

# **SSANGYONG MOTOR COMPANY AND ITS SUBSIDIARIES**

**CONSOLIDATED FINANCIAL STATEMENTS  
AS OF AND FOR THE YEARS ENDED  
DECEMBER 31, 2016 AND 2015**

**ATTACHMENT: INDEPENDENT AUDITORS' REPORT**

**SSANGYONG MOTOR COMPANY**

## Independent Auditors' Report

English Translation of Independent Auditors' Report Originally Issued in Korean on March 16, 2017.

### To the Shareholders and Board of Directors of Ssangyong Motor Company:

#### Report on the Consolidated Financial Statements

We have audited the accompanying consolidated financial statements of Ssangyong Motor Company (the "Company") and its subsidiaries, which comprise the consolidated statements of financial position as of December 31, 2016 and 2015, respectively, and the related consolidated statements of comprehensive income, consolidated statements of changes in shareholders' equity and consolidated statements of cash flows, all expressed in Korean won, for the years ended December 31, 2016 and 2015, respectively, 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 ("K-IFRS") 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 audit opinion on these consolidated financial statements based on our audits. We conducted our audits in accordance with Korean Standards on Auditing ("KSAs"). Those standards require that we comply with ethical requirements and plan and perform the audits 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 auditor's 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 financial position of the Company and its subsidiaries as of December 31, 2016 and 2015, respectively, and their financial performance and their cash flows for the years ended December 31, 2016 and 2015, respectively, in accordance with K-IFRS.

# Deloitte.

## Others

Our audits also comprehended the translation of Korean won amounts into Indian rupee amounts and, in our opinion, such translation has been made in conformity with the basis in Note 2. Such Indian rupee amounts are presented solely for the convenience of readers.

*Deloitte Anjin LLC*

March 16, 2017

## Notice to Readers

This report is effective as of March 16, 2017, the auditors' report date. Certain subsequent events or circumstances may have occurred between the auditors' report date and the time the auditors' report is read. Such events or circumstances could significantly affect the consolidated financial statements and may result in modifications to the auditors' report.

**SSANGYONG MOTOR COMPANY AND ITS SUBSIDIARIES**

**CONSOLIDATED STATEMENTS OF FINANCIAL POSITION**

**AS OF DECEMBER 31, 2016 AND 2015**

	Korean won		Indian rupee	
	December 31, 2016	December 31, 2015	December 31, 2016	December 31, 2015
	(In thousands)		(In thousands)	
<b>ASSETS</b>				
<b>CURRENT ASSETS:</b>				
Cash and cash equivalents (Notes 4, 5 and 33)	₩ 238,401,707	₩ 197,881,904	Rs. 13,422,016	Rs. 11,140,751
Trade and other receivables, net (Notes 7, 32 and 33)	230,321,041	160,062,466	12,967,075	9,011,517
Derivative assets (Notes 25 and 33)	756,035	1,707,695	42,565	96,143
Inventories, net (Notes 8 and 24)	204,979,632	247,673,244	11,540,353	13,944,004
Other current assets (Note 10)	7,337,939	6,567,821	413,126	369,768
Total current assets	<u>681,796,354</u>	<u>613,893,130</u>	<u>38,385,135</u>	<u>34,562,183</u>
<b>NON-CURRENT ASSETS:</b>				
Non-current financial instruments (Notes 5 and 33)	6,000	6,000	338	338
Non-current available-for-sale (“AFS”) financial assets (Notes 6 and 33)	560,000	560,000	31,528	31,528
Non-current other receivables, net (Notes 7 and 33)	33,754,663	39,728,012	1,900,388	2,236,687
Property, plant and equipment, net (Note 11 and 13)	1,199,006,450	1,187,844,823	67,504,063	66,875,664
Intangible assets (Note 12)	234,344,498	186,944,585	13,193,595	10,524,980
Investment in joint venture (Note 9 and 13)	13,681,894	9,868,178	770,291	555,578
Other non-current assets (Note 10)	273,318	352,983	15,387	19,873
Total non-current assets	<u>1,481,626,823</u>	<u>1,425,304,581</u>	<u>83,415,590</u>	<u>80,244,648</u>
<b>TOTAL ASSETS</b>	<u>₩ 2,163,423,177</u>	<u>₩ 2,039,197,711</u>	<u>Rs. 121,800,725</u>	<u>Rs. 114,806,831</u>
<b>LIABILITIES AND SHAREHOLDERS' EQUITY</b>				
<b>CURRENT LIABILITIES:</b>				
Trade and other payables (Notes 18, 32 and 33)	₩ 669,483,000	₩ 637,814,269	Rs. 37,691,893	Rs. 35,908,943
Short-term borrowings (Notes 13, 18 and 33)	181,967,721	153,224,546	10,244,783	8,626,542
Derivative liabilities (Notes 25 and 33)	5,798,806	24,074	326,473	1,355
Provision for product warranties (Note 15)	53,153,294	56,861,222	2,992,530	3,201,287
Long-term employee benefits obligation	1,330,939	1,960,778	74,932	110,392
Other current liabilities (Note 16)	33,325,870	28,884,728	1,876,247	1,626,210
Total current liabilities	<u>945,059,630</u>	<u>878,769,617</u>	<u>53,206,858</u>	<u>49,474,729</u>

(Continued)

**SSANGYONG MOTOR COMPANY AND ITS SUBSIDIARIES**

**CONSOLIDATED STATEMENTS OF FINANCIAL POSITION (CONTINUED)**

**AS OF DECEMBER 31, 2016 AND 2015**

	Korean won		Indian rupee	
	December 31, 2016	December 31, 2015	December 31, 2016	December 31, 2015
	(In thousands)		(In thousands)	
<b>NON-CURRENT LIABILITIES:</b>				
Long-term borrowings(Note 13)	₩ 12,500,000	₩ 37,500,000	Rs. 703,750	Rs. 2,111,250
Other non-current payables (Note 33)	5,507,071	12,612,614	310,048	710,090
Retirement benefit obligation (Note 17)	279,609,200	292,005,725	15,741,998	16,439,922
Other long-term employee benefits obligation	15,357,663	14,321,821	864,636	806,319
Provision for long-term product warranties (Note 15)	92,695,690	86,932,757	5,218,767	4,894,314
Total non-current liabilities	405,669,624	443,372,917	22,839,199	24,961,895
<b>TOTAL LIABILITIES</b>	<b>1,350,729,254</b>	<b>1,322,142,534</b>	<b>76,046,057</b>	<b>74,436,624</b>
<b>SHAREHOLDERS' EQUITY:</b>				
Total shareholders' equity	812,693,923	717,055,177	45,754,668	40,370,207
Capital stock (Note 19)	686,100,480	686,100,480	38,627,457	38,627,457
Other capital surplus (Note 20)	131,678,359	131,678,359	7,413,492	7,413,492
Other capital adjustments (Notes 21 and 25)	(1,285,813)	1,570,930	(72,392)	88,443
Accumulated deficit (Note 22)	(3,799,103)	(102,294,592)	(213,889)	(5,759,185)
Non-controlling interests	-	-	-	-
<b>TOTAL SHAREHOLDERS' EQUITY</b>	<b>812,693,923</b>	<b>717,055,177</b>	<b>45,754,668</b>	<b>40,370,207</b>
<b>TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY</b>	<b>₩ 2,163,423,177</b>	<b>₩ 2,039,197,711</b>	<b>Rs. 121,800,725</b>	<b>Rs. 114,806,831</b>

(Concluded)

See accompanying notes to consolidated financial statements.

**SSANGYONG MOTOR COMPANY AND ITS SUBSIDIARIES**

**CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME**

**FOR THE YEARS ENDED DECEMBER 31, 2016 AND 2015**

	Korean won		Indian rupee	
	Year ended December 31, 2016 (In thousands)	Year ended December 31, 2015 (In thousands)	Year ended December 31, 2016 (In thousands)	Year ended December 31, 2015 (In thousands)
SALES (Notes 31 and 32)	₩ 3,628,536,546	₩ 3,390,065,197	Rs. 204,286,608	Rs. 190,860,671
COST OF SALES (Notes 24 and 32)	<u>3,036,758,967</u>	<u>2,868,750,169</u>	<u>170,969,530</u>	<u>161,510,635</u>
GROSS PROFIT	591,777,579	521,315,028	33,317,078	29,350,036
SELLING AND ADMINISTRATIVE EXPENSES (Notes 24 and 26)	<u>563,783,510</u>	<u>557,126,822</u>	<u>31,741,012</u>	<u>31,366,240</u>
OPERATING INCOME (LOSS)	27,994,069	(35,811,794)	1,576,066	(2,016,204)
NON-OPERATING INCOME (Note 27)	57,808,123	31,870,878	3,254,597	1,794,330
NON-OPERATING EXPENSES (Note 27)	38,569,435	29,824,783	2,171,459	1,679,135
FINANCIAL INCOME (Note 28)	28,326,881	17,402,502	1,594,803	979,761
FINANCIAL COST (Note 28)	21,240,117	45,215,209	1,195,819	2,545,616
SHARE OF INCOME (LOSS) OF A JOINT VENTURE	<u>3,813,717</u>	<u>(331,822)</u>	<u>214,712</u>	<u>(18,682)</u>
INCOME (LOSS) BEFORE INCOME TAX EXPENSE	58,133,238	(61,910,228)	3,272,900	(3,485,546)
INCOME TAX EXPENSE (Note 23)	<u>30,738</u>	<u>31,945</u>	<u>1,730</u>	<u>1,798</u>
NET INCOME (LOSS)	58,102,500	(61,942,173)	3,271,170	(3,487,344)
Owners of the Company	58,102,500	(61,942,173)	3,271,170	(3,487,344)
Non-controlling interests	-	-	-	-
OTHER COMPREHENSIVE INCOME (LOSS) (Notes 21 and 22)	<u>37,536,246</u>	<u>(681,572)</u>	<u>2,113,291</u>	<u>(38,372)</u>
TOTAL COMPREHENSIVE LOSS	95,638,746	(62,623,745)	5,384,461	(3,525,716)
OWNERS OF THE COMPANY NON-CONTROLLING INTERESTS	95,638,746	(62,623,745)	5,384,461	(3,525,716)
NON-CONTROLLING INTERESTS	-	-	-	-
EARNING (LOSS) PER SHARE (Note 29)				
Basic and diluted income per share	₩ 423	₩ (452)	Rs. 24	Rs. (25)

See accompanying notes to consolidated financial statements.

SSANGYONG MOTOR COMPANY AND ITS SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY

FOR THE YEARS ENDED DECEMBER 31, 2016 AND 2015

	Korean won in thousands									
	Other capital surplus					Retained earnings (accumulated deficit)				
	Capital stock	Paid-in capital in excess of par	Gain on capital reduction	Debt to be swapped for equity	Treasury stock	Gain on disposal of treasury stock	Other capital surplus	Other capital Adjustments	Other capital Adjustments	Total
Balance at January 1, 2015	₩ 686,100,480	₩ 11,452,713	₩ 118,189,001	₩ 931,508	₩ (1,189,820)	₩ -	₩ -	₩ (13,065,231)	₩ (25,034,685)	₩ 777,383,966
Net loss	-	-	-	-	-	-	-	-	(61,942,174)	(61,942,174)
Actuarial loss	-	-	-	-	-	-	-	-	(15,317,733)	(15,317,733)
Disposal of treasury stock	-	-	-	-	1,189,820	1,105,137	-	-	-	2,294,957
Gain on valuation of derivatives	-	-	-	-	-	-	-	14,394,640	-	14,394,640
Overseas operations translation credit	-	-	-	-	-	-	-	241,521	-	241,521
Balance at December 31, 2015	₩ 686,100,480	₩ 11,452,713	₩ 118,189,001	₩ 931,508	₩ -	₩ 1,105,137	₩ -	₩ 1,570,930	₩(102,294,592)	₩ 717,055,177
Balance at January 1, 2016	₩ 686,100,480	₩ 11,452,713	₩ 118,189,001	₩ 931,508	₩ -	₩ 1,105,137	₩ -	₩ 1,570,930	₩(102,294,592)	₩ 717,055,177
Net income	-	-	-	-	-	-	-	-	58,102,500	58,102,500
Actuarial income	-	-	-	-	-	-	-	-	40,392,989	40,392,989
Loss on valuation of derivatives	-	-	-	-	-	-	-	(2,802,040)	-	(2,802,040)
Overseas operations translation credit	-	-	-	-	-	-	-	(54,703)	-	(54,703)
Balance at December 31, 2016	₩ 686,100,480	₩ 11,452,713	₩ 118,189,001	₩ 931,508	₩ -	₩ 1,105,137	₩ -	₩ (1,285,813)	₩ (3,799,103)	₩ 812,693,923

(Continued)

SSANGYONG MOTOR COMPANY AND ITS SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY (CONTINUED)

FOR THE YEARS ENDED DECEMBER 31, 2016 AND 2015

	Indian rupee in thousands									
	Other capital surplus									
	Paid-in capital in excess of par	Gain on capital reduction	Debt to be swapped for equity	Treasury stock	Gain on disposal of treasury stock	Other capital surplus	Other capital adjustments	Retained earnings (accumulated deficit)	Total	
Balance at January 1, 2015	Rs. 38,627,457	Rs. 644,788	Rs. 6,654,041	Rs. 52,444	Rs. (66,987)	-	Rs. (735,573)	Rs. (1,409,453)	Rs. 43,766,717	
Net loss	-	-	-	-	-	-	-	(3,487,344)	(3,487,344)	
Actuarial loss	-	-	-	-	-	-	-	(862,388)	(862,388)	
Disposal of treasury stock	-	-	-	-	62,219	-	-	-	129,206	
Gain on valuation of derivatives	-	-	-	-	-	-	810,418	-	810,418	
Overseas operations translation credit	-	-	-	-	-	-	13,598	-	13,598	
Balance at December 31, 2015	Rs. 38,627,457	Rs. 644,788	Rs. 6,654,041	Rs. 52,444	Rs. 62,219	Rs. 88,443	Rs. (5,759,185)	Rs. 40,370,207		
Balance at January 1, 2016	Rs. 38,627,457	Rs. 644,788	Rs. 6,654,041	Rs. 52,444	Rs. 62,219	Rs. 88,443	Rs. (5,759,185)	Rs. 40,370,207		
Net income	-	-	-	-	-	-	-	3,271,170	3,271,170	
Actuarial income	-	-	-	-	-	-	-	2,274,126	2,274,126	
Loss on valuation of derivatives	-	-	-	-	-	-	(157,755)	-	(157,755)	
Overseas operations translation credit	-	-	-	-	-	-	(3,080)	-	(3,080)	
Balance at December 31, 2016	Rs. 38,627,457	Rs. 644,788	Rs. 6,654,041	Rs. 52,444	Rs. 62,219	Rs. (72,392)	Rs. (213,889)	Rs. 45,754,668		

(Concluded)

See accompanying notes to the consolidated financial statements.



**SSANGYONG MOTOR COMPANY AND ITS SUBSIDIARIES**

**CONSOLIDATED STATEMENTS OF CASH FLOWS**

**FOR THE YEARS ENDED DECEMBER 31, 2016 AND 2015**

	Korean won		Indian rupee	
	Year ended December 31, 2016	Year ended December 31, 2015	Year ended December 31, 2016	Year ended December 31, 2015
	(In thousands)		(In thousands)	
<b>CASH FLOWS FROM OPERATING ACTIVITIES:</b>				
Net income (loss)	₩ 58,102,500	₩ (61,942,173)	Rs. 3,271,170	Rs. (3,487,344)
Adjustment (Note 30)	221,160,396	217,574,021	12,451,330	12,249,417
Changes in net working capital (Note 30)	(33,965,848)	46,166,312	(1,912,277)	2,599,163
	245,297,048	201,798,160	13,810,223	11,361,236
Interests received	2,709,911	3,281,174	152,568	184,730
Interests paid	(3,648,842)	(3,532,373)	(205,430)	(198,873)
Dividend income received	11,000	11,000	619	619
Corporate income tax	-	(10,733)	-	(604)
Net cash provided by operating activities	244,369,117	201,547,228	13,757,980	11,347,108
<b>CASH FLOWS FROM INVESTING ACTIVITIES:</b>				
Cash inflows from investing activities:				
Decrease in other receivables	2,999,565	7,836,121	168,876	441,174
Disposal of property, plant and equipment	2,010,394	718,827	113,185	40,470
Decrease in other assets	279	113,159	16	6,371
	5,010,238	8,668,107	282,077	488,015
Cash outflows for investing activities:				
Increase in other receivables	5,430,000	8,493,403	305,707	478,178
Acquisition of property, plant and equipment	127,494,012	151,095,940	7,177,913	8,506,701
Acquisition of intangible assets	82,779,869	66,873,343	4,660,507	3,764,969
Acquisition of joint operation	-	10,200,000	-	574,260
	215,703,881	236,662,686	12,144,127	13,324,108
Net cash used in investing activities	(210,693,643)	(227,994,579)	(11,862,050)	(12,836,093)
<b>CASH FLOWS FROM FINANCING ACTIVITIES:</b>				
Cash inflows from financing activities:				
Increase in borrowings	24,030,389	70,163,042	1,352,911	3,950,179
Increase in government grants	429,493	70,401	24,180	3,964
Sales of treasury stock	-	2,294,957	-	129,206
	24,459,882	72,528,400	1,377,091	4,083,349

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**SSANGYONG MOTOR COMPANY AND ITS SUBSIDIARIES**

**CONSOLIDATED STATEMENTS OF CASH FLOWS (CONTINUED)**

**FOR THE YEARS ENDED DECEMBER 31, 2016 AND 2015**

	Korean won		Indian rupee	
	Year ended December 31, 2016	Year ended December 31, 2015	Year ended December 31, 2016	Year ended December 31, 2015
	(In thousands)		(In thousands)	
Cash outflows for financing activities:				
Redemption of borrowings	₩ 17,500,000	₩ 5,000,000	Rs. 985,250	Rs. 281,500
	17,500,000	5,000,000	985,250	281,500
Net cash provided by (used in) financing activities	6,959,882	67,528,400	391,841	3,801,849
EFFECT OF EXCHANGE RATE CHANGES ON CASH AND CASH EQUIVALENTS	(115,553)	35,548	(6,506)	2,001
NET INCREASE IN CASH AND CASH EQUIVALENTS	40,519,803	41,116,597	2,281,265	2,314,865
CASH AND CASH EQUIVALENTS, BEGINNING OF THE YEAR	197,881,904	156,765,307	11,140,751	8,825,886
CASH AND CASH EQUIVALENTS, END OF THE YEAR	₩ 238,401,707	₩ 197,881,904	Rs. 13,422,016	Rs. 11,140,751

(Concluded)

See accompanying notes to the consolidated financial statements.

**SSANGYONG MOTOR COMPANY AND ITS SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**AS OF AND FOR THE YEARS ENDED DECEMBER 31, 2016 AND 2015**

**1. GENERAL:**

(1) Parent company overview and recent changes in business environment

Ssangyong Motor Company (the “Company”) was incorporated on December 6, 1962, in the Republic of Korea and listed its stocks on the Korea Stock Exchange in May 1975. The Company is headquartered at Dongsak-ro, Pyungtaek, and its factories are located in Pyungtaek, Kyeonggi-do, and Changwon, Kyeongsangnam-do, Republic of Korea. The Company manufactures and distributes motor vehicles and parts.

(2) Major shareholders

The Company’s shareholders as of December 31, 2016, are as follows:

Name of shareholder	Number of shares owned	Percentage of ownership (%)
Mahindra & Mahindra Ltd.	99,964,502	72.85
Others	37,255,594	27.15
	<u>137,220,096</u>	<u>100</u>

**2. SIGNIFICANT ACCOUNTING POLICIES:**

The Company and its subsidiaries (the “Group”) maintains its official accounting records in Korean won and prepares consolidated financial statements in conformity with Korean International Financial Reporting Standards (“K-IFRS”), in the Korean language (Hangul). Accordingly, these consolidated financial statements are intended for use by those who are informed about K-IFRS and Korean practices. The accompanying consolidated financial statements have been condensed, restructured and translated into English, with certain expanded descriptions from the Korean language consolidated financial statements. Certain information included in the Korean language consolidated financial statements, but not required for a fair presentation of the Group’s financial position, comprehensive income, changes in shareholders’ equity or cash flows, is not presented in the accompanying consolidated financial statements.

The Indian rupee amounts presented in these consolidated financial statements were computed by translating the Korean won into Indian rupees based on the Bank of Korea Basic Rate (₩1 to Rs. 0.05630 at December 31, 2016), solely for the convenience of the reader. These convenience translations into Indian rupees should not be construed as representations that the Korean won amounts have been, could have been or could in the future be converted at this, or any other, rate of exchange.

The consolidated financial statements as of and for the year ended December 31, 2016, to be submitted at the ordinary shareholders’ meeting were authorized for issuance at the board of directors’ meeting on February 15, 2017.

(1) Basis of preparation

The Group has prepared its consolidated financial statements in accordance with the K-IFRS.

The principal accounting policies are set out below. Except for the effect of the amendments to K-IFRS and new interpretations set out below, the principal accounting policies used to prepare the consolidated financial statements as of and for the year ended December 31, 2016, are consistent with the accounting policies used to prepare the consolidated financial statements as of and for the year ended December 31, 2015.

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

1) Amendments to K-IFRS and new interpretations that are mandatorily effective for the current year

In the current year, the Group has applied a number of amendments to K-IFRS, and new interpretations were issued that are mandatorily effective for accounting periods beginning on or after January 1, 2017.

Amendments to K-IFRS 1110 – Consolidated Financial Statements, K-IFRS 1112 Disclosure of Interests in Other Entities and K-IFRS 1028 Investment in Associates

The amendments clarify that in applying the equity method of accounting to an associate or a joint venture that is an investment entity, an investor may retain the fair value measurements that the associate or joint venture used for its subsidiaries.

Amendments to K-IFRS 1111 – Accounting for Acquisitions of Interests in Joint Operations

The amendments to K-IFRS 1111 provide guidance on how to account for the acquisition of a joint operation that constitutes a business as defined in K-IFRS 1103. A joint operator is also required to disclose the relevant information required by K-IFRS 1103 and other standards for business combinations.

Amendments to K-IFRS 1001 – Presentation of Financial Statements

The amendments to K-IFRS 1001 clarify the concept of applying materiality in practice and restrict an entity reducing the understandability of its financial statements by obscuring material information with immaterial information or by aggregating material items that have different natures or functions.

Amendments to K-IFRS 1016 – Property, Plant and Equipment

The amendments to K-IFRS 1016 prohibit the Group from using a revenue-based depreciation method for items of property, plant and equipment.

Amendments to K-IFRS 1038 – Intangible Assets

The amendments to K-IFRS 1038 do not allow presumption that revenue is an appropriate basis for the amortization of intangible assets, which presumption can only be limited when the intangible asset is expressed as a measure of revenue or when it can be demonstrated that revenue and consumption of the economic benefits of the intangible asset are highly correlated.

Annual Improvements to K-IFRS 2012-2014 Cycle

The annual improvements include amendments to a number of K-IFRS. The amendments introduce specific guidance in K-IFRS 1105 Non-Current Assets Held for Sale and Discontinued Operations for when an entity reclassifies an asset (or disposal group) from held for sale to held for distribution to owners (or vice versa), such a change is considered as a continuation of the original plan of disposal and not as a change to a plan of sale. Other amendments in the annual improvements include K-IFRS 1107 Financial Instruments: Disclosures, K-IFRS 1019 Employee Benefits and K-IFRS 1034 Interim Financial Reporting.

2) New and revised IFRS in issue, but not yet effective

The Group has not applied the following new and revised IFRS that have been issued, but are not yet effective.

Amendments to K-IFRS 1109 – Financial Instruments

The amendments to K-IFRS 1109 contain the requirements for the classification and measurement of financial assets and financial liabilities based on a business model, whose objective is achieved both by collecting contractual cash flows and selling financial assets and based on the contractual terms that give rise on specified dates to cash flows, impairment methodology based on the expected credit losses and broadened types of instruments that qualify as hedging instruments and the types of risk components of non-financial items that are eligible for hedge accounting and the change of the hedge effectiveness test. The amendments are effective for annual periods beginning on or after January 1, 2018.

The general impact of the new standard on the consolidated financial statement is as follows:

A. Classification and measurement of financial assets

When the Group adopts new standard of K-IFRS 1109, the Group classifies financial assets as seen in the table below, based on the entity’s business model for managing the financial assets and the contractual cash flow characteristics of the financial asset: as measured at amortized cost, fair value through other comprehensive income (“FVOCI”) or fair value through profit or loss (“FVTPL”). If the host contract is determined in a hybrid contract, an entity may classify the entire hybrid contract as a financial asset rather than separating the embedded derivative from the host contract.

Business model	Contractual cash flow characteristic	
	Solely payments of principal and interest	Otherwise
Objective is to hold financial assets in order to collect contractual cash flows	Measured at amortized cost (*1)	FVTPL (*2)
The financial asset is held within a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets	FVOCI (*1)	
Objective is to sell financial assets and others	FVTPL	

(\*1) An entity may designate as measured at FVTPL to eliminate or significantly reduce an accounting mismatch (irrevocable).

(\*2) An entity may designate as FVOCI for investments in equity instruments that are not held for trading (irrevocable).

B. Classification and measurement of financial liabilities.

For financial liabilities designated as at FVTPL using the fair value option, K-IFRS 1109 requires the effects of changes in fair value attributable to an entity’s credit risk to be recognized in other comprehensive income. The amounts presented in other comprehensive income are not subsequently transferred to profit or loss, unless this treatment of the credit risk component creates or enlarges a measurement mismatch.

C. Impairment: Financial assets and contract assets

Under K-IFRS 1039, the impairment is recognized only when there is an objective evidence of impairment based on incurred loss model, but under K-IFRS 1109, impairment is recognized based on expected credit loss model for debt instrument, lease receivables, contract assets, loan contracts and financial guarantee contracts that are measured at amortized cost or FVOCI.

In K-IFRS 1109, financial assets are classified into three stages depending on the extent of increase in the credit risk on financial instruments since initial recognition. The loss allowance is measured at an amount equal to 12-month expected credit losses or the lifetime expected credit losses and, therefore, credit losses will be recognized earlier than under the incurred loss model of K-IFRS 1039.

	<u>Case</u>	<u>The loss allowance</u>
Stage 1	Non-significant increase in credit risk since initial recognition	12-month expected credit losses: The portion of lifetime expected credit losses that represent the expected credit losses that result from default events on a financial instrument that are possible within the 12 months after the reporting date.
Stage 2	Significant increase in credit risk since initial recognition	Lifetime expected credit losses: The expected credit losses that result from all possible default events over the expected life of a financial instrument.
Stage 3	Credit-impaired financial assets	

Under K-IFRS 1109, an entity shall only recognize the cumulative changes in lifetime expected credit losses since initial recognition as a loss allowance for purchased or originated credit-impaired financial assets.

#### D. Hedge Accounting

The new standard, K-IFRS 1109, retains the mechanics of hedge accounting in K-IFRS 1039. Under the new model, it is possible for an entity to reflect its risk management activities on the financial statements by focusing on principle-based hedge effectiveness assessment instead of simply complying with a rule-based approach under the K-IFRS 1039. The new model introduced greater flexibility to the types of transactions eligible for hedge accounting, specifically broadening the types of instruments that qualify as hedging instruments and overhauling the quantitative hedge effectiveness (80% – 125%) test.

In accordance with the transition requirements, entities with initial application may continue to retain the existing requirements under K-IFRS 1039 as their accounting policy.

#### Amendments to K-IFRS 1115 – Revenue from Contracts with Customers

The core principle under K-IFRS 1115 is that an entity should recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. The amendments introduce a five-step approach to revenue recognition and measurement: 1) identify the contract with a customer, 2) identify the performance obligations in the contract, 3) determine the transaction price, 4) allocate the transaction price to the performance obligations in the contract and 5) recognize revenue when (or as) the entity satisfies a performance obligation. This standard will supersede K-IFRS 1011 - Construction Contracts, K-IFRS 1018 - Revenue, K-IFRS 2113 - Customer Loyalty Programmes, K-IFRS 2115 - Agreements for the Construction of Real Estate, K-IFRS 2118 - Transfers of Assets from Customers and K-IFRS 2031 - Revenue-Barter Transactions Involving Advertising Services. The amendments are effective for annual periods beginning on or after January 1, 2018.

The Group is planning to prepare adoption for K-IFRS 1115 in a specific since 2017, and set up corresponding internal management process as well as accounting system in parallel. The Group is planning to evaluate the potential impact of K-IFRS 1115 on the financial statements and disclose the financial impact of the adoption of the standard on the financial statements for the year ended on December 31, 2017.

#### Amendments to K-IFRS 1007 – Statement of Cash Flows

The amendments to K-IFRS 1007 contain the requirement that changes in liabilities arising from financing activities to be disclosed (to the extent necessary). The amendments are effective for annual periods beginning on or after January 1, 2017.

#### Amendments to K-IFRS 1012 – Income taxes

The amendments to K-IFRS 1012 clarify the following:

- the carrying value of an asset does not limit the estimation of probable future taxable profits.
- estimates for future taxable profits exclude tax deductions resulting from the reversal of deductible temporary differences.
- an entity assesses a deferred tax asset in combination with other deferred tax assets. Where tax law restricts the utilization of tax losses, an entity would assess a deferred tax asset in combination with other deferred tax assets of the same type.

The amendments are effective for annual periods beginning on or after January 1, 2017.

The application of these amendments has no significant impact on the disclosure in the Group's consolidated financial statements.

#### (2) Basis of consolidation

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

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

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

Income and expenses of subsidiaries acquired or disposed of during the year are included in the consolidated statements of comprehensive income from the date the Group gains control to the date when the Group ceases to control the subsidiary. Profit or loss and each component of other comprehensive income are attributed to the owners of the Group and to the non-controlling interests. Total comprehensive income of subsidiaries is attributed to the owners 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 in line with the Group's accounting policies.

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

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



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

### (3) Investments in associates and joint ventures

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

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

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

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

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

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



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

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

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

#### (4) Revenue recognition

Revenue is measured at the fair value of the consideration received or receivable. Revenue is reduced for estimated customer returns, rebates and other similar allowances. The Group recognizes revenue when the amount of revenue can be reliably measured; when it is probable that future economic benefits will flow to the entity; and when specific criteria have been met for each of the Group's activities, as described below.

##### 1) *Sale of goods*

Revenue from the sale of goods is recognized when the Group has transferred the significant risks and rewards of ownership of the goods to the buyer.

##### 2) *Rendering of services*

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

##### 3) *Dividend and interest income*

Dividend income from investments is recognized when the shareholders' right to receive payment has been established (provided that it is probable that the economic benefits will flow to the Group and the amount of income can be measured reliably).

Interest income from a financial asset is recognized when it is probable that the economic benefits will flow to the Group and the amount of income can be measured reliably. Interest income is accrued on a timely basis, by reference to the principal outstanding and at the effective interest rate applicable, which is the rate that exactly discounts estimated future cash receipts through the expected life of the financial asset to that asset's net carrying amount on initial recognition

#### (5) Foreign currencies

The individual financial statements of each Group entity are presented in the currency of the primary economic environment in which the entity operates (its functional currency). For the purpose of the consolidated financial statements, the results and financial position of each Group entity are expressed in Korean won, which is the functional currency of the entity and the presentation currency for the consolidated financial statements.

In preparing the financial statements of the individual entities, transactions in currencies other than the entity's functional currency (foreign currencies) are recognized at the rates of exchange prevailing at the dates of the transactions. At the end of each reporting period, monetary items denominated in foreign currencies are retranslated at the rates prevailing at that date. Non-monetary items carried at fair value that are denominated in foreign currencies are retranslated at the rates prevailing at the date when the fair value was determined. Non-monetary items that are measured in terms of historical cost in a foreign currency are not retranslated.

Exchange differences are recognized in profit or loss in the period in which they arise, except for:

- exchange differences on foreign currency borrowings relating to assets under construction for future productive use, which are included in the cost of those assets when they are regarded as an adjustment to interest costs on those foreign currency borrowings;
- exchange differences on transactions entered into in order to hedge certain foreign currency risks (see Note 2 (25) below for hedging accounting policies); and
- exchange differences on monetary items receivable from, or payable to, a foreign operation for which settlement is neither planned nor likely to occur (therefore, forming part of the net investment in the foreign operation) are recognized initially in other comprehensive income and reclassified from equity to profit or loss on disposal or partial disposal of the net investment.

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

On the disposal of a foreign operation (i.e., a disposal of the Group's entire interest in a foreign operation, or a disposal involving loss of control over a subsidiary that includes a foreign operation, or partial disposal of an interest in a joint arrangement or an associate that includes a foreign operation whose retained interest becomes a financial asset), all of the accumulated exchange differences in respect of that operation attributable to the owners of the Group are reclassified to profit or loss. Any exchange differences that have previously been attributed to non-controlling interests are derecognized, but they are not reclassified to profit or loss.

In the case of a partial disposal (i.e., no loss of control) of a subsidiary that includes a foreign operation, the proportionate share of accumulated exchange differences are reattributed to non-controlling interests in equity and are not recognized in profit or loss. For all other partial disposals (i.e., partial disposals of associates or joint arrangements that do not result in the Group losing significant influence or joint control), the proportionate share of the accumulated exchange differences is reclassified to profit or loss.

Goodwill and fair value adjustments arising on the acquisition of a foreign operation are treated as assets and liabilities of the foreign operation and translated at the closing rate. Exchange differences arising are recognized in other comprehensive income.

#### (6) Financial instruments

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

All regular-way purchases or sales of financial assets are recognized and derecognized on a trade-date basis. Regular-way purchases or sales are purchases or sales of financial assets that require delivery of assets within the timeframe established by regulation or convention in the marketplace.

Financial assets are classified into the following specified categories: 'financial assets at FVTPL,' 'held-to-maturity investments,' 'AFS financial assets' and 'loans and receivables.' The classification depends on the nature and purpose of the financial assets, and is determined at the time of initial recognition.

1) Effective interest method

The effective interest method is a method of calculating the amortized cost of a debt instrument and allocating interest income over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash receipts (including all fees and points paid or received that form an integral part of the effective interest rate, transaction costs and other premiums or discounts) through the expected life of the debt instrument, or (where appropriate) a shorter period, to the net carrying amount on initial recognition.

Income is recognized on an effective interest basis for debt instruments other than those financial assets classified as at FVTPL.

2) Financial assets at FVTPL

Financial assets are classified as at FVTPL when a financial asset is a contingent consideration that may be paid by an acquirer as part of business combination to which K-IFRS 1103 applies.

A financial asset is classified as held for trading, if:

- it has been acquired principally for the purpose of selling in the near term;
- on initial recognition, it is part of a portfolio of identified financial instruments that the Group manages together and has a recent actual pattern of short-term profit taking; or
- it is a derivative that is not designated and effective as a hedging instrument.

A financial asset other than a financial asset held for trading or contingent consideration that may be paid by an acquirer as part of a business combination may be designated as at FVTPL upon initial recognition, if:

- such designation eliminates or significantly reduces a measurement or recognition inconsistency that would otherwise arise;
- the financial asset forms part of a group of financial assets or financial liabilities, or both, which is managed, and its performance is evaluated on a fair value basis, in accordance with the Group's documented risk management or investment strategy, and information about the grouping is provided internally on that basis; or
- it forms part of a contract containing one or more embedded derivatives, and K-IFRS 1039 permits the entire combined contract (asset or liability) to be designated as at FVTPL.

Financial assets at FVTPL are stated at fair value, with any gains or losses arising on remeasurement recognized in profit or loss. The net gain or loss recognized in profit or loss incorporates any dividend or interest earned on the financial asset, and is included in the 'Other gains and losses' line item in the consolidated statements of comprehensive income.

3) Held-to-maturity investments

Non-derivative financial assets with fixed or determinable payments and fixed-maturity dates that the Group has the positive intent and ability to hold to maturity are classified as held-to-maturity investments. Held-to-maturity investments are measured at amortized cost using the effective interest method, less any impairment, with revenue recognized on an effective yield basis.

4) AFS financial assets

AFS financial assets are non-derivatives that are either designated as AFS or are not classified as (a) loans and receivables, (b) held-to-maturity investments or (c) financial assets at FVTPL.

They are subsequently measured at fair value at the end of each reporting period. Changes in the carrying amount of AFS monetary financial assets relating to changes in foreign currency rates (see below), interest income calculated using the effective interest method and dividends on AFS equity investments are recognized in profit or loss. Other changes in the carrying amount of AFS financial assets are recognized in other comprehensive income. When the investment is disposed of, or is determined to be impaired, the cumulative gain or loss previously accumulated in other comprehensive income is reclassified to profit or loss.

Dividends on AFS equity instruments are recognized in profit or loss when the Group's right to receive the dividends is established.

The fair value of AFS monetary financial assets denominated in a foreign currency is determined in that foreign currency and translated at the spot rate prevailing at the end of the reporting period. The foreign exchange gains and losses that are recognized in profit or loss are determined based on the amortized cost of the monetary asset. Other foreign exchange gains and losses are recognized in other comprehensive income.

AFS equity investments that do not have a quoted market price in an active market and whose fair value cannot be reliably measured and derivatives that are linked to, and must be settled by delivery, of such unquoted equity investments are measured at cost, less any identified impairment losses at the end of each reporting period.

#### 5) Loans and receivables

Trade receivables, loans and other receivables that have fixed or determinable payments and are not quoted in an active market are classified as 'loans and receivables.' Loans and receivables are measured at amortized cost using the effective interest method, less any impairment. Interest income is recognized by applying the effective interest rate, except for short-term receivables, when the effect of discounting is immaterial.

#### 6) Impairment of financial assets

Financial assets, other than those at FVTPL, are assessed for indicators of impairment at the end of each reporting period. Financial assets are considered to be impaired when there is objective evidence that, as a result of one or more events that occurred after the initial recognition of the financial asset, the estimated future cash flows of the investment have been affected.

For AFS equity investments, a significant or prolonged decline in the fair value of the security below its cost is considered to be objective evidence of impairment.

For all other financial assets, objective evidence of impairment includes:

- significant financial difficulty of the issuer or counterparty;
- default or delinquency in interest or principal payments;
- probability that the borrower will enter bankruptcy or financial reorganization; or
- disappearance of an active market for that financial asset because of financial difficulties.

For certain categories of financial assets, such as trade receivables, assets that are assessed not to be impaired individually are, in addition, assessed for impairment on a collective basis. Objective evidence of impairment for a portfolio of receivables could include the Group's past experience of collecting payments, an increase in the number of delayed payments in the portfolio past the average credit period as well as observable changes in national or local economic conditions that correlate with default on receivables.

For financial assets carried at amortized cost, the amount of the impairment loss recognized is the difference between the asset's carrying amount and the present value of estimated future cash flows, discounted at the financial asset's original effective interest rate.

For financial assets that are carried at cost, the amount of the impairment loss recognized is the difference between the asset's carrying amount and the present value of estimated future cash flows, discounted at the current market rate of return for a similar financial asset. Such impairment loss will not be reversed in subsequent periods.

The carrying amount of the financial asset is reduced by the impairment loss directly for all financial assets, with the exception of trade receivables, where the carrying amount is reduced through the use of an allowance account. When a trade receivable is considered uncollectible, it is written off against the allowance account. Subsequent recoveries of amounts previously written off are credited against the allowance account. Changes in the carrying amount of the allowance account are recognized in profit or loss.

When an AFS financial asset is considered to be impaired, cumulative gains or losses previously recognized in other comprehensive income are reclassified to profit or loss in the period.

For financial assets measured at amortized cost, if, in a subsequent period, the amount of the impairment loss decreases and the decrease can be related objectively to an event occurring after the impairment was recognized, the previously recognized impairment loss is reversed through profit or loss to the extent that the carrying amount of the investment at the date the impairment is reversed does not exceed what the amortized cost would have been had the impairment not been recognized.

In respect of AFS equity securities, impairment losses previously recognized in profit or loss are not reversed through profit or loss. Any increase in fair value subsequent to an impairment loss is recognized in other comprehensive income. In respect of AFS debt securities, impairment losses are subsequently reversed through profit or loss if an increase in the fair value of the investment can be objectively related to an event occurring after the recognition of the impairment loss.

#### 7) Derecognition of financial assets

The Group derecognizes a financial asset only when the contractual rights to the cash flows from the asset expire or when it transfers the financial asset and, substantially, all the risks and rewards of ownership of the asset to another entity. If the Group neither transfers nor retains substantially all the risks and rewards of ownership and continues to control the transferred asset, it recognizes its retained interest in the asset and an associated liability for amounts it may have to pay. If the Group retains substantially all the risks and rewards of ownership of a transferred financial asset, it continues to recognize the financial asset and also recognizes a collateralized borrowing for the proceeds received.

On derecognition of a financial asset in its entirety, the difference between the asset's carrying amount and the sum of the consideration received and receivable and the cumulated gain or loss that had been recognized in other comprehensive income and accumulated in equity is recognized in profit or loss.

On derecognition of a financial asset other than in its entirety (e.g., when the Group retains an option to repurchase part of a transferred asset or retains a residual interest, and such a retained interest indicates that the transferor has neither transferred nor retained substantially all the risks and rewards of ownership and has retained control of the transferred asset), the Group allocates the previous carrying amount of the financial asset between the part it continues to recognize under continuing involvement and the part it no longer recognizes on the basis of the relative fair value of those parts on the date of the transfer. The difference between the carrying amount allocated to the part that is no longer recognized and the sum of the consideration received for the part that is no longer recognized and any cumulative gain or loss allocated to it that had been recognized in other comprehensive income is recognized in profit or loss. A cumulative gain or loss that had been recognized in other comprehensive income is allocated between the part that continues to be recognized and the part that is no longer recognized on the basis of the relative fair value of those parts.

#### (7) Financial liabilities and equity instruments

##### 1) Classification as debt or equity

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

##### 2) Equity instruments

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

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

### 3) Financial liabilities

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

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

### 4) Financial liabilities at FVTPL

Financial liabilities are classified as at FVTPL when a financial liability is a contingent consideration that may be paid by an acquirer as part of a business combination to which K-IFRS 1103 applies, when it is held for trading or when it is designated as at FVTPL.

A financial liability is classified as held for trading, if:

- it has been acquired principally for the purpose of repurchasing it in the near term;
- on initial recognition, it is part of a portfolio of identified financial instruments that the Group manages together and has a recent actual pattern of short-term profit taking; or
- it is a derivative that is not designated and effective as a hedging instrument.

A financial liability other than a financial liability held for trading or a contingent consideration that may be paid by an acquirer as part of a business combination may be designated as at FVTPL upon initial recognition, if:

- such designation eliminates or significantly reduces a measurement or recognition inconsistency that would otherwise arise;
- the financial liability forms part of a group of financial assets or financial liabilities, or both, which is managed, and its performance is evaluated on a fair value basis, in accordance with the Group's documented risk management or investment strategy, and information about the grouping is provided internally on that basis; or
- it forms part of a contract containing one or more embedded derivatives, and K-IFRS 1039 permits the entire combined contract (asset or liability) to be designated as at FVTPL.

Financial liabilities at FVTPL are stated at fair value, with any gains or losses arising on remeasurement recognized in profit or loss. The net gain or loss is recognized in "Other gains and losses" line item in the consolidated statements of comprehensive income.

### 5) Other financial liabilities

Other financial liabilities are subsequently measured at amortized cost using the effective interest method, with interest expense recognized on an effective yield basis.

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

### 6) Derecognition of financial liabilities

The Group derecognizes financial liabilities when the Group's obligations are discharged, canceled or expired. The difference between the carrying amount of the financial liability derecognized and the consideration paid and payable is recognized in profit or loss.



#### (8) Derivative financial instruments

The Group enters into a variety of derivative financial instruments to manage its exposure to interest rate and foreign exchange rate risks, including foreign exchange forward contracts, interest rate swaps and cross-currency swaps.

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

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

##### 1) Cash flow hedges

The effective portion of changes in the fair value of derivatives that are designated and qualify as cash flow hedges is recognized in other comprehensive income. The gain or loss relating to the ineffective portion is recognized immediately in "Other gains and losses" line item.

Amounts previously recognized in other comprehensive income and accumulated in equity are reclassified to profit or loss in the periods when the hedged item is recognized in profit or loss, in the same line of the consolidated statements of comprehensive income as the recognized hedged item. However, when the forecast transaction that is hedged results in the recognition of a non-financial asset or a non-financial liability, the gains and losses previously accumulated in equity are transferred from equity and included in the initial measurement of the cost of the non-financial asset or non-financial liability.

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

#### (9) Inventories

Inventories are stated at the lower of cost or net realizable value. Cost of inventories, except for those in transit, is measured using the weighted-average method and consists of the purchase price, cost of conversion and other costs incurred in bringing the inventories to their present location and condition. Net realizable value represents the estimated selling price for inventories, less all estimated costs of completion and costs necessary to make the sale.

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

#### (10) Property, plant and equipment

Property, plant and equipment are stated at cost, less subsequent accumulated depreciation and accumulated impairment losses. The cost of an item of property, plant and equipment is directly attributable to their purchase or construction, which includes any costs directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management. It also includes the initial estimate of the costs of dismantling and removing the item and restoring the site on which it is located.

Subsequent costs are recognized in carrying amount of an asset or as a separate asset if it is probable that future economic benefits associated with the assets will flow into the Group and the cost of an asset can be measured reliably. Routine maintenance and repairs are expensed as incurred.

The Group does not depreciate land. Depreciation expense is computed using the straight-line method, based on the estimated useful lives of the assets as follows:

	<u>Useful lives (Years)</u>
Buildings	24–50
Structures	13–30
Machinery and equipment	10
Vehicles	5–10
Others	5–10

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

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

An item of property, plant and equipment is derecognized upon disposal or when no future economic benefits are expected to arise from the continued use of the asset. Any gain or loss arising on derecognition of the property (calculated as the difference between the net disposal proceeds and the carrying amount of the asset) is included in profit or loss in the period in which the property is derecognized.

#### (11) Intangible assets

##### 1) Intangible assets acquired separately

Intangible assets with finite useful lives that are acquired separately are carried at cost, less accumulated amortization and accumulated impairment losses. Amortization of intangible assets is recognized on a straight-line basis over their estimated useful lives. The estimated useful life and amortization method are reviewed at the end of each reporting period, with the effect of any changes in estimate being accounted for on a prospective basis. Intangible assets with indefinite useful lives that are acquired separately are carried at cost, less accumulated impairment losses.

##### 2) Internally generated intangible assets - Research and development (“R&D”) expenditure

Expenditure on research activities is recognized as an expense in the period in which it is incurred.

Expenditure arising from development (or from the development phase of an internal project) is recognized as an intangible asset if, and only if, the development project is designed to produce new or substantially improved products, and the Group can demonstrate the technical and economical feasibility and measure reliably the resources attributable to the intangible asset during its development.

The amount initially recognized for internally generated intangible assets is the sum of the expenditure incurred from the date when the intangible asset first meets the recognition criteria. Where no internally generated intangible asset can be recognized, development expenditure is recognized in profit or loss in the period in which it is incurred.

Subsequent to initial recognition, internally generated intangible assets are reported at cost, less accumulated amortization and accumulated impairment losses, on the same basis as intangible assets that are acquired separately.

##### 3) Derecognition of intangible assets

An intangible asset is derecognized on disposal or when no future economic benefits are expected from its use or disposal. Gains or losses arising from derecognition of an intangible asset, measured as the difference between the net disposal proceeds and the carrying amount of the asset, are recognized in profit or loss when the asset is derecognized.



(12) Impairment of property, plant and equipment

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

Intangible assets with indefinite useful lives and intangible assets not yet available for use are tested for impairment at least annually and whenever there is an indication that the asset may be impaired. Recoverable amount is the higher of fair value, less costs to sell, or value in use. In assessing value in use, the estimated future cash flows are discounted to their present value using a pretax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset for which the estimates of future cash flows have not been adjusted.

If the recoverable amount of an asset (or a cash-generating unit) is estimated to be less than its carrying amount, the carrying amount of the asset (or the cash-generating unit) is reduced to its recoverable amount. An impairment loss is recognized immediately in profit or loss, unless the relevant asset is carried at a revalued amount, in which case, the impairment loss is treated as a revaluation decrease.

(13) Retirement benefit costs and termination benefits

For defined benefit retirement benefit plans, the cost of providing benefits is determined using the projected unit credit method, with actuarial valuations being carried out at the end of each reporting period. Remeasurement, comprising actuarial gains and losses, the effect of the changes to the asset ceiling (if applicable) and the return on plan assets (excluding interest), is reflected immediately in the consolidated statements of financial position, with a charge or credit recognized in other comprehensive income in the period in which it occurs. Remeasurement recognized in other comprehensive income is reflected immediately in retained earnings and will not be reclassified to profit or loss. Past service cost is recognized in profit or loss in the period of a plan amendment. Net interest is calculated by applying the discount rate at the beginning of the period to the net defined benefit liability or asset. Defined benefit costs are composed of service cost (including current service cost and past service cost, as well as gains and losses on curtailments and settlements), net interest expense (income) and remeasurement.

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

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

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

Discretionary contributions made by employees or third parties reduce service cost upon payment of these contributions to the plan. When the formal terms of the plans specify that there will be contributions from employees or third parties, the accounting depends on whether the contributions are linked to service as follows:

If the contributions are not linked to services (e.g., contributions are required to reduce a deficit arising from losses on plan assets or from actuarial losses), they are reflected in the remeasurement of the net defined benefit liability (asset).

If contributions are linked to services, they reduce service costs. For the amount of contribution that is dependent on the number of years of service, the entity reduces service cost by attributing the contributions to periods of service using the attribution method required by K-IFRS 1019, paragraph 70 for the gross benefits.

For the amount of contribution that is independent of the number of years of service, the entity reduces service cost in the period in which the related service is rendered.

#### (14) Provisions

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

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

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

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

#### (15) Leases

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

##### 1) The Group as lessor

Amounts due from lessees under finance leases are recognized as receivables at the amount of the Group's net investment in the leases. Finance lease income is allocated to accounting periods so as to reflect a constant periodic rate of return on the Group's net investment outstanding in respect of the leases.

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

##### 2) The Group as lessee

Assets held under finance leases are initially recognized as assets of the Group at their fair value at the inception of the lease or, if lower, at the present value of the minimum lease payments. The corresponding liability to the lessor is included in the consolidated statements of financial position as a finance lease obligation.

Lease payments are apportioned between finance expenses and reduction of the lease obligation so as to achieve a constant rate of interest on the remaining balance of the liability. Finance expenses are recognized immediately in profit or loss, unless they are directly attributable to qualifying assets, in which case, they are capitalized in accordance with the Group's general policy on borrowing costs (see Note 2 (12)). Contingent rentals are recognized as expenses in the periods in which they are incurred.

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

In the event that lease incentives are received to enter into operating leases, such incentives are recognized as a liability. The aggregate benefit of incentives is recognized as a reduction of rental expense on a straight-line basis, except where another systematic basis is more representative of the time pattern in which economic benefits from the leased asset are consumed.

(16) Borrowing costs

Borrowing costs directly attributable to the acquisition, construction or production of qualifying assets, which are assets that necessarily take a substantial period of time to get ready for their intended use or sale, are added to the cost of those assets until such time when the assets are substantially ready for their intended use or sale.

Investment income earned on the temporary investment of specific borrowings pending their expenditure on qualifying assets is deducted from the borrowing costs eligible for capitalization.

All other borrowing costs are recognized in profit or loss in the period in which they are incurred.

(17) Government grants

Government grants are not recognized until there is reasonable assurance that the Group will comply with the conditions attached to them and that the grants will be received.

The benefit of a government loan at a below-market rate of interest is treated as a government grant, measured as the difference between proceeds received and the fair value of the loan based on prevailing market interest rates.

Government grants related to assets are presented in the consolidated statements of financial position by deducting the grant from the carrying amount of the asset. *The related grant is recognized in profit or loss over the life of a depreciable asset as a reduced depreciation expense.*

Government grants related to income are recognized in profit or loss on a systematic basis over the periods in which the Group recognizes as expenses the related costs, for which the grants are intended to compensate. Government grants that are receivable as compensation for expenses or losses already incurred or for the purpose of giving immediate financial support to the Group with no future-related costs are recognized in profit or loss in the period in which they become receivable

(18) Taxation

Income tax expense represents the sum of the tax currently payable and deferred tax.

1) Current tax

The tax currently payable is based on taxable profit for the year. Taxable profit differs from profit as reported in the consolidated statements of comprehensive income because of items of income or expense that are taxable or deductible in other years and items that are never taxable or deductible. The Group's liability for current tax is calculated using tax rates that have been enacted or substantively enacted by the end of the reporting period.

2) Deferred tax

Deferred tax is recognized on temporary differences between the carrying amounts of assets and liabilities in the consolidated financial statements and the corresponding tax bases used in the computation of taxable profit. Deferred tax liabilities are generally recognized for all taxable temporary differences. Deferred tax assets are generally recognized for all deductible temporary differences to the extent it is probable that taxable profits will be available against which those deductible temporary differences can be utilized. Such deferred tax assets and liabilities are not recognized if the temporary difference arises from goodwill or from the initial recognition (other than in a business combination) of other assets and liabilities in a transaction that affects neither the taxable profit nor the accounting profit.

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

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

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply in the period in which the liability is settled or the asset is realized based on tax rates (and tax laws) that have been enacted or substantively enacted by the end of the reporting period. The measurement of deferred tax liabilities and assets reflects the tax consequences that would follow from the manner in which the Group expects to recover or settle the carrying amount of its assets and liabilities at the end of the reporting period.

Deferred tax assets and liabilities are offset if, and only if, the Group has a legally enforceable right to set off current tax assets against current tax liabilities, and the deferred tax assets and liabilities relate to income taxes levied by the same taxation authority on either the same taxable entity or different taxable entities, which intend either to settle current tax liabilities and assets on a net basis or to realize the assets and settle the liabilities simultaneously, in each future period in which significant amounts of deferred tax liabilities or assets are expected to be settled or recovered.

For the purpose of measuring deferred tax liabilities and deferred tax assets for investment properties that are measured using the fair value model, the carrying amounts of such properties are presumed to be recovered entirely through sale, unless the presumption is rebutted. The presumption is rebutted when the investment property is depreciable and is held within a business model, whose objective is to consume substantially all of the economic benefits embodied in the investment properties over time, rather than through sale.

### 3) Current and deferred taxes for the year

Current and deferred taxes are recognized in profit or loss, except when they relate to items that are recognized in other comprehensive income or directly in equity; in which case, the current and deferred taxes are also recognized in other comprehensive income or directly in equity. Where current tax or deferred tax arises from the initial accounting for a business combination, the tax effect is included in the accounting for the business combination.

### (19) Fair value

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

In addition, for financial reporting purposes, fair value measurements are categorized into Levels 1, 2 or 3, based on the degree to which the inputs to the fair value measurements are observable and the significance of the inputs to the fair value measurement in its entirety, which are described as follows:

- Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities that the entity can access at the measurement date;
- Level 2 inputs are inputs, other than quoted prices included within Level 1, that are observable for the asset or liability, either directly or indirectly; and
- Level 3 inputs are unobservable inputs for the asset or liability.

(20) Segment information

Segment information is presented in the same format as the reporting material presented to the Group's management. The Group's management is liable for the assessment of the resources to be allocated to the business segments and the performance results of the business segments.

(21) Accounting treatment related to the emission rights (cap and trade) scheme

The Group classifies the emission rights as intangible assets. Emission rights allowances that the government-allocated free of charge are measured at nil, and emission rights allowances that are purchased are measured at cost, which the Group paid to purchase the allowances. If emission rights that the government-allocated free of charge are sufficient to settle the emission rights allowances allotted for vintage year, the emission liabilities are measured at nil. However, for the emission liabilities that exceed the allowances allocated free of charge, the shortfall is measured at best estimate at the end of the reporting period.

**3. CRITICAL ACCOUNTING ESTIMATES AND ASSUMPTIONS:**

In the application of the Company's accounting policies, which are described in Note 2, management is required to make judgments, estimates and assumptions about the carrying amounts of assets and liabilities that are not readily apparent from other sources. The estimates and associated assumptions are based on historical experience and other factors that are considered to be relevant. Actual results may differ from these estimates.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimate is revised if the revision affects only that period or in the period of the revision and future periods if the revision affects both current and future periods.

The following are the key assumptions concerning the future and other key sources of estimation uncertainty at the end of the reporting period that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year:

(1) Provision for product warranties

The Group provides warranties for its products at recognition of sale and establishes a provision for product warranties at the end of each reporting period, based on the best estimate of the expenses necessary to provide present and future warranty obligations.

(2) Retirement benefit obligation

The retirement benefit obligation recognized in the consolidated statements of financial position represents the present value of the defined benefit obligation, as adjusted for unrecognized actuarial gains and losses and unrecognized past service cost and as reduced by the fair value of plan assets. For defined benefit retirement benefit plans, the cost of providing benefits is determined using the projected unit credit method, with actuarial valuations being carried out at the end of each reporting period. The present value of defined benefit obligations is expressed in a currency in which retirement benefits will be paid, and is calculated by discounting expected future cash outflows with the interest rate of high-quality corporate bonds, whose maturity is similar to the payment date of retirement benefit obligations. Other significant assumptions related to defined benefit obligation are partly based on the current market situation.

**4. CASH AND CASH EQUIVALENTS:**

Cash and cash equivalents include cash on hand and in banks, and highly liquid short-term financial instruments that may be easily converted into cash and whose risk of value fluctuation is not material.

## 5. RESTRICTED FINANCIAL ASSETS:

Restricted financial assets as of December 31, 2016 and 2015, are as follows:

(Unit: Korean won in thousands)

	Financial institution	December 31, 2016	December 31, 2015	Notes
Cash and cash equivalents	Shinhan Bank and others	₩ 177,208	₩ 567,340	Government subsidies and others Unconfirmed reorganization debt pledged as collateral
	Woori Bank	746,591	957,689	
Long-term financial instruments	Shinhan Bank and others	6,000	6,000	Overdraft deposit
		<u>₩ 929,799</u>	<u>₩ 1,531,029</u>	

(Unit: Indian rupee in thousands)

	Financial institution	December 31, 2016	December 31, 2015	Notes
Cash and cash equivalents	Shinhan Bank and others	Rs. 9,977	Rs. 31,941	Government subsidies and others Unconfirmed reorganization debt pledged as collateral
	Woori Bank	42,033	53,918	
Long-term financial instruments	Shinhan Bank and others	338	338	Overdraft deposit
		<u>Rs. 52,348</u>	<u>Rs. 86,197</u>	

## 6. LONG-TERM AFS FINANCIAL ASSETS:

The Group's long-term AFS financial assets as of December 31, 2016 and 2015, are as follows:

(Unit: Korean won in thousands)

Classification	Ownership (%)	December 31, 2016			December 31, 2015
		Acquisition cost	Net asset value	Book value	Book value
Kihyup Technology Banking Corporation (*)	1.72	₩ 500,000	₩ 685,246	₩ 500,000	₩ 500,000
Korea Management Consultants Association (*)	1.50	60,000	603,782	60,000	60,000
		<u>₩ 560,000</u>	<u>₩ 1,289,028</u>	<u>₩ 560,000</u>	<u>₩ 560,000</u>

(Unit: Indian rupee in thousands)

Classification	Ownership (%)	December 31, 2016			December 31, 2015
		Acquisition cost	Net asset value	Book value	Book value
Kihyup Technology Banking Corporation (*)	1.72	Rs. 28,150	Rs. 38,579	Rs. 28,150	Rs. 28,150
Korea Management Consultants Association (*)	1.50	3,378	33,993	3,378	3,378
		<u>Rs. 31,528</u>	<u>Rs. 72,572</u>	<u>Rs. 31,528</u>	<u>Rs. 31,528</u>

(\*) Because the market prices from an active market are not available and the fair values cannot be reliably measured, AFS financial assets are measured at their acquisition costs.

## 7. TRADE AND OTHER RECEIVABLES:

All current trade and other receivables are due within one year from December 31, 2016, and because the present value discount effect is not material, the fair value of the aforementioned receivables is equal to the book value.

(1) Details of current portion of trade and other receivables as of December 31, 2016 and 2015, are as follows:

(Unit: Korean won in thousands)

Financial assets	December 31, 2016			
	Trade receivables	Non-trade receivables	Other receivables	Other long-term receivables
Receivables – general	₩ 212,488,160	₩ 7,456,694	₩ 10,516,447	₩ 33,831,341
Less: Allowance for doubtful accounts	(93,208)	(1,732)	(45,320)	(76,678)
	<u>₩ 212,394,952</u>	<u>₩ 7,454,962</u>	<u>₩ 10,471,127</u>	<u>₩ 33,754,663</u>

  

Financial assets	December 31, 2015			
	Trade receivables	Non-trade receivables	Other receivables	Other long-term receivables
Receivables – general	₩ 151,034,088	₩ 6,455,062	₩ 2,628,696	₩ 39,887,267
Less: Allowance for doubtful accounts	(44,462)	(2,252)	(8,666)	(159,255)
	<u>₩ 150,989,626</u>	<u>₩ 6,452,810</u>	<u>₩ 2,620,030</u>	<u>₩ 39,728,012</u>

(Unit: Indian rupee in thousands)

Financial assets	December 31, 2016			
	Trade receivables	Non-trade receivables	Other receivables	Other long-term receivables
Receivables – general	Rs. 11,963,083	Rs. 419,812	Rs. 592,078	Rs. 1,904,705
Less: Allowance for doubtful accounts	(5,248)	(98)	(2,552)	(4,317)
	<u>Rs. 11,957,835</u>	<u>Rs. 419,714</u>	<u>Rs. 589,526</u>	<u>Rs. 1,900,388</u>

  

Financial assets	December 31, 2015			
	Trade receivables	Non-trade receivables	Other receivables	Other long-term receivables
Receivables – general	Rs. 8,503,219	Rs. 363,420	Rs. 147,996	Rs. 2,245,653
Less: Allowance for doubtful accounts	(2,503)	(127)	(488)	(8,966)
	<u>Rs. 8,500,716</u>	<u>Rs. 363,293</u>	<u>Rs. 147,508</u>	<u>Rs. 2,236,687</u>

(2) Credit risk and allowance for doubtful accounts

The above-mentioned trade and non-trade receivables and other receivables are classified as loans and receivables, and measured at amortized cost.

If a credit risk occurs with respect to a dealership sale, which is a major type of the Group's sales, the respective dealership bears all of the risk. The Group manages credit risk on product sales using two management indexes, agreed liability rate and agreed excess rate, and when the management index exceeds the agreed rate, it imposes a release restriction on the respective dealership and transfers a credit risk arising from product sales.

The Group's trade receivables are usually collected within 30 days, but some of the notes receivable are collected within 75 days. Based on the past experience, receivables that are overdue for more than one year are usually not collected, and the Group reserves the full amount of those receivables as an allowance for doubtful accounts. The Group estimates an allowance for the receivables that are overdue for more than 90 days, but less than one year through an individual analysis based on each transacting party; for receivables that are not subject to individual analysis, the Group estimates an allowance based on the historical loss rates.



Some of the trade receivables that are overdue for more than 90 days are not included in the above-mentioned trade receivables (refer to the aging analysis below); the Group did not reserve an allowance for the aforementioned receivables as their credit ratings did not change materially and they are expected to be collected. The Group has no collaterals pledged or credit enforcement provided for the aforementioned receivables and does not have a legal right to offset those receivables with the debt of the transacting parties.

Aging analysis of the trade and non-trade receivables that are overdue, but are not impaired as of December 31, 2016 and 2015, is as follows:

(Unit: Korean won in thousands)

Classification	December 31, 2016			
	3-6 months	6-12 months	More than 1 year	Total
Trade receivables	₩ 1,417,422	₩ 88,607	₩ 235,896	₩ 1,741,925
Non-trade receivables	602,763	15,602	4,203,930	4,822,295
Other long-term receivables	-	-	103,250	103,250
	<u>₩ 2,020,185</u>	<u>₩ 104,209</u>	<u>₩ 4,543,076</u>	<u>₩ 6,667,470</u>

  

Classification	December 31, 2015			
	3-6 months	6-12 months	More than 1 year	Total
Trade receivables	₩ 344,346	₩ 316,971	₩ 20,749	₩ 682,066
Non-trade receivables	285,124	1,833	4,125,784	4,412,741
Other long-term receivables	-	-	103,250	103,250
	<u>₩ 629,470</u>	<u>₩ 318,804</u>	<u>₩ 4,249,783</u>	<u>₩ 5,198,057</u>

(Unit: Indian rupee in thousands)

Classification	December 31, 2016			
	3-6 months	6-12 months	More than 1 year	Total
Trade receivables	Rs. 79,801	Rs. 4,989	Rs. 13,281	Rs. 98,071
Non-trade receivables	33,936	878	236,681	271,495
Other long-term receivables	-	-	5,813	5,813
	<u>Rs. 113,737</u>	<u>Rs. 5,867</u>	<u>Rs. 255,775</u>	<u>Rs. 375,379</u>

  

Classification	December 31, 2015			
	3-6 months	6-12 months	More than 1 year	Total
Trade receivables	Rs. 19,387	Rs. 17,845	Rs. 1,168	Rs. 38,400
Non-trade receivables	16,052	103	232,282	248,437
Other long-term receivables	-	-	5,813	5,813
	<u>Rs. 35,439</u>	<u>Rs. 17,948</u>	<u>Rs. 239,263</u>	<u>Rs. 292,650</u>

Aging analysis of the trade and non-trade receivables and other long-term receivables that are overdue, but are impaired as of December 31, 2016 and 2015, is as follows:

(Unit: Korean won in thousands)

Classification	December 31, 2016			
	3-6 months	6-12 months	More than 1 year	Total
Other long-term receivables	₩ -	₩ -	₩ 44,067	₩ 44,067

  

Classification	December 31, 2015			
	3-6 months	6-12 months	More than 1 year	Total
Other long-term receivables	₩ -	₩ -	₩ 47,349	₩ 47,349



(Unit: Indian rupee in thousands)

Classification	December 31, 2016			
	3-6 months	6-12 months	More than 1 year	Total
Other long-term receivables	Rs. -	Rs. -	Rs. 2,511	Rs. 2,511

Classification	December 31, 2015			
	3-6 months	6-12 months	More than 1 year	Total
Other long-term receivables	Rs. -	Rs. -	Rs. 2,666	Rs. 2,666

(3) Changes in allowance for trade and other receivables for the years ended December 31, 2016 and 2015, are as follows:

(Unit: Korean won in thousands)

Classification	Year ended December 31, 2016			
	Trade receivables	Non-trade receivables	Other receivables	Other long-term receivables
Beginning balance	₩ 44,462	₩ 2,252	₩ 8,666	₩ 159,255
Bad debt expense	48,746	(520)	36,654	(82,577)
Ending balance	₩ 93,208	₩ 1,732	₩ 45,320	₩ 76,678

Classification	Year ended December 31, 2015			
	Trade receivables	Non-trade receivables	Other receivables	Other long-term receivables
Beginning balance	₩ 87,169	₩ 393,336	₩ 11,054	₩ 149,638
Bad debt expense	(42,707)	(30,821)	(2,388)	9,617
Write-offs	-	(360,263)	-	-
Ending balance	₩ 44,462	₩ 2,252	₩ 8,666	₩ 159,255

(Unit: Indian rupee in thousands)

Classification	Year ended December 31, 2016			
	Trade receivables	Non-trade receivables	Other receivables	Other long-term receivables
Beginning balance	Rs. 2,503	Rs. 127	Rs. 488	Rs. 8,966
Bad debt expense	2,745	(29)	2,064	(4,649)
Ending balance	Rs. 5,248	Rs. 98	Rs. 2,552	Rs. 4,317

Classification	Year ended December 31, 2015			
	Trade receivables	Non-trade receivables	Other receivables	Other long-term receivables
Beginning balance	Rs. 4,908	Rs. 22,145	Rs. 622	Rs. 8,425
Bad debt expense	(2,405)	(1,735)	(134)	541
Write-offs	-	(20,283)	-	-
Ending balance	Rs. 2,503	Rs. 127	Rs. 488	Rs. 8,966

The Group estimates allowances for doubtful accounts through individual analysis, and an allowance for the receivables that are not subject to separate individual analysis is estimated based on the historical collection rates. For troubled receivables (default, liquidation, bankruptcy, court receivership, workout, disappearance, full-scale capital erosion, etc.), the Group assesses collectibility of each receivable through an individual analysis and reserves 100% allowance. For the receivables that are not subject to individual analysis, the allowance is estimated by applying the average loss rate for the past three years to the remaining balance of the receivables at the end of a reporting period; the three-year average loss rate is calculated by dividing the amount of actual loss occurred in the past three years by the average balance of the receivables.

## 8. INVENTORIES:

Details of inventories as of December 31, 2016 and 2015, are as follows:

(Unit: Korean won in thousands)

	<u>December 31, 2016</u>		<u>December 31, 2015</u>	
Merchandises	₩	39,769,745	₩	41,253,588
Finished goods		46,638,240		56,174,620
Work in process		28,203,922		29,360,159
Raw materials		32,040,766		45,354,455
Submaterials		433,592		454,283
Supplies		3,545,333		3,740,522
Goods in transit		54,348,034		71,335,617
Total	₩	<u>204,979,632</u>	₩	<u>247,673,244</u>

(Unit: Indian rupee in thousands)

	<u>December 31, 2016</u>		<u>December 31, 2015</u>	
Merchandises	Rs.	2,239,037	Rs.	2,322,577
Finished goods		2,625,733		3,162,631
Work in process		1,587,881		1,652,977
Raw materials		1,803,895		2,553,456
Submaterials		24,411		25,576
Supplies		199,602		210,592
Goods in transit		3,059,794		4,016,195
Total	Rs.	<u>11,540,353</u>	Rs.	<u>13,944,004</u>

The Group is using the “lower of cost or market method” in the consolidated statements of financial position in case inventories’ market value decreases below the acquisition cost. On the other hand, loss on valuation of inventories that was deducted from “cost of sales” in the current period due to the application of “lower of cost or market method” is ₩5,967,918 thousand (Rs. 335,994 thousand).

## 9. INVESTMENTS IN SUBSIDIARIES AND JOINT VENTURE:

(1) Details of investments in subsidiaries and joint venture as of December 31, 2016, are as follows:

<u>Classification</u>	<u>Entities</u>	<u>Location</u>	<u>Ownership (%)</u>	<u>Closing month</u>	<u>Industry</u>
Investments in subsidiaries	Ssangyong Motor (Shanghai) Co., Ltd.	China	100.00	December	Car sales
	Ssangyong European Parts Center B.V.	Netherland	100.00	December	A/S and sales
Investment in joint venture	SY Auto Capital Co., Ltd. (*)	Korea	51.00	December	Installment fianance

(\*) SY Auto Capital Co., Ltd. was incorporated in 2015, and is a joint arrangement, whereby the Group and KB Capital Co., Ltd. that have joint control of the arrangement have rights to the net assets of the joint arrangement. Joint control is the contractually agreed sharing of control of an arrangement and the results, and assets and liabilities of joint venture are incorporated in these consolidated financial statements using the equity method of accounting.

(2) Changes in the carrying amounts of investments in joint venture for the year ended December 31, 2016, are as follows:

(Unit: Korean won in thousands)

<u>Company</u>	<u>Beginning balance</u>	<u>Acquisition</u>	<u>Share of profit of a joint venture</u>	<u>Ending balance</u>
SY Auto Capital Co., Ltd.	₩ 9,868,178	₩ -	₩ 3,813,716	₩ 13,681,894

(Unit: Indian rupee in thousands)

Company	Beginning balance	Acquisition	Share of profit of a joint venture	Ending balance
SY Auto Capital Co., Ltd.	Rs. 555,578	Rs. -	Rs. 214,713	Rs. 770,291

(3) Summarized financial information of subsidiaries

The summarized financial information of the Group's subsidiaries as of and for the years ended December 31, 2016 and 2015, is as follows:

December 31, 2016

(Unit: Korean won in thousands)

Companies	Assets	Liabilities	Equity
Ssangyong Motor (Shanghai) Co., Ltd.	₩ 3,012,220	₩ 661,474	₩ 2,350,746
Ssangyong European Parts Center B.V.	11,489,757	15,008,769	(3,519,012)
SY Auto Capital Co., Ltd.	65,291,551	38,980,618	26,310,933

Companies	Sales	Net income (loss)	Comprehensive income (loss)
Ssangyong Motor (Shanghai) Co., Ltd.	₩ 144,453	₩ (832,206)	₩ (922,498)
Ssangyong European Parts Center B.V.	16,806,961	141,588	177,178
SY Auto Capital Co., Ltd.	897,492	6,961,565	6,961,565

(Unit: Indian rupee in thousands)

Companies	Assets	Liabilities	Equity
Ssangyong Motor (Shanghai) Co., Ltd.	Rs. 169,588	Rs. 37,241	Rs. 132,347
Ssangyong European Parts Center B.V.	646,873	844,993	(198,120)
SY Auto Capital Co., Ltd.	3,675,914	2,194,608	1,481,306

Companies	Sales	Net income (loss)	Comprehensive income (loss)
Ssangyong Motor (Shanghai) Co., Ltd.	Rs. 8,133	Rs. (46,853)	Rs. (51,937)
Ssangyong European Parts Center B.V.	946,232	7,971	9,975
SY Auto Capital Co., Ltd.	50,529	391,936	391,936

December 31, 2015

(Unit: Korean won in thousands)

Companies	Assets	Liabilities	Equity
Ssangyong Motor (Shanghai) Co., Ltd.	₩ 4,264,069	₩ 990,824	₩ 3,273,245
Ssangyong European Parts Center B.V.	8,399,103	12,095,292	(3,696,189)
SY Auto Capital Co., Ltd.	19,608,715	259,347	19,349,368

Companies	Sales	Net income (loss)	Comprehensive income (loss)
Ssangyong Motor (Shanghai) Co., Ltd.	₩ 1,270,691	₩ (2,505,187)	₩ (2,386,469)
Ssangyong European Parts Center B.V.	14,776,015	105,948	274,428
SY Auto Capital Co., Ltd.	42,256	(650,632)	(650,632)

(Unit: Indian rupee in thousands)

Companies	Assets	Liabilities	Equity
Ssangyong Motor (Shanghai) Co., Ltd.	Rs. 240,067	Rs. 55,783	Rs. 184,284
Ssangyong European Parts Center B.V.	472,869	680,964	(208,095)
SY Auto Capital Co., Ltd.	1,103,971	14,602	1,089,369

Companies	Sales	Net income (loss)	Comprehensive income (loss)
Ssangyong Motor (Shanghai) Co., Ltd.	Rs. 71,540	Rs. (141,042)	Rs. (134,358)
Ssangyong European Parts Center B.V.	831,890	5,965	15,450
SY Auto Capital Co., Ltd.	2,379	(36,631)	(36,631)

## 10. OTHER ASSETS:

Carrying values of the Group's other assets as of December 31, 2016 and 2015, are as follows:

(Unit: Korean won in thousands)

Account	December 31, 2016	December 31, 2015
Other current assets		
Advance payments	₩ 1,794,671	₩ 1,077,675
Less: Allowance for doubtful accounts	(4,488)	(663)
Prepaid expenses	5,205,162	5,074,020
Income taxes refundable	342,594	416,789
	₩ 7,337,939	₩ 6,567,821
Other non-current assets	₩ 273,318	₩ 352,983

(Unit: Indian rupee in thousands)

Account	December 31, 2016	December 31, 2015
Other current assets		
Advance payments	Rs. 101,040	Rs. 60,673
Less: Allowance for doubtful accounts	(253)	(37)
Prepaid expenses	293,051	285,667
Income taxes refundable	19,288	23,465
	Rs. 413,126	Rs. 369,768
Other non-current assets	Rs. 15,387	Rs. 19,873

## 11. PROPERTY, PLANT AND EQUIPMENT:

(1) Carrying amounts of property, plant and equipment as of December 31, 2016 and 2015, are as follows:

(Unit: Korean won in thousands)

	December 31, 2016				
	Acquisition cost	Government subsidies	Depreciation	Loss on valuation	Carrying amount
Land	₩ 475,072,283	₩ -	₩ -	₩ -	₩ 475,072,283
Buildings	538,730,945	1,906,386	206,865,385	148,366,786	181,592,388
Structures	108,248,754	115,454	62,439,683	28,913,882	16,779,735
Machinery	1,281,190,863	333,844	1,011,171,267	96,363,713	173,322,039
Vehicles	7,884,450	8,944	6,160,316	680,671	1,034,519
Tools and molds	1,070,562,591	13,254	683,055,335	159,733,640	227,760,362
Equipment	68,495,631	18,479	45,621,819	3,605,443	19,249,890
Construction in progress	103,179,053	-	-	-	103,179,053
Machinery in transit	1,016,181	-	-	-	1,016,181
	₩ 3,654,380,751	₩ 2,396,361	₩ 2,015,313,805	₩ 437,664,135	₩ 1,199,006,450

December 31, 2015					
	Acquisition cost	Government subsidies	Depreciation	Loss on valuation	Carrying amount
Land	W 475,531,313	W -	W -	W -	W 475,531,313
Buildings	536,914,323	1,603,429	196,449,216	148,366,786	190,494,892
Structures	106,552,738	135,809	60,736,919	28,913,882	16,766,128
Machinery	1,312,354,742	453,057	1,027,789,268	98,337,509	185,774,908
Vehicles	8,798,376	-	6,479,303	896,350	1,422,723
Tools and molds	1,028,887,149	6,657	615,699,091	160,933,311	252,248,090
Equipment	67,396,593	6,874	40,517,584	4,056,991	22,815,144
Construction in progress	40,866,774	-	-	-	40,866,774
Machinery in transit	1,924,851	-	-	-	1,924,851
	<u>W3,579,226,859</u>	<u>W 2,205,826</u>	<u>W 1,947,671,381</u>	<u>W 441,504,829</u>	<u>W 1,187,844,823</u>

(Unit: Indian rupee in thousands)

December 31, 2016					
	Acquisition cost	Government subsidies	Accumulated depreciation	Loss on valuation	Carrying amount
Land	Rs. 26,746,570	Rs. -	Rs. -	Rs. -	Rs. 26,746,570
Buildings	30,330,552	107,330	11,646,521	8,353,050	10,223,651
Structures	6,094,405	6,500	3,515,354	1,627,853	944,698
Machinery	72,131,046	18,795	56,928,942	5,425,277	9,758,032
Vehicles	443,895	504	346,826	38,322	58,243
Tools and molds	60,272,674	747	38,456,015	8,993,004	12,822,908
Equipment	3,856,304	1,041	2,568,508	202,986	1,083,769
Construction in progress	5,808,981	-	-	-	5,808,981
Machinery in transit	57,211	-	-	-	57,211
	<u>Rs. 205,741,638</u>	<u>Rs. 134,917</u>	<u>Rs. 113,462,166</u>	<u>Rs. 24,640,492</u>	<u>Rs. 67,504,063</u>

December 31, 2015					
	Acquisition cost	Government subsidies	Accumulated depreciation	Loss on valuation	Carrying amount
Land	Rs. 26,772,413	Rs. -	Rs. -	Rs. -	Rs. 26,772,413
Buildings	30,228,276	90,273	11,060,091	8,353,050	10,724,862
Structures	5,998,919	7,646	3,419,489	1,627,851	943,933
Machinery	73,885,572	25,507	57,864,536	5,536,401	10,459,128
Vehicles	495,349	-	364,785	50,465	80,099
Tools and molds	57,926,346	374	34,663,859	9,060,545	14,201,568
Equipment	3,794,428	386	2,281,140	228,409	1,284,493
Construction in progress	2,300,799	-	-	-	2,300,799
Machinery in transit	108,369	-	-	-	108,369
	<u>Rs. 201,510,471</u>	<u>Rs. 124,186</u>	<u>Rs. 109,653,900</u>	<u>Rs. 24,856,721</u>	<u>Rs. 66,875,664</u>

(2) Changes in the carrying amounts of property, plant and equipment for the years ended December 31, 2016 and 2015, are as follows:

(Unit: Korean won in thousands)

	Year ended December 31, 2016					
	Beginning balance	Acquisition	Disposal	Other (*)	Depreciation (**)	Ending balance
Land	W 475,531,313	W 9,502	W 468,532	W -	W -	W 475,072,283
Buildings	190,494,892	233,348	151,728	1,505,948	10,490,072	181,592,388
Structures	16,766,128	1,567,112	47,999	230,036	1,735,542	16,779,735
Machinery	185,774,908	58,198	26,658	16,672,969	29,157,378	173,322,039
Vehicles	1,422,723	64,752	32,145	110,887	531,698	1,034,519
Tools and molds	252,248,090	4,169,299	19,915	41,292,932	69,930,044	227,760,362
Equipment	22,815,144	2,712,510	23,801	692,460	6,946,423	19,249,890
Construction in progress	40,866,774	118,971,315	120,000	(56,539,036)	-	103,179,053
Machinery in transit	1,924,851	2,239,081	-	(3,147,751)	-	1,016,181
	<u>W 1,187,844,823</u>	<u>W 130,025,117</u>	<u>W 890,778</u>	<u>W 818,445</u>	<u>W 118,791,157</u>	<u>W 1,199,006,450</u>

	Year ended December 31, 2015					
	Beginning balance	Acquisition	Disposal	Other (*)	Depreciation (**)	Ending balance
Land	₹ 475,531,313	₹ -	₹ -	₹ -	₹ -	₹ 475,531,313
Buildings	194,648,006	389,551	1,242	5,698,946	10,240,369	190,494,892
Structures	16,955,550	401,124	4,441	1,115,663	1,701,768	16,766,128
Machinery	148,061,877	2,388,507	26,128	64,241,637	28,890,985	185,774,908
Vehicles	1,641,197	279,504	30,812	97,614	564,780	1,422,723
Tools and molds	178,424,105	23,730,517	20,107	120,072,558	69,958,983	252,248,090
Equipment	24,549,765	4,645,208	112,883	357,686	6,624,632	22,815,144
Construction in progress	131,569,206	97,653,494	-	(188,355,926)	-	40,866,774
Machinery in transit	2,355,375	2,181,592	-	(2,612,116)	-	1,924,851
	<u>₹ 1,173,736,394</u>	<u>₹ 131,669,497</u>	<u>₹ 195,613</u>	<u>₹ 616,062</u>	<u>₹ 117,981,517</u>	<u>₹ 1,187,844,823</u>

(\*) Capitalization cost that has flowed into construction in progress and other accounts is ₹1,119,030 thousand (2015: ₹752,552 thousand) in this period.

(\*\*) Depreciation cost of suspended assets of ₹12,861 thousand (2015: ₹19,080 thousand) is included in the depreciation cost.

(Unit: Indian rupee in thousands)

	Year ended December 31, 2016					
	Beginning balance	Acquisition	Disposal	Other (*)	Depreciation (**)	Ending balance
Land	₹ 26,772,413	₹ 535	₹ 26,378	₹ -	₹ -	₹ 26,746,570
Buildings	10,724,862	13,137	8,542	84,785	590,591	10,223,651
Structures	943,933	88,226	2,702	12,952	97,711	944,698
Machinery	10,459,128	3,277	1,501	938,688	1,641,560	9,758,032
Vehicles	80,099	3,646	1,810	6,243	29,935	58,243
Tools and molds	14,201,568	234,732	1,121	2,324,790	3,937,061	12,822,908
Equipment	1,284,493	152,714	1,340	38,986	391,084	1,083,769
Construction in progress	2,300,799	6,698,085	6,754	(3,183,149)	-	5,808,981
Machinery in transit	108,369	126,060	-	(177,218)	-	57,211
	<u>₹ 66,875,664</u>	<u>₹ 7,320,412</u>	<u>₹ 50,148</u>	<u>₹ 46,077</u>	<u>₹ 6,687,942</u>	<u>₹ 67,504,063</u>

	Year ended December 31, 2015					
	Beginning balance	Acquisition	Disposal	Other(*)	Depreciation (**)	Ending balance
Land	₹ 26,772,413	₹ -	₹ -	₹ -	₹ -	₹ 26,772,413
Buildings	10,958,683	21,931	70	320,851	576,533	10,724,862
Structures	954,597	22,583	250	62,813	95,810	943,933
Machinery	8,335,884	134,473	1,471	3,616,804	1,626,562	10,459,128
Vehicles	92,399	15,736	1,735	5,496	31,797	80,099
Tools and molds	10,045,277	1,336,028	1,132	6,760,086	3,938,691	14,201,568
Equipment	1,382,152	261,524	6,355	20,138	372,966	1,284,493
Construction in progress	7,407,346	5,497,892	-	(10,604,439)	-	2,300,799
Machinery in transit	132,608	122,823	-	(147,062)	-	108,369
	<u>₹ 66,081,359</u>	<u>₹ 7,412,990</u>	<u>₹ 11,013</u>	<u>₹ 34,687</u>	<u>₹ 6,642,359</u>	<u>₹ 66,875,664</u>

(\*) Capitalization cost that has flowed into construction in progress and other accounts is ₹. 63,001 thousand (2015: ₹. 42,369 thousand) in this period.

(\*\*) Depreciation cost of suspended assets amount of ₹. 724 thousand (2015: ₹. 1,074 thousand) is included from the depreciation cost.

(3) The assets pledged as collateral for the Group's borrowings as of December 31, 2016, are as follows:

(Unit: Korean won in thousands)

Assets pledged as collaterals	Details	Book value	Maximum amount
Land	Chilgoe-dong Pyeongtaek, Gyeonggi-do	₩ 366,132,440	
Buildings and Structures	150-3 (factory site) and others	72,985,591	₩ 267,000,000
Machinery	Pyeongtaek plant production facilities	4,003,143	
		₩ 443,121,174	

(Unit: Indian rupee in thousands)

Assets pledged as collaterals	Details	Book value	Maximum amount
Land	Chilgoe-dong Pyeongtaek, Gyeonggi-do	Rs. 20,613,256	
Buildings and Structures	150-3 (factory site) and others	4,109,089	Rs. 15,032,100
Machinery	Pyeongtaek plant production facilities	225,377	
		Rs. 24,947,722	

(4) Borrowing costs and capitalized interest, which is the capital of the fiscal year and electrical, are as follows:

(Unit: Korean won in thousands)

Account	December 31, 2016	December 31, 2015
Capitalized interest expenses (*)	₩ 2,810,875	₩ 2,335,308
Capitalization interest rate	3.58%	3.84%

(\*) Borrowing costs that have been capitalized during the year in development costs are ₩1,691,845 thousand (2015: ₩1,582,756 thousand).

(Unit: Indian rupee in thousands)

Account	December 31, 2016	December 31, 2015
Capitalized interest expenses (*)	Rs. 158,252	Rs. 131,478
Capitalization interest rate	3.58%	3.84%

(\*) Borrowing costs that have been capitalized during the year in development costs are Rs. 95,251 thousand (2015: Rs. 89,109 thousand).

## 12. INTANGIBLE ASSETS:

(1) Details of intangible assets as of December 31, 2016 and 2015, are as follows:

(Unit: Korean won in thousands)

	December 31, 2016				
	Acquisition cost	Government subsidies	Accumulated depreciation	Accumulated impairment loss	Book value
Development cost	₩ 170,793,491	₩ -	₩ 69,280,886	₩ -	₩ 101,512,605
Patents	3,489,061	21,119	1,703,782	54,627	1,709,533
Other intangible assets	154,930,497	37,464	23,194,568	576,105	131,122,360
	₩ 329,213,049	₩ 58,583	₩ 94,179,236	₩ 630,732	₩ 234,344,498

December 31, 2015						
	Acquisition cost	Government subsidies	Accumulated depreciation	Accumulated impairment loss	Book value	
Development cost	₹ 148,086,281	₹ -	₹ 38,550,140	₹ -	₹ 109,536,141	
Patents	2,816,199	22,335	1,170,064	39,190	1,584,610	
Other intangible assets	93,908,276	21,283	17,487,054	576,105	75,823,834	
	<u>₹ 244,810,756</u>	<u>₹ 43,618</u>	<u>₹ 57,207,258</u>	<u>₹ 615,295</u>	<u>₹ 186,944,585</u>	

(Unit: Indian rupee in thousands)

December 31, 2016						
	Acquisition cost	Government subsidies	Accumulated depreciation	Accumulated impairment loss	Book value	
Development cost	₹ 9,615,674	₹ -	₹ 3,900,514	₹ -	₹ 5,715,160	
Patents	196,434	1,190	95,923	3,076	96,245	
Other intangible assets	8,722,587	2,109	1,305,853	32,435	7,382,190	
	<u>₹ 18,534,695</u>	<u>₹ 3,299</u>	<u>₹ 5,302,290</u>	<u>₹ 35,511</u>	<u>₹ 13,193,595</u>	

December 31, 2015						
	Acquisition cost	Government subsidies	Accumulated depreciation	Accumulated impairment loss	Book value	
Development cost	₹ 8,337,258	₹ -	₹ 2,170,373	₹ -	₹ 6,166,885	
Patents	158,552	1,258	65,875	2,206	89,213	
Other intangible assets	5,287,036	1,197	984,521	32,436	4,268,882	
	<u>₹ 13,782,846</u>	<u>₹ 2,455</u>	<u>₹ 3,220,769</u>	<u>₹ 34,642</u>	<u>₹ 10,524,980</u>	

(2) Changes in intangible assets for the years ended December 31, 2016 and 2015, are as follows:

(Unit: Korean won in thousands)

Year ended December 31, 2016								
	Beginning balance	Acquisition (*)	Transfer	Disposal	Depreciation	Impairment loss	Other(**)	Ending balance
Development cost	₩ 109,536,141	₩ -	₩ 22,707,210	₩ -	₩ 30,730,746	₩ -	₩ -	₩ 101,512,605
Patents	1,584,610	671,369	-	-	531,010	15,436	-	1,709,533
Other intangible assets	75,823,834	82,107,006	(22,687,810)	-	5,812,515	-	1,691,845	131,122,360
	<u>₩ 186,944,585</u>	<u>₩ 82,778,375</u>	<u>₩ 19,400</u>	<u>₩ -</u>	<u>₩ 37,074,271</u>	<u>₩ 15,436</u>	<u>₩ 1,691,845</u>	<u>₩ 234,344,498</u>

Year ended December 31, 2015								
	Beginning balance	Acquisition (*)	Transfer	Disposal	Depreciation	Impairment loss	Other(**)	Ending balance
Development cost	₩ 14,223,033	₩ 1,881,970	₩ 118,722,632	₩ -	₩ 25,298,599	₩ -	₩ 7,105	₩ 109,536,141
Patents	1,063,611	940,187	-	-	411,376	7,812	-	1,584,610
Other intangible assets	135,628,790	64,038,417	(118,722,632)	-	6,769,957	-	1,649,216	75,823,834
	<u>₩ 150,915,434</u>	<u>₩ 66,860,574</u>	<u>₩ -</u>	<u>₩ -</u>	<u>₩ 32,479,932</u>	<u>₩ 7,812</u>	<u>₩ 1,656,321</u>	<u>₩ 186,944,585</u>

(\*) Of the acquisition amount of other intangible assets, the amount that you obtained in government subsidy is ₩1,493 thousand (2015:₩12,769 thousand).

(\*\*) Of the current year development costs, the amount that has flowed into the capital of the cost is ₩1,691,845 thousand (2015:₩1,582,756 thousand), including difference of change of exchange rate.

(Unit: Indian rupee in thousands)

Year ended December 31, 2016								
	Beginning balance	Acquisition (*)	Transfer	Disposal	Depreciation	Impairment loss	Other(**)	Ending balance
Development cost	₹ 6,166,885	₹ -	₹ 1,278,416	₹ -	₹ 1,730,141	₹ -	₹ -	₹ 5,715,160
Patents	89,213	37,798	-	-	29,895	871	-	96,245
Other intangible assets	4,268,882	4,622,625	(1,277,324)	-	327,245	-	95,252	7,382,190
	<u>₹ 10,524,980</u>	<u>₹ 4,660,423</u>	<u>₹ 1,092</u>	<u>₹ -</u>	<u>₹ 2,087,281</u>	<u>₹ 871</u>	<u>₹ 95,252</u>	<u>₹ 13,193,595</u>



	Year ended December 31, 2015							
	Beginning balance	Acquisition (*)	Transfer	Disposal	Depreciation	Impairment loss	Other(**)	Ending balance
Development cost	Rs. 800,757	Rs. 105,954	Rs. 6,684,084	Rs. -	Rs. 1,424,310	Rs. -	Rs. 400	Rs. 6,166,885
Patents	59,881	52,933	-	-	23,161	440	-	89,213
Other intangible assets	7,635,901	3,605,363	(6,684,084)	-	381,149	-	92,851	4,268,882
	<u>Rs. 8,496,539</u>	<u>Rs. 3,764,250</u>	<u>Rs. -</u>	<u>Rs. -</u>	<u>Rs. 1,828,620</u>	<u>Rs. 440</u>	<u>Rs. 93,251</u>	<u>Rs.10,524,980</u>

(\*) Of the acquisition amount of other intangible assets, the amount that you obtained in government subsidy is Rs.84 thousand (2015: Rs.719 thousand).

(\*\*) Of the current-year development costs, the amount that has flowed into the capital of the cost is Rs.95,251 thousand (2015: Rs.89,109 thousand), including difference of change of exchange rate.

(3) Amortization of the Group's intangible assets for the years ended December 31, 2016 and 2015, is as follows:

Account	Korean won in thousands		Indian rupee in thousands	
	December 31, 2016	December 31, 2015	December 31, 2016	December 31, 2015
Cost of goods manufactured	₩ 30,730,746	₩ 25,298,599	Rs. 1,730,141	Rs. 1,424,311
Selling and administrative expenses	6,343,525	7,181,333	357,140	404,309
	<u>₩ 37,074,271</u>	<u>₩ 32,479,932</u>	<u>Rs. 2,087,281</u>	<u>Rs. 1,828,620</u>

(4) Changes in volume and book value of emission rights for the years ended December 31, 2015 and 2016, 2017, are as follows:

(Unit: tCo2/Korean won in thousands)

	2015		2016		2017		Total	
	Volume	Book value	Volume	Book value	Volume	Book value	Volume	Book value
Beginning balance	129,076	₩ -	127,422	₩ -	124,838	₩ -	381,336	₩ -
Allowance allocated free of charge	12,428	-	-	-	-	-	12,428	-
Ending balance	<u>141,504</u>	<u>₩ -</u>	<u>127,422</u>	<u>₩ -</u>	<u>124,838</u>	<u>₩ -</u>	<u>393,764</u>	<u>₩ -</u>

There are no pledged emission rights for the Company's borrowings as of December 31, 2016.

(5) Changes in emission liability for the year ended December 31, 2016, is as follows:

(Unit: Korean won in thousands)

Account	Beginning balance	Increase	Decrease	Ending balance
Emission liability	₩ 153,050	₩ 58,226	₩ -	₩ 211,276

(Unit: Indian rupee in thousands)

Account	Beginning balance	Increase	Decrease	Ending balance
Emission liability	Rs. 8,617	Rs. 3,278	Rs. -	Rs. 11,895

Estimated amount of greenhouse gas that is discharged during the year is 149,585 tCo2.

### 13. BORROWINGS:

(1) The Group's short-term borrowings as of December 31, 2016 and 2015, consist of the following.

(Unit: Korean won in thousands)

Creditor	Type	Interest rate	December 31, 2016	December 31, 2015
Korea Development				
Bank	Operating fund	CD + 2.12%	₩ 30,000,000	₩ 30,000,000
Woori Bank	Operating fund	CD + 2.00%	25,000,000	17,500,000
Bank of America				
("BOA") and others	Banker's usance	0.30%–1.42%	126,967,721	105,724,546
			<u>₩ 181,967,721</u>	<u>₩ 153,224,546</u>

(Unit: Indian rupee in thousands)

<u>Creditor</u>	<u>Type</u>	<u>Interest rate</u>	<u>December 31, 2016</u>	<u>December 31, 2015</u>
Korea Development				
Bank	Operating fund	CD + 2.12%	Rs. 1,689,000	Rs. 1,689,000
Woori Bank	Operating fund	CD + 2.00%	1,407,500	985,250
BOA and others	Banker's usance	0.30%–1.42%	7,148,283	5,952,292
			<u>Rs. 10,244,783</u>	<u>Rs. 8,626,542</u>

(2) The Group's long-term borrowings as of December 31, 2016, and 2015, consist of the following:

(Unit: Korean won in thousands)

<u>Creditor</u>	<u>Type</u>	<u>Interest rate</u>	<u>December 31, 2016</u>	<u>December 31, 2015</u>
Woori Bank	Operating fund	CD + 2.0%	₩ 37,500,000	₩ 55,000,000
Net: Within one year arrival worth			(25,000,000)	(17,500,000)
			<u>₩ 12,500,000</u>	<u>₩ 37,500,000</u>

(Unit: Indian rupee in thousands)

<u>Creditor</u>	<u>Type</u>	<u>Interest rate</u>	<u>December 31, 2016</u>	<u>December 31, 2015</u>
Woori Bank	Operating fund	CD + 2.0%	Rs. 2,111,250	Rs. 3,096,500
Net: Within one year arrival worth			(1,407,500)	(985,250)
			<u>Rs. 703,750</u>	<u>Rs. 2,111,250</u>

(3) The Group provided the following collaterals in relation to its borrowings:

<u>Creditor</u>	<u>Assets pledged as collaterals</u>	<u>Pledged date</u>	<u>Maximum credit amount</u>
Korea Development Bank	Land, buildings and machinery	2009-08-13	₩ 195 billion (Rs. 11 billion)
Woori Bank	Land, buildings and machinery	2014-10-29	₩ 36 billion (Rs. 2 billion)
	Land, buildings and machinery	2015-08-07	₩ 36 billion (Rs. 2 billion)

#### 14. OTHER FINANCIAL LIABILITIES:

Carrying amounts of the Group's other financial liabilities as of December 31, 2016 and 2015, are as follows:

<u>Classification</u>	<u>Korean won in thousands</u>		<u>Indian rupee in thousands</u>	
	<u>December 31, 2016</u>	<u>December 31, 2015</u>	<u>December 31, 2016</u>	<u>December 31, 2015</u>
Other current financial liabilities:				
Accrued expenses	₩ 34,519,616	₩ 32,484,211	Rs. 1,943,454	Rs. 1,828,861

#### 15. PROVISION FOR PRODUCT WARRANTIES:

The Group provides warranties for the sale of its products and establishes a provision for product warranties for the amount of expected warranty costs. Provisions for product warranties as of December 31, 2016 and 2015, are as follows:

(Unit: Korean won in thousands)

	<u>Beginning balance</u>	<u>Increase</u>	<u>Decrease</u>	<u>Ending balance</u>	<u>Current</u>	<u>Non-current</u>
Dec. 31, 2016	₩ 143,793,979	₩ 101,824,464	₩ 99,769,459	₩ 145,848,984	₩ 53,153,294	₩ 92,695,690
Dec. 31, 2015	₩ 137,866,039	₩ 116,275,567	₩ 110,347,627	₩ 143,793,979	₩ 56,861,222	₩ 86,932,757

(Unit: Indian rupee in thousands)

	Beginning balance	Increase	Decrease	Ending balance	Current	Non-current
Dec.31, 2016	Rs. 8,095,601	Rs. 5,732,717	Rs. 5,617,021	Rs. 8,211,297	Rs. 2,992,530	Rs. 5,218,767
Dec.31, 2015	Rs. 7,761,858	Rs. 6,546,314	Rs. 6,212,571	Rs. 8,095,601	Rs. 3,201,287	Rs. 4,894,314

#### 16. OTHER LIABILITIES AND OTHER LONG-TERM LIABILITIES:

Carrying amounts of the Group's other liabilities as of December 31, 2016 and 2015, are as follows:

Classification	Korean won in thousands		Indian rupee in thousands	
	December 31, 2016	December 31, 2015	December 31, 2016	December 31, 2015
Other liabilities				
Advances from customers	₩ 3,359,441	₩ 2,572,498	Rs. 189,137	Rs. 144,832
Deposits received	613,895	733,742	34,562	41,309
Withholdings	29,352,534	25,578,488	1,652,548	1,440,069
	<u>₩ 33,325,870</u>	<u>₩ 28,884,728</u>	<u>Rs. 1,876,247</u>	<u>Rs. 1,626,210</u>

#### 17. RETIREMENT BENEFIT OBLIGATION:

(1) Defined benefit plans and related liabilities arising from the Group's consolidated financial statements configuration items as of December 31, 2016 and 2015, are as follows:

Classification	Korean won in thousands		Indian rupee in thousands	
	December 31, 2016	December 31, 2015	December 31, 2016	December 31, 2015
Present value of defined benefit obligation	₩ 280,792,667	₩ 293,343,081	Rs. 15,808,627	Rs. 16,515,215
Fair value of plan assets	(1,183,467)	(1,337,356)	(66,629)	(75,293)
	<u>₩ 279,609,200</u>	<u>₩ 292,005,725</u>	<u>Rs. 15,741,998</u>	<u>Rs. 16,439,922</u>

(2) Changes in the Group's defined benefit obligation for the years ended December 31, 2016 and 2015, are as follows:

(Unit: Korean won in thousands)

	Year ended December 31, 2016		
	Present value of defined benefit obligations	Fair value of scheme assets	Total
Beginning balance	₩ 293,343,081	₩ (1,337,356)	₩ 292,005,725
Net current service cost	40,843,479	-	40,843,479
Interest cost (income) on DBO	8,520,142	(38,774)	8,481,368
Subtotal	342,706,702	(1,376,130)	341,330,572
Remeasurements			
Asset (gain) loss	-	22,825	22,825
DBO (gain) loss due to experience	(5,804,730)	-	(5,804,730)
DBO (gain) loss due to changes in financial assumptions	(34,853,925)	-	(34,853,925)
DBO (gain) loss due to changes in demographic assumptions	242,840	-	242,840
Total remeasurements recognised in other comprehensive income	(40,415,815)	22,825	(40,392,990)
Payments			
Benefit payment from plan assets	(169,838)	169,838	-
Benefit payment from company	(21,328,382)	-	(21,328,382)
Ending balance	<u>₩ 280,792,667</u>	<u>₩ (1,183,467)</u>	<u>₩ 279,609,200</u>

Year ended December 31, 2015			
	Present value of defined	Fair value of scheme	Total
	benefit obligations	assets	
Beginning balance	₩ 248,189,001	₩ (1,440,612)	₩ 246,748,389
Net current service cost	37,641,084	-	37,641,084
Interest cost (income) on DBO	8,400,978	(48,648)	8,352,330
Subtotal	294,231,063	(1,489,260)	292,741,803
Remeasurements			
Asset (gain) loss	-	29,230	29,230
DBO (gain) loss due to experience	8,334,817	-	8,334,817
DBO (gain) loss due to changes in financial assumptions	4,103,602	-	4,103,602
DBO (gain) loss due to changes in demographic assumptions	2,850,084	-	2,850,084
Total remeasurements recognised in other comprehensive income	15,288,503	29,230	15,317,733
Payments			
Benefit payment from plan assets	(122,674)	122,674	-
Benefit payment from company	(16,053,811)	-	(16,053,811)
Ending balance	₩ 293,343,081	₩ (1,337,356)	₩ 292,005,725

Year ended December 31, 2016			
	Present value of defined	Fair value of scheme	Total
	benefit obligations	assets	
Beginning balance	Rs. 16,515,215	Rs. (75,293)	Rs. 16,439,922
Net current service cost	2,299,488	-	2,299,488
Interest cost (income) on DBO	479,684	(2,183)	477,501
Subtotal	19,294,387	(77,476)	19,216,911
Remeasurements			
Asset (gain) loss	-	1,285	1,285
DBO (gain) loss due to experience	(326,806)	-	(326,806)
DBO (gain) loss due to changes in financial assumptions	(1,962,276)	-	(1,962,276)
DBO (gain) loss due to changes in demographic assumptions	13,672	-	13,672
Total remeasurements recognised in other comprehensive income	(2,275,410)	1,285	(2,274,125)
Payments			
Benefit payment from plan assets	(9,562)	9,562	-
Benefit payment from company	(1,200,788)	-	(1,200,788)
Ending balance	Rs. 15,808,627	Rs. (66,629)	Rs. 15,741,998

Year ended December 31, 2015			
	Present value of defined	Fair value of scheme	Total
	benefit obligations	assets	
Beginning balance	Rs. 13,973,041	Rs. (81,106)	Rs. 13,891,935
Net current service cost	2,119,193	-	2,119,193
Interest cost (income) on DBO	472,975	(2,739)	470,236
Subtotal	16,565,209	(83,845)	16,481,364
Remeasurements			
Asset (gain) loss	-	1,645	1,645
DBO (gain) loss due to experience	469,250	-	469,250
DBO (gain) loss due to changes in financial assumptions	231,033	-	231,033
DBO (gain) loss due to changes in demographic assumptions	160,460	-	160,460
Total remeasurements recognized in other comprehensive income	860,743	1,645	862,388
Payments			
Benefit payment from plan assets	(6,907)	6,907	-
Benefit payment from company	(903,830)	-	(903,830)

	Year ended December 31, 2015		
	Present value of defined benefit obligations	Fair value of scheme assets	Total
	Rs.	Rs.	Rs.
Ending balance	16,515,215	(75,293)	16,439,922

(3) Actuarial assumptions used as of December 31, 2016 and 2015, are as follows:

	December 31, 2016	December 31, 2015
Discount rate (%)	2.89	2.92
Expected rate of salary increase (%)	3.95	4.92

The expected rate of return on plan assets was derived from weighted-average market values of each plan asset. A long-term historical rate of return, current market situation and strategic asset allocation are equally considered for the calculation of the expected rate of return.

(4) As of December 31, 2016, if the significant actuarial assumption changes reasonably and acceptably while the others remain unchanged, the defined benefit obligation will be affected as follows:

Classification	Korean won in thousands		Indian rupee in thousands	
	Increase	Decrease	Increase	Decrease
Change 1% in discount rate	₩ (32,679,458)	₩ 38,449,404	Rs. (1,839,853)	Rs. 2,164,701
Changes 1% in expected rate of salary increase	₩ 36,473,348	₩ (31,605,713)	Rs. 2,053,449	Rs. (1,779,402)

As the actuarial assumptions are correlated and not changed independently, the sensitivity analysis does not indicate the actual change in the amounts of defined benefit obligation. The present value of defined benefit obligations on the sensitivity analysis is measured by the same method as the projected unit credit method used in calculating net defined benefit liability recognized in the consolidated statements of financial position.

## 18. CONTINGENCIES AND COMMITMENTS:

The major commitments and contingent liabilities as of December 31, 2016, are as follows:

- (1) The Group carries product liability insurance for all products that it sells.
- (2) As of December 31, 2016, the Group has been providing guarantees from Korea Development Bank, etc., amounting to USD 232 million (amount execution USD 162 million) related to import L/C.
- (3) The followings are the major loan arrangements with the financial institutions as of December 31, 2016.

(Unit: Korean won in thousands)

Financial institution	Classification	Limit	Exercise price
KDB	Operating purpose loans	₩ 30,000,000	₩ 30,000,000
Woori Bank	Operating purpose loans	15,000,000	15,000,000
Woori Bank	Operating purpose loans	22,500,000	22,500,000
JP Morgan	Limit purpose loans	50,000,000	-
BNP Paribas	Limit purpose loans	50,000,000	-
Deutsche Bank	Limit purpose loans	17,000,000	-
BOA	Limit purpose loans	15,000,000	-
Total		₩ 199,500,000	₩ 67,500,000

(Unit: Indian rupee in thousands)

Financial institution	Classification	Limit	Exercise price
KDB	Operating purpose loans	Rs. 1,689,000	Rs. 1,689,000
Woori Bank	Operating purpose loans	844,500	844,500
Woori Bank	Operating purpose loans	1,266,750	1,266,750
JP Morgan	Limit purpose loans	2,815,000	-
BNP Paribas	Limit purpose loans	2,815,000	-
Deutsche Bank	Limit purpose loans	957,100	-
BOA	Limit purpose loans	844,500	-
Total		Rs. 11,231,850	Rs. 3,800,250

(4) As of December 31, 2016, the Group has provided payment guarantee of USD 24,342,427 from Standard Chartered Bank Korea Limited in connection with advance refund guarantee and performance bond.

(5) Pending litigations

As of December 31, 2016, the Group has three pending litigations as a plaintiff with claims amounting to ₩2,435 million (Rs. 137 million) and 16 pending litigations as a defendant with claims amounting to ₩4,455 million (Rs. 251 million). The Group recognized other payables amounting to ₩6,479 million (Rs. 365 million) that are expected to be a probable loss and can be reasonably estimated as of December 31, 2016.

## 19. CAPITAL STOCK:

As of December 31, 2016 and 2015, the number of authorized shares is three billion shares. Details of capital stock are as follows:

(Unit: Korean won in thousands except par value)

Classification	No. of shares authorized	Shares outstanding	Par value	Capital stock
December 31, 2016	3,000,000,000	137,220,096	₩ 5,000	₩ 686,100,480
December 31, 2015	3,000,000,000	137,220,096	₩ 5,000	₩ 686,100,480

(Unit: Rupee in thousands except par value)

Classification	No. of shares authorized	Shares outstanding	Par value	Capital stock
December 31, 2016	3,000,000,000	137,220,096	Rs. 282	Rs. 38,627,457
December 31, 2015	3,000,000,000	137,220,096	Rs. 282	Rs. 38,627,457

## 20. OTHER CAPITAL SURPLUS AND RETAINED EARNINGS:

Details of other capital surplus and retained earnings as of December 31, 2016 and 2015, are as follows:

		December 31,	December 31,	December 31,	December 31,
		2016	2015	2016	2015
		(Korean won in thousands)		(Indian rupee in thousands)	
Other Capital Surplus	Paid-in capital in excess of par value	₩ 11,452,713	₩ 11,452,713	Rs. 644,788	Rs. 644,788
	Gain on capital reduction	118,189,001	118,189,001	6,654,041	6,654,041
	Debt to be swapped for equity	931,508	931,508	52,444	52,444
	Treasury stock	-	-	-	-
	Gain on disposal of treasury stocks	1,105,137	1,105,137	62,219	62,219
		₩ 131,678,359	₩ 131,678,359	Rs. 7,413,492	Rs. 7,413,492

**21. OTHER CAPITAL ADJUSTMENTS:**

(1) Details of the Group's other capital adjustments as of December 31, 2016 and 2015, are as follows:

(Unit: Korean won in thousands)

Classification		December 31, 2016	December 31, 2015
Other capital adjustments	Gains (losses) on valuation of derivatives	₩ (2,574,700)	₩ 227,340
	Gains on overseas operation translation	1,288,887	1,343,590
		₩ (1,285,813)	₩ 1,570,930

(Unit: Indian rupee in thousands)

Classification		December 31, 2016	December 31, 2015
Other capital adjustments	Gains (losses) on valuation of derivatives	Rs. (144,956)	Rs. 12,799
	Gains on overseas operation translation	72,564	75,644
		Rs. (72,392)	Rs. 88,443

(2) Changes in the Group's gains (losses) on valuation of derivatives for the years ended December 31, 2016 and 2015, are as follows:

	Korean won in thousands		Indian rupee in thousands	
	Year ended December 31, 2016	Year ended December 31, 2015	Year ended December 31, 2016	Year ended December 31, 2015
Beginning balance	₩ 227,340	₩ (14,167,300)	Rs. 12,799	Rs. (797,619)
Gains (losses) on valuation of derivatives	(2,574,700)	227,340	(144,956)	12,799
Reclassified to net income	(227,340)	14,167,300	(12,799)	797,619
Ending balance	₩ (2,574,700)	₩ 227,340	Rs. (144,956)	Rs. 12,799

(3) Changes in the Group's gains (losses) on overseas operation translation credit for the years ended December 31, 2016 and 2015, are as follows:

	Korean won in thousands		Indian rupee in thousands	
	Year ended December 31, 2016	Year ended December 31, 2015	Year ended December 31, 2016	Year ended December 31, 2015
Beginning balance	₩ 1,343,590	₩ 1,102,069	Rs. 75,644	Rs. 62,046
Cumulative effect of foreign currency translation	(54,703)	241,521	(3,080)	13,598
Ending balance	₩ 1,288,887	₩ 1,343,590	Rs. 72,564	Rs. 75,644

**22. DEFICIT:**

(1) Details of deficit as of December 31, 2016 and 2015, are as follows:

(Unit: Korean won in thousands)

	December 31, 2016	December 31, 2015
Deficit	₩ (3,799,103)	₩ (102,294,592)

(Unit: Indian rupee in thousands)

	December 31, 2016	December 31, 2015
Deficit	Rs. (213,889)	Rs. (5,759,185)

(2) Changes in deficit for the years ended December 31, 2016 and 2015, are as follows:

(Unit: Korean won in thousands)

	December 31, 2016		December 31, 2015	
Beginning balance	₩	(102,294,593)	₩	(25,034,685)
Net income (loss)		58,102,500		(61,942,173)
Actuarial income (loss)		40,392,990		(15,317,734)
Ending balance	₩	(3,799,103)	₩	(102,294,592)

(Unit: Indian rupee in thousands)

	December 31, 2016		December 31, 2015	
Beginning balance	Rs.	(5,759,185)	Rs.	(1,409,453)
Net income (loss)		3,271,170		(3,487,344)
Actuarial income (loss)		2,274,126		(862,388)
Ending balance	Rs.	(213,889)	Rs.	(5,759,185)

### 23. INCOME TAX:

(1) Composition of income tax expense for the years ended December 31, 2016 and 2015, is as follows:

	Korean won in thousands		Indian rupee in thousands	
	Year ended December 31, 2016	Year ended December 31, 2015	Year ended December 31, 2016	Year ended December 31, 2015
Income tax expense of parent company	₩ -	₩ -	Rs. -	Rs. -
Income tax expense of subsidiary company	30,738	31,945	1,730	1,798
Income tax expense of consolidated company	₩ 30,738	₩ 31,945	Rs. 1,730	Rs. 1,798

(2) Changes in temporary differences and deferred income tax assets

The changes in temporary differences and deferred income tax assets for the years ended December 31, 2016 and 2015, are as follows:

(Unit: Korean won in thousands)

Description	Year ended December 31, 2016			
	Beginning balance	Decrease	Increase	Ending balance
<u>Temporary differences</u>				
Government subsidies	₩ 2,731,892	₩ 2,263,431	₩ 2,557,043	₩ 3,025,504
Provision for product warranties	143,793,978	143,793,979	145,848,984	145,848,983
Accrued severance indemnities	284,249,024	10,572,282	8,660,684	282,337,426
Loss on revaluation of property, plant and equipment	108,779,594	9,442,781	-	99,336,813
Development cost	27,324,177	27,099,587	6,692	231,282
Depreciation	16,394,313	5,598,188	732,152	11,528,277
Other payables	39,537,402	39,537,402	26,297,688	26,297,688
Accrued expenses	32,207,735	32,207,735	34,274,171	34,274,171
Investment in subsidiaries	4,184,519	-	-	4,184,519
Gain (loss) on valuation of derivatives	(1,683,621)	(1,683,621)	5,042,771	5,042,771
Other long-term employee benefit	16,282,599	16,282,600	16,688,602	16,688,601
Land	(260,713,528)	-	-	(260,713,528)
Others	1,795,498	873,040	(35,061)	887,397
Deficit carried over	1,175,500,028	61,509,426	-	1,113,990,602
Total	1,590,383,610			1,482,960,506
Not recognized as deferred tax assets	1,590,383,610			1,482,960,506
Recognized as deferred tax assets	-			-
Statutory tax rate		22%		22%



Description	Year ended December 31, 2016			
	Beginning balance	Decrease	Increase	Ending balance
Deferred tax assets resulting from temporary differences	-	-	-	-
Tax credit carry forwards	9,235,834	6,012,782	-	3,223,052
Not recognized as deferred tax assets	9,235,834	6,012,782	-	3,223,052
Recognized as deferred tax assets	-	-	-	-
Deferred tax assets resulting from tax credit carry forwards	-	-	-	-
Deferred income tax of parent company	-	-	-	-
Deferred income tax of subsidiary company	-	-	-	-
Total deferred income tax	<u>₩ -</u>			<u>₩ -</u>

(Unit: Indian rupee in thousands)

Description	Year ended December 31, 2016			
	Beginning balance	Decrease	Increase	Ending balance
<u>Temporary differences</u>				
Government subsidies	Rs. 153,806	Rs. 127,432	Rs. 143,962	Rs. 170,336
Provision for product warranties	8,095,601	8,095,601	8,211,298	8,211,298
Accrued severance indemnities	16,003,220	595,220	487,597	15,895,597
Loss on revaluation of property, plant and equipment	6,124,291	531,628	-	5,592,663
Development cost	1,538,351	1,525,707	377	13,021
Depreciation	923,000	315,178	41,220	649,042
Other payables	2,225,956	2,225,956	1,480,560	1,480,560
Accrued expenses	1,813,295	1,813,295	1,929,636	1,929,636
Investment in subsidiaries	235,588	-	-	235,588
Gain (loss) on valuation of derivatives	(94,788)	(94,788)	283,908	283,908
Other long-term employee benefit	916,710	916,710	939,568	939,568
Land	(14,678,172)	-	-	(14,678,172)
Others	101,087	49,153	(1,974)	49,960
Deficit carried over	<u>66,180,652</u>	<u>3,462,981</u>	-	<u>62,717,671</u>
Total	89,538,597			83,490,676
Not recognized as deferred tax assets	89,538,597			83,490,676
Recognized as deferred tax assets	-			-
Statutory tax rate	<u>22%</u>			<u>22%</u>
Deferred tax assets resulting from temporary differences	-			-
Tax credit carry forwards	519,977	338,520	-	181,458
Not recognized as deferred tax assets	519,977			181,458
Recognized as deferred tax assets	-	-	-	-
Deferred tax assets resulting from tax credit carry forwards	-	-	-	-
Deferred income tax of parent company	-	-	-	-
Deferred income tax of subsidiary company	-	-	-	-
Total deferred income tax	<u>Rs. -</u>			<u>Rs. -</u>

The Group did not recognize deferred income tax assets related to the temporary differences, deficit carried forward and tax credit carried forward since it could not estimate the income tax effect resulting from future taxable income.

(Unit: Korean won in thousands)

Description	Year ended December 31, 2015			
	Beginning balance	Decrease	Increase	Ending balance
<u>Temporary differences</u>				
Government subsidies	₩ 3,564,826	₩ 4,638,187	₩ 3,805,253	₩ 2,731,892
Provision for product warranties	137,866,039	137,866,039	143,793,978	143,793,978
Accrued severance indemnities	247,625,171	15,151,272	51,775,125	284,249,024
Loss on revaluation of property, plant and equipment	128,280,968	19,506,600	5,226	108,779,594
Development cost	45,150,056	17,827,324	1,445	27,324,177
Depreciation	16,273,804	2,811,316	2,931,825	16,394,313
Other payables	50,366,223	50,366,223	39,537,402	39,537,402
Accrued expenses	29,561,974	29,561,974	32,207,735	32,207,735

Description	Year ended December 31, 2015			
	Beginning balance	Decrease	Increase	Ending balance
Investment in subsidiaries	₹ 4,184,519	₹ -	₹ -	₹ 4,184,519
Gain (loss) on valuation of derivatives	13,741,600	13,741,600	(1,683,621)	(1,683,621)
Other long-term employee benefit	15,619,578	15,619,578	16,282,599	16,282,599
Land	(260,713,528)	-	-	(260,713,528)
Others	836,817	284,279	1,242,960	1,795,498
Deficit carried over	<u>1,104,944,088</u>	<u>-</u>	<u>70,555,940</u>	<u>1,175,500,028</u>
Total	1,537,302,135			1,590,383,610
Not recognized as deferred tax assets	1,537,302,135			1,590,383,610
Recognized as deferred tax assets	-			-
Statutory tax rate	<u>22%</u>			<u>22%</u>
Deferred tax assets resulting from temporary differences	-			-
Tax credit carry forwards	11,751,644	2,515,810	-	9,235,834
Not recognized as deferred tax assets	11,751,644	2,515,810	-	9,235,834
Recognized as deferred tax assets	-	-	-	-
Deferred tax assets resulting from tax credit carry forwards	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Deferred income tax of parent company	-	-	-	-
Deferred income tax of subsidiary company	<u>19,069</u>	<u>19,069</u>	<u>-</u>	<u>-</u>
Total deferred income tax	<u>₹ 19,069</u>	<u>₹ 19,069</u>	<u>₹ -</u>	<u>₹ -</u>

(Unit: Indian rupee in thousands)

Description	Year ended December 31, 2015			
	Beginning balance	Decrease	Increase	Ending balance
<u>Temporary differences</u>				
Allowance for doubtful accounts	Rs. -	Rs. -	Rs. -	Rs. -
Government subsidies	200,700	261,130	214,236	153,806
Provision for product warranties	7,761,858	7,761,858	8,095,601	8,095,601
Accrued severance indemnities	13,941,297	853,017	2,914,940	16,003,220
Loss on revaluation of property, plant and equipment	7,222,218	1,098,221	294	6,124,291
Development cost	2,541,948	1,003,678	81	1,538,351
Depreciation	916,215	158,277	165,062	923,000
Other payables	2,835,618	2,835,618	2,225,956	2,225,956
Accrued expenses	1,664,339	1,664,339	1,813,295	1,813,295
Investments in subsidiaries	235,588	-	-	235,588
Gain (loss) on foreign currency translation	-	-	-	-
Gain (loss) on valuation of derivatives	773,652	773,652	(94,788)	(94,788)
Other long-term employee benefit	879,382	879,382	916,710	916,710
Land	(14,678,172)	-	-	(14,678,172)
Others	47,113	16,005	69,979	101,087
Deficit carried over	<u>62,208,352</u>	<u>-</u>	<u>3,972,300</u>	<u>66,180,652</u>
Total	86,550,108			89,538,597
Not recognized as deferred tax assets	86,550,108			89,538,597
Recognized as deferred tax assets	-			-
Statutory tax rate	<u>22%</u>			<u>22%</u>
Deferred tax assets resulting from temporary differences	-			-
Tax credit carry forwards	661,618	141,640	-	519,977
Not recognized as deferred tax assets	661,618	141,640	-	519,977
Recognized as deferred tax assets	-	-	-	-
Deferred tax assets resulting from tax credit carry forwards	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Deferred income tax of parent company	-	-	-	-
Deferred income tax of subsidiary company	<u>1,074</u>	<u>1,074</u>	<u>-</u>	<u>-</u>
Total deferred income tax	<u>Rs. 1,074</u>	<u>Rs. 1,074</u>	<u>Rs. -</u>	<u>Rs. -</u>

## 24. EXPENSES BY CATEGORY:

Details of expenses classified by category for the years ended December 31, 2016 and 2015 are as follows

	Korean won in thousands		Indian rupee in thousands	
	Year ended	Year ended	Year ended	Year ended
	December 31, 2016	December 31, 2015	December 31, 2016	December 31, 2015
Changes in inventories	₩ 9,851,433	₩ 419,757	Rs. 554,636	Rs. 23,632
Raw materials and merchandise goods used	2,433,514,572	2,300,878,166	137,006,870	129,539,441
Salaries	528,178,052	483,105,884	29,736,424	27,198,861
Depreciation	118,791,157	117,981,517	6,687,942	6,642,359
Amortization	37,074,271	32,479,932	2,087,281	1,828,620
Other	473,132,992	491,011,736	26,637,387	27,643,961
Total (*)	₩ 3,600,542,477	₩ 3,425,876,992	Rs. 202,710,540	Rs. 192,876,874

(\*) It is sum of cost of sales and selling and administrative expenses.

## 25. DERIVATIVES FINANCIAL INSTRUMENTS:

The Group has a derivative contract with financial institutions, such as SC Bank, to minimize the risks of exchange rate fluctuation by fitting the amount and period of expected foreign currency transactions (hedged items). Loss on valuation of derivatives for ₩2,574,700 thousand (Rs. 144,956 thousand) applied to cash flow risk aversion accounting treatment is recognized as other capital components, and loss on valuation of derivatives for ₩80,701 thousand (Rs. 4,543 thousand), which is an inefficient part, is recognized as current income for the year ended December 31, 2016. Loss on valuation of derivatives for ₩2,387,370 thousand (Rs. 134,409 thousand) applied to financial asset at FVTPL is recognized as current income for the year ended December 31, 2016.

## 26. SELLING AND ADMINISTRATIVE EXPENSES:

(1) Selling expenses for the years ended December 31, 2016 and 2015, are as follows:

	Korean won in thousands		Indian rupee in thousands	
	2016	2015	2016	2015
	Warranty expenses	₩ 70,148,889	₩ 76,242,467	Rs. 3,949,382
Sales commissions	221,325,357	205,359,570	12,460,618	11,561,744
Advertising expenses	18,239,964	17,723,231	1,026,910	997,818
Export expenses	40,766,448	44,323,023	2,295,151	2,495,386
Others	34,579,599	38,998,571	1,946,831	2,195,620
	₩ 385,060,257	₩ 382,646,862	Rs. 21,678,892	Rs. 21,543,019

(2) Administrative expenses for the years ended December 31, 2016 and 2015, are as follows:

	Korean won in thousands		Indian rupee in thousands	
	2016	2015	2016	2015
	Salaries	₩ 52,577,827	₩ 50,145,756	Rs. 2,960,132
Postemployment benefits	7,689,824	7,649,820	432,937	430,685
Employee benefits	13,037,365	11,661,024	734,004	656,516
Rent expense	10,414,746	11,505,209	586,350	647,743
Service fees	28,138,104	27,216,014	1,584,175	1,532,262
Depreciation	11,345,526	11,569,270	638,753	651,350
R&D expenses	15,535,921	15,830,768	874,672	891,272
Amortization	6,343,525	7,181,333	357,140	404,309
Bad debt expense	48,747	(42,707)	2,744	(2,404)
Other administrative expenses	33,591,669	31,763,473	1,891,213	1,788,282
	₩ 178,723,254	₩ 174,479,960	Rs. 10,062,120	Rs. 9,823,221

**27. NON-OPERATING INCOME (EXPENSES):**

(1) Details of the Group's non-operating income for the years ended December 31, 2016 and 2015, are as follows:

	Korean won in thousands		Indian rupee in thousands	
	2016	2015	2016	2015
Gain on foreign currency transactions	₩ 15,020,958	₩ 11,851,649	Rs. 845,681	Rs. 667,248
Gain on foreign currency translation	964,567	631,365	54,305	35,546
Gain on disposal of property, plant and equipment	1,241,347	697,191	69,887	39,252
Others	40,581,251	18,690,673	2,284,724	1,052,284
	<u>₩ 57,808,123</u>	<u>₩ 31,870,878</u>	<u>Rs. 3,254,597</u>	<u>Rs. 1,794,330</u>

(2) Details of the Group's other non-operating expense for the years ended December 31, 2016 and 2015, are as follows:

	Korean won in thousands		Indian rupee in thousands	
	2016	2015	2016	2015
Loss on foreign currency transactions	₩ 13,534,228	₩ 11,297,206	Rs. 761,977	Rs. 636,033
Loss on foreign currency translation	796,917	241,518	44,866	13,597
Loss on disposal of property, plant and equipment	121,676	173,970	6,850	9,795
Loss on disposal of trade receivables	17,212,495	11,769,712	969,064	662,634
Others	6,904,119	6,342,377	388,702	357,076
	<u>₩ 38,569,435</u>	<u>₩ 29,824,783</u>	<u>Rs. 2,171,459</u>	<u>Rs. 1,679,135</u>

**28. FINANCIAL INCOME AND COST:**

(1) Details of the Group's financial income for the years ended December 31, 2016 and 2015, are as follows:

	Korean won in thousands		Indian rupee in thousands	
	2016	2015	2016	2015
Interest income	₩ 2,620,775	₩ 3,354,655	Rs. 147,550	Rs. 188,867
Dividend income	11,000	11,000	619	619
Gain on foreign currency transactions	9,349,332	9,335,566	526,367	525,594
Gain on foreign currency translation	3,529,134	793,823	198,691	44,691
Gain on disposal of derivatives	12,339,373	2,427,103	694,707	136,646
Gain on valuation of derivatives	477,267	1,480,355	26,869	83,344
	<u>₩ 28,326,881</u>	<u>₩ 17,402,502</u>	<u>Rs. 1,594,803</u>	<u>Rs. 979,761</u>

(2) Details of the Group's financial cost for the years ended December 31, 2016 and 2015, are as follows:

	Korean won in thousands		Indian rupee in thousands	
	2016	2015	2016	2015
Interest expense	₩ 806,938	₩ 1,320,189	Rs. 45,431	Rs. 74,327
Loss on foreign currency transactions	11,435,400	11,643,653	643,813	655,538
Loss on foreign currency translation	737,789	1,811,414	41,539	101,982
Loss on disposal of AFS financial assets	-	10,089	-	568
Loss on disposal of derivatives	5,314,653	30,405,790	299,215	1,711,846
Loss on valuation of derivatives	2,945,337	24,074	165,821	1,355
	<u>₩ 21,240,117</u>	<u>₩ 45,215,209</u>	<u>Rs. 1,195,819</u>	<u>Rs. 2,545,616</u>

- (3) Details of the Group's financial net profit for the years ended December 31, 2016 and 2015, are as follows:

	Korean won in thousands		Indian rupee in thousands	
	2016	2015	2016	2015
Loan and receivables	₩ 2,519,114	₩ (1,291,212)	Rs. 141,826	Rs. (72,695)
AFS financial assets	11,000	911	619	51
Other financial liabilities	4,556,650	(26,522,406)	256,539	(1,493,211)
	<u>₩ 7,086,764</u>	<u>₩ (27,812,707)</u>	<u>Rs. 398,984</u>	<u>Rs. (1,565,855)</u>

## 29. INCOME (LOSS) PER SHARE:

- (1) Basic income (loss) per share for the years ended December 31, 2016 and 2015, is calculated as follows (Unit: Korean won and Indian rupee in thousands, except for earnings per share):

	Korean won in thousands		Indian rupee in thousands	
	2016	2015	2016	2015
Net income (loss)	₩ 58,102,500	₩ (61,942,173)	Rs. 3,271,170	Rs. (3,487,344)
Income (loss) contributed to common stocks	58,102,500	(61,942,173)	3,271,171	(3,487,344)
Number of common stocks outstanding	<u>137,220,096</u>	<u>137,182,087</u>	<u>137,220,096</u>	<u>137,182,087</u>
Basic and diluted income (loss) per share (*1)	<u>₩ 423</u>	<u>₩ (452)</u>	<u>Rs. 24</u>	<u>Rs. (25)</u>

- (\*1) Basic and diluted income (loss) per share for the years ended December 31, 2016 and 2015, are identical since there are no dilutive potential common shares.

- (2) The numbers of shares outstanding for the years ended December 31, 2016 and 2015, are calculated as follows:

December 31, 2016						
	Time interval		Outstanding	Accumulated outstanding	Weighted-average impact	Outstanding
	Common stock	2016-01-01	2016-12-31	137,220,096	137,220,096	366/366
Total						<u>137,220,096</u>
December 31, 2015						
	Time interval		Outstanding	Accumulated outstanding	Weighted-average impact	Outstanding
	Common stock	2015-01-01	2015-12-31	137,220,096	137,220,096	365/365
Treasury stock	2015-01-01	2015-02-22	(237,964)	(237,964)	53/365	(34,554)
	2015-02-23	2015-02-23	(221,997)	(221,997)	1/365	(608)
	2015-02-24	2015-02-24	(191,997)	(191,997)	1/365	(526)
	2015-02-25	2015-02-25	(161,997)	(161,997)	1/365	(444)
	2015-02-26	2015-02-26	(121,997)	(121,997)	1/365	(334)
	2015-02-27	2015-03-01	(71,997)	(71,997)	3/365	(592)
	2015-03-02	2015-03-17	(21,706)	(21,706)	16/365	(951)
Total						<u>137,182,087</u>

### 30. CASH FLOWS FROM OPERATING ACTIVITIES:

Details of cash flows from operating activities for the years ended December 31, 2016 and 2015, are as follows:

	<u>Korean won in thousands</u>		<u>Indian rupee in thousands</u>	
	<u>2016</u>	<u>2015</u>	<u>2016</u>	<u>2015</u>
1. Net income (loss)	₩ 58,102,500	₩ (61,942,173)	Rs. 3,271,170	Rs. (3,487,344)
2. Adjustments	221,160,396	217,574,021	12,451,330	12,249,417
Postemployment benefits	49,324,847	45,993,414	2,776,989	2,589,429
Depreciation	118,778,296	117,962,437	6,687,218	6,641,285
Amortization	37,074,271	32,479,932	2,087,281	1,828,620
Loss on disposal of trade receivables	17,212,495	11,769,712	969,064	662,634
Gain/loss on foreign currency translation	(2,958,996)	627,744	(166,591)	35,342
Gain/loss on disposal of property, plant and equipment	(1,119,671)	(523,221)	(63,037)	(29,457)
Interest income/expense	(1,813,837)	(2,034,466)	(102,119)	(114,540)
Gain on dividends	(11,000)	(11,000)	(619)	(619)
Loss on valuation of inventories	5,967,918	12,559,291	335,994	707,088
Others	(1,293,927)	(1,249,822)	(72,850)	(70,365)
3. Changes in working capital	₩ (33,965,848)	₩ 46,166,312	Rs. (1,912,277)	Rs. 2,599,163
Increase in trade receivables, net	(78,017,752)	(6,581,488)	(4,392,399)	(370,537)
Decrease (increase) in non-trade receivables, net	(438,790)	12,180,345	(24,704)	685,753
Decrease in inventories	36,529,395	250,514	2,056,605	14,104
Decrease in other assets	1,035,376	2,840,022	58,292	159,893
Increase in trade payables	49,946,599	64,613,936	2,811,994	3,637,765
Decrease in other payables	(23,494,948)	(31,183,104)	(1,322,766)	(1,755,609)
Increase in accrued charges	2,066,435	2,645,761	116,340	148,956
Increase in provision of product warranties	2,055,005	5,927,939	115,697	333,743
Payment of severance indemnities	(21,328,382)	(16,053,811)	(1,200,788)	(903,830)
Increase(decrease) in other liabilities	(2,318,786)	11,526,198	(130,548)	648,925
Net cash (used in) provided by operating activities	₩ 245,297,048	₩ 201,798,160	Rs. 13,810,223	Rs. 11,361,236

### 31. SEGMENT INFORMATION:

(1) The Group determined itself as a single reportable segment in light of nature of goods or service creating operating income and trait of assets providing service. Therefore, writing disclosure according to reportable segment's operating income, income before income tax and its assets and liabilities is omitted.

(2) Information of each sales region for the years ended December 31, 2016 and 2015, is as follows:

(Unit: Korean won and Indian rupee in thousands)

<u>Sales region</u>	<u>Year ended December 31, 2016</u>	
Republic of Korea	₩ 2,553,029,090	Rs. 143,735,538
Europe	571,468,657	32,173,685
Asia Pacific	287,032,405	16,159,924
Others	231,761,729	13,048,186
Consolidation adjustment	(14,755,335)	(830,725)
	₩ 3,628,536,546	Rs. 204,286,608

Sales region	Year ended December 31, 2015			
Republic of Korea	₩	2,500,492,302	Rs.	140,777,717
Europe		474,610,303		26,720,560
Asia Pacific		163,702,437		9,216,447
Others		262,797,262		14,795,486
Consolidation adjustment		<u>(11,537,107)</u>		<u>(649,539)</u>
	₩	<u>3,390,065,197</u>	Rs.	<u>190,860,671</u>

Non-current assets are not separately disclosed as all are located in Korea, and main customer information is not disclosed as most of the Group sales are generated through contracting with individuals and foreign authorized agencies.

(3) Information of each sales product and service for the years ended December 31, 2016 and 2015, is as follows:

(Unit: Korean won and Indian rupee in thousands)

Sales	Year ended December 31, 2016			
Automobile	₩	3,206,664,894	Rs.	180,535,234
Products		346,317,274		19,497,663
Others		<u>75,554,378</u>		<u>4,253,711</u>
	₩	<u>3,628,536,546</u>	Rs.	<u>204,286,608</u>

Sales	Year ended December 31, 2015			
Automobile	₩	3,014,054,040	Rs.	169,691,242
Products		350,057,770		19,708,252
Others		<u>25,953,387</u>		<u>1,461,177</u>
	₩	<u>3,390,065,197</u>	Rs.	<u>190,860,671</u>

### 32. RELATED-PARTY TRANSACTIONS:

(1) Details of related parties as of December 31, 2016, are as follows:

	Related parties
Controlling company	Mahindra & Mahindra Ltd.
Joint venture company	SY Auto Capital Co., Ltd.
Other affiliate companies	Mahindra Vehicle Manufacturing Ltd. Mahindra & Mahindra South Africa Ltd.

The transactions between the Company and its subsidiaries are eliminated in the consolidated financial statements and not separately disclosed in the notes related to receivables and payables.

(2) Major transactions with related parties for the years ended December 31, 2016 and 2015, are as follows:

(Unit: Korean won in thousands)

	Company	Description	Year ended	
			December 31, 2016	December 31, 2015
Transactions with controlling company	Mahindra & Mahindra Ltd.	Sales	₩ 49,184,486	₩ 2,014,865
		Other income	308,320	58,513
		Purchases	697,879	1,793,813
		Other expenses	1,973,780	151,410
Transactions with joint venture	SY Auto Capital Co., Ltd.	Other expenses	₩ 16,376,188	₩ -
Transaction with other affiliates	Mahindra Vehicle Manufacturing Ltd. Mahindra & Mahindra South Africa Ltd.	Sales	₩ 288,975	₩ 5,790,253
		Other income	26,442	9,937
		Other expenses	85,809	234,044



(Unit: Indian rupee in thousands):

	Company	Description	Year ended	
			December 31, 2016	December 31, 2015
Transactions with controlling company	Mahindra & Mahindra Ltd.	Sales	Rs. 2,769,087	Rs. 113,437
		Other income	17,358	3,294
		Purchases	39,291	100,992
		Other expenses	111,124	8,524
Transactions with joint venture	SY Auto Capital Co., Ltd.	Other expenses	Rs. 921,979	Rs. -
Transaction with other affiliates	Mahindra Vehicle Manufacturing Ltd. Mahindra & Mahindra South Africa Ltd.	Sales	Rs. 16,269	Rs. 325,991
		Other income	1,489	559
		Other expenses	4,831	13,177

The bad debt expense recognized for the years ended December 31, 2016 and 2015, does not exist.

- (3) Outstanding receivables and payables from transactions with related parties as of December 31, 2016, and 2015, are as follows:

(Unit: Korean won in thousands)

	December 31, 2016		December 31, 2015	
Receivables from and payables to controlling company:				
Trade receivables	₩	2,693,260	₩	89,823
Non-trade receivables		60,430		54,959
Trade payables		-		207,149
Non-trade payables		1,781,004		2,808
Receivables from and payables to joint venture:				
Non-trade receivables	₩	-	₩	96,000
Non-trade payables		91,887		-
Receivables from and payables to affiliates:				
Trade receivables	₩	15,977	₩	20,769
Non-trade payables		36,773		89,314

(Unit: Indian rupee in thousands)

	December 31, 2016		December 31, 2015	
Receivables from and payables to controlling company:				
Trade receivables	Rs.	151,631	Rs.	5,057
Non-trade receivables		3,402		3,094
Trade payables		-		11,662
Non-trade payables		100,271		158
Receivables from and payables to joint venture:				
Non-trade receivables	Rs.	-	Rs.	5,405
Non-trade payables		5,173		-
Receivables from and payables to affiliates:				
Trade receivables	Rs.	900	Rs.	1,169
Non-trade payables		2,070		5,028

The Group did not recognize allowance for the above-mentioned receivables, and no bad debt expense was recognized for the three months ended December 31, 2016.

- (4) The Group did not have loan and borrowing transactions with related parties for the years ended December 31, 2016 and 2015, respectively.

- (5) Stock trading with the related parties for the years ended December 31, 2016 and 2015, is as follows:

(Unit: Korean won in thousands)

	Company	Description	Year ended	
			December 31, 2016	December 31, 2015
Joint venture	SY Auto Capital Co., Ltd.	Paid in capital increase	₩ -	₩ 10,200,000



(Unit: Indian rupee in thousands)

	Company	Description	Year ended	
			December 31, 2016	December 31, 2015
Joint venture	SY Auto Capital Co., Ltd.	Paid in capital increase	Rs.	- Rs. 574,260

(6) Details of compensation for key executives for the years ended December 31, 2016 and 2015, are as follows:

	Korean won in thousands				Indian rupee in thousands			
	Year ended		Year ended		Year ended		Year ended	
	December 31, 2016		December 31, 2015		December 31, 2016		December 31, 2015	
Short-term employee benefits	₩	579,790	₩	688,877	Rs.	32,642	Rs.	38,784
Postemployment benefits		23,588		28,507		1,328		1,605

### 33. FINANCIAL INSTRUMENTS:

#### (1) Capital risk management

The Group manages capital risk in order to maximize shareholders' profit by maintaining sound/optimal capital structure through monitoring of financial ratios, such as debt-to-equity ratio and net borrowings-to-equity ratio on a monthly basis and implements capital structure improvement plan when necessary. There is no change in the overall capital risk management strategy of the Group compared to last year.

The Group uses debt ratio as a capital management index and calculates the ratio as total liabilities divided by total equity. Total liabilities and total equity are based on the amounts stated in the separate financial statements.

The Group is not subject to externally enforced capital regulation.

Debt-to-equity ratio as of December 31, 2016, and 2015, is as follows:

(Unit: Korean won in thousands)

	December 31, 2016		December 31, 2015	
Debt (A)	₩	1,350,729,254	₩	1,322,142,534
Equity (B)		812,693,923		717,055,177
Debt ratio (A/B)		166.20%		184.39%

(Unit: Indian rupee in thousands)

	December 31, 2016		December 31, 2015	
Debt (A)	Rs.	76,046,057	Rs.	74,436,624
Equity (B)		45,754,668		40,370,207
Debt ratio (A/B)		166.20%		184.39%

(2) The significant accounting policies adopted by classifications, such as financial assets, financial liabilities and equities are disclosed in Note 2.

(3) Details of financial assets and liabilities by category as of December 31, 2016, and 2015, are as follows:

#### 1) Financial assets

(Unit: Korean won in thousands)

Financial assets	December 31, 2016					
	Loans and receivables	AFS financial assets	Financial assets at FVTPL	Designated to hedge item	Total	Fair value
Cash and cash equivalents	₩ 238,401,707	₩ -	₩ -	₩ -	₩ 238,401,707	₩ 238,401,707
Long-term financial instruments	6,000	-	-	-	6,000	6,000
Trade receivables and other receivables	264,075,704	-	-	-	264,075,704	264,075,704
Long-term AFS financial	-	560,000	-	-	560,000	560,000

December 31, 2016						
Financial assets	Financial assets				Total	Fair value
	Loans and receivables	AFS financial assets	at FVTPL	Designated to hedge item		
assets						
Derivative assets	-	-	445,691	310,344	756,035	756,035
	₩ 502,483,411	₩ 560,000	₩ 445,691	₩ 310,344	₩ 503,799,446	₩ 503,799,446
December 31, 2015						
Financial assets	Financial assets				Total	Fair value
	Loans and receivables	AFS financial assets	at FVTPL	Designated to hedge item		
Cash and cash equivalents	₩ 197,881,904	₩ -	₩ -	₩ -	₩ 197,881,904	₩ 197,881,904
Long-term financial instruments	6,000	-	-	-	6,000	6,000
Trade receivables and other receivables	199,790,477	-	-	-	199,790,477	199,790,477
Long-term AFS financial assets	-	560,000	-	-	560,000	560,000
Derivative assets	-	-	1,429,088	278,607	1,707,695	1,707,695
	₩ 397,678,381	₩ 560,000	₩ 1,429,088	₩ 278,607	₩ 399,946,076	₩ 399,946,076

(Unit: Indian rupee in thousands)

December 31, 2016						
Financial assets	Financial assets				Total	Fair value
	Loans and receivables	AFS financial assets	assets at FVTPL	Designated to hedge item		
Cash and cash equivalents	Rs. 13,422,016	Rs. -	Rs. -	Rs. -	Rs. 13,422,016	Rs. 13,422,016
Long-term financial instruments	338	-	-	-	338	338
Trade receivables and other receivables	14,867,463	-	-	-	14,867,463	14,867,463
Long-term AFS financial assets	-	31,528	-	-	31,528	31,528
Derivative assets	-	-	25,093	17,472	42,565	42,565
	Rs. 28,289,817	Rs. 31,528	Rs. 25,093	Rs. 17,472	Rs. 28,363,910	Rs. 28,363,910
December 31, 2015						
Financial assets	Financial assets				Total	Fair value
	Loans and receivables	AFS financial assets	assets at FVTPL	Designated to hedge item		
Cash and cash equivalents	Rs. 11,140,751	Rs. -	Rs. -	Rs. -	Rs. 11,140,751	Rs. 11,140,751
Long-term financial instruments	338	-	-	-	338	338
Trade receivables and other receivables	11,248,204	-	-	-	11,248,204	11,248,204
Long-term AFS financial assets	-	31,528	-	-	31,528	31,528
Derivative assets	-	-	80,457	15,686	96,143	96,143
	Rs. 22,389,293	Rs. 31,528	Rs. 80,457	Rs. 15,686	Rs. 22,516,964	Rs. 22,516,964

## 2) Financial liabilities

(Unit: Korean won in thousands):

December 31, 2016					
Financial liabilities	Financial liability		Designated to hedge item	Total	Fair value
	measured at amortized cost	liabilities at FVTPL			
Trade payables and other payables	₩ 674,990,071	₩ -	₩ -	₩ 674,990,071	₩ 674,990,071
Debt	194,467,721	-	-	194,467,721	194,467,721
Derivative liabilities	-	2,833,061	2,965,745	5,798,806	5,798,806
	₩ 869,457,792	₩ 2,833,061	₩ 2,965,745	₩ 875,256,598	₩ 875,256,598

December 31, 2015					
<u>Financial liabilities</u>	<u>Financial liability measured at amortized cost</u>	<u>Derivatives designated to hedge item</u>	<u>Total</u>	<u>Fair value</u>	
Trade payables and other payables	₹ 650,426,883	₹ -	₹ 650,426,883	₹	650,426,883
Debt	190,724,546	-	190,724,546	₹	190,724,546
Derivative liabilities	-	24,074	24,074	₹	24,074
	<u>₹ 841,151,429</u>	<u>₹ 24,074</u>	<u>₹ 841,175,503</u>	<u>₹</u>	<u>841,175,503</u>

(Unit: Indian rupee in thousands):

December 31, 2016						
<u>Financial liabilities</u>	<u>Financial liability measured at amortized cost</u>		<u>Financial liabilities at FVTPL</u>	<u>Designated to hedge item</u>	<u>Total</u>	<u>Fair value</u>
Trade payables and other payables	Rs.	38,001,941	Rs.	-	Rs.	38,001,941
Debt		10,948,533		-		10,948,533
Derivative liabilities		-		159,502		159,502
				166,971		166,971
	<u>Rs.</u>	<u>48,950,474</u>	<u>Rs.</u>	<u>159,502</u>	<u>Rs.</u>	<u>49,276,947</u>
				166,971		166,971
				326,473		326,473
				49,276,947		49,276,947

December 31, 2015						
<u>Financial liabilities</u>	<u>Financial liability measured at amortized cost</u>	<u>Derivatives designated to hedge item</u>	<u>Total</u>	<u>Fair value</u>		
Trade payables and other payables	Rs.	36,619,033	Rs.	-	Rs.	36,619,033
Debt		10,737,792		-		10,737,792
Derivative liabilities		-		1,355		1,355
	<u>Rs.</u>	<u>47,356,825</u>	<u>Rs.</u>	<u>1,355</u>	<u>Rs.</u>	<u>47,358,180</u>
				1,355		1,355
				47,358,180		47,358,180

#### (4) Financial risk management

The Group is exposed to credit risk, liquidity risk and market risk. In order to manage the aforementioned risks, the Group operates a risk management policy and a program that performs close monitoring of and responding to each risk factors.

Financial assets that are subject to the financial risk management consist of cash and cash equivalents, AFS financial assets, trade receivables, other receivables and others; financial liabilities subject to the financial risk management consist of trade payables, other payables, borrowings, bonds and others.

##### 1) Market risk

###### a. Foreign currency risk

The Group undertakes transactions denominated in foreign currencies; consequently, exposures to exchange rate fluctuations arise. The Group assesses, manages and reports, on a regular basis, the foreign currency risk for its receivables and payables denominated in foreign currency.

The table below shows the sensitivity for each foreign currency when exchange rates change 10%. Sensitivity analysis only includes foreign currency monetary items that are not paid, and it adjusts the translation assuming exchange rate changes 10% at the period-end of December 31, 2016.

Current income will increase when FX rate increases (weaker KRW); likewise, current loss will increase, when FX rate decreases (stronger KRW) with respect to the relevant currency as per following table.

(Unit: Korean won in thousands)

Currency	Korean won in thousands		Indian rupee in thousands	
	10% increase	10% decrease	10% increase	10% decrease
USD	₩ 4,370,502	₩ (4,370,502)	Rs. 246,059	Rs. (246,059)
EUR	(2,212,472)	2,212,472	(124,562)	124,562
JPY	(10,523,918)	10,523,918	(592,497)	592,497
Others	1,974,341	(1,974,341)	111,156	(111,156)
	₩ (6,391,547)	₩ 6,391,547	Rs. (359,844)	Rs. 359,844

In order to minimize the risk of foreign exchange fluctuation, the Group has a policy of entering into foreign exchange forward agreement, which is accounted for as hedge accounting for future expected transactions.

Details of non-payment forward contracts for the year ended December 31, 2016, are as follows:

(Unit: Korean won in thousands, EUR in thousands, USD in thousands, JPY in thousands, GBP in thousands)

		Average exchange rate contracted	Amount of foreign currency	Amount of contract	Fair value
Cash flow hedges					
Short position in EUR	Within three months	₩ 1,298.68	EUR 6,000	KRW 7,787,620	KRW 165,645
Long position in KRW	3-6 months	1,304.82	EUR 4,000	KRW 5,219,280	KRW 118,572
Short position in USD	Within three months	1,177.45	USD 47,000	KRW 55,204,700	KRW (1,591,526)
Long position in KRW	3-6 months	1,188.90	USD 53,000	KRW 62,941,950	KRW (1,060,397)
	6-9 months	1,206.95	USD 10,000	KRW 12,070,200	KRW 9,527
Short position in GBP	Within three months	1,463.12	GBP 9,000	KRW 13,168,060	KRW (174,575)
Long position in KRW	3-6 months	1,472.40	GBP 6,000	KRW 8,834,400	KRW (84,237)
	6-9 months	1,480.67	GBP 6,000	KRW 8,884,010	KRW (54,562)
	9-12 months	1,497.87	GBP 3,000	KRW 4,493,620	KRW 16,151
Held for trading					
Short position in KRW	Within three months	10.53	KRW 19,234,815	JPY 1,810,000	KRW (440,525)
Long position in JPY	3-6 months	10.51	KRW 35,343,690	JPY 3,355,000	KRW (361,818)
	6-9 months	10.46	KRW 27,205,840	JPY 2,600,000	KRW 3,414
	9-12 months	10.40	KRW 20,792,900	JPY 2,000,000	KRW 218,265
Short position in USD	Within three months	106.96	USD 1,400,000	JPY 149,740,000	KRW (1,279,217)
Long position in JPY	3-6 months	106.94	USD 600,000	JPY 64,176,000	KRW (527,488)

(Unit: Indian rupee in thousands, EUR in thousands, USD in thousands, JPY in thousands, GBP in thousands)

		Average exchange rate contracted	Amount of foreign currency	Amount of contract	Fair value
Cash flow hedges					
Short position in EUR	Within three months	₩ 1,298.68	EUR 6,000	Rs. 438,443	Rs. 9,326
Long position in KRW	3-6 months	1,304.82	EUR 4,000	Rs. 293,845	Rs. 6,676
Short position in USD	Within three months	1,177.45	USD 47,000	Rs. 3,108,025	Rs. (89,603)
Long position in KRW	3-6 months	1,188.90	USD 53,000	Rs. 3,543,632	Rs. (59,700)
	6-9 months	1,206.95	USD 10,000	Rs. 679,552	Rs. 536
Short position in GBP	Within three months	1,463.12	GBP 9,000	Rs. 741,362	Rs. (9,829)

		Average exchange rate contracted	Amount of foreign currency	Amount of contract	Fair value
Long position in KRW	3-6 months	1,472.40	GBP 6,000	Rs. 497,377	Rs. (4,743)
	6-9 months	1,480.67	GBP 6,000	Rs. 500,170	Rs. (3,072)
	9-12 months	1,497.87	GBP 3,000	Rs. 252,991	Rs. 909
	Held for trading				
Short position in KRW	Within three months	10.53	KRW 19,234,815	JPY 1,810,000	Rs. (24,802)
Long position in JPY	3-6 months	10.51	KRW 35,343,690	JPY 3,355,000	Rs. (20,370)
	6-9 months	10.46	KRW 27,205,840	JPY 2,600,000	Rs. 192
	9-12 months	10.40	KRW 20,792,900	JPY 2,000,000	Rs. 12,288
Short position in USD	Within three months	106.96	USD 1,400,000	JPY 149,740,000	Rs. (72,020)
Long position in JPY	3-6 months	106.94	USD 600,000	JPY 64,176,000	Rs. (29,698)

The cumulative benefits of cash flow hedging related to forward contracts deferred to equity, amount to 2,574,700 thousand won (Rs. 144,956 thousands), and this amount will be reclassified as current income or loss, when the contracts are settled. Future transactions related to forward transactions will occur within 12 months at the latest starting from the end of current period.

b. Interest rate risk.

Sensitivity analysis was conducted assuming floating rate debt current balance is the same during the whole reporting period. When reporting interest rate risk to management internally, 0.5% variation is used, representing management's assessment about reasonably possible fluctuations of interest rates.

When other variables are constant and the interest rate is lower or higher by 0.5% than the current rate, the Group's current income will decrease/increase ₩188,836 thousand (Rs. 10,631 thousand) for the year ended December 31, 2016, due to floating rate debt's interest rate risk.

2) Credit risk

Credit risk arises from transactions in the ordinary course of business and investment activities and when a customer or a transacting party fails to perform obligations defined by respective contract terms. In order to manage the aforementioned credit risk, the Group regularly assesses credit ratings of its customers and transacting parties based on their financial status and past experiences and establishes credit limit for each customer or transacting party.

As of December 31, 2016, and 2015, the maximum exposed amounts of credit risk for financial assets maintained by the Group are as follows.

	December 31, 2016	December 31, 2015	December 31, 2016	December 31, 2015
	(Korean won in thousands)		(Indian rupee in thousands)	
Trade and other receivables	₩ 264,075,704	₩ 199,790,477	Rs. 14,867,462	Rs. 11,248,204

3) Liquidity risk

The Group establishes short-term and long-term fund management plans; consequently, exposures to liquidity risk. The Group analyzes and reviews actual cash out flows and its budget to correspond the maturities of financial liabilities to those of financial assets. Management of the Group believes that the financial liabilities may be redeemed by cash flows arising from operating activities and financial assets. To manage risks arising from installment sales receivables, the Group has entered into a factoring agreement with capital financial institutions.

Maturity analysis of non-derivative financial liabilities according to their remaining maturities as of December 31, 2016, and 2015, is as follows:

(Unit: Korean won in thousands)

	December 31, 2016		
	Within a year	More than one year	Total
Trade payables	₩ 482,391,330	₩ -	₩ 482,391,330
Non-trade payables	152,572,053	-	152,572,053
Short-term borrowings(*)	183,588,225	-	183,588,225
Derivative liabilities	5,798,806	-	5,798,806
Other payables	34,519,616	-	34,519,616
Long-term borrowings(*)	-	13,145,534	13,145,534
Long-term non-trade payables	-	5,507,071	5,507,071
	<u>₩ 858,870,030</u>	<u>₩ 18,652,605</u>	<u>₩ 877,522,635</u>

  

	December 31, 2015		
	Within a year	More than one year	Total
Trade payables	₩ 432,432,182	₩ -	₩ 432,432,182
Non-trade payables	172,897,876	-	172,897,876
Short-term borrowings(*)	154,713,544	-	154,713,544
Derivative liabilities	24,074	-	24,074
Other payables	32,484,211	-	32,484,211
Long-term borrowings(*)	-	40,037,205	40,037,205
Long-term non-trade payables	-	12,612,614	12,612,614
	<u>₩ 792,551,887</u>	<u>₩ 52,649,819</u>	<u>₩ 845,201,706</u>

(Unit: Indian rupee in thousands)

	December 31, 2016		
	Within a year	More than one year	Total
Trade payables	Rs. 27,158,632	Rs. -	Rs. 27,158,632
Non-trade payables	8,589,807	-	8,589,807
Short-term borrowings(*)	10,336,017	-	10,336,017
Derivative liabilities	326,473	-	326,473
Other payables	1,943,454	-	1,943,454
Long-term borrowings(*)	-	740,094	740,094
Long-term non-trade payables	-	310,048	310,048
	<u>Rs. 48,354,383</u>	<u>Rs. 1,050,142</u>	<u>Rs. 49,404,525</u>

  

	December 31, 2015		
	Within a year	More than one year	Total
Trade payables	Rs. 24,345,932	Rs. -	Rs. 24,345,932
Non-trade payables	9,734,150	-	9,734,150
Short-term borrowings(*)	8,710,373	-	8,710,373
Derivative liabilities	1,355	-	1,355
Other payables	1,828,861	-	1,828,861
Long-term borrowings(*)	-	2,254,095	2,254,095
Long-term non-trade payables	-	710,090	710,090
	<u>Rs. 44,620,671</u>	<u>Rs. 2,964,185</u>	<u>Rs. 47,584,856</u>

(\*) Expected interest expense included in maturity analysis.

Funding arrangements as of December 31, 2016, and 2015, are as follows:

(Unit: Korean won in thousands)

		December 31, 2016	December 31, 2015
		₩	₩
Borrowing limit commitments	Used	67,500,000	85,000,000
	Unused	132,000,000	112,000,000
	Total	<u>₩ 199,500,000</u>	<u>₩ 197,000,000</u>

(Unit: Indian rupee in thousands)

		December 31, 2016		December 31, 2015	
Borrowing limit commitments	Used	Rs.	3,800,250	Rs.	4,785,500
	Unused		7,431,600		6,305,600
	Total	Rs.	11,231,850	Rs.	11,091,100

(5) Fair value of financial instruments

- 1) The Group's management deems that the differences between carrying value and fair value of financial assets and financial liabilities recognized as amortized cost on consolidated financial statements is not significant.
- 2) Valuation methods and assumptions applied in fair value measurement

The fair values of financial instruments (i.e., government bonds and unsecured corporate bonds) traded in active markets are determined with reference to quoted market prices. The Group uses the closing price as the quoted market price for its financial assets.

The fair values of derivatives where no active market exists or where quoted prices are not otherwise available are determined by using valuation techniques. Non-option derivatives are evaluated by discounted cash flow method using the yield curve available. Options are evaluated by option-pricing models. Foreign exchange-forward contracts are determined using the yield curve derived from market interest rates with the same maturity of forward contracts. To measure interest rate swaps, the cash flows are estimated by the yield curve derived from market interest rate and discounted to calculate the present value of swaps. Fair values of other financial assets and liabilities (except those stated above) are calculated by generally accepted valuation models based on discounted cash flow analysis.

- 3) The following table provides an analysis of financial instruments that are measured subsequent to initial recognition at fair value, classified as Level 1, 2 or 3, based on the degree to which the fair value is observable.

Level 1 Unadjusted quoted prices in active markets for identical assets or liabilities

Level 2 Inputs other than quoted prices that are observable for the asset or liability either directly or indirectly

Level 3 Inputs that are not based on observable market data

Fair values of financial instruments by heirarchy level as of December 31, 2016, and 2015, are as follows:

(Unit: Korean won in thousands)

Type	December 31, 2016			
	Level 1	Level 2	Level 3	Fair value
Derivatives designated to hedge item	₩ -	₩ 756,035	₩ -	₩ 756,035
Derivatives liabilities designated to hedge item	-	5,798,806	-	5,798,806

Type	December 31, 2015			
	Level 1	Level 2	Level 3	Fair value
Derivatives designated to hedge item	₩ -	₩ 1,707,695	₩ -	₩ 1,707,695
Derivatives liabilities designated to hedge item	-	24,074	-	24,074

(Unit: Indian rupee in thousands)

Type	December 31, 2016			
	Level 1	Level 2	Level 3	Fair value
Derivatives designated to hedge item	Rs. -	Rs. 42,565	Rs. -	Rs. 42,565
Derivatives liabilities designated to hedge item	-	326,473	-	326,473

Type	December 31, 2015			
	Level 1	Level 2	Level 3	Fair value
Derivatives designated to hedge item	Rs. -	Rs. 96,143	Rs. -	Rs. 96,143
Derivatives liabilities designated to hedge item	-	1,355	-	1,355

- 4) The Group measures the foreign exchange-forward contract (derivative assets: ₩756,035 thousand (Rs. 42,565 thousand) and derivative liabilities: ₩5,798,806 thousand (Rs. 326,473 thousand)) based on the forward rate announced officially in the market as of December 31, 2016. In the event that no corresponding forward rate with residual period of the foreign exchange forward contract in the market exists, the Group measured the market value through interpolation method.  
As input factors used in measuring market value of foreign exchange forward are from observable exchange forward rate, the Group classified the fair value of the foreign exchange forward as Level 2.