Daewoo Shipbuilding & Marine Engineering Co., Ltd.

Separate Financial Statements
December 31, 2017 and 2016

Daewoo Shipbuilding & Marine Engineering Co., Ltd.
Index
December 31, 2017 and 2016

Independent Auditor's Report

(English Translation of a Report Originally Issued in Korean)

To the Shareholders and Board of Directors of
Daewoo Shipbuilding & Marine Engineering Co., Ltd.

We have audited the accompanying separate financial statements of Daewoo Shipbuilding & Marine Engineering Co., Ltd. (the Company), which comprise the separate statement of financial position as at December 31, 2017, and the separate statement of profit or loss, separate statement of comprehensive income, separate financial statement of changes in equity and separate statement of cash flows for the year then ended, and notes to the separate statements, including a summary of significant accounting policies and other explanatory information.

Management's Responsibilities for the Financial Statements
Management is responsible for the preparation and fair presentation of the separate financial statements in accordance with 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 Responsibilities
Our responsibility is to express an opinion on the separate financial statements based on our audit. We conducted our audit in accordance with 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 separate financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the 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 financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the 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 financial statements present fairly, in all material respects, the financial position of the Company as at December 31, 2017, and its financial performance and its cash flows for the year then ended in accordance with Korean IFRS.

Emphasis of Matters
Without qualifying our opinion, we draw attention to the following area of focus.

(1) Auditor's emphasis on area of focus on construction contracts[1]

Area of focus on construction contracts in accordance with the Practical Guidance of Auditing Standard 2016-1 are those matters that, in the auditor's professional judgment and communication with those charged with governance, were of most significance in the audit of the separate financial statements of the current period. These matters were addressed in the context of the audit of the separate financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters. We have addressed the output of the audit process for the area of focus as below in forming an audit opinion on the separate financial statements of Daewoo Shipbuilding & Marine Engineering Co., Ltd. as a whole.

A. Revenue recognition based on input method

As explained in Note 4 (Critical Accounting Estimates and Assumptions) to the separate financial statements, the Company recognizes contract revenue and contract costs associated with the construction contract as revenue and expense respectively based on the percentage of completion of the contract activity at the end of the reporting period when the outcome of a construction contract can be estimated reliably. The percentage of completion of the contract activity is the proportion that costs incurred to date, excluding any contract cost that does not reflect the work performed, bear to the estimated total costs of the contract. The Company presents the gross amount due from customer for contract work as an asset for all contracts in progress for which costs incurred plus recognized profits (less recognized losses) exceed progress billings, and presents the gross amount due to customers for contract work as a liability for all contracts in progress for which progress billings exceed costs incurred plus recognized profits (less recognized losses).

Moreover, as explained in Note 37 (Construction Contracts) to the separate financial statements for the year ended December 31, 2017, the changes in estimated contract revenue and estimated contract costs have increased amounting to ₩ 96,845 million and decreased amounting to ₩ 797,278 million, respectively. According to the changes, the profit or loss for the current year has increased by ₩ 1,500,716 million, and the profit or loss for the succeeding year is estimated to decrease by ₩ 606,593 million. Based on above explained industry status, it is probable that uncertainty of estimated total contract increases, and the changes in estimated total contract revenue and costs may have negative impacts on the profit or loss for the current year (or for the succeeding period); therefore, we identified revenue recognition based on the input method as a significant risk.

As at December 31, 2017, we performed the following audit procedures on the Company's revenue recognition based on the input method.

- We assessed whether the accounting policy of revenue recognition is appropriate.
- We reviewed the cause of the difference between the progress reported to the customer and the

percentage of completion in construction based on the input method.

- We performed audit procedures for possible inflow of economic benefits.
  - Reviewed contract terms
  - Reviewed the significant decrease in prices of similar vessels and termination conditions
  - Inquired about customer's financial status and the progress of project

B. Uncertainty of estimated total contract costs

As explained in Note 4 (Critical Accounting Estimates and Assumptions) to the separate financial statements, estimated total contract costs is estimated based on future estimates such as material cost, labor cost, construction period and others. As at December 31, 2017, when the estimation of remaining contract costs for construction in progress increases by 5%, the profit for the year before income tax expense and net asset before income tax decreases by ₩ 272,699 million.

Moreover, as explained in Note 4 (Critical Accounting Estimates and Assumptions) to the separate financial statements, in the prior period, the actual contract costs to estimated contract costs have significantly increased due to unexpected process delay and construction project inefficiency in offshore plants. In the current year, the estimated total contract costs has been changed due to effects of fluctuations in prices of materials and exchange rate in merchant ships and offshore plants.

The increase in uncertainty of estimated total contract cost caused by price fluctuation risk in materials and the impacts of changes in estimated total contract costs on the profit or loss for the current year (or for the succeeding year) are considered; therefore, we identified uncertainty of estimated total contract costs as a significant risk.

As at December 31, 2017, in respect of the impacts of the Company's uncertainty of estimated total contract costs on the separate financial statements, we performed the following audit procedures:

- We reviewed process of internal control procedures designed and applied by the Company for the calculation of estimated total contract cost.
- We checked process of reporting estimated total contract cost of major projects to audit committee.
- We reviewed rationality of each components of total contract costs (material cost and labor time, etc.) compared to documents which practical department estimates.
- We reviewed the rationality of unit price and hourly labor cost applied to total contract cost calculation.
- We inquired about the project risk factors identified by the business and risk management departments in relation to the components of estimated total contract costs and whether the total contract costs are reflected.
- We compared total contract costs of similar construction projects and reviewed reasonableness.
- We reviewed reason for changing estimated total contract cost of the costs incurred after the reporting period.

C. Measurement of percentage of completion in construction

As explained in Note 4 (Critical Accounting Estimates and Assumptions) to the separate financial statements, the Company measures percentage of completion of the contract activity by the proportion that contract costs incurred to date, excluding any contract cost that does not reflect the work performed, bear to the estimated total contract costs.

Moreover, as explained in Note 37 (Construction Contracts) to the separate financial statements, in respect to contract in progress as at December 31, 2017, the changes in estimated total contract cost decreased by ₩ 797,278 million, and aggregated cost incurred amounts to ₩ 33,112,149 million. We identified measurement of percentage of completion as a significant risk as increase in uncertainty of estimated total contract cost due to effects of fluctuations in prices of materials and exchange rate in ships and offshore plants.

As at December 31, 2017, in respect of the Company's estimated total contract costs and aggregated cost incurred that have impacts on the measurement of percentage of completion, we have performed the following audit procedures.

- We performed analytical review procedures on changes in accumulated cost incurred and estimated total contract costs.
- We determined if there were any contract costs that did not reflect the work performed and excluded from the costs incurred and estimated, and reviewed related accounting policies.
- We compared the percentage of completion in the report submitted to the customer and percentage of completion based on input method, and inquired about the reason of the difference.
- We obtained understanding of direct cost allocation policy and tested internal control of cost allocation and transfer for each construction.
- We obtained understanding of indirect expense allocation policy and tested internal control of indirect expense allocation.
- We independently tested the occurrence and timing of cost recognition, which incurred during the year, for each construction contract.

D. Collectability of the amount due from customer under construction contracts

As explained in Note 4 (Critical Accounting Estimates and Assumptions) to the separate financial statements, the Company assess at the end of each reporting period whether there is any objective evidences that the amount due from the customer under construction contracts is impaired. The objective evidences include adverse change in the customer's financial situation, increase in the probability of contract termination due to delay in contract in progress or decrease in vessel price, delay in construction completion date, and others. After the Company's assessment on the objective evidence of impairment and if there is an objective evidence of impairment as a result of one or more events that occurred, and that loss event has an impact on the estimated future cash flows of construction contract that can be reliably estimated, the Company recognize the amount as 'impairment loss'.

As explained in Note 37 (Construction Contracts) to the separate financial statements, the Company recognized the amount due from customer under construction contract amounts to ₩ 4,046,599 million and ₩ 4,462,694 million as at December 31, 2017 and 2016, respectively, which represents 36.7% and 33.1% of the Company's total assets. The uncertainty in collectability of the amount due from customer under construction contracts has been increased because of contract termination and delay in contract completion that are caused by customers' financial difficulties due to extended global oil price decline. Therefore, we identified the collectability of the amount due from customer under construction contracts as a significant risk.

As at December 31, 2017, in respect of the collectability of the amount due from customer under construction contracts, we have performed the following audit procedures.

- We obtained understanding and assessed the internal control procedures that are designed and applied by the Company for the purpose of assessing the collectability of the amount due from customers.
- We inquired about reason for occurrence in the significant amount due from customer.
- We inquired about the status of project that recognized the significant amount due from customer.
- We inquired about contract termination possibility and customer's financial status.
- We reviewed the reasonableness of collectability assessment of the amount due from customer.

E. Accounting treatment regarding variations in contract work

As explained in Note 4 (Critical Accounting Estimates and Assumptions) to the separate financial statements, the Company includes a variation in contract revenue when it is probable that the customer will approve the variation and the amount of revenue arising from the variation or the contract is sufficiently advanced that it is probable that the specified performance standards will be met or exceeded and the amount of revenue can be reliably measured.

Total contract revenue at the initial amount of revenue agreed in the contract; however, the measurement of contract revenue is affected by a variety of uncertainties that depend on the outcome of future events such as increase contract revenue due to variations in contract work, claims and inventive payment; or decrease contract revenue as a result of penalties arising from delay caused by the Company in the completion of the contract.

It is probable that variations may occur, and there are uncertainties in the measurement of contract revenue; therefore, we identified accounting treatment regarding variations in contract work as a significant risk.

As at December 31, 2017, in respect of accounting treatment regarding variations in contract work, we have performed the following review procedures.

- We obtained understanding and assessed the internal control procedures that are designed and applied by the Company for the accounting treatment regarding variations in contract work.
- We tested supporting documents for the approval of customers in relation to the changing contract amounts from variations in contract work.
- We inquired about reason of significant change in contract revenue.
- We inquired about major contract condition such as cost reimbursement items and others.
- We inquired about approval or negotiation or probability of contract revenue included due to changes in specification of contract caused by the customer.

F. Accounting treatment regarding liquidated damage arising from delay

As explained in Note 4 (Critical Accounting Estimates and Assumptions), as of December 31, 2017, the maximum amount of liquidated damage arising from delay that the Company may incur estimated to ₩ 347,816 million. The best estimate of liquidated damage arising from delay that is likely payable by the Company as of December 31, 2017, is ₩ 137,182 million and the amount is deducted from the contract revenue amount.

The estimation of liquidated damage arising from delay is affected by a variety of uncertainties that depend on the outcome of future events; therefore, we identified the estimation of liquidated damage arising from delay as a significant risk.

As at December 31, 2017, in respect to accounting treatment regarding estimation of liquidated damage arising from delay, we have performed the following audit procedures.

- We reviewed the condition of liquidated damage arising from delay and contract completion date and reviewed condition of contract for major milestone.
- We performed analytical review procedure between expected completion date and estimated milestone completion date within the contract for the probable projects with liquidated damage arising from delay.
- We reviewed the reasonableness of the basis of estimated liquidated damage arising from delay.

Other Matters

We audited the financial statements of Daewoo Shipbuilding & Marine Engineering Co., Ltd. for the year ended December 31, 2016 and expressed a qualified opinion on those statements on March 29, 2017. We expressed a qualified opinion on the basis that the audit report did not fully disclose the uncertainty on the Company's ability to continue as a going concern and the auditing scope limitation related to the cut-off procedure of cost of sales.

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
March 22, 2018

This report is effective as of March 22, 2018, the audit report date. Certain subsequent events or circumstances, which may occur between the audit report date and the time of reading this report, could have a material impact on the accompanying separate financial statements and notes thereto. Accordingly, the readers of the audit report should understand that there is a possibility that the above audit report may have to be revised to reflect the impact of such subsequent events or circumstances, if any.

Daewoo Shipbuilding & Marine Engineering Co., Ltd.
Separate Statements of Financial Position
December 31, 2017 and 2016

(in millions of Korean won)	Notes		2017		2016
Assets					
Current assets					
Cash and cash equivalents	3,5,6,7,36	₩	160,139	₩	144,293
Short-term financial instruments	3,5,7,36		82,504		16,927
Financial assets at fair value through profit or loss	3,5,26,36		31,377		5,913
Current portion of held-to-maturity financial assets	5,9		27		7
Trade and other receivables	3,4,5,8,16,36,37		443,129		337,429
Due from customers for contract work	3,4,5,16,37		4,046,598		4,462,694
Current firm commitment assets	26		5,593		142,269
Current portion of currency forward assets	3,5,26,36		70,138		-
Inventories	10,16		724,178		922,725
Other current assets	11		962,623		1,071,935
Non-current asset held for sale	12,16		40,481		155,920
			6,566,789		7,260,112
Non-current assets					
Long-term financial instruments	3,5,7		414,024		383,107
Long-term financial assets at fair value through profit or loss	3,5,26,36		-		1,228
Held-to-maturity financial assets	5,9		305		331
Available-for-sale financial assets	3,4,5,9,16		52,085		48,674
Investments in subsidiaries	4,13,16		23,007		112,012
Investments in associates and joint ventures	4,14		11,935		5,933
Long-term trade and other receivables	3,5,8,36,37		130,917		279,468
Firm commitment assets	26		314		315,893
Currency forward assets	3,5,26,36		67,637		-
Property, plant and equipment	4,15,16		3,724,845		4,396,108
Investment properties	16,17		7,914		9,386
Intangible assets	4,18		13,338		37,022
Deferred tax assets	4,25		-		503,199
Other non-current assets	11		9,635		131,265
			4,455,955		6,223,626
Total assets		₩	11,022,744	₩	13,483,738

Daewoo Shipbuilding & Marine Engineering Co., Ltd.
Separate Statements of Financial Position
December 31, 2017 and 2016

(in millions of Korean won)	Notes	2017	2016
Liabilities			
Current liabilities			
Short-term borrowings	3,5,16,21,36,43	₩ 1,950,685	₩ 2,501,217
Financial liabilities at fair value through profit or loss	3,5,26,36	51,503	6,461
Trade and other payables	3,5,19,36	1,080,635	1,574,620
Current portion of long-term debentures	3,5,20,43	-	1,348,886
Current portion of long-term borrowings	3,5,16,21,36,43	435,253	1,171,734
Current financial guarantee liabilities	3,5,36	29,367	94,409
Current firm commitment liabilities	26	28,020	1,708
Current portion of currency forward liabilities	3,5,26,36	10,023	211,214
Due to customers for contract work	4,26,37	2,378,487	4,401,740
Other current liabilities	22	78,154	97,156
		6,042,129	11,409,145
Non-current liabilities			
Debentures	3,5,20,36,43	530,661	192,424
Long-term borrowings	3,5,16,21,36,43	638,935	652,737
Long-term financial liabilities at fair value through profit or loss	3,5,26,36	-	4,470
Long-term trade and other payables	3,5,19,36	114,125	136,808
Net defined benefit liabilities and other long-term employee benefits	4,23	158,392	172,044
Provisions	24,38	677,433	329,867
Financial guarantee liabilities	3,5,36	2,369	86,650
Firm commitment liabilities	26	65,507	-
Currency forward liabilities	3,5,26,36	263	260,676
Deferred tax liabilities	4,25	48,911	-
		2,236,598	1,835,676
Total liabilities		8,278,728	13,244,821
Equity			
Share capital	27,36,43	538,281	332,885
Other contributed capital	29,36,43	351,159	2,808,828
Hybrid bonds	29,36,43	2,284,775	1,000,000
Components of other capital	9,29	347,327	426,660
Accumulated deficit	28	(777,526)	(4,329,456)
Total equity		2,744,016	238,917
Total liabilities and equity		₩ 11,022,744	₩ 13,483,738

The above separate statements of financial position should be read in conjunction with the accompanying notes.

Daewoo Shipbuilding & Marine Engineering Co., Ltd.
Separate Statements of Profit or Loss
Years Ended December 31, 2017 and 2016

(in millions of Korean won, except per share amounts)	**Notes**		**2017**		**2016**
Sales	4,26,36,37,41	₩	10,634,033	₩	11,385,450
Cost of sales	35,36,38		9,132,895		12,070,051
Gross profit(loss)	41		1,501,138		(684,601)
Selling expenses	31,35,36		174,515		116,934
Administrative expenses	31,35,36		569,178		559,776
Research and development expenses	35		40,942		52,237
Operating profit(loss)			716,503		(1,413,548)
Finance income	5,32,36		1,467,634		16,531
Finance costs	5,32,36		33,016		188,356
Losses from investment in associates and joint ventures	13,14		(6,662)		(134,704)
Foreign exchange gains	3,5,33		583,881		454,341
Foreign exchange losses	3,5,33		661,383		515,322
Other non-operating income	5,26,34		727,676		427,487
Other non-operating expenses	5,26,34		1,514,180		726,934
Profit(loss) before income tax expense			1,280,453		(2,080,505)
Income tax expense	4,25		541,309		910,492
Profit(loss) for the year		₩	739,144	₩	(2,990,997)
Earnings(losses) per share					
Basic earning(loss) per share (*in Korean won*)	30	₩	8,553	₩	(137,945)
Diluted earning(loss) per share (*in Korean won*)	30	₩	5,941	₩	(137,945)

The above separate statements of profit or loss should read in conjunction with the accompanying notes.

Daewoo Shipbuilding & Marine Engineering Co., Ltd.
Separate Statements of Comprehensive Income
Years Ended December 31, 2017 and 2016

(in millions of Korean won)		2017		2016
Profit(loss) for the year	₩	739,144	₩	(2,990,997)
Other comprehensive income(loss)				
Items that will not be reclassified subsequently to profit or loss				
Remeasurements of net defined benefits liabilities		468		34,429
Revaluation surplus of property, plant and equipment		(80,254)		1,128
Items that may be reclassified subsequently to profit or loss				
Changes in the fair value of available-for-sale financial assets		2,619		(5,199)
		(77,167)		30,358
Total comprehensive income(loss) for the year	₩	661,977	₩	(2,960,639)

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

Daewoo Shipbuilding & Marine Engineering Co., Ltd.
Separate Statements of Changes in Equity
Years Ended December 31, 2017 and 2016

(in millions of Korean won)	Other contributed capital				Components of other capital			
	Share capital	Other capital	Treasury share	Hybrid bond	Changes in the fair value of available-for-sale financial assets	Revaluation surplus of property, plant and equipment	Accumulated deficit	Total
Balance at January 1, 2016	₩ 1,372,077	₩ (14,677)	₩ -	₩ -	₩ 14,967	₩ 424,385	₩ (1,381,510)	₩ 415,242
Issuance of shares	221,286	1,563,028	-	-	-	-	-	1,784,314
Capital reduction	(1,260,478)	1,260,478	-	-	-	-	-	-
Issuance of permanent convertible notes	-	-	-	1,000,000	-	-	-	1,000,000
Loss for the year	-	-	-	-	-	-	(2,990,997)	(2,990,997)
Other comprehensive income	-	-	-	-	(5,199)	(7,494)	43,051	30,358
Balance at December 31, 2016	₩ 332,885	₩ 2,808,829	₩ -	₩ 1,000,000	₩ 9,768	₩ 416,891	₩ (4,329,456)	₩ 238,917
Balance at January 1, 2017	₩ 332,885	₩ 2,808,829	₩ -	₩ 1,000,000	₩ 9,768	₩ 416,891	₩ (4,329,456)	₩ 238,917
Payment of fractional share cost	-	-	(726)	-	-	-	-	(726)
Transfer of capital surplus to accumulated deficit	-	(2,825,627)	-	-	-	-	2,825,627	-
Debt to equity swap	205,396	342,526	-	-	-	-	-	547,922
Issuance of permanent convertible notes	-	(264)	-	1,284,775	-	-	-	1,284,511
Interst payment for hybrid bonds	-	-	-	-	-	-	(15,007)	(15,007)
Gains on debt restructuring	-	26,422	-	-	-	-	-	26,422
Profit for the year	-	-	-	-	-	-	739,144	739,144
Other comprehensive loss	-	-	-	-	2,619	(81,952)	2,166	(77,167)
Balance at December 31, 2017	₩ 538,281	₩ 351,886	₩ (726)	₩ 2,284,775	₩ 12,387	₩ 334,939	₩ (777,526)	₩ 2,744,016

The above separate statements of changes in equity should read in conjunction with the accompanying notes.

Daewoo Shipbuilding & Marine Engineering Co., Ltd.
Separate Statements of Cash Flows
Years Ended December 31, 2017 and 2016

(in millions of Korean won)	**Notes**	**2017**	**2016**
Cash flows from operating activities			
Cash used in operating activities:	39		
Profit (loss) for the year		₩ 739,144	₩ (2,990,997)
Adjustments		1,149,149	2,511,601
Changes in working capital		(2,972,218)	(225,465)
		(1,083,925)	(704,861)
Dividends received		672	1,168
Interests received		19,121	18,857
Interests paid		(143,124)	(226,997)
Income tax refunded (paid)		13,600	(2,160)
Net cash outflow from operating activities		(1,193,656)	(913,993)
Cash flows from investing activities	40		
Cash inflows from investing activities:			
Acceptance of governments grants		3,728	2,294
Decrease in long-term financial instruments		-	2
Decrease in short-term financial instruments		17,682	-
Collection of short-term loans		39,773	110,535
Disposal of held-to-maturity financial assets		7	11
Disposal of available-for-sale financial assets		1,774	12,370
Disposal of investment in associates and joint venture		1,126	-
Disposal of non-current assets held for sale		258,353	-
Collection of long-term loans		9,327	26,401
Disposal of property, plant and equipment		8,133	195,983
Disposal of intangible assets		-	670
		339,903	348,265
Cash outflows from investing activities:			
Increase in short-term financial instruments		6,847	16,927
Redemption of governments grants		706	387
Increase in short-term loans receivable		36,055	177,057
Increase in long-term financial instruments		107,330	383,081
Acquisition of held-to-maturity financial assets		-	22
Acquisition of available-for-sale financial assets		9	8,996
Acquisition of investment in subsidiaries		200	249
Increase in long-term loans receivable		14,200	326,906
Acquisition of property, plant and equipment		67,706	98,343
Acquisition of intangible assets		7,400	6,032
Acquisition of other investments		111	86
		(240,564)	(1,018,086)
Net cash inflow (outflow) from investing activities		99,339	(669,821)

Daewoo Shipbuilding & Marine Engineering Co., Ltd.
Separate Statements of Cash Flows
Years Ended December 31, 2017 and 2016

(in millions of Korean won)	Notes	2017	2016
Cash flows from financing activities	40		
Cash inflows from financing activities:			
Proceeds from short-term borrowings		1,539,800	3,909,742
Reversal of payment of share issue cost		13	-
Proceeds from long-term borrowings		24,116	-
		1,563,929	3,909,742
Cash outflows from financing activities:			
Redemption of short-term borrowings		435,860	2,148,010
Redemption of current portion of long-term debentures		-	700,000
Redemption of current portion of long-term borrowings		40	401,556
Early redemption of long-term borrowings		106	5,100
Acquisition of treasury shares		726	-
Interst paid for hybrid bonds		15,007	-
Payment of share issue cost		1,506	1,462
		(453,245)	(3,256,129)
Net cash inflow from financing activities		1,110,684	653,613
Net increase (decrease) in cash and cash equivalents		16,367	(930,201)
Cash and cash equivalents at the beginning of the year		144,293	1,072,187
Effects of foreign exchange rate changes on the balance of cash held in foreign currencies		(521)	2,307
Cash and cash equivalents at the end of the year		₩ 160,139	₩ 144,293

The above separate statements of changes in equity should read in conjunction with the accompanying notes.

1. General Information

Daewoo Shipbuilding & Marine Engineering Co., Ltd. (the Company) was established on October 1, 2000, as one of entities spun-off from Daewoo Heavy Industry Co., Ltd. The spun-off registration date is October 23, 2000. On February 2, 2001, the Company listed its stock on the Korea Exchange. Moreover, the Company changes its name from Daewoo Shipbuilding & Commerce Co., Ltd. to Daewoo Shipbuilding & Marine Engineering Co., Ltd. The Company's major businesses are building and selling various types of ship, including special-purpose ships and construction of offshore plants. As at December 31, 2017, the Company's major shareholders consist of Korea Development Bank ("KDB") (56.01%) and others.

2. Basis of Preparation and Significant Accounting Policies

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

2.1 Basis of Preparation

The Company maintains its accounting records in Korean won and prepares statutory financial statements in the Korean language (Hangul) in accordance with International Financial Reporting Standards as adopted by the Republic of Korea (Korean IFRS). The accompanying separate 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 Company's financial position, financial performance or cash flows, is not presented in the accompanying separate financial statements.

The financial statements of the Company have been prepared in accordance with Korean IFRS. The financial statements of the Company are the separate financial statements prepared in accordance with Korean IFRS 1027 Separate Financial Statements. 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 financial statements requires the use of critical accounting estimates. Management also needs to exercise judgement in applying the Company's accounting policies. The areas involving a higher degree of judgment or complexity, or areas where assumptions and estimates are significant to the separate financial statements are disclosed in Note 4.

(a) New and amended standards adopted by the Company

The Company 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 40).

- 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 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 and amended 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 Company are set out below.

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

When an investment in an associate or a joint venture is held by, or is held indirectly through, an entity that is a venture capital organization, or a mutual fund, unit trust and similar entities including investment-linked insurance funds, the entity may elect to measure that investment at fair value through profit or loss in accordance with Korean IFRS 1109. 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 Company does not expect the amendments to have a significant impact on the financial statements because the Company 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 Company 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 Company 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, 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 Company does not expect the enactment 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.

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 Company has not yet elected the application method.

The Company did not analyze the financial effects of the initial application of Korean IFRS 1116, so, it is difficult to provide reasonable estimates of financial effects.

Lessor accounting

The Company expects the effect on the financial statements applying the new standard will not be significant as accounting for the Company, as a lessor, will not significantly change.

- 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 Company 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 Company's financial statements due to the application of the standard is dependent on judgements made in applying the standard, financial instruments held by the Company and macroeconomic variables.

With the implementation of Korean IFRS 1109, the Company began to adjust accounting system is analyzing the financial impact. The following areas are likely to be affected in general.

(a) Classification and Measurement of Financial Assets

When implementing Korean IFRS 1109, the classification of financial assets will be driven by the Company'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.

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]	Recognized at fair value through profit or loss[2]
Hold the financial asset for the collection of the contractual cash flows and sale	Recognized at fair value through other comprehensive income [1]	
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).

[2] Equity investments not held for trading can be recorded in other comprehensive income (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 Company owns loans and receivables of ₩ 5,277,312 million, financial assets held-to-maturity of ₩ 331 million, financial assets available-for-sales of ₩ 52,085 million, and financial assets at FVTPL of ₩ 31,377 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 Company measured loans and receivables of ₩ 5,277,312 million and financial assets held-to-maturity of ₩ 331 million at amortized costs.

According to Korean IFRS 1109, a debt instrument is measured at fair value through other comprehensive income if the objective of the business model is achieved both by collecting contractual cash flows and selling financial assets; and the contractual cash flows represents solely payments of principal and interest on a specific date under contract terms. As at December 31, 2017, the Company does not hold debt instruments classified as financial assets available-for-sale.

According to Korean IFRS 1109, equity instruments that are not held for trading, the Company 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 Company holds equity instruments of ₩ 52,085 million classified as financial assets available-for-sale and recycled unrealized gain or loss of ₩ 5 million 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 Company does not hold debt and equity instruments classified as financial assets at fair value through profit or loss.

(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, financial liabilities at FVTPL consist of trading derivative instruments that were not eligible as hedged items or hedging instruments and financial guarantee contract liabilities designated as financial liabilities at FVTPL, and during 2017, the Company recognized profit for the year of ₩ 2,675 million for the financial liabilities measured at fair value through profit or loss due to their fair value decrease.

(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 Company 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 that result from all possible default events over the life of the financial instrument)
3	Credit-impaired	

[1] A loss allowance for lifetime expected credit losses is required for a financial instrument if the credit 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 Company 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 Company 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 Company owns debt investment carried at amortized cost of ₩5,277,643 million (loans and receivables of ₩5,277,312 million, financial asset held-to-maturity of ₩331 million). And, the Company recognized loss allowance of ₩3,254,289 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 Company'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 Company applies the hedge accounting to its assets, liabilities and firm commitments that amount to ₩ 39,869 million. With applying the hedge accounting, the Company recognized ₩940 million in loss during the current year.

Furthermore, when the Company 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.

- Korean IFRS 1115 *Revenue from Contracts with Customers (Enactment)*

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

The Company must apply Korean IFRS 1115 *Revenue from Contracts with Customers* within annual reporting periods beginning on or after January 1, 2018, 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 the second half of the year, the Company has formed a task force team consisting of the members from accounting department and the accounting firm, which is an external consultant, to identify the effect of Korean IFRS 1115 on the financial information of the Company. The Company regularly reports the implementation plan and results to management.

The Company plans to perform detailed analysis on financial effects of applying the standard and disclose the result of the analysis in the notes on the financial statement as at March 31, 2018.

As at October 30, 2017, the Company performed an impact assessment to identify potential financial effects of applying Korean IFRS 1115. The assessment was performed based on available information as at December 31, 2017.

The results of the assessment as at October 30, 2017 may change due to additional information that the Company may obtain after the assessment.

(a) Identify performance obligation

The Company provides ships and offshore plant and special ships, and other business division to a customer. During 2017, revenue from the ships and offshore plant and special ships division amount to ₩6,668,970 million and ₩3,909,685, respectively, which represent 62.7% and 36.8% of the Company's total revenue, respectively.

With the implementation of Korean IFRS 1115, the Company identifies a construction of each vessels in contracts entered by shipbuilding, offshore plant and special ships division as a performance obligation. The timing of revenue recognition depends on a performance obligation is satisfied at a point in time or over time. Where a performance obligation is satisfied over time, the related revenue is also recognized over time.

The Company has obligation to build and provide a ship ordered by a customer over the service period; therefore, the Company will recognize the allocated transaction price for each performance obligation over the service period as revenue.

The Company could not analyze the financial effects of separating performance obligations in detail. Meanwhile, as a result of the impact assessment performed as at October 30, 2017, the Company may have an impact on the Company's revenue.

(b) A performance obligation is satisfied over time

The ships and offshore plant and special ships division of the Company builds and sells a ship ordered by a customer, and it takes over one-year to build. The Company recognizes revenue over time based on costs incurred relative to total estimated costs to determine the extent of progress toward completion.

In accordance with Korean IFRS 1115, revenue is recognized over time, if one of the following three criteria is met:

· The customer simultaneously receives and consumes the benefits provided by the entity's performance as the entity performs;

· The entity's performance creates or enhances an assets that the customer controls as the asset is created or enhanced; or.

· The entity's performance does not create an asset with an alternative use to the entity and the entity has an enforceable right to payment for performance completed to date.

The Company could not analyze the financial effects of revenue recognition timing for the ships and offshore plant and special ships division in detail. Meanwhile, a contract term analysis was performed by an accounting firm, which is an external consultant, and determined the Company has enforceable right to payment for performance completed to date. As a result of the impact assessment performed as at October 30, 2017, the Company does not expect to have an impact on the Company's revenue.

(c) Input methods for measuring progress

Accounting to Korean IFRS 1115, a faithful depiction of the Company's performance might be to recognize revenue at an amount equal to the cost of a good used to satisfy a performance obligation if the Company expects at contract inception that all of the following conditions would be met: i) the good is not distinct; ii) the customer is expected to obtain control of the good significantly before receiving services related to the good; iii) the cost of the transferred good is significant relative to the total expected costs to completely satisfy the performance obligation; and iv) the Company procures the good from a third party and is not significantly involved in designing and manufacturing the good.

The Company could not analyze the financial effects of input methods for measuring progress in detail. Meanwhile, as a result of the impact assessment performed as at October 30, 2017, the Company may expect to have an impact on the Company's revenue.

(d) Variable consideration

The company may experience variable consideration due to liquidated damage (LD) and change order caused by the delays in delivery and overweight of vessels. With implementation of Korean IFRS 1115, the Company estimates an amount of variable consideration by using the expected value which the Company expects to better predict the amount of consideration. The Company recognize revenue with transaction price including variable consideration only to the extent that it is highly probable that a significant reversal in the amount of cumulative revenue recognized will not occur when the uncertainty associated with variable consideration has resolved.

The Company could not analyze the financial effects of variable consideration policy in detail. Meanwhile, as a result of the impact assessment performed as at October 30, 2017, the Company may expect to have an impact on the Company's revenue.

(e) Significant financing component in the contract

Heavy Tail payment method 'that collects most of receivable in delivery of the ship' is recently spreading in shipbuilding industry.

According to Korean IFRS 1115, in determining the transaction price, an entity adjusts the promised amount of consideration for the effects of the time value of money if the timing of payments agreed to by the parties to the contract provides the customer or the entity with a significant benefit of financing the transfer of goods or services to the customer.

According to Korean IFRS 1115, the consideration is recognized as revenue when there is a significant financing component in a contract. However, if the Company expects that the period between when the Company transfers a promised good or service to a customer and when the customer pays for that good or service will be one year or less, the Company will apply a practical expedient that does not adjust the promised amount of consideration for the effects of a significant financing component.

The Company could not analyze the financial effects of significant financing component in the contract in detail. Meanwhile, as a result of the impact assessment performed as at October 30, 2017, the Company expects a decrease in retained earnings before appropriation if the Company applies the effect of the time value of money between the revenue recognized by the percentage of completion applying Korean IFRS 1115 and collected revenue amount.

(f) Allocating the transaction price

With implementation of Korean IFRS 1115, the transaction price in an arrangement must be allocated to each separate performance obligation based on the relative standalone selling prices of the goods or services being provided to a customer. The Company determines the standalone selling price for each separate performance obligation by using `adjust market assessment approach'. In limited circumstances, the Company plans to use `expected cost plus a margin approach' to estimate expected cost plus a reasonable margin.

The Company could not analyze the financial effects of allocating each separate performance obligation based on the relative standalone selling prices in detail. Meanwhile, as a result of the impact assessment performed as at October 30, 2017, the Company does not expect to have an impact on the Company's revenue.

(g) Incremental costs of obtaining a contract

The Company pays broker commissions to its brokers based on supply contracts signed through the brokers. The commission is an incremental cost because it would not have incurred if the contract has not been obtained.

With implementation of Korean IFRS 1115, the Company recognizes as an asset the incremental costs of obtaining a contract with a customer of the Company expects to recover those costs, and costs that are recognized as assets are amortized over the period that the related goods or services transfer to the customer. However, the Company plans to apply a practical expedient that permits an entity to expense the costs to obtain a contract as incurred when the expected amortization period is one year or less.

The Company could not analyze the financial effects of capitalization of incremental costs obtaining a contract in detail. Meanwhile, as a result of the impact assessment performed as at October 30, 2017, the Company does not expect to have an impact on the Company's revenue.

(h) Warranties

The Company provides customers for certain project with a year warranty in addition to the assurance that the product complies with agreed-upon specifications. Therefore, the promised service is a performance obligation in accordance with Korean IFRS 1115.

In accordance with Korean IFRS 1115, if the Company provides the customer with a service in addition to the assurance that the product complies with agreed-upon specifications, the Company accounts for the promised warranty as a performance obligation and allocate a portion of the transaction price to that performance obligation.

The Company could not analyze the financial effects of distinguishing warranty obligations in detail. Meanwhile, as a result of the impact assessment performed as at October 30, 2017, the Company expects a decrease in retained earnings before appropriation as the portion of the transaction price is allocated to the warranty and revenue is recognized when the performance obligation is fulfilled in applying Korean IFRS 1115.

2.2 Cash and Cash Equivalents

Cash and cash equivalents include cash, savings and checking accounts and short-term investments highly liquidated with maturities of three months or less from acquisition.

2.3 Inventories

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

Cost of sales is recognized as a carrying amount of the inventories in the period they are sold, and the amount of any write-down of inventories to net realizable value and all losses of inventories are recognized as expenses when occurred. In addition, the amount of any reversal of any write-down of inventories, arising from an increase in net realizable value, is recognized as a reduction in the amount of inventories recognized as an expense in the period in which the reversal occurs.

2.4 Financial Assets

All financial assets are recognized and derecognized on trade date where the purchase or sale of a financial asset is under a contract whose terms require delivery of the financial asset within the timeframe established by the market concerned, and are initially measured at fair value plus transaction costs, except for those financial assets classified as at fair value through profit or loss (FVTPL), which are initially measured at fair value and for which transaction costs are recognized as expense in the period of occurrence. Financial assets are classified into the following specified categories: ‘FVTPL,’ ‘held-to-maturity(HTM) investments,’ ‘available-for-sale(AFS) financial assets’ and ‘loans and receivables’. The classification depends on the nature and purpose of the financial assets and is determined at the time of initial recognition.

(a) Effective interest method

The effective interest method is a method of calculating the amortized cost of a debt instrument and allocating interest income over the relevant period.

The effective interest rate is the rate that exactly discounts estimated future cash receipts (including all fees and points paid or received that form an integral part of the effective interest rate, transaction costs and other premiums or discounts) through the expected life of a financial asset, or, where appropriate, a shorter period, to the net carrying amount on initial recognition. Income is recognized on an effective interest basis for debt instruments other than those financial assets classified as at FVTPL.

(b) Financial assets at FVTPL

Financial assets are classified as at FVTPL when a financial asset is either held for trading or it is designated as at FVTPL.

A financial asset is classified as held for trading if:

- it has been acquired principally for the purpose of selling it in the near term
- it is a derivative that is not designated and effective as a hedging instrument

Financial assets at FVTPL are stated at fair value, with any gains or losses arising on remeasurement recognized in profit or loss. The net gain or loss recognized in profit or loss incorporates any dividend or interest earned on the financial asset.

(c) HTM financial assets

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

(d) AFS financial assets

Non-derivative financial assets that are not classified as HTM, held for trading, financial assets at FVTPL or loans and receivables are classified as AFS financial assets. Financial assets can be designated as AFS on initial recognition. AFS financial assets are initially recognized at fair value plus directly related transaction costs. They are subsequently measured at fair value. Unquoted equity investments whose fair value cannot be measured reliably are carried at cost. Gains and losses arising from changes in fair value are recognized in other comprehensive income and accumulated in the investments revaluation reserve, with the exception of impairment losses, interest calculated using the effective interest method and foreign exchange gains and losses on monetary assets, which are recognized in profit or loss. Where the investment is disposed of or is determined to be impaired, the cumulative gain or loss previously accumulated in the investments revaluation reserve is reclassified to profit or loss. Dividends on AFS equity instruments are recognized in profit or loss when the Company’s right to receive the dividends is established.

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

(e) Loans and receivables

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

(f) Impairment of financial assets

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

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

For certain categories of financial assets, such as trade receivables, assets that are assessed not to be impaired individually are, in addition, assessed for impairment on a collective basis. An objective evidence of impairment for a portfolio of receivables could include observable changes in national or local economic conditions that correlate with default on receivables.

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

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

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

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

(g) Derecognition of financial assets

The Company derecognizes a financial asset only when the contractual rights to the cash flows from the asset expire or when it transfers the financial asset and substantially all the risks and rewards of ownership of the asset to another entity.

If the Company neither transfers nor retains substantially all the risks and rewards of ownership and continues to control the transferred asset, the Company recognizes its retained interest in the asset and an associated liability for amounts it may have to pay. If the Company retains substantially all the risks and rewards of ownership of a transferred financial asset, the Company continues to recognize the financial asset and also recognizes a collateralized borrowing for the proceeds received.

2.5 Investments in Subsidiaries, Associates and Joint ventures

The financial statements of the Company are the separate financial statements prepared in accordance with Korean IFRS 1027 Separate Financial Statements. Investments in subsidiaries, joint ventures and associates are recognized at cost under the direct equity method. Meanwhile, in accordance with Korean IFRS 1101 First-time adoption of Korean IFRS, management applied the carrying amounts under the previous K-GAAP at the time of transition to the Korean IFRS as deemed cost of investments. The Company recognizes dividend income from subsidiaries, joint ventures and associates in profit or loss when its right to receive the dividend is established.

2.6 Non-current Assets (or Disposal Group) Held for sale

Non-current assets held for sale are classified as held for sale when their carrying amount will be recovered principally through a sale transaction rather than through continuing use and a sale is considered highly probable. The assets are measured at the lower amount between their carrying amount and the fair value less costs to sell.

2.7 Property, Plant and equipment

Land is shown at fair value based on valuations by external independent valuers. Valuations are performed with sufficient regularity to ensure that the fair value of a revalued asset does not differ materially from its carrying amount. Any accumulated depreciation at the date of revaluation is eliminated against the gross carrying amount of the asset, and the net amount is restated to the revalued amount of the asset.

All other property, plant and equipment are stated at historical cost less depreciation and accumulated impairment loss. Historical cost includes expenditure that is directly attributable to the acquisition of the items.

Increases in the carrying amount arising on revaluation of land and buildings are credited to other comprehensive income and shown as other reserves in equity. Decreases that offset previous increases of the same asset are charged to other comprehensive income and debited against other reserves directly in equity; all other decreases are charged to the statement of profit or loss. Each year the difference between depreciation based on the revalued carrying amount of the asset charged to the statement of profit or loss, and depreciation based on the asset's original cost, is transferred from 'revaluation reserves' to 'retained earnings'.

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

	Useful lives (years)
Buildings	12 – 60
Structures	12 – 51
Machinery	6 – 34
Vessels and aircraft	15 – 40
Vehicles and others	6 – 15

The assets' residual values and useful lives are reviewed, and adjusted if appropriate, at the end of each reporting period. An asset's carrying amount is adjusted to its recoverable amount if the asset's carrying amount is greater than its estimated recoverable amount. Gains and losses on disposals are determined by comparing the proceeds with the carrying amount and are recognized as 'other gains and losses, net' in the statement of profit or loss.

When revalued assets are sold, the amounts included in revaluation reserves are transferred to retained earnings.

2.8 Investment Property

Investment property, which is property held to earn rentals and/or for capital appreciation (including property under construction for such purposes), is measured initially at its cost, including transaction costs. Subsequent to initial recognition, investment property is measured at cost, less accumulated depreciation and accumulated impairment losses. Subsequent costs are recognized in carrying amount of an asset or as an asset if it is probable that future economic benefits associated with the assets will flow into the Company and the cost of an asset can be measured reliably. The carrying amount of components replaced by subsequent expenditure is removed, and costs related to ordinary repairs and maintenance are expensed as incurred.

While land is not depreciated, other depreciation expense is computed using the straight-line method based on the estimated useful lives of the assets as follows:

	Useful lives (years)
Buildings	50

Depreciation method, residual value and estimated useful lives of investment property are reviewed at the end of the each reporting period. If modification is believed to be reasonable after the review, the Company treats them as changes in accounting estimates.

2.9 Intangible Assets

(a) Intangible assets acquired separately

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

Intangible assets with indefinite useful lives that are acquired separately are carried at cost less accumulated impairment losses. If the result of the review differs from the previous estimates at the end of each reporting period, the difference is accounted for as a change in the accounting estimate.

(b) Internally generated intangible assets - research and development expenditure

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

An internally generated intangible asset arising from development (or from the development phase of an internal project) is recognized if, and only if, all of the following have been demonstrated:

- the technical feasibility of completing the intangible asset so that it will be available for use or sale;
- the intention to complete the intangible asset and use or sell it;
- the ability to use or sell the intangible asset;
- how the intangible asset will generate probable future economic benefits;
- the availability of adequate technical, financial and other resources to complete the development and to use or sell the intangible asset; and
- the ability to measure reliably the expenditure attributable to the intangible asset during its development.

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

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

(c) Intangible assets acquired in a business combination

Intangible assets that are acquired in a business combination are recognized separately from goodwill and are initially recognized at their fair value at the acquisition date (which is regarded as their cost).

Subsequent to initial recognition, intangible assets acquired in a business combination are reported at cost, less accumulated amortization and accumulated impairment losses.

(d) Derecognition of intangible assets

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

Intangible assets with definite useful lives are amortized based on the following estimated useful lives:

	Useful lives (years)
Industrial rights	5 - 10
Development expense	5
Exclusive right to use facilities	20 - 40

Amongst the Company's intangible assets, useful life of a membership is estimated to be indefinite since the usable period is not limited in accordance with the terms of the contract and the economic benefits are expected to be continuously generated from the asset during the holding period. Intangible assets that have indefinite useful lives are not amortized and are tested for impairment at the end of every fiscal year.

2.10 Impairment of Tangible and Intangible Assets other than Goodwill

At the end of each reporting period, the Company reviews the carrying amounts of its tangible and intangible assets to determine whether there is any indication that those assets have suffered an impairment loss. If any such indication exists, the recoverable amount of the individual asset is estimated in order to determine the extent of the impairment loss (if any). Where it is not possible to estimate the recoverable amount of an individual asset, the Company estimates the recoverable amount of the cash-generating unit to which the asset belongs. Intangible assets with indefinite useful lives and intangible assets not yet available for use are tested for impairment at least annually and whenever there is an indication that the assets may be impaired.

Recoverable amount is an individual asset (or a cash-generating units) of the higher of fair value, less costs to sell and value in use. In assessing value in use, the estimated future cash flows are discounted to their present value using a pretax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset for which the estimates of future cash flows have not been adjusted.

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

Where an impairment loss subsequently reverses, the carrying amount of the asset (or a cash-generating unit) is increased to the revised estimate of its recoverable amount, so that the increased carrying amount does not exceed the carrying amount that would have been determined had no impairment loss been recognized for the asset (or the cash-generating unit) in prior years. A reversal of an impairment loss is recognized immediately in profit or loss, unless the relevant asset is carried at a revalued amount, in which case the reversal of the impairment loss is treated as a revaluation increase.

2.11 Leases

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

(a) The Company as a lessor

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

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

(b) The Company as a lessee

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

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

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

Lease incentives received in operating lease contract are recognized as liabilities, unless another systematic basis is more representative of the time pattern of the benefit from use of the leased asset, it is recognized by deducting lease expense on a straight-line basis.

2.12 Foreign Currencies

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

Foreign currency transactions are translated into the functional currency using the exchange rates at the dates of the transactions. At the end of each reporting period, monetary items denominated in foreign currencies are retranslated at the rates prevailing at that date. Non-monetary items carried at fair value that are denominated in foreign currencies are retranslated at the rates prevailing at the date when the fair value was determined. Non-monetary items that are measured in terms of historical cost in a foreign currency are not retranslated.

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

2.13 Borrowing Costs

General and specific borrowing costs that are directly attributable to the acquisition, construction or production of a qualifying asset are capitalized during the period of time that is required to complete and prepare the asset for its intended use or sale. Investment income earned on the temporary investment of specific borrowings pending their expenditure on qualifying assets is deducted from the borrowing costs eligible for capitalization. Other borrowing costs are expensed in the period in which they are incurred.

Details of capitalized borrowing costs the Company capitalized for the years ended December 31, 2017 and 2016, are as follows:

(in millions of Korean won)		**2017**		**2016**
Capitalized borrowing costs	₩	164,560	₩	199,399
Cost of sales		164,365		199,353
Construction in progress		195		46
Specific borrowing interest rate		4.14%		3.25%
General borrowing interest rate		3.31%		2.59%

2.14 Financial Liabilities and Equity Instruments

Debt and equity instruments are classified as either financial liabilities or as equity in accordance with the substance of the contractual arrangement, and financial liabilities are classified as either financial liabilities at FVTPL or other financial liabilities.

(a) Equity instruments

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

(b) Financial guarantee contract liabilities

Financial guarantee contract liabilities recognized by the Company are the Company's obligation to make specified payments to reimburse the holder for a loss it incurs because a specified debtor fails to make payment when due in accordance with the original or modified terms of a debt instrument. The liability is initially measured at fair value, subsequently at the higher of the amount determined in accordance with Korean IFRS 1037 *Provisions, Contingent Liabilities and Contingent Assets* and the amount initially recognized less cumulative amortization in accordance with Korean IFRS 1018 *Revenue*.

(c) Financial liabilities at FVTPL

Financial liabilities are classified as at FVTPL when the financial liability is either held for trading; or is designated as at FVTPL. A financial liability is classified as held for trading if:

- it has been acquired principally for the purpose of repurchasing it in the near term.
- it is a derivative that is not designated and effective as a hedging instrument.

Financial liabilities at FVTPL are stated at fair value, with any gains or losses arising on remeasurement recognized in profit or loss.

(d) Other financial liabilities

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

(e) Derecognition of financial liabilities

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

2.15 Derivative Financial Instruments

Derivatives are initially recognized at fair value at the date the derivative contract is entered into and are subsequently remeasured to their fair value at the end of each reporting period. The resulting gain or loss is recognized in profit or loss immediately, unless the derivative is designated and effective as a hedging instrument, in which case the timing of the recognition in profit or loss depends on the nature of the hedge relationship. The Company designates certain derivatives as either hedges of recognized assets or liabilities or firm commitments (fair value hedges), hedges of highly probable forecast transactions or hedges of foreign currency risk of firm commitments (cash flow hedges).

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

(a) Embedded derivatives

Derivatives embedded in non-derivative host contracts are treated as separate derivatives when they meet the definition of a derivative, their risks and characteristics are closely related to those of the host contracts and the contracts are not measured at FVTPL.

An embedded derivative is presented as a non-current asset or a non-current liability if the remaining maturity of the hybrid instrument to which the embedded derivative relates is more than 12 months and it is not expected to be realized or settled within 12 months. Other embedded derivatives are presented as current assets or current liabilities.

(b) Hedge accounting

The Company designates derivative instruments as fair value and cash flow hedge instruments. At the inception of the hedge relationship, the Company documents the relationship between the hedging instrument and the hedged item along with its risk management objectives and its strategy for undertaking various hedge transactions. Furthermore, at the inception of the hedge and on an ongoing basis, the Company documents whether the hedging instrument is highly effective in offsetting changes in fair values or cash flows of the hedged item.

(c) Fair value hedges

Changes in the fair value of derivatives that are designated and qualify as fair value hedges are recognized in profit or loss immediately, together with any changes in the fair value of the hedged asset or liability that are attributable to the hedged risk.The change in the fair value of the hedging instrument and the change in the hedged item attributable to the hedged risk are recognized in the line of the statement of comprehensive income relating to the hedged item.

Hedge accounting is discontinued when the Company revokes the hedging relationship; when the hedging instrument expires or is sold, terminated or exercised; or when it no longer qualifies for hedge accounting. The fair value adjustment to the carrying amount of the hedged item arising from the hedged risk is amortized to profit or loss from that date.

(d) Cash flow hedges

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

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

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

2.16 Post-employment Benefits and Termination Benefits

Defined contribution plans are recognized as an expense when employees have rendered service entitling them to the contributions.

For defined benefit plan, the defined benefit obligation is calculated annually by independent actuaries using the projected unit credit method. Remeasurement, comprising actuarial gains and losses, the effect of the changes to the asset ceiling (if applicable) and the return on plan assets (excluding interest), is reflected immediately in the statement of financial position with a charge or credit recognized in other comprehensive income in the period in which they occur. Remeasurement recognized in other comprehensive income is reflected immediately in retained earnings and will not be reclassified to profit or loss. Past service cost is recognized in profit or loss in the period of a plan amendment. Net interest is calculated by applying the discount rate at the beginning of the period to the net defined benefit liability or asset. Defined benefit costs comprise of service cost (including current service cost, past service cost, as well as gains and losses on curtailments and settlements), net interest expense (income) and remeasurement. The Company presents the service cost and net interest expense (income) components in profit or loss and the remeasurement component in other comprehensive income. Curtailment gains and losses are accounted for as past service costs.

The defined benefit obligations recognized in the separate statement of financial position represents the actual deficit or surplus in the Company's defined benefit plans. Any surplus resulting from this calculation is limited to the present value of any economic benefits available in the form of refunds from the plans or reductions in future contributions to the plans.
A liability for a termination benefit is recognized at the earlier of when the entity can no longer withdraw the offer of the termination benefit and when the entity recognizes any related restructuring costs.

2.17 Provisions

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

The Company discloses contingent liabilities when:

A. there is a possible obligation that arises from past events and whose existence will be confirmed only by the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of the entity.
B. there is a present obligation that arises from past events, but it is not recognized because:
   i. it is not probable that an outflow of resources embodying economic benefits will be required to settle the obligation.
   ii. the amount of the obligation cannot be measured with sufficient reliability.

The amount recognized as a provision is the best estimate of the consideration required to settle the present obligation at the end of the reporting period, taking into account the risks and uncertainties surrounding the obligation. When a provision is measured using the cash flows estimated to settle the present obligation, its carrying amount is the present value of those cash flows (where the effect of the time value of money is material).

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

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

2.18 Government Grants

Government grants are not recognized until there is reasonable assurance that the Company will comply with the conditions attaching to them and that the grants will be received. Government grants, which require the Company to purchase, construct or otherwise acquire non-current assets, are recognized as deferred revenue in the separate statement of financial position and transferred to profit or loss on a systematic and rational basis over the useful lives of the related assets.

Government grants that are receivable as compensation for expenses or losses already incurred or for the purpose of giving immediate financial support to the Company with no future related costs are recognized in profit or loss in the period in which they become receivable.

2.19 Revenue Recognition

The Company recognizes revenue when the amount of revenue can be measured reliably, when it is probable that the economic benefits associated with the transaction will flow to the Company and when the following criteria specific to each of the Company's activities are met:

(a) Sale of goods and rendering of services

The Company recognizes revenue from sale of goods at the time of transfer, in principle, but when there are terms that require final sales decision after the transfer, it recognizes the revenue when all of the relevant terms are satisfied. Revenues from contracts to render services are recognized by reference to the stage of completion of the contracts.

When a loss is expected with respect to contracts to render services and construction contracts, the Company immediately accounts for the expected loss as a provision for estimated losses on uncompleted contracts and includes it in the cost of goods sold or construction cost in the current operation.

(b) Dividend income

Dividend income from investments is recognized when the Company's right to receive payment has been established, included in finance income with in the statement of profit or loss.

(c) Rental income
The Company's policy for recognition of revenue from operating leases is included in other non-operating income within the statement of profit or loss.

(d) Interest income

Interest income is recognized using the effective interest method according to the time passed. When a loan and receivable is impaired, the Company reduces the carrying amount to its recoverable amount (present value of the estimated future cash flows discounted at the original effective interest rate) and continues unwinding the discount as interest income. Interest income on impaired loans and receivables is recognized using the original effective interest rate.

2.20 Construction Contract

Where the outcome of a construction contract can be estimated reliably, revenue and costs are recognized by reference to the stage of completion of the contract activity at the end of the reporting period, measured based on the proportion of contract costs incurred for work performed to date relative to the estimated total contract costs, except where this would not be representative of the stage of completion.

Variations in contract work, claims and incentive payments are included to the extent that the amount can be measured reliably and its receipt is considered probable.

Where the outcome of a construction contract cannot be estimated reliably, contract revenue is recognized to the extent of contract costs incurred that, it is probable, will be recoverable. Contract costs are recognized as expenses in the period in which they are incurred.
When it is probable that total contract costs will exceed total contract revenue, the expected loss is recognized as an expense immediately.

When contract costs incurred to date, plus recognized profits less recognized losses exceed progress billing, the surplus is shown as 'amounts due from customers for contract work'. For contracts where progress billings exceed contract costs incurred to date, plus recognized profits less recognized losses, the surplus is shown as 'the amounts due to customers for contract work'. Amounts received before the related work is performed are included in the separate statement of financial position, as a liability, as 'advances received'. Amounts billed for work performed but not yet paid by the customer are included in the separate statement of financial position under 'trade and other receivables'.

2.21 Income Tax

Income tax consists of current tax and deferred tax.

(a) Current tax

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

(b) Deferred tax

Deferred tax is recognized on temporary differences between the carrying amounts of assets and liabilities in the separate financial statements and the corresponding tax bases used in the computation of taxable profit. Deferred tax liabilities are generally recognized for all taxable temporary differences. Deferred tax assets are generally recognized for all deductible temporary differences to the extent that it is probable that taxable profits will be available against which those deductible temporary differences can be utilized.

Such deferred tax assets and liabilities are not recognized if the temporary difference arises from goodwill or from the initial recognition (other than in a business combination) of other assets and liabilities in a transaction that affects neither the taxable profit nor the accounting profit.

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

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

Deferred tax assets and liabilities are offset if there is a legally enforceable right to offset current tax assets and liabilities, they relate to income taxes levied by the same tax authority and the Company has intent to settle current tax liabilities and assets on a net basis.

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

2.22 Fair value

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

In addition, for financial reporting purposes, 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 1 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).

3. Financial Instruments

3.1 Financial Risk Management

3.1.1 Financial risk factors

The Company's activities are expose to a variety of financial risks: market risk (including currency risk, price risk, and interest rate risk), credit risk and liquidity risk. The purpose of managing financial risk is to identify the potential risk factors that may affect the Company's financial performance and minimize it to the extent that is acceptable. Risk management is carried out by the relevant departments based on the risk management policies approved by the Board of Directors, and the risk management department identifies, assesses and hedges financial risks through close cooperation with other relevant departments. Overall, financial risk management policy of the Company is consistent with that of the prior period.

3.1 .2 Risk aversion activities

3.1.2-1 Market risk management

(a) Foreign currency risk

Foreign exchange risk arises from future commercial transactions or when recognized assets or liabilities are denominated in a currency that is not the Company's functional currency. Exchange rate exposure is managed within approved policy parameters utilizing forward exchange contracts.

1) Foreign currency sensitivity analysis

The Company is exposed to foreign exchange risk arising from foreign currency transactions, primarily with respect to the US dollar and Euro. The book amounts of the Company's monetary assets and liabilities denominated in foreign currencies as at December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	2017									
	USD		EUR		JPY		Others		Total	
	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities
Functional currency (Korean won)	₩5,164,410	₩1,870,815	₩ 421	₩130,867	₩ -	₩ 364	₩ 64,973	₩ 53,660	₩5,229,804	₩2,055,706

(in millions of Korean won)	2016									
	USD		EUR		JPY		Others		Total	
	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities
Functional currency (Korean won)	₩5,441,716	₩3,742,916	₩ 7,604	₩169,491	₩ -	₩ 519	₩ 134,616	₩ 108,773	₩5,583,936	₩4,021,699

The Company's sensitivity to a 10% increase or decrease in Korean won (functional currency of the Company) against the major foreign currencies as at December 31, 2017 and 2016, is presented in the table below. The sensitivity rate used in reporting foreign currency risk internally to key management personnel is 10% and it represents management's assessment of the reasonably possible change in foreign exchange rates.

The sensitivity analysis includes only outstanding monetary items denominated in foreign currencies. The impact of weakened/strengthened Korean won by 10 % on the Company's pre-tax profit or loss for the years is as follows:

(in millions of Korean won)	2017			
	USD	EUR	JPY	Others
10% increase (Korean won weakened)	₩ 329,360	₩ (13,045)	₩ (36)	₩ 1,131
10% decrease (Korean won strengthened)	(329,360)	13,045	36	(1,131)

(in millions of Korean won)	2016			
	USD	**EUR**	**JPY**	**Others**
10% increase (Korean won weakened)	₩ 169,880	₩ (16,189)	₩ (52)	₩ 2,584
10% decrease (Korean won strengthened)	(169,880)	16,189	52	(2,584)

2) Forward foreign exchange contracts

It is the policy of the Company to enter into forward foreign exchange contracts to cover specific foreign currency payments and receipts within 70%–100% of the exposure generated.

The following table details the forward foreign currency contracts outstanding as at December 31, 2017 and 2016.

(in millions of Korean won, in thousands of US dollar, Euro and British pound)	2017					
	Average contracted exchange rate		**Sell amounts**		**Buy amounts**	**Fair value**
For fair value hedging						
Sell USD	1,098.39	USD	3,795,811	KRW	4,169,264	₩ 127,489
For trading						
Sell USD / Buy EUR	1.33	USD	2,255	EUR	1,700	(238)
Sell USD / Buy GBP	1.45	USD	182	GBP	125	(14)
Sell USD	1,159.63	USD	346,000	KRW	401,233	31,377
		KRW	-	KRW	4,570,497	₩ 158,614
		USD	4,144,248	USD	-	
		EUR	-	EUR	1,700	
		GBP	-	GBP	125	

(in millions of Korean won, in thousands of US dollar, Euro, British pound and Canadian Dollar)	**2016**					
	Average contracted exchange rate		**Sell amounts**		**Buy amounts**	**Fair value**
For fair value hedging						
Sell USD	1,104.19	USD	5,897,500	KRW	6,511,952	₩ (471,891)
For trading						
Sell USD / Buy EUR	1.31	USD	12,359	EUR	9,449	(2,787)
Sell USD / Buy GBP	1.45	USD	182	GBP	125	(31)
Sell USD / Buy CAD	0.94	USD	856	CAD	909	(200)
Sell USD	1,184.43	USD	394,000	KRW	466,665	(6,023)
Sell GBP	1,805.98	GBP	16,000	KRW	28,896	5,251
		KRW	-	KRW	7,007,513	
		USD	6,304,897	USD	-	
		EUR	-	EUR	9,449	₩ (475,681)
		GBP	16,000	GBP	125	
		CAD	-	CAD	909	

(b) *Price risk*

The Company's investment in marketable equity securities is made upon management's decision and it does not have specific investment policies for equity securities. As at December 31, 2017, the Company has marketable equity securities that are classified as available-for-sale financial assets, and when the price of the marketable equity securities increase by 10%, the effect to other components of equity will be increased by ₩ 367 million (2016 : increased by ₩ 464 million). Conversely, if the price decreases, it will be decreased.

(c) *Interest risk*

The interest rate risk mainly arises through floating borrowings. The interest rate risk is managed through the interest rate swap contract if the interest rate risk hedging is required.

The Company's exposures to interest rates on financial assets and financial liabilities as at December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	**2017**	**2016**
Fixed interest rate		
Financial assets[1]	₩ 525,102	₩ 465,406
Financial liabilities[2]	(2,053,761)	(2,822,360)
	₩ (1,528,659)	₩ (2,356,954)
Floating interest rate		
Financial assets[1]	₩ 179,671	₩ 171,573
Financial liabilities[2]	(1,501,774)	(3,044,638)
	₩ (1,322,103)	₩ (2,873,065)

[1] Financial assets consist of cash and cash equivalents, short-term and long-term financial instruments, held-to-maturity financial assets and short-term and long-term loans.
[2] Financial liabilities consist of short-term and long-term borrowings and debentures.

The Company has not recognized fixed-rate financial assets as at FVTPL and has not designated derivatives as hedging instruments of fair value hedge accounting. Therefore, changes in interest rates do not affect profit or loss.

The table below summarizes the impact of increases/decreases of interest rate on the Company's pre-tax profit for the year. The analysis is based on the assumption that the interest rate has increased/decreased by 100 basis points with all other variables held constant.

(in millions of Korean won)		2017		2016
Financial instruments with floating interest rates				
100 bp increase	₩	(13,221)	₩	(28,731)
100 bp decrease		13,221		28,731

The sensitivity analyses above have been determined based on the exposure to interest rates for both derivatives and non-derivative instruments at the end of the reporting period. For floating-rate financial assets and liabilities, the analysis is prepared assuming the amount of the financial assets and liabilities outstanding at the end of the reporting period was outstanding for whole year.

A 100 bp increase or decrease is used when reporting interest rate risk internally to key management personnel and represents management's assessment of the reasonably possible change in interest rates.

3.1.2-2 Credit Risk Management

Credit risk is managed on a group basis. Credit risk arises from cash and cash equivalents, deposits with banks and financial institutions and derivative financial instruments, as well as credit exposures to customers, including outstanding receivables and committed transactions. For financial institutions, only independently rated parties with a minimum rating of 'A' are accepted. If wholesale customers are independently rated, these ratings are used. If there is no independent rating, the credit quality of the customer is evaluated taking into account its financial position, past experience and other factors.
The maximum exposure to credit risk of loans and receivables and derivatives is represented by the carrying amount, and for financial guarantee liabilities, it is represented by the maximum amount to be paid at the debtor's request, which amounts to ₩ 298,002 million (2016: ₩ 558,985 million) (Notes 16 and 36).

The Company reviews the book amount of its financial assets to determine whether there is any indication that those assets have suffered an impairment loss. The Company recognizes the difference between the book amount and recoverable amount as impairment loss.

3.1 .2-3 Liquidity Risk Management

The Company manages liquidity risk by maintaining sufficient cash and marketable securities, the availability of funding through an adequate level of committed credit facilities and the ability to close out market position. Due to the dynamic nature of the underlying business, the Company maintains flexibility in funding by maintaining availability under committed credit lines.

a) The table below analyses the Company's non-derivative financial liabilities into relevant maturity groupings based on the remaining period at the end of reporting period to the contractual maturity date. The amounts disclosed in the table are the contractual undiscounted cash flows. The balances due within a year equal to their book amount as the impact of discounting is not significant.

(in millions of Korean won)	2017			
	Less than 1 year	**Between 1 and 2 years**	**Over 2 years**	**Total**
Borrowings and others[1]	₩ 2,430,886	₩ 27,914	₩ 1,510,495	₩ 3,969,295
Trade and other payables	1,080,635	78,733	35,392	1,194,760
Financial guarantee contract[2]	298,002	-	-	298,002
	₩ 3,809,523	₩ 106,647	₩ 1,545,887	₩ 5,462,057

(in millions of Korean won)	2016			
	Less than 1 year	**Between 1 and 2 years**	**Over 2 years**	**Total**
Borrowings and others[1]	₩ 5,156,368	₩ 495,941	₩ 387,290	₩ 6,039,599
Trade and other payables	1,574,620	63,727	73,082	1,711,429
Financial guarantee contract[2]	558,985	-	-	558,985
	₩ 7,289,973	₩ 559,668	₩ 460,372	₩ 8,310,013

[1] The cash flows for borrowings (including debentures) include expected interest expense
[2] Amount of financial guarantee contract represents a limit of payment guarantee, which is the maximum amount payable by the Company in case the debtor claims for the full guaranteed amount.

The table below analyses the Company's derivative instruments into relevant maturity groupings based on the remaining period at the end of reporting period to the contractual maturity date. The amount of the derivative instruments that are settled in net amounts is based on undiscounted net cash inflows and outflows in accordance with the terms of the contract. In case the amounts to be received or paid are not settled, an interest rate estimated based on the yield curve at the end of the reporting period is used.

(in millions of Korean won)	2017			
	Less than 1 year	**Between 1 and 2 years**	**Over 2 years**	**Total**
Net settlement:				
Currency forward contracts	₩ 91,338	₩ 53,580	₩ 16,264	₩ 161,182

(in millions of Korean won)	2016			
	Less than 1 year	**Between 1 and 2 years**	**Over 2 years**	**Total**
Net settlement:				
Currency forward contracts	₩ (224,358)	₩ (217,669)	₩ (121,006)	₩ (563,033)

3.2 Capital Risk Management

The Company manages its capital in order to maintain the ability to continuously provide profits to its shareholders and interest parties and optimum capital structure to reduce capital expenses. Meanwhile, the Company's general strategy of capital risk management is consistently applied with that of previous year.

Consistent with others in the industry, the Company monitors capital on the basis of the gearing ratio. This ratio is calculated as net debt divided by total capital. Net debt is total borrowings less cash and cash equivalents and short-term financial instruments. Total capital is 'equity' as shown in the separate statement of financial position plus net debt. The credit rating was unchanged and the gearing ratios at December 31, 2017 and 2016, were as follows:

(in millions of Korean won)		**2017**		**2016**
Total borrowings (Notes 20 and 21)	₩	3,555,536	₩	5,866,998
Less: cash and cash equivalents and short-term financial instruments		(242,643)		(161,220)
Net debt		3,312,893		5,705,778
Total equity		2,744,016		238,917
Total capital	₩	6,056,909	₩	5,944,695
Gearing ratio		54.70%		95.98%

3.3 Financial Instruments Measured at Fair Value

3.3.1 Fair value hierarchy classifications of the financial instruments that are measured at fair value in the statement of financial position as at December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	2017			
	Level 1	Level 2	Level 3	Total
Financial assets				
Financial assets at FVTPL				
Derivative held for trading	₩ -	₩ 31,377	₩ -	₩ 31,377
Derivative financial assets				
Derivative instrument for hedging	-	137,775	-	137,775
Available-for-sale financial assets				
Listed securities	8	-	-	8
Beneficiary certificates	3,663	-	-	3,663
Non-listed securities	-	6,296	20,872	27,168
	₩ 3,671	₩ 175,448	₩ 20,872	₩ 199,991
Financial liabilities				
Financial liabilities at FVTPL				
Derivative held for trading	₩ -	₩ 252	₩ -	₩ 252
Financial liabilities designated at fair value through profit or loss	-	51,252	-	51,252
Derivative financial liabilities				
Derivative instrument for hedging	-	10,286	-	10,286
	₩ -	₩ 61,790	₩ -	₩ 61,790

(in millions of Korean won)	2016			
	Level 1	**Level 2**	**Level 3**	**Total**
Financial assets				
Financial assets at FVTPL				
Derivative held for trading	₩ -	₩ 7,140	₩ -	₩ 7,140
Derivative financial assets				
Derivative instrument for hedging	-	-	-	-
Available-for-sale financial assets				
Listed securities	17	-	-	17
Beneficiary certificates	4,641	-	-	4,641
Non-listed securities	-	1,799	14,707	16,506
Debt securities	-	124	-	124
	₩ 4,658	₩ 9,063	₩ 14,707	₩ 28,428
Financial liabilities				
Financial liabilities at FVTPL				
Derivative held for trading	₩ -	₩ 10,931	₩ -	₩ 10,931
Derivative financial liabilities				
Derivative instrument for hedging	-	471,891	-	471,891
	₩ -	₩ 482,822	₩ -	₩ 482,822

There were no significant transfers between Level 1 and Level 2 for the years ended December 31, 2017 and 2016.

3.3.2 The management of the Company concluded that the book amount of financial instruments in the statement of financial position, which are not subsequently measured at the fair value, are a reasonable approximate of the fair value (Note 5).

3.3.3 Following table describes the valuation techniques used to measure Level 2 and 3 fair value, and the relationship between significant but not observable input and non-observable inputs and fair value measurements.

(in millions of Korean won)	**Level**	**Valuation techniques**	**Inputs**	**Unobservable range of inputs**
Financial Instruments that are measured at fair value in the Financial Statement				
Currency forward	2	Discounted Cash Flow	Forward Exchange Rate Discount rate reflecting credit risk	N/A
Non-listed securities	2	Quoted Value from not traded in open market	Quoted Value from not traded in open market	N/A
	3	Discounted Cash Flow	WACC	8.72%
			Growth Rate of Revenue	2.9%
		Comparable Company Analysis	PBR	0.78
			EV/EBITDA	6.97
Financial Instruments that are not measured at fair value in the Financial Statement but posted at fair value				
Debt Securities	2	Discounted Cash Flow	Discount rate reflecting credit risk	N/A

3.3.4 Valuation Processes for Fair Value Measurements Categorized as Level 3

The Company evaluates the fair value measurement for the purpose of financial reporting by an external agency and accounting department reviews the evaluation results of an external agency. These fair value measurements include fair value measurements that are classified as Level 3

3.3.5 Sensitivity analysis for Recurring Fair Value Measurements Categorized as 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 profit or loss from changes in inputs for each financial instrument that categorized as level 3 and subject to sensitivity analysis, are as follows:

(in millions of Korean won)	**2017**			
	Favorable changes		**Unfavorable changes**	
	Profit or loss	**Equity**	**Profit or loss**	**Equity**
Financial assets				
Available-for-sale financial assets [1]	₩ -	₩ 1,766	₩ -	₩ (1,402)
Available-for-sale financial assets [2]	-	641	-	(642)
	₩ -	₩ 2,407	₩ -	₩ 2,044

[1] The above available-for-sale financial assets are non-listed securities that are valued using the

discounted cash flow. Fair value changes are calculated by increasing or decreasing the WACC, which is one of the inputs, by 10%.
[2] The above available-for sale financial assets are held by private equity funds. Fair value changes are calculated by increasing and decreasing the estimated final recoverable amount by 10% at the end of the business.

3.3.6 Transfers Between Fair Value Hierarchy Levels of Recurring Fair Value Measurements

The Company's policy is to recognize transfers between levels of the fair value at the date of the event or change in circumstances that caused the transfer.

Details of transfers between levels of each fair value hierarchy of financial instruments are as follows:

There were no transfers between levels 1 and 2 for recurring fair value measurements during the year.

Changes in level 3 for recurring fair value measurements for the years ended December 31, 2017 and 2016, are as follows:

(in millions of Korean won)		**2017**		**2016**
Available-for-sale financial assets:				
Non-listed securities				
Beginning balance	₩	14,707	₩	48,940
Purchases (Disposal)		-		-
Transfer[1, 2]		6,149		(37,109)
Valuation		16		2,876
Ending balance	₩	20,872	₩	14,707

[1] As non-listed securities changed valuation methods from cost methods to fair value measurement, amount has been transferred to Level 3 during the current year.
[2] During the prior period, transfer amount consists of transfer to Level 1 due to listing of non-listed securities and the portion replaced by Level 2 due to the debt-to-equity swap.

3.3.7 Financial asset and liabilities that are subject to the subsequent measurement at fair value; however, measured at cost as their fair value cannot be measured reliably and excluded from the fair value disclosure as at December 31, 2017 and 2016, are as follows:

(in millions of Korean won)		**2017**		**2016**
Available-for-sale financial assets				
Non-listed securities	₩	8,793	₩	14,932
Other equity investments		12,454		12,454
	₩	21,247	₩	27,386

Meanwhile, the management of the Company determined that the differences between the book amount and the fair value of financial instrument are not significant.

3.4 Reclassification and Transfer of Financial Assets

For the year ended December 31, 2017, there are no financial assets reclassified due to changes in purpose or use. As at December 31, 2017, there are no transferred financial assets that are not derecognized in their entirety.

4. Critical Accounting Estimates and Assumptions

The Company makes estimates and assumptions concerning the future. Estimates and assumptions are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the current circumstances. Actual results may differ from these estimates.

The estimates and assumptions that have a significant risk causing an adjustment to the carrying amounts of assets and liabilities within current year are discussed below.

4.1 Construction Contracts

4.1.1 Revenue recognition based on the input method

The Company recognizes contract revenue and contract cost associated with the construction contract as revenue and expense respectively by based on the percentage of completion of the contract activity at the end of the reporting period when the outcome of a construction contract can be estimated reliably. The percentage of completion of the contract activity is the proportion that costs incurred to date, excluding any contract cost that does not reflect the work performed, bear to the estimated total costs of the contract. The Company presents the gross amount due from customer for contract work as an asset for all contracts in progress for which costs incurred plus recognized profits (less recognized losses) exceed progress billings, and presents the gross amount due to customers for contract work as a liability for all contracts in progress for which progress billings exceed costs incurred plus recognized profits (less recognized losses).

4.1.2 Uncertainty of estimates in total contract costs

Contract revenