, 2011, were prepared pursuant to this standard.

2. Summary of significant accounting policies and basis of preparation continued

Significant accounting judgments, estimates and assumptions

The preparation of the Group's consolidated financial statements requires management to make judgments, estimates and assumptions that affect the reported amounts of revenues, expenses, assets and liabilities, and the disclosure of contingent liabilities, at the reporting date. However, uncertainty about these assumptions and estimates could result in outcomes that require a material adjustment to the carrying amount of the asset or liability affected in future periods.

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.

Measurement of tangible and intangible assets and estimation of provision for restoration costs
The Group reviews the estimated useful lives and depreciation method for tangible and intangible assets and provision for restoration costs annually. Management's decision on these estimates is likely to affect such estimation process significantly.

Deferred tax assets
Deferred tax assets are recognized for all unused tax losses to the extent that it is probable that taxable profit will be available against which the losses can be utilized. Significant management judgment is required to determine the amount of deferred tax assets that can be recognized, based upon the likely timing and the level of future taxable profits together with future tax planning strategies

Goodwill impairment
To perform impairment test of goodwill, the estimation of value-in-use of cash generating units is needed. To calculate the value-in-use, the expected future cash flows and appropriate discount rate shall be determined.

Defined benefit obligation
Present value of defined benefit obligation is determined using actuarial assumptions such as discount rate, future salary increase rate, retirement rate and others. Due to complexity of process and significance of such assumptions, the present value of defined benefit obligation is sensitive to the assumptions which are reviewed by the Group at the end of reporting period.

Fair value of financial instruments
Financial instruments which are not in active markets are measured using valuation techniques including discount cash flow method. In case that inputs for the valuation are not observable in the market, the significant level of estimation is required considering liquidity risk, credit risk, volatility of inputs which could have a significant effects on the fair value of financial instruments.

3. Standards issued but not yet effective

Standards issued but not yet effective up to the date of issuance of the Group's financial statements are listed below. This listing of standards and interpretations issued are those that the Group reasonably expects to have an impact on disclosures, financial position or performance when applied at a future date. The Group intends to adopt these standards when they become effective.

KIFRS 1019 Employee Benefits (Amendment)
The KASB has issued numerous amendments to KIFRS 1019. These range from fundamental changes such as removing the corridor mechanism and the concept of expected returns on plan assets to simple clarifications and re-wording. The Company had made a voluntary change in accounting policy to recognize actuarial gains and losses in other comprehensive income in the current period. The Company is currently assessing the full impact of the remaining amendments. The amendment becomes effective for annual periods beginning on or after January 1, 2013.

3. Standards issued but not yet effective *continued*

KIFRS 1028 Investments in Associates and Joint Ventures (Amendment)
As a consequence of the new KIFRS 1111 Joint Arrangements, and KIFRS 1112 Disclosure of Interests in Other Entities, KIFRS 1028 Investments in Associates, has been renamed KIFRS 1028 Investments in Associates and Joint Ventures, and describes the application of the equity method to investments in joint ventures in addition to associates. The revised standard becomes effective for annual periods beginning on or after January 1, 2013.

KIFRS 1032 Offsetting Financial Assets and Financial Liabilities - Amendments to KIFRS 1032
These amendments clarify the meaning of “currently has a legally enforceable right to set-off”. The amendments also clarify the application of the KIFRS 1032 offsetting criteria to settlement systems (such as central clearing house systems) which apply gross settlement mechanisms that are not simultaneous. These amendments become effective for annual periods beginning on or after January 1, 2014.

KIFRS 1107 Financial Instruments: Disclosures - Enhanced Derecognition Disclosure Requirements
The amendment requires additional disclosures about financial assets that have been transferred but not derecognized to enable the user of the Company’s financial statements to understand the relationship with those assets that have not been derecognized and their associated liabilities. In addition, the amendment requires disclosures about continuing involvement in those derecognized assets. The amendment becomes effective for annual periods beginning on or after January 1, 2013. The amendment affects disclosure only has no impact of the Company’s financial position or performance.

KIFRS 1110 Consolidated Financial Statements, KIFRS 1027 Separate Financial Statements
KIFRS 1110 replaces the portion of KIFRS 1027 Consolidated and Separate Financial Statements that addresses the accounting for consolidated financial statements. It also addresses the issues raised in KIFRS 2012 Consolidation - Special Purpose Entities. KIFRS 1110 establishes a single control model that applies to all entities including special purpose entities. The changes introduced by KIFRS 1110 will require management to exercise significant judgment to determine which entities are controlled and therefore are required to be consolidated by a parent, compared with the requirements that were in KIFRS 1027. This standard becomes effective for annual periods beginning on or after January 1, 2013.

KIFRS 1111 Joint Arrangements
KIFRS 1111 replaces KIFRS 1031 Interests in Joint Ventures and KIFRS 2013 Jointly-controlled Entities - Non-monetary Contributions by Venturers. KIFRS 1111 removes the option to account for jointly controlled entities (JCEs) using proportionate consolidation. Instead, JCEs that meet the definition of a joint venture must be accounted for using the equity method. This standard becomes effective for annual periods beginning on or after January 1, 2013, and is to be applied retrospectively for joint arrangements held at the date of initial application.

KIFRS 1112 Disclosure of Interests in Other Entities
KIFRS 1112 includes all of the disclosures that were previously in KIFRS 1027 related to consolidated financial statements, as well as all of the disclosures that were previously included in KIFRS 1031 and KIFRS 1028. These disclosures relate to an entity’s interests in subsidiaries, joint arrangements, associates and structured entities. A number of new disclosures are also required, but has no impact on the Group’s financial position or performance. This standard becomes effective for annual periods beginning on or after January 1, 2013.

KIFRS 1113 Fair Value Measurement
KIFRS 1113 establishes a single source of guidance under KIFRS for all fair value measurements. KIFRS 1113 does not change when an entity is required to use fair value, but rather provides guidance on how to measure fair value under KIFRS when fair value is required or permitted. The Company is currently assessing the impact that this standard will have on the financial position and performance. This standard becomes effective for annual periods beginning on or after January 1, 2013.

3. Standards issued but not yet effective *continued*

KIFRS 2120 Stripping Costs in the Production Phase of a Surface Mine
This interpretation applies to waste removal (stripping) costs incurred in surface mining activity, during the production phase of the mine. The interpretation addresses the accounting for the benefit from the stripping activity. The interpretation is effective for annual periods beginning on or after January 1, 2013.

The Group is currently assessing the impact that the above standards will have on the financial position and performance.

4. Reclassification

Certain amounts in the 2011 consolidated financial statements have been reclassified to conform to the 2012 presentation. Such reclassifications had no effect on the Group's net income and retained earnings as previously reported.

5. Operating segment information

For management purposes, the Group is organized into business units based on their goods and services and has six reportable operating segments as follows:

Segments	Goods and services	Location of business
Resource development and refinery	Exploration, development and production of domestic and oversea resources, and refinery	Domestic and overseas
Oil trading business	Purchase and sales of crude oil	Overseas
Oil stockpiling	Imports and exports of crude oil and petroleum products; lending and sales of oil stockpile; management, operations and leasing of oil stockpiling facilities	Domestic
Financing	Financing for companies engaged in energy and natural resources development activities	Domestic
Drillship chartering	Drillship chartering business	Domestic and overseas
Others	Incidental income from the above businesses	Domestic and overseas

Financial information of the Group by business segment for the years ended December 31, 2012 and 2011 are as follows (Korean won in millions):

	2012			
	Total segment revenue	Revenue from external customers	Reportable segment operating income (loss)	Depreciation and amortization
Resource development and refinery	₩ 10,263,714	₩ 10,263,714	₩ 1,198,354	₩ 2,290,666
Oil trading business	35,462	35,462	2,223	-
Oil stockpiling	157,041	157,041	2,399	74,609
Financing	3,441	3,441	3,441	-
Drillship chartering	15,155	15,155	(18,571)	5,333
Others	79,140	79,140	77,460	-
Adjustment (*)	-	-	(476,862)	8,740
	₩ 10,553,953	₩ 10,553,953	₩ 788,444	₩ 2,379,348

5. Operating segment information *continued*

	2011			
	Total segment revenue	Revenue from external customers	Reportable segment operating income (loss)	Depreciation and amortization
Resource development and refinery	₩ 8,393,218	₩ 8,393,218	₩ 1,556,028	₩ 1,545,859
Oil trading business	267,688	267,688	5,532	-
Oil stockpiling	140,652	140,652	(5,078)	71,875
Financing	4,059	4,059	4,059	-
Drillship chartering	55,291	55,291	22,919	6,402
Others	87,470	87,470	17,939	-
Adjustment (*)	-	-	(464,002)	397,593
	₩ 8,948,378	₩ 8,948,378	₩ 1,137,397	₩ 2,021,729

(*) Refers to the adjustments on depreciation and amortization which were not attributed to any reportable operating segments.

Assets and liabilities of the Group by business segment as of December 31, 2012 and 2011 are as follows (Korean won in millions):

	December 31, 2012			
	Assets	Investment assets in associates (*1)	Non-current assets	Liabilities
Resource development and refinery	₩ 22,729,269	₩ 1,214,543	₩ 20,513,072	₩ 17,750,325
Oil trading business	131,278	36,211	36,210	112,493
Oil stockpiling	5,424,720	-	5,419,772	11,837
Financing	2,410	-	2,684	-
Drillship chartering	39,313	-	33,492	3,792
Adjustment (*2)	390,859	-	247,466	104,675
	₩ 28,717,849	₩ 1,250,754	₩ 26,252,696	₩ 17,983,122

	December 31, 2011			
	Assets	Investment assets in associates (*1)	Non-current assets	Liabilities
Resource development and refinery	₩ 23,724,721	₩ 1,262,118	₩ 21,029,294	₩ 20,354,346
Oil trading business	900,015	38,989	38,996	230,971
Oil stockpiling	5,803,437	-	6,454,251	64,768
Financing	5,882	-	4,053	-
Drillship chartering	29,618	-	87,042	4,258
Others	338	-	4,967	355
Adjustment (*2)	1,103,391	-	338,613	145,259
	₩ 31,567,402	₩ 1,301,107	₩ 27,957,216	₩ 20,799,957

(*1) Investment assets in associates comprise investments in associates and joint ventures, and loans to related parties.
(*2) Refers to deferred tax assets, available-for-sale financial investments and others which were not attributed to any reportable operating segments.

5. Operating segment information *continued*

Revenue from external customers for the years ended December 31, 2012 and 2011, and non-current assets as of December 31, 2012 and 2011 by geographic segments are as follows (Korean won in millions):

	Revenue from external customers		Non-current assets	
	2012	2011	Dec. 31, 2012	Dec. 31, 2011
America	₩ 7,263,457	₩ 5,337,226	₩ 10,810,893	₩ 9,934,772
Africa	39,230	-	238,624	33,967
Europe	1,949,446	1,955,254	5,546,538	3,751,982
Asia	1,308,668	1,533,297	9,033,446	14,236,495
Others	(6,848)	122,601	623,195	-
	₩ 10,553,953	₩ 8,948,378	₩ 26,252,696	₩ 27,957,216

There are no customers which individually account for 10% or more of the Group's total revenue.

6. Cash and cash equivalents

Cash and cash equivalents denoted in the consolidated statements of cash flows include cash and bank deposits net of outstanding overdrafts. Details of cash and cash equivalents as of December 31, 2012 and 2011 are as follows (Korean won in millions):

	December 31, 2012	December 31, 2011
Cash	₩ 238,703	₩ 535,009
Cash equivalents	353,575	688,055
	₩ 592,278	₩ 1,223,064

7. Financial assets

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

	December 31, 2012		December 31, 2011	
	Current	Non-current	Current	Non-current
Financial assets at fair value through profit or loss (Note 8)	₩ 1,892	₩ -	₩ 142,135	₩ -
Available-for-sale financial investments (Note 9)	-	618,583	-	134,020
Other financial assets (Note 10)	352,163	469,232	5,404	377,662
	₩ 354,055	₩ 1,087,815	₩ 147,539	₩ 511,682

8. Financial assets at fair value through profit or loss

Details of financial assets at fair value through profit or loss as of December 31, 2012 and 2011 are as follows (Korean won in millions):

	December 31, 2012	December 31, 2011
Short-term trading financial assets	₩ -	₩ 67,271
Derivative assets	1,892	74,864
	₩ 1,892	₩ 142,135

8. Financial assets at fair value through profit or loss *continued*

Changes in the fair value of short-term trading financial assets for the years ended December 31, 2012 and 2011 are as follows (Korean won in millions):

	2012	2011
Beginning balance	₩ 67,271	₩ 12,834
Acquisitions	-	47,450
Disposals	(65,730)	-
Valuation adjustments	-	4,699
Net exchange differences	(1,541)	2,288
Ending balance	₩ -	₩ 67,271

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

	December 31, 2012		December 31, 2011	
	Current	Non-current	Current	Non-current
Derivative assets:				
Other derivatives	₩ 1,892	₩ -	₩ 74,864	₩ -
Derivative liabilities:				
Currency forward	₩ -	₩ -	₩ 272	₩ -
Currency swaps	-	47,543	-	42,147
Interest rate swaps	5,137	-	-	7,098
Other derivatives	-	-	798	-
	₩ 5,137	₩ 47,543	₩ 1,070	₩ 49,245

Details of currency swaps as of December 31, 2012 are as follows (Korean won in millions and foreign currencies in thousands):

			Contract amount					
			Sell		Purchase		Contract interest rate (%)	
	Counterpart	Maturity	Unit	Amount	Unit	Amount	Sell	Purchase
Cash-flow hedge	Barclays	2021.02.08	HKD	500,000	USD	64,185	5.03	4.38
〃	BNP	2016.02.05	HKD	780,000	USD	100,135	3.69	3.40
〃	BNP	2016.02.16	SGD	100,000	USD	78,431	4.14	3.15
〃	Credit Suisse	2014.02.25	HKD	470,000	USD	60,365	2.90	2.53
〃	BNP	2021.03.04	HKD	390,000	USD	50,081	5.20	4.50
〃	RBS	2016.05.12	CHF	125,000	USD	140,213	3.74	2.64
〃	UBS	2016.05.12	CHF	200,000	USD	224,341	3.74	2.64
〃	UBS	2016.05.25	EUR	100,000	USD	142,850	3.43	3.95
〃	RBS	2014.11.15	JPY	13,500,000	USD	173,969	6M JPY Libor + 80bp	6M US$ Libor + 157.5bp
〃	Barclays	2016.12.22	HKD	637,000	USD	81,869	3.45	3.20
〃	SC	2014.12.27	KRW	110,000	USD	96,061	3.54	3.80
〃	Barclays	2022.02.10	HKD	390,000	USD	50,282	4.45	3.95
〃	UBS	2017.03.08	CHF	100,000	USD	109,733	3.34	1.88
〃	Barclays	2017.03.08	CHF	200,000	USD	219,467	3.34	1.88
〃	UBS	2022.03.28	EUR	50,000	USD	65,075	4.55	4.23
〃	HSBC	2016.09.26	KRW	90,000	USD	80,524	2.93	3.89

