Coway Co., Ltd. and its subsidiaries

Consolidated financial statements
for the years ended December 31, 2015 and 2014
with independent auditors' report

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Independent auditors' report

The Stockholders and Board of Directors
Coway Co., Ltd. and its subsidiaries

We have audited the accompanying consolidated financial statements of Coway Co., Ltd. (the "Company") and its subsidiaries (collectively, the "Group"), which comprise the consolidated statements of financial position as at December 31, 2015 and 2014, and the consolidated statements of comprehensive income, consolidated statements of changes in equity and consolidated statements of cash flows for the years then ended, and a summary of significant accounting policies and other explanatory information.

Management's responsibility for the consolidated financial statements
Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with Korean International Financial Reporting Standards (KIFRS), and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' responsibility
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 comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion
In our opinion, the consolidated financial statements present fairly, in all material respects, the consolidated financial position of Coway Co., Ltd. and its subsidiaries as at December 31, 2015 and 2014, and its financial performance and cash flows for the years then ended in accordance with Korean International Financial Reporting Standards.

Ernst & Young Han Young

March 21, 2016

This audit report is effective as at March 21, 2016, 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.

Coway Co., Ltd.
and its subsidiaries

Consolidated financial statements
for the years then ended December 31, 2015 and 2014

"The accompanying consolidated financial statements, including all footnotes and disclosures, have been prepared by, and are the responsibility of, the Group."

Dong Hyun Kim
Chief Executive Officer
Coway Co., Ltd.

Coway Co., Ltd. and its subsidiaries
Consolidated statements of financial position
as at December 31, 2015 and 2014
(Korean won in thousands)

	Notes	2015	2014
Assets			
Current assets:			
Cash and cash equivalents	4, 5, 36, 37	₩ 116,307,900	₩ 147,363,023
Trade receivables, net	4, 6, 36, 37	256,015,920	208,800,401
Finance lease receivables, net	4, 6, 36, 37	8,955,735	-
Other short-term financial assets, net	4, 7, 36, 37	15,398,219	22,201,169
Other current assets	8	185,690,970	156,530,583
Inventories, net	9	69,820,809	61,909,650
Income tax receivables		1,128,465	5,690
Total current assets		653,318,018	596,810,516
Non-current assets:			
Long-term finance lease receivables, net	4, 6, 36, 37	28,144,342	-
Other long-term financial assets, net	4, 7, 36, 37	52,068,160	52,584,883
Other non-current assets	8	147,080,590	96,731,719
Available-for-sale financial assets	4, 10, 36, 37	2,430,096	2,417,368
Property, plant and equipment, net	11	699,511,862	675,187,865
Intangible assets, net	12	168,786,681	170,626,320
Investment properties, net	13	23,173,559	26,410,250
Deferred income tax assets	32	883,834	880,525
Total non-current assets		1,122,079,124	1,024,838,930
Total assets		**₩ 1,775,397,142**	**₩ 1,621,649,446**
Liabilities			
Current liabilities:			
Trade payables	4, 36, 37	₩ 59,799,441	₩ 59,047,507
Other short-term financial liabilities	4, 14, 36, 37	183,985,891	176,409,759
Other current liabilities	14	77,255,326	79,821,288
Short-term borrowings	4, 15, 36, 37	80,040,719	164,403,283
Income tax payable		70,198,266	44,933,779
Provisions	18	1,602,439	1,425,616
Total current liabilities		472,882,082	526,041,232
Non-current liabilities:			
Other long-term financial liabilities	4, 14, 36, 37	2,203,221	2,573,263
Other non-current liabilities	14	16,477,557	15,968,562
Long-term borrowings	4, 16, 36, 37	7,951,000	932,000
Defined benefit liabilities, net	17	12,373,703	15,951,403
Provisions	18	2,135,330	650,690
Deferred tax liabilities	32	23,146,419	20,097,267
Total non-current liabilities		64,287,230	56,173,185
Total liabilities		**₩ 537,169,312**	**₩ 582,214,417**
Equity			
Issued capital	21	40,662,398	40,662,398
Share premium		97,773,449	97,773,449
Retained earnings	22	1,177,049,753	985,875,250
Other components of equity	23, 24, 25	(78,122,382)	(85,768,353)
Equity attributable to equity holders of the parent		**1,237,363,218**	**1,038,542,744**
Non-controlling interests		864,612	892,285
Total equity		**1,238,227,830**	**1,039,435,029**
Total liabilities and equity		**₩ 1,775,397,142**	**₩ 1,621,649,446**

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

Coway Co., Ltd. and its subsidiaries
Consolidated statements of comprehensive income
for the years ended December 31, 2015 and 2014
(Korean won in thousands)

	Notes	2015	2014
Sales	3	₩ 2,315,242,283	₩ 2,160,315,531
Cost of sales		(728,843,093)	(726,567,159)
Gross profit		**1,586,399,190**	**1,433,748,372**
Selling and general administrative expenses	27	(1,123,060,003)	(1,069,319,802)
Operating profit		**463,339,187**	**364,428,570**
Other income	28	24,447,251	17,610,071
Other expenses	28	(30,407,140)	(40,697,497)
Finance income	29	1,423,176	2,703,460
Finance costs	29	(4,339,055)	(11,598,017)
Profit before tax		**454,463,419**	**332,446,587**
Income tax expense	32	(111,343,034)	(82,778,175)
Profit for the year		₩ **343,120,385**	₩ **249,668,412**
Profit attributable to			
Equity holders of the parent		₩ 343,148,058	₩ 249,691,457
Non-controlling interests		(27,673)	(23,045)
		₩ 343,120,385	₩ 249,668,412
Other comprehensive income (loss) for the year			
Other comprehensive income (loss) to be reclassified to profit or loss in subsequent periods:			
Gain on valuation of available-for-sale financial assets		₩ 9,879	₩ 9,369
Gain on valuation of derivatives		-	195,728
Exchange differences on translation of foreign operations		(5,216,835)	(600,341)
Net other comprehensive loss to be reclassified to profit or loss in subsequent periods		₩ **(5,206,956)**	₩ **(395,244)**
Other comprehensive income (loss) not to be reclassified to profit or loss in subsequent periods:			
Remeasurement loss on net of defined benefit plans		(3,625,636)	(8,172,241)
Net other comprehensive loss not to be reclassified to profit or loss in subsequent periods		**(3,625,636)**	**(8,172,241)**
Other comprehensive loss for the year		**(8,832,592)**	**(8,567,485)**
Total comprehensive income for the year		₩ **334,287,793**	₩ **241,100,927**
Attributable to:			
Equity holders of the parent		₩ 334,315,465	₩ 241,123,972
Non-controlling interests		(27,673)	(23,045)
		₩ 334,287,792	₩ 241,100,927
Earnings per share attributable to owners of the parent			
Basic earnings per share	33	4,621	3,361
Diluted earnings per share	33	4,597	3,356

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

Coway Co., Ltd. and its subsidiaries
Consolidated statements of changes in equity
for the years ended December 31, 2015 and 2014
(Korean won in thousands)

	Attributable to equity holders of the parent						
	Issued capital	**Share premium**	**Retained earnings**	**Other components of equity**	**Total**	**Non-controlling interests**	**Total equity**
As at January 1, 2014	**₩ 40,662,398**	**₩ 97,773,449**	**₩ 867,992,459**	**₩ (65,539,797)**	**₩ 940,888,509**	₩ -	**₩ 940,888,509**
Profit for the year	-	-	249,668,412	-	249,668,412	(23,045)	249,645,367
Gain on valuation of available-for-sale financial assets	-	-	-	9,369	9,369	-	9,369
Remeasurement loss on net of defined benefit liability	-	-	(8,172,241)	-	(8,172,241)	-	(8,172,241)
Exchange differences on translation of foreign operations	-	-	-	(600,341)	(600,341)	-	(600,341)
Gain on valuation of derivatives	-	-	-	195,728	195,728	-	195,728
Total comprehensive income	**-**	**-**	**241,496,171**	**(395,244)**	**241,100,927**	**(23,045)**	**241,077,882**
Dividends	-	-	(123,613,381)	-	(123,613,381)	-	(123,613,381)
Share-based payments	-	-	-	6,518,941	6,518,941	-	6,518,941
Treasury shares	-	-	-	(26,359,298)	(26,359,298)	-	(26,359,298)
Increase in equity in equity method	-	-	-	-	-	929,000	929,000
Other equity transactions	-	-	-	7,046	7,046	(13,670)	(6,624)
Total transactions with equity holders	**-**	**-**	**(123,613,381)**	**(19,833,311)**	**(143,446,692)**	**915,330**	**(142,531,362)**
As at December 31, 2014	**₩ 40,662,398**	**₩ 97,773,449**	**₩ 985,875,249**	**₩ (85,768,352)**	**₩ 1,038,542,744**	**₩ 892,285**	**₩ 1,039,435,029**
As at January 1, 2015	**₩ 40,662,398**	**₩ 97,773,449**	**₩ 985,875,249**	**₩ (85,768,352)**	**₩ 1,038,542,744**	**₩ 892,285**	**₩ 1,039,435,029**
Profit for the year	-	-	343,148,058	-	343,148,058	(27,673)	343,120,385
Gain on valuation of available-for-sale financial assets	-	-	-	9,879	9,879	-	9,879
Remeasurement loss on net of defined benefit liability	-	-	(3,625,636)	-	(3,625,636)	-	(3,625,636)
Exchange differences on translation of foreign operations	-	-	-	(5,216,835)	(5,216,835)	-	(5,216,835)
Total comprehensive income	**-**	**-**	**339,522,422**	**(5,206,956)**	**334,315,466**	**(27,673)**	**334,287,793**
Dividends	-	-	(148,347,918)	-	(148,347,918)	-	(148,347,918)
Share-based payments	-	-	-	6,477,819	6,477,819	-	6,477,819
Treasury shares	-	-	-	6,383,760	6,383,760	-	6,383,760
Other equity transactions	-	-	-	(8,651)	(8,651)	-	(8,651)
Total transactions with equity holders	**-**	**-**	**(148,347,918)**	**12,852,928**	**(135,494,990)**	**-**	**(135,494,990)**
As at December 31, 2015	**₩ 40,662,398**	**₩ 97,773,449**	**₩ 1,177,049,753**	**₩ (78,122,380)**	**₩ 1,237,363,220**	**₩ 864,612**	**₩ 1,238,227,832**

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

Coway Co., Ltd. and its subsidiaries
Consolidated statements of cash flows
for the years ended December 31, 2015 and 2014
(Korean won in thousands)

	Notes	2015	2014
Operating activities:			
Profit for the year		₩ 343,120,385	₩ 249,668,412
Adjustments	34	448,429,227	415,328,828
Changes in operating assets and liabilities	34	(195,292,142)	(29,120,435)
Cash generated from operations		596,257,470	635,876,805
Dividends received		-	2,556
Income tax paid		(83,414,608)	(99,140,475)
Net cash flows provied by operating activities		**512,842,862**	**536,738,886**
Investing activities:			
Increase in other short-term financial assets		(23,384)	-
Decrease in other short-term financial assets		39,500	207,598
Increase in other long-term financial assets		(9,459,583)	(6,589,947)
Decrease in other long-term financial assets		9,574,694	6,691,083
Proceeds from disposal of available-for-sale financial assets		193	-
Proceeds from disposal of investments in associates		100,000	-
Acquisition of property, plant and equipment		(329,278,843)	(305,777,707)
Proceeds from disposal of property, plant and equipment		8,890,026	9,561,836
Acquisition of intangible assets		(6,147,835)	(6,710,714)
Proceeds from disposal of intangible assets		700,000	681,818
Proceeds from disposal of investment properties		3,131,000	-
Interests received		1,625,766	2,740,124
Changes in scope of the consolidation		(8,650,571)	-
Net cash flows used in investing activities		**(329,499,037)**	**(299,195,909)**
Financing activities:			
Decrease in short-term borrowings		(84,361,389)	(17,264,971)
Decrease in current portion of long-term borrowings		-	(30,083,333)
Decrease in current portion of debentures		-	(116,083,000)
Increase in long-term borrowings		7,019,000	932,000
Government grants received		11,411,910	4,300,000
Payment of dividends	22	(148,347,918)	(123,613,381)
Purchase of treasury shares		-	(31,477,668)
Increase in equity of subsidiaries		-	922,376
Exercise of share options		5,238,160	3,866,020
Interests paid		(4,368,143)	(12,673,927)
Cash outflow from derivatives transactions		-	(6,607,000)
Others		-	(139,831)
Net cash flows used in financing activities		**(213,408,380)**	**(327,922,715)**
Net decrease in cash and cash equivalents		(30,064,555)	(90,379,739)
Cash and cash equivalents at January 1		147,363,023	238,665,065
Net foreign exchange difference		(990,567)	(922,303)
Cash and cash equivalents at December 31		**₩ 116,307,901**	**₩ 147,363,023**

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

1. Corporate information

The general information of Coway Co., Ltd. (the "Company") and its 6 subsidiaries including Coway (M) Sdn Bhd. (collectively, the "Group") are as follows:

1.1 Company overview

Woongjin Coway Co., Ltd. was renamed to Coway Co., Ltd. on December 14, 2012 and was incorporated on May 2, 1989 under the laws of the Republic of Korea to engage in the manufacturing and sales or rent of water purifiers and home appliances, construction of waste disposal facilities and other related businesses. The Company's ordinary shares have been listed on the Korea Stock Exchange since 2001.

The Company's operations are headquartered in Gong-ju City, South Chungcheong Province. As at December 31, 2015, the Company's majority stockholder is Coway Holdings Co. Ltd. holding 30.90% equity ownership.

1.2 Subsidiaries

The Group's consolidated subsidiaries as at December 31, 2015 and 2014 are as follows:

Subsidiaries	Equity ownership (%) 2015	2014	Country of domicile	Year -end	Principal activity
WoongJin Coway (China) Living Goods Co., Ltd.	-	100%	China	Dec.31	Sales of cosmetics/ Sales and rent of water purifiers
Coway China Co., Ltd.	100%	〃	〃	〃	Sales of air cleaner
Coway (Thailand) Co., Limited.	〃	〃	Thailand	〃	Sales and lease of water purifiers
Coway (M) Sdn Bhd.	〃	〃	Malaysia	〃	Sales and lease of water purifiers
Coway USA Inc.	〃	〃	U.S.A.	〃	Sales and lease of water purifiers
Green Environment Technology Co., Ltd.	〃	〃	Korea	〃	Construction of waste disposal facilities and operating facilities
Pocheon Malkunmul Co., Ltd.	70%	70%	〃	〃	Construction and operating industrial water facilities of Pochen Jangja Industrial Complex

1. Corporate information (cont'd)

1.3 Summary of the subsidiaries' financial information

Summarized financial information of subsidiaries as at and for the years ended December 31, 2015 and 2014 is as follows (Korean won in thousands):

	2015					
	Assets	Liabilities	Equity	Sales	Profit (loss) for the year	Comprehensive income (loss)
Coway USA Inc.	₩ 50,294,457	₩ 51,646,657	₩ (1,352,200)	₩ 57,234,598	₩ 37,027	₩ (48,023)
Coway (Thailand) Co., Limited.	3,747,334	15,919,269	(12,171,935)	6,435,221	(1,744,124)	(1,405,096)
Coway (M) Sdn Bhd.	98,099,421	83,812,161	14,287,261	97,764,066	(1,470,738)	(3,743,786)
Coway China Co., Ltd.	8,185,953	7,839,763	346,190	12,504,202	(2,953,162)	(2,913,705)
Green Environment Technology Co., Ltd.	32,415,280	18,950,984	13,464,296	64,922,274	2,893,827	2,853,555
Pocheon Malkunmul Co., Ltd.	18,483,976	15,603,486	2,880,490	-	(92,193)	(92,193)

	2014					
	Assets	Liabilities	Equity	Sales	Profit (loss) for the year	Comprehensive income (loss)
WoongJin Coway (China) Living Goods Co., Ltd.	₩ 13,371,498	₩ 13,371,498	₩ -	₩ 22,499,233	₩ (25,607,077)	₩ (25,479,701)
Coway USA Inc.	40,897,090	42,201,267	(1,304,177)	44,024,370	3,136	(48,944)
Coway (Thailand) Co., Limited.	4,421,478	15,188,317	(10,766,839)	9,600,231	(1,137,995)	(1,546,536)
Coway (M) Sdn Bhd.	69,386,200	51,355,153	18,031,047	83,756,475	5,256,494	4,180,135
Coway China Co., Ltd.	10,854,500	7,582,792	3,271,708	16,586,778	1,439,963	1,523,998
Green Environment Technology Co., Ltd.	29,894,814	19,284,073	10,610,741	26,508,748	(1,963,950)	(2,146,577)
Pocheon Malkunmul Co., Ltd.	13,815,685	10,843,001	2,972,684	-	(92,395)	(92,395)

1.4 Changes in the scope of consolidation

No newly included subsidiary in the scope of consolidation for the year ended December 31, 2015 and excluded subsidiary is as follows.

Scope of consolidation	Company	Rationale
Exclusion	WoongJin Coway (China) Living Goods Co., Ltd.	Disposition

2. Basis of preparation and summary of significant accounting policies

2.1 Basis of preparation

The Group prepares statutory financial statements in the Korean language in accordance with Korean International Financial Reporting Standards (KIFRS) enacted by the *Act on External Audit of Stock Companies*. The accompanying consolidated financial statements have been translated into English 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.

The consolidated financial statements have been prepared on a historical cost basis, except when otherwise indicated. The consolidated financial statements are presented in Korean won and all values are rounded to the nearest thousands, except when otherwise indicated.

