Consolidated Financial Statements

December 31, 2017 and 2016

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December 31, 2017 and 2016

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Independent Auditor's Report

(English Translation of a Report Originally Issued in Korean)

To the Board of Directors and Shareholders of HYUNDAI BNG STEEL CO., LTD.

We have audited the accompanying consolidated financial statements of HYUNDAI BNG STEEL CO., LTD. and its subsidiary (collectively refer to as the "Group"), which comprise the consolidated statements of financial position as at December 31, 2017 and 2016, and the consolidated statements of comprehensive income, consolidated statements of changes in equity and consolidated statements of cash flows for the years then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies and other explanatory information.

Management's responsibility for the financial statements

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

Auditor's responsibility

Our responsibility is to express an opinion on the consolidated financial statements based on our audits. We conducted our audits in accordance with the Korean Standards on Auditing. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on the 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 significant 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 accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of HYUNDAI BNG STEEL CO., LTD. and its subsidiary as at December 31, 2017 and 2016, and its consolidated financial performance and its consolidated cash flows for the years then ended in accordance with the Korean IFRS.

Other Matter

Auditing standards and their application in practice vary among countries. The procedures and practices used in the Republic of Korea to audit such financial statements may differ from those generally accepted and applied in other countries.

Seoul, Korea February 28, 2018

Consolidated Statements of Financial Position December 31, 2017 and 2016

(in Korean won)	Notes		2017		2016
Assets					
Current assets					
Cash and cash equivalents	7,8	₩	60,443,261,368	₩	50,139,720,795
Trade and other receivables	7,8,9,11,35		137,811,655,530		148,905,871,972
Other financial assets	7,13		15,431,535		10,281,735
Other current assets	14,35		855,359,421		1,046,159,960
Derivative financial assets	5,7,12		407,115,369		1,637,991,968
Inventories	15		132,750,001,836		112,694,018,340
			332,282,825,059		314,434,044,770
Non-current assets					
Trade and other receivables	7,8,11,35		1,638,187,114		1,158,052,713
Other financial assets	5,7,8,10,13		12,969,626,824		5,853,658,750
Property, plant and equipment	16		181,023,151,989		192,438,846,193
Investment property	17		26,526,149,431		27,070,547,800
Intangible assets	18		18,459,718,490		17,917,680,216
Deferred income tax assets	23		11,666,874,737		8,869,905,108
			252,283,708,585		253,308,690,780
Total assets		₩	584,566,533,644	₩	567,742,735,550
Liabilities					
Current liabilities					
Trade and other payables	4,7,19,35	₩	75,491,555,471	₩	55,768,436,825
Other financial liabilities	4,7,9,20		78,750,577,997		73,368,154,103
Other current liabilities	21,35		1,806,448,946		3,112,962,940
Derivative financial liabilities	4,5,7,12		983,821,722		-
Current tax liabilities			5,628,626,468	-	5,327,745,580
			162,661,030,604		137,577,299,448
Non-current liabilities					
Trade and other payables	4,7,19		275,229,884		200,000,000
Other financial liabilities	4,5,7,20		29,939,570,832		59,806,575,142
Other provision	24,25		11,065,400,882		8,907,772,387
Net defined benefit liabilities	22		15,591,224,691		14,046,831,818
-			56,871,426,289		82,961,179,347
Total liabilities			219,532,456,893		220,538,478,795
Equity attributable to owners of the					
Share capital	1,26		75,943,315,000		75,943,315,000
Capital surplus			992,775,657		992,775,657
Other components of equity	28		29,629,999		31,709,755
Retained earnings	27		288,068,356,095		270,236,456,343
Non controlling interest			365,034,076,751		347,204,256,755
Non-controlling interest			265 024 076 754		247 204 256 755
Total liabilities and equity			365,034,076,751		347,204,256,755
Total liabilities and equity		₩	584,566,533,644	₩	567,742,735,550

Consolidated Statements of Comprehensive Income

Years Ended December 31, 2017 and 2016

(in Korean won)	Notes		2017		2016
Revenue	6,35	₩	725,853,867,852	₩	660,807,586,778
Cost of sales	29,35		658,116,819,878		589,191,075,715
Gross profit			67,737,047,974		71,616,511,063
Selling, general and administrative expenses Distribution costs	29,30,35 29,35		27,023,235,228 9,970,117,765		26,287,853,646 8,985,979,597
Operating profit			30,743,694,981		36,342,677,820
Other income Other expenses Finance income Finance costs Share of net profit of associates	31,35 31,35 32 32		8,485,989,903 10,599,386,468 4,695,056,957 4,732,269,488		10,044,632,360 12,933,191,160 2,735,436,068 7,125,547,030 49,889,224
Profit before income tax Income tax expense	23		28,593,085,885 8,828,500,978		29,113,897,282 7,237,840,509
Profit for the year			19,764,584,907		21,876,056,773
Other comprehensive income Items that will not be reclassified to profit or loss Remeasurements of net defined benefit liabilities Items that may be reclassified subsequently to profit or loss Changes in the fair value of available-for-sale financial assets Share of other comprehensive income of associates Exchange differences on translation of foreign operations	23 23 23		(408,326,255) 11,992,871 - (14,072,627) (410,406,011)		503,989,236 564,965,376 (268,459,688) 31,709,755 832,204,679
Total comprehensive income for the year		₩	19,354,178,896	₩	22,708,261,452
Profit for the year Attributable to: Equity holders of the Controlling Company Non-controlling interest		₩	19,764,584,907 - 19,764,584,907	₩	21,876,056,773 - 21,876,056,773
Total comprehensive income for the year					
Attributable to: Equity holders of the Controlling Company Non-controlling interest		₩	19,354,178,896 - 19,354,178,896	₩	22,708,261,452 - 22,708,261,452
Basic earnings per share attributable to the equity holders of the Controlling Company during the year Basic earnings per ordinary share Basic earnings per preferred share	33 33	₩	1,301 1,351	₩	1,440 1,490

The above consolidated statements of comprehensive income should be read in conjunction with the accompanying notes.

	_			Attributable	to equity	holders of the Con	ntrollin	g Company					
(in Korean won)	;	Shate capital	Сар	oital surplus	comp	Other onents of equity		Retained earnings		Total	Non-controlling interest		Total equity
Balance at January 1, 2016	₩	75,943,315,000	₩	992,775,657	₩	(296,505,688)	₩	247,856,410,334	₩	324,495,995,303	₩ -	₩	324,495,995,303
Total comprehensive income : Profit for the year		-		-		-		21,876,056,773		21,876,056,773	-		21,876,056,773
Remeasurements of net defined benefit liabilities Change in value of available-for-sale financial assets		-		-		- 564,965,376		503,989,236		503,989,236 564,965,376	-		503,989,236 564,965,376
Share of other comprehensive loss of associates		-		-		(268,459,688)		-		(268,459,688)	-		(268,459,688)
Exchange differences on translation of foreign operations		<u>-</u>				31,709,755		<u>-</u>		31,709,755			31,709,755
Balance at December 31, 2016	₩	75,943,315,000	₩	992,775,657	₩	31,709,755	₩	270,236,456,343	₩	347,204,256,755	₩ -	₩	347,204,256,755
Balance at January 1, 2017	₩	75,943,315,000	₩	992,775,657	₩	31,709,755	₩	270,236,456,343	₩	347,204,256,755	₩ -	₩	347,204,256,755
Total comprehensive income :													
Profit for the year		-		-		-		19,764,584,907		19,764,584,907	-		19,764,584,907
Remeasurements of net defined benefit liabilities		-		-		-		(408,326,255)		(408,326,255)	-		(408,326,255)
Change in value of available-for-sale financial assets		-		-		11,992,871		-		11,992,871	-		11,992,871
Exchange differences on translation of foreign operations		_		_		(14,072,627)		_		(14,072,627)	_		(14,072,627)
Transactions with equity holders of the Controlling Com	pany :					(1-1,072,021)				(14,072,027)			(14,572,027)
Annual dividends				<u>-</u>				(1,524,358,900)		(1,524,358,900)			(1,524,358,900)
Balance at December 31, 2017	₩	75,943,315,000	₩	992,775,657	₩	29,629,999	₩	288,068,356,095	₩	365,034,076,751	₩ -	₩	365,034,076,751