8. Financial assets at fair value through profit or loss *continued*

Details of interest rate swaps as of December 31, 2012 are as follows (US dollars in thousands):

	Counterpart	Term of the contract	Principal amount	Contract interest rate (%) Sell	Purchase
Cash flow hedge	DBS	2013.06.11	USD 150,000	2.03	3M Libor + 100bp
〃	SC	2013.06.11	150,000	2.03	3M Libor + 100bp
〃	ING	2013.06.11	100,000	2.03	3M Libor + 100bp
〃	BNP	2013.06.11	100,000	2.03	3M Libor + 100bp
〃	DBS	2013.07.22	84,000	2.31	3M Libor + 120bp
〃	SC	2013.07.22	83,000	2.31	3M Libor + 120bp
〃	ANZ	2013.07.22	84,000	2.31	3M Libor + 120bp
〃	HSBC	2013.07.22	149,000	2.31	3M Libor + 120bp
〃	Morgan Stanley	2013.07.22	100,000	2.31	3M Libor + 120bp

Details of gain and loss on valuation and settlement of derivative financial instruments for the years ended December 31, 2012 and 2011 are as follows (Korean won in millions):

	Gains (losses) on valuation		Gains (losses) on settlement		Other comprehensive income (*)	
	2012	2011	2012	2011	2012	2011
Currency forwards	₩ -	₩ (261)	₩ 3,463	₩ 37,107	₩ -	₩ -
Currency swaps	-	-	-	-	(20,872)	(2,278)
Interest rate swaps	-	-	-	(19,071)	1,160	8,890
Other derivatives	607	858	2,676	9,599	1,467	-
	₩ 607	₩ 597	₩ 6,139	₩ 27,635	₩ (18,245)	₩ 6,612

(*) Amounts have been presented net of income tax effect which have been directly charged to equity.

9. Available-for-sale financial investments

Details of available-for-sale financial investments as of December 31, 2012 and 2011 are as follows (Korean won in millions):

	Entities	Ownership interest (%)	December 31, 2012	December 31, 2011
Equity securities:				
Non-marketable	Daehan Oil Pipeline Corporation	2.26	₩ 10,860	₩ 10,729
	Yemen LNG Company Limited	1.06	38,064	38,761
	PETRO ONADO S.A.	5.64	17,566	18,889
	Micronic Development CO., Ltd.	16.70	819	882
	Troika Resource Investment PEF	14.47	32,424	34,059
	Global Dynasty Natural Resource PEF	15.00	1,785	781
	EPE Acquisition LLC	14.99	481,448	-
Debt securities:				
Corporate bonds	ABCP Investment	-	35,617	29,920
			₩ 618,583	₩ 134,020

9. Available-for-sale financial investments *continued*

Changes in available-for-sale financial investments for the years ended December 31, 2012 and 2011 are as follows (Korean won in millions):

	2012		2011	
Beginning balance	₩	134,020	₩	94,980
Acquisitions		508,494		23,250
Valuation adjustments (*1)		10,417		15,792
Net exchange differences		(34,348)		(2)
Ending balance	₩	618,583	₩	134,020

(*1) Amounts have been presented before reflecting the effect of differed income taxes amounting to ₩2,521 million in 2012 (2011: ₩3,822 million), which have been recognized directly in equity.

10. Other financial assets

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

	December 31, 2012		December 31, 2011	
	Current	Non-current	Current	Non-current
Short-term financial instruments	₩ 344,165	₩ -	₩ 500	₩ -
Loans	-	462,664	4,904	372,965
Long-term financial instruments	-	-	-	4,697
Others	7,998	6,568	-	-
	₩ 352,163	₩ 469,232	₩ 5,404	₩ 377,662

11. Trade and other receivables

Details of trade and other receivables as of December 31, 2012 and 2011 are as follows (Korean won millions):

	December 31, 2012			December 31, 2011		
	Gross amounts	Allowance for doubtful accounts	Book value	Gross amounts	Allowance for doubtful accounts	Book value
Current:						
Trade accounts receivable	₩ 625,438	₩ (4,327)	₩ 621,111	₩ 1,004,901	₩ (2,970)	₩ 1,001,931
Other receivables	382,756	-	382,756	499,159	-	499,159
	1,008,194	(4,327)	1,003,867	1,504,060	(2,970)	1,501,090
Non-current:						
Trade accounts receivable	3,263	-	3,263	66,009	-	66,009
Other receivables	85,634	-	85,634	15,495	-	15,495
	88,897	-	88,897	81,504	-	81,504
	₩1,097,091	₩ (4,327)	₩1,092,764	₩1,585,564	₩ (2,970)	₩ 1,582,594

11. Trade and other receivables *continued*

Details of other receivables as of December 31, 2012 and 2011 are as follows (Korean won millions):

	December 31, 2012		December 31, 2011	
	Gross amounts	Book value	Gross amounts	Book value
Current:				
Other accounts receivable	₩ 314,823	₩ 314,823	₩ 310,255	₩ 310,255
Accrued income	21,137	21,137	17,016	17,016
Others	46,796	46,796	171,888	171,888
	382,756	382,756	499,159	499,159
Non-current:				
Other accounts receivable	30,634	30,634	-	-
Accrued income	43,660	43,660	7,772	7,772
Deposits	11,340	11,340	7,723	7,723
	85,634	85,634	15,495	15,495
	₩ 468,390	₩ 468,390	₩ 514,654	₩ 514,654

The above trade and other receivables are classified as loans and receivables and measured at amortized cost.

The Group provides an allowance for doubtful accounts in consideration of the estimated losses that may arise from non-collection of its receivables. The estimate of losses, if any, is based on a review of the historical experience and financial circumstances of the counterparties.

The above trade receivables include accrued interest on overdue amounts as of December 31, 2012, for which an allowance for doubtful accounts had not been established as the credit rating of the counterparties were not downgraded and there was no concern over the collectability of such receivables.

Aging analysis of trade receivables as of December 31, 2012 and 2011 is as follows (Korean won in millions):

	December 31, 2012	December 31, 2011
Neither overdue nor impaired	₩ 460,752	₩ 874,816
Overdue but not impaired receivables	163,622	193,123
- 60 ~ 90 days	2,962	192,015
- 90 ~ 120 days	1,215	-
- 120 days ~ 1 year	155,587	160
- More than 1 year	3,858	948
Receivables that allowance for doubtful accounts were provided:	4,327	2,971
- 90 ~ 120 days	401	-
- 120 days ~ 1 year	839	2,210
- More than 1 year	3,087	761
	628,701	1,070,910
Less: allowance for doubtful accounts	(4,327)	(2,970)
	₩ 624,374	₩ 1,067,940

As of December 31, 2012 and 2011, no other receivables are neither overdue or impaired.

12. Inventories

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

	December 31, 2012			December 31, 2011		
	Cost	Valuation allowance	Book value	Cost	Valuation allowance	Book value
Raw material	₩ 19,380	₩ (549)	₩ 18,831	₩ 9,581	₩ (903)	₩ 8,678
Merchandise	30,907	-	30,907	368,893	-	368,893
Work-in-process	252	-	252	133	-	133
Finished goods	122,245	-	122,245	111,127	(482)	110,645
Supplies	62,693	-	62,693	54,704	-	54,704
Materials in-transit	148	-	148	67	-	67
	₩235,625	₩ (549)	₩235,076	₩544,505	₩ (1,385)	₩ 543,120

The reversal of loss on valuation amounting to ₩836 million was credited to cost of sales for the year ended December 31, 2012 and loss on valuation of inventories amounting to ₩1,385 million was charged to cost of sales for the year ended December 31, 2011

13. Non-financial assets

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

	December 31, 2012		December 31, 2011	
	Current	Non-current	Current	Non-current
Advance payments	₩ 153,655	₩ -	₩ 140,380	₩ -
Prepaid expenses	77,263	25,020	44,453	37,121
Oil stockpiles	-	3,114,457	-	3,289,028
Others	27,350	11,491	10,392	835
	₩ 258,268	₩ 3,150,968	₩ 195,225	₩ 3,326,984

14. Investments in associates and joint ventures

Details of investments in associates and joint ventures as of December 31, 2012 and 2011 are as follows (Korean won in millions):

				December 31, 2012		December 31, 2011	
Entity	Principal activity	Country of in-corporation	Equity interest (%)	Acquisition cost	Book value	Acquisition cost	Book value
<Investments in associates>							
ADA Oil LLP	E&P	Kazakhstan	13	₩ 22,149	₩ 11,292	₩ 22,149	₩ 16,652
Faroe Petroleum Plc	〃	United Kingdom	23	172,072	131,840	172,072	132,332
Fosco B.V	〃	Netherlands	33	7	-	7	-
Kernhem B.V	〃	Netherlands	37	12,017	9,317	12,017	15,499
Parallel Petroleum LLC	〃	USA	10	62,682	61,298	62,682	62,682
Oilhub Korea Yeosu Co., Ltd.	Storage and related business	Korea	29	37,990	39,076	37,990	37,109
				₩ 306,917	₩ 252,823	₩ 306,917	₩ 264,274

14. Investments in associates and joint ventures *continued*

Entity	Principal activity	Country of in-corporation	Equity interest (%)	December 31, 2012 Acquisition cost	December 31, 2012 Book value	December 31, 2011 Acquisition cost	December 31, 2011 Book value
<Investments in joint ventures>							
Dolphin Property Ltd.	Real estate	Nigeria	75	₩ 58	₩ -	₩ 58	₩ 68
KC Karpovsky B.V.	E&P	Netherlands	35	9	-	9	-
KC Kazakh B.V.	〃	Netherlands	35	233	-	233	-
KNOC Aral Ltd.	〃	Malaysia	51	-	-	-	-
KNOC Bazian Ltd.	〃	Malaysia	38	-	-	-	-
KNOC Ferghana Ltd	〃	Malaysia	50	1	-	1	-
KNOC Ferghana2 Ltd.	〃	Malaysia	65	-	-	-	-
KNOC Inam Ltd.	〃	Malaysia	40	-	-	-	-
KNOC Kamchatka Co. Ltd.	〃	Cyprus	50	6,736	-	6,736	-
KNOC Kamchatka Petroleum. Ltd.	〃	Cyprus	55	1	-	1	-
KNOC Nigerian East Oil Company Ltd.	〃	Nigeria	75	57	-	57	-
KNOC Nigerian West Oil Company Ltd.	〃	Nigeria	75	57	-	57	-
KNOC Samsung Lantian Oil Development Co., Ltd.	〃	China	44	5,638	7,334	5,638	7,520
Offshore International Group	〃	USA	50	880,907	674,636	880,907	721,873
KADOC Ltd.	〃	Netherlands	85	1	-	-	-
				893,698	681,970	893,697	729,461
				₩ 1,200,615	₩ 934,793	₩ 1,200,614	₩ 993,735

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

	2012						
	January 1,	Additions	Share of profit (loss)	Disposals	Changes in equity adjustments in equity method	Others	December 31,
<Investments in associates>							
ADA Oil LLP	₩ 16,652	₩ -	₩ (1,119)	₩ -	₩ (3,271)	₩ (970)	₩ 11,292
Faroe Petroleum Plc	132,332	-	2,936	-	69	(3,497)	131,840
Kernhem B.V.	15,499	-	1,851	-	(7,193)	(840)	9,317
Oilhub Korea Yeosu Co., Ltd.	37,109	-	2,455	-	2,390	(2,878)	39,076
Parallel Petroleum LLC	62,682	-	3,244	-	-	(4,628)	61,298
	264,274	-	9,367	-	(8,005)	(12,813)	252,823
<Investments in joint ventures>							
Dolphin Property Ltd.	68	-	(68)	-	-	-	-
KNOC Kamchatka Co., Ltd.	-	-	-	-	-	-	-
KNOC Samsung Lantian Oil Development Co., Ltd.	7,520	-	612	-	(244)	(554)	7,334
Offshore International Group	721,873	-	4,451	(18)	-	(51,670)	674,636
KNOC Bazian Ltd.	-	-	-	-	-	-	-
KNOC Ferghana2 Ltd.	-	-	-	-	-	-	-
KADOC Ltd.	-	1	(1)	-	-	-	-
	729,461	1	4,994	(18)	(244)	(52,224)	681,970
	₩ 993,735	₩ 1	₩ 14,361	₩ (18)	₩ (8,249)	₩ (65,037)	₩ 934,793

The Group recognized additional share of loss in associates and joint ventures related to loans to related parties amounting to ₩2,638 million for the year ended December 31, 2012.

14. Investments in associates and joint ventures *continued*

	2011						
	January 1,	Additions	Share of profit (loss)	Impairment losses	Changes in equity adjustments in equity method	Others	December 31,
<Investments in associates>							
ADA Oil LLP	₩ 15,306	₩ 728	₩ 388	₩ -	₩ 21	₩ 209	₩ 16,652
Faroe Petroleum Plc	173,893	-	33,143	(75,146)	-	712	132,332
Kernhem B.V.	-	-	15,117	-	(234)	616	15,499
Oilhub Korea Yeosu Co., Ltd.	9,005	27,536	68	-	(999)	1,499	37,109
Parallel Petroleum LLC	-	62,682	-	-	-	-	62,682
	198,204	90,946	48,716	(75,416)	(1,212)	3,036	264,274
<Investments in joint ventures>							
Dolphin Property Ltd.	68	-	-	-	-	-	68
KNOC Kamchatka Co. Ltd.	2,497	-	-	(2,429)	-	(68)	-
KNOC Samsung Lantian Oil Development Co., Ltd.	6,118	-	603	-	697	102	7,520
Offshore International Group	715,936	-	17,016	-	-	(11,079)	721,873
	724,619	-	17,619	(2,429)	697	(11,045)	729,461
	₩ 922,823	₩ 90,946	₩ 66,335	₩ (77,845)	₩ (515)	₩ (8,009)	₩ 993,735

The Group recognized additional share of loss in associates and joint ventures related to loans to related parties amounting to ₩20,380 million for the year ended December 31, 2011.

The summary of financial information of major associates and jointly controlled entities as of December 31, 2012 and 2011, and for the years then ended is as follows (Korean won in millions):

	2012			
	Total assets	Total liabilities	Revenue	Net income (loss)
<Investments in associates>				
ADA Oil LLP	₩ 116,852	₩ 112,382	₩ 29,238	₩ 9,393
Faroe Petroleum Plc	724,770	316,758	161,819	6,688
Kernhem B.V.	217,158	214,335	-	7,068
Oilhub Korea Yeosu Co., Ltd.	495,786	361,040	-	8,466
Parallel Petroleum LLC	920,169	48,866	125,932	32,789
<Investments in joint ventures>				
Dolphin Property Ltd.	6,042	9,523	517	(3,846)
KC Kazakh B.V.	396,523	442,598	-	(18,063)
KNOC Aral Ltd.	32,049	33,508	-	(22)
KNOC Bazian Ltd.	102,926	137,521	-	(8,440)
KNOC Ferghana Ltd.	59,489	61,256	-	(1,075)
KNOC Ferghana2 Ltd.	13,651	13,894	-	(256)
KNOC Nigerian East Oil Company Ltd.	239,868	291,388	-	(7,636)
KNOC Nigerian West Oil Company Ltd.	145,322	187,148	-	(6,704)
KNOC Samsung Lantian Oil Development Co., Ltd.	19,194	2,525	7,144	580
Offshore International Group	1,147,409	532,819	508,729	76,592

14. Investments in associates and joint ventures *continued*

	2011							
		Total assets		Total liabilities		Revenue		Net income (loss)
<Investments in associates>								
ADA Oil LLP	₩	110,307	₩	88,328	₩	42,753	₩	8,049
Faroe Petroleum Plc		523		216		68		(31)
Kernhem B.V.		135,402		135,973		-		118
Oilhub Korea Yeosu Co., Ltd.		235,341		107,381		-		(106)
Parallel Petroleum LLC		951,042		324,223		130,565		40,896
<Investments in joint ventures>								
Dolphin Property Ltd.		7,045		11,041		1,109		(490)
KC Kazakh B.V.		194,462		216,661		-		(3,708)
KNOC Aral Ltd.		25,603		27,152		-		(1,410)
KNOC Bazian Ltd.		108,526		137,138		-		(4,115)
KNOC Ferghana Ltd.		34,613		35,416		-		(458)
KNOC Ferghana2 Ltd.		4,677		4,677		-		-
KNOC Nigerian East Oil Company Ltd.		257,837		322,590		-		(8,496)
KNOC Nigerian West Oil Company Ltd.		155,815		214,588		-		(7,883)
KNOC Samsung Lantian Oil Development Co., Ltd.		22,324		5,234		9,272		764
Offshore International Group		1,073,085		549,220		461,231		89,920

15. Property, plant and equipment

The acquisition cost and net book value of property, plant and equipment as of December 31, 2012 and 2011 are as follows (Korean won in millions):

	December 31, 2012									
Description		Acquisition costs		Government grants		Accumulated depreciation		Accumulated impairment losses		Book value
Land	₩	702,657	₩	-	₩	-	₩	-	₩	702,657
Buildings		107,717		-		(31,939)		-		75,778
Structures		3,188,666		(130)		(692,268)		(605,970)		1,890,298
Machinery		534,558		(5,073)		(250,424)		-		279,061
Vessels		102,060		-		(58,084)		-		43,976
Vehicles		9,726		-		(5,763)		-		3,963
Tools & fixtures		47,590		-		(36,367)		-		11,223
Construction-in-progress		98,472		-		-		-		98,472
Others		26,797		-		(12,342)		-		14,455
Oil & gas properties		17,381,485		(12,746)		(5,474,484)		(150,743)		11,743,512
	₩	22,199,728	₩	(17,949)	₩	(6,561,671)	₩	(756,713)	₩	14,863,395

	December 31, 2011									
Description		Acquisition costs		Government grants		Accumulated depreciation		Accumulated impairment losses		Book value
Land	₩	753,411	₩	-	₩	-	₩	-	₩	753,411
Buildings		108,706		(168)		(31,137)		-		77,401
Structures		3,253,967		(144)		(588,843)		-		2,664,980
Machinery		512,273		(5,784)		(240,169)		-		266,320
Vessels		95,795		-		(56,886)		-		38,909
Vehicles		9,838		-		(5,219)		-		4,619
Tools & fixtures		46,460		-		(34,441)		-		12,019
Construction-in-progress		188,548		-		-		-		188,548
Others		29,810		-		(8,081)		-		21,729
Oil & gas properties		17,301,211		(15,279)		(5,022,322)		(130,391)		12,133,219
	₩	22,300,019	₩	(21,375)	₩	(5,987,098)	₩	(130,391)	₩	16,161,155

15. Property, plant and equipment *continued*

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

	2012							
	January 1,	Additions	Disposals	Depreciation	Impairment	Transfer	Others	December 31,
Land	₩ 753,411	₩ 1,073	₩ (585)	₩ -	₩ -	₩ 2,473	₩ (53,715)	₩ 702,657
Buildings	77,401	7,366	(566)	(3,380)	-	569	(5,612)	75,778
Structures	2,664,980	107,548	(22)	(164,744)	(634,989)	75,242	(157,717)	1,890,298
Machinery	266,320	5,900	(79)	(29,010)	-	56,563	(20,633)	279,061
Vessels	38,909	8,737	-	(5,523)	-	4,994	(3,141)	43,976
Vehicles	4,619	790	-	(1,181)	-	-	(265)	3,963
Tools & fixtures	12,019	5,423	(20)	(5,413)	-	-	(786)	11,223
Construction-in-progress	188,548	77,830	-	-	-	(158,187)	(9,719)	98,472
Others	21,729	180	(51)	(4,567)	-	(2,660)	(176)	14,455
Oil & gas properties	12,133,219	1,859,173	(88,666)	(2,046,158)	(24,639)	37,323	(126,740)	11,743,512
	₩ 16,161,155	₩ 2,074,020	₩ (89,989)	₩ (2,259,976)	₩(659,628)	₩ 16,317	₩ (378,504)	₩ 14,863,395

	2011							
	January 1,	Additions	Disposals	Depreciation	Impairment	Transfer	Others	December 31,
Land	₩ 741,149	₩ 72	₩ (2,123)	₩ -	₩ -	₩ 4,829	₩ 9,484	₩ 753,411
Buildings	84,524	548	(5,926)	(2,502)	-	9	748	77,401
Structures	2,438,821	325,377	(534)	(134,833)	-	(2,341)	38,490	2,664,980
Machinery	298,235	4,139	(15,224)	(26,655)	-	3,452	2,373	266,320
Vessels	27,164	18,918	-	(7,963)	-	-	790	38,909
Vehicles	17,436	126	(12,311)	(341)	-	-	(291)	4,619
Tools & fixtures	16,487	794	(1,781)	(3,506)	-	-	25	12,019
Construction-in-progress	117,772	112,161	-	-	-	(45,774)	4,389	188,548
Others	15,915	9,316	-	(3,694)	-	(231)	423	21,729
Oil & gas properties	10,358,916	3,344,183	-	(1,772,621)	(16,145)	21,097	197,789	12,133,219
	₩ 14,116,419	₩ 3,815,634	₩ (37,899)	₩ (1,952,115)	₩ (16,145)	₩(18,959)	₩ 254,220	₩ 16,161,155

16. Goodwill

Details of goodwill as of December 31, 2012 and 2011 is as follows (Korean won in millions):

	December 31, 2012	December 31, 2011
Acquisition costs	₩ 1,467,973	₩ 1,383,872
Accumulated impairment losses	-	-
	₩ 1,467,973	₩ 1,383,872

As of October 1, 2010, the Group wholly acquired the equity interest in Dana Petroleum plc located in the United Kingdom for the consideration of ₩3,441,971 million. In connection with the business combination, goodwill amounting to GBP486,624 thousand (equivalent of ₩860,724 million) was recognized. In addition, as of March 31, 2011, the Group acquired a 95% equity interest in Altius Holdings Inc. located in Kazakhstan for the consideration of ₩570,208 million. In connection with the business combination, goodwill amounting to USD52,156 thousand (equivalent of ₩53,611 million) was recognized.

16. Goodwill *continued*

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

	2012		2011	
Beginning balance	₩	1,383,872	₩	1,400,146
Additions (*)		151,907		53,611
Foreign exchange differences, net		(67,806)		(69,885)
Ending balance	₩	1,467,973	₩	1,383,872

(*) Additions represent the consolidated goodwill from the acquisition of Dana Petroleum plc amounting to GBP 85,065 thousand for the year ended December 31, 2012.

17. Intangible assets other than goodwill

The acquisition cost and net book value of intangible assets other than goodwill as of December 31, 2012, and 2011 are as follows (Korean won in millions):

	December 31, 2012							
	Acquisition costs		Accumulated amortization		Accumulated impairment losses		Book value	
Exploration and evaluation assets	₩	2,566,155	₩	-	₩	(1,022,544)	₩	1,543,611
Software		20,615		(11,238)		-		9,377
Mining rights		3,054,396		(212,988)		(17,338)		2,824,070
Development cost		27,607		(15,293)		-		12,314
Land use right		224		(41)		-		183
Others		51,883		(1,295)		(17,825)		32,763
	₩	5,720,880	₩	(240,855)	₩	(1,057,707)	₩	4,422,318

	December 31, 2011							
	Acquisition costs		Accumulated amortization		Accumulated impairment losses		Book value	
Exploration and evaluation assets	₩	1,824,872	₩	-	₩	(159,736)	₩	1,665,136
Software		13,256		(9,866)		-		3,390
Mining rights		3,691,208		(113,418)		(888)		3,576,902
Development cost		23,341		(12,938)		-		10,403
Land use right		242		(39)		-		203
Others		35,505		(585)		(1,055)		33,865
	₩	5,588,424	₩	(136,846)	₩	(161,679)	₩	5,289,899

17. Intangible assets other than goodwill *continued*

Changes in the net book value of intangible assets other than goodwill for the years ended December 31, 2012 and 2011 are as follows (Korean won in millions):

	2012							
	January 1,	Additions	Disposals	Amortization	Impairment	Transfer	Others	December 31,
Exploration and evaluation assets	₩ 1,665,136	₩ 841,757	₩ (791)	₩ -	₩(448,065)	₩(162,508)	₩ (351,918)	₩ 1,543,611
Software	3,390	8,737	-	(2,184)	-	-	(566)	9,377
Mining rights	3,576,902	4,661	-	(113,651)	(17,373)	(392,260)	(234,209)	2,824,070
Development cost	10,403	6,238	-	(3,447)	-	-	(880)	12,314
Land use rights	203	-	-	(6)	-	-	(14)	183
Others	33,865	1,506	(39)	(83)	-	-	(2,486)	32,763
Total	₩ 5,289,899	₩ 862,899	₩ (830)	₩ (119,371)	₩(465,438)	₩(554,768)	₩ (590,073)	₩ 4,422,318

	2011							
	January 1,	Additions	Disposals	Amortization	Impairment	Transfer	Others	December 31,
Exploration and evaluation assets	₩ 1,414,910	₩ 231,984	₩ -	₩ -	₩(162,156)	₩ -	₩ 180,398	₩ 1,665,136
Software	3,885	913	-	(1,437)	-	-	29	3,390
Mining rights	1,852,250	1,699,867	-	(65,295)	-	-	90,080	3,576,902
Development cost	5,521	7,466	-	(2,842)	-	-	258	10,403
Land use rights	205	-	-	(6)	-	1	3	203
Others	2,072	30,557	-	(34)	-	-	1,270	33,865
Total	₩ 3,278,843	₩1,970,787	₩ -	₩ (69,614)	₩(162,156)	₩ 1	₩ 272,038	₩ 5,289,899

18. Trade and other payables

Details of trade and other payables as of December 31, 2012 and 2011 are as follows (Korean won in millions):

	December 31, 2012		December 31, 2011	
	Current	Non-current	Current	Non-current
Trade accounts payable	₩ 927,492	₩ 16,022	₩ 1,324,228	₩ -
Other accounts payable	586,730	-	1,340,906	490,021
Accrued expenses	142,517	147,188	100,596	162,766
Deposit received	-	1,293	-	1,393
Others	47,328	2,956	164,838	3,209
	₩ 1,704,067	₩ 167,459	₩ 2,930,568	₩ 657,389

19. Financial liabilities

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

	December 31, 2012		December 31, 2011	
	Current	Non-current	Current	Non-current
Borrowings and bonds payable (Note 20)	₩ 1,738,456	₩ 9,445,283	₩ 2,006,450	₩ 9,904,990
Derivative liabilities (Note 8)	5,137	47,543	1,070	49,245
Other financial liabilities (Note 21)	-	945	5,960	1,314
	₩ 1,743,593	₩ 9,493,771	₩ 2,013,480	₩ 9,955,549

20. Borrowings and bonds payable

Details of borrowings and bonds payable as of December 31, 2012 and 2011 are as follows (Korean won in millions):

Description		December 31, 2012		December 31, 2011
Current liabilities:				
Short-term borrowings	₩	88,809	₩	1,309,517
Current portion of long-term borrowings		223,345		12,172
Current portion of bonds payable		1,071,100		565,117
Current portion of convertible bonds payable		355,679		120,655
Less: present value discount		(296)		(404)
Less: present value discount		(1,508)		(607)
Addition: present value premium		1,327		-
	₩	1,738,456	₩	2,006,450
Non-current liabilities:				
Long-term borrowings	₩	1,486,631	₩	1,786,546
Bonds payable		7,662,802		7,437,255
Convertible bonds payable		319,181		708,567
Less: present value discount		(321)		(1,027)
Less: present value discount		(26,789)		(35,494)
Addition: present value premium		3,779		9,143
	₩	9,445,283	₩	9,904,990

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

	Financial institution	Type	Interest rate (%) Dec. 31, 2012	Amount Dec. 31, 2012	Amount Dec. 31, 2011
Short-term borrowings in foreign currencies	Mizuho	Credit line	-	₩ -	₩ 101,490
	The Export-Import Bank of Korea	Borrowings	-	-	461,320
	RBS	Credit line	-	-	50,713
	Deutsche Bank	〃	-	-	240,635
	Deutsche Bank	〃	-	-	116,584
	Korea Sumitomo Mitsui Bank	〃	-	-	242,415
	Canadian Imperial Bank of Commerce and others	Borrowings	BA rate+1.6	1,805	3,260
	Industrial Bank of Korea	〃	2.6 ~ 2.9	87,004	92,264
	RBS	〃	-	-	836
				₩ 88,809	₩ 1,309,517

20. Borrowings and bonds payable *continued*

Details of long-term borrowings as of December 31, 2012 and 2011 are as follows (Korean won in millions and foreign currencies in thousands):

	December 31, 2012					
Financial institution	Type	Annual interest rate (%)	Maturity	Currency unit	Foreign currencies	Equivalent Korean won
Bank of Communications	Bank borrowings	3ML+3.5	2014.12.14	USD	200,000	₩ 214,220
Korea Finance Corporation	〃	3ML+1.3	2013.04.05	USD	200,000	214,220
SAER (*1)	BEP (*2)	Treasury 3y-1.3	-	USD	192,359	206,036
〃	〃	2.00~7.00	-	USD	389	416
〃	〃	1.00~2.50	-	USD	6,859	7,347
〃	〃	Treasury 3y-2.3	-	USD	277,176	296,884
〃	Bank borrowings	Treasury 3y-2.3	2014.12.15	USD	17,039	18,251
Canadian Imperial Bank of Commerce and others	〃	BA rate+1.60	2015.04.15	CAD	489,674	526,902
BNP Paribas	〃	2.0+Libor	2014.08.11	GBP	109,711	189,898
Hyundai Heavy Industries, and Hanhwa Corp	BEP (*2)	-	-	USD	33,425	35,802
						1,709,976
Less: present value discount						(617)
Less: current portion						(223,345)
Addition: present value discount on current portion						296
						₩ 1,486,310

(*1) Special Accounting for Energy and Resources
(*2) Borrowings for Exploration and Production

	December 31, 2011					
Financial institution	Type	Annual interest rate (%)	Maturity	Currency unit	Foreign currencies	Equivalent Korean won
Bank of Communications	Bank borrowings	3ML+3.5	2014.12.14	USD	200,000	₩ 230,660
Korea Finance Corporation	〃	3ML+1.3	2013.04.05	USD	200,000	230,660
SAER (*1)	BEP (*2)	Treasury 3y-1.3	-	USD	260,313	300,219
〃	〃	2.00~7.00	-	USD	27,764	32,020
〃	〃	1.00~2.50	-	USD	6,753	7,789
〃	〃	Treasury 3y-2.3	-	USD	282,216	325,479
〃	Bank borrowings	Treasury 3y-2.3	2014.12.15	USD	25,560	29,478
〃	〃	Treasury 3y-1.3	2012.12.15	USD	2,034	2,346
Canadian Imperial Bank of Commerce and others	〃	BA rate+1.60	2015.04.15	CAD	352,690	398,459
BNP Paribas	〃	2.0+Libor	2014.08.11	GBP	114,757	203,950
Hyundai Heavy Industries, and Hanhwa Corp	BEP (*2)	-	-	USD	23,861	27,519
Kernhem International B.V.	Bank borrowings	8.00	2019.12.04	USD	8,791	10,139
						1,798,718
Less: present value discount						(1,431)
Less: current portion						(12,172)
Addition: present value discount on current portion						404
						₩ 1,785,519

(*1) Special Accounting for Energy and Resources
(*2) Borrowings for Exploration and Production

20. Borrowings and bonds payable *continued*

Details of bonds payable as of December 31, 2012 and 2011 are as follows (Korean won in millions and foreign currencies in thousands):

			December 31, 2012		December 31, 2011	
Annual interest rate (%)	Maturity	Currency unit	Foreign currencies	Equivalent Korean won	Foreign currencies	Equivalent Korean won
6ML+3.5	2012.02.04	USD	-	₩ -	220,000	₩ 253,726
3ML+3.4	2012.06.24	KRW	-	-	270,000	311,391
3ML+1.0	2013.06.11	USD	500,000	535,550	500,000	576,650
3ML+1.2	2013.07.22	USD	500,000	535,550	500,000	576,650
2.5	2014.02.25	HKD	470,000	64,945	470,000	69,739
3ML+1.0	2014.02.28	USD	455,000	487,351	470,000	542,051
3ML+1.3	2014.03.28	USD	300,000	321,330	300,000	345,990
2.8	2014.04.11	USD	150,000	160,665	150,000	172,995
5.2	2014.06.25	KRW	100,000	100,000	100,000	100,000
5.4	2014.07.30	USD	1,000,000	1,071,100	1,000,000	1,153,300
JPY 6ML+0.8	2014.11.15	JPY	13,500,000	168,413	13,500,000	200,497
3.8	2014.12.27	KRW	110,000	110,000	110,000	110,000
2.5	2015.02.03	USD	250,000	267,775	-	-
2.9	2015.11.09	USD	700,000	749,770	700,000	807,310
3.4	2016.02.15	HKD	780,000	107,780	780,000	115,736
3.2	2016.02.16	SGD	100,000	87,548	100,000	88,644
2.6	2016.05.12	CHF	325,000	381,258	325,000	398,408
4.0	2016.05.25	EUR	100,000	141,626	100,000	149,410
4.0	2016.10.27	USD	1,000,000	1,071,100	1,000,000	1,153,300
3.2	2016.12.22	HKD	637,000	88,021	637,000	94,518
3.9	2016.12.26	KRW	90,000	90,000	90,000	90,000
3.3	2017.03.08	CHF	300,000	351,930	-	-
3.1	2017.04.03	USD	1,000,000	1,071,100	-	-
6.9	2017.10.01	CAD	486,427	523,406	495,674	559,999
4.4	2021.02.08	HKD	500,000	69,090	500,000	74,190
4.5	2021.03.04	HKD	390,000	53,890	390,000	57,868
4.5	2022.02.10	HKD	390,000	53,890	-	-
4.6	2022.03.28	EUR	50,000	70,813	-	-
				8,733,901		8,002,372
Less: discount on bonds payable				(28,296)		(36,101)
				8,705,605		7,966,271
Less: current portion				(1,071,100)		(565,117)
Addition: present value discount on current portion				1,508		607
				₩ 7,636,013		₩ 7,401,761

Details of convertible bonds as of December 31, 2012 and 2011 are as follows (Korean won in millions and Canadian dollars in thousands):

			December 31, 2012		December 31, 2011	
Annual interest rate (%)	Maturity	Currency unit	Foreign currencies	Equivalent Korean won	Foreign currencies	Equivalent Korean won
6.4	-	CAD	-	₩ -	106,796	₩ 120,655
7.3	2013.09.30	CAD	330,548	355,680	330,548	373,444
7.3	2014.02.24	CAD	60,050	64,615	60,050	67,843
7.5	2015.05.31	CAD	236,579	254,565	236,579	267,280
			627,177	674,860	733,973	829,222
Addition: present value premium			4,745	5,106	8,093	9,143
Less: current portion			(330,548)	(355,679)	(106,796)	(120,655)
Less: premium on bonds payable			(1,233)	(1,327)	-	-
			300,141	₩ 322,960	635,270	₩ 717,710

21. Other financial liabilities

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

	December 31, 2012		December 31, 2011	
	Current	Non-current	Current	Non-current
Asset-Backed Securities	₩ -	₩ -	₩ 5,960	₩ -
Financial guarantees	-	945	-	1,314
	₩ -	₩ 945	₩ 5,960	₩ 1,314

22. Loans from Special Accounting for Energy and Resources ("SAER")

The Company provides financial loans and related services on behalf of the Minister of Knowledge and Economy to Korean entities engaged in the energy and natural resources sector.

(1) Accounting
The Company recognizes as revenue, commissions earned from providing loan services to the above Korean entities in accordance with SAER and does not include on its financial statements any amount of the loans provided or proceeds thereof, if any.

(2) Purpose and details of lending institution
Loans are provided to the above Korean entities for the purpose of supporting the national energy and natural resource sector, and to stabilize potential volatility in market prices. Classification of business for loans is as follows:

User entities	General loan conditions (Government regulated)
Petroleum trading	General
Development and crude refineries	General
Exploration	BEP (no repayment of principal and interest until the exploration is proven to be successful)

Loan applications are reviewed by the Urban Gas Association and Overseas Resources Development Association commissioned by the Minister of Knowledge and Economy, which grants final approval. The Company acts as an agent on behalf of the Minister of Knowledge and Economy to provide loan services to the user entities in accordance with SAER.

Furthermore, the Company complies with the terms and conditions prescribed by the Minister of Knowledge and Economy including the loan period, interest rates, repayment terms of the user and the commissions with respect to loan services.

(3) Detail of loans
Changes in loans from SAER by user for the year ended December 31, 2012 are as follows (Korean won in millions):

	Jan. 1, 2012	Borrowing	Redemption	Reduction	Other	Dec.31, 2012
Petroleum trading	₩ 914,684	₩ 62,000	₩ (171,980)	₩ -	₩ -	₩ 804,704
Development and crude refineries	61,652	-	(5,958)	-	(4,099)	51,595
Exploration	1,316,334	79,992	(44,363)	(77,320)	(79,557)	1,195,086
Investment risk guarantees	80,883	50,153	-	-	(8,247)	122,789
	₩ 2,373,553	₩ 192,145	₩ (222,301)	₩ (77,320)	₩ (91,903)	₩ 2,174,174

22. Loans from Special Accounting for Energy and Resources ("SAER") *continued*

(4) Detail of user entities

Changes in loans from SAER by user for the year ended December 31, 2012 are as follows (Korean won in millions):

	Jan. 1, 2012	Borrowing	Redemption	Reduction	Other	Dec.31, 2012
<Petroleum trading>						
Korea Developement Bank	₩ 100,554	₩ 14,974	₩ (4,425)	₩ -	₩ -	₩ 111,103
Kookmin Bank	45,879	8,370	(1,880)	-	(1,262)	51,107
Korea Exchange Bank	22,583	2,721	(1,772)	-	-	23,532
Shinhan Bank	34,952	5,075	(1,919)	-	(1,880)	36,228
Citibank Korea Inc.	5,461	-	(1,073)	-	-	4,388
Kyongnam Bank	12,281	1,496	(550)	-	1,262	14,489
The Kwangju Bank, Ltd.	11,176	533	(1,814)	-	-	9,895
The Jeonbuk Bank Ltd.	21,978	887	(1,123)	-	-	21,742
Hana Bank	34,256	13,728	(4,321)	-	1,880	45,543
Busan Bank	6,565	1,213	(373)	-	-	7,405
NongHyup Bank	2,771	2,503	(321)	-	-	4,953
NongHyup Bank	18,700	10,500	(10,221)	-	-	18,979
Woori Bank	7,001	-	(456)	-	-	6,545
National Federation of Fisheries Cooperatives	2,499	-	(111)	-	-	2,388
YESCO Co,.Ltd	739	-	(136)	-	-	603
Ko-one Energy Service Co., Ltd.	778	-	(143)	-	-	635
Industrial Bank of Korea	5,534	-	-	-	-	5,534
Korea Gas Corporation	469,735	-	(105,470)	-	-	364,265
Daehan Oil Pipeline Corporation	102,399	-	(33,147)	-	-	69,252
Daehan Oil Pipeline Corporation	4,500	-	(1,600)	-	-	2,900
Daehan Oil Pipeline Corporation	3,218	-	-	-	-	3,218
SK Gas Ltd.	375	-	(375)	-	-	-
E1 Corporation	750	-	(750)	-	-	-
	914,684	62,000	(171,980)	-	-	804,704
<Development and crude refineries>						
Daesung Industrial Co., Ltd.	2,284	-	(1,116)	-	(108)	1,060
Daewoo International Corporation	1,592	-	(778)	-	(75)	739
Samhwan Corporation	5,322	-	(389)	-	(360)	4,573
Seoul City Gas Co., Ltd.	2,393	-	(1,261)	-	(108)	1,024
Korea Gas Corporation	23,695	-	-	-	(1,689)	22,006
Hyundai Corporation	10,028	-	-	-	(715)	9,313
LG International Corporation	4,405	-	(2,150)	-	(208)	2,047
SK Innovation Co., Ltd.	11,933	-	(264)	-	(836)	10,833
	61,652	-	(5,958)	-	(4,099)	51,595
<Exploration>						
Keangnam Enterprises Ltd.	36,469	-	-	-	(2,599)	33,870
Kumho Petro Chemical Co., Ltd.	8,422	-	-	-	(600)	7,822
Tongyang Cement & Energy Corp.	8,973	-	-	-	(640)	8,333
Daesung Industrial Co., Ltd.	34,752	448	(3,623)	(1,142)	(2,263)	28,172
Daewoo International Corporation	177,484	2,448	(2,484)	-	(12,648)	164,800

22. Loans from Special Accounting for Energy and Resources ("SAER") *continued*

	Jan. 1, 2012	Borrowing	Redemption	Reduction	Other	Dec.31, 2012
Daewoo Shipbuilding & Marine Engineering Co., Ltd.	₩ 11,243	₩ 296	₩ -	₩ -	₩ (816)	₩ 10,723
Dong Won Corporation	7,154	-	-	-	(510)	6,644
Majuko. Corp	1,792	84	-	-	(132)	1,744
Samsung C&T Corporation	45,301	296	(45)	(1,010)	(2,418)	42,124
Samchully Co., Ltd.	17,925	2,459	-	(512)	(1,374)	18,498
Samhwan Corporation	7,361	-	(1,226)	-	(464)	5,671
Seoul City Gas Co., Ltd.	16,060	-	(1,310)	(4,525)	(856)	9,369
Seoul City Development	4,513	-	-	(4,392)	(104)	17
Seha Corporation	5,196	-	-	-	(370)	4,826
Aju Co., Ltd.	4,398	296	-	-	(328)	4,366
KSEnergy Corpration	5,196	-	-	-	(370)	4,826
Kodeco Energy Co.. Ltd.	228,819	-	-	-	(5,550)	223,269
Kolong I'Networks Corp.	169	-	-	-	(12)	157
POSCO	10,441	4,165	-	-	(950)	13,656
Korea Gas Corporation	88,496	19,246	-	-	(7,260)	100,482
Korea Electronic Power Corporation	10,131	-	-	-	(722)	9,409
Hanwha Corp	9,273	-	-	-	(661)	8,612
Hyindai Corporation	15,842	-	(2,435)	-	(1,009)	12,398
Hyindai Heavy Industries Co., Ltd.	12,174	-	-	-	(868)	11,306
Hyindai Hysco	15,927	904	-	-	(1,180)	15,651
Lotte Chemical Corporation	1,300	599	-	-	(122)	1,777
GS Holdings	21,262	76	(33)	(1,142)	(1,461)	18,702
GS Energy Corporation	17,155	11,282	-	-	(1,781)	26,656
GS-Caltex Corporation	52,319	154	-	-	(3,737)	48,736
LG International Corp	98,339	792	(6,645)	-	(6,719)	85,767
SK Gas Ltd.	18,981	2,798	(2,812)	-	(1,351)	17,616
SK Innovation Co., Ltd.	296,173	27,804	(23,633)	(57,286)	(17,815)	225,243
SK E&S Co., Ltd.	1,105	4,104	-	-	(282)	4,927
S-Oil Corporation	1,000	-	-	(977)	(23)	-
STX Corporation	6,120	211	-	(56)	(445)	5,830
STX Energy Co., Ltd.	19,069	1,530	(117)	(6,278)	(1,117)	13,087
	1,316,334	79,992	(44,363)	(77,320)	(79,557)	1,195,086
<Investment risk guarantees>						
Korea Export Insurance Corporation	80,883	50,153	-	-	(8,247)	122,789
	₩ 2,373,553	₩ 192,145	₩ (222,301)	₩ (77,320)	₩ (91,903)	₩ 2,174,174

23. Defined benefits liabilities

Defined contribution pension plan
The Group operates a defined contribution plan (“DC plan”) which is subject to the employees’ option. Contributions to the DC plan are separately managed by the plan’s administrator. When employees terminate their employment before the benefits have vested, the Group’s obligation to make contributions to the plan decreases on a pro rata basis.

Defined benefit pension plan
The latest actuarial calculation on both plan assets and defined benefit obligation was performed as of December 31, 2012. The Group uses the projected unit credit method to determine the present value of its defined benefit obligations and the related current service costs.

The principal assumptions used in actuarial calculation as of December 31, 2012 and 2011 are as follows (Units in percentages):

	December 31, 2012	December 31, 2011
Discount rate	4.0 ~ 5.0	6.0
Expected rate of return on plan assets	4.5 ~ 7.0	4.6
Expected salary increase rate	3.5 ~ 4.5	4.5

Details of costs related to defined benefit plan recognized in the statements of comprehensive income for the years ended December 31, 2012 and 2011 are as follows (Korean won in millions):

	2012		2011	
Current service costs	₩	9,372	₩	8,662
Interest costs		7,891		7,584
Expected return on plan assets		(7,218)		(7,005)
Transfer to other accounts		(486)		-
Others		(217)		(236)
	₩	9,342	₩	9,005

The Group recognized ₩3,914 million (₩3,063 million in 2011) in cost of sales, ₩5,428 million (₩ 5,942 million in 2011) in selling and administrative expenses and ₩217 million (₩236 million in 2011) in others for the year ended December 31, 2012.

The components of defined benefits liabilities as of December 31, 2012 and 2011 are as follows (Korean won in millions):

	December 31, 2012		December 31, 2011	
Present value of defined benefit obligation	₩	171,594	₩	150,955
Fair value of plan assets		(132,021)		(118,465)
	₩	39,573	₩	32,490

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

	2012		2011	
Beginning balance	₩	150,955	₩	131,979
Current service cost		9,372		8,662
Interest cost		7,891		7,584
Actuarial losses (gains) on obligation		15,412		(9,548)
Effect of exchange fluctuations		(8,869)		15,676
Benefits paid		(5,403)		(5,424)
Others		2,236		2,026
Ending balance	₩	171,594	₩	150,955

23. Defined benefits liabilities *continued*

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

	2012	2011
Beginning balance	₩ 118,465	₩ 107,932
Expected return on plan assets	7,218	7,005
Actuarial losses on plan assets	1,624	(7,532)
Effect of exchange fluctuations	(3,829)	2,501
Contributions by employer	13,587	13,901
Benefits paid	(5,044)	(5,342)
Ending balance	₩ 132,021	₩ 118,465

24. Provisions

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

	December 31, 2012		
	Current	Non-current	Total
Provisions for restoration costs	₩ -	₩ 2,090,104	₩ 2,090,104
Others	167,417	418,915	586,332
	₩ 167,417	₩ 2,509,019	₩ 2,676,436

	December 31, 2011		
	Current	Non-current	Total
Provisions for restoration costs	₩ 1,041	₩ 1,818,469	₩ 1,819,510
Others	242,193	504,413	746,606
	₩ 243,234	₩ 2,322,882	₩ 2,566,116

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

	2012				
	Beginning	Increase	Decrease	Others	Ending
Provisions for restoration costs	₩ 1,819,510	₩ 413,432	₩ (36,718)	₩ (106,120)	₩ 2,090,104
Others	746,606	27,484	(141,062)	(46,696)	586,332
	₩ 2,566,116	₩ 440,916	₩ (177,780)	₩ (152,816)	₩ 2,676,436

	2011				
	Beginning	Increase	Decrease	Others	Ending
Provisions for restoration costs	₩ 1,554,295	₩ 243,259	₩ (30,575)	₩ 51,531	₩ 1,819,510
Others	699,123	40,697	(482)	7,268	746,606
	₩ 2,254,418	₩ 283,956	₩ (31,057)	₩ 58,799	₩ 2,566,116

25. Non-financial liabilities

Details of non-financial liabilities as of December 31, 2012 and 2011 are as follows (Korean won in millions):

	December 31, 2012		December 31, 2011	
	Current	Non-current	Current	Non-current
Advance receipts	₩ 4,691	₩ -	₩ 123	₩ -
Unearned revenue	16,915	-	922	-
Withholdings	24,172	-	18,802	-
Others	67,277	-	55,274	-
	₩ 113,055	₩ -	₩ 75,121	₩ -

26. Equity

The Company's total issued capital is wholly invested solely by the Korean government in accordance with the Korea National Oil Corporation Act and the authorized issued capital is ₩13 trillion as of December 31, 2012. The changes in issued capital during the year ended December 31, 2012 are as follows (Korean won in millions):

Date	Description	Amount
Beginning balance		₩ 8,965,196
2012-01-26	Contribution for oil stockpiling business	5,030
2012-02-21	Contribution for exploring and developing oil fields	100,000
2012-02-21	Contribution for oil stockpiling business	64,468
2012-03-30	Contribution for exploring and developing oil fields	350,000
2012-03-30	Contribution for oil stockpiling business	2,393
2012-04-27	Contribution for exploring and developing oil fields	100,000
2012-05-31	Contribution for exploring and developing oil fields	100,000
2012-06-29	Contribution for exploring and developing oil fields	40,323
2012-06-29	Contribution for oil stockpiling business	3,610
2012-12-28	Contribution for oil stockpiling business	5,895
Ending balance		₩ 9,736,915

27. Retained earnings and dividends

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

	December 31, 2012	December 31, 2011
Legal reserves	₩ 851,297	₩ 851,297
Reserve for business expansion	816,760	849,853
Unappropriated retained earnings (undisposed accumulated deficit)	(1,466,514)	(595,116)
Ending balance	₩ 201,543	₩ 1,106,034

Legal reserves

In accordance with the Commercial Act in the Republic of Korea, an amount equal to at least 10% of cash dividend for each accounting period is required to be appropriated as a legal reserve until the reserve equals 50% of issued capital. The legal reserve cannot be used as a source for cash dividends and may be used to offset an accumulated deficit.

Reserve for business expansion

The Korea National Oil Corporation Act requires the Company to appropriate, from retained earnings, an amount equal to at least 20% of net income for each accounting period as a reserve for business expansion until the reserve equals issued capital after having appropriated for the legal reserve. This reserve cannot be used as a source for cash dividends and may be used to offset an accumulated deficit.

27. Retained earnings and dividends *continued*

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

	2012	2011
Beginning balance	₩ 1,106,034	₩ 1,281,488
Loss for the year attributable to the controlling interest	(920,989)	(128,308)
Dividend paid	-	(33,824)
Actuarial losses	(11,131)	(13,322)
Retained earnings adjustments in equity method	27,629	-
Ending balance	₩ 201,543	₩ 1,106,034

28. Statement of disposition of deficit (statement of appropriation of retained earnings)

The statement of disposition of deficit (appropriation of retained earnings) based on the Company's separate financial statements for the years ended December 31, 2012 and 2011 are as follows (Korean won in millions):

	2012	2011
I. Retained earnings before appropriation (accumulated deficit before disposition):		
Unappropriated earnings carried forward from prior year	₩ -	₩ -
Accumulated effect of change in accounting policy (*1)	-	(138,003)
Profit for the year	46,520	106,103
Actuarial gain (loss)	766	(1,193)
	47,286	(33,093)
II. Appropriation of retained earnings (dispositions of accumulated deficit):		
Legal reserve	18,446	-
Reserve for (reversal of) business expansion	18,446	(33,093)
Cash dividends	10,394	-
	47,286	(33,093)
III. Unappropriated retained earnings (undisposed accumulated deficit) to be carried forward to the next year	₩ -	₩ -

(*1) Refers to the effect from transitioning to KIFRS.

The statement of appropriation of retained earnings for the year ended December 31, 2012 was approved on February 27, 2013, and the statement of disposition of deficit for the year ended December 31, 2011 was approved on February 29, 2012

29. Other components of equity

Details of other components of equity as of December 31, 2012 and 2011 are as follows (Korean won in millions):

	December 31, 2012	December 31, 2011
Other capital surplus (*)	₩ 24,954	₩ 24,954
Accumulated other comprehensive income	109,441	607,332
	₩ 134,395	₩ 632,286

(*) Other capital surplus consists wholly of gain on assets contributed.

Changes in accumulated other comprehensive income for the years ended December 31, 2012 and 2011 are as follows (Korean won in millions):

	2012				
	Gain on valuation of available-for -sale financial investments	Equity adjustments in equity method - debit	Exchange difference on translation of foreign operations	Gain on valuation of derivative instruments	Total
January 1,	₩ 24,080	₩ (1,561)	₩ 572,365	₩ 12,448	₩ 670,132
Gain on valuation of available-for-sale financial investments	7,896	-	-	-	7,896
Equity adjustments in equity method - debit	-	(7,892)	-	-	(7,892)
Exchange difference on translation of foreign operations	-	-	(479,650)	-	(479,650)
Gain on valuation of derivative instruments	-	-	-	(18,245)	(18,245)
December 31,	₩ 31,976	₩ (9,453)	₩ 92,715	₩ (5,797)	₩ 109,441

	2011				
	Gain on valuation of available-for -sale financial investments	Equity adjustments in equity method - debit	Exchange difference on translation of foreign operations	Gain on valuation of derivative instruments	Total
January 1,	₩ 12,110	₩ (959)	₩ 653,145	₩ 5,836	₩ 670,132
Gain on valuation of available-for-sale financial investments	11,970	-	-	-	11,970
Equity adjustments in equity method - debit	-	(602)	-	-	(602)
Exchange difference on translation of foreign operations	-	-	(80,780)	-	(80,780)
Gain on valuation of derivative instruments	-	-	-	6,612	6,612
December 31,	₩ 24,080	₩ (1,561)	₩ 572,365	₩ 12,448	₩ 607,332

30. Revenue

Revenue excluding other operating income, other profit, and finance income for the years ended December 31, 2012 and 2011 are made up of the following (Korean won in millions):

	2012			2011		
	Domestic	Overseas	Total	Domestic	Overseas	Total
Sales of goods and finished goods	₩ 259,639	₩ 10,039,537	₩10,299,176	₩ 238,338	₩ 8,422,568	₩ 8,660,906
Revenues from charter and lease service	25,352	146,844	172,196	13,057	182,886	195,942
Interest income	3,441	-	3,441	4,059	-	4,059
Income on government grants	928	-	928	800	-	800
Others	3,994	74,218	78,212	86,670	-	86,670
	₩ 293,354	₩10,260,599	₩10,553,953	₩ 342,924	₩ 8,605,454	₩ 8,948,378

31. Selling and administrative expenses

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

	2012	2011
Salaries	₩ 119,102	₩ 89,900
Severance and retirement benefits	5,428	5,942
Employee welfare benefits	39,561	28,215
Travel	10,080	4,488
Communications	3,041	2,325
Utilities	1,068	534
Taxes and dues	7,487	9,146
Supplies	7,668	1,840
Clothing expenses	74	49
Books and printing	2,162	1,255
Rent	17,366	6,782
Depreciation	10,170	24,887
Amortization	5,582	4,266
Repairs	14,739	7,660
Vehicle maintenance	2,324	749
Insurance	5,608	3,653
Commissions and fees	38,477	33,639
Business development	712	529
Advertising	2,351	1,864
Education and training	9,007	5,516
Investigation and analysis	9	18
Association	727	308
Research and development	7,476	13,636
Sales promotion expenses	154,648	152,282
Others	11,995	64,519
	₩ 476,862	₩ 464,002

32. Other income and expenses

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

		2012		2011
Gains on extinguishment of debt	₩	154,254	₩	91,522
Compensation and indemnity		84		20
Rental income		130		127
Others		21,560		99,842
	₩	176,028	₩	191,511

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

		2012		2011
Provision	₩	92,111	₩	73,166
Other allowance for doubtful accounts		35,449		69,893
Donations		5,214		5,106
Others		20,538		636
	₩	153,312	₩	148,801

33. Other profit and loss

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

		2012		2011
Gain on disposal of property, plant and equipment	₩	34,994	₩	15,238
Gain on transactions of derivatives (*)		2,676		31,683
Gain on valuation of derivatives (*)		36,763		15,223
Gain on foreign currency translation (*)		7,316		11,419
Gain on foreign currency transactions (*)		64,508		46,314
Other gains		31,703		10,514
Loss on disposal of property, plant and equipment		(1,511)		(2,870)
Loss on disposal of intangible assets		(26)		-
Loss on transactions of derivatives (*)		-		(41,330)
Loss on valuation of derivatives (*)		(35,516)		(14,364)
Impairment loss on property, plant and equipment		(659,628)		(16,145)
Impairment loss on intangible assets		(465,438)		(162,156)
Loss on foreign currency translation (*)		(979)		(14,496)
Loss on foreign currency transactions (*)		(77,698)		(67,716)
Other losses		(6,030)		(6,376)
	₩	(1,068,866)	₩	(195,062)

(*) Gain and loss are related to operating activities.

34. Finance income

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

	2012	2011
Interest income	₩ 60,503	₩ 66,913
Dividend	1,292	20
Gain on disposals of financial assets	1,365	-
Gain on valuation of financial assets at fair value through profit or loss	-	4,699
Gain on valuation of derivative financial instruments	1,126	-
Gain on settlement of derivative financial instruments	3,463	37,282
Gain on disposal of financial liabilities	54	-
Gain on foreign currency translation	28,009	102,804
Gain on foreign currency transactions	84,427	46,203
	₩ 180,239	₩ 257,921

35. Finance costs

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

	2012	2011
Interest expense	₩ 481,017	₩ 411,034
Loss on disposals of financial assets	-	452
Loss on valuation of derivative financial instruments	1,766	-
Impairment losses on available-for-sale financial investments	-	261
Loss on foreign currency translation	24,108	2,389
Loss on foreign currency transactions	53,009	179,905
Other financial costs	72,252	117,271
	₩ 632,152	₩ 711,312

Details of interest expense recognized as finance costs for the years ended December 31, 2012 and 2011 are as follows (Korean won in millions):

	2012	2011
Short-term borrowings	₩ 12,277	₩ 33,956
Long-term borrowings	62,315	49,593
Bonds payables	394,178	291,491
Other financial liabilities	54,901	86,376
	523,671	461,416
Less: capitalized borrowing costs (*)	(42,654)	(50,382)
	₩ 481,017	₩ 411,034

(*) Interest rates applied to the capitalization of borrowing cost for the years ended December 31, 2012 and 2011 range from 4.1~5.2% and 6.0~6.7%, respectively.

36. Income taxes and deferred taxes

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

		2012		2011
Current income tax	₩	603,971	₩	486,052
Deferred tax directly charged to equity		5,867		6,464
Changes in deferred taxes arising from temporary differences		(244,770)		292,947
Change in scope of consolidation and others		(158,932)		(132,946)
Income tax expense	₩	206,136	₩	652,517

A reconciliation of income tax expense applicable to profit for the period before income tax at the Korea statutory tax rate to income tax expense at the effective income tax rate of the Group is as follows (Korean won in millions):

		2012		2011
Profit (loss) before income taxes	₩	(697,895)	₩	499,765
Taxes at the statutory income tax rate (24.2%) (*)	₩	(168,891)	₩	120,943
Adjustments:				
Adjustments to prior year tax return		22,765		54,982
Non-taxable income		(1,149)		(8,797)
Non-deductible expense		8,515		55,313
Temporary differences not recognized in deferred tax assets		-		229,866
Effect from tax deduction and reduction		(44,784)		(328,292)
Effect from temporary differences not recognized in prior years		(8,065)		(14,229)
Differences in tax rates in overseas entities		276,916		336,805
Effect of changes in tax rates		120,829		205,926
Income tax expense	₩	206,136	₩	652,517
Effective tax rate		-		130.6%

(*) The applicable tax rate for the years ended December 31, 2012 and 2011 is 24.2%, which is the Korea statutory corporate income tax rate where the Company is domiciled.

36. Income taxes and deferred taxes *continued*

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

	2012				
	January 1,	Income tax expense	Other comprehensive income	Others	December 31,
Deferred tax on temporary differences:					
Contributions for construction	₩ 1,435	₩ (900)	₩ -	₩ (58)	₩ 477
Investments in affiliates	17,420	(116)	88	(1,240)	16,152
Financial guarantee liabilities	1,703	2,896	-	(264)	4,335
Allowance for doubtful accounts	75,790	9,203	-	(5,858)	79,135
Available-for-sales financial investments	(2,342)	-	(755)	204	(2,893)
Intangible assets	20,711	-	-	(1,476)	19,235
Impairment losses for intangible assets	57,165	17,209	-	(4,926)	69,448
Accrued income	31,284	-	-	(2,230)	29,054
Accrued expenses	5,373	3,751	-	(569)	8,555
Asset retirement obligation	23,753	(1,034)	-	(1,642)	21,077
Property, plant & equipment	(22,387)	3,808	-	1,407	(17,172)
Land	(112,758)	5,558	-	7,762	(99,438)
Gain (loss) on valuation of derivatives	11,983	(77)	6,778	(1,186)	17,498
Defined benefit liabilities	(1,973)	(1,352)	(244)	219	(3,350)
Others	10,830	(32,798)	-	27,895	5,927
Deferred tax assets of subsidiaries	90,398	33,800	-	(8,116)	116,082
Differences in fair value and book value from business combination and others	(1,145,668)	101,946	-	76,610	(967,112)
Deferred tax liabilities of subsidiaries	(1,195,659)	97,007	-	80,419	(1,018,233)
	₩ (2,132,942)	₩ 238,903	₩ 5,867	₩ 139,906	₩ (1,748,266)
Deferred tax assets	₩ 208,386				₩ 236,537
Deferred tax liabilities	₩ (2,341,328)				₩ (1,984,803)

	2011					
	January 1,	Income tax expenses	Other comprehensive income	Effect from change in scope of consolidated subsidiaries	Others	December 31,
Deferred tax on temporary differences:						
Contributions for construction	₩ 1,386	₩ 30	₩ -	₩ -	₩ 19	₩ 1,435
Investments in affiliates	7,454	9,592	(108)	-	482	17,420
Financial guarantee liabilities	-	1,636	-	-	67	1,703
Allowance for doubtful accounts	27,059	46,493	-	-	2,238	75,790
Available-for-sales financial investments	(1,032)	(206)	(1,040)	-	(64)	(2,342)
Intangible assets	14,290	5,996	-	-	425	20,711
Impairment losses for intangible assets	20,126	35,343	-	-	1,696	57,165
Accrued income	22,379	8,284	-	-	621	31,284
Other account payables	6,849	(6,663)	-		(186)	-
Accrued expenses	4	5,159	-	-	210	5,373
Asset retirement obligation	12,646	10,519	-	-	588	23,753
Property, plant & equipment	17,042	(38,092)	-	-	(1,337)	(22,387)
Land	197	(108,531)	-	-	(4,424)	(112,758)
Gain (loss) on valuation of derivatives	8,469	(6,112)	9,385	-	241	11,983
Defined benefit liability	-	(123)	(1,773)	-	(77)	(1,973)
Others	(93,830)	101,698	-	-	2,962	10,830
Deferred tax assets of subsidiaries	72,528	16,289	-	(7,266)	8,847	90,398

36. Income taxes and deferred taxes *continued*

	2011					
	January 1,	Income tax expenses	Other comprehensive income	Effect from change in scope of consolidated subsidiaries	Others	December 31,
Differences in fair value and book value from business combination	₩ (1,067,823)	₩ (61,823)	₩ -	₩ -	₩ (16,022)	₩ (1,145,668)
Deferred tax liabilities of subsidiaries	(835,504)	(236,777)	-	(125,680)	2,302	(1,195,659)
	₩ (1,839,995)	₩ (166,465)	₩ 6,464	₩ (132,946)	₩ -	₩ (2,132,942)
Deferred tax assets	₩ 72,528					₩ 208,386
Deferred tax liabilities	₩ (1,912,523)					₩ (2,341,328)

37. Classification based on nature of expense

Details of classification based on nature of expense for cost of sales and, selling and administrative expenses for the years ended December 31, 2012 and 2011 are as follows (Korean won in millions):

	2012		
	Selling & administrative expenses	Cost of sales	Total
Raw material in use	₩ -	₩ 5,132,367	₩ 5,132,367
Salaries	119,102	191,939	311,041
Severance and retirement benefits	5,428	3,913	9,341
Employee welfare benefits	39,561	7,332	46,893
Insurance	5,608	64,168	69,776
Depreciation	10,170	2,249,807	2,259,977
Amortization	5,582	113,789	119,371
Commissions and fees	38,477	75,953	114,430
Advertising	2,351	407	2,758
Education and training	9,007	1,022	10,029
Vehicle maintenance	2,324	264	2,588
Books and printing	2,162	31	2,193
Business development	712	126	838
Rent	17,366	49,860	67,226
Communications	3,041	1,266	4,307
Transport	-	26,788	26,788
Taxes and dues	7,487	53,705	61,192
Supplies	7,668	2,912	10,580
Utilities	1,068	259,537	260,605
Repairs	14,739	158,117	172,856
Research and development	7,476	-	7,476
Travel	10,080	1,055	11,135
Clothing	74	213	287
Investigation and analysis	9	18	27
Association	727	16	743
Promotion	154,648	7,378	162,026
Others	11,995	579,239	591,234
Changes in inventories - merchandise	-	327,925	327,925
Changes in inventories - finished goods	-	(20,501)	(20,501)
	₩ 476,862	₩ 9,288,646	₩ 9,765,508

37. Classification based on nature of expense *continued*

	2011		
	Selling & administrative expenses	Cost of sales	Total
Raw material in use	₩ -	₩ 13,964	₩ 13,964
Salaries	89,900	37,336	127,236
Severance and retirement benefits	5,942	3,063	9,005
Employee welfare benefits	28,215	7,455	35,670
Insurance	3,653	14,695	18,348
Depreciation	24,887	1,927,228	1,952,115
Amortization of intangible assets	4,266	65,348	69,614
Commissions and fees	33,639	44,991	78,630
Advertising	1,864	467	2,331
Education and training	5,516	861	6,377
Vehicle maintenance	749	273	1,022
Books and printing	1,255	51	1,306
Business development	529	127	656
Rent	6,782	7,143	13,925
Communications	2,325	849	3,174
Transport	-	8,941	8,941
Taxes and dues	9,146	25,524	34,670
Supplies	1,840	1,150	2,990
Utilities	534	7,952	8,486
Repairs	7,660	36,521	44,181
Research and development	13,636	-	13,636
Travel	4,488	920	5,408
Clothing	49	-	49
Investigation and analysis	18	-	18
Association	308	-	308
Promotion	152,282	174	152,456
Others	64,519	2,751	67,270
Changes in inventories - merchandise	-	262,156	262,156
Changes in inventories - finished goods	-	4,877,039	4,877,039
	₩ 464,002	₩ 7,346,979	₩ 7,810,981

38. Category of financial instruments

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

	December 31, 2012		
Current financial assets	Loans and receivables	Financial assets at fair value through profit or loss	Total
Derivative assets	₩ -	₩ 1,892	₩ 1,892
Short-term financial instruments	344,165	-	344,165
Others	7,998	-	7,998
	352,163	1,892	354,055
Trade and other receivables	1,003,867	-	1,003,867
	₩ 1,356,030	₩ 1,892	₩ 1,357,922

	December 31, 2011		
Current financial assets	Financial assets at fair value through profit or loss	Loans and receivables	Total
Short-term trading financial assets	₩ 67,271	₩ -	₩ 67,271
Derivative assets	74,864	-	74,864
Loans	-	4,904	4,904
Short-term financial instruments	-	500	500
	142,135	5,404	147,539
Trade and other receivables	-	1,501,090	1,501,090
	₩ 142,135	₩ 1,506,494	₩ 1,648,629

Details of non-current financial assets by category as of December 31, 2012 and 2011 are as follows (Korean won in millions):

	December 31, 2012			
Non-current financial assets	Trade and other receivables	Loans and receivables	Available-for-sale financial investments	Total
Available-for-sale financial investments	₩ -	₩ -	₩ 618,583	₩ 618,583
Loans	-	462,664	-	462,664
Others	-	6,568	-	6,568
	-	469,232	618,583	1,087,815
Trade and other receivables	88,897	-	-	88,897
	₩ 88,897	₩ 469,232	₩ 618,583	₩ 1,176,712

	December 31, 2011			
Non-current financial assets	Trade and other receivables	Loans and receivables	Available-for-sale financial investments	Total
Available-for-sale financial investments	₩ -	₩ -	₩ 134,020	₩ 134,020
Loans	-	372,965	-	372,965
Long-term financial instruments	-	4,697	-	4,697
	-	377,662	134,020	511,682
Trade and other receivables	81,504	-	-	81,504
	₩ 81,504	₩ 377,662	₩ 134,020	₩ 593,186

38. Category of financial instruments *continued*

Details of current financial liabilities by category as of December 31, 2012 and 2011 are as follows (Korean won in millions):

Current financial liabilities	December 31, 2012 Financial liabilities with amortized cost	Hedge financial liabilities	Total
Short-term borrowings	₩ 88,809	₩ -	₩ 88,809
Long-term borrowings	223,049	-	223,049
Bonds payable	1,426,598	-	1,426,598
Derivative liabilities	-	5,137	5,137
	1,738,456	5,137	1,743,593
Trade and other payables	1,704,067	-	1,704,067
	₩ 3,442,523	₩ 5,137	₩ 3,447,660

Current financial liabilities	December 31, 2011 Liabilities at fair value though profit or loss	Financial liabilities with amortized cost	Hedge financial liabilities	Total
Short-term borrowings	₩ -	₩ 1,309,517	₩ -	₩ 1,309,517
Long-term borrowings	-	11,768	-	11,768
Bonds payable	-	685,165	-	685,165
Derivative liabilities	272	-	798	1,070
Others	-	5,960	-	5,960
	272	2,012,410	798	2,013,480
Trade and other payables	-	2,930,568	-	2,930,568
	₩ 272	₩ 4,942,978	₩ 798	₩ 4,944,048

Details of non-current financial liabilities by category as of December 31, 2012 and 2011 are as follows (Korean won in millions):

Non-current financial liabilities	December 31, 2012 Financial liabilities with amortized cost	Hedge financial liabilities	Total
Long-term borrowings	₩ 1,486,310	₩ -	₩ 1,486,310
Bonds payable	7,958,973	-	7,958,973
Derivative liabilities	-	47,543	47,543
Others	945	-	945
	9,446,228	47,543	9,493,771
Trade and other payables	167,459	-	167,459
	₩ 9,613,687	₩ 47,543	₩ 9,661,230

Non-current financial liabilities	December 31, 2011 Financial liabilities with amortized cost	Hedge financial liabilities	Total
Long-term borrowings	₩ 1,785,519	₩ -	₩ 1,785,519
Bonds payable	8,119,471	-	8,119,471
Derivative liabilities	-	49,245	49,245
Others	1,314	-	1,314
	9,906,304	49,245	9,955,549
Trade and other payables	657,389	-	657,389
	₩ 10,563,693	₩ 49,245	₩ 10,612,938

38. Category of financial instruments *continued*

Net gains or losses by financial instruments for the years ended December 31, 2012 and 2011 are as follows (Korean won in millions):

	2012	2011
Financial assets at fair value through profit or loss (trading securities):	₩ 1,365	₩ 4,699
Gain on valuation	-	4,699
Gain on disposal	1,365	-
Financial assets at fair value through profit or loss (derivative instruments):	3,463	37,107
Gain on settlement	3,463	37,107
Loans and receivables:	7,757	35,168
Interest income	13,994	38,375
Gain on foreign currency transactions	(13,272)	(1,164)
Gain (loss) on foreign currency translation	7,035	(2,043)
Available-for-sale financial investments:	9,188	11,538
Dividend income	1,292	20
Impairment	-	(452)
Other comprehensive income (*)	7,896	11,970
Hedge financial assets:	4,690	682
Gain (loss) on settlement of derivative financial instruments, net	2,676	(176)
Gain (loss) on valuation of derivative financial instruments, net	607	858
Other comprehensive income (*)	1,407	-
Financial liabilities at fair value through profit or loss (derivative instruments):	3,463	(261)
Gain (loss) on settlement	3,463	-
Gain (loss) on valuation	-	(261)
Financial liabilities with amortized cost:	(537,261)	(280,653)
Interest expense	(481,017)	(411,034)
Gain (loss) on foreign currency transactions	31,503	129,521
Gain (loss) on foreign currency translations	(15,495)	118,130
Other financial cost	(72,252)	(117,270)
Hedge financial liabilities:	(954)	(40,901)
Gain (loss) on settlement of derivative financial instruments, net	-	(9,296)
Gain (loss) on foreign currency transactions	18,698	(38,217)
Other comprehensive income (*)	(19,652)	6,612
	₩ (508,289)	₩ (232,621)

(*) Net of tax effect

39. Financial risk management objectives and policies

The Group's principal financial liabilities comprise borrowings, bonds payable, trade and other payables. The main purpose of these financial liabilities is to finance the Group's operations. The Group also has various financial assets including trade and other receivables and others directly from its operations.

The Group is exposed to market risk, credit risk and liquidity risk and the Group's key management oversees the management of these risks.

Market risk

Market risk is the risk that the fair value of future cash flows of financial instruments will fluctuate because of changes in market prices. Market prices are affected by three types of risk: interest rate risk, currency risk and other price risk. Borrowings, bank deposits, available-for-sale financial investments and derivative instruments are likely to be affected by these risks.

Assuming net liability amount, fixed rate interest-bearing or floating rate interest-bearing borrowings and composition of financial instruments in foreign currency remain unchanged, the following sensitivity analysis is performed. Market risks of defined benefit liability, provision and non-financial assets and liabilities for foreign operations were not considered. In addition, the hedge effects by derivative financial instruments are not considered.

Details of the sensitivity analysis as of December 31, 2012 and 2011 are as follows.

Crude oil price risk
Crude oil price risk is the risk that profit or cash flows will fluctuate because of changes in international market prices of crude oil. The Group determined that the risk from changes in the price of crude oil is appropriately managed and is able to offset such volatility using derivative instruments. With all other variables held constant, the Group's profit before tax for the year ended December 31, 2012 and 2011 from changes in crude oil prices are as follows (Korean won in millions):

	2012		2011	
	Increase by 10%	Decrease by 10%	Increase by 10%	Decrease by 10%
Profit before tax	₩ 419,414	₩ (419,414)	₩ 408,480	₩ (408,480)

Interest rate risk
Interest rate risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market interest rates. The Group's exposure to the risk of changes in market interest rates relates primarily to the Group's long-term debt obligations with floating interest rates.

The following table demonstrates the sensitivity to a reasonably possible change in interest rates on that portion of loans and borrowings. With all other variables held constant, the Group's profit before tax is affected through the changes in the floating rate of borrowings as follows (Korean won in millions):

	2012		2011	
	Increase by 1%p	Decrease by 1%p	Increase by 1%p	Decrease by 1%p
Interest expense on floating rate borrowings	₩ (34,709)	₩ 34,709	₩ (53,287)	₩ 53,287

39. Financial risk management objectives and policies *continued*

Foreign currency risk

Foreign currency risk is the risk that the fair value or future cash flows of financial instruments will fluctuate because of changes in foreign exchange rates. The Group's exposure to the risk of changes in foreign exchange rates relates primarily to the Group's operating activities and the Group's net investments in foreign subsidiaries. The Group manages its foreign currency risk periodically. Moreover, the Group entered into currency forward contracts and currency swaps to hedge such risk.

Significant monetary assets and liabilities denominated in foreign currencies (other than United states dollar, the Company's functional currency) of the Company as of December 31, 2012 and 2011 are as follows (foreign currencies in thousands and Korean won in millions):

		December 31, 2012		December 31, 2011	
	Currency unit	Foreign currencies	Equivalent Korean won	Foreign currencies	Equivalent Korean won
Financial assets denominated in foreign currencies	KRW	53,596	₩ 53,596	1,451,386	₩ 1,451,386
	GBP	57	99	96,924	172,257
	EUR	13	19	3,458	5,167
	NOK	11	2	64,138	12,323
	CAD	-	-	569	643
	EGP	12	2	9,908	1,895
	SGD	55	48	-	-
			₩ 53,766		₩ 1,643,671
Financial liabilities denominated in foreign currencies	KRW	300,000	300,000	421,687	421,687
	GBP	14	-	183	325
	AUD	-	-	186	218
	EUR	150,000	212,439	100,000	149,410
	SGD	100,000	87,548	101,261	89,762
	HKD	3,167,000	437,616	2,777,000	412,051
	CHF	625,000	733,188	325,000	398,408
	CAD	1,116,851	1,201,787	490,364	553,984
	JPY	13,500,000	168,413	13,500,000	200,497
			₩ 3,140,991		₩ 2,226,342

The following table demonstrates the sensitivity analysis of a reasonably possible change in exchange rates, with all other variables held constant, on the Group's profit before tax for the years ended December 31, 2012 and 2011 are as follows (Korean won in millions):

	2012		2011	
	Increase by 5%	Decrease by 5%	Increase by 5%	Decrease by 5%
Effect on financial assets denominated in foreign currencies	₩ 3,861	₩ (3,861)	₩ 82,184	₩ (82,184)
Effect on financial liabilities denominated in foreign currencies	(196,678)	196,678	(111,317)	111,317
Effect on income before income taxes	₩ (192,817)	₩ 192,817	₩ (29,133)	₩ 29,133

Other price risk

Other price risk is the risk that the fair value or cash flows of financial instruments will fluctuate because of changes in market price other than interest rate risk and foreign currency risk. The Group's marketable available-for-sale equity securities are susceptible to market price risk arising from the fluctuation in the price of the securities. However, the Group's key management believes that the effect of the fluctuation in the price of the securities on the financial statements is not significant.

39. Financial risk management objectives and policies *continued*

Credit risk

Credit risk is the risk that counterparty will not meet its obligations under a financial instrument or customer contract, leading to a financial loss of the Group.

Trade and other receivables
Customer credit risk is managed by each business unit subject to the Group's established policy, procedures and control relating to customer credit risk management. Credit quality of the customer is assessed based on an extensive credit rating scorecard and individual credit limits are defined in accordance with this assessment. Outstanding customer receivables are regularly monitored. And the requirement for impairment is analyzed at each reporting date on an individual basis for major clients.

Additionally, a large number of minor receivables is grouped into homogenous groups and assessed for impairment collectively. The calculation is based on actually incurred historical data.

Other financial assets
Credit risks associated with the Group's other assets which consist of cash, short-term deposits and short-term and long-term loans arise from the default by the counterparties. Maximum exposure to credit risks will be the book value of the related other assets. The Group deposits its surplus funds in financial institutions whose credit ratings are high, therefore credit risk related to financial institutions is considered limited.

Liquidity risk

Liquidity risk refers to the risk that the Group may default on the contractual obligations that become due. The Group manages its risk to a shortage of funds using a recurring liquidity planning tool.

The maturity profile of the Group's financial liabilities (excluding financial guarantee liabilities) as of December 31, 2012 is detailed as below (Korean won in millions):

	Book value	Less than 1 year	1 - 2 year	2 - 5 year	Over 5 year
Bonds payable	₩ 9,385,571	₩ 1,426,598	₩ 2,539,436	₩ 5,172,783	₩ 246,754
Borrowings	1,798,168	311,858	404,118	526,902	555,290
Trade and other payables	1,871,526	1,704,067	19,259	-	148,200
Derivatives financial liabilities	52,680	5,137	15,333	27,418	4,792
	₩ 13,107,945	₩ 3,447,660	₩ 2,978,146	₩ 5,727,103	₩ 955,036

39. Financial risk management objectives and policies *continued*

Capital management

The primary objective of the Group's capital management is to ensure that it maintains a strong credit rating and healthy capital ratios in order to support its business and maximize owners' value. The Group manages its capital structure and makes adjustments to it in light of changes in economic conditions. To maintain the sound capital structure, the Group may adjust the dividend distributions, reduce issued capital, or issue additional shares. No changes were made in the objectives, policies or processes for managing capital for the year ended December 31, 2012.

The Group's debt-to-equity ratios as of December 31, 2012 and 2011 are as follows (Korean won in millions):

	December 31, 2012		December 31, 2011	
Total liabilities	₩	17,983,122	₩	20,799,957
Total equity		10,734,727		10,767,444
Debt-to-equity ratio		168%		193%

Fair value measurement

The Group's fair value and book value of financial assets and liabilities as of December 31, 2012 and 2011 are as follows (Korean won in millions):

	December 31, 2012				December 31, 2011			
	Book value		Fair value		Book value		Fair value	
Assets (fair value):								
Available-for-sale financial investments	₩	618,583	₩	618,583	₩	134,020	₩	134,020
Trading financial assets		-		-		67,271		67,271
Short-term financial instruments		344,165		344,165		500		500
Long-term financial instruments		-		-		4,697		4,697
Other derivatives		1,892		1,892		74,864		74,864
	₩	964,640	₩	964,640	₩	281,352	₩	281,352
Assets (amortized cost):								
Loans and receivables	₩	477,229	₩	477,229	₩	377,869	₩	377,869
Trade and other receivables		1,092,764		1,092,764		1,582,594		1,582,594
Cash and cash equivalents		592,278		592,278		1,223,064		1,223,064
	₩	2,162,271	₩	2,162,271	₩	3,183,527	₩	3,183,527
Liabilities (fair value):								
Interest swap	₩	5,137	₩	5,137	₩	7,098	₩	7,098
Currency swap		47,543		47,543		42,147		42,147
Currency forward		-		-		272		272
Other derivatives		-		-		798		798
	₩	52,680	₩	52,680	₩	50,315	₩	50,315
Liabilities (amortized cost):								
Debentures unsecured bonds	₩	8,705,606	₩	8,705,606	₩	7,966,271	₩	7,966,271
Convertible bonds payable		679,965		679,965		838,366		838,366
Debentures unsecured bank loans		1,798,168		1,798,168		3,106,803		3,106,803
Non-current financial liabilities		945		945		7,274		7,274
Trade and other payables		1,871,526		1,871,526		3,587,957		3,587,957
	₩	13,056,210	₩	13,056,210	₩	15,506,671	₩	15,506,671

39. Financial risk management objectives and policies *continued*

As at December 31, 2012, the Group held the following financial instruments measured at fair value:

The Group uses the following hierarchy for determining and disclosing the fair value of financial statements by valuation technique:

Level 1: quoted (unadjusted) prices in active markets for identical assets or liabilities
Level 2: other techniques for which all inputs which have a significant effect on the recorded fair value are observable, either directly or indirectly
Level 3: techniques which use inputs which have a significant effect on the recorded fair value that are not based on observable market data

As at December 31, 2012, the Group held the following financial instruments carried at fair value in the statement of financial position (Korean won in millions):

	Level 1	Level 2	Level 3	Total
Available-for-sale financial investments	₩ -	₩ 618,583	₩ -	₩ 618,583
Derivatives assets	-	1,892	-	1,892
	₩ -	₩ 620,475	₩ -	₩ 620,475
Derivatives liabilities	₩ -	₩ 52,680	₩ -	₩ 52,680

40. Related party disclosures

The Group's major related parties as of December 31, 2012 are as follows:

Relationship	Entity
Subsidiaries	Dana Petroleum plc, Dana Petroleum Limited, Dana Petroleum (Ghana) Limited, Dana Petroleum (Cyprus) Limited, Liasorol Trading Limited, Yogan Oil, Dana Petroleum (Russia) Limited, Dana Petroleum (E&P) Limited, Dana Petroleum (Jersey) Limited, Dana Petroleum Norway AS, Dana Petroleum (Holdings) B.V., Dana Petroleum Netherlands B.V., Dana Petroleum Manzala B.V., Dana Petroleum Egypt B.V., Dana Petroleum (BVUK) Limited, Dana Petroleum (North Sea) Limited, Dana Petroleum (Algeria) Limited, Bow Valley Energy Limited, Bow Valley International (Jersey) Limited, Bow Valley Iran Limited, Croft Exploration Limited, Dana Petroleum East Zeit Limited,Dana Petroleum East Beni Suef Limited, Dana Petroleum Qarun Limited, Dana Petroleum WAG Limited, Dana Petroleum North Zeit Bay Limited, Dana Petroleum Ras Abu Darag Limited, Dana Petroleum North Qarun Limited, Dana Petroleum South October Limited, Harvest Operations Corp., Harvest Breeze Trust No.1, Harvest Breeze Trust No.2, North Atlantic Refinery Ltd., Breeze Resources Partnership, Hay River Partnership, Harvest Operations (USA) Inc., Alberta Ltd., KNOC Kaz B.V., KNOC Caspian LLP, KNOC White Hill B.V., KNOC Black Hill Ltd., Altius Holdings Inc. ANKOR E&P Holdings Corporation, KNOC Eagle Ford Corporation, KNOC Sumatra Ltd., KNOC NEMONE, KNOC NEMTWO, KNOC Yemen Ltd.

40. Related party disclosures *continued*

Relationship	Entity
Associates and joint ventures	ADA Oil LLP, Dolphin Property Limited, Faroe Petroleum plc, Fosco B.V., KC Karpovsky B.V., KC Kazakh B.V., Kernhem B.V., KNOC Aral Ltd., KNOC Bazian Limited, KNOC Ferghana Ltd., KNOC Ferghana2 Ltd., KNOC Inam Limited, KNOC Kamchatka Petroleum Limited, KNOC Nigerian East Oil Company Limited, KNOC Nigerian West Oil Company Limited, KNOC Samsung Lantian Oil Development Co., Ltd., Korea Kamchatka Co. Limited, Offshore International Group Inc., Oilhub Korea Yeosu Co., Ltd., Parallel Petroleum LLC

The receivables, payables, revenue and expense arising from the transactions among the Company and consolidated subsidiaries are fully eliminated in the preparation of the consolidated financial statements. Accordingly, specific details of such transactions have not been disclosed.

Significant transactions with related parties for the years ended December 31, 2012 and 2011 are as follows (Korean won in millions).

		Revenue and others		Purchase and others	
Entity	Transaction	2012	2011	2012	2011
<Joint ventures>					
Dolphin Property Ltd.	Interest on loans	₩ 4,366	₩ -	₩ -	₩ -
KC karpovsky B.V.	Other bad debt expense	-	-	15,395	3,807
KC Kazakh B.V.	Interest on loans	277	1,278	-	-
KNOC Aral Ltd.	Other bad debt expense	-	-	2,023	1,397
KNOC Bazian Ltd.	Interest on loans	819	1,695	-	-
KNOC Ferghana Ltd.	Interest on loans	59	65	-	-
	Other bad debt expense	-	-	18,030	-
KNOC Kamchatka Co. Ltd.	Other bad debt expense	-	-	-	46,353
KNOC Kamchatka Petroleum Ltd.	Other bad debt expense	-	-	-	26,694
KNOC Nigerian West Oil Company Ltd.	Interest on loans	2,420	6,669	-	-
KNOC Nigerian East Oil Company Ltd.	Interest on loans	2,726	9,009	-	-
KNOC Samsung Lantian Oil Development Co., Ltd.	Interest on loans	33	53	-	-
KADOC Ltd.	Interest on loans	1,373	-	-	-
		12,073	18,769	35,448	78,521
<Associates>					
ADA Oil LLP	Interest on loans	297	643	-	-
Kernhem B.V.	Interest on loans	1,424	7,235	-	-
Oilhub Korea Yeosu Co., Ltd.	Rental / service revenue	2,917	1,583	-	-
Offshore International Group	Interest on loans	200	-	-	-
		4,838	9,461	-	-
		₩ 16,911	₩ 28,230	₩ 39,683	₩148,883

40. Related party disclosures *continued*

The outstanding receivables arising from the transactions with related parties as of December 31, 2012 and 2011 are as follows (Korean won in millions):

Entity	Receivables	December 31, 2012	December 31, 2011
<Joint ventures>			
KNOC Bazian Ltd.	Accrued interest	₩ 2,749	₩ 1,764
KNOC Ferghana Ltd.	Accrued interest	119	68
KC Kazakh B.V.	Accrued interest	1,498	1,330
KNOC Nigerian East Oil Company Ltd.	Accrued interest	11,299	9,376
KNOC Nigerian West Oil Company Ltd.	Accrued interest	8,747	6,941
KNOC Samsung Lantian Oil Development Co., Ltd.	Accrued interest	150	-
Dolphin Property Ltd.	Accrued interest	4,150	-
Offshore International Group	Accrued interest	190	-
KADOC Ltd.	Accrued interest	1,305	-
		30,207	19,479
<Associates>			
ADA Oil LLP	Accrued interest	904	669
Kernhem B.V.	Accrued interest	8,346	7,530
Oilhub Korea Yeousu Co., Ltd.	Account receivables	155	141
		9,405	8,340
		₩ 39,612	₩ 27,819

Loans to related parties as of December 31, 2012 and 2011 are as follows (Korean won in millions):

Entity	December 31, 2012	December 31, 2011
<Joint ventures>		
Dolphin Property Ltd.	₩ 2,655	₩ 5,743
KC Karpovsky B.V.	2,790	18,761
KC Kazakh B.V.	51,626	55,371
KNOC Aral Ltd.	12,937	11,571
KNOC Bazian Ltd.	42,783	34,133
KNOC Ferghana Ltd.	14,149	17,402
KNOC Ferghana2 Ltd.	8,876	3,493
KNOC Nigerian East Oil Company Ltd.	31,298	10,120
KNOC Nigerian West Oil Company Ltd.	29,335	7,672
KNOC Samsung Lantian Oil Development Co., Ltd	1,085	2,325
Offshore International Group	4,809	-
KADOC Ltd.	56,131	-
	258,474	166,591
<Associates>		
ADA Oil LLP	10,634	11,659
Kernhem B.V.	46,853	50,444
Fosco B.V.	-	638
	57,487	62,741
	₩ 315,961	₩ 229,332

40. Related party disclosures *continued*

The compensation for the key management personnel of the Company for the years ended December 31, 2012 and 2011 are as follows (Korean won in millions):

	2012		2011	
Salaries	₩	730	₩	1,238
Severance and retirement benefits		142		57
	₩	872	₩	1,295

41. Supplementary cash flow information

Significant transactions not involving cash flows for the years ended December 31, 2012 and 2011 are as follows (Korean won in millions):

	2012		2011	
Transfer of current portion of bonds payable	₩	1,426,598	₩	685,165
Transfer of current portion of long-term borrowings		223,049		11,767

42. Commitments and contingencies

(i) Details of the Company's significant litigations as of December 31, 2012 are as follows:

Offshore Exploration & Production LLC
The Company is a defendant in a litigation brought by Offshore Exploration & Production LLC regarding a refund of the purchase price paid by the plaintiff for equity interests, with claims against the Company amounting to $28.3 million. The status of lawsuit as of the reporting date is pending first-trial process.

GS Caltex Corporation
The Company is a defendant in a litigation brought by GS Caltex Corporation regarding a cancellation of a refund payment, with claims against the Company amounting to ₩22,706 million. The status of this lawsuit as of the reporting date is in first-trial process.

Nigerian government
The Company is a plaintiff in a litigation brought against the Nigerian government regarding the validity of the Company's exploration rights in OPL321 and 323. The status of this lawsuit as of the reporting date is in third-trial process. With respect to the acquisition of such exploration rights, the Company is a defendant in a litigation brought by Ubiwe Eriye Esq and others regarding compensation for their involvement in assisting the Company. The status of this lawsuit as of the reporting date is under arbitration.

The outcome of these lawsuits and its financial impact on the consolidated financial statements cannot presently be determined, and as such, no provision for legal settlement have been provided as of the reporting date.

42. Commitments and contingencies continued

(ii) As of December 31, 2012, the Company has received guarantees provided by non-related parties for the Company's obligations and indebtedness as follows (Korean won in millions, foreign currencies in thousands):

Provider	Description	Guaranteed amount		Description of guarantee
		Currency	Amount	
Seoul Guarantee Insurance	East Sea gas field restoration cost guarantee	KRW	1,228	Restoration of Donghae-1 gas field
Korea Export-Import Bank	Performance guarantee	USD	18,403	Performance guarantee on oil exploration for Colombia CPE 2, 3 and 4
Sumitomo Bank	Guarantee of payment of foreign currency	JPY	13,500,000	Others
RBS	〃	CNY	1,314	Others

(iii) As of December 31, 2012, the Company has pledged the following guarantees (US dollars in thousands):

Description	Guarantee amount	Beneficiary	Loan amount	Financial Institutions	Contract date	Note
Zhambyl oilfield drillship building construction & operation financing	58,800	KC Kazakh Panama	58,800	MIZUHO Corporate Bank Ltd.	2011-02-14	Related interest included
Mine share acquisition cost	1,550,000	Anadarko E&P LP	1,550,000	-	2011-04-14	

(iv) The Company, in relation to the acquisition of Dana Petroleum plc's equity interest, has provided a guarantee for any potential environmental and bodily damages during the exploration and production activities by Dana Petroleum Norway AS to the Norwegian government.

(v) In November 2007, a consortium led by the Company and other Korean companies entered into an agreement (Production Sharing Contract) for the exploration and production of the Bazian oil fields, located in Iraq, with the Kurdish regional government (KRG), in accordance with local Kurdish oil exploration laws. In January 2008, the Company and other participating companies were notified by the Iraqi federal government that such agreement without obtaining proper approval from the federal government would be invalid. In relation to the Bazian oil fields, loans to an affiliate of ₩57,454 million was recorded on the Company's consolidated statement of financial position as of December 31, 2012. The Company was advised by legal consultants in the UK and in Iraq that there is no legal basis on the alleged nullity of the agreement by the Iraqi government.

42. Commitments and contingencies *continued*

(vi) In 2009, the Company entered into an exclusive agreement with the Kurdish regional government to obtain rights on certain exploratory wells. In consideration of these rights, the Company paid a signing bonus amounting to USD200 million as well as USD25 million. The Company is also committed to providing construction services with regards to the government's Social Overhead Capital (SOC) amounting to USD1.9 billion. Pursuant to an amendment to the above agreement in 2010, the Company re-committed to paying the SOC construction costs amounting to USD1,175 million rather than delivering the construction services, except for works amounting to USD700 million, which is currently being performed by the Company. In 2012, the above agreement was amended and the Company paid USD100 million of the USD1,175 million and the rest of them was excused. As the Company do not have to provide SOC in accordance with the revised agreement, quantity of return-guaranteed crude oil was decreased and the Company returned its 3 shares of rights on certain exploratory wells, including Qush Tappa and two other.

In relation to the SOC construction above, as of December 31, 2012, the Company recorded mining rights amounting to ₩1,230,328 million. In addition, the Company recorded current and non-current provision amounting to ₩158,675 million and ₩418,233 million, respectively.

(vii) As of December 31, 2012, the Company's significant commitments with the financial institutions are as follows (US dollars in thousands):

Detail of contract	Financial institutions	Currency Unit	Credit amount	Drawdown amount
Trade finance	China Construction Bank	USD	200,000	-
	Deutsche Bank	USD	400,000	-
	Hong Kong and Shanghai Banking Corporation	USD	250,000	32,040
	Royal Bank of Scotland	USD	200,000	-
	Societe Generale	USD	200,000	-
	Sumitomo Mitsui Banking Corporation	USD	220,000	-
	Citi Bank	USD	287,000	-
			1,757,000	32,040

Detail of contract	Financial institutions	Currency Unit	Credit amount	Drawdown amount
Foreign currency loans	BNP Paribas	USD	500,000	-
	Royal Bank of Scotland	USD	100,000	-
	DBS	USD	200,000	-
	Mizuho Corporate Bank	USD	200,000	-
	The Bank of Tokyo-Mitsubishi UFJ, Ltd	USD	50,000	-
	ING Bank	USD	100,000	-
	Bank of Communications	USD	200,000	200,000
	Deutsche Bank	USD	440,000	-
	Credit Agricole Corporate and Investment Banking	USD	100,000	-
	Korea Finance Corporation	USD	200,000	200,000
	Sumitomo Mitsui Banking Corporation	USD	220,000	-
	China Construction Bank	USD	200,000	-
			2,510,000	400,000

43. Other significant commitments and contingencies

As of December 31, 2012, other significant commitments and contingencies of the Company's subsidiaries are as follows:

(1) Harvest Operations Corp. and its subsidiaries
Harvest entered into a credit facility maturing on April 30, 2016 for CA$800 million with the Canadian Imperial Bank of Commerce and other financial institutions.

In 2011, senior notes issued by Harvest amounted to US$500 million (maturity: October 1, 2017). The senior notes are unconditionally guaranteed by Harvest and all of its wholly-owned subsidiaries as the incurrence of additional secured indebtedness and dividend payments to the stockholder may be restricted in violation of the covenants associated with the notes.

Harvest maintains a supply and offtake agreement with Macquarie Energy Canada Ltd. (Macquarie). This agreement provides that ownership of substantially all crude oil feedstock and refined product inventory at the refinery be retained by Macquarie and that Macquarie shall be entitled to the rights and obligations to purchase substantially all refined products. Harvest has entered into oil purchase agreement amounting to CA$1,100 million as of December 31, 2012.

Harvest entered into engineering contracts with GS Engineering & Construction Corp., and others in 2010 in relation to its BlackGold oil sands project. As of May 31, 2012, the compensation terms in the contracts above was amended from a lump sum price (CA$311 million) to a cost reimbursable price expecting amount to CA$520 million approximately.

(2) Dana Petroleum plc and its subsidiaries
Dana Petroleum plc and its subsidiaries entered into credit facilities agreements for up to US$870 million and has drawn borrowings amounting to US$178 million as of December 31, 2012. In relation to the credit facilities, certain financial ratios, total reserve values and cash flows are required to be in compliance with debt covenants and its oil and certain gas related assets have been pledged as collateral. Furthermore, Dana opened an letter of credit amounting to US$142 million in relation to the compliance guarantee for an asset retirement obligation as of December 31, 2012.

(3) KNOC Caspian LLP
KNOC Caspian LLP entered into a loan facility agreement for up to US$500 million with KNOC White Hill B.V. maturing on June 15, 2020.

(4) ANKOR E&P Holdings Corporation
ANKOR E&P holds a credit line agreement amounting to US$30 million with the Korea Development Bank, New York Branch for its business operations as of December 31, 2012

44. Approval of financial statements

The consolidated financial statements of the Company for the year ended December 31, 2012 were approved by the Board of Directors on February 27, 2013.