2. Basis of preparation and summary of significant accounting policies (cont'd)

2.2 Basis of consolidation

The consolidated financial statements comprise the financial statements of the Company and its subsidiaries as at December 31, 2015. Control is achieved when the Group is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee. Specifically, the Group controls an investee if and only if the Group has:

- Power over the investee (i.e. existing rights that give it the current ability to direct the relevant activities of the investee)
- Exposure, or rights, to variable returns from its involvement with the investee, and
- The ability to use its power over the investee to affect its returns

When the Group has less than a majority of the voting or similar rights of an investee, the Group considers all relevant facts and circumstances in assessing whether it has power over an investee, including:

- The contractual arrangement with the other vote holders of the investee
- Rights arising from other contractual arrangements
- The Group's voting rights and potential voting rights

The Group re-assesses whether or not it controls an investee if facts and circumstances indicate that there are changes to one or more of the three elements of control. Consolidation of a subsidiary begins when the Group obtains control over the subsidiary and ceases when the Group loses control of the subsidiary. Assets, liabilities, income and expenses of a subsidiary acquired or disposed of during the year are included in the statement of comprehensive income from the date the Group gains control until the date the Group ceases to control the subsidiary.

Profit or loss and each component of other comprehensive income (OCI) are attributed to the equity holders of the parent of the Group and to the non-controlling interests, even if this results in the non-controlling interests having a deficit balance. When necessary, adjustments are made to the financial statements of subsidiaries to bring their accounting policies into line with the Group's accounting policies. All intra-group assets and liabilities, equity, income, expenses and cash flows relating to transactions between members of the Group are eliminated in full on consolidation.

A change in the ownership interest of a subsidiary, without a loss of control, is accounted for as an equity transaction.

If the Group loses control over a subsidiary, it derecognizes the related assets (including goodwill), liabilities, non-controlling interest and other components of equity while any resultant gain or loss is recognized in profit or loss. Any investment is recognized at fair value

2.3 Significant accounting policies

2.3.1 Cash and cash equivalents

Cash and short-term deposits in the statement of financial position comprise cash at banks and on hand and short-term deposits with an original maturity of three months or less.

2.3.2 Financial instruments – initial recognition and subsequent measurement

(1) Financial assets

1) Initial recognition and measurement
Financial assets are classified, at initial recognition, 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 assets, or as derivatives designated as hedging instruments in an effective hedge, as appropriate.

2. Basis of preparation and summary of significant accounting policies (cont'd)

All financial assets are recognized initially at fair value plus transactions costs, except in the case of financial assets recorded at fair value through profit and loss.

Purchases or sales of financial assets that require delivery of assets within a time frame established by regulation or convention in the marketplace (regular way trades) are recognized on the trade date, i.e., the date that the Group commits to purchase or sell the asset.

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

① 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.

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 the statement of comprehensive income.

Derivatives embedded in host contracts are accounted for as separate derivatives and recorded at fair value if their economic characteristics and risks are not closely related to those of the host contracts and the host contracts are not held for trading or designated at fair value though profit or loss. These embedded derivatives are measured at fair value with changes in fair value recognized in profit or loss. Re-assessment only occurs if there is either a change in the terms of the contract that significantly modifies the cash flows that would otherwise be required or a reclassification of a financial asset out of the fair value through profit or loss.

② Loans and receivables
This category is the most relevant to the Group. 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 (EIR) method, less impairment. Amortized cost is calculated by taking into account any discount or premium on acquisition and fees or costs that are an integral part of the EIR. The EIR amortization is included in finance income in the statement of comprehensive income. The losses arising from impairment are recognized in the statement of comprehensive income in finance costs for loans and in cost of sales or other operating expenses for receivables.

③ 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 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 statement of comprehensive income. The losses arising from impairment are recognized in the statement of comprehensive income in finance costs. As at December 31, 2015 and 2014 the Group has no held-to-maturity financial assets.

④ Available-for-sale (AFS) financial investments
AFS financial investments include equity investments and debt securities. Equity investments classified as AFS are those that are neither classified as held-for-trading nor designated at fair value through profit or loss. Debt securities in this category are those that are intended to be held for an indefinite period of time and that 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 OCI.

2. Basis of preparation and summary of significant accounting policies (cont'd)

After initial measurement, AFS financial investments are subsequently measured at fair value with unrealized gains or losses recognized in OCI and credited in the AFS reserve until the investment is derecognized, at which time the cumulative gain or loss is recognized in other operating income, or the investment is determined to be impaired, when the cumulative loss is reclassified from the AFS reserve to the statement of comprehensive income in finance costs. Interest earned whilst holding AFS financial investments is reported as interest income using the EIR method.

The Group evaluates whether the ability and intention to sell its AFS financial assets in the near term is still appropriate. When, in rare circumstances, the Group is unable to trade these financial assets due to inactive markets, the Group may elect to reclassify these financial assets if the management has the ability and intention to hold the assets for foreseeable future or until maturity.

For a financial asset reclassified from the AFS category, the fair value carrying amount at the date of reclassification becomes its new amortized cost and any previous gain or loss on the asset that has been recognized in equity is amortized to profit or loss over the remaining life of the investment using the EIR. Any difference between the new amortized cost and the maturity amount is also amortized over the remaining life of the asset using the EIR. If the asset is subsequently determined to be impaired, then the amount recorded in equity is reclassified to the statement of comprehensive income.

3) 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, it evaluates if, and to what extent, it has retained the risks and rewards of ownership. When it has neither transferred nor retained substantially all of 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. 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.

(2) Impairment of financial assets

The impairment of financial assets is additionally disclosed in Note 2.4 (Disclosure of significant assumption), Note 6 (Trade receivables and finance lease receivables), Note 7 (Other financial assets) and Note 10 (Available-for-sale financial investments).

The Group assesses at each reporting date whether there is objective evidence that a financial asset or a group of financial assets is impaired. An impairment exists if one or more events that has occurred since the initial recognition of the asset (an incurred '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 group 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 indicating 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. Basis of preparation and summary of significant accounting policies (cont'd)

1) Financial assets carried at amortized cost

For financial assets carried at amortized cost, the Group first assesses whether impairment exists individually for financial assets that are individually significant, or collectively for financial assets that are not individually significant. If the Group determines that no objective evidence of impairment exists for an individually assessed financial asset, whether significant or not, it includes the asset in a group of financial assets with similar credit risk characteristics and collectively assesses them for impairment. Assets that are individually assessed for impairment and for which an impairment loss is, or continues to be, recognized are not included in a collective assessment of impairment.

The amount of any impairment loss identified 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 asset's original EIR. If a loan has a variable interest rate, the discount rate for measuring any impairment loss is the current EIR.

The carrying amount of the asset is reduced through the use of an allowance account and the loss is recognized in the statement of comprehensive income. Interest income (recorded as finance income in the statement of comprehensive 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. 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 write-off is later recovered, the recovery is credited to finance costs in the statement of comprehensive income.

2) Available-for-sale financial investments

For AFS financial investments, the Group assesses at each reporting date whether there is objective evidence that an investment or a group of investments is impaired.

In the case of equity investments classified as AFS, objective evidence would include a significant or prolonged decline in the fair value of the investment below its cost. 'Significant' evaluated against the original cost of the investment and 'prolonged' against the period in which the fair value has been below its original cost. 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 OCI and recognized in the statement of comprehensive income. Impairment losses on equity investments are not reversed through profit or loss increases in their fair value after impairment are recognized in OCI.

In the case of debt instruments classified as AFS, 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.

(3) Financial liabilities

1) 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.

2. Basis of preparation and summary of significant accounting policies (cont'd)

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

The Group's financial liabilities include trade and other payables, loans and borrowings including bank overdrafts, financial guarantee contracts and derivative financial instruments.

2) Subsequent measurement
The measurement of financial liabilities depends on their classification as described below:

① 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 incurred for the purpose of selling in the near term. This category also 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.
The Group has not designated any financial liabilities upon initial recognition as at fair value through profit or loss.

② Loans and borrowings
After initial recognition, interest bearing loans and borrowings are subsequently measured at amortized cost using the EIR method. Gains and losses are recognized in the statement of comprehensive income when the liabilities are derecognized as well as through 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.

③ 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 amount recognized less cumulative amortization.

3) 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 statement of comprehensive income.

(4) Offsetting of financial instruments

Financial assets and financial liabilities are offset and the net amount reported in the statement of financial position if, and only if, there is a currently enforceable legal right to offset the recognized amounts and there is an intention to settle on a net basis, or to realize the assets and settle the liabilities simultaneously.

2. Basis of preparation and summary of significant accounting policies (cont'd)

(5) Derivative financial instruments and hedge accounting

1) Initial recognition and subsequent measurement
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 re-measured 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 the fair value of derivatives are taken directly to profit or loss, except for the effective portion of cash flow hedges, which is recognized in OCI and later reclassified to profit or loss when the hedge item affects profit or loss.

For the purpose of hedge accounting, hedges are classified as:

- Fair value hedges when hedging the exposure to changes in the fair value of a recognized asset or liability or an unrecognized firm commitment
- Cash flow hedges when hedging the exposure to variability in cash flows that is either attributable to a particular risk associated with a recognized asset or liability or a highly probable forecast transaction or the foreign currency risk in an unrecognized firm commitment
- Hedges of a net investment in a foreign operation

At the inception of a hedge relationship, the Group formally designates and documents the hedge relationship to which the Group wishes to apply hedge accounting and the risk management objective and strategy for undertaking the hedge. The documentation includes identification of the hedging instrument, the hedged item or transaction, the nature of the risk being hedged and how the entity will assess the effectiveness of changes in the hedging instrument's fair value in offsetting the exposure to changes in the hedged item's fair value or cash flows attributable to the hedged risk. Such hedges are expected to be highly effective in achieving offsetting changes in fair value or cash flows and are assessed on an ongoing basis to determine that they actually have been highly effective throughout the financial reporting periods for which they were designated.

Hedges that meet the strict criteria for hedge accounting are accounted for, as described below:

2) Fair value hedges
The change in the fair value of a hedging derivative is recognized in the statement of comprehensive income as finance costs. The change in the fair value of the hedged item attributable to the risk hedged is recorded as part of the carrying value of the hedged item and is also recognized in the statement of comprehensive income as finance costs.

For fair value hedges relating to items carried at amortized cost, any adjustment to carrying value is amortized through profit or loss over the remaining term of the hedge using the EIR method. EIR amortization may begin as soon as an adjustment exists and no later than when the hedged item ceases to be adjusted for changes in its fair value attributable to the risk being hedged.

If the hedged item is derecognized, the unamortized fair value is recognized immediately in profit or loss.

When an unrecognized firm commitment is designated as a hedged item, the subsequent cumulative change in the fair value of the firm commitment attributable to the hedged risk is recognized as an asset or liability with a corresponding gain or loss recognized in profit and loss.

3) Cash flow hedges
The effective portion of the gain or loss on the hedging instrument is recognized in OCI in the cash flow hedge reserve, while any ineffective portion is recognized immediately in the statement of comprehensive income as other operating expenses. Amounts recognized as OCI are transferred to profit or loss when the hedged transaction affects profit or loss, such as when the hedged financial income or financial expense is recognized or when a forecast sale occurs. When the hedged item is the cost of a non-financial asset or non-financial liability, the amounts recognized as OCI are transferred to the initial carrying amount of the non-financial asset or liability.

2. Basis of preparation and summary of significant accounting policies (cont'd)

If the hedging instrument expires or is sold, terminated or exercised without replacement or rollover (as part of the hedging strategy), or if its designation as a hedge is revoked, or when the hedge no longer meets the criteria for hedge accounting, any cumulative gain or loss previously recognized in OCI remains separately in equity until the forecast transaction occurs or the foreign currency firm commitment is met.

4) Hedges of a net investment
Hedges of a net investment, including a hedge of a monetary item that is accounted for as part of the net investment, are accounted for in a way similar to cash flow hedges. Gains or losses on the hedging instrument relating to the effective portion of the hedge are recognized as OCI while any gains or losses relating to the ineffective portion are recognized in the statement of comprehensive income. On disposal of the foreign operation, the cumulative value of any such gains or losses recorded in equity is transferred to the statement of comprehensive income.

2.3.3 Inventories

Inventories are valued at the lower of cost and net realizable value. Cost of inventories includes purchase costs, conversion costs, and costs incurred in bringing each product to its present location and conditions. The unit cost of inventories is calculated by a weighted average method. Net realizable value is the estimated selling price in the ordinary course of business less the estimated costs of completion and the estimated costs necessary to make the sale.

2.3.4 Property, plant and equipment

Plant and equipment is stated at cost, net of accumulated depreciation and/or accumulated impairment losses, if any. Such cost includes the cost of replacing part of the 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 depreciates them accordingly. Likewise, when a major inspection is performed, its cost is recognized in the carrying amount of the plant and equipment as a replacement if the recognition criteria are satisfied. All other repair and maintenance costs are recognized in the statement of comprehensive income as incurred.

Depreciation is calculated on a straight-line basis over the estimated useful life of the asset as follows:

Category	Useful lives
Buildings	14 to 40 years
Structures	7 to 19 years
Machinery	8 to 10 years
Vehicles	5 to 8 years
Tools and equipment	5 to 10 years
Supplies	2 to 19 years
Other tangible assets	3, 5 years
Rental assets	3, 5 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 statement 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.

2. Basis of preparation and summary of significant accounting policies (cont'd)

2.3.5 Intangible assets

Intangible assets acquired separately are measured on initial recognition at cost. The cost of intangible assets acquired in a business combination is its fair value as at the date of acquisition. Following initial recognition, intangible assets 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 statement of comprehensive income in the year in which the expenditure is incurred.

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 is reviewed at least at the end of each reporting period. 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 statement of comprehensive income and OCI in the expense category consistent with the function of the intangible asset.

Intangible assets with indefinite useful lives 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.

Gains or losses arising from de-recognition 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.

A summary of the policies applied to the Group's intangible assets is as follows:

Category	Useful lives
Industrial rights	5,10 years
Software	5 years
Other intangible assets	5, 20 years

2.3.6 Investment properties

Investment properties are measured initially at cost, including transaction costs. Subsequent to initial recognition, investment properties are stated at fair value, which reflects market conditions at the reporting date. Gains or losses arising from changes in the fair values of investment properties are included in profit or loss in the period in which they arise, including the corresponding tax effect. Fair values are determined based on an annual evaluation performed by an accredited external, independent valuer, applying a valuation model recommended by the International Valuation Standards Committee.

Investment property is depreciated over an estimated useful life after its residual value is subtracted from an acquisition cost, and buildings are depreciated on a straight-line basis over 40 years.

Investment properties are derecognized either when they have been disposed of or when they are permanently withdrawn from use and no future economic benefit is expected from their disposal. The difference between the net disposal proceeds and the carrying amount of the asset is recognized in the statement of comprehensive income in the period of derecognition.

Transfers are made to (or from) investment property only when there is a change in use. For a transfer from investment property to owner-occupied property, the deemed cost for subsequent accounting is the fair value at the date of change in use. If owner-occupied property becomes an investment property, the Group accounts for such property in accordance with the policy stated under property, plant and equipment up to the date of change in use.

2. Basis of preparation and summary of significant accounting policies (cont'd)

2.3.7 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 interests in the acquiree. For each business combination, the Group elects whether to measure the non-controlling interests in the acquiree at fair value or at the proportionate share of the acquiree's identifiable net assets. Acquisition-related costs are expensed as incurred and included in administrative expenses.

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

Any contingent consideration to be transferred by the acquirer will be recognized at fair value at the acquisition date. Contingent consideration classified as an asset or liability that is a financial instrument and within the scope of KIFRS 1039 Financial Instruments: Recognition and Measurement, is measured at fair value with changes in fair value recognized either in either profit or loss or as a change to OCI. If the contingent consideration is not within the scope of KIFRS 1039, it is measured in accordance with the appropriate KIFRS. Contingent consideration that is classified as equity is not re-measured and subsequent settlement is accounted for within equity.

Goodwill is initially measured at cost, being the excess of the aggregate of the consideration transferred and the amount recognized for non-controlling interests, and any previous interest held, over the net identifiable assets acquired and liabilities assumed. If the fair value of the net assets acquired is in excess of the aggregate consideration transferred, the Group re-assesses whether it has correctly identified all of the assets acquired and all of the liabilities assumed and reviews the procedures used to measure the amounts to be recognized at the acquisition date. If the re-assessment still results in an excess of the fair value of net assets acquired over the aggregate consideration transferred, then the gain 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 has been allocated to a cash-generating unit and part of the operation within that unit is disposed of, the goodwill associated with the disposed operation is included in the carrying amount of the operation when determining the gain or loss on disposal. Goodwill disposed in these circumstances is measured based on the relative values of the disposed operation and the portion of the cash-generating unit retained

2.3.8 Fair value measurement

The Group measures financial instruments such as derivatives, and non-financial assets such as investment properties, at fair value at each balance sheet date. Fair value related disclosures for financial instruments and non-financial assets that are measured at fair value or where fair values are disclosed, are summarized in the following notes:

	Notes
➢ Disclosure for valuation methods, significant estimates and assumptions	2, 36
➢ Quantitative disclosures of fair value measurement hierarchy	2, 36
➢ Unlisted equity investments	36
➢ Investment properties	13
➢ Financial instruments (including those carried at amortized cost)	4, 36

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The fair value measurement is based on the presumption that the transaction to sell the asset or transfer the liability takes place either:

2. Basis of preparation and summary of significant accounting policies (cont'd)

- In the principal market for the asset or liability, or
- In the absence of a principal market, in the most advantageous market for the asset or liability

The principal or the most advantageous market must be accessible by the Group.

The fair value of an asset or a liability is measured using the assumptions that market participants would use when pricing the asset or liability, assuming that market participants act in their economic best interest.

A fair value measurement of a non-financial asset takes into account a market participant's ability to generate economic benefits by using the asset in its highest and best use or by selling it to another market participant that would use the asset in its highest and best use.

The Group uses valuation techniques that are appropriate in the circumstances and for which sufficient data are available to measure fair value, maximizing the use of relevant observable inputs and minimizing the use of unobservable inputs.

All assets and liabilities for which fair value is measured or disclosed in the financial statements are categorized within the fair value hierarchy, described as follows, based on the lowest level input that is significant to the fair value measurement as a whole:

- Level 1 Quoted (unadjusted) market prices in active markets for identical assets or liabilities
- Level 2 Valuation techniques for which the lowest level input that is significant to the fair value measurement is directly or indirectly observable
- Level 3 Valuation techniques for which the lowest level input that is significant to the fair value measurement is unobservable

For assets and liabilities that are recognized in the financial statements on a recurring basis, the Group determines whether transfers have occurred between levels in the hierarchy by re-assessing categorization (based on the lowest level input that is significant to the fair value measurement as a whole) at the end of each reporting period.

The Group determines the policies and procedures for both recurring fair value measurement, such as unquoted AFS financial assets, and for non-recurring measurement, such as assets held for distribution in discontinued operation.

External valuers are involved for valuation of significant assets, such as properties and AFS financial assets, and significant liabilities, such as contingent consideration. Involvement of external valuers is decided upon annually by the valuation committee after discussion with and approval by the Group's audit committee. Selection criteria include market knowledge, reputation, independence and whether professional standards are maintained. Valuers are normally rotated every three years. The valuation committee decides, after discussions with the Group's external valuers, which valuation techniques and inputs to use for each case.

At each reporting date, the valuation committee analyses the movements in the values of assets and liabilities which are required to be re-measured or re-assessed as per the Group's accounting policies. For this analysis, the valuation committee verifies the major inputs applied in the latest valuation by agreeing the information in the valuation computation to contracts and other relevant documents.

The valuation committee, in conjunction with the Group's external valuers, also compares each the changes in the fair value of each asset and liability with relevant external sources to determine whether the change is reasonable.

On an interim basis, the valuation committee and the Group's external valuers present the valuation results to the audit committee and the Group's independent auditors. This includes a discussion of the major assumptions used in the valuations.

For the purpose of fair value disclosures, the Group has determined classes of assets and liabilities on the basis of the nature, characteristics and risks of the asset or liability and the level of the fair value hierarchy as explained above.

2. Basis of preparation and summary of significant accounting policies (cont'd)

2.3.9 Impairment of non-financial assets

The Group assesses, at each reporting date, whether there is an indication that an asset may be impaired. If any indication exists, or when annual impairment testing for an asset is required, the Group estimates the asset's recoverable amount. An asset's recoverable amount is the higher of an asset's or cash-generating unit's (CGU) fair value less costs of disposal and its value in use. Recoverable amount is determined for an individual asset, unless the asset does not generate cash inflows that are largely independent of those from other assets or groups of assets. When the carrying amount of an asset or CGU exceeds its recoverable amount, the asset is considered impaired and is written down to its recoverable amount.

In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. In determining fair value less costs of disposal, recent market transactions are taken into account. If no such transactions can be identified, an appropriate valuation model is used. These calculations are corroborated by valuation multiples, quoted share prices for publicly traded companies or other available fair value indicators.

The Group bases its impairment calculation on detailed budgets and forecast calculations, which are prepared separately for each of the Group's CGUs to which the individual assets are allocated. These budgets and forecast calculations generally cover a period of five years. For longer periods, a long-term growth rate is calculated and applied to project future cash flows after the fifth year.

Impairment losses of continuing operations, including impairment on inventories, are recognized in the statement of comprehensive income in expense categories consistent with the function of the impaired asset, except for properties previously revalued with the revaluation taken to OCI. For such properties, the impairment is recognized in OCI up to the amount of any previous revaluation.

For assets excluding goodwill, an assessment is made at each reporting date to determine whether there is an indication that previously recognized impairment losses no longer exist or have decreased. If such indication exists, the Group estimates the asset's or CGU's recoverable amount. A previously recognized impairment loss is reversed only if there has been a change in the assumptions used to determine the asset's recoverable amount since the last impairment loss was recognized. The reversal is limited so that the carrying amount of the asset does not exceed its recoverable amount, nor exceed the carrying amount that would have been determined, net of depreciation, had no impairment loss been recognized for the asset in prior years. Such reversal is recognized in the statement of comprehensive income unless the asset is carried at a revalued amount, in which case, the reversal is treated as a revaluation increase.

The following assets have specific characteristics for impairment testing:

Goodwill
Goodwill is tested for impairment annually as at December 31 and when circumstances indicate that the carrying value may be impaired

Impairment is determined for goodwill by assessing the recoverable amount of each CGU (or group of CGUs) to which the goodwill relates. When the recoverable amount of the CGU is less than its carrying amount, an impairment loss is recognized. Impairment losses relating to goodwill cannot be reversed in future periods.

Intangible assets
Intangible assets with indefinite useful lives are tested for impairment annually as at December 31 at the CGU level, as appropriate, and when circumstances indicate that the carrying value may be impaired.

2. Basis of preparation and summary of significant accounting policies (cont'd)

2.3.10 Pension benefits

The Group operates a defined benefit pension plan in Korea, which require contributions to be made to a separately administered fund. The cost of providing benefits under the defined benefit plan is determined using the projected unit credit method. Re-measurements, comprising of actuarial gains and losses, the effect of the asset ceiling, excluding net interest (not applicable to the Group) and the return on plan assets (excluding net interest), are recognized immediately in the statement of financial position with a corresponding debit or credit to retained earnings through OCI in the period in which they occur. Re-measurements are not reclassified to profit or loss in subsequent periods.

Past service costs are recognized in profit or loss on the earlier of:

- The date of the plan amendment or curtailment, and
- The date that the Group recognizes restructuring-related costs

Net interest is calculated by applying the discount rate to the net defined benefit liability or asset. The Group recognizes service costs and net interest expense in the net defined benefit obligation under cost of sales and selling and administrative expenses.

2.3.11 Share-based payments

Employees (including senior executives) of the Group receive remuneration in the form of share-based payments, whereby employees render services as consideration for equity instruments (equity-settled transactions).

The cost of equity-settled transactions is determined by the fair value at the date when the grant is made using an appropriate valuation model. That cost is recognized, together with a corresponding increase in other capital reserves in equity, over the period in which the performance and/or service conditions are fulfilled in employee benefits expense. The cumulative expense recognized for equity-settled transactions at each reporting date until the vesting date reflects the extent to which the vesting period has expired and the Group's best estimate of the number of equity instruments that will ultimately vest. The statement of comprehensive income expense or credit for a period represents the movement in cumulative expense recognized as at the beginning and end of that period and is recognized in employee benefits expense.

No expense is recognized for awards that do not ultimately vest, except for equity-settled transactions for which vesting are conditional upon a market or non-vesting condition. These are treated as vesting irrespective of whether or not the market or non-vesting condition is satisfied, provided that all other performance and/or service conditions are satisfied.

When the terms of an equity-settled award are modified, the minimum expense recognized is the expense had the terms had not been modified, if the original terms of the award are met. An additional expense is recognized for any modification that increases the total fair value of the share-based payment transaction, or is otherwise beneficial to the employee as measured at the date of modification.

When an equity-settled award is cancelled, it is treated as if it vested on the date of cancellation, and any expense not yet recognized for the award is recognized immediately. This includes any award where non-vesting conditions within the control of either the entity or the employee are not met. However, if a new award is substituted for the cancelled award, and designated as a replacement award on the date that it is granted, the cancelled and new awards are treated as if they were a modification of the original award, as described in the previous paragraph.

The dilutive effect of outstanding options is reflected as additional share dilution in the computation of diluted earnings per share.

2. Basis of preparation and summary of significant accounting policies (cont'd)

2.3.12 Foreign currencies

The Group's consolidated financial statements are presented in Korean won, which is also the parent company's functional currency. For each entity, the Group determines the functional currency and items included in the financial statements of each entity are measured using that functional currency.

Transactions in foreign currencies (other than its functional currency) are initially recorded by the Group 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.

Differences arising on settlement or translation of monetary items are recognized in profit or loss with the exception of monetary items that are designated as part of the hedge of the Group's net investment of a foreign operation. These are recognized in OCI 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 on those monetary items are also recorded in OCI.

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 on 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 OCI or profit or loss is also recognized in the consolidated statement of comprehensive income).

On consolidation, the assets and liabilities of foreign operations are translated into Korean won at the rate of exchange prevailing at the reporting date and their statement of comprehensive income are translated at exchange rates prevailing at the dates of the transactions. The exchange differences arising on translation for consolidation are recognized in OCI. On disposal of a foreign operation, the component of OCI relating to that particular foreign operation is recognized in profit or loss.

Any goodwill arising on the acquisition of a foreign operation and any fair value adjustments to the carrying amounts of assets and liabilities arising on the acquisition are treated as assets and liabilities of the foreign operation and translated at the spot rate of exchange at the reporting date.

2.3.13 Current versus non-current classification

The Group presents assets and liabilities in the statement of financial position based on current/non-current classification. An asset is current when it is:

- Expected to be realized or intended to be sold or consumed in the normal operating cycle
- Held primarily for the purpose of trading
- Expected to be realized within twelve months after the reporting period, or
- Cash or cash equivalent unless restricted from being exchanged or used to settle a liability for at least twelve months after the reporting period

All other assets are classified as non-current.

A liability is current when:

- It is expected to be settled in the normal operating cycle
- It is held primarily for the purpose of trading
- It is due to be settled within twelve months after the reporting period, or
- There is no unconditional right to defer the settlement of the liability for at least twelve months after the reporting period

The Group classifies all other liabilities as non-current.

Deferred tax assets and liabilities are classified as non-current assets and liabilities.

2. Basis of preparation and summary of significant accounting policies (cont'd)

2.3.14 Taxes

(1) 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 statement 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.

(2) 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 at the reporting date.

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

- When the deferred tax liability arises from the initial recognition goodwill or 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
- 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

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:

- When 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
- 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.

2. Basis of preparation and summary of significant accounting policies (cont'd)

Tax benefits acquired as part of a business combination, but not satisfying the criteria for separate recognition at that date, are recognized subsequently if new information about facts and circumstances change. The adjustment is either treated as a reduction in goodwill (as long as it does not exceed goodwill) if it was incurred during the measurement period or recognized in profit or loss.

2.3.15 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, regardless of when the payment is being made. Revenue is measured at the fair value of the consideration received or receivable, taking into account contractually defined terms of payment and excluding taxes or duty. The Group has concluded that it is the principal in all of its revenue arrangements since it is the primary obligor in all the revenue arrangements, has pricing latitude and is also exposed to inventory and credit risks.

(1) Sale of goods

Revenue from the sale of goods is recognized when the goods have passed to the buyer, usually on delivery of the goods.

(2) Rendering of services

When the contract outcome can be measured reliably, the revenue is recognized by reference to the stage of completion. When the contract outcome cannot be measured reliably, it is recognized only to the extent that the expenses incurred are eligible to be recovered.

(3) Lease contract

Lease is an agreement whereby the lessor conveys to the lessee in return for a payment or series of payments the right to use an asset for an agreed period of time. A lease is classified as a finance lease if it transfers substantially all the risks and rewards incidental to ownership of at the lease's agreement. A lease other than a finance lease is classified as an operating lease. Lease income from operating leases is recognized in income on a straight-line basis over the lease term. Costs, including depreciation, incurred in earning the lease income are recognized as an expense. Initial direct costs incurred by lessors in negotiating and arranging an operating lease is added to the carrying amount of the leased asset and recognized as an expense over the lease term on the same basis as the lease income. The depreciation policy for depreciable leased assets is consistent with the lessor's depreciation policy for similar assets.

(4) Construction contract

Construction contracts as defined in *KIFRS 1011 Construction Contracts* are contracts specifically negotiated for the construction of an asset. When the outcome of a construction contract can be estimated reliably and it is highly probable that the contract will be profitable, contract revenue is recognized over the period of the contract. The contract cost is recognized as expenses by reference to the stage of completion of the contract, and when loss on the construction contract is expected, the expected loss is immediately recognized as an expense.

When the outcome of a construction contract cannot be estimated reliably, contract revenue is recognized only to the extent of contract costs incurred that are likely to be recoverable. Variations in contract work, claims and incentive payments are included in contract revenue to the extent that may have been agreed with the customer and are capable of being reliably measured. A contact cost is recognized as incurred.

The stage of completion is measured by reference to the contract costs incurred up to the end of the reporting period as a percentage of total estimated costs for each contract. Costs incurred in the year in connection with future activity on a contract are excluded from contract costs in determining the stage of completion. These amounts are recognized as inventories, advances from customers or other assets depending on its nature.

2. Basis of preparation and summary of significant accounting policies (cont'd)

In cases where the aggregate amount of costs incurred and recognized profits (less recognized losses) exceeds progress billings, the total cost incurred plus recognized profits (less recognized losses and progress billings) represents an asset (unbilled amount). In cases where progress billing exceeds the aggregate amount of costs incurred and recognized profits (less recognized losses), the aggregate amount of recognized losses plus progress billing (less cost incurred and recognized profits) represents a liability (overbilled amount).

(5) Interest income

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

(6) Dividends

Revenue is recognized when the Group's right to receive the payment is established.

2.3.16 Government Grants

Government grants are recognized at their fair values when there is reasonable assurance that the grant will be received and all attached conditions will be complied with. Government grants related to assets are presented by deducting the grants in arriving at the carrying amount of the assets, and grants related to income are deferred and presented by deducting the related expenses for the purpose of the government grants.

2.3.17 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 asset. All other borrowing costs are expensed in the period in which they occur. Borrowing costs consist of interest and other costs that an entity incurs in connection with the borrowing of funds.

2.3.18 Treasury shares

Own equity instruments that are reacquired (treasury shares) are recognized at cost and deducted from equity. No gain or loss is recognized in profit or loss on the purchase, sale, issue or cancellation of the Group's own equity instruments. Any difference between the carrying amount and the consideration, if reissued, is recognized in share premium. Share options exercised during the reporting period are satisfied with treasury shares.

2.3.19 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. When 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 a provision is presented the statement of comprehensive income net of any reimbursement.

(1) Product warranty provisions

The Group accrues provisions for product warranty, exchange and refund, repairs and after-sales service based on historical experience and warranty period of twelve months.

(2) Sales return provisions

The Group accrues provisions for sales return based on historical experience.

2. Basis of preparation and summary of significant accounting policies (cont'd)

(3) Construction warranty provisions

The Group accrues provisions for the obligation to perform warranty repairs after construction has been completed, based on historical experience and terms of construction warranty. The warranty expenses are included in construction costs in the year of construction completion.

2.4 New and amended standards and interpretations

The Group applied for the first time certain standards and amendments, which are effective for annual periods beginning on or after January 1, 2015. The nature and the impact of each new standard and amendment are described below:

Amendments to KIFRS 1019 Defined Benefit Plans: Employee Contributions
KIFRS 1019 requires an entity to consider contributions from employees or third parties when accounting for defined benefit plans. Where the contributions are linked to service, they should be attributed to periods of service as a negative benefit. These amendments clarify that, if the amount of the contributions is independent of the number of years of service, an entity is permitted to recognize such contributions as a reduction in the service cost in the period in which the service is rendered, instead of allocating the contributions to the periods of service. This amendment is effective for annual periods beginning on or after July 1, 2014. This amendment is not relevant to the Group, since none of the entities within the Group has defined benefit plans with contributions from employees or third parties.

2.5 Significant accounting judgments

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

Other disclosures relating to the Group's exposure to risks and uncertainties includes financial risk management and policies (Note 37), sensitivity analysis and disclosure (Notes 17 and 37).

2.5.1 Accounting judgments

In the process of applying the Group's accounting policies, management has made the following judgments, which have the most significant effect on the amounts recognized in the financial statements:

(1) Lease commitments – lessor

The Group has entered into lease contracts on the rental assets as a provider. The Group has determined, based on an evaluation of the terms and conditions of the arrangements, that the lease contracts are operating leases if they retain the significant portions of risks and rewards of these rental assets. However, if the significant portions of risks and rewards of the rental assets are transferred to a lessee, the Group classified the contracts as finance leases at the inception of the lease.

2.5.2 Accounting estimates and changes

The key assumptions concerning the future and other key sources of estimation uncertainty at the reporting date, that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year, are described below. The Group based its assumptions and estimates on parameters available when the consolidated financial statements were prepared. Existing circumstances and assumptions about future developments, however, may change due to market changes or circumstances arising beyond the control of the Group. Such changes are reflected in the assumptions when they occur.

2. Basis of preparation and summary of significant accounting policies (cont'd)

(1) Impairment of non-financial assets

The Group determines whether impairment indications on non-financial assets exist at the end of the reporting period. Impairment test on goodwill and intangible assets with indefinite lives is to be performed every year or when impairment indication exists. Impairment test on other non-financial assets will be performed when the recoverable amount from the assets is higher than the book value. The Group estimates the future expected cashflows from the assets or CGUs by applying the appropriate interest rates to calculate the value in use.

(2) Share-based payments

The Group measures the cost of equity-settled transactions with employees by reference to the fair value of the equity instruments at the date at which they are granted. Estimating fair value for share-based payment transactions requires determination of the most appropriate valuation model, which is dependent on the terms and conditions of the grant. This estimate also requires determination of the most appropriate inputs to the valuation model including the expected life of the share option, volatility and dividend yield and making assumptions about them. The assumptions and models used for estimating fair value for share-based payment transactions are disclosed in Note 25.

(3) Defined benefit plans (pension benefits)

The cost of the defined benefit pension plan and other post-employment medical benefits and the present value of the pension obligation are determined using actuarial valuations. An actuarial valuation involves making various assumptions that may differ from actual developments in the future. These include the determination of the discount rate, future salary increases, mortality rates and future pension increases. Due to the complexities involved in the valuation and its long-term nature, a defined benefit obligation is highly sensitive to changes in these assumptions. All assumptions are reviewed at each reporting date.

In determining the appropriate discount rate, management considers the interest rates of corporate bonds in currencies consistent with the currencies of the post-employment benefit obligation with at least an 'AA' rating or above, as set by an internationally acknowledged rating agency. The mortality rate is based on publicly available mortality tables for the specific countries. Future salary increases and pension increases are based on expected future inflation rates for the respective countries.

2.6 Account reclassification of the financial statements for the prior year

The Group reclassified certain accounts on the prior year consolidated financial statements for the purpose of enhancing comparability of the consolidated financial statements consistent with the current presentation. Due from customers for construction contract and reserve for agent losses were reclassified into other assets and other liabilities, which had been presented as other financial assets and other financial liabilities. This reclassification did not affect net assets amount or net income.

2.7 Standards issued but not yet effective

The standards and interpretations that are issued, but not yet effective, up to the date of issuance of the Group's financial statements are disclosed below. The Group intends to adopt these standards when they become effective.

2. Basis of preparation and summary of significant accounting policies (cont'd)

KIFRS 1109 Financial Instruments

The KASB issued the final version of KIFRS 1109 Financial Instruments that replaces KIFRS 1039 Financial Instruments: Recognition and Measurement and all previous versions. KIFRS 1109 brings together all three aspects of the accounting for financial instruments project: classification and measurement, impairment and hedge accounting. KIFRS 1109 is effective for annual periods beginning on or after January 1, 2018, with early application permitted. Except for hedge accounting, retrospective application is required but providing comparative information is not compulsory. For hedge accounting, the requirements are generally applied prospectively, with some limited exceptions. The Group plans to adopt the new standard on the required effective date.

KIFRS 1115 Revenue from Contracts with Customers

Under KIFRS 1115, revenue is recognized at an amount that reflects the consideration to which an entity expects to be entitled in exchange for transferring goods or services to a customer. The new revenue standard will supersede all current revenue recognition requirements under KIFRS. Either a full retrospective application or a modified retrospective application is required for annual periods beginning on or after January 1, 2018. Early adoption is permitted. The Group plans to adopt the new standard on the required effective date using the full retrospective method.

Amendments to KIFRS 1111 Joint Arrangements: Accounting for Acquisitions of Interests

The amendments to KIFRS 1111 require that a joint operator accounting for the acquisition of an interest in a joint operation, in which the activity of the joint operation constitutes a business, must apply the relevant KIFRS 1103 principles for business combinations accounting. The amendments also clarify that a previously held interest in a joint operation is not remeasured on the acquisition of an additional interest in the same joint operation while joint control is retained. In addition, a scope exclusion has been added to KIFRS 1111 to specify that the amendments do not apply when the parties sharing joint control, including the reporting entity, are under common control of the same ultimate controlling party.

The amendments apply to both the acquisition of the initial interest in a joint operation and the acquisition of any additional interests in the same joint operation and are prospectively effective for annual periods beginning on or after January 1, 2016, with early adoption permitted. These amendments are not expected to have an impact on the Group.

Amendments to KIFRS 1016 and KIFRS 1038: Clarification of Acceptable Methods of Depreciation and Amortization

The amendments clarify the principle in KIFRS 1016 and KIFRS 1038 that revenue reflects a pattern of economic benefits that are generated from operating a business (of which the asset is part) rather than the economic benefits that are consumed through use of the asset. As a result, a revenue-based method cannot be used to depreciate property, plant and equipment and may only be used in very limited circumstances to amortize intangible assets. The amendments are effective prospectively for annual periods beginning on or after January 1, 2016, with early adoption permitted. These amendments are not expected to have any impact to the Group given that the Group has not used a revenue-based method to depreciate its non-current assets.

Amendments to KIFRS 1027: Equity Method in Separate Financial Statements

The amendments will allow entities to use the equity method to account for investments in subsidiaries, joint ventures and associates in their separate financial statements. Entities already applying KIFRS and electing to change to the equity method in its separate financial statements will have to apply that change retrospectively. For first-time adopters of KIFRS electing to use the equity method in its separate financial statements, they will be required to apply this method from the date of transition to KIFRS. The amendments are effective for annual periods beginning on or after January 1, 2016, with early adoption permitted. These amendments will not have any impact on the Group's consolidated financial statements.

2. Basis of preparation and summary of significant accounting policies (cont'd)

Amendments to KIFRS 1110 and KIFRS 1028: Sale or Contribution of Assets between an Investor and its Associate or Joint Venture
The amendments address the conflict between KIFRS 1110 and KIFRS 1028 in dealing with the loss of control of a subsidiary that is sold or contributed to an associate or joint venture. The amendments clarify that the gain or loss resulting from the sale or contribution of assets that constitute a business, as defined in KIFRS 1103, between an investor and its associate or joint venture, is recognized in full. Any gain or loss resulting from the sale or contribution of assets that do not constitute a business, however, is recognized only to the extent of unrelated investors' interests in the associate or joint venture. These amendments must be applied prospectively and are effective for annual periods beginning on or after January 1, 2016, with early adoption permitted. These amendments are not expected to have any impact on the Group.

Amendments to KIFRS 1001 Disclosure Initiative
The amendments to KIFRS 1001 Presentation of Financial Statements clarify, rather than significantly change, existing KIFRS 1110 requirements. The amendments clarify:

- The materiality requirements in KIFRS 1001
- That specific line items in the statement(s) of profit or loss and OCI and the statement of financial position may be disaggregated
- That entities have flexibility as to the order in which they present the notes to financial statements
- That the share of OCI of associates and joint ventures accounted for using the equity method must be presented in aggregate as a single line item, and classified between those items that will or will not be subsequently reclassified to profit or loss

Furthermore, the amendments clarify the requirements that apply when additional subtotals are presented in the statement of financial position and the statement(s) of profit or loss and OCI. These amendments are effective for annual periods beginning on or after January 1, 2016, with early adoption permitted. These amendments are not expected to have any impact on the Group.

Amendments to KIFRS 1110, KIFRS 1112 and KIFRS 1028 Investment Entities: Applying the Consolidation Exception
The amendments address issues that have arisen in applying the investment entities exception under KIFRS 1110. The amendments to KIFRS 1110 clarify that the exemption from presenting consolidated financial statements applies to a parent entity that is a subsidiary of an investment entity, when the investment entity measures all of its subsidiaries at fair value.

Furthermore, the amendments to KIFRS 1110 clarify that only a subsidiary of an investment entity that is not an investment entity itself and that provides support services to the investment entity is consolidated. All other subsidiaries of an investment entity are measured at fair value. The amendments to KIFRS 1028 allow the investor, when applying the equity method, to retain the fair value measurement applied by the investment entity associate or joint venture to its interests in subsidiaries. These amendments must be applied retrospectively and are effective for annual periods beginning on or after January 1, 2016, with early adoption permitted. These amendments are not expected to have any impact on the Group.

3. Segment information

(1) Details of the Group's reportable segments are as follows:

The management in strategic decision making of the Group determines the operating segment. The management monitors the operating results of its business units separately for the purpose of making decision about resource allocation and performance assessment. The management of the Group has responsibilities of evaluating the resource allocation and performance of segment.

Business units are organized based on its products and services and has three reportable segments, as follows:

Business unit	Principal activity
Rental	Rental service of water purifiers, bidets and others including regular services to membership customers
Outright sales	Sales of water purifiers, bidets, cosmetics and others to customers
Others	Construction contract for water management facilities and others

Most of the Group's operations are conducted within Korea and, with regards to rental business unit, some lease products or goods are exported to the United State, China, Malaysia and elsewhere.

(2) Financial performance information by segment for the years ended December 31, 2015 and 2014 are as follows (Korean won in thousands):

	2015			
	Rental	Outright sales	Others	Total
Sales	₩ 1,830,707,970	₩ 457,428,963	₩ 112,021,343	₩ 2,400,158,276
Inter-segment revenue	-	(73,219,040)	(11,696,953)	(84,915,993)
Revenue from external customers	1,830,707,970	384,209,923	100,324,390	2,315,242,283
Gross profit	1,364,057,086	196,106,131	26,235,973	1,586,399,190

	2014			
	Rental	Outright sales	Others	Total
Sales	₩ 1,682,932,810	₩ 448,385,692	₩ 85,298,168	₩ 2,216,616,670
Inter-segment revenue	-	(50,225,434)	(6,075,706)	(56,301,140)
Revenue from external customers	1,682,932,810	398,160,258	79,222,462	2,160,315,530
Gross profit	1,230,308,187	177,991,090	25,449,094	1,433,748,371

(3) Geographic information for the years ended December 31, 2015 and 2014 are as follows:

	2015			
	Domestic	U.S.A.	Asia	Total
Total revenue	₩ 2,226,220,190	₩ 57,234,598	₩ 116,703,488	₩ 2,400,158,276
Internal revenue	(84,915,993)	-	-	(84,915,993)
Net revenue	2,141,304,197	57,234,598	116,703,488	2,315,242,283
Tangible assets, intangible assets and investment properties	830,537,076	14,122,854	46,812,173	891,472,103

3. Segment information (cont'd)

	2014							
	Domestic		U.S.A.		Asia		Total	
Total revenue	₩	2,040,149,583	₩	44,024,370	₩	132,442,717	₩	2,216,616,670
Internal revenue		(56,301,140)		-		-		(56,301,140)
Net revenue		1,983,848,444		44,024,370		132,442,717		2,160,315,531
Tangible assets, intangible assets and investment properties		832,473,762		12,304,046		27,446,627		872,224,435

(4) There are no customers contribution 10% or more the Group's total revenue.

4. Financial instruments

(1) Categories of the Group's financial instruments as at December 31, 2015 and 2014 are as follows (Korean won in thousands):

	2015							
	Loans and receivables		Available-for-sale financial assets		Financial liabilities measured at amortized cost		Total	
<Assets>								
Cash and cash equivalents	₩	116,307,900	₩	-	₩	-	₩	116,307,900
Trade receivables		256,015,920		-		-		256,015,920
Finance lease receivables		8,955,735		-		-		8,955,735
Other short-term financial assets		15,398,219		-		-		15,398,219
Finance lease receivables		28,144,342		-		-		28,144,342
Other long-term financial assets		52,068,160		-		-		52,068,160
Available-for-sale assets		-		2,430,096		-		2,430,096
	₩	476,890,276	₩	2,430,096	₩	-	₩	479,320,372
<Liabilities>								
Trade payables	₩	-	₩	-	₩	59,799,441	₩	59,799,441
Other short-term financial liabilities		-		-		183,985,891		183,985,891
Short-term borrowings		-		-		80,040,719		80,040,719
Other long-term financial liabilities		-		-		2,203,221		2,203,221
Long-term borrowings		-		-		7,951,000		7,951,000
	₩	-	₩	-	₩	333,980,272	₩	333,980,272

4. Financial instruments (cont'd)

	2014			
	Loans and receivables	Available-for-sale financial assets	Financial liabilities measured at amortized cost	Total
<Assets>				
Cash and cash equivalents	₩ 147,363,023	₩ -	₩ -	₩ 147,363,023
Trade receivables	208,800,401	-	-	208,800,401
Other short-term financial assets	22,201,169	-	-	22,201,169
Other long-term financial assets	52,584,883	-	-	52,584,883
Available-for-sale assets	-	2,417,367	-	2,417,367
	₩ 430,949,476	₩ 2,417,367	₩ -	₩ 433,366,843
<Liabilities>				
Trade payables	₩ -	₩ -	₩ 59,047,507	₩ 59,047,507
Other short-term financial liabilities	-	-	176,409,759	176,409,759
Short-term borrowings	-	-	164,403,282	164,403,282
Other long-term financial liabilities	-	-	2,573,263	2,573,263
Long-term borrowings	-	-	932,000	932,000
	₩ -	₩ -	₩ 403,365,811	₩ 403,365,811

4. Financial instruments (cont'd)

(2) Gains or losses on financial instruments for the years ended December 31, 2015 and 2014 are as follows (Korean won in thousands):

		2015		2014
<Loans and receivables>				
Interest income	₩	1,423,153	₩	2,700,904
Gain on foreign currency translation		6,286,033		4,263,487
Loss on foreign currency translation		(11,714)		(52,538)
Loss on impairment of trade receivables		(20,454,788)		(14,355,239)
Loss on impairment of other receivables		(1,365,204)		(4,397,736)
<Available-for-sale financial assets>				
Gain or loss on valuation (OCI) (*1)		9,879		9,369
Dividend income		-		2,556
Gain on disposal of available-for-sales		23		-
Impairment of available-for-sales		-		(62,111)
<Derivatives for hedging>				
Gain on valuation of derivatives (OCI) (*1)		-		195,728
<Financial liabilities measured at amortized cost>				
Interest expense		(4,339,055)		(11,530,471)
Gain on foreign exchange translation		3,296,765		2,241,587
Loss on foreign exchange translation		(13,382,033)		(4,531,483)

(*1) Represents net of related income tax.

The Group accounted for ₩4,822 million (2014: ₩3,410 million) of gain on foreign exchange transactions and ₩3,897 million (2014: ₩5,455 million) of loss on foreign exchange transactions from trade receivables, other short-term financial assets, other long-term financial assets and trade payables denominated in foreign currencies.

5. Cash and cash equivalents

Details of cash and cash equivalents as at December 31, 2015 and 2014 are as follows (Korean won in thousands):

		2015		2014
Cash	₩	50,905	₩	56,981
Checking account		76,931,876		59,342,666
Savings account		39,280,494		87,325,316
Other cash equivalents		44,625		638,060
	₩	116,307,900	₩	147,363,023

6. Trade receivables and finance lease receivables

(1) Trade receivables as at December 31, 2015 and 2014 are as follows (Korean won in thousands):

		2015		2014
<Current>				
Trade receivables	₩	300,535,267	₩	255,342,997
Less: allowance for doubtful accounts		(44,519,347)		(46,542,596)
Finance lease receivables		9,652,644		-
Less: present value discount of lease receivables		(184,937)		-
Less: allowance for doubtful accounts		(511,971)		-
	₩	264,971,656	₩	208,800,401
<Non-current>				
Trade receivables	₩	8,069,052	₩	-
Less: allowance for doubtful accounts		(8,069,052)		-
Finance lease receivables		34,962,512		-
Less: present value discount of lease receivables		(4,768,442)		-
Less: allowance for doubtful accounts		(2,049,730)		-
	₩	28,144,342	₩	-

(2) The aging analyses of trade receivables as at December 31, 2015 and 2014 are as follows (Korean won in thousands):

		2015		2014
Receivables not past due	₩	279,940,185	₩	192,030,882
		279,940,185		192,030,882
Past due but not impaired:				
Less than 6 months		15,053,433		15,319,882
6 to 12 months		3,038,400		486,146
More than 12 months		37,357		963,491
		18,129,190		16,769,519
Impaired		55,150,100		46,542,596
	₩	353,219,475	₩	255,342,997

(3) Changes in the allowance for doubtful accounts of trade receivables for the years ended December 31, 2015 and 2014 are as follows (Korean won in thousands):

		2015		2014
As at January 1	₩	46,542,595	₩	37,499,157
Impairment loss		20,454,788		14,135,239
Write-off of uncollectable amounts		(8,993,649)		(5,593,296)
Reversal of write-off		-		88,956
Changes in the scope of consolidation		(2,300,455)		-
Exchange difference		(553,179)		412,539
As at December 31	₩	55,150,100	₩	46,542,595

7. Other financial assets

Details of other financial assets as at December 31, 2015 and 2014 are as follows (Korean won in thousands):

		2015		2014
<Other short-term financial assets>				
Short-term loans	₩	263,609	₩	6,350,523
Other receivables		35,160,374		36,453,593
Accrued income		416		21,778
Less: provision for impairment loss		(20,026,180)		(20,624,725)
	₩	15,398,219	₩	22,201,169
<Other long-term financial assets>				
Long-term financial instruments	₩	8,982,813	₩	8,333,658
Long-term loans		500,000		763,314
Guarantee deposits		42,658,448		43,492,421
Other long-term trade and other receivables		3,179,073		3,179,073
Others		490		490
Less: provision for impairment loss		(3,252,664)		(3,184,073)
	₩	52,068,160	₩	52,584,883

The impairment has occurred from refund receivables for sales commission and leasehold deposits in other financial assets. The Group recognizes impairment loss on these other financial assets by individual analysis.

(2) The most of other short-term financial assets are less than one year, and most of other long-term financial assets are between one and two years. Since other financial assets are spread to various customers, there is no significant concentrated exposure to credit risk.

(3) Changes in provision for doubtful accounts on other financial assets for the years ended December 31, 2015 and 2014 are as follows (Korean won in thousands):

		2015		2014
<Other short-term financial assets>				
As at January 1	₩	20,624,725	₩	17,998,209
Impairment loss		1,296,614		4,397,736
Disposal of impaired receivables		(6,412)		(559,448)
Exchange difference		(1,888,747)		(1,211,772)
As at December 31	₩	20,026,180	₩	20,624,725
<Other long-term financial assets>				
As at January 1	₩	3,184,073	₩	2,964,073
Impairment loss		68,591		220,000
As at December 31	₩	3,252,664	₩	3,184,073

8. Other assets

Details of other assets as at December 31, 2015 and 2014 are as follows (Korean won in thousands):

	2015	2014
<Other current assets>		
Advance payments	₩ 11,470,231	₩ 4,019,504
Prepaid expenses	160,973,013	147,283,526
Due from customers for construction contract	12,251,705	4,551,773
Others	996,021	675,780
	₩ 185,690,970	₩ 156,530,583
<Other non-current assets>		
Long-term prepaid expenses	₩ 146,956,260	₩ 96,607,389
Others	124,330	124,330
	₩ 147,080,590	₩ 96,731,719

9. Inventories

Details of inventories as at December 31, 2015 and 2014 are as follows (Korean won in thousands):

	2015		
	Acquisition cost	Valuation allowance	Net book value
Merchandise	₩ 44,840,683	₩ (5,455,129)	₩ 39,385,554
Finished goods	25,734,213	(4,049,777)	21,684,436
Work-in-process	364,546	-	364,546
Raw materials	5,519,917	(221,116)	5,298,801
Materials in transit	3,022,141	-	3,022,141
Others	65,331	-	65,331
	₩ 79,546,831	₩ (9,726,022)	₩ 69,820,809

	2014		
	Acquisition cost	Valuation allowance	Net book value
Merchandise	₩ 38,135,422	₩ (3,404,303)	₩ 34,731,119
Finished goods	31,702,068	(13,146,999)	18,555,069
Work-in-process	153,111	-	153,111
Raw materials	9,480,918	(3,765,969)	5,714,949
Materials in transit	2,755,402	-	2,755,402
	₩ 82,226,921	₩ (20,317,271)	₩ 61,909,650

10. Available-for-sale financial assets

(1) Details of available-for-sale financial assets as at December 31, 2015 and 2014 are as follows (Korean won in thousands):

	2015			2014
	Acquisition cost	Fair value	Book value	Book value
Unmaketable equity securities	₩ 4,134,153	₩ 2,430,096	₩ 2,430,096	₩ 2,417,197
Government bond	-	-	-	170
	₩ 4,134,153	₩ 2,430,096	₩ 2,430,096	₩ 2,417,367

(2) The Group presents available-for-sale financial assets at acquisition cost less any impairment when the fair value cannot be determined reliably or difference between fair value and book value is not significant. Loss on impairment of unmarketable securities amounted to null and ₩1,704 million for the years ended 2015 and 2014, respectively.

(3) Changes in available-for-sale financial assets for the years ended December 31, 2015 and 2014 are as follows (Korean won in thousands):

	2015	2014
As at January 1	₩ 2,417,367	₩ 2,467,078
Disposals	(170)	-
Transfer	232	388
Gain on valuation directly recognized in equity	12,666	12,012
Impairment	-	(62,111)
As at December 31	2,430,095	2,417,367
Less: non-current portions	(2,430,095)	(2,417,367)
Current portion	₩ -	₩ -

11. Property, plant and equipment

(1) Details of property, plant and equipment as at December 31, 2015 and 2014 are as follows (Korean won in thousands):

	2015			
	Acquisition cost	Accumulated depreciation and impairment	Government grants	Book value
Land	₩ 37,523,496	₩ -	₩ -	₩ 37,523,496
Buildings	46,644,053	(7,973,812)	-	38,670,241
Structures	3,335,274	(1,564,830)	-	1,770,444
Machinery and equipment	32,430,520	(15,716,272)	-	16,714,248
Vehicles	949,933	(819,622)	-	130,311
Tools	146,894,607	(104,714,923)	-	42,179,684
Furniture and fixtures	99,161,320	(83,035,725)	-	16,125,595
Rental assets	1,001,466,213	(471,262,057)	-	530,204,156
Others	22,801,032	(18,412,543)	(52,739)	4,335,750
Construction-in-progress	25,217,110	-	(13,359,173)	11,857,937
	₩ 1,416,423,558	₩ (703,499,784)	₩ (13,411,912)	₩ 699,511,862

	2014			
	Acquisition cost	Accumulated depreciation and impairment	Government grants	Book value
Land	₩ 37,523,496	₩ -	₩ -	₩ 37,523,496
Buildings	46,572,054	(6,737,843)	-	39,834,211
Structures	2,811,828	(1,170,531)	-	1,641,297
Machinery and equipment	29,875,667	(12,931,757)	-	16,943,910
Vehicles	955,629	(780,922)	-	174,707
Tools	131,413,205	(89,725,524)	-	41,687,681
Furniture and fixtures	100,624,679	(80,219,230)	-	20,405,449
Rental assets	927,467,022	(430,922,296)	-	496,544,726
Others	26,346,730	(22,032,248)	(111,632)	4,202,850
Construction-in-progress	18,176,801	-	(1,947,263)	16,229,538
	₩ 1,321,767,111	₩ (644,520,351)	₩ (2,058,895)	₩ 675,187,865

11. Property, plant and equipment (cont'd)

(2) Changes in the book value of property, plant and equipment for the years ended December 31, 2015 and 2014 are as follows (Korean won in thousands):

	2015						
	Jan.1	Acquisitions and capital expenditures	Disposal, termination and impairment	Depreciation	Transfer (*1)	Exchange difference	Dec.31
Land	₩ 37,523,496	₩ -	₩ -	₩ -	₩ -	₩ -	₩ 37,523,496
Buildings	39,834,211	71,999	-	(1,235,969)	-	-	38,670,241
Structures	1,641,296	523,447	-	(394,299)	-	-	1,770,444
Machinery and equipment	16,943,910	1,066,362	(4,321)	(2,814,507)	1,610,800	(87,996)	16,714,248
Vehicles	174,707	47,707	-	(78,800)	-	(13,303)	130,311
Tools	41,687,681	14,001,775	(1,172,130)	(16,918,470)	4,589,258	(8,430)	42,179,684
Furniture and fixtures	20,405,449	4,904,618	(953,177)	(7,953,873)	-	(277,422)	16,125,595
Rental assets	496,544,726	285,817,931	(55,942,302)	(188,224,342)	(4,205,339)	(3,786,518)	530,204,156
Others	4,202,851	1,892,179	(4)	(2,143,687)	386,701	(2,290)	4,335,750
Construction-in-Progress	16,229,538	2,215,158	-	-	(6,586,759)	-	11,857,937
	₩675,187,865	₩310,541,176	₩ (58,071,934)	₩(219,763,947)	₩ (4,205,339)	₩ (4,175,959)	₩699,511,862

(*1) Differences between transfer-in and transfer-out of tangible assets were transferred to inventories.
(*2) Borrowing costs capitalized into construction-in-progress are ₩380,894 thousand for the year ended December 31, 2015.

	2014						
	Jan.1	Acquisitions and capital expenditures	Disposal, termination and impairment	Depreciation	Transfer (*1)	Exchange difference	Dec.31
Land	₩ 38,705,828	₩ -	₩ -	₩ -	₩ (1,182,332)	₩ -	₩ 37,523,496
Buildings	41,070,030	-	-	(1,235,819)	-	-	39,834,211
Structures	1,065,439	547,891	-	(249,433)	277,400	-	1,641,297
Machinery and equipment	17,533,213	1,095,534	(11,733)	(2,741,357)	1,080,600	(12,347)	16,943,910
Vehicles	273,034	7,081	(4,613)	(100,107)	-	(688)	174,707
Tools	40,244,519	13,437,123	233,815	(16,314,461)	4,087,459	(775)	41,687,680
Furniture and fixtures	24,343,598	4,469,584	(701,650)	(8,759,001)	1,080,482	(27,564)	20,405,449
Rental assets	465,513,390	263,917,693	(57,813,639)	(172,250,289)	(2,803,477)	(18,951)	496,544,727
Others	7,778,592	1,953,064	(2,324,356)	(3,684,312)	535,880	(56,018)	4,202,850
Construction-in-Progress	1,778,486	20,330,541	-	-	(5,879,489)	-	16,229,538
	₩638,306,129	₩305,758,511	₩ (60,622,176)	₩(205,334,779)	₩ (2,803,477)	₩ (116,343)	₩675,187,865

(*1) Differences between transfer-in and transfer-out of tangible assets were transferred to inventories.

(3) Operating lease commitments

Rental assets are provided under operating lease contracts with numerous customers, and the book value of the rental assets as at December 31, 2015 and 2014 are as follows (Korean won in thousands):

	2015	2014
Rental assets	₩ 530,204,156	₩ 496,544,726

12. Intangible assets

(1) Details of intangible assets as at December 31, 2015 and 2014 are as follows (Korean won in thousands):

	2015		
	Acquisition cost	Accumulated amortization, impairment and government grants	Book value
Goodwill	₩ 132,241,170	₩ (3,240,475)	₩ 129,000,695
Industrial rights	1,543,754	(1,468,382)	75,372
Software	56,915,984	(44,951,486)	11,964,498
Development expenditures	340,453	(340,452)	1
Usage rights	6,186,862	-	6,186,862
Others	34,783,219	(14,175,251)	20,607,968
Development-in-progress	951,285	-	951,285
	₩ 232,962,727	₩ (64,176,046)	₩ 168,786,681

	2014		
	Acquisition cost	Accumulated amortization, impairment and government grants	Book value
Goodwill	₩ 132,241,170	₩ (3,240,475)	₩ 129,000,695
Industrial rights	1,540,863	(699,561)	841,302
Software	50,968,603	(39,425,215)	11,543,388
Development expenditures	340,453	(331,239)	9,214
Usage rights	6,137,433	-	6,137,433
Others	34,773,534	(12,318,247)	22,455,287
Development-in-progress	639,000	-	639,000
	₩ 226,641,056	₩ (56,014,737)	₩ 170,626,319

12. Intangible assets (cont'd)

(2) Changes in the book value of intangible assets for the years ended December 31, 2015 and 2014 are as follows (Korean won in thousands):

	2015						
	Jan.1	Acquisition and capital expenditures	Amortization	Disposal, termination and impairment	Transfer	Exchange difference	Dec.31
Goodwill	₩129,000,695	₩ -	₩ -	₩ -	₩ -	₩ -	₩129,000,695
Industrial rights	841,303	-	(134,967)	(630,964)	-	-	75,372
Software	11,543,386	2,204,948	(5,548,404)	10,590	3,754,750	(772)	11,964,498
Development expenditures	9,215	-	(9,214)	-	-	-	1
Usage rights	6,137,433	1,125,279	-	(1,075,850)	-	-	6,186,862
Others	22,455,287	22,812	(1,870,004)	-	-	(127)	20,607,968
Development-in-progress	639,000	4,067,035	-	-	(3,754,750)	-	951,285
	₩170,626,319	₩ 7,420,074	₩ (7,562,589)	₩ (1,696,224)	₩ -	₩ (899)	₩168,786,681

	2014						
	Jan.1	Acquisition and capital expenditures	Amortization	Disposal, termination and impairment	Transfer	Exchange difference	Dec.31
Goodwill	₩132,241,170	₩ -	₩ -	₩ (3,240,475)	₩ -	₩ -	₩129,000,695
Industrial rights	983,046	-	(151,435)	-	9,692	-	841,303
Software	14,663,950	1,457,461	(5,893,491)	-	1,308,600	6,867	11,543,386
Development expenditures	18,429	-	(9,214)	-	-	-	9,215
Usage rights	3,809,999	3,411,795	-	(1,127,081)	42,720	-	6,137,433
Others	24,325,291	-	(1,870,004)	-	-	-	22,455,287
Development-in-progress	805,674	1,135,926	-	-	(1,302,600)	-	639,000
	₩176,847,559	₩ 6,005,182	₩ (7,924,144)	₩ (4,367,556)	₩ 58,412	₩ 6,867	₩170,626,319

(3) Impairment test of goodwill

Goodwill allocated to the respective cash generating unit (CGU) as at December 31, 2015 and 2014 are as follows (Korean won in thousands):

	2015	2014
Health appliances division	₩ 99,262,568	₩ 99,262,568
Cosmetics division	8,128,348	8,128,348
Green Environment Technology Co., Ltd Division	21,609,779	21,609,779
	₩ 129,000,695	₩ 129,000,695

Goodwill is reviewed annually for impairment. Impairment tests indicate that the carrying amount of CGUs does not exceed the recoverable amount. The recoverable amounts of CGUs have been determined based on value-in-use calculations. These calculations use pre-tax cash flow projections based on financial budgets approved by management covering a five-year period. Net income to sales ratio for the five-year period and the estimated growth rates used for cash flow calculations beyond the five-year period are listed below. The key assumptions used for value-in-use calculations as at December 31, 2015 are as follows:

	Sales growth rate (*1)	Permanent growth rate (*2)	Discount rate (*3)
Health appliances division	5.41%	1%	8.1%
Cosmetics division	8.40%	1%	11.3%
Green Environment Technology Co., Ltd dvision	4.52%	1%	9.3%

(*1) Represent the projected growth rate of average annual sales. The Group estimates cash flows based on past experiences, actual operating performance and business forecast. Revenues included in cash flows reflect business characteristics of each individual reporting segment.

12. Intangible assets (cont'd)

(*2) The Group used the fixed permanent growth rate to estimate the future cash flows of the periods following 2021.

(*3) The Group used weighted average cost of capital as the discount rate to determine the recoverable amount of each reporting segment. Risk-free discount rates, market risk premium and Beta (β) were verified by external information supplied by Bloomberg and were used to calculate capital ratio of each reporting segment.

13. Investment properties

Details of investment properties as at December 31, 2015 and 2014 are as follows (Korean won in thousands):

	2015		
	Acquisition cost	Accumulated depreciation and impairment	Book value
Land	₩ 14,755,498	₩ -	₩ 14,755,498
Buildings	9,446,174	(1,028,111)	8,418,061
	₩ 24,201,672	₩ (1,028,111)	₩ 23,173,559

	2014		
	Acquisition cost	Accumulated depreciation and impairment	Book value
Land	₩ 15,856,335	₩ -	₩ 15,856,335
Buildings	11,791,190	(1,237,275)	10,553,915
	₩ 27,647,525	₩ (1,237,275)	₩ 26,410,250

(2) Changes in investment properties for the years ended December 31, 2015 and 2014 are as follows (Korean won in thousands):

	2015			
	Acquisition cost	Disposal	Depreciation	Net book value
Land	₩ 15,856,335	₩ (1,100,837)	₩ -	₩ 14,755,498
Buildings	10,553,915	(1,788,279)	(347,573)	8,418,061
	₩ 26,410,250	₩ (2,889,116)	₩ (347,573)	₩ 23,173,559

	2014		
	Acquisition cost	Depreciation	Net book value
Land	₩ 15,856,335	₩ -	₩ 15,856,335
Buildings	10,903,344	(349,429)	10,553,915
	₩ 26,759,679	₩ (349,429)	₩ 26,410,250

The fair value of investment properties as at December 31, 2015 amounted to ₩24,469 million (December 31, 2014: ₩28,128 million). Rental income from investment properties for the year ended December 31, 2015 amounted to ₩1,227 million (2014: ₩1,196 million).

14. Other financial liabilities and other liabilities

Other financial liabilities and other liabilities as at December 31, 2015 and 2014 are as follows (Korean won in thousands):

		2015		2014
<Other short-term financial liabilities>				
Other payables	₩	159,493,093	₩	155,784,949
Accrued expenses		24,463,309		20,550,590
Others		29,489		74,220
	₩	183,985,891	₩	176,409,759
<Other long-term financial liabilities>				
Long-term other payables	₩	888,672	₩	914,319
Guarantee deposits withheld		63,346		361,174
Rental deposits withheld		1,206,253		1,212,942
Others		44,950		84,827
	₩	2,203,221	₩	2,573,262
<Other current liabilities>				
Advance receipts	₩	60,519,380	₩	57,213,775
Withholdings		10,360,851		10,014,928
Advance revenue		899,143		2,679,650
Liabilities for government grants		854,922		3,069,518
Due to customer for construction contracts		4,449,020		5,130,936
Others		172,010		1,712,481
	₩	77,255,326	₩	79,821,288
<Other non-current liabilities>				
Long-term advances received	₩	7,281,786	₩	7,549,182
Reserve for agent losses		9,145,771		8,219,381
Others		50,000		200,000
	₩	16,477,557	₩	15,968,563

15. Short-term borrowings

Short-term borrowings as at December 31, 2015 and 2014 are as follows (Korean won in thousands):

Description	Financial institution	Interest rate (%)		2015		2014
Purchase loan	KEB Hana Bank	2.75	₩	23,620,818	₩	40,157,755
〃	Shinhan Bank	2.85		13,908,508		21,527,977
〃	Woori Bank	2.78		12,511,393		21,117,550
Working capital loans	Korea Development Bank	2.67		30,000,000		-
Facility loans	Woori Bank	-		-		1,600,000
CP (commercial paper)	Shinhan Bank	-		-		30,000,000
〃	Woori Investment Bank	-		-		20,000,000
〃	KB Investment & Securities Co.,Ltd.	-		-		30,000,000
			₩	80,040,719	₩	164,403,282

16. Long-term borrowings

Long-term borrowings as at December 31, 2015 and 2014 are as follows (Korean won in thousands):

Description	Financial institution	Interest rate (%)	2015	2014
Project financing (fixed)	NH Bank	6.50	₩ 3,776,000	₩ 466,000
Project financing (variable)	〃	6.50	2,087,500	466,000
	〃	11.00	2,087,500	-
			7,951,000	932,000
	Less: current portion		-	-
			₩ 7,951,000	₩ 932,000

17. Defined benefit liability

(1) Net of defined benefit liability as at December 31, 2015 and 2014 are as follows (Korean won in thousands):

	2015	2014
Defined benefit obligation	₩ 132,859,371	₩ 111,355,074
Plan assets	(120,485,668)	(95,403,671)
	₩ 12,373,703	₩ 15,951,403

(2) Gain and loss related to the defined benefit plan are as follows (Korean won in thousands):

	2015	2014
Current service cost	₩ 21,353,002	₩ 19,966,792
Interest cost on benefit liability	815,270	836,764
Retirement bonus and others	1,232,255	704,228
	₩ 23,400,527	₩ 21,507,784

(3) Changes in the present value of the defined benefit obligation for the years ended December 31, 2015 and 2014 are as follows (Korean won in thousands):

	2015	2014
Beginning balance	₩ 111,355,074	₩ 85,474,316
Pension cost charged to profit or loss:		
Current service cost	21,353,002	19,966,792
Interest cost	3,511,672	3,477,555
Sub-total included in profit or loss	24,864,674	23,444,347
Benefits paid	(7,556,064)	(7,922,928)
Re-measurement gain or loss:		
Actuarial changes arising from changes in demographic assumptions	8,843	8,209,320
Actuarial changes arising from changes in financial assumptions	3,571,457	(313,883)
Experience adjustments	616,961	2,463,902
Sub-total included in OCI	4,197,261	10,359,339
Others	(1,574)	-
Ending balance	₩ 132,859,371	₩ 111,355,074

17. Defined benefit liability (cont'd)

(4) Changes in the fair value of plan assets for the years ended December 31, 2015 and 2014 are as follows (Korean won in thousands):

	2015	2014
Beginning balance	₩ 95,403,670	₩ 77,053,148
Interest income	2,696,401	2,640,791
Contributed	31,106,125	24,000,000
Benefits paid	(8,136,493)	(7,725,434)
Re-measurement loss	(584,035)	(564,835)
Ending balance	₩ 120,485,668	₩ 95,403,670

(5) Key assumptions used for defined benefit plan calculations are as follows:

	2015	2014	Remark
Discount rate	2.76%~2.91%	3.10%~3.11%	Interest rate of high-quality corporate bonds
Wage increase rate	Rate by age	Rate by age	Historical experience

(6) Details of operating plan assets as at December 31, 2015 and 2014 are as follows:

	2015	2014
Cash and bank deposits	36.84%	56.63%
Securities	63.16%	43.37%
	100.00%	100.00%

(7) A quantitative sensitivity analysis for significant assumptions as at December 31, 2015 is as shown below:

Assumptions	Discount rate		Wage increase rate	
Sensitivity level	0.5% points increase	0.5% points decrease	0.5% points increase	0.5% points decrease
Impact on defined benefit obligation	Decrease by 4.29%	Increase by 4.61%	Increase by 4.56%	Decrease by 4.28%

18. Provisions

(1) Changes in the significant provisions for the years ended December 31, 2015 and 2014 are as follows (Korean won in thousands):

	2015		
	Jan.1	Increase (decrease)	Dec.31
Product warranty provisions	₩ 972,986	₩ (141,339)	₩ 831,647
Sales return provisions	558,759	212,033	770,792
Construction warranty provisions	544,560	148,751	693,311
Other loss provisions (Note 20)	-	1,442,019	1,442,019
	₩ 2,076,305	₩ 1,661,464	₩ 3,737,769

	2014		
	Jan.1	Increase (decrease)	Dec.31
Product warranty provisions	₩ 2,934,255	₩ (1,961,269)	₩ 972,986
Sales return provisions	1,402,046	(843,287)	558,759
Construction warranty provisions	546,722	(2,162)	544,560
	₩ 4,883,023	₩ (2,806,718)	₩ 2,076,305

19. Reserve for agent losses

In accordance with the contract between the Group and its sales agents, the Group provides a reserve by deducting a certain portion of commission fees payable to its sales agents to account for any unfavorable events that may result in losses to be absorbed by the Group due to the business conduct of the sales agents.

20. Commitments and contingencies

(1) As at December 31, 2015, the Group is involved in 10 lawsuits as a defendant with the total claims amounting to ₩11,185 million and 4 lawsuits as a plaintiff with the claims amounting to ₩325 million. In relation to infringement on water purifying systems with cooling and heating functions held by Chung Ho Nais Co., Ltd., the Group lost the first trial and the second trial is in progress. The Group recognizes other loss provisions at the best estimate of potential loss from the lawsuits above.

(2) Commitments

As at December 31, 2015, details of available credit lines with various financial institutions are as follows (Korean won in thousands and USD in unit):

Financial institution	Credit line		Description
Shinhan Bank and four other banks	KRW	210,000,000	Purchase loan
Korea Development Bank and one other bank	KRW	45,000,000	General loan
KEB Hana Bank	KRW	5,000	Secured loan with trade receivables settled electronically
Shinhan Bank	USD	1,000,000	Local L/C
Shinhan Bank	KRW	1,800,000	Secured loan with trade receivables settled electronically
Kookmin Bank	KRW	1,800,000	Secured loan with trade receivables settled electronically
Woori Bank	KRW	3,000,000	Secured loan with trade receivables settled electronically
NH Bank	KRW	2,000,000	Secured loan with trade receivables settled electronically
Korea Development Bank	KRW	2,500,000	Working capital loan
NH Bank	KRW	3,000,000	Overdraft loan
KSCFC (*1)	KRW	143,678	Operating credit loan
Korea Development Bank	USD	2,000,000	Usance L/C
Woori Bank	USD	1,700,000	Usance L/C

(*1) Represents Korea Specialty Contractor Financial Cooperative.

20. Commitments and contingencies (cont'd)

(3) Guarantees and collateral

1) Details of guarantees provided by third parties as at December 31, 2015 are as follows (Korean won in thousands):

Guarantee provider	Description	Guarantee amount	
Seoul Guarantee Insurance (SGI)	Performance guarantee	₩	46,345,638
Machinery Financial Cooperative (MFC)	Guarantee against defaults		15,085,641
KSCFC	〃		269,800
Woori Bank	Performance guarantee	USD	269,002
IBK Bank	Payment guarantees	USD	688,977
〃	〃	EUR	52,564
		₩	61,701,079
		USD	957,979
		EUR	52,564

2) As at December 31, 2015, performance guarantees provided by the Group are as follows (Korean won in thousands):

Provided to	Collateralized asset	Collateralized amount		Details
KT Capital, KDB	Two blank notes	₩	20,639,000	Borrowings collateral
IBK Bank	Property, plant and equipment (land and buildings)		260,000	Payment guarantees collateral
KDB	〃		3,700,000	Borrowings collateral
MFC	Available-for-sale financial assets		467,389	Guarantee against defaults collateral
KSCFC	〃		178,483	〃
		₩	25,244,872	

(4) Restricted deposits as at December 31, 2015 and 2014 are as follows (Korean won in thousands):

Account	Financial institution	2015		2014		Details
Cash and cash equivalents	KDB	₩	2,170,447	₩	2,385,820	Borrowings Pledge
Long- term financial instruments	NH Bank		4,300,000		5,700,000	Guarantee (*1)
〃	IBK Bank		4,000,000		4,000,000	〃
Long- term guarantee deposits	Shinhan Bank, etc.		8,500		8,500	Maintenance of a checking account
〃	Shinhan Bank		2,500		2,500	〃
〃	Woori Bank		2,500		2,500	〃
		₩	10,483,947	₩	12,099,320	

(*1) Represents guarantees to support collaborative cooperation between small and medium enterprises.

21. Issued capital

(1) Details of the Group's issued capital as at December 31, 2015, are as follows:

Number of shares authorized	: 200,000,000 shares
Par value per share	: ₩500
Number of common share outstanding	: 77,124,796 shares

The Group had previously retired 4,200,000 treasury shares through an appropriation of retained earnings. As a result, the number of ordinary shares outstanding amounts to 77,124,796 shares with a face value of ₩38,562 million, which differs from the face value and number of shares issued (issued capital: ₩40,662 million) recorded in the statement of financial position as at December 31, 2015.

(2) Under Article 340.2 of the Commercial Law, the Group may grant stock options to its employees and directors to the extent permitted by the Group's Articles of Incorporation (Note 25) when the shareholders of the Group approves by special resolution.

(3) The Group is authorized to issue convertible bonds and bonds with warrants with the approval of the Board of Directors within the limit of ₩100 billion. As at December 31, 2015, no convertible bonds or bonds with warrants have been issued.

22. Retained earnings and statements of appropriation of retained earnings

(1) Retained earnings as at December 31, 2015 and 2014 consist of the following (Korean won in thousands):

	2015	2014
Legal reserve (*1), (*2)	₩ 20,347,427	₩ 20,347,427
Voluntary reserve	833,095,035	746,486,035
Unappropriated retained earnings	323,607,291	219,041,788
	₩ 1,177,049,753	₩ 985,875,250

(*1) The Group appropriated, as a legal reserve, an amount equal to a minimum of 10% of cash dividends paid, until such reserve equals 50% of its issued capital stock. This reserve is not available for the payment of cash dividends, but may be transferred to capital or used to reduce accumulated deficit.

(*2) In accordance with the Korea Corporation Income Tax Law, the Group has accumulated reserves for business development by the amount of retained earnings in excess of reasonable retained earnings until 2001. This amount may be transferred to capital stock or used to reduce accumulated deficit.

(2) The dividends paid by the Group for the years ended December 31, 2015 and 2014 are as follows (Korean won in unit)

	2015	2014
Dividends per share	₩ 2,000	₩ 1,660
Dividends paid	148,347,918,000	123,613,380,720

Proposed dividends were subject to approval at the annual shareholders' meeting in 2015 and 2014. The corresponding amounts of dividends were paid in 2015 and 2016, respectively.

23. Other components of equity

Other components of equity as at December 31, 2015 and 2014 consist of the following (Korean won in thousands):

	2015	2014
Gain on disposal of treasury shares	₩ 34,257,365	₩ 33,284,673
Treasury shares	(124,192,347)	(129,603,414)
Stock options	21,592,349	15,135,609
Gain on valuation of available-for-sale assets	40,276	30,397
Loss on overseas operations translation	(5,247,599)	(30,763)
Others	(4,572,426)	(4,584,855)
	₩ (78,122,382)	₩ (85,768,353)

24. Treasury shares

(1) Changes in treasury shares for the years ended December 31, 2015 and 2014 are as follows (Korean won in thousands):

	2015					
	Jan.1		Net increase (decrease) (*1)		Dec.31	
	Number of shares	Book value	Number of shares	Book value	Number of shares	Book value
Treasury shares	2,950,837	₩ 129,603,414	(123,200)	₩ (5,411,067)	2,827,637	₩ 124,192,347

	2014					
	Jan.1		Net increase (decrease) (*1)		Dec.31	
	Number of shares	Book value	Number of shares	Book value	Number of shares	Book value
Treasury shares	2,658,904	₩ 103,021,771	291,933	₩ 26,581,643	2,950,837	₩ 129,603,414

(*1) Represents net number of shares and net book value of increase from purchasing treasury shares and decrease from granting treasury shares to employee as stock options exercised.

(2) The Group recorded treasury shares in other components of equity, which will be used for granting stock options.

25. Share-based payments

(1) Details of stock options granted by the Group as at December 31, 2014 are as follows (Korean won and shares in units):

- Shares issued through stock option: registered ordinary shares
- Grant method: Based on the resolution of the Board of Directors, additional share captial or treasury shares will be issued upon the exercise of stock options cash settlement and treasury shares for the difference between the exercise price or fair value are available.
- Vesting condition and exercisable period
  4th to 8th grant: Options are conditional on the employee completing three years' service after the grant date and the options are available to be exercised from the vesting date.
  9th to 13th grant: Options are conditional on the employee completing two years' service after the grant date and additional 20% rights are granted for three years period from the vesting date. After the grant date, the Group may adjust the exercisable number of stock options on 20% of the granted shares each year for five years.

25. Share-based payments (cont'd)

	5th grant	6th grant	7th grant	8th grant
Grant date	2009-03-20	2010-03-19	2011-03-25	2012-03-23
Granted shares	330,000	132,120	69,000	228,000
Outstanding shares	90,000	10,000	14,000	85,000
Exercise price	₩ 27,480	₩ 35,260	₩ 34,780	₩ 37,420

	9th grant	11th grant	12th grant	13th grant
Grant date	2013-02-26	2013-11-12	2014-03-21	2015-03-31
Granted shares	1,191,000	261,800	467,500	571,500
Outstanding shares	639,480	239,116	416,865	571,500
Exercise price	₩ 50,000	₩ 60,160	₩ 71,470	₩ 88,670

(2) Changes in share options for the years ended December 31, 2015 and 2014 are as follows (shares in unit):

	2015			
	5th grant	6th grant	7th grant	8th grant
As at January 1	95,000	15,000	23,000	135,000
Granted	-	-	-	-
Forfeited	-	-	-	-
Exercised	5,000	5,000	7,000	50,000
Expired	-	-	2,000	-
As at December 31	90,000	10,000	14,000	85,000

	2015				
	9th grant	11th grant	12th grant	13th grant	Total
As at January 1	839,940	261,800	467,500	-	1,837,240
Granted	-	-	-	571,500	571,500
Forfeited	144,260	22,684	50,635	-	217,579
Exercised	56,200	-	-	-	123,200
Expired	-	-	-	-	2,000
As at December 31	639,480	239,116	416,865	571,500	2,065,961

25. Share-based payments (cont'd)

	2014			
	5th grant	6th grant	7th grant	8th grant
As at January 1	135,000	55,000	62,000	135,000
Granted	-	-	-	-
Forfeited	-	-	-	-
Exercised	40,000	40,000	39,000	-
As at December 31	95,000	15,000	23,000	135,000

	2014			
	9th grant	11th grant	12th grant	Total
As at January 1	1,104,000	₩ 261,800	-	1,752,800
Granted	-	-	467,500	467,500
Forfeited	264,060	-	-	264,060
Exercised	-	-	-	119,000
As at December 31	839,940	₩ 261,800	467,500	1,837,240

(3) The Group uses the fair-value method to calculate compensation expenses of stock options and recognizes as compensation expenses and capital adjustments over the vesting period. Details of stock options as at December 31, 2015 are as follows (Korean won in thousands):

		5th grant	6th grant	7th grant	8th grant
Total compensation expenses	At grant date	₩ 3,614,756	₩ 1,566,121	₩ 727,213	₩ 2,473,573
	Forfeited	(164,307)	(914,163)	(73,775)	(1,008,957)
	Sub-total	3,450,449	651,958	653,438	1,464,616
Recognized expenses	Before the prior year	3,450,449	651,958	653,438	1,383,248
	For the current year	-	-	-	81,368
	Sub-total	3,450,449	651,958	653,438	1,464,616
Exercised	Before the prior year	2,409,838	474,151	411,034	-
	For the current year	54,769	59,269	73,775	542,450
	Sub-total	2,464,607	533,420	484,809	542,450
Expired	For the current year	-	-	21,079	-
Outstanding as at December 31		985,842	118,538	147,550	922,166
Compensation expenses to be recognized		₩ -	₩ -	₩ -	₩ -

		9th grant	11th grant	12th grant	13th grant	Total
Total compensation expenses	At grant date	₩15,382,956	₩ 4,631,242	₩ 9,461,733	₩13,299,377	₩51,156,971
	Forfeited	(6,397,553)	(401,280)	(1,024,802)	-	(9,984,837)
	Sub-total	8,985,403	4,229,962	8,436,931	13,299,377	41,172,134
Recognized expenses	Before the prior year	7,571,552	1,848,813	2,871,174	-	18,430,632
	For the current year	204,645	1,106,229	2,506,007	4,035,712	7,933,961
	Sub-total	7,776,197	2,955,042	5,377,181	4,035,712	26,364,593
Exercised	Before the prior year	-	-	-	-	3,295,023
	For the current year	725,879	-	-	-	1,456,142
	Sub-total	725,879	-	-	-	4,751,165
Expired	For the current year	-	-	-	-	21,079
Outstanding as at December 31		7,050,318	2,955,042	5,377,181	4,035,712	21,592,349
Compensation expenses to be recognized		₩ 1,209,206	₩ 1,274,920	₩ 3,059,750	₩ 9,263,665	₩14,807,541

25. Share-based payments (cont'd)

(4) The assumptions used in calculating compensation expenses using the fair-value method are as follows (Korean won in thousands):

	5th grant	6th grant	7th grant	8th grant
Risk-free interest rate	4.15%	4.30%	4.06%	3.82%
Expected vesting period	5 years	5 years	5 years	5 years
Expected volatility	45.30%	40.25%	38.12%	35.89%
Expected dividend yield	174.00%	202.00%	210.00%	210.00%
Expected rate of lapsing share option	-	-	-	-
Total compensation expense	₩ 3,614,756	₩ 1,566,120	₩ 727,213	₩ 2,473,573

	9th grant	11th grant	12th grant	13th grant
Risk-free interest rate	2.80%	3.24%	3.16%	1.82%
Expected vesting period	5 years	5 years	5 years	5 years
Expected volatility	32.16%	30.52%	29.72%	30.24%
Expected dividend yield	210.00%	210.00%	332.00%	400.00%
Expected rate of lapsing share option	-	-	-	-
Total compensation expense	₩ 15,382,956	₩ 4,631,242	₩ 9,461,733	₩ 13,299,377

26. Finance lease

(1) Gross investments in the lease and present value of minimum lease payments as at December 31, 2015 and 2014 are as follows (Korean won in thousands):

	2015		2014	
	Gross investments in the lease	PV of minimum lease payments	Gross investments in the lease	PV of minimum lease payments
Less than 1 years	₩ 9,652,644	₩ 9,467,707	₩ -	₩ -
1 to 5 years	30,424,528	26,656,151	-	-
More than 5 years	4,537,984	3,537,920	-	-
	₩ 44,615,156	₩ 39,661,778	₩ -	₩ -

(2) Unearned interest income from finance lease as at December 31, 2015 and 2014 are as follows (Korean won in thousands):

	2015	2014
Gross investments in the lease	₩ 44,615,156	₩ -
Net investments in the lease	39,661,778	-
Unearned interest income	4,953,378	-

27. Selling and general administrative expenses

Details of selling and administrative expenses for the years ended December 31, 2015 and 2014 are as follows (Korean won in thousands):

		2015		2014
Wages and salaries	₩	242,134,423	₩	226,633,335
Pension costs		20,692,347		19,519,454
Employee welfare benefits		35,579,291		36,216,091
Travel		7,738,134		7,294,153
Communication		9,136,716		9,893,709
Rents		56,508,240		55,407,542
Depreciation		11,361,781		13,445,850
Amortization		7,304,326		7,586,750
Repairs and maintenance		3,913,684		4,307,226
Supplies		23,040,740		25,658,288
Printing		2,246,927		1,824,269
Advertising		46,355,623		43,029,918
Sales promotion		52,999,222		49,210,316
Transportation		3,466,440		4,691,010
Insurance premium		3,997,294		4,378,166
Commissions		168,430,178		154,816,171
Training		10,777,182		11,325,215
Regular R&D		8,059,361		7,545,750
Sales commission		327,280,275		309,681,367
Share-based compensation		7,570,141		7,212,754
Customer compensation		4,341,806		5,050,014
Impairment loss on accounts receivable		20,454,788		14,355,239
Loss on termination of rental assets		41,602,368		41,504,651
Others		8,068,716		8,732,564
	₩	1,123,060,003	₩	1,069,319,802

28. Other income and expenses

Details of other income and expenses for the years ended December 31, 2015 and 2014 are as follows (Korean won in thousands):

		2015		2014
<Other income>				
Rental income	₩	1,226,570	₩	1,249,368
Gain on foreign currency transactions		4,821,960		3,410,101
Gain on foreign currency translation		9,582,798		6,505,074
Miscellaneous income		5,034,314		6,196,191
Others		3,781,609		249,337
	₩	24,447,251	₩	17,610,071
<Other expenses>				
Impairment of property, plant and equipment	₩	7,546,674	₩	9,483,818
Impairment of intangible assets		633,853		3,240,475
Loss on disposal of property, plant and equipment		116,202		204,479
Loss on disposal of intangible assets		375,850		454,354
Loss on disposal of investment properties		33,009		-
Loss on impairment of other receivables		1,365,204		4,617,736
Loss on foreign currency transactions		3,896,814		5,454,919
Loss on foreign currency translation		13,393,748		4,584,021
Miscellaneous loss		1,829,144		11,533,194
Others		1,216,642		1,124,501
	₩	30,407,140	₩	40,697,497

29 Finance income and costs

Details of finance income and expenses for the years ended December 31, 2015 and 2014 are as follows (Korean won in thousands):

		2015		2014
<Financial income>				
Interest income	₩	1,423,153	₩	2,700,904
Dividend income		-		2,556
Gain on disposal of available-for-sale assets		23		-
	₩	1,423,176	₩	2,703,460
<Financial expenses>				
Interest expenses	₩	4,339,055	₩	11,530,471
Impairment on available-for-sale assets		-		62,111
Others		-		5,435
	₩	4,339,055	₩	11,598,017

30. Expenses by nature

Expenses by nature for the years ended December 31, 2015 and 2014 consist of the following (Korean won in thousands):

		2015		2014
Changes in inventories of products and semi-products	₩	(3,340,801)	₩	8,839,474
Changes in inventories of merchandise		(4,654,436)		(6,370,024)
Use of merchandise and raw materials		472,418,960		446,124,471
Wages and salaries		282,766,562		269,892,211
Pension costs		23,400,527		21,451,247
Employee welfare benefits		39,193,506		39,386,801
Supplies		25,134,501		27,894,074
Commissions		169,952,154		156,149,175
Depreciation		220,111,520		205,684,207
Rents		56,807,760		55,790,882
Advertising		46,355,623		43,031,737
Sales promotion		52,999,222		49,210,316
Sales commissions		327,280,275		309,681,794
Impairment loss on accounts receivable		20,454,788		14,355,239
Loss on termination of rental assets		41,602,368		41,504,651
Others		81,420,567		113,260,705
	₩	1,851,903,096	₩	1,795,886,961

31. Construction contracts

(1) Changes in construction contracts for the years ended December 31, 2015 and 2014 are as follows (Korean won in thousands):

	Jan.1, 2015		Increase (decrease)		Contracts revenue for the year		Dec. 31, 2015
₩	82,505,044	₩	66,024,469	₩	77,531,231	₩	70,998,282

	Jan.1, 2014		Increase (decrease)		Contracts revenue for the year		Dec. 31, 2014
₩	74,974,220	₩	61,934,968	₩	54,404,144	₩	82,505,044

31. Construction contracts (cont'd)

(2) As at December 31, 2015, accumulated profit on major construction contracts in progress are as follows (Korean won in thousands):

2015			2014		
Accumulated construction revenue	Accumulated construction cost	Accumulated profit	Accumulated construction revenue	Accumulated construction cost	Accumulated profit
₩ 145,852,572	₩ 132,968,588	₩ 12,883,984	₩ 102,879,581	₩ 83,650,518	₩ 19,229,063

(3) Amounts due from (to) customers for construction contracts as at December 31, 2015 and 2014 are as follows (Korean won in thousands):

2015		2014	
Due from customers (*1)	Due to customers (*2)	Due from customers (*1)	Due to customers (*2)
₩ 12,251,705	₩ 4,449,019	₩ 4,551,773	₩ 5,130,936

(*1) Classified as other current assets on the consolidated statement of financial position.
(*2) Classified as other current liabilities on the consolidated statement of financial position.

(4) The Group recognizes construction warranty provisions for the obligation to perform warranty repairs after construction has been completed based on historical experience and terms of construction warranty. The warranty expenses are recognized as construction costs for the year of construction completion.

32. Income taxes

(1) The component of income tax expense for the years ended December 31, 2015 and 2014 are as follows (Korean won in thousands):

	2015	2014
Current income taxes including changes from addition and reverse of income taxes paid	₩ 107,454,861	₩ 82,065,881
Changes in deferred taxes due to temporary differences	3,045,843	(1,921,753)
Income tax expenses recognized directly to equity (*1)	842,330	2,634,047
Income tax expense	₩ 111,343,034	₩ 82,778,174

(*1) Deferred income taxes charged directly to equity as at December 31, 2015 and 2014 consist of the following:

	2015		
	Gross amount	Income tax effect	Net of tax
Loss on valuation of available-for-sale financial assets	₩ 12,665	₩ (2,786)	₩ 9,879
Re-measurement of defined benefit plan	(4,781,295)	1,155,659	(3,625,636)
Gain on disposal of treasury shares	1,283,235	(310,543)	972,692
	₩ (3,485,395)	₩ 842,330	₩ (2,643,065)

32. Income taxes (cont'd)

	2014					
	Gross amount		Income tax effect		Net of tax	
Loss on valuation of available-for-sale financial assets	₩	12,011	₩	(2,642)	₩	9,369
Re-measurement of defined benefit plan		(10,942,405)		2,770,164		(8,172,241)
Loss on valuation of derivatives		258,216		(62,488)		195,728
Gain on disposal of treasury shares		293,332		(70,986)		222,346
	₩	(10,378,845)	₩	2,634,047	₩	(7,744,799)

(2) A reconciliation of income before income taxes 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 thousands):

	2015		2014	
Profit before income tax	₩	454,463,419	₩	332,446,587
Income tax based on statutory rate		109,518,147		79,990,074
Tax credit		(48,292)		(709,982)
Permanent differences and others		5,837,464		2,188,035
Unrealized deferred tax related to temporary differences		(4,758,509)		7,205,407
Changes in realizability of temporary differences		(4,778)		(4,055,831)
Additional payment of prior year income taxes		488,023		(567,805)
Others		310,979		(1,271,724)
Income tax expense	₩	111,343,034	₩	82,778,174
Effective tax rate		24.50%		24.90%

(3) Details of deferred tax assets (liabilities) as at December 31, 2015 and 2014 are as follows (Korean won in thousands):

	2015		2014	
Deferred tax assets:				
To be recovered after 12 months	₩	40,616,856	₩	35,458,326
To be recovered within 12 months		30,069,118		27,771,037
Deferred tax liabilities:				
To be settled after 12 months		35,923,189		30,883,011
To be settled within 12 months		57,025,369		51,563,094
Net of deferred tax liabilities	₩	(22,262,584)	₩	(19,216,742)

32. Income taxes (cont'd)

(4) Details of changes in cumulative temporary differences and deferred income tax assets (liabilities) for the years ended December 31, 2015 and 2014 are as follows (Korean won in thousands):

	2015		
	Temporary difference		
	Beginning balance	Increase (decrease)	Ending balance
Deductible temporary differences:			
Advance receipts	₩ 18,742,898	₩ (3,507,947)	₩ 15,234,951
Inventory valuation allowance	5,318,115	755,747	6,073,862
Accrued expenses	16,827,563	6,305,989	23,133,552
Unearned income	9,520,656	(1,149,286)	8,371,370
Provision for sales return	548,012	208,613	756,625
Provision for product warranty	7,090,963	(1,007,271)	6,083,692
Allowance for doubtful accounts	55,339,541	26,941,674	82,281,215
Rental assets	21,455,272	1,446,317	22,901,589
Impairment on property, plant and equipment	984,557	1,881,356	2,865,913
Defined benefit liability	73,770,172	16,836,901	90,607,073
Investments in subsidiaries	23,106,535	-	23,106,535
Long-term securities	2,388,092	62,111	2,450,203
Salaries for overseas employees	11,645,943	(9,318,588)	2,327,355
Others	35,762,242	(12,692,844)	23,069,398
	282,500,561	26,762,772	309,263,333
Taxable temporary differences:			
Prepaid expenses	212,711,350	39,857,373	252,568,723
Investments in subsidiaries	(10,445,628)	10,445,628	-
Provision for advanced depreciation (merger)	7,872,697	-	7,872,697
Provision for temporary depreciation (merger)	644,845	(33,434)	611,411
Plan assets	95,388,362	22,475,783	117,864,145
Goodwill (Woongjin Cuchen)	84,754,782	-	84,754,782
Goodwill (Woongjin Coway Construction)	1,564,733	-	1,564,733
Amortization of goodwill	19,703,713	1,367,689	21,071,402
Others	3,939,587	6,399,358	10,338,945
	416,134,442	80,512,397	496,646,839
Charged directly to equity:			
Gain on valuation of available-for-sale	(83,710)	22,233	(61,477)
Re-measurement of net of defined benefit liability	23,640,138	5,708,372	29,348,510
	23,556,428	5,730,605	29,287,033
Deferred tax expenses due to losses carried forward			
	₩ (110,077,453)	₩ (48,019,020)	₩ (158,096,473)

32. Income taxes (cont'd)

	2015		
	Deferred income tax assets (liabilities)		
	Beginning balance	Increase (decrease)	Ending balance
Deductible temporary differences:			
Advance receipts	₩ 4,535,781	₩ (848,923)	₩ 3,686,858
Inventory valuation allowance	1,373,255	189,412	1,562,667
Accrued expenses	4,066,983	1,516,680	5,583,663
Unearned income	2,360,457	(349,822)	2,010,635
Provision for sales return	132,619	50,484	183,103
Provision for product warranty	1,909,773	(448,173)	1,461,600
Allowance for doubtful accounts	13,392,169	6,681,775	20,073,944
Rental assets	4,472,258	(416,305)	4,055,953
Impairment of property, plant and equipment	238,263	455,288	693,551
Defined benefit liability	17,819,056	4,064,984	21,884,040
Investments in subsidiaries	-	-	-
Long-term securities	-	13,664	13,664
Salaries for overseas employees	-	-	-
Others	5,451,432	(860,245)	4,591,187
	55,752,046	10,048,819	65,800,865
Taxable temporary differences:			
Prepaid expenses	51,563,094	9,524,601	61,087,695
Investments in subsidiaries	-	-	-
Provision for advanced depreciation (merger)	1,905,193	-	1,905,193
Provision for temporary depreciation (merger)	156,053	(8,092)	147,961
Plan assets	23,073,557	5,418,531	28,492,088
Goodwill (Woongjin Cuchen)	-	-	-
Goodwill (Woongjin Coway Construction)	-	-	-
Amortization of goodwill	4,768,298	330,980	5,099,278
Others	979,910	206,231	1,186,141
	82,446,105	15,472,251	97,918,356
Charged directly to equity:			
Gain on valuation of available-for-sale	(10,739)	(2,786)	(13,525)
Re-measurement of net of defined benefit liability	5,912,506	1,155,659	7,068,165
	5,901,767	1,152,873	7,054,640
Deferred tax expenses due to losses carried forward	1,575,550	1,224,716	2,800,266
	₩ (19,216,742)	₩ (3,045,843)	₩ (22,262,585)

32. Income taxes (cont'd)

	2014		
	Temporary difference		
	Beginning balance	Increase (decrease)	Ending balance
Deductible temporary differences:			
Advance receipts	₩ 15,261,933	₩ 3,480,965	₩ 18,742,898
Inventory valuation allowance	4,417,211	900,904	5,318,115
Accrued expenses	15,194,784	1,632,779	16,827,563
Unearned income	6,349,995	3,170,661	9,520,656
Provision for sales return	1,392,095	(844,083)	548,012
Provision for product warranty	1,896,335	5,194,628	7,090,963
Allowance for doubtful accounts	47,429,959	7,909,582	55,339,541
Rental assets	22,697,023	(1,241,751)	21,455,272
Impairment of property, plant and equipment	4,971,478	(3,986,921)	984,557
Defined benefit liability	58,822,977	14,947,195	73,770,172
Investments in subsidiaries	15,278,195	7,828,340	23,106,535
Long-term securities	2,388,092	-	2,388,092
Salaries for overseas employees	7,830,411	3,815,532	11,645,943
Others	24,203,137	11,559,105	35,762,242
	228,133,625	54,366,935	282,500,560
Taxable temporary differences:			
Prepaid expenses	180,263,069	32,448,281	212,711,350
Investments in subsidiaries	20,975,527	(31,421,155)	(10,445,628)
Provision for advanced depreciation (merger)	7,872,697	-	7,872,697
Provision for temporary depreciation (merger)	678,280	(33,435)	644,845
Plan assets	69,926,982	25,461,380	95,388,362
Goodwill (Woongjin Cuchen)	84,754,782	-	84,754,782
Goodwill (Woongjin Coway Construction)	1,564,734	-	1,564,734
Amortization of goodwill	18,212,025	1,491,688	19,703,713
Others	6,771,749	(2,832,162)	3,939,587
	391,019,845	25,114,597	416,134,442
Charged directly to equity:			
Gain on valuation of available-for-sale	(36,802)	(46,908)	(83,710)
Re-measurement of net of defined benefit liability	12,697,734	10,942,404	23,640,138
Loss on valuation of derivatives	258,216	(258,216)	-
	12,919,148	10,637,280	23,556,428
Deferred tax expenses due to losses carried forward			
	₩ (149,967,072)	₩ 39,889,618	₩ (110,077,454)

32. Income taxes (cont'd)

	2014		
	Deferred income tax assets (liabilities)		
	Beginning balance	Increase (decrease)	Ending balance
Deductible temporary differences:			
Advance receipts	₩ 3,693,388	₩ 842,393	₩ 4,535,781
Inventory valuation allowance	1,068,965	304,290	1,373,255
Accrued expenses	3,677,138	389,845	4,066,983
Unearned income	1,561,043	799,414	2,360,457
Provision for sales return	336,887	(204,268)	132,619
Provision for product warranty	458,913	1,450,860	1,909,773
Allowance for doubtful accounts	11,478,050	1,914,119	13,392,169
Rental assets	5,532,666	(1,060,408)	4,472,258
Impairment of property, plant and equipment	1,203,098	(964,835)	238,263
Defined benefit liability	14,207,047	3,612,009	17,819,056
Investments in subsidiaries	-	-	-
Long-term securities	-	-	-
Salaries for overseas employees	800,430	(800,430)	-
Others	3,580,849	1,870,583	5,451,432
	47,598,474	8,153,572	55,752,046
Taxable temporary differences:			
Prepaid expenses	43,747,373	7,815,721	51,563,094
Investments in subsidiaries	5,076,078	(5,076,078)	-
Provision for advanced depreciation (merger)	1,905,193	-	1,905,193
Provision for temporary depreciation (merger)	164,144	(8,091)	156,053
Plan assets	16,922,330	6,151,227	23,073,557
Goodwill (Woongjin Cuchen)	-	-	-
Goodwill (Woongjin Coway Construction)	-	-	-
Amortization of goodwill	4,407,310	360,988	4,768,298
Others	1,267,541	(287,631)	979,910
	73,489,969	8,956,136	82,446,105
Charged directly to equity:			
Gain on valuation of available-for-sale	(8,097)	(2,642)	(10,739)
Re-measurement of net of defined benefit liability	3,142,343	2,770,163	5,912,506
Loss on valuation of derivatives	62,488	(62,488)	-
	3,196,734	2,705,033	5,901,767
Deferred tax expenses due to losses carried forward	1,556,266	19,284	1,575,550
	₩ (21,138,495)	₩ 1,921,753	₩ (19,216,741)

32. Income taxes (cont'd)

(5) Details of the unrecognized deferred income tax assets (liabilities) as at December 31, 2015 and 2014 are as follows (Korean won in thousands):

	2015		2014	
Investments in subsidiaries	₩	23,106,535	₩	33,552,163
Long-term investment securities		2,388,092		2,388,092
Payment guarantee for foreign subsidiaries		24,648		36,602
Salaries for overseas employees		2,327,355		11,645,943
Loss available for offsetting against future taxable income of subsidiaries		9,039,331		8,662,209
Trademarks		2,786,606		3,304,173
Overseas advertising expenses		-		880,744
Others		1,777,731		1,069,584
Total deferred tax assets	₩	41,450,298	₩	61,539,510
Goodwill (Woongjin Cuchen)	₩	84,754,782	₩	84,754,782
Goodwill (Woongjin Coway Construction)		1,564,733		1,564,734
Total deferred tax liabilities	₩	86,319,515	₩	86,319,516

33. Earnings per share

(1) Basic earnings per share

Basic earnings per share for the years ended December 31, 2015 and 2014, is as follows (Korean won and shares in unit):

	2015		2014	
Net income	₩	343,148,057,698	₩	249,691,456,790
Weighted average number of ordinary shares (*1)		74,258,041		74,290,473
Basic earnings per share		4,621		3,361

(*1) The weighted average number of ordinary shares for December 31, 2015 and 2014 is calculated from shares outstanding which are weighted averaged by distribution period. Treasury shares, held from acquisition date until disposal date, are excluded from ordinary shares.

(2) Diluted earnings per share

Diluted earnings per share is calculated by adjusting the weighted average number of ordinary shares to assume conversion of all dilutive potential ordinary shares. The Group has dilutive potential ordinary shares, which are stock options.

33. Earnings per share (cont'd)

The Group's diluted earnings per share amounts for the years ended December 31, 2015 and 2014 are computed as follows (Korean won and shares in unit):

		2015		2014
Net income	₩	343,148,057,698	₩	249,691,456,790
Add: expenses related to dilutive potential shares		216,005,126		26,748,725
Net income adjusted for the effect of dilution		343,364,062,824		249,718,205,515
Weighted average number of ordinary shares		74,258,041		74,290,793
Number of dilutive potential ordinary shares (*1)		427,362		111,565
Total number of ordinary shares		74,685,403		74,402,358
Diluted earnings per share	₩	4,597	₩	3,356

(*1) Represents the dilutive effect of stock options which have been granted to certain executives and senior employees.

There were no events after the reporting period which could change the number of potentially dilutive shares.

34. Statements of cash flows

(1) Details of non-cash adjustments for the years ended December 31, 2015 and 2014 are as follows (Korean won in thousand):

		2015		2014
Pension costs	₩	23,400,527	₩	21,507,785
Shared-based payment expense		7,933,961		7,842,278
Depreciation (tangible assets and investment properties)		220,111,520		205,684,207
Amortization		7,562,589		7,924,145
Loss on impairment of trade receivables		20,454,788		14,355,239
Loss on impairment of other receivables		1,365,204		4,617,736
Loss on valuation of inventories		1,635,199		11,665,716
Loss on termination of rental assets		41,602,368		41,504,651
Loss on foreign currency translation		13,393,748		4,584,021
Impairment of property, plant and equipment		7,546,674		9,483,818
Impairment of intangible assets		633,853		3,240,475
Gain on foreign currency translation		(9,582,798)		(6,505,075)
Interest income (rental income)		(328,905)		-
Interest income (finance income)		(1,423,153)		(2,700,904)
Interest expenses		4,339,055		11,530,471
Income tax expense		111,343,034		82,778,174
Others		(1,558,437)		(2,183,909)
	₩	448,429,227	₩	415,328,828

34. Statements of cash flows (cont'd)

(2) Details of working capital adjustments for the years ended December 31, 2015 and 2014, is as follows (Korean won in thousand):

	2015	2014
Increase in trade receivables	₩ (57,948,658)	₩ (3,385,313)
Increase in finance lease receivables	(39,661,778)	-
Increase in other short-term financial assets	(2,025,526)	(5,516,149)
Increase in other current assets	(27,921,511)	(3,643,962)
Increase in inventories	(4,997,625)	(3,370,270)
Increase in other non-current assets	(50,008,871)	(17,467,956)
Increase in trade payables	5,797,402	17,867,874
Increase in other short-term financial liabilities	9,616,998	352,304
Increase in other short-term liabilities	3,560,044	8,859,272
Increase (decrease) in other long-term financial liabilities	(39,306)	180,643
Increase in other long-term liabilities	94,639	2,033,136
Payment of pension benefits	(8,788,319)	(8,627,156)
Increase in plan assets	(22,969,631)	(16,274,567)
Others	-	(128,291)
	₩ (195,292,142)	₩ (29,120,435)

(3) Significant transactions not affecting cash flows for the years ended December 31, 2015 and 2014 are as follows (Korean won in thousands):

	2015	2014
Transfer of construction-in-progress to respective tangible assets	₩ 6,586,759	₩ 7,061,821
Transfer of development-in-progress to respective intangible assets	3,754,750	1,302,600
Transfer of long-term guarantee deposit to intangible assets	-	42,720
Transfer to construction-in-progress from land	-	1,182,332

35. Related party transactions

(1) The related parties of the Group as at December 31, 2015 are as follows:

Relationship	Company name
Entity with significant influence over the Group	Coway Holdings Co., Ltd.

(2) The Group paid dividends of ₩47,658 million won and ₩39,556 million to Coway Holdings Co., Ltd. for the years ended 2015 and 2014, respectively.

(3) Key management includes directors (register and non-register), members of Board of Directors, Chief Financial Officer and the Head of Internal Audit. The compensation paid or payable to key management for employee services for the years ended December 31, 2015 and 2014 are as follows (Korean won in thousand):

	2015	2014
Short-term employee benefits	₩ 5,875,067	₩ 5,534,212
Pension costs	625,911	579,711
Share-based payments expenses	7,933,961	7,713,881
	₩ 14,434,939	₩ 13,827,804

35. Related party transactions (cont'd)

(4) The subsidiary of Green Environment Technology Co., Ltd. is provided with payment guarantees from the president of Green Environment Technology Co., Ltd. for the year ended December 31, 2015.

36. Fair value measurement

(1) Details of book value and fair value of financial instruments as at December 31, 2015 and 2014 are as follows (Korean won in thousands):

	2015		2014	
	Book value	Fair value (*1)	Book value	Fair value (*1)
<Financial assets>				
Cash and cash equivalents	₩ 116,307,900	₩ 116,307,900	₩ 147,363,023	₩ 147,363,023
Trade receivables	256,015,920	256,015,920	208,800,401	208,800,401
Finance lease receivables	37,100,077	37,100,077	-	-
Other financial assets (*1)	67,466,379	67,466,379	74,786,052	74,786,052
Available-for-sale financial assets	2,430,096	2,430,096	2,417,368	2,417,368
	₩ 479,320,372	₩ 479,320,372	₩ 433,366,844	₩ 433,366,844
<Financial liabilities>				
Trade payables	₩ 59,799,441	₩ 59,799,441	₩ 59,047,507	₩ 59,047,507
Borrowings	87,991,719	87,991,719	165,335,283	165,335,283
Other financial assets	186,189,113	186,189,113	178,983,021	178,983,021
	₩ 333,980,273	₩ 333,980,273	₩ 403,365,811	₩ 403,365,811

(*1) The Group detemined that the book values of the financial assets and liabilities carried at amortized cost were similar to their fair values.

(2) Fair value hierarchy

The Group uses the following hierarchy for determining and disclosing the fair value of financial instruments by valuation technique. The level of hierarchy of fair value is as follows:

Level 1 : Quoted (unadjusted) market prices in active markets for identical assets or liabilities.
Level 2 : Valuation techniques for which the lowest level input that is significant to the fair value measurement is directly or indirectly observable.
Level 3 : Valuation techniques for which the lowest level input that is significant to the fair value measurement is unobservable.

36. Fair value measurement (cont'd)

The level of fair value measurements of financial instruments as at December 31, 2015 and 2014 are as follows (Korean won in thousands):

	2015			
	Level 1	Level 2	Level 3	Total
<Financial assets>				
Cash and cash equivalents	₩ 50,905	₩ 116,256,995	₩ -	₩ 116,307,900
Trade receivables	-	-	256,015,920	256,015,920
Finance lease receivables	-	-	37,100,077	37,100,077
Short-term loans	-	-	232,321	232,321
Other receivables	-	-	15,165,839	15,165,839
Long-term financial assets	-	8,982,813	-	8,982,813
Long-term loans	-	-	500,000	500,000
Long-term guarantee deposits	-	-	42,584,858	42,584,858
Available-for-sale assets	-	-	2,430,096	2,430,096
Others	-	-	549	549
<Financial liabilities>				
Trade payables	-	-	59,799,441	59,799,441
Other payables	-	-	159,493,093	159,493,093
Accrued expenses	-	-	24,463,309	24,463,309
Short-term borrowings	-	80,040,719	-	80,040,719
Long-term other payables	-	-	888,672	888,672
Long-term borrowings	-	7,951,000	-	7,951,000
Guarantee deposits withheld	-	-	63,346	63,346
Rental deposits withheld	-	-	1,235,741	1,235,741
Others	-	-	44,952	44,952

	2014			
	Level 1	Level 2	Level 3	Total
<Financial assets>				
Cash and cash equivalents	₩ 56,981	₩ 147,306,042	₩ -	₩ 147,363,023
Trade receivables	-	-	208,800,401	208,800,401
Short-term loans	-	-	4,864,933	4,864,933
Other receivables	-	-	17,336,726	17,336,726
Long-term financial assets	-	8,333,658	-	8,333,658
Long-term loans	-	-	763,314	763,314
Long-term guarantee deposits	-	-	43,487,421	43,487,421
Available-for-sale assets	-	-	2,417,367	2,417,367
<Financial liabilities>				
Trade payables	-	-	59,047,507	59,047,507
Other payables	-	-	155,784,949	155,784,949
Accrued expenses	-	-	20,550,590	20,550,590
Short-term borrowings	-	164,403,283	-	164,403,283
Long-term other payables	-	-	914,319	914,319
Long-term borrowings	-	932,000	-	932,000
Guarantee deposits withheld	-	-	361,175	361,175
Rental deposits withheld	-	-	1,212,942	1,212,942
Others	-	-	159,047	159,047

The fair values of financial instruments traded in an active market are calculated based on market prices on the closing date of the reporting period. If the posted prices are easily and regularly usable through a clearing house, seller, intermediary, industrial group, appraisal institution or supervisory institution, and if the prices represent actual transactions between independent parties, it is regarded as an active market. The posted market price of a financial asset held by the Group is a bid price. The financial instruments are included in level 1. The instruments in the level 1 consist of the listed equity securities of KOSPI or KOSDA that are mostly classified as trading securities or available-for-sale securities.

36. Fair value measurement (cont'd)

The fair value of financial instruments that are not traded in an active market (for example, over-the-counter derivatives) is determined by using valuation techniques. These valuation techniques maximize the use of observable market data where it is available and rely as little as possible on entity-specific estimates. If all significant inputs required to fair value an instrument are observable, the instrument is included in level 2.

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

Specific valuation techniques used to value financial instruments include:

- Quoted or dealer price of similar instruments.

- The fair value of an interest rate swap is calculated by the present value of the estimated future cash flows that follow an observable earnings rate curve.

- The fair value of forward foreign exchange contracts determined by using forward exchange rates at the reporting date, with the resulting value discounted to present value.

- Other financial techniques such as discounted cash flow analysis.

(3) Details of changes in level 3 of the fair value hierarchy are as follows (Korean won in thousands):.

	Available-for-sale financial assets			
		2015		2014
As at January 1	₩	805,466	₩	793,455
Amount recognized in profit or loss		-		-
Amount recognized in other comprehensive income		12,666		12,011
As at December 31	₩	818,132	₩	805,466

	Derivative liabilities for hedging			
		2015		2014
As at January 1	₩	-	₩	(6,865,216)
Amount recognized in profit or loss		-		6,865,216
Amount recognized in other comprehensive income		-		-
As at December 31	₩	-	₩	-

(4) The following table presents available-for-sale financial assets that are valued at historical cost as at December 31, 2015 and 2014 (Korean won in thousands):

		2015		2014
Mc-Science Co., Ltd.	₩	1,133,760	₩	1,133,760
NEX Telecom Co., Ltd.		98,516		98,516
Nabi Story Co,. Ltd.		27,889		27,889
Construction Financial Cooperative		295,873		295,873
Electric Contractors' Financial Cooperative		50,000		50,000
Others		5,926		5,863
	₩	1,611,964	₩	1,611,901

36. Fair value measurement (cont'd)

Valuation techniques used in the fair value measurements of financial instruments except for financial instruments traded in an active market are as follows:

	Fair value measurements
Cash and cash equivalents	Book value of cash is equal to fair value. For cash equivalents including ordinary deposits and general deposit or time deposit whose remaining maturity is less than 3 months, their book value is used as a substitute for fair value.
Trade receivables, other financial assets	For short-term receivables including trade receivables and non trade receivables, their book value is used as a substitute for fair value.
Trade payables, other financial liabilities	For short-term payables including trade payables and non-trade payables, their book value is used as a substitute for fair value.
Short-term borrowings, long-term borrowings	For borrowings whose remaining maturity is less than a year from the date of issue, book value is used as a substitute. For borrowings whose maturity is more than a year from the date of issue, fair value of the borrowings is calculated by discounting the expected future cash flow using the discounting rate derived based on a market interest rate and credit risk of a counterparty.

In 2015, there is no significant change in business and economic environments which influence the fair value of financial assets and liabilities of the Group.

37. Financial risk management objectives and policies

The Group's activities are exposed to a variety of financial risks: market risk (including currency risk, fair value interest rate risk, cash flow interest rate risk and price risk), credit risk and liquidity risk. The Group's overall risk management program focuses on the unpredictability of financial markets and seeks to minimize potential adverse effects on the Group's financial performance. The Group uses derivative financial instruments to hedge certain risk exposures.

Risk management is carried out by a central treasury department under policies approved by the Board of Directors. The Group treasury department identifies, evaluates and hedges financial risks in close cooperation with the Group's operating units. The board provides written principles for overall risk management, as well as written policies covering specific areas, such as foreign exchange risk, interest rate risk, credit risk, use of derivative financial instruments and non-derivative financial instruments and investment exceeding liquidity.

(1) Market risk

Market risk is the risk that the fair value of future cash flows of a financial instrument will fluctuate because of changes in market prices. Market risks comprise three types of risk: interest rate risk, foreign currency risk and other price risk, such as equity price risk.

1) 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 borrowings with floating interest rates. The Group manages its interest rate risk by having a balanced portfolio of fixed and variable rate loans and borrowings. The Group's borrowings with floating interest rates as at December 31, 2015 and 2014 are ₩ 84,215,719 thousand and ₩82,803,283 thousand, respectively. The Group's profit before tax is affected through the impact on floating rate borrowings, and details are as follows (Korean won in thousands):

37.Financial risk management objectives and policies (cont'd)

	1% points increase	
	2015	2014
Impact on profit before tax	₩ (842,157)	₩ (848,693)

2) Foreign exchange risk

The Group operates internationally and is exposed to foreign exchange risk arising from various currency exposures. Foreign exchange risk arises from exporting goods and services or importing raw materials that recognized as assets, liabilities and foreign debenture. Periodically the Group is evaluating, managing and reporting for foreign exchange risk. To avoid such fluctuations of foreign exchange risk, the Group uses particular derivatives.

As at December 31, 2015, if the currency had weakened/strengthened by 5% points against foreign currencies with all other variables held constant, pre-tax profit for the year would have been ₩886 million (2014: ₩1,789 million) higher / lower.

The Group's financial instruments denominated in major foreign currencies as at December 31, 2015 and 2014 are as follows (Korean won in thousands):

	2015				
	USD	JPY	EUR	CNY	Total
Cash and cash equivalents	₩ 5,725,300	₩ 2	₩ 841,853	₩ -	₩ 6,567,155
Trade receivables (*1)	11,962,009	490,874	2,026,959	39,215	14,519,057
Trade payables	2,383,203	987,089	-	-	3,370,292

	2014			
	USD	JPY	EUR	Total
Cash and cash equivalents	₩ 12,083,506	₩ 150,704	₩ 1,302,255	₩ 13,536,465
Trade receivables (*1)	23,984,339	178,706	803,923	24,966,968
Trade payables	1,862,791	860,510	-	2,723,301

(*1) Before deducting the related impairment loss.

3) Other price risk

Other price risk is the risk that the fair value or cash flows of instrument will fluctuate because of changes in market price other than interest rate risk and foreign currency risk. However, management assessed that the price movement of equity securities had no material effect on other comprehensive income as at December 31, 2015.

(2) Credit risk

Credit risk is managed on a Group basis. Credit risk arises from cash and cash equivalents, derivative financial instruments and deposits with banks and financial institutions, as well as credit exposures to wholesale and retail customers, including outstanding receivables and committed transactions. For banks and financial institutions, only independently rated parties with a minimum rating of 'A' are accepted. If wholesale customers are independently rated, these ratings are used. If there is no independent rating, the credit quality of the customer is evaluated taking into account its financial position, past experience and other factors. Individual risk limits are set based on internal or external ratings in accordance with limits set by the board. The utilization of credit limits is regularly monitored. Sales to retail customers are settled in cash or using major credit cards.

37. Financial risk management objectives and policies (cont'd)

A summary of maximum exposure to the credit risk as at December 31, 2015 and 2014 are as follows (Korean won in thousands):

	2015	2014
Cash and cash equivalents (*1)	₩ 116,256,995	₩ 147,306,042
Trade receivables	256,015,920	208,800,401
Finance lease receivables	37,100,077	-
Other short-term financial assets	15,398,219	22,201,169
Other long-term financial assets	52,068,161	52,584,883
Available-for-sale financial assets (*2)	-	170
	₩ 476,839,372	₩ 430,892,665

(*1) Excluded cash on hand from cash and cash equivalents on the consolidated statement of financial position.
(*2) Excluded equity instruments from available-for-sale on the consolidated statement of financial position.

(3) Liquidity risk

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

The Group treasury department invests surplus cash in interest-bearing current accounts, time deposits, money market deposits and marketable securities, choosing instruments with appropriate maturities or sufficient liquidity to provide sufficient head-room as determined by the abovementioned forecasts.

The Group's liquidity risk as at December 31, 2015 and 2014 are as follows (Korean won in thousands):

	2015			
	Less than 1 year	Between 1 and 2 years	More than 2 years	Total
Trade payables	₩ 59,799,441	₩ -	₩ -	₩ 59,799,441
Other financial liabilities	183,985,891	2,158,269	44,952	186,189,112
Short-term borrowings	80,040,719	-	-	80,040,719
Long-term borrowings	-	-	7,951,000	7,951,000
	₩ 323,826,051	₩ 2,158,269	₩ 7,995,952	₩ 333,980,272

	2014			
	Less than 1 year	Between 1 and 2 years	More than 2 years	Total
Trade payables	₩ 59,047,507	₩ -	₩ -	₩ 59,047,507
Other financial liabilities	176,409,759	2,573,262	-	178,983,021
Short-term borrowings	164,403,283	-	-	164,403,283
Long-term borrowings	-	-	932,000	932,000
	₩ 399,860,549	₩ 2,573,262	₩ 932,000	₩ 403,365,811

37. Financial risk management objectives and policies (cont'd)

The table above analyzes the Group's non-derivative financial liabilities and net-settled derivative financial liabilities into relevant maturity Companyings based on the remaining period at the statement of financial position date to the contractual maturity date. The amounts disclosed in the table are the contractual undiscounted cash flows. Net settled derivatives comprise interest rate swaps used by the Group to manage the Group's interest rate profile

(4) Capital risk management

The Group's objectives when managing capital are to safeguard the Group's ability to continue as a going concern in order to provide returns for shareholders and benefits for other stakeholders and to maintain an optimal capital structure to reduce the cost of capital. In order to maintain or adjust the capital structure, the Group may adjust the amount of dividends paid to shareholders, return capital to shareholders, issue new shares or sell assets to reduce debt.

Consistent with others in the industry, the Group monitors capital on the basis of the gearing ratio. This ratio is calculated as net debt divided by total capital. Net debt is calculated as total borrowings less cash and cash equivalents. Total capital is calculated as equity as shown in the statement of financial position plus net debt.

The gearing ratios as at December 31, 2015 and 2014 are as follows (Korean won in thousands):

	2015		2014	
Total borrowings	₩	87,991,719	₩	165,335,283
Less: cash and cash equivalents		(116,307,900)		(147,363,023)
Net debt		(28,316,181)		17,972,260
Total equity		1,238,227,831		1,039,435,029
Total equity and debt	₩	1,209,911,650	₩	1,057,407,289
Gearing ratio		(*1)		1.70%

(*1) Not presented due to negative balances of net debt.

38. Events after the reporting period

The Group demerged the water and environment management business into establishment of Coway EnTech Co., Ltd. on February 29, 2016 according to the resolution of Board of Directors on December 10, 2015 and resolution of extraordinary meeting of shareholders on February 29, 2016.

39. Approval of consolidated financial statements

The consolidated financial statements of the Group for the year ended December 31, 2015 were approved by the Board of Directors' meeting on February 16, 2016.