Consolidated Statements of Cash Flows

Years Ended December 31, 2017 and 2016

Cash flows from operating activities 34 W 65,408,617,641 W 78,757,032,224 Interest received 607,241,852 636,3936,489 62,303,14,667,411 (3,926,949,902) Dividends received 1,000,000 1,000,000 1,000,000 Income tax paid (11,205,535,087) (3,287,164,024) Net cash inflow from operating activities 51,499,656,995 72,180,854,787 Cash flows from investing activities 1,000,000 1,000,000 Increase in long-term financial instruments 1,000,000 2,000,000 Increase in long-term loans 1,000,000 124,000,000 Decrease in long-term loans 109,000,000 124,000,000 Acquisition of investments in associates 2,000,000,000 2206,250,000 Acquisition of investment bonds (5,000,000,000,000) (7,859,098,264) Proceeds from sale of intenting ble assets 16 (8,450,517,845) (7,859,098,264) Proceeds from sale of intangible assets 18 (1,324,636,400) (325,200,000) Acquisition of available-for-sale financial assets 18 (399,214,663) (481,500,000) Acquisition	(in Korean won)	Notes		2017		2016
Cash generated from operations 34 W 65,408,617,641 W 78,757,032,224 Interest received 607,241,852 636,303,488 1,000,000 <td>Cash flows from operating activities</td> <td></td> <td></td> <td></td> <td></td> <td></td>	Cash flows from operating activities					
Interest received		34	₩	65,408,617,641	₩	78,757,032,224
Dividends received	Interest received					636,936,489
Income tax paid (11,205,535,087) (3,287,164,024) Net cash inflow from operating activities 51,499,656,995 72,180,854,787	Interest paid			(3,311,667,411)		(3,926,949,902)
Net cash inflow from operating activities 51,499,656,995 72,180,854,787 Cash flows from investing activities Decrease in long-term financial instruments 1,000,000 - Increase in long-term loans 109,000,000 124,000,000 Acquisition of investments in associates - (20,000,000) Acquisition of investments in associates - (20,250,000 Acquisition of property, plant and equipment 16 (8,450,517,845) (7,859,098,264) Proceeds from sale of property, plant and equipment 16 (8,450,517,845) (7,859,098,264) Proceeds from sale of property, plant and equipment 16 (8,450,517,845) (7,859,098,264) Proceeds from sale of property, plant and equipment 16 (8,450,517,845) (7,859,098,264) Proceeds from sale of intangible assets 18 (1,324,636,400) (325,200,000) Proceeds from sale of intangible assets 18 (399,214,663) - Proceeds from sale of available-for-sale financial assets 18 (399,214,663) - Acquisition of available-for-sale financial assets (600,790,337) (16,848,308,000) (481,500,000) <tr< td=""><td>Dividends received</td><td></td><td></td><td>1,000,000</td><td></td><td>1,000,000</td></tr<>	Dividends received			1,000,000		1,000,000
Cash flows from investing activities Decrease in long-term financial instruments 1,000,000 - Increase in long-term loans - (20,000,000) 124,000,000 Decrease in long-term loans 109,000,000 124,000,000 Acquisition of investments in associates - (297,000,000) Proceeds from sale of investments in associates - 206,250,000 Acquisition of property, plant and equipment 16 (8,450,517,845) (7,859,098,264) Proceeds from sale of property, plant and equipment 16 28,009,091 1,391,038,800 Acquisition of intangible assets 600,000,000 (325,200,000) Proceeds from sale of intangible assets 600,000,000 - Acquisition of available-for-sale financial assets 18 (399,214,663) - Proceeds from sale of available-for-sale financial assets (600,799,337) (600,799,337) (7,849,606) Increase in deposits provided (1,840,358,000) (481,500,000) (481,500,000) (481,500,000) Decrease in deposits provided (1,844,358,000) (481,500,000) (481,500,000) (481,500,000) (6,594,159,858)	Income tax paid			(11,205,535,087)		(3,287,164,024)
Decrease in long-term financial instruments	Net cash inflow from operating activities			51,499,656,995		72,180,854,787
Increase in long-term loans	Cash flows from investing activities					
Decrease in long-term loans 109,000,000 124,000,000 Acquisition of investments in associates - (297,000,000) Proceeds from sale of investment bonds (5,000,000,000) 206,250,000 Acquisition of investment bonds (5,000,000,000) (7,859,098,264) Proceeds from sale of property, plant and equipment 16 (8,450,517,845) (7,859,098,264) Proceeds from sale of property, plant and equipment 16 28,009,091 1,391,038,800 Acquisition of intangible assets 18 (1,324,636,400) (325,200,000) Proceeds from sale of intangible assets 600,000,000 - Acquisition of available-for-sale financial assets 18 (399,214,663) - Proceeds from sale of available-for-sale 16,24,368,000 (481,500,000) Acquisition of derivative financial assets (600,790,337) (481,500,000) Increase in deposits provided 29,200,000 630,000,000 Decrease in deposits provided 29,200,000 630,000,000 Net cash outflow from investing activities (16,848,308,154) (6,594,159,858) Cash flows from financing activities 36	Decrease in long-term financial instruments			1,000,000		-
Acquisition of investments in associates - (297,000,000)	Increase in long-term loans			-		(20,000,000)
Proceeds from sale of investments in associates	Decrease in long-term loans			109,000,000		124,000,000
Acquisition of investment bonds (5,000,000,000) Acquisition of property, plant and equipment 16 (8,450,517,845) (7,859,098,264) Proceeds from sale of property, plant and equipment 16 28,009,091 1,391,038,800 Acquisition of intangible assets 18 (1,324,636,400) (325,200,000) Proceeds from sale of intangible assets 600,000,000 - Acquisition of available-for-sale financial assets 18 (399,214,663) - Proceeds from sale of available-for-sale financial assets 600,790,337 - Increase in deposits provided (1,840,358,000) (481,500,000) Acquisition of derivative financial assets (600,790,337) (6,594,159,858) Increase in deposits provided (1,840,358,000) (481,500,000) Decrease in deposits provided (29,200,000 630,000,000 Net cash outflow from investing activities (16,848,308,154) (6,594,159,858) Cash flows from financing activities Increase in short-term borrowings 363,584,669,111 158,270,967,891 Repayments of current portion of long-term borrowings (356,368,183,653) (187,693,402	Acquisition of investments in associates			-		(297,000,000)
Acquisition of property, plant and equipment 16 (8,450,517,845) (7,859,098,264) Proceeds from sale of property, plant and equipment 16 28,009,091 1,391,038,800 Acquisition of intangible assets 18 (1,324,636,400) (325,200,000) Proceeds from sale of intangible assets 600,000,000 - Acquisition of available-for-sale financial assets 18 (399,214,663) - Proceeds from sale of available-for-sale financial assets (600,790,337) - Increase in deposits provided (1,840,358,000) (481,500,000) Acquisition of derivative financial assets (600,790,337) (481,500,000) Increase in deposits provided (1,840,358,000) (481,500,000) Decrease in deposits provided (16,848,308,154) (6,594,159,858) Cash flows from financing activities (16,848,308,154) (6,594,159,858) Cash flows from financing activities (356,368,183,653) (187,693,402,013) Repayments of short-term borrowings (356,368,183,653) (187,693,402,013) Repayments of current portion of long-term borrowings (5,977,450,000) Proceeds from issuance of bon	Proceeds from sale of investments in associates			-		206,250,000
Proceeds from sale of property, plant and equipment 16 28,009,091 1,391,038,800 Acquisition of intangible assets 18 (1,324,636,400) (325,200,000) Proceeds from sale of intangible assets 600,000,000 - Acquisition of available-for-sale financial assets 18 (399,214,663) - Proceeds from sale of available-for-sale financial assets (600,790,337) - Increase in deposits provided (1,840,358,000) (481,500,000) Acquisition of derivative financial assets (600,790,337) (481,500,000) Increase in deposits provided 29,200,000 630,000,000 Net cash outflow from investing activities (16,848,308,154) (6,594,159,858) Cash flows from financing activities 363,584,669,111 158,270,967,891 Repayments of short-term borrowings (356,368,183,653) (187,693,402,013) Repayments of current portion of long-term borrowings - (5,977,450,000) Proceeds from issuance of bonds (30,000,000,000) (60,000,000,000) Repayments of current portion of bonds (30,000,000,000) (60,000,000,000) Payment of dividends <t< td=""><td>Acquisition of investment bonds</td><td></td><td></td><td>(5,000,000,000)</td><td></td><td></td></t<>	Acquisition of investment bonds			(5,000,000,000)		
Acquisition of intangible assets 18 (1,324,636,400) (325,200,000) Proceeds from sale of intangible assets 600,000,000 - Acquisition of available-for-sale financial assets 18 (399,214,663) - Proceeds from sale of available-for-sale financial assets - 37,349,606 Acquisition of derivative financial assets (600,790,337) - Increase in deposits provided (1,840,358,000) (481,500,000) Decrease in deposits provided 29,200,000 630,000,000 Net cash outflow from investing activities (16,848,308,154) (6,594,159,858) Cash flows from financing activities 363,584,669,111 158,270,967,891 Repayments of short-term borrowings (356,368,183,653) (187,693,402,013) Repayments of current portion of long-term borrowings - (5,977,450,000) Proceeds from issuance of bonds (30,000,000,000) (60,000,000,000) Repayments of current portion of bonds (30,000,000,000) (60,000,000,000) Payment of dividends (1,524,358,900) - Net cash outflow from financing activities (24,307,873,442) (65,552,954,122	Acquisition of property, plant and equipment	16		(8,450,517,845)		(7,859,098,264)
Proceeds from sale of intangible assets 600,000,000 - Acquisition of available-for-sale financial assets 18 (399,214,663) - Proceeds from sale of available-for-sale financial assets - 37,349,606 Acquisition of derivative financial assets (600,790,337) (481,500,000) Increase in deposits provided 29,200,000 630,000,000 Net cash outflow from investing activities (16,848,308,154) (6,594,159,858) Cash flows from financing activities 363,584,669,111 158,270,967,891 Increase in short-term borrowings (356,368,183,653) (187,693,402,013) Repayments of short-term borrowings - (5,977,450,000) Proceeds from issuance of bonds - 29,846,930,000 Repayments of current portion of bonds (30,000,000,000) (60,000,000,000) Repayment of dividends (1,524,358,900) - Net cash outflow from financing activities (24,307,873,442) (65,552,954,122) Net increase in cash and cash equivalents 10,343,475,399 33,740,807 Cash and cash equivalents at the beginning of year 50,139,720,795 50,073,583,042	Proceeds from sale of property, plant and equipment	16		28,009,091		1,391,038,800
Acquisition of available-for-sale financial assets 18 (399,214,663) - Proceeds from sale of available-for-sale financial assets - 37,349,606 Acquisition of derivative financial assets (600,790,337) Increase in deposits provided (1,840,358,000) (481,500,000) Decrease in deposits provided 29,200,000 630,000,000 Net cash outflow from investing activities (16,848,308,154) (6,594,159,858) Cash flows from financing activities Increase in short-term borrowings 363,584,669,111 158,270,967,891 Repayments of short-term borrowings (356,368,183,653) (187,693,402,013) Repayments of current portion of long-term borrowings Proceeds from issuance of bonds (30,000,000,000) (60,000,000,000) Repayments of current portion of bonds (30,000,000,000) (60,000,000,000) Payment of dividends (1,524,358,900) Net cash outflow from financing activities (24,307,873,442) (65,552,954,122) Net increase in cash and cash equivalents 10,343,475,399 33,740,807 Cash and cash equivalents at the beginning of year 50,139,720,795 50,073,583,042 Effects of exchange rate changes on (39,934,826) 32,396,946	Acquisition of intangible assets	18		(1,324,636,400)		(325,200,000)
Proceeds from sale of available-for-sale financial assets - 37,349,606 Acquisition of derivative financial assets (600,790,337) (481,500,000) Increase in deposits provided 29,200,000 630,000,000 Decrease in deposits provided 29,200,000 630,000,000 Net cash outflow from investing activities (16,848,308,154) (6,594,159,858) Cash flows from financing activities 158,270,967,891 Increase in short-term borrowings 363,584,669,111 158,270,967,891 Repayments of short-term borrowings (356,368,183,653) (187,693,402,013) Repayments of current portion of long-term borrowings - (5,977,450,000) Proceeds from issuance of bonds - 29,846,930,000 Repayments of current portion of bonds (30,000,000,000) (60,000,000,000) Payment of dividends (1,524,358,900) - Net cash outflow from financing activities (24,307,873,442) (65,552,954,122) Net increase in cash and cash equivalents 10,343,475,399 33,740,807 Cash and cash equivalents at the beginning of year 50,139,720,795 50,073,583,042 Effects of excha	Proceeds from sale of intangible assets			600,000,000		-
financial assets - 37,349,606 Acquisition of derivative financial assets (600,790,337) (481,500,000) Increase in deposits provided 29,200,000 630,000,000 Net cash outflow from investing activities (16,848,308,154) (6,594,159,858) Cash flows from financing activities Increase in short-term borrowings 363,584,669,111 158,270,967,891 Repayments of short-term borrowings (356,368,183,653) (187,693,402,013) Repayments of current portion of long-term borrowings - (5,977,450,000) Proceeds from issuance of bonds - 29,846,930,000 Repayments of current portion of bonds (30,000,000,000) (60,000,000,000) Repayment of dividends (1,524,358,900) - Net cash outflow from financing activities (24,307,873,442) (65,552,954,122) Net increase in cash and cash equivalents 10,343,475,399 33,740,807 Cash and cash equivalents at the beginning of year 50,139,720,795 50,073,583,042 Effects of exchange rate changes on (39,934,826) 32,396,946	Acquisition of available-for-sale financial assets	18		(399,214,663)		-
Acquisition of derivative financial assets (600,790,337) (481,500,000) Increase in deposits provided (1,840,358,000) (481,500,000) Decrease in deposits provided 29,200,000 630,000,000 Net cash outflow from investing activities (16,848,308,154) (6,594,159,858) Cash flows from financing activities Increase in short-term borrowings 363,584,669,111 158,270,967,891 Repayments of short-term borrowings (356,368,183,653) (187,693,402,013) Repayments of current portion of long-term borrowings - (5,977,450,000) Proceeds from issuance of bonds (30,000,000,000) (60,000,000,000) Repayments of current portion of bonds (30,000,000,000) (60,000,000,000) Payment of dividends (1,524,358,900) - Net cash outflow from financing activities (24,307,873,442) (65,552,954,122) Net increase in cash and cash equivalents 10,343,475,399 33,740,807 Cash and cash equivalents at the beginning of year 50,139,720,795 50,073,583,042 Effects of exchange rate changes on (39,934,826) 32,396,946	Proceeds from sale of available-for-sale					
Increase in deposits provided	financial assets			-		37,349,606
Decrease in deposits provided 29,200,000 630,000,000 Net cash outflow from investing activities (16,848,308,154) (6,594,159,858) Cash flows from financing activities Increase in short-term borrowings Increase in short-term borrowings 363,584,669,111 158,270,967,891 Repayments of short-term borrowings (356,368,183,653) (187,693,402,013) Repayments of current portion of long-term borrowings - (5,977,450,000) Proceeds from issuance of bonds - 29,846,930,000 Repayments of current portion of bonds (30,000,000,000) (60,000,000,000) Payment of dividends (1,524,358,900) - Net cash outflow from financing activities (24,307,873,442) (65,552,954,122) Net increase in cash and cash equivalents 10,343,475,399 33,740,807 Cash and cash equivalents at the beginning of year 50,139,720,795 50,073,583,042 Effects of exchange rate changes on (39,934,826) 32,396,946 cash and cash equivalents (39,934,826) 32,396,946	Acquisition of derivative financial assets			(600,790,337)		
Net cash outflow from investing activities (16,848,308,154) (6,594,159,858) Cash flows from financing activities Increase in short-term borrowings Increase in short-term borrowings 363,584,669,111 158,270,967,891 Repayments of short-term borrowings (356,368,183,653) (187,693,402,013) Repayments of current portion of long-term borrowings - (5,977,450,000) Proceeds from issuance of bonds - 29,846,930,000 Repayments of current portion of bonds (30,000,000,000,000) (60,000,000,000) Payment of dividends (1,524,358,900) - Net cash outflow from financing activities (24,307,873,442) (65,552,954,122) Net increase in cash and cash equivalents 10,343,475,399 33,740,807 Cash and cash equivalents at the beginning of year 50,139,720,795 50,073,583,042 Effects of exchange rate changes on (39,934,826) 32,396,946 cash and cash equivalents (39,934,826) 32,396,946	Increase in deposits provided			(1,840,358,000)		(481,500,000)
Cash flows from financing activities Increase in short-term borrowings 363,584,669,111 158,270,967,891 Repayments of short-term borrowings (356,368,183,653) (187,693,402,013) Repayments of current portion of long-term borrowings - (5,977,450,000) Proceeds from issuance of bonds - 29,846,930,000 Repayments of current portion of bonds (30,000,000,000) (60,000,000,000) Payment of dividends (1,524,358,900) - Net cash outflow from financing activities (24,307,873,442) (65,552,954,122) Net increase in cash and cash equivalents 10,343,475,399 33,740,807 Cash and cash equivalents at the beginning of year 50,139,720,795 50,073,583,042 Effects of exchange rate changes on cash and cash equivalents (39,934,826) 32,396,946	Decrease in deposits provided			29,200,000		630,000,000
Increase in short-term borrowings 363,584,669,111 158,270,967,891 Repayments of short-term borrowings (356,368,183,653) (187,693,402,013) Repayments of current portion of long-term borrowings - (5,977,450,000) Proceeds from issuance of bonds - 29,846,930,000 Repayments of current portion of bonds (30,000,000,000) (60,000,000,000) Payment of dividends (1,524,358,900) - Net cash outflow from financing activities (24,307,873,442) (65,552,954,122) Net increase in cash and cash equivalents 10,343,475,399 33,740,807 Cash and cash equivalents at the beginning of year 50,139,720,795 50,073,583,042 Effects of exchange rate changes on (39,934,826) 32,396,946 cash and cash equivalents (39,934,826) 32,396,946	Net cash outflow from investing activities			(16,848,308,154)		(6,594,159,858)
Repayments of short-term borrowings (356,368,183,653) (187,693,402,013) Repayments of current portion of long-term borrowings - (5,977,450,000) Proceeds from issuance of bonds - 29,846,930,000 Repayments of current portion of bonds (30,000,000,000) (60,000,000,000) Payment of dividends (1,524,358,900) - Net cash outflow from financing activities (24,307,873,442) (65,552,954,122) Net increase in cash and cash equivalents 10,343,475,399 33,740,807 Cash and cash equivalents at the beginning of year 50,139,720,795 50,073,583,042 Effects of exchange rate changes on cash and cash equivalents (39,934,826) 32,396,946	Cash flows from financing activities					
Repayments of current portion of long-term borrowings Proceeds from issuance of bonds Repayments of current portion of bonds Repayments of current portion of bonds Repayment of dividends Repayment of current portion of bonds Repayments of current portion of conductors Repayment of current portion of current portion of conductors Repaym	Increase in short-term borrowings			363,584,669,111		158,270,967,891
Proceeds from issuance of bonds - 29,846,930,000 Repayments of current portion of bonds (30,000,000,000) (60,000,000,000) Payment of dividends (1,524,358,900) - Net cash outflow from financing activities (24,307,873,442) (65,552,954,122) Net increase in cash and cash equivalents 10,343,475,399 33,740,807 Cash and cash equivalents at the beginning of year 50,139,720,795 50,073,583,042 Effects of exchange rate changes on cash and cash equivalents (39,934,826) 32,396,946	Repayments of short-term borrowings			(356,368,183,653)		(187,693,402,013)
Repayments of current portion of bonds (30,000,000,000,000) (60,000,000,000) Payment of dividends (1,524,358,900) - Net cash outflow from financing activities (24,307,873,442) (65,552,954,122) Net increase in cash and cash equivalents 10,343,475,399 33,740,807 Cash and cash equivalents at the beginning of year 50,139,720,795 50,073,583,042 Effects of exchange rate changes on cash and cash equivalents (39,934,826) 32,396,946	Repayments of current portion of long-term borrowing	js		-		(5,977,450,000)
Payment of dividends (1,524,358,900) - Net cash outflow from financing activities (24,307,873,442) (65,552,954,122) Net increase in cash and cash equivalents 10,343,475,399 33,740,807 Cash and cash equivalents at the beginning of year 50,139,720,795 50,073,583,042 Effects of exchange rate changes on cash and cash equivalents (39,934,826) 32,396,946	Proceeds from issuance of bonds			-		29,846,930,000
Net cash outflow from financing activities(24,307,873,442)(65,552,954,122)Net increase in cash and cash equivalents10,343,475,39933,740,807Cash and cash equivalents at the beginning of year50,139,720,79550,073,583,042Effects of exchange rate changes on cash and cash equivalents(39,934,826)32,396,946	Repayments of current portion of bonds			(30,000,000,000)		(60,000,000,000)
Net increase in cash and cash equivalents Cash and cash equivalents at the beginning of year Effects of exchange rate changes on cash and cash equivalents (39,934,826) (39,934,826)	Payment of dividends			(1,524,358,900)		<u>-</u>
Cash and cash equivalents at the beginning of year 50,139,720,795 50,073,583,042 Effects of exchange rate changes on (39,934,826) 32,396,946 cash and cash equivalents	Net cash outflow from financing activities			(24,307,873,442)		(65,552,954,122)
Effects of exchange rate changes on (39,934,826) 32,396,946 cash and cash equivalents	Net increase in cash and cash equivalents			10,343,475,399		33,740,807
cash and cash equivalents	Cash and cash equivalents at the beginning of year			50,139,720,795		50,073,583,042
	-			(39,934,826)		32,396,946
	•		₩	60,443,261,368	₩	50,139,720,795

The above consolidated statements of cash flows should be read in conjunction with the accompanying notes.

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

1. General Information

General information of HYUNDAI BNG STEEL CO., LTD. (the "Company" or the "Controlling Company") and its subsidiary (collectively referred as the "Group") in accordance with Korean IFRS 1110 Consolidated Financial Statements, is as follows:

The Company was established on April 7, 1966, under the Commercial Law of the Republic of Korea, to manufacture and sell steel products. On March 15, 2002, the Company changed its name from Sammi Special Steel Co., Ltd. to BNG Steel Co., Ltd. and later changed its name to HYUNDAI BNG STEEL CO., LTD. on March 11, 2011 with the resolution at the shareholders' general meeting.

On March 24, 1987, the Company listed its stock on the Korea Exchange. As at December 31, 2017, the share capital of the Company amounts to \forall 75,943 million after several capital increases and decreases, and the largest shareholder is Hyundai Steel Co., Ltd. with percentage of ownership of 41.12%.

1.1 Consolidated Subsidiary

Details of the consolidated subsidiary as at December 31, 2017 and 2016, are as follows:

	Location _	Percentage of ownership (%)		Closing	
		2017	2016	month	Main business
HYUNDAI BNG STEEL USA, INC.	USA	100.00	100.00	December	Selling of steel products, management consulting and others

1.2 Summarized Financial Information

Summarized financial information for consolidated subsidiary as at and for the years ended December 31, 2017 and 2016, are as follows:

(in thousands of Korean won)				2017		
Subsidiary	Assets	Liabilities	Equity	Sales	Profit (Loss) for the year	Total comprehensive income
HYUNDAI BNG STEEL USA, INC.	₩ 1,436,197	₩1,279,644	₩156,553	₩ 1,364,930	₩ 86,792	₩ 72,719
(in thousands of Korean won)				2016		
Subsidiary	Assets	Liabilities	Equity	Sales	Profit (Loss) for the year	Total comprehensive income (loss)
HYUNDAI BNG STEEL USA, INC.	₩ 87,223	₩ 3,390	₩ 83,833	₩ 146,687	₩ (151,596)	₩ (119,887)

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

2. Significant Accounting Policies

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

2.1 Basis of Preparation

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

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

The Group's consolidated financial statements have been prepared in accordance with Korean-IFRS. These are the standards, subsequent amendments and related interpretations issued by the International Accounting Standards Board ("IASB") that have been adopted by the Republic of Korea.

The preparation of consolidated financial statements requires the use of certain critical accounting estimates. It also requires management to exercise judgment in the process of applying the Group's accounting policies. The areas involving a higher degree of judgment or complexity, or areas where assumptions and estimates are significant to the consolidated financial statements are disclosed in Note 3.

2.2 Changes in Accounting Policy and Disclosures

(a) New and amended standard adopted by the Group

The Group has applied the following standards and amendments for the first time for their annual reporting period commencing January 1, 2017. The adoption of these amendments did not have any material impact on the financial statements.

- Amendments to Korean IFRS 1007 Statement of Cash Flows

Amendments to Korean IFRS 1007 *Statement of Cash flows* require to provide disclosures that enable users of financial statements to evaluate changes in liabilities arising from financing activities, including both changes arising from cash flows and non-cash flows (Note 34).

- Amendments to Korean IFRS 1012 Income Tax

Amendments to Korean IFRS 1012 clarify how to account for deferred tax assets related to debt instruments measured at fair value. Korean IFRS 1012 provides requirements on the recognition and measurement of current or deferred tax liabilities or assets. The amendments issued clarify the

Notes to the Consolidated Financial Statements

December 31, 2017 and 2016

requirements on recognition of deferred tax assets for unrealized losses, to address diversity in practice.

- Amendments to Korean IFRS 1112 Disclosures of Interests in Other Entities

Amendments to Korean IFRS 1112 clarify when an entity's interest in a subsidiary, a joint venture or an associate is classified as held for sales in accordance with Korean IFRS 1105, the entity is required to disclose other information except for summarized financial information in accordance with Korean IFRS 1112.

(b) New standards and interpretations not yet adopted by the Company

Certain new accounting standards and interpretations that have been published that are not mandatory for annual reporting period commencing January 1, 2017 and have not been early adopted by the Group are set out below.

- Amendments to Korean IFRS 1028 Investments in Associates and Joint Ventures

The amendments clarify that an entity shall make this election separately for each associate of joint venture, at initial recognition of the associate or joint venture. The amendments will be effective for annual periods beginning on or after January 1, 2018, with early adoption permitted. The Group does not expect the amendments to have a significant impact on the financial statements because the Group is not a venture capital organization.

- Amendment to Korean IFRS 1040 Transfers of Investment Property

Paragraph 57 of Korean IFRS 1040 clarifies that a transfer to, or from, investment property, including property under construction, can only be made if there has been a change in use that is supported by evidence, and provides a list of circumstances as examples. The amendment will be effective for annual periods beginning on or after January 1, 2018, with early adoption permitted. The Group does not expect the amendment to have a significant impact on the financial statements.

- Amendments to Korean IFRS 1102 Share-based Payment

Amendments to Korean IFRS 1102 clarify accounting for a modification to the terms and conditions of a share-based payment that changes the classification of the transaction from cash-settled to equity-settled. Amendments also clarify that the measurement approach should treat the terms and conditions of a cash-settled award in the same way as for an equity-settled award. The amendments will be effective for annual periods beginning on or after January 1, 2018, with early adoption permitted. The Group does not expect the amendments to have a significant impact on the financial statements.

- Enactment of Interpretation 2122 Foreign Currency Transaction and Advance Consideration

According to the enactment, the date of the transaction for the purpose of determining the exchange rate to use on initial recognition of the related asset, expense or income (or part of it) is the date on which an entity initially recognizes the non-monetary asset or non-monetary liability arising from the payment or receipt of advance consideration. If there are multiple payments or receipts in advance,

Notes to the Consolidated Financial Statements

December 31, 2017 and 2016

the entity shall determine a date of the transaction for each payment or receipt of advance consideration. The enactment will be effective for annual periods beginning on or after January 1, 2018, with early adoption permitted. The Group does not expect the enactments to have a significant impact on the financial statements.

- Enactment of Korean IFRS 1116 Leases

Korean IFRS 1116 Leases issued on May 22, 2017 is effective for annual periods beginning on or after January 1, 2019, with early adoption permitted. This standard will replace Korean IFRS 1017 Leases, Interpretation 2104 determining whether an Arrangement contains a Lease, Interpretation 2015 Operating Leases-Incentives, and Interpretation 2027 Evaluating the Substance of Transactions Involving the Legal Form of a Lease.

At inception of a contract, the entity shall assess whether the contract is, or contains, a lease. Also, at the date of initial application, the entity shall assess whether the contract is, or contains, a lease in accordance with the standard. However, the entity will not need to reassess all contracts with applying the practical expedient because the entity elected to apply the practical expedient only to contracts entered before the date of initial application.

As practical expedient, the entity elected to apply Korean IFRS only to contracts entered into (or changed) on or after the date of initial application.

For a contract that is, or contains, a lease, the entity shall account for each lease component within the contract as a lease separately from non-lease components of the contract. A lessee is required to recognize a right-of-use asset representing its right to use the underlying leased asset and a lease liability representing its obligation to make lease payments. The lessee may elect not to apply the requirements to short-term lease (a lease term of 12 months or less at the commencement date) and low value assets (e.g. underlying assets below \$ 5,000). In addition, as a practical expedient, the lessee may elect, by class of underlying asset, not to separate non-lease components from lease components, and instead account for each lease component and any associated non-lease components as a single lease component.

Lessee accounting

A lessee shall apply this standard to its leases either:

- retrospectively to each prior reporting period presented applying Korean IFRS 1008 Accounting Policies, Changes in Accounting Estimates and Errors (Full retrospective application); or
- retrospectively with the cumulative effect of initially applying the standard recognized at the date of initial application.

The Group has not yet elected the application method.

The Group did not analyze the financial effects of applying Korean IFRS 1116 as at December 31, 2017.

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

Lessor accounting

The Group has not yet elected the application method and did not analyze the financial effects of applying Korean IFRS 1116 as at December 31, 2017- Enactment of Korean IFRS 1109 *Financial Instruments*

The new standard for financial instruments issued on September 25, 2015 is effective for annual periods beginning on or after January 1, 2018 with early application permitted. This standard will replace Korean IFRS 1039 *Financial Instruments: Recognition and Measurement*. The Group will apply the standards for annual periods beginning on or after January 1, 2018.

The standard requires retrospective application with some exceptions. For example, an entity is not required to restate prior period in relation to classification and measurement (including impairment) of financial instruments. The standard requires prospective application of its hedge accounting requirements for all hedging relationships except the accounting for time value of options and other exceptions.

Korean IFRS 1109 Financial Instruments requires three main areas including: (a) classification and measurement of financial assets on the basis of the entity's business model for managing financial assets and the contractual cash flow characteristics of the financial assets, (b) a new impairment model of financial instruments based on the expected credit losses, and (c) hedge accounting including expansion of the range of eligible hedging instruments and hedged items that qualify for hedge accounting or change of a method of hedge effectiveness assessment.

An effective implementation of Korean IFRS 1109 requires preparation processes including financial impact assessment, accounting policy establishment, accounting system development and the system stabilization. The impact on the Group's financial statements due to the application of the standard is dependent on judgements made in applying the standard, financial instruments held by the Group and macroeconomic variables.

As at December 31, 2017, the Group neither prepared for internal management process nor began to adjust accounting system in relation to implementation of Korean IFRS 1109. Also, the Group did not analyze the financial effects of applying the standard.

(a) Classification and measurement of financial assets

When implementing Korean IFRS 1109, the classification of financial assets will be driven by the Group's business model for managing the financial assets and contractual terms of cash flow. The following table shows the classification of financial assets measured subsequently at amortized cost, at fair value through other comprehensive income and at fair value through profit or loss. If a hybrid contract contains a host that is a financial asset, the classification of the hybrid contract shall be determined for the entire contract without separating the embedded derivative.

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

Business model for the contractual cash flows characteristics	Solely represent payments of principal and interest	All other
Hold the financial asset for the collection of the contractual cash flows	Measured at amortized cost ¹	
Hold the financial asset for the collection of the contractual cash flows and sale	Recognized at fair value through other comprehensive income ¹	Recognized at fair value through profit or loss ²
Hold for sale	Recognized at fair value through profit or loss	

¹ A designation at fair value through profit or loss is allowed only if such designation mitigates an accounting mismatch (irrevocable).

With the implementation of Korean IFRS 1109, the criteria to classify the financial assets at amortized cost or at fair value through other comprehensive income are more strictly applied than the criteria applied with Korean IFRS 1039. Accordingly, the financial assets at fair value through profit or loss may increase by implementing Korean IFRS 1109 and may result an extended fluctuation in profit or loss.

As at December 31, 2017, the Group owns loans and receivables of $\mbox{$W$}$ 211,517 million, financial assets available-for-sales of $\mbox{$W$}$ 1,361 million and financial assets at fair value through profit or loss of $\mbox{$W$}$ 407 million.

According to Korean IFRS 1109, a debt instrument is measured at amortized cost if: a) the objective of the business model is to hold the financial asset for the collection of the contractual cash flows, and b) the contractual cash flows under the instrument solely represent payments of principal and interest. As at December 31, 2017, the Group measured loans and receivables of ₩ 211,517 million at amortized costs.

Based on results from the impact assessment of Korean IFRS 1109, if Korean IFRS 1109 is applied for the above debt instruments classified as financial assets available-for-sale, the Group expects the majority of the financial assets to be measured at fair value through other comprehensive income. The Group has no debt instruments classified as available-for-sale financial assets as at December 31, 2017.

According to Korean IFRS 1109, equity instruments that are not held for trading, the Group can make an irrevocable election at initial recognition to classify the instruments as assets measured at fair value through other comprehensive income, which all subsequent changes in fair value being recognized in other comprehensive income and not recycled to profit or loss. As at December 31, 2017, the Group holds equity instruments of \forall 1,361 million classified as financial assets available-

² Equity investments not held for trading can be recorded in other comprehensive income (irrevocable).

Notes to the Consolidated Financial Statements

December 31, 2017 and 2016

for-sale and there is no amount recycled unrealized gain or loss arose from the equity instruments to profit or loss.

According to Korean IFRS 1109, debt instruments those contractual cash flows do not represent solely payments of principal and interest and held for trading, and equity instruments that are not designated as instruments measured at fair value through other comprehensive income are measured at fair value through profit or loss.

As at December 2017, the Group holds equity instruments classified as financial assets at fair value through profit or loss that amount to \forall 407 million.

(b) Classification and measurement of financial liabilities

Korean IFRS 1109 requires the amount of the change in the liability's fair value attributable to changes in the credit risk to be recognized in other comprehensive income, unless this treatment of the credit risk component creates or enlarges a measurement mismatch. Amounts presented in other comprehensive income are not subsequently transferred to profit or loss.

Under Korean IFRS 1039, all financial liabilities designated at fair value through profit or loss recognized their fair value movements in profit or loss. However, under Korean IFRS 1109, certain fair value movements will be recognized in other comprehensive income and as a result profit or loss from fair value movements may decrease. As at December 31, 2017, the Group did not designated financial liabilities financial liabilities at fair value through profit or loss.

(c) Impairment: financial assets and contract assets

The new impairment model requires the recognition of impairment provisions based on expected credit losses (ECL) rather than only incurred credit losses as is the case under Korean IFRS 1039. It applies to financial assets classified at amortized cost, debt instruments measured at fair value through other comprehensive income, lease receivables, contract assets, loan commitments and certain financial guarantee contracts.

Under Korean IFRS 1109 'expected loss' model, a credit event (or impairment 'trigger') no longer has to occur before credit losses are recognized. The Group will always recognize (at a minimum) 12-month expected credit losses in profit or loss. Lifetime expected losses will be recognized on assets for which there is a significant increase in credit risk after initial recognition.

	Stage ¹	Loss allowance
1	No significant increase in credit risk after initial recognition ²	12-month expected credit losses (expected credit losses that result from those default events on the financial instrument that are possible within 12 months after the reporting date)
2	Significant increase in credit risk after initial recognition	Lifetime expected credit losses (expected credit losses
3	Credit-impaired	that result from all possible default events over the life of the financial instrument)

¹ A loss allowance for lifetime expected credit losses is required for a financial instrument if the credit

Notes to the Consolidated Financial Statements

December 31, 2017 and 2016

risk on that financial instrument has increased significantly since initial recognition. It is also required for contract assets or trade receivables that are not, according to Korean IFRS 1115 *Revenue from Contracts with Customers*, considered to contain a significant financing component. Additionally, the Group can elect an accounting policy of recognizing lifetime expected credit losses for all contract assets and/or all trade receivables, including those that contain a significant financing component.

² If the financial instrument has low credit risk at the end of the reporting period, the Group may assume that the credit risk has not increased significantly since initial recognition.

Under Korean IFRS 1109, the asset that is credit-impaired at initial recognition would recognize all changes in lifetime expected credit losses since the initial recognition as a loss allowance with any changes recognized in profit or loss.

As at December 31, 2017, the Group owns debt investment carried at amortized cost of $\mbox{$\%$}$ 211,517 million (loans and receivables of $\mbox{$\%$}$ 211,517 million). And, the Group recognized loss allowance of $\mbox{$\%$}$ 585 million for these assets.

(d) Hedge accounting

Hedge accounting mechanics (fair value hedges, cash flow hedges and hedge of net investments in a foreign operations) required by Korean IFRS 1039 remains unchanged in Korean IFRS 1109, however, the new hedge accounting rules will align the accounting for hedging instruments more closely with the Group's risk management practices. As a general rule, more hedge relationships might be eligible for hedge accounting, as the standard introduces a more principles-based approach. Korean IFRS 1109 allows more hedging instruments and hedged items to qualify for hedge accounting, and relaxes the hedge accounting requirement by removing two hedge effectiveness tests that are a prospective test to ensure that the hedging relationship is expected to be highly effective and a quantitative retrospective test (within range of 80-125%) to ensure that the hedging relationship has been highly effective throughout the reporting period.

With implementation of Korean IFRS 1109, volatility in profit or loss may be reduced as some items that were not eligible as hedged items or hedging instruments under Korean IFRS 1039 are now eligible under Korean IFRS 1109.

As at December 31, 2017, the Group does not apply the hedge accounting to its assets, liabilities, firm commitments and forecast transactions.

Furthermore, when the Group first applies Korean IFRS 1109, it may choose as its accounting policy choice to continue to apply all of the hedge accounting requirements of Korean IFRS 1039 instead of the requirements of Korean IFRS 1109.

- Enactment of Korean IFRS 1115 Revenue from Contracts with Customers

Korean IFRS 1115 Revenue from Contracts with Customers issued on November 6, 2015 will be effective for annual reporting periods beginning on or after January 1, 2018 with early adoption permitted. This standard replaces Korean IFRS 1018 Revenue, Korean IFRS 1011 Construction Contracts, Interpretation 2031 Revenue-Barter Transactions Involving Advertising Services, Interpretation 2113 Customer Loyalty Programs, Interpretation 2115 Agreements for the Construction

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

of Real Estate and Interpretation 2118 Transfers of assets from customers.

The Group will apply Korean IFRS 1115 *Revenue from Contracts with Customers* within annual reporting periods beginning on or after January 1, 2018, and will elect the modified retrospective approach which will recognize the cumulative impact of initially applying the revenue standard as an adjustment to retained earnings as at January 1 2018, the period of initial application.

Korean IFRS 1018 and other current revenue standard identify revenue as income that arises in the course of ordinary activities of an entity and provides guidance on a variety of different types of revenue, such as, sale of goods, rendering of services, interest, dividends, royalties and construction contracts. However, the new standard is based on the principle that revenue is recognized when control of a good or service transfers to a customer so the notion of control replaces the existing notion of risks and rewards. A new five-step process must be applied before revenue from contract with customers can be recognized:

Identify contracts with customers

Identify the separate performance obligation

Determine the transaction price of the contract

Allocate the transaction price to each of the separate performance obligations, and

Recognize the revenue as each performance obligation is satisfied.

Since September 2017, the Group selected an external accounting firm to prepare for the adoption of Korean IFRS 1115, and analyzed the profit structure of the Group with the help of an accounting firm. Korean IFRS 1115 is expected to affect not only accounting but also overall business practices including product sales strategy and business behavior. Therefore, the Group is training their employees on the changes resulting from the adoption of the new standards, and periodically reports the implementation plans and progress to management.

Based on the Group's circumstances and available information as of December 31, 2017, the impact of the first-time adoption of the Standard is as follows:

(a) Identify performance obligation

The Group is engaged in the production and sales of various steel sheets and is a single operating segment. When applying Korean IFRS 1115, there are separate obligations to perform export sales contracts with customers: (1) sales of products, (2) marine transportation services, and (3) insurance services. The timing of recognizing a Group's revenue may change depending on whether each performance obligation is fulfilled at one time or over a period of time. Since the Group is obligated to provide marine transportation and insurance services to customers during the term of the contract, the Group will recognize these obligations as separate income.

(b) Variable consideration

The Group operates a price compensation system for claims that are filed after delivery of the

Notes to the Consolidated Financial Statements

December 31, 2017 and 2016

product to the customer. A price compensation system correspond to variable consideration in Korean IFRS 1115 and is estimated at the inception of the contract and must be reviewed at a later date. In applying IFRS 1115, the Group will estimate an amount of variable consideration by using the expected value method that the Group expects to better predict the amount of consideration to which it will be entitled and will recognize revenue with the transaction price only to the extent that it is highly probable that a significant reversal in the amount of cumulative revenue recognized will not occur.

2.3 Consolidation

The Group has prepared the consolidated financial statements in accordance with Korean IFRS 1110 *Consolidated Financial Statements*.

(a) Subsidiaries

Subsidiaries are all entities over which the Controlling Company has control. The Controlling Company controls the corresponding investee when it is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee. The consolidation of a subsidiary begins from the date the Controlling Company obtains control of a subsidiary and ceases when the Controlling Company loses control of the subsidiary.

The Group applies the acquisition method to account for business combinations. The consideration transferred is measured at the fair values of the assets transferred, and identifiable assets acquired and liabilities and contingent liabilities assumed in a business combination are initially measured at their fair values at the acquisition date. The Group recognizes any non-controlling interest in the acquiree on an acquisition-by-acquisition basis in the event of liquidation, either at fair value or at the non-controlling interest's proportionate share of the recognized amounts of acquiree's identifiable net assets. All other non-controlling interests are measured at their acquisition-date fair values, unless another measurement basis is required by IFRSs. Acquisition-related costs are expensed as incurred.

Goodwill is recognized as the excess of the aggregate of the consideration transferred, the amount of any non-controlling interest in the acquiree, and the acquisition-date fair value of the acquirer's previously held equity interest in the acquiree over the identifiable net assets acquired. If this consideration is lower than the fair value of the net assets of the subsidiary acquired, the difference is recognized in profit or loss.

Balances of receivables and payables, income and expenses and unrealized gains on transactions between the Group subsidiaries are eliminated. Accounting policies of subsidiaries have been changed where necessary to ensure consistency with the policies adopted by the Group.

(b) Associates

Associates are entities over which the Group has significant influence, and investments in associates are initially recognized at acquisition cost using the equity method. Unrealized gains on transactions between the Group and its associates are eliminated to the extent of the Group's interest in the associates. If there is an objective evidence of impairment for the investment in the associate is

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impaired, the Group recognizes the difference between the recoverable amount of the associate and its book amount as impairment loss.

(c) Joint arrangements

A joint arrangement, wherein two or more parties have joint control, is classified as either a joint operation or a joint venture. A joint operator has rights to the assets, and obligations for the liabilities, relating to the joint operation and recognizes the assets, liabilities, revenues and expenses relating to its interest in a joint operation. A joint venturer has rights to the net assets relating to the joint venture and accounts for that investment using the equity method.

2.4 Foreign Currency Translation

(a) Functional and presentation currency

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

(b) Transactions and balances

Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transactions or valuation where items are re-measured. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at year-end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognized in profit or loss.

Exchange differences arising on non-monetary financial assets and liabilities such as equity instruments at fair value through profit or loss and available-for-sale equity instruments are recognized in profit or loss and included in other comprehensive income, respectively, as part of the fair value gain or loss.

2.5 Financial Assets

(a) Classification and measurement

The Group classifies its financial assets in the following categories: financial assets at fair value through profit or loss, available-for-sale financial assets, loans and receivables, and held-to-maturity financial assets. Regular purchases and sales of financial assets are recognized on trade date.

At initial recognition, financial assets are measured at fair value plus, in the case of financial assets not carried at fair value through profit or loss, transaction costs. Transaction costs of financial assets carried at fair value through profit or loss are expensed. After the initial recognition, available-for-sale financial assets and financial assets at fair value through profit or loss are subsequently carried at fair value. Loans and receivables, and held-to-maturity investments are subsequently carried at amortized cost using the effective interest rate method.

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Changes in fair value of financial assets at fair value through profit or loss are recognized in profit or loss and changes in fair value of available-for-sale financial assets are recognized in other comprehensive income. When the available-for-sale financial assets are sold or impaired, the fair value adjustments recorded in equity are reclassified into profit or loss.

(b) Impairment

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

Impairment of loans and receivables is presented as a deduction in an allowance account. Impairment of other financial assets is directly deducted from their carrying amount. The Group writes off financial assets when the assets are determined to be no longer recoverable.

The objective evidence that a financial asset is impaired includes significant financial difficulty of the issuer or obligor; a delinquency in interest or principal payments over three months; or the disappearance of an active market for that financial asset because of financial difficulties. A decline in the fair value of an available-for-sale equity instrument by significant and a prolonged decline below its cost is also objective evidence of impairment.

(c) Derecognition

If the Group transfers a financial asset and the transfer does not result in derecognition because the Group has retained substantially of all risks and rewards of ownership of the transferred asset due to a recourse in the event the debtor defaults, the Group continues to recognize the transferred asset in its entirety and recognizes a financial liability for the consideration received. The related financial liability is classified as 'other financial liabilities' in the statement of financial position.

(d) Offsetting of financial instruments

Financial assets and liabilities are offset and the net amount reported in the consolidated statements of financial position where there is a legally enforceable right to offset the recognized amounts and there is an intention to settle on a net basis or realize the assets and settle the liability simultaneously. The legally enforceable right must not be contingent on future events and must be enforceable in the normal course of business and in the event of default, insolvency or bankruptcy of the Group or the counterparty.

2.6 Derivative Instruments

Derivatives are initially recognized at fair value on the date when a derivative contract is entered into and are subsequently re-measured at their fair value. Changes in the fair value of the derivatives that are not qualified for hedge accounting are recognized in the statement of comprehensive income within 'other income (expenses)' according to the nature of transactions.

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2.7 Inventories

Inventories are stated at the lower of cost and net realizable value. Cost is determined using the moving-weighted average method except for raw materials in transit.

2.8 Property, Plant and Equipment

Property, plant and equipment is stated at its cost less accumulated depreciation and accumulated impairment losses. Historical cost includes expenditures that is directly attributable to the acquisition of the items.

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

Estimated useful lives

Buildings and Structures 25 - 50 years
Machinery 10 - 20 years
Other 5 - 6 years

The depreciation method, residual values and useful lives of property, plant and equipment are reviewed at the end of each reporting period and, if appropriate, accounted for as changes in accounting estimates.

2.9 Borrowing Costs

Borrowing costs incurred in the acquisition or construction of a qualifying asset are capitalized in the period when it is prepared for its intended use, and investment income earned on the temporary investment of borrowings made specifically for the purpose obtaining a qualifying asset is deducted from the borrowing costs eligible for capitalization during the period. Other borrowing costs are recognized as expenses for the period in which they are incurred.

2.10 Intangible Assets

Intangible assets are stated at cost, which includes acquisition cost, production cost and other costs required to prepare the asset for its intended use. Intangible assets are included in goodwill, membership rights and other intangible assets. Membership rights are regarded as intangible assets with indefinite useful life and not amortized because there is no foreseeable limit to the period over which the assets are expected to be utilized. Intangible assets with definite useful life that are amortized using the straight-line method over their estimated useful lives, are as follows:

Estimated useful lives

Other intangible assets 5 years

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The assets' residual values and useful lives are reviewed, and adjusted if appropriate, at the end of each reporting period. For intangible assets with indefinite useful lives, useful lives are reviewed annually, and if appropriate to change, it is treated as changes in accounting estimate.

2.11 Investment Property

Property held to earn rentals or for capital appreciation or both is classified as investment property. Investment property is measured initially at its cost. After recognition as an asset, investment property is carried at cost less accumulated depreciation and impairment losses. Investment property, except for land, is depreciated using the straight-line method over their useful lives from 25 to 50 years.

2.12 Impairment of Non-financial Assets

Goodwill or intangible assets with indefinite useful lives are not subject to amortization and are tested annually for impairment. Assets that are subject to amortization are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognized for the amount by which the asset's carrying amount exceeds its recoverable amount. The recoverable amount is the higher of an asset's fair value less costs to sell and value in use. Non-financial assets, other than goodwill, that suffered impairment are reviewed for possible reversal of the impairment at the end of each reporting period.

2.13 Financial Liabilities

(a) Classification and measurement

Financial liabilities at fair value through profit or loss are financial instruments held for trading. Financial liabilities are classified in this category if incurred principally for the purpose of repurchasing them in the near term. Derivatives that are not designated as hedges or bifurcated from financial instruments containing embedded derivatives are also categorized as held-for-trading.

The Group classifies non-derivative financial liabilities, except for financial liabilities at fair value through profit or loss, financial guarantee contracts and financial liabilities that arise when a transfer of financial assets does not qualify for derecognition, as financial liabilities carried at amortized cost and presented as 'trade and other payables' and 'other financial liabilities' in the statement of financial position.

(b) Derecognition

Financial liabilities are removed from the consolidated statement of financial position when it is extinguished, for example, when the obligation specified in the contract is discharged, cancelled or expired or when the terms of an existing financial liability are substantially modified.

2.14 Current and Deferred Tax

The tax expense for the period consists of current and deferred tax. Current and deferred tax is recognized in profit or loss, except to the extent that it relates to items recognized in other

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comprehensive income or directly in equity. In this case, the tax is also recognized in other comprehensive income or directly in equity, respectively.

The tax expense is calculated on the basis of the tax laws enacted or substantively enacted at the end of the reporting period.

Management periodically evaluates tax policies that are applied in tax returns in which applicable tax regulation is subject to interpretation. The Group recognizes current income tax on the basis of the amount expected to be paid to the tax authorities.

Deferred tax is recognized for temporary differences arising between the tax bases of assets and liabilities and their carrying amounts as expected tax consequences at the recovery or settlement of the carrying amounts of the assets and liabilities. However, deferred tax assets and liabilities are not recognized if they arise from initial recognition of an asset or liability in a transaction other than a business combination that at the time of the transaction affects neither accounting nor taxable profit or loss. Deferred tax assets are recognized only to the extent that it is probable that future taxable profit will be available against which the deductible temporary differences can be utilized.

Deferred tax liability is recognized for taxable temporary differences associated with investments in subsidiaries, associates, and interests in joint ventures, except to the extent that the Group is able to control the timing of the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future. In addition, deferred tax asset is recognized for deductible temporary differences arising from such investments to the extent that it is probable the temporary difference will reverse in the foreseeable future and taxable profit will be available against which the temporary difference can be utilized.

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

2.15 Employee Benefits

The Group operates defined benefit plans.

A defined benefit plan is a pension plan that is not a defined contribution plan. Typically defined benefit plans define an amount of pension benefit that an employee will receive on retirement, usually dependent on one or more factors such as age, years of service and compensation. The liability recognized in the statement of financial position in respect of defined benefit pension plans is the present value of the defined benefit obligation at the end of the reporting period less the fair value of plan assets. The defined benefit obligation is calculated annually by independent actuaries using the projected unit credit method. The present value of the defined benefit obligation is determined by discounting the estimated future cash outflows using interest rates of high-quality corporate bonds and that have terms to maturity approximating to the terms of the related pension obligation. The remeasurements of the net defined benefit liability are recognized in other comprehensive income.

If any plan amendments, curtailments, or settlements occur, past service costs or any gains or

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losses on settlement are recognized as profit or loss for the year.

Certain entities within the Group provide long-term employee benefits that are entitled to employees with service period for 10 years and above. The expected costs of these benefits are accrued over the period of employment using the same accounting methodology as used for defined benefit pension plans. The Group recognizes service cost, net interest on other long-term employee benefits and remeasurements as profit or loss for the year. These liabilities are valued annually by an independent qualified actuary.

2.16 Provisions

Provisions are measured at the present value of the expenditures expected to be required to settle the obligation and the increase in the provision due to passage of time is recognized as interest expense.

2.17 Revenue Recognition

Revenue is measured at the fair value of the consideration received or receivable for the sale of goods or rendering of services arising from the normal course of the Group. It is stated as net of value added taxes, returns, rebates and discounts, and after elimination of inter-company transactions.

The Group recognizes revenue when the amount of revenue can be reliably measured; it is probable that future economic benefits will flow to the Group; and when specific criteria have been met for each of the Group's activities, as described below. The Group bases its estimate on historical results, taking into consideration the type of customer, the type of transaction and the specifics of each arrangement.

(a) Sales of goods

Revenue from the sale of goods is recognized when products are delivered to the purchaser.

(b) Interest income

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

(c) Dividend income

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

2.18 Lease

A lease is an agreement, whereby the lessor conveys to the lessee, in return for a payment or series of payments, the right to use an asset for an agreed period of time. Leases in which a significant portion of the risks and rewards of ownership are not transferred to the Group are classified as operating leases. Payments made under operating leases are charge to profit or loss on a straight-

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line basis over the period of lease.

2.19 Government Grants

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

2.20 Operating Segments

Information of each operating segment is reported in a manner consistent with the business segment reporting provided to the chief operating decision-maker (Note 6). The chief operating decision-maker, who is responsible for allocating resources and assessing performance of the operating segments, has been identified as the Board of Directors that makes strategic decisions.

2.21 Approval of Issuance of the Financial Statements

The issuance of the December 31, 2017 financial statements of the Group was approved by the Board of Directors on January 29, 2018, which is subject to change with approval at the annual shareholder's meeting.

3. Critical Accounting Estimates and Assumptions

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

(a) Estimated impairment of goodwill

The Group tests annually whether goodwill has suffered any impairment. The recoverable amounts of cash-generating units have been determined based on value-in-use calculations.

(b) Income taxes

The Group is operating in numerous countries and the income generated from these operations is subject to income taxes based on tax laws and interpretations of tax authorities in numerous jurisdictions. There are many transactions and calculations for which the ultimate tax determination is uncertain.

If certain portion of the taxable income is not used for investments, increase in wages, or dividends in accordance with the Tax System For Recirculation of Corporate Income, the Group is liable to pay additional income tax calculated based on the tax laws. The new tax system is effective for three years from 2016. Accordingly, the measurement of current and deferred income tax is affected by the

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tax effects from the new system. As the Group's income tax is dependent on the investments, increase in wages and dividends, there exists uncertainty with regard to measuring the final tax effects.

(c) Fair value of financial instruments

The fair value of financial instruments that are not traded in an active market is determined by using valuation techniques. The Group uses its judgment to select a variety of methods and make assumptions that are mainly based on market conditions existing at the end of each reporting period (Note 5).

(d) Net defined benefit liability

The present value of net defined benefit liability depends on a number of factors that are determined on an actuarial basis using a number of assumptions including the discount rate (Note 22).

4. Financial Risk Management

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

Risk management is carried out by the finance team and the sales support team in accordance with the Group's policies and they identify, evaluate and hedge financial risks through intimate cooperation with other teams within the Group.

(a) Market risk

i) Foreign exchange risk

The Group's payments on import, denominated in foreign currencies, exceed foreign currency denominated sales. Export sales are mainly transacted in US dollars, and certain Euro and the Japanese yen received are in general immediately exchanged into US dollars, and used for payments for imports. The Group is exposed to foreign exchange risk arising from various currency exposures, primarily with respect to the US dollar.

The Group's primarily foreign exchange risk management policy is to match the balance of foreign currency denominated receivables and payables in order to mitigate the associated foreign exchange risk arising. Secondarily, the Group manages foreign exchange risk to the level acceptable in comparison to the Group's financial performances.

With the objective to realize sound and stable financial structure, the Group ensures effective foreign exchange risk management by exchanging information on foreign exchange risk management with financial institutions and establishing foreign currency management controls prohibiting speculative foreign currency transactions.

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At the end of the reporting periods, if the currency had weakened/strengthened by 5% against the US dollar and the Euro with all other variables held constant, pre-tax profit for the years would have been affected as follows:

(in thousands of Korean won)	2017	2016
Financial assets denominated in foreign currencies	₩ 30,943,461	₩ 14,526,416
Financial liabilities denominated in foreign currencies	53,384,398	46,195,830
Impact on pre-tax profit if exchange rates increase by 5%	(1,122,047)	(1,583,471)
Impact on pre-tax profit if exchange rates decrease by 5%	1,122,047	1,583,471

ii) Price risk

The Group is insignificantly exposed to price risk of equity securities classified as available-for-sale securities in consolidated statement of financial position. Equity securities held by the Group are not publicly traded.

If the price had increased or decreased by 10%, the Group's equity would have been increased or decreased by \ 105 million and \ 73 million as at December 31, 2017 and 2016, respectively.

iii) Interest rate risk

Interest rate risk may be defined as a risk that fair value recognized in the statement of financial position or future interest income/expense cash flows from investing and financing activities fluctuate because of changes in market interest rates and for the Group, such interest rate risk mainly arises in relation to variable interest borrowings. In order to mitigate uncertainty associated with the changes in interest rate and minimize finance costs, the Group maintains certain portion of borrowings at fixed rate. The Group also manages its cash flow interest rate risk by using floating-to-fixed interest rate swaps.

As at December 31, 2017, the total borrowings (including bonds payable) of \ 108,690 million at fixed rate are not exposed to interest rate risk.

(b) Credit risk

Credit risk arises from the Group's regular transactions and investment activities when the counterparty fails to meet requirements. To manage those risks, the Group regularly re-evaluates financial creditability of the counterparty based on their financial position and past experiences, and holds collateral rights for the majority of the counterparty. In addition, the Group receives reports on recovery of financial assets and has follow up policies.

Credit risk arises from cash and cash equivalents, derivative financial instruments and deposits with banks and financial institutions. For banks and financial institutions, only independently rated parties

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with a minimum rating of 'A' are accepted. When opening a new deposits account which is open to credit risk, such as trust deposits, approvals of the director of finance department and CEO must be obtained.

As at December 31, 2017, the maximum exposure to credit risk of cash and cash equivalents (excluding cash on hand amounting to \forall 31 million), trade and other receivables (including non-current receivables), other financial assets (including non-current financial assets, excluding available-for-sale equity instruments amounting to \forall 1,361 million) are equal to their carrying amount.

(c) Liquidity risk

The Group is exposed to liquidity risks which may arise when financial liabilities are settled by delivering cash or other financial instruments. The Group maintains short-term and long-term liquidity management plans, constantly monitors difference between budget and the actual amount of cash outflows that the Group is able to match the term structure of financial liabilities and financial assets.

The analyses of the Group's liquidity risk as at December 31, 2017 and 2016, are as follows. The amounts disclosed in the table are the contractual undiscounted cash flows and include interest amount at face value.

(in thousands of Korean won)	2017								
	L	ess than 1 year		ween 1 year nd 5 years	Ove	r 5 years		Total	
Trade and other payables	₩	75,491,555	₩	50,000	₩	225,230	₩	75,766,785	
Other financial liabilities		80,122,178		30,121,140		-		110,243,318	
Derivative financial liabilities ¹		983,822						983,822	
	₩	156,597,555	₩	30,171,140	₩	225,230	₩	186,993,925	

¹ The fair value of derivative financial liabilities amounting to ₩ 984 million is included in the 3-month period bucket because its contractual maturity is not necessary to understand the timing of the cash flow of the derivatives. These derivative contracts are managed on a fair value basis rather than the maturity.

(in thousands of Korean won)	2016								
	L	ess than 1 year		veen 1 year d 5 years	Over 5 y	ears		Total	
Trade and other payables	₩	55,768,437	₩	200,000	₩	-	₩	55,968,437	
Other financial liabilities		75,336,941		61,263,867				136,600,808	
	₩	131,105,378	₩	61,463,867	₩	-	₩	192,569,245	

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(d) Capital risk management

The Group's objective in managing capital is to maintain a sound capital structure. The Group monitors capital on the basis of the debt ratio. This ratio is calculated as total liabilities divided by total capital.

(in thousands of Korean won)	December 31, 2017	December 31, 2016		
Total liabilities (a)	₩ 219,532,457	₩ 220,538,479		
Total capital (b)	365,034,077	347,204,257		
Debt ratio (a/b)	60.1 %	63.5 %		

5. Fair Value

5.1 Fair Value of Financial Instruments by Category

Carrying amount and fair value of financial instruments by category as at December 31, 2017 and 2016, are as follows:

(in thousands of Korean won)	20)17	2016			
-	Carrying amount	Fair value	Carrying amount	Fair value		
Financial assets						
Other financial assets(non-current)¹ ₩	1,336,679	₩ 1,336,679 ₩	∀ 921,869	₩ 921,869		
Derivative financial assets	407,115	407,115	1,637,992	1,637,992		
Financial liabilities						
Other financial liabilities(non-current)	29,939,571	29,870,045	59,806,575	59,606,645		
Derivative financial liabilities	983,822	983,822	-	-		

¹ Equity instruments that do not have a quoted price in an active market are measured at cost because their fair value cannot be measured reliably and excluded from the fair value disclosures.

Financial instruments excluding the above financial assets and liabilities whose carrying amount is a reasonable approximation of fair value are excluded from the fair value disclosures.

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5.2 Financial Instruments Measured at Cost

Details of financial instruments measured at cost as at December 31, 2017 and 2016, are as follows:

(in thousands of I	Korean won)	won) 2017			016
Other financial as	ssets(non-current)				
Unlisted stocks	S&M MEDIA CO., LTD.	₩	20,000	₩	20,000
Offisted Stocks	The Kyungnam Shinmun Co., Ltd. ¹	4,435			4,435
		₩	24,435	₩	24,435

¹ An impairment loss of ₩ 26 million is recognized in 2016.

The above financial instruments are measured at cost because these instruments do not have a quoted prices in an active market and fair values cannot be measured reliably.

5.3 Fair Value Hierarchy

Items that are measured at fair value or for which the fair value is disclosed are categorized by the fair value hierarchy levels, and the defined levels are as follows:

- Quoted prices (unadjusted) in active markets for identical assets or liabilities (Level 1).
- All inputs other than quoted prices included in level that are observable, either directly that is, prices or indirectly that is, derived from prices for the asset or liability (Level 2).
- Unobservable inputs for the asset or liability (Level 3).

Fair value hierarchy classifications of the financial assets and financial liabilities that are measured at fair value as at December 31, 2017 and 2016, are as follows:

(in thousands of Korean won)	2017							
	Leve	1	Level 2	Level 3	Total			
Recurring fair value measurements								
Other financial assets, non-current	₩	- ₩	- +	₩ 1,336,679 ₩	1,336,679			
Derivative financial assets		-	-	407,115	407,115			
Derivative financial liabilities		-	983,822	-	983,822			
(in thousands of Korean won)	2016							
	Leve	l 1	Level 2	Level 3	Total			
Recurring fair value measurements								
Other financial assets, non-current	₩	- ₩	₹	- ₩ 921,869	₩ 921,869			
Derivative financial assets		-	1,637,99	2 -	1,637,992			

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5.4 Valuation Techniques and the Inputs

Valuation techniques and inputs used in levels 2 and 3 fair value measurements, are as follows:

(in thousands of Korean won)			2017					
	F	Fair value Level		Valuation techniques	Level 3 Inputs			
Other financial assets Equity investments	₩	1,336,679	3	Profit approach	Discount rate			
Derivative financial assets								
Embedded derivatives ¹ Derivative financial liabilities		407,115	3	Profit approach	Price volatility			
Currency forward		983,822	2	Profit approach	N/A			

¹ Amount equivalent to conversion right of redeemable convertible preference shares acquired during 2017.

(in thousands of Korean won)		2016							
	Fair value Level		Valuation techniques	Level 3 Inputs					
Other financial assets Equity investments	₩	921,869	3	Profit approach	Discount rate				
Derivative financial assets Currency forward		1,637,992	2	Profit approach	N/A				

5.5 Valuation Processes for Fair Value Measurements Categorized Within Level 3

The Group operates an accounting team that performs the fair value measurements required for financial reporting purposes, including level 3 fair values. This team reports directly to the chief financial officer (CFO) and discusses valuation processes and results with the CFO at least once every quarter in line with the Group's quarterly reporting dates.

5.6 Sensitivity analysis for Recurring Fair Value Measurements Categorized Within Level 3

Sensitivity analysis of financial instruments is performed to measure favorable and unfavorable changes in the fair value of financial instruments which are affected by the unobservable parameters, using a statistical technique. When the fair value is affected by more than two input parameters, the most favorable or most unfavorable amounts are presented.

The results of the sensitivity analysis for the effect on pre-tax profit or loss from changes in inputs for each financial instrument that categorized as Level 3 and subject to sensitivity analysis, are as follows:

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(in thousands of Korean won)	2017					
			Unfa	vourable		
	Favourable	e changes	changes			
Financial assets						
Other financial assets 1	₩	747,094	₩	(643,315)		
Embedded derivatives ²		1,133		(14)		

¹ Changes in their fair value are calculated by increasing or decreasing discount rate by 0.5 %, which is a significant unobservable input.

² Changes in their fair value are calculated by increasing or decreasing price volatility by 10 %, which is a significant unobservable input.

(in thousands of Korean won)	2016						
	Favourable	Unfavourable changes					
Financial assets							
Other financial assets 1	₩	730,503	₩	(631,813)			

¹ Changes in their fair value are calculated by increasing or decreasing stock price by 5 %, which is a significant unobservable input.

6. Operating Segment Information

6.1 Segment Information

According to Korean IFRS 1108 *Operating Segments*, the Group is categorized as a single reportable segment; therefore, a separate segment reporting is not required. Reporting reviewed regularly by the chief operating decision-maker is measured in a manner consistent with the consolidated financial statements.

6.2 Entity-wide disclosures

Revenue by geographical regions for the years ended December 31, 2017 and 2016, are as follows:

(in thousands of Korean won)		2017	2017		
Domestic sales	₩	581,414,840	₩	529,408,342	
Export		144,439,028		131,399,245	
	₩	725,853,868	₩	660,807,587	

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Details of external customers, who contribute more than 10% of the Group's total revenue for the years ended December 31, 2017 and 2016, are as follows:

(in thousands of Korean won)	2017		2016			
	Revenue	Ratio	Revenue	Ratio		
Customer 1	₩ 100,921,577	13.9 %	₩ 107,444,123	16.3 %		
Customer 2	78,251,992	10.8 %	74,570,499	11.3 %		

7. Financial Instruments by Category

Categorizations of financial instruments as at December 31, 2017 and 2016, are as follows:

(in thousands of Korean won)	2017						
		Loans and receivables		Financial assets at fair value through profit or loss	Available- for- sale financial assets	Total	
				Held for trading			
Cash and cash equivalents	₩	60,443,261	₩	-	₩ -	₩ 60,443,261	
Trade and other receivables (current)		137,811,656		-	-	137,811,656	
Trade and other receivables (non-current)		1,638,187		-	-	1,638,187	
Other financial assets (current)		15,432		-	-	15,432	
Other financial assets (non-current)		11,608,513		-	1,361,114	12,969,627	
Derivative financial assets				407,115		407,115	
	₩	211,517,049	₩	407,115	₩ 1,361,114	₩ 213,285,278	
(in thousands of Korean won)					2017		
(in thousands of Korean won)		Financial liabilities at fai value through profit or loss		Financial liabilities carried at amortized cost	2017 Other ¹	Total	
(in thousands of Korean won)		liabilities at fai value through		liabilities carried at		Total	
(in thousands of Korean won) Trade and other payables (current)	₩	liabilities at fai value through profit or loss Held for trading	·	liabilities carried at		Total ₩ 75,491,555	
		liabilities at fai value through profit or loss Held for trading	·	liabilities carried at amortized cost	Other ¹		
Trade and other payables (current)		liabilities at fai value through profit or loss Held for trading	·	liabilities carried at amortized cost ₩ 75,491,555	Other ¹	₩ 75,491,555	
Trade and other payables (current) Trade and other payables (non-current)		liabilities at fai value through profit or loss Held for trading	·	liabilities carried at amortized cost ₩ 75,491,555 275,230	Other¹ ₩ -	₩ 75,491,555 275,230	
Trade and other payables (current) Trade and other payables (non-current) Other financial liabilities (current)		liabilities at fai value through profit or loss Held for trading	- - -	liabilities carried at amortized cost	Other¹ ₩ -	₩ 75,491,555 275,230 78,750,578	
Trade and other payables (current) Trade and other payables (non-current) Other financial liabilities (current) Other financial liabilities (non-current)		liabilities at fai value through profit or loss Held for trading	- - - - - 22	liabilities carried at amortized cost	Other¹	₩ 75,491,555 275,230 78,750,578 29,939,571	

¹ Financial liabilities that are not subject to the categorizations such as financial liabilities related to transfer transactions, which is not qualified for derecognition.

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

(in thousands of Korean won)					20	16		
	Loans and receivables		Financial assets at fair value through profit or loss		Available- for- sale financial assets			Total
			Held fo	r trading				
Cash and cash equivalents	₩	50,139,721	₩	_	₩	-	₩	50,139,721
Trade and other receivables (current)		148,905,872		_		-		148,905,872
Trade and other receivables (non-current)		1,158,053		_		-		1,158,053
Other financial assets (current)		10,282		_		-		10,282
Other financial assets (non-current)		4,907,355		_		946,304		5,853,659
Derivative financial assets		<u>-</u>		1,637,992		<u>-</u>		1,637,992
	₩	205,121,283	₩	1,637,992	₩	946,304	₩	207,705,579
(in thousands of Korean won)			2016					
(in thousands of Notean wort)				s carried at	_			
Trade and other payables (current)	₩			55,768,43	37			
Trade and other payables (non-current)				200,00	00			
Other financial liabilities (current)				73,368,15	54			
Other financial liabilities (non-current)				59,806,57	75			
	₩			189,143,16	66			

Notes to the Consolidated Financial Statements

December 31, 2017 and 2016

Net gains or losses on each category of financial instruments for the years ended December 31, 2017 and 2016, are as follows:

(in thousands of Korean won)		2017		2016
Available-for-sale financial assets				
Gain (loss) on valuation (other comprehensive income)	₩	11,993	₩	564,965
Loss on disposal		-		(734,675)
Impairment loss		-		(25,565)
Dividend income		1,000		1,000
Loans and receivables				
Interest income		827,405		951,902
Gain on foreign currency translation		31,830		177,899
Loss on foreign currency translation		(835,871)		(2,666)
Gain on foreign currency transactions		1,240,399		2,118,044
Loss on foreign currency transactions		(2,869,391)	(1,784,161)
Loss on disposal		(329,233)		(58,275)
Impairment on receivables		(239,657)		(196,178)
Financial liabilities carried at amortized cost				
Interest expense		(3,262,323)	(3,855,370)
Gain on foreign currency translation		1,907,144		-
Loss on foreign currency translation		-	(2,332,468)
Gain on foreign currency transactions		4,304,630		3,262,733
Loss on foreign currency transactions		(1,409,398)	(2,630,925)
Financial asset held for trading				
Gain (loss) on derivative instruments valuation (profit or loss)		(193,675)		1,642,564
Loss on derivative instruments transactions (profit or loss)		-		(534,443)
Financial liabilities held for trading				
Loss on derivative instruments valuation (profit or loss)		(983,822)		-
Loss on derivative instruments transactions (profit or loss)		(1,551,726)		

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

8. Credit Quality of Financial Assets

The credit quality of financial assets that are neither past due nor impaired can be assessed by reference to external credit ratings or to historical information about counterparty default rates as at December 31, 2017 and 2016:

Trade receivables Counterparties with external credit rating W 7,940,118 W 23,148,056 AA+ 15,570,454 19,654,990 AA 496,872 515,559 AA- 289,587 853 A+ 268,319 111,883 A 6,945,736 5,740,554 A- 214,275 2,134,859 BBB+ 703,276 1,155,421 BBB 593,258 3,828,046 BBB- 593,258 3,828,046 BBB- 7,514,332 6,575,125 BB+ 4,978,143 2,341,938 BB 16,072,014 14,379,889 BB- 36,519,544 33,276,162 B+ 4,388,614 7,620,442 B 228,586 3,709,158 B- 1,570,539 3,502,561 CCC+ 9,339,027 13,035,303 CCC+ 131,439 - C+ 76,686 68,014 Counterparties without external credit r	(in thousands of Korean won)	2017		2016	
AAA+ W 7,940,118 W 23,148,056 AA+ 15,570,454 19,654,990 AA 496,872 515,559 AA- 289,587 853 A+ 268,319 111,883 A 6,945,736 5,740,554 A- 214,275 2,134,859 BBB+ 703,276 1,155,421 BBB 593,258 3,828,046 BBB- 7,514,332 6,575,125 BB+ 4,978,143 2,341,938 BB 16,072,014 14,379,889 BB- 36,519,544 33,276,162 B+ 4,388,614 7,620,442 B 228,586 3,709,158 B- 1,570,539 3,502,561 CCC+ 9,339,027 13,035,303 CCC- - 7,884 CC+ 131,439 - CC+ 131,439 W 140,806,697 Counterparties without external credit rating W 96,840 W - <td>Trade receivables</td> <td></td> <td></td> <td></td> <td></td>	Trade receivables				
AA+ 15,570,454 19,654,990 AA 496,872 515,559 AA- 289,587 853 A+ 268,319 111,883 A 6,945,736 5,740,554 A- 214,275 2,134,859 BBB+ 703,276 1,155,421 BBB 593,258 3,828,046 BBB- 7,514,332 6,575,125 BB+ 4,978,143 2,341,938 BB 16,072,014 14,379,889 BB- 36,519,544 33,276,162 B+ 4,388,614 7,620,442 B 228,586 3,709,158 B- 1,570,539 3,502,561 CCC+ 9,339,027 13,035,303 CCC- - 76,686 68,014 C+ 76,686 68,014 W 113,840,819 W 140,806,697 Counterparties without external credit rating W 96,840 W - Group 2² 2,498,648 2,651,304 Group 3³ 10,413,388 W 1,141,398 <	Counterparties with external credit rating				
AA 496,872 515,559 AA- 289,587 853 A+ 268,319 111,883 A 6,945,736 5,740,554 A- 214,275 2,134,859 BBB+ 703,276 1,155,421 BBB 593,258 3,828,046 BBB- 7,514,332 6,575,125 BB+ 4,978,143 2,341,938 BB 16,072,014 14,379,889 BB- 36,519,544 33,276,162 B+ 4,388,614 7,620,442 B 228,586 3,709,158 B- 1,570,539 3,502,561 CCC+ 9,339,027 13,035,303 CCC- 7,884 CC+ 131,439 - C+ 76,686 68,014 W 113,840,819 W 140,806,697 Counterparties without external credit rating W 96,840 W - Group 2² 2,498,648 2,651,304 Group 3³ 11,141,398 1,141,398 W 19,450,425 W	AAA+	₩	7,940,118	₩	23,148,056
AA- 289,587 853 A+ 268,319 111,883 A 6,945,736 5,740,554 A- 214,275 2,134,859 BBB+ 703,276 1,155,421 BBB 593,258 3,828,046 BBB- 7,514,332 6,575,125 BB+ 4,978,143 2,341,938 BB 16,072,014 14,379,889 BB- 36,519,544 33,276,162 B+ 4,388,614 7,620,442 B 228,586 3,709,158 B- 1,570,539 3,502,561 CCC+ 9,339,027 13,035,303 CCC- 7,884 CC+ 131,439 - CC+ 131,439 - CC+ 76,686 68,014 W 113,840,819 W 140,806,697 Counterparties without external credit rating W 96,840 W - Group 2² 2,498,648 2,651,304 Group 3³ 1,141,398 - - W 19,450,425 W	AA+		15,570,454		19,654,990
A+ 268,319 111,883 A 6,945,736 5,740,554 A- 214,275 2,134,859 BBB+ 703,276 1,155,421 BBB 593,258 3,828,046 BBB- 7,514,332 6,575,125 BB+ 4,978,143 2,341,938 BB 16,072,014 14,379,889 BB- 36,519,544 33,276,162 B+ 4,388,614 7,620,442 B 228,586 3,709,158 B- 1,570,539 3,502,561 CCC+ 9,339,027 13,035,303 CCC+ 131,439 - C+ 76,686 68,014 CC+ 131,840,819 W 140,806,697 Counterparties without external credit rating W 96,840 W - Group 2² 2,498,648 2,651,304 Group 3³ 16,854,937 1,141,398 W 19,450,425 W 3,792,702	AA		496,872		515,559
A 6,945,736 5,740,554 A- 214,275 2,134,859 BBB+ 703,276 1,155,421 BBB 593,258 3,828,046 BBB- 7,514,332 6,575,125 BB+ 4,978,143 2,341,938 BB 16,072,014 14,379,889 BB- 36,519,544 33,276,162 B+ 4,388,614 7,620,442 B 228,586 3,709,158 B- 1,570,539 3,502,561 CCC+ 9,339,027 13,035,303 CCC- 7,884 CC+ 131,439 - C+ 76,686 68,014 W 113,840,819 W 140,806,697 Counterparties without external credit rating W 96,840 W - Group 2² 2,498,648 2,651,304 Group 3³ 16,854,937 1,141,398 W 19,450,425 W 3,792,702	AA-		289,587		853
A- 214,275 2,134,859 BBB+ 703,276 1,155,421 BBB 593,258 3,828,046 BBB- 7,514,332 6,575,125 BB+ 4,978,143 2,341,938 BB 16,072,014 14,379,889 BB- 36,519,544 33,276,162 B+ 4,388,614 7,620,442 B 228,586 3,709,158 B- 1,570,539 3,502,561 CCC+ 9,339,027 13,035,303 CCC- 7,884 CC+ 131,439 - C+ 76,686 68,014 W 113,840,819 W 140,806,697 Counterparties without external credit rating W 96,840 W - Group 2² 2,498,648 2,651,304 Group 3³ 16,854,937 1,141,398 W 19,450,425 W 3,792,702	A+		268,319		111,883
BBB+ 703,276 1,155,421 BBB 593,258 3,828,046 BBB- 7,514,332 6,575,125 BB+ 4,978,143 2,341,938 BB 16,072,014 14,379,889 BB- 36,519,544 33,276,162 B+ 4,388,614 7,620,442 B 228,586 3,709,158 B- 1,570,539 3,502,561 CCC+ 9,339,027 13,035,303 CCC- - 7,884 CC+ 131,439 - C+ 76,686 68,014 W 113,840,819 W 140,806,697 Counterparties without external credit rating W 96,840 W - Group 2¹ 2,498,648 2,651,304 Group 3³ 16,854,937 1,141,398 W 19,450,425 W 3,792,702	A		6,945,736		5,740,554
BBB 593,258 3,828,046 BBB- 7,514,332 6,575,125 BB+ 4,978,143 2,341,938 BB 16,072,014 14,379,889 BB- 36,519,544 33,276,162 B+ 4,388,614 7,620,442 B 228,586 3,709,158 B- 1,570,539 3,502,561 CCC+ 9,339,027 13,035,303 CCC- - 7,884 CC+ 131,439 - C+ 76,686 68,014 W 113,840,819 ₩ 140,806,697 Counterparties without external credit rating W 96,840 ₩ - Group 2² 2,498,648 2,651,304 Group 3³ 16,854,937 1,141,398 W 19,450,425 ₩ 3,792,702	A-		214,275		2,134,859
BBB- 7,514,332 6,575,125 BB+ 4,978,143 2,341,938 BB 16,072,014 14,379,889 BB- 36,519,544 33,276,162 B+ 4,388,614 7,620,442 B 228,586 3,709,158 B- 1,570,539 3,502,561 CCC+ 9,339,027 13,035,303 CCC+ 131,439 - C+ 76,686 68,014 C+ 76,686 68,014 W 113,840,819 ₩ 140,806,697 Counterparties without external credit rating W 96,840 W - Group 2² 2,498,648 2,651,304 C,651,304 C,651,304<	BBB+		703,276		1,155,421
BB+ 4,978,143 2,341,938 BB 16,072,014 14,379,889 BB- 36,519,544 33,276,162 B+ 4,388,614 7,620,442 B 228,586 3,709,158 B- 1,570,539 3,502,561 CCC+ 9,339,027 13,035,303 CCC- - 7,884 CC+ 131,439 - C+ 76,686 68,014 W 113,840,819 ₩ 140,806,697 Counterparties without external credit rating Group 2¹ 2,498,648 2,651,304 Group 3³ 16,854,937 1,141,398 W 19,450,425 ₩ 3,792,702	BBB		593,258		3,828,046
BB 16,072,014 14,379,889 BB- 36,519,544 33,276,162 B+ 4,388,614 7,620,442 B 228,586 3,709,158 B- 1,570,539 3,502,561 CCC+ 9,339,027 13,035,303 CCC- - 7,884 CC+ 131,439 - C+ 76,686 68,014 W 113,840,819 ₩ 140,806,697 Counterparties without external credit rating Group 1¹ ₩ 96,840 ₩ - Group 2² 2,498,648 2,651,304 Group 3³ 16,854,937 1,141,398 W 19,450,425 ₩ 3,792,702	BBB-		7,514,332		6,575,125
BB- 36,519,544 33,276,162 B+ 4,388,614 7,620,442 B 228,586 3,709,158 B- 1,570,539 3,502,561 CCC+ 9,339,027 13,035,303 CCC- - 7,884 CC+ 131,439 - C+ 76,686 68,014 W 113,840,819 ₩ 140,806,697 Counterparties without external credit rating Group 1¹ W 96,840 ₩ - Group 2² 2,498,648 2,651,304 Group 3³ 16,854,937 1,141,398 W 19,450,425 ₩ 3,792,702	BB+		4,978,143		2,341,938
B+ 4,388,614 7,620,442 B 228,586 3,709,158 B- 1,570,539 3,502,561 CCC+ 9,339,027 13,035,303 CCC- - 7,884 CC+ 131,439 - C+ 76,686 68,014 W 113,840,819 ₩ 140,806,697 Counterparties without external credit rating Group 1¹ W 96,840 ₩ - Group 2² 2,498,648 2,651,304 Group 3³ 16,854,937 1,141,398 W 19,450,425 ₩ 3,792,702	BB		16,072,014		14,379,889
B 228,586 3,709,158 B- 1,570,539 3,502,561 CCC+ 9,339,027 13,035,303 CCC 7,884 CC+ 131,439 - 7 C+ 76,686 68,014 W 113,840,819 ₩ 140,806,697 Counterparties without external credit rating Group 1¹ ₩ 96,840 ₩ - Group 2² 2,498,648 2,651,304 Group 3³ 16,854,937 1,141,398 W 19,450,425 ₩ 3,792,702	BB-		36,519,544		33,276,162
B-	B+		4,388,614		7,620,442
CCC+ 9,339,027 13,035,303 CCC- - 7,884 CC+ 131,439 - C+ 76,686 68,014 W 113,840,819 ₩ 140,806,697 Counterparties without external credit rating Group 1¹ ₩ 96,840 ₩ - Group 2² 2,498,648 2,651,304 Group 3³ 16,854,937 1,141,398 ₩ 19,450,425 ₩ 3,792,702	В		228,586		3,709,158
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	B-		1,570,539		3,502,561
CC+ 131,439 - C+ 76,686 68,014 ₩ 113,840,819 ₩ 140,806,697 Counterparties without external credit rating W 96,840 ₩ - Group 2² 2,498,648 2,651,304 Group 3³ 16,854,937 1,141,398 ₩ 19,450,425 ₩ 3,792,702	CCC+		9,339,027		13,035,303
C+ 76,686 68,014 ₩ 113,840,819 ₩ 140,806,697 Counterparties without external credit rating Group 1¹ ₩ 96,840 ₩ - Group 2² 2,498,648 2,651,304 Group 3³ 16,854,937 1,141,398 ₩ 19,450,425 ₩ 3,792,702	CCC-		-		7,884
W 113,840,819 ₩ 140,806,697 Counterparties without external credit rating Group 1¹ ₩ 96,840 ₩ - Group 2² 2,498,648 2,651,304 Group 3³ 16,854,937 1,141,398 ₩ 19,450,425 ₩ 3,792,702	CC+		131,439		-
Counterparties without external credit rating Group 1¹ ₩ 96,840 ₩ - Group 2² 2,498,648 2,651,304 Group 3³ 16,854,937 1,141,398 ₩ 19,450,425 ₩ 3,792,702	C+		76,686		68,014
Group 1^1 \forall $96,840$ \forall $-$ Group 2^2 $2,498,648$ $2,651,304$ Group 3^3 $16,854,937$ $1,141,398$ \forall $19,450,425$ \forall $3,792,702$		₩	113,840,819	₩	140,806,697
Group 2^2 2,498,648 2,651,304 Group 3^3 16,854,937 1,141,398 $\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$	Counterparties without external credit rating				
Group 3³ 16,854,937 1,141,398 ₩ 19,450,425 ₩ 3,792,702	Group 1 ¹	₩	96,840	₩	-
₩ 19,450,425 ₩ 3,792,702	Group 2 ²		2,498,648		2,651,304
₩ 19,450,425 ₩ 3,792,702	Group 3 ³		16,854,937		1,141,398
₩ 133,291,244 ₩ 144,599,399		₩	19,450,425	₩	3,792,702
		₩	133,291,244	₩	144,599,399

¹ New customers/related parties (less than 6 months).

² Existing customers/related parties (more than 6 months) with no defaults in the past.

³ Existing customers/related parties secured with letter of credit and without default risk.

Notes to the Consolidated Financial Statements

December 31, 2017 and 201

(in thousands of Korean won)	2017			2016
Cash and cash equivalents ¹				
AAA	₩	4,907,447	₩	17,595,768
AA+		35,516,921		22,555,555
AA-		1,987,658		1,968,410
A+		18,000,000		8,000,000
	₩	60,412,026	₩	50,119,733

¹ The difference from carrying amount of cash and cash equivalents in the consolidated statements of financial position represents cash on hand.

(in thousands of Korean won)	2017		2016	
Long-term financial instruments				
AAA	₩	2,000	₩	5,500
AA+		2,500		-
	₩	4,500	₩	5,500
	· ·			

(in thousands of Korean won)	2017		2016	
Long-term loans ¹ Group 2	₩	240.000	₩	349.000

¹ The Group provides loans to its employees as support for employees' housing and rent. In relation to the loan, the Group holds severance benefits and guarantees insurances of the related employees as collateral.

(in thousands of Korean won)	2	2017	2016		
Deposits provided					
Group 2	₩	6,364,013	₩	4,552,855	

Notes to the Consolidated Financial Statements

December 31, 2017 and 2016

(in thousands of Korean won)		2017		2016		2016
Other receivables						
Counterparties with external credit rating						
AAA+	₩		645,905	₩		1,318
AA+			-			566
AA			13,900			7,833
AA-			-			316
A-			636			1,308
BBB			50,701			25,740
BB+			40,423			44,606
BB			7,153			305
BB-			119,433			23,801
B+			355,306			171,940
В			448			126,578
B-			8,884			-
CCC+			141,296			26,550
CCC	_		165	_		
	_	₩	1,384,250	_	₩	430,861
Counterparties with no external credit rating						
Group 2	₩		49,510	₩		-
	₩		49,510	₩		-
	₩ _		1,433,760	₩		430,861
(in thousands of Korean won)			2017		2	2016
Accrued income						
AAA		₩	-		₩	750
AA+			13,468			5,080
AA-			2,211			841
A+			3,526			679
		₩	19,205		₩	7,350

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

(in thousands of Korean won)	2017		2016		
Investment bonds					
BB-	₩	5,000,000	₩		-

9. Transfer of Financial Assets

Under factoring arrangement, the Group transferred trade receivables at a discount to the financial institutions for the year ended December 31, 2017. The Group may retain an obligation to compensate a financial institution for debtors' failure to make payment when they become due, an obligation known as a 'recourse obligation'. Recourse obligations related to the sales of receivables with recourse are accounted for as collateralized borrowings (Note 20).

(in thousands of Korean won)		2017			
Carrying amount of assets	₩	11,350,561	₩		-
Carrying amount of the associated liabilities		(11,350,561)			-

The Group transferred trade receivables to financial institutions for \forall 74,426 million and USD 17,150,714.79 and derecognized the trade receivables from the financial statements as substantially all the risks and rewards are transferred. In the course of transfer, the Company recognized a loss on disposal for \forall 329 million.

10. Restricted Financial Instruments

Details of restricted financial instruments as at December 31, 2017 and 2016, are as follows:

(in thousands of Korean won)	2017	2016
Special deposits (Long-term financial instruments)	₩ 4,500	₩ 5,500

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

11. Trade and Other Receivables

Details of trade and other receivables as at December 31, 2017 and 2016, consist of the following:

(in thousands of Korean	f Korean			2016			
won)	Receivables	Provision for impairment	Carrying amount	Receivables	Provision for impairment	Carrying amount	
Current							
Trade receivables ¹	₩136,650,393	₩ (291,702)	₩136,358,691	₩148,872,935	₩ (405,275)	₩148,467,660	
Other receivables	1,462,426	(28,666)	1,433,760	459,527	(28,666)	430,861	
Accrued income	19,205		19,205	7,350		7,350	
	₩138,132,024	₩ (320,368)	₩137,811,656	₩149,339,812	₩ (433,941)	₩148,905,871	
Non-current							
Trade receivables ²	1,903,000	(264,813)	1,638,187	1,268,750	(110,697)	1,158,053	
	₩140,035,024	₩ (585,181)	₩139,449,843	₩150,608,562	₩ (544,638)	₩150,063,924	

¹ The Group has transferred trade receivables amounting to ₩ 11,351 million to Kookmin Bank and another financial institution in exchange for cash for the year ended December 31, 2017. The Group may retain an obligation to compensate for debtors' failure to make payment when they become due; therefore, the transaction has been accounted for as a collateralized borrowing (Note 20).

The aging analyses of trade and other receivables as at December 31, 2017 and 2016, are as follows:

(in thousands of Korean won)	2017		2017			2016
Receivables not past due	₩	133,291,244	₩	144,599,399		
Past due but not impaired ¹						
Less than 3 months		4,870,365		4,228,816		
3 to 6 months		-		696,431		
6 to 12 months		53,949		162,145		
Over 12 months		46,133		49,619		
		4,970,447		5,137,011		
Impaired ²						
Over 6 months		291,702		405,275		
	₩	138,553,393	₩	150,141,685		

¹ Trade receivables past due but not impaired relate to a number of independent customers with no recent history of default. Trade receivables past due which either collateral and/or guarantee is obtained is not deemed impaired.

² Provision of trade receivables (non-current) is the amount after reflecting present value.

² The amount of the provision was ₩ 292 million as at December 31, 2017 (2016: ₩ 405 million).

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

Changes in provision for impairment for the years ended December 31, 2017 and 2016, are as follows:

(in thousands of Korean won)		2017	2016
Beginning	₩	544,638 ₩	974,258
Provision for impaired receivables during the year		239,657	196,178
Trade receivables written off		-	(279,059)
Other receivables written off		-	(32,849)
Unwinding of discount		(199,114)	(313,890)
Ending	₩	585,181 ₩	544,638

The Group was provided collateral and payment guarantees of \forall 41,730 million for credit enhancement of trade receivables by customers.

12. Derivative Financial Instruments

Details of derivative financial instrument as at December 31, 2017 and 2016, are as follows:

(in thousands of Korean won)		2017			2016			
	Asse	t	Li	iability		Asset	Liability	
Currency forward	₩	-	₩	983,822	₩	1,637,992	₩	-
Embedded derivatives 1	40	7,115		_		_		_

¹ Amount equivalent to conversion rights of redeemable convertible preference shares that the Group acquired during 2017.

13. Other Financial Assets

Details of other financial assets as at December 31, 2017 and 2016, are as follows:

(in thousands of Korean won)	2017		2016	
Current				
Other quick assets	₩	15,432	₩	10,282
Non-current				
Long-term financial assets		4,500		5,500
Available-for-sale securities		1,361,114		946,304
Loans		240,000		349,000
Deposits received		6,364,013		4,552,855
Investment bonds		5,000,000		
Sub-total		12,969,627		5,853,659
	₩	12,985,059	₩	5,863,941

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

None of other financial assets are impaired or overdue, and the Group does not hold any collateral.

14. Other Current Assets

Details of other current assets as at December 31, 2017 and 2016, are as follows:

(in thousands of Korean won)	2	2017	2016		
Advance payments	₩	733,506	₩	942,171	
Prepaid expenses		121,853		103,989	
	₩	855,359	₩	1,046,160	

15. Inventories

Details of inventories as at December 31, 2017 and 2016, are as follows:

(in thousands of	in thousands of 2017						
Korean won)	Amount before valuation		Valuat	ion allowance	Net		
Merchandise	₩	16,944,333	₩	(754,254)	₩	16,190,079	
Finished goods		45,348,187		(2,887,142)		42,461,045	
Work-in-process		17,809,274		(792,231)		17,017,043	
Raw materials		35,899,935		(1,100,583)		34,799,352	
Supplies		16,088,656		-		16,088,656	
Materials in transit		6,193,826		<u>-</u>		6,193,826	
	₩	138,284,211	₩	(5,534,210)	₩	132,750,001	
(in thousands of				2016			
Korean won)	Amount	before valuation	Valuat	ion allowance		Net	
Merchandise	₩	10,522,594	₩	(620,585)	₩	9,902,009	
Finished goods		27,583,325		(1,267,353)		26,315,972	
Work-in-process		19,217,237		(909,168)		18,308,069	
Raw materials		30,736,809		(1,236,125)		29,500,684	
Supplies		21,212,434		-		21,212,434	
Materials in transit		7,454,850		<u>-</u>		7,454,850	
	₩	116,727,249	₩	(4,033,231)	₩	112,694,018	

The cost of inventories recognized as expense and included in 'cost of sales' amounts to \forall 576,357 million in 2017 (2016: \forall 496,081 million).

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

Changes in allowance for loss on inventory valuation for the years ended December 31, 2017 and 2016, are as follows:

(in thousands of Korean won)		2017		2016
Beginning	₩	4,033,231	₩	6,367,307
Loss on valuation (Reversal)		1,500,979		(2,334,076)
Ending	₩	5,534,210	₩	4,033,231

16. Property, Plant and Equipment

Details of property, plant and equipment as at December 31, 2017 and 2016, are as follows:

(in thousands of Korean won)				2017			
	Land	Buildings and Structures	Machinery	Others	Machinery in transit	Construction in- progress	Total
Acquisition cost Accumulated depreciation and	₩ 41,098,680	₩ 61,642,411	₩ 305,407,615	₩ 11,178,741	₩ 4,218,232	₩ 1,012,953	₩ 424,558,632
impairment losses	<u> </u>	(19,694,343)	(215,541,312)	(8,299,825)		<u>-</u>	(243,535,480)
	₩ 41,098,680	₩ 41,948,068	₩ 89,866,303	₩ 2,878,916	₩ 4,218,232	₩ 1,012,953	₩ 181,023,152
(in thousands of Korean won)				2016			
	Land	Buildings and Structures	Machinery	Others	Machinery in transit	Construction in- progress	Total
Acquisition cost Accumulated depreciation and	₩ 40,963,634	₩ 61,134,761	₩ 311,089,767	₩ 11,555,185	₩ 20,560	₩ 524,662	₩ 425,288,569
impairment losses		(18,213,811)	(206,393,857)	(8,242,055)			(232,849,723)
	₩ 40,963,634	₩ 42,920,950	₩ 104,695,910	₩ 3,313,130	₩ 20,560	₩ 524,662	₩ 192,438,846

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

Changes in property, plant and equipment for the years ended December 31, 2017 and 2016, are as follows:

(in thousands of				2017			
Korean won)		Buildings and			Machinery in	Construction in-	
	Land	Structures	Machinery	Others	transit	progress	Total
Beginning	₩ 40,963,634	₩42,920,950	₩ 104,695,910	₩ 3,313,130	₩ 20,560	₩ 524,662	₩ 192,438,846
Acquisition	-	1,676	1,023,407	892,102	4,993,786	4,144,174	11,055,145
Reclassification ¹	135,046	525,705	4,167,713	-	(796,114)	(3,655,883)	376,467
Disposal	-	(1)	(1,844,566)	(52,128)	-	-	(1,896,695)
Depreciation		(1,500,262)	(18,176,161)	(1,274,188)			(20,950,611)
Ending	₩ 41,098,680	₩41,948,068	₩ 89,866,303	₩ 2,878,916	₩4,218,232	₩ 1,012,953	₩ 181,023,152

¹ Reclassification from investment property and reclassification to inventories.

(in thousands of				2016			
Korean won)		Buildings and			Machinery in	Construction in-	
	Land	Structures	Machinery	Others	transit	progress	Total
Beginning	₩ 40,963,634	₩44,202,530	₩ 121,629,227	₩ 4,404,302	₩1,804,359	₩ 949,185	₩ 213,953,237
Acquisition	-	629	339,210	344,906	2,709,717	2,979,790	6,374,252
Reclassification ¹	-	260,816	7,299,083	38,000	(4,493,516)	(3,404,313)	(299,930)
Disposal	-	(3)	(2,519,665)	(200,393)	-	-	(2,720,061)
Depreciation	-	(1,489,046)	(18,659,485)	(1,273,685)	-	-	(21,422,216)
Impairment loss		(53,976)	(3,392,460)				(3,446,436)
Ending	₩ 40,963,634	₩42,920,950	₩ 104,695,910	₩ 3,313,130	₩ 20,560	₩ 524,662	₩ 192,438,846

¹ Reclassification to inventories.

Depreciation expense of \forall 20,086 million (2016: \forall 20,428 million) and \forall 865 million (2016: \forall 994 million) has been included in 'cost of sales' and 'selling and administrative expenses', respectively.

17. Investment Property

Details of investment property as at December 31, 2017 and 2016, are as follows:

(in thousands of Korean won)	2017								
	Land	Building	Total						
Acquisition cost Accumulated depreciation and	₩ 22,088,083	₩ 7,593,391	₩ 29,681,474						
impairment losses		(3,155,324)	(3,155,324)						
	₩ 22,088,083	₩ 4,438,067	₩ 26,526,150						

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

(in thousands of Korean won)	2016							
	Land	Building	Total					
Acquisition cost Accumulated depreciation and	₩ 22,223,129	₩ 7,867,677	₩ 30,090,806					
impairment losses	<u> </u>	(3,020,258)	(3,020,258)					
	₩ 22,223,129	₩ 4,847,419	₩ 27,070,548					

Changes in investment property for the years ended December 31, 2017 and 2016, are as follows:

(in thousands of Korean won)	2017						
	Land		В	uilding	Total		
Beginning	₩	22,223,129	₩	4,847,419	₩	27,070,548	
Reclassification		(135,046)		(246,462)		(381,508)	
Depreciation				(162,890)		(162,890)	
Ending	₩	22,088,083	₩	4,438,067	₩	26,526,150	
(in thousands of Korean won)				2016			
		Land	В	uilding		Total	
Beginning	₩	22,223,129	₩	5,010,308	₩	27,233,437	
Reclassification		-		-		-	
Depreciation				(162,889)		(162,889)	

Rental income from investment property for the year ended December 31, 2017, is $\mbox{$\,\raisebox{1.5pt}{\times}}\ 1,388$ million (2016: $\mbox{$\,\raisebox{1.5pt}{\times}}\ 1,219$ million), and operating expenses (including repairs and maintenance) directly related to the investment property is $\mbox{$\,\raisebox{1.5pt}{\times}}\ 291$ million (2016: $\mbox{$\,\raisebox{1.5pt}{\times}}\ 220$ million). The Group holds no investment property that does not generate rental income.

As at December 31, 2017, the fair value of investment property amounts to \forall 58,696 million (2016: \forall 60,975 million).

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

18. Intangible Assets

Details of intangible assets as at December 31, 2017 and 2016, are as follows:

(in thousands of Korean won)	2017							
	Goodwill	Memberships	Others	Total				
Acquisition cost Accumulated amortization and	₩ 3,957,673	₩ 13,965,881	₩ 4,235,628	₩ 22,159,182				
impairment losses		<u>-</u> _	(3,699,464)	(3,699,464)				
	₩ 3,957,673	₩ 13,965,881	₩ 536,164	₩ 18,459,718				
(in thousands of Korean won)		2	016					
	Goodwill	Memberships	Others	Total				
Acquisition cost Accumulated amortization and	₩ 3,957,673	₩ 13,506,066	₩ 3,970,807	₩ 21,434,546				
impairment losses			(3,516,866)	(3,516,866)				
	₩ 3,957,673	₩ 13,506,066	₩ 453,941	₩ 17,917,680				

Changes in intangible assets for the years ended December 31, 2017 and 2016, are as follows:

2017				
Goodwill	Memberships	(Others	Total
₩ 3,957,673	₩ 13,506,066	₩	453,941	₩ 17,917,680
-	1,059,815		264,821	1,324,636
-	(600,000)		-	(600,000)
			(182,598)	(182,598)
₩ 3,957,673	₩ 13,965,881	₩	536,164	₩ 18,459,718
2016				
Goodwill	Memberships	(Others	Total
₩ 3,957,673	₩ 13,180,866	₩	1,174,389	₩ 18,312,928
-	325,200		-	325,200
			(720,448)	(720,448)
₩ 3,957,673	₩ 13,506,066	₩	453,941	₩ 17,917,680
	₩ 3,957,673 - - - ₩ 3,957,673 Goodwill ₩ 3,957,673 -	Goodwill Memberships ₩ 3,957,673 ₩ 13,506,066 - 1,059,815 - (600,000) ₩ 3,957,673 ₩ 13,965,881 Goodwill Memberships ₩ 3,957,673 ₩ 13,180,866 - 325,200	Goodwill Memberships (₩ 3,957,673 ₩ 13,506,066 ₩ - 1,059,815 - (600,000) ₩ 3,957,673 ₩ 13,965,881 ₩ 2016 Goodwill Memberships (₩ 3,957,673 ₩ 13,180,866 ₩ - 325,200	Goodwill Memberships Others ₩ 3,957,673 ₩ 13,506,066 ₩ 453,941 - 1,059,815 264,821 - (600,000) - - (182,598) ₩ 536,164 ₩ 3,957,673 ₩ 13,965,881 ₩ 536,164 W 3,957,673 ₩ 13,180,866 ₩ 1,174,389 - 325,200 - (720,448)

Amortization expense is included in 'selling and administrative expense' in the consolidated statement of comprehensive income.

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

19. Trade Payables and Other Liabilities

Trade payables and other liabilities as at December 31, 2017 and 2016, are as follows:

(in thousands of Korean won)		2017		2016
Current				
Trade payables	₩	54,804,194	₩	39,742,183
Other payables		4,532,591		2,948,085
Accrued expenses		15,725,370		12,714,768
Deposits received		429,400		363,400
	₩	75,491,555	₩	55,768,436
Non-Current				
Other payables	₩	50,000	₩	200,000
Accrued expenses		225,230		-
		275,230		200,000
	₩	75,766,785	₩	55,968,436

20. Other Financial Liabilities

Details of other financial liabilities as at December 31, 2017 and 2016, are as follows:

(in thousands of Korean won)		2017		2016
Current				
Short-term borrowings	₩	48,776,847	₩	43,383,088
Current portion of bonds		29,973,731		29,985,066
	₩	78,750,578	₩	73,368,154
Non-current				
Bonds		29,939,571		59,806,575
	₩	108,690,149	₩	133,174,729

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

Details of borrowings from financial institution as at December 31, 2017 and 2016, are as follows:

				Interest rate (%)Am	ount
(in thousands (Korean won)	Craditor	Purpose	Maturity	Dec. 31, 2017	2017	2016
	Kookmin Bank and 1 other	Transfer of trade receivables ¹	2018.1.1 ~ 2018.11.26	0.92 ~ 2.82	₩11,350,561	₩ -
Short-term borrowings	Hana Bank and 5 others	Usance	2018.1.16 ~ 2018.5.29	1.64 ~ 2.11	27,426,286	30,383,088
	KDB	General	2018.5.12	2.58	10,000,000	8,000,000
	Woori Bank	General	-	•	- <u> </u>	5,000,000
					₩ 48,776,847	₩43,383,088

¹ Trade receivables are pledged as collateral (Note 11).

Details of bonds as at December 31, 2017 and 2016, are as follows:

				Annual interest rate (%)	Am	ount
(in thousands (won)	of Korean	Issuance	Maturity	Dec. 31, 2017	2017	2016
199 th	Fixed rate in Korean won	-	-	-	₩ -	₩ 30,000,000
200 th	Fixed rate in Korean won	2015.6.23	2018.6.23	2.52	30,000,000	30,000,000
201 th	Fixed rate in Korean won	2016.2.26	2019.2.26	2.61	30,000,000	30,000,000
					₩ 60,000,000	₩ 90,000,000
			Current porti	on of bonds	30,000,000	30,000,000
			Discount on	bonds	(26,269)	(14,934)
					₩ 29,973,731	₩ 29,985,066
			Non-current	bonds	30,000,000	60,000,000
			Discount on	bonds	(60,429)	(193,425)
					₩ 29,939,571	₩ 59,806,575

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

21. Other Current Liabilities

Other current liabilities as at December 31, 2017 and 2016, are as follows:

(in thousands of Korean won)		2017		2016
Advance receipt from customers	₩	285,342	₩	213,010
Withholdings		999,310		1,105,535
Value added tax withheld		521,797		1,794,418
	₩	1,806,449	₩	3,112,963

22. Net Defined Benefit Liabilities

Details of net defined benefit liabilities recognized in the consolidated statements of financial position as at December 31, 2017 and 2016, are as follows:

(in thousands of Korean won)		2017		2016
Present value of funded defined benefit obligations	₩	35,300,590	₩	32,061,294
Present value of unfunded defined benefit obligations		120,124		15,551
		35,420,714		32,076,845
Fair value of plan assets ¹		(19,829,489)		(18,030,013)
	₩	15,591,225	₩	14,046,832

¹ Contribution to the national pension fund of \forall 5 million (2016: \forall 6 million) is included in the fair value of plan assets.

Changes in the defined benefit liabilities for the years ended December 31, 2017 and 2016, are as follows:

(in thousands of Korean won)		2017		2016
Beginning	₩	32,076,845	₩	30,417,392
Current service cost		3,737,616		4,270,837
Interest expense		873,181		813,151
Payments		(1,681,184)		(2,398,036)
Remeasurements:				
Actuarial gain arising from changes in financial				
assumptions		(957,688)		(134,683)
Actuarial loss(gain) arising from experience adjustments		1,364,046		(582,270)
Transfer		7,898		(309,546)
Ending	₩	35,420,714	₩	32,076,845

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

Changes in the fair value of plan assets for the years ended December 31, 2017 and 2016, are as follows:

(in thousands of Korean won)	2017		2016	
Beginning	₩	18,030,013	₩	14,602,023
Interest income		496,590		394,842
Remeasurements:				
Return on plan assets		(124,625)		(61,570)
Contributions of employers		3,528,522		3,306,080
Benefit payments		(2,101,011)		(211,362)
Ending	₩	19,829,489	₩	18,030,013

Plan assets as at December 31, 2017 and 2016, consist of:

(in thousands of Korean won)	20	017	2016		
	Amount	Composition(%)	Amount	Composition(%)	
Time deposits	₩ 19,824,928	100	₩ 18,023,756	100	
Cash and cash					
equivalents	-	-	542	-	
Contribution to national					
pension plan	4,561		5,715		
	₩ 19,829,489	100	₩ 18,030,013	100	

The principal actuarial assumptions for the years ended December 31, 2017 and 2016, are as follows:

	2017	2016
Discount rate ¹	3.12 %	2.78 %
Rate of future salary increases	5.00 %	5.00 %
Rate of retirement	1.41 %	1.45 %

¹ Discount rate is determined by reference to market yields at the end of every reporting period, on high quality corporate bond (unsecured publicly-subscribed corporate bond with ratings of AA+). Yields at maturity for the bonds which matches the average estimated timing of the pension payments was applied.

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

The sensitivity of the defined benefit obligations as at December 31, 2017, to changes in the principal actuarial assumptions is:

	Changes in principal assumptions	Impact on amount of liability
Discount rate	1% increase/decrease	7.30% decrease/ 8.40% increase
Rate of future salary increases	1% increase/decrease	8.30% increase/ 7.30% decrease

The above sensitivity analyses are based on a change in an assumption while holding all other assumptions constant. In practice, this is unlikely to occur, and changes in some of the assumptions may be correlated. The sensitivity of the defined benefit obligation to changes in principal actuarial assumptions is calculated using the projected unit credit method, the same method applied when calculating the defined benefit obligations presented in the consolidated statement of financial position.

The methods and types of assumptions used in preparing the sensitivity analysis was not changed compared to the previous period.

Expected maturity analysis of undiscounted pension benefits as at December 31, 2017, is as follows:

(in thousands of Korean won)	Less than 1 year	Between 1 and 2 years	Between 2 and 5 years	Over 5 years		
Benefit payments	₩ 2,883,467	₩ 3,066,994	₩ 8,612,122	₩ 33,126,975	₩	47,689,558

The weighted average duration of the defined benefit obligations is 8.85 years.

23. Tax Expense and Deferred Tax

Income tax expense for the years ended December 31, 2017 and 2016, consists of:

(in thousands of Korean won)	2017		2016	
Ourself town				
Current tax:				
Current tax on profits for the year	₩	9,567,167	₩	8,618,249
Adjustments in respect of prior years		1,939,249		160,671
		11,506,416		8,778,920
Deferred tax:				
Income taxes due to changes in temporary difference		(2,677,915)		(1,541,079)
Income tax expense	₩	8,828,501	₩	7,237,841

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

The tax on the Group's profit before tax differs from the theoretical amount that would arise using the weighted average tax rate applicable to profits of consolidated entities as follows:

(in thousands of Korean won)	Korean won) 2017			2016
Profit before tax	₩	28,593,086	₩	29,113,897
Tax at domestic tax rates applicable to profits in the respective countries		6,605,003		6,725,310
Tax effects of:				
Expenses not deductible for tax purposes		437,646		398,754
Tax credit		(3,043)		(40,863)
Adjustment in respect of prior years		1,939,249		160,671
Changes in deferred tax due to adjustments of prior years		(412,312)		-
Additional tax		301,322		-
Others		(39,364)		(6,031)
Income tax expense	₩	8,828,501	₩	7,237,841
Effective tax rate		30.9%		24.9%

The tax effect relating to components of other comprehensive income for the years ended December 31, 2017 and 2016, is as follows:

(in thousands of Korean won)	2017					
	Ве	efore tax	Ta	x effect	Α	fter tax
Loss on valuation of available-for-sale securities	₩	15,595	₩	(3,602)	₩	11,993
Changes in equity due to investment in associates		(349,102)		80,643		(268,459)
Remeasurements of net defined benefit liability		(530,983)		122,657		(408,326)
	₩	(515,388)	₩	119,055	₩	(396,333)
(in thousands of Korean won)				2016		
	Ве	fore tax	Та	x effect	A	fter tax
						504.005
Loss on valuation of available-for-sale securities	₩	734,675	₩	(169,710)	₩	564,965
Loss on valuation of available-for-sale securities Changes in equity due to investment in associates	₩	734,675 (349,102)	₩	(169,710) 80,643	₩	(268,459)
	₩	,	₩	, ,	₩	•

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

The analysis of deferred tax assets and liabilities as at December 31, 2017 and 2016, is as follows:

(in thousands of Korean won)	2017	2016
Deferred tax assets		
To be recovered after more than 12 months	₩ 13,223,480	₩ 12,065,253
To be recovered within 12 months	3,030,992	1,348,339
	16,254,472	13,413,592
Deferred tax liabilities		
To be recovered after more than 12 months	(4,583,161)	(4,163,613)
To be recovered within 12 months	(4,436)	(380,074)
	(4,587,597)	(4,543,687)
Deferred tax assets (liabilities), net	₩ 11,666,875	₩ 8,869,905

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

Changes in deferred tax assets and liabilities for the years ended December 31, 2017 and 2016, without taking into consideration the offsetting of balances within the same tax jurisdiction, are as follows:

(in thousands of Korean)
won)	

won)	2017							
	ı	Beginning		ement of t or loss		Other prehensive income		Ending
Deferred tax liabilities								
Plan assets	₩	(4,163,613)	₩	(444,734)	₩	28,788	₩	(4,579,559)
Valuation of derivative financial instruments		(378,376)		378,376		_		_
Interest income		(1,698)		(2,738)		_		(4,436)
Valuation of available-		(1,000)		(=,:)				(1,122)
for-sale financial assets		-		-		(3,602)		(3,602)
		(4,543,687)		(69,096)		25,186		(4,587,597)
Deferred tax assets								
Defined benefit obligation		7,408,431		678,831		93,869		8,181,131
Depreciation		1,585,807		(59,016)		-		1,526,791
Impairment loss		718,321		(429,829)		-		288,492
Valuation on inventories		931,677		346,726		-		1,278,403
Accrued expenses		416,663		1,063,925		-		1,480,588
Long-term deposits		147,840		-		-		147,840
Other provision		2,057,695		498,412		-		2,556,107
Valuation of derivatives								
instruments		-		272,002		-		272,002
Other		147,158		375,960				523,118
		13,413,592		2,747,011		93,869	-	16,254,472
	₩	8,869,905	₩	2,677,915	₩	119,055	₩	11,666,875

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

(in thousands of Korean won)	2016					
,	Beginning	Statement of profit or loss	Other comprehensive income	Ending		
Deferred tax liabilities						
Plan assets	₩ (3,371,283) ₩ (806,553)	₩ 14,223	₩ (4,163,613)		
Investment in associates	(262,192)	181,549	80,643	-		
Valuation of derivative financial instruments		- (378,376)	-	(378,376)		
Interest income	(1,449)	(249)		(1,698)		
	(3,634,924	(1,003,629)	94,866	(4,543,687)		
Deferred tax assets						
Defined benefit obligation	6,650,677	923,370	(165,616)	7,408,431		
Depreciation	1,652,827	(67,020)	-	1,585,807		
Impairment loss	293,371	424,950	-	718,321		
Valuation on inventories	1,470,848	(539,171)	-	931,677		
Valuation on available- for-sale financial assets	169,710) -	(169,710)	-		
Accrued expenses	380,776	35,887	-	416,663		
Long-term deposits	147,840	-	-	147,840		
Tax loss carryforwards	295,001	(295,001)	-	-		
Tax credit carryforwards	28,761	(28,761)	-	-		
Other provision		2,057,695	-	2,057,695		
Other	114,399	32,759		147,158		
	11,204,210	2,544,708	(335,326)	13,413,592		
	₩ 7,569,286	<u>₩ 1,541,079</u>	₩ (240,460)	₩ 8,869,905		

Deferred income tax assets are recognized for tax loss carryforwards and tax credit carryforwards when the realization of the related tax benefit through future taxable income is probable. There are no deferred income tax assets that the Group has not recognized.

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

24. Commitments and Contingencies

Details of commitments with financial institutions as at December 31, 2017, are as follows:

(in thousands of Korean won and in USD)		Currency	Limit	Currency	Used
Notes receivable discounting	Hana Bank	KRW	38,000,000	KRW	25,127,279
Trade receivable factoring	Kookmin Bank and 2 others	KRW	20,000,000	KRW	2,169,280
Purchase financing	Standard Chartered First Bank Korea	KRW	10,000,000	KRW	-
General financing	NH Bank and 6 others	KRW	95,000,000	KRW	10,000,000
Import financing	Korea EXIM Bank and the other	USD	60,000,000	USD	-
Purchasing card	Hyundai Card Co., Ltd.,	USD	3,000,000	USD	3,000,000
Opening of L/C and others ¹	Woori Bank and 8 others	USD	179,999,627	USD	75,675,319

¹ The Group is provided with payment guarantees for the opening of letters of credit from financial institutions.

Details of significant litigations as at December 31, 2017, are as follows:

(in thousands of Korean won)	Counterparty	Contents		Amount	Outcome
As a defendant					
Busan High Court (Changwon)	339 employees	Ordinary wages	₩	6,088,723	Second trial in progress
Chang-won local court	309 employees	Ordinary wages		309,000	First trial in progress

The Group recognizes provision of \forall 11,065 million (2016: \forall 8,908 million) in relation to these lawsuits. The final payables may differ from the provision based on the outcome of the lawsuit (Note 25).

The Group is provided with collateral and payment guarantees of ₩ 41,730 million for credit enhancement of trade receivables from customers.

The Group is provided with payment guarantees of \forall 1,463 million by Seoul Guarantee Insurance Corp in relation to approval and warranties.

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

25. Other Provision

(in thousands of Korean won)		Provision for g	general v	wages	
		2017		2016	
Beginning	₩	8,907,772	₩		-
Additional provisions		2,157,628			8,907,772
Ending	₩	11,065,400	₩		8,907,772

At the end of the reporting period, lawsuits have been filed by employees against the Group asserting that the Group has to pay the employees in relation to general wages issues(\forall 6,398 million). The Group recognizes provision of \forall 11,065 million. The final payables may differ from the provision based on the outcome of the lawsuit.

26. Share Capital

Details of share capital as at December 31, 2017, are as follows:

	Ordinary shares	Preferred shares
Shares to be issued	120,000,000 shares	40,000,000 shares
Par value	₩ 5,000	₩ 5,000
Outstanding shares	15,078,811 shares	109,852 shares
Share capital	₩ 75,394,055 thousands	₩ 549,260 thousands

There are no changes in share capital for the year ended December 31, 2017.

The 109,852 shares of preferred share have no voting rights and are entitled to non-cumulative and non-participating preferred dividends at a rate of one percent over those for common shares. Voting rights on preferred shares will be allowed when dividend is not declared on preferred shareholders. In accordance with the Company's Articles of Incorporation, the Company is also authorized to grant stock options to directors and employees up to 15% of the total outstanding shares of the Company, upon obtaining approval from the Board of Directors. As at December 31, 2017, no stock options are granted under such terms.

27. Retained Earnings

Retained earnings as at December 31, 2017 and 2016, consist of:

2017		2017			2016
₩	1,171,886	₩	1,019,450		
	100,922,491		100,922,491		
	185,973,979		168,294,515		
₩	288,068,356	₩	270,236,456		
		₩ 1,171,886 100,922,491 185,973,979	₩ 1,171,886 ₩ 100,922,491 185,973,979		

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

28. Other Components of Equity

Details of other components of equity as at December 31, 2017 and 2016, are as follows:

(in thousands of Korean won)	2	2017	2	2016
Gain on valuation of available- for-sale financial assets Exchange differences on translation of foreign	₩	11,993	₩	-
operations		17,637		31,710
	₩	29,630	₩	31,710

29. Expenses by Nature

Details of expenses by nature for the years ended December 31, 2017 and 2016, are as follows:

(in thousands of Korean won)		2017		2016
Changes in finished goods and				
work in progress	₩	(14,854,048)	₩	17,769,699
Merchandise sold		80,456,858		58,210,671
Raw materials and supplies used		510,754,204		420,100,559
Employee benefit expenses		41,161,080		48,492,742
Depreciation and amortization		21,133,209		22,142,665
Transportation expenses		11,834,069		10,967,425
Utilities		16,625,322		16,298,936
Others		27,999,479		30,482,212
Total of cost of sales, selling,				
general and administrative				
expenses, and distribution costs	₩	695,110,173	₩	624,464,909

¹ The Commercial Code of the Republic of Korea requires the Group to appropriate for each financial period, as a legal reserve, an amount equal to a minimum of 10% of cash dividends paid until such reserve equals 50% of its share capital. The reserve is not available for cash dividends payment, but may be transferred to share capital or used to reduce accumulated deficit. When the accumulated legal reserves (the sum of capital reserves and earned profit reserves) are greater than 1.5 times the paid-in capital amount, the excess legal reserves may be distributed (in accordance with a resolution of the shareholders' meeting).

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

30. Selling and Administrative Expenses

Details of selling and administrative expenses for the years ended December 31, 2017 and 2016, are as follows:

(in thousands of Korean won)	2017		17 20	
Salaries	₩	10,324,777	₩	10,279,849
Post-employment benefits		1,929,068		1,911,550
Employee welfare benefits		2,082,904		2,388,268
Service fees		4,758,638		3,203,142
Depreciation		865,280		994,293
Amortization		182,598		720,448
Impairment on receivables		239,657		196,178
Research and development		63,004		353,775
Operational expenses		1,828,590		1,819,816
Repair and maintenances		324,003		189,967
Outsourcing		757,674		853,978
Travel		821,332		920,175
Others		2,845,710		2,456,415
	₩	27,023,235	₩	26,287,854

31. Other Income and Expenses

Details of other income and expenses for the years ended December 31, 2017 and 2016, are as follows:

(in thousands of Korean won)	2017			2016
Other income				
Interest income	₩	529,062	₩	613,164
Dividend income		1,000		1,000
Rental income		1,754,046		1,602,616
Gain on foreign currency transactions		2,967,296		2,984,767
Gain on foreign currency translation		110,801		177,212
Gain on valuation of derivatives		-		1,643,104
Gain on transactions of derivatives		700,183		789,296
Gain on disposal of property, plant and equipment		-		72,985
Miscellaneous gain		2,423,601		2,160,488
	₩	8,485,989	₩	10,044,632

Notes to the Consolidated Financial Statements

December 31, 2017 and 2016

(in thousands of Korean won)		2017		2016
Other expenses				
Loss on foreign currency transactions	₩	2,825,511	₩	3,343,970
Loss on foreign currency translation		810,009		136,074
Depreciation of investment property		162,890		162,890
Loss on disposal of trade receivables		329,233		58,275
Impairment loss on available-for-sale securities		-		25,565
Loss on transaction of available-for-sale securities		-		734,675
Impairment loss on property, plant, and equipment		-		3,446,437
Loss on disposal of property, plant and equipment		1,868,686		1,402,006
Loss on valuation of derivatives		1,177,497		540
Loss on transactions of derivatives		2,251,909		1,323,739
Loss on investment in associates transactions		-		1,254,697
Donations		235,000		250,000
Miscellaneous losses		938,651		794,323
	₩	10,599,386	₩	12,933,191

32. Finance Income and Costs

Finance income and costs for the years ended December 31, 2017 and 2016, are as follows:

(in thousands of Korean won)	2017		7 2016	
Finance income				
Interest income	₩	289,151	₩	338,738
Gains on foreign currency transactions		2,577,733		2,396,011
Gains on foreign currency translation	·	1,828,173	ī	687
	₩	4,695,057	₩	2,735,436
Finance cost				
Interest expense	₩	3,253,129	₩	3,855,370
Loss on foreign currency transactions		1,453,278		1,071,116
Loss on foreign currency translation	·	25,862	·	2,199,061
	₩	4,732,269	₩	7,125,547

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

33. Earnings per Share

Basic earnings per share is calculated by dividing the profit attributable to equity holders of the Controlling Company by the weighted average number of ordinary shares in issue during the year excluding ordinary shares purchased by the Company and held as treasury shares. Preferred shareholders are entitled to non-cumulative and non-participating preferred dividends at a rate without ceiling and have rights to participate in profit sharing. The Company includes the said preferred shares in its earnings per share calculation. Details of earnings per share calculation by stock types are presented below.

Basic earnings per share for ordinary shares for the years ended December 31, 2017 and 2016, are as follows:

(in thousands of Korean won)	2017		2016		
Profit attributable to the equity holders of the Controlling Company	₩	19,616,185	₩	21,712,385	
Weighted average number of ordinary shares outstanding	15,0	78,811 shares	15,0	78,811 shares	
Basic earnings per ordinary share (in Korean					
won)	₩	1,301	₩	1,440	

Basic earnings per share for preferred shares for the years ended December 31, 2017 and 2016, are as follows:

(in thousands of Korean won)	2017		2016	
Profit attributable to the preferred equity holders of the Controlling Company	₩	148,400	₩	163,671
Weighted average number of preferred shares outstanding	109),852 shares	109),852 shares
Basic earnings per preferred share (in Korean won)	₩	1,351	₩	1,490

The Group did not issue any potential ordinary shares. Therefore, basic earnings per share is identical to diluted earnings per share.

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

34. Cash Flows from Operations

Adjustments to the cash flows from operations for the years ended December 31, 2017 and 2016, are as follows:

(in thousands of Korean won)	2017	7		2016
Profit before income tax	₩ 28,5	593,086	₩	29,113,897
Adjustments for:				
Interest income	(8	18,212)		(951,902)
Interest expense	3,2	253,130		3,855,370
Dividend income		(1,000)		(1,000)
Depreciation	20,9	950,611		21,422,217
Depreciation of investment property	•	162,890		162,890
Amortization	•	182,598		720,448
Impairment loss on receivables	2	239,657		196,178
Post-employment benefits	4,1	114,207		4,689,146
Gain on foreign currency translation	(1,9	38,747)		(177,899)
Loss on foreign currency translation	7	798,971		2,335,135
Loss on disposal of trade receivables	3	329,233		58,275
Loss on investment in associates transactions		-		1,254,697
Impairment loss on available-for-sale securities		-		25,565
Loss on transaction of available-for-sale				
securities		-		734,675
(Reversal of) Loss in valuation of inventories	1,5	500,978		(2,334,076)
Gain on disposal of property, plant and				
equipment		-		(72,985)
Loss on disposal of property, plant and				
equipment	1,8	868,686		1,402,006
Impairment loss on property, plant and				
equipment		-		3,446,437
Gain on valuation of derivative		-		(1,643,104)
Loss on valuation of derivative	1,1	177,497		540
Share of gain of associates		-		(49,889)
Additional other provisions	2,1	157,628		8,907,772
Others	4	482,958		161,113
Movements in working capital accounts:				
Decrease (increase) in trade receivables	10,5	546,071		(13,441,818)
Increase in other receivables	(1,0	31,187)		(160,750)
Decrease (increase) in advance payments	2	208,664		(867,918)
Decrease in prepaid value added tax		-		136,345
Decrease (increase) in prepaid expenses	(17,863)		66,496
Decrease (increase) in other quick assets		(5,150)		812

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

Decrease (increase) in derivatives	1,637,992	(47,710)
Decrease (increase) in inventories	(22,034,878)	9,394,688
Increase in trade payables	15,126,220	10,924,139
Increase (decrease) in advance received	72,332	(168,715)
Decrease in withholdings	(106,225)	(5,927)
Increase (decrease) in value added tax		
withheld	(1,272,621)	1,794,418
Increase (decrease) in other payables	(1,155,360)	1,858,006
Increase in accrued expenses	3,196,019	1,821,761
Increase in deposits received	66,000	-
Increase in long-term accrued expenses	225,230	-
Succession of post-employment benefit	7,898	-
Post-employment benefit payment	419,827	(2,707,582)
Payment of plan assets	(3,528,522)	(3,094,719)
	₩ 65,408,618	₩ 78,757,032

Major non-cash transactions for the years ended December 31, 2017 and 2016, are as follows:

(in thousands of Korean won)	2017	2016
Construction-in-progress reclassification	₩ 3,655,883	₩ 3,404,313
Machinery in transit reclassification	796,114	4,493,516
Current portion of bonds payable	29,945,534	29,954,239
Receivables and non-trade receivables written off	-	279,059
Reclassification of trade receivables to long-term		
trade receivables	1,057,250	-
Other payables of acquisition of property, plant and		
equipment	2,604,627	(1,484,846)

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

Changes in liabilities arising from financial activities for the years ended December 31, 2017 and 2016, are as follows:

(in thousands of Korean

won)	2017 Liabilities from financing activities									
		Short-term	Current portion of bonds							
		orrowings	payable	Bonds payable	Total					
At January 1, 2016	₩	43,383,088	₩ 29,985,066	₩ 59,806,575	₩ 133,174,729					
Cash flows		7,216,485	(30,000,000)	-	(22,783,515)					
Exchange differences		(1,822,726)	-	-	(1,822,726)					
Other non-financial changes	-		29,988,665	(29,867,004)	121,661					
At December 31, 2017	₩	48,776,847	₩ 29,973,731	₩ 29,939,571	₩ 108,690,149					
Other non-financial changes	₩		<u> </u>		121,661					

35. Related Party Transactions

Details of related party as at December 31, 2017 and 2016, are as follows:

	Percentage of comm	Percentage of common ownership (%)					
	2017	2016					
Parent Company							
Hyundai Steel Co., Ltd.	41.12	41.12					

Other related parties include Hyundai Materials Corp., HYUNDAI MATERIALS JAPAN CORP., KIA Moters Corportation and so on.

The Group has entered into purchasing card transactions (Limit of ₩ 3,000 million) with Hyundai Card Co., Ltd., other related parties.

As Hyundai Motor Co., Ltd. and Hyundai Rotem Corp. etc. are not related parties of the Group in accordance with Korean IFRS 1024, and belongs to the Large Enterprise Group, to which the Group also belongs in accordance with the Monopoly Regulation and Fair Trade Act. These entities are classified to other.

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

Sales and purchases with related parties for the years ended December 31, 2017 and 2016, are as follows:

(in thousands of Korean won)					;	2017			
		Sales	Oth	ner sales	P	urchase	Other purchase	of p	uisition roperty, ant and aipment
Parent company	₩	454,948	₩	123,367	₩	-	₩ -	₩	-
Other related parties	8	30,722,121		12,000	12	6,445,639	6,539,931		225,064
Other	12	22,570,631		19,601		-	2,439,252		416,676
(in thousands of Korean									
won)						2016			
		Sales	Oth	ner sales	P	urchase	Other purchase	of p	uisition roperty, ant and uipment
Parent company	₩	328,415	₩	73,680	₩	929,193	₩ -	₩	-
Associate ¹	5	52,168,448		612,736		1,485,297	2,258,049		-
Other related parties	7	78,120,018		146,126	17	0,562,160	6,350,968		21,055
Other	12	21,510,043		2,000		-	2,535,968		299,532

¹ Associates were Ad Stainless Co., Ltd. and Ad Steel Co., Ltd., on which the Company had no significant influence due to the cancellation of potential voting rights and the sale of shares. Associates has been excluded from related parties in 2016 and the transactions before the date of exclusion from related parties are reflected.

The Group issued $\forall 30,000$ million of 201th unsecured publicly-subscribed corporate bond in 2016 and $\forall 10,000$ million was acquired and brokered by HMC Investment & Securities Co., Ltd., which was classified as other.

Notes to the Consolidated Financial Statements December 31, 2017 and 2016

Outstanding balances arising from sales/purchases of goods and services as at December 31, 2017 and 2016, are as follows:

(in thousands of Kore	an
won)	

won)	2017									
		Receiva	ables		Payables					
	Trade receivables		Others		ı	Trade payables	Others			
Parent company	₩	215,426	₩	13,901	₩	-	₩	-		
Other related parties		16,617,172		1,100		7,810,282		462,126		
Other		23,785,535		51,733		243,598		925,743		
(in thousands of Korean										
won)	2016									
		Receivables				Payables				
		Trade	C)thers		Trade		Others		

		Receiva	bles	5	Payables				
_	Trade receivables		Others		Trade payables		Others		
Parent company	₩	173,813	₩	7,833	₩	-	₩	-	
Other related parties		19,777,423		44,606		5,232,575		901,596	
Other		29,205,735		69,712		177,145		1,509,462	

Key management compensation

Key management includes directors (registered and non-registered), members of the board of directors and the head of internal audit. The compensation paid or payable to key management for employee services for the years ended December 31, 2017 and 2016, are shown below:

(in thousands of Korean won)		2017	2	2016
Salaries	₩	3,898,916	₩	4,359,042
Post-employment benefits		1,090,652		1,118,012
	₩	4,989,568	₩	5,477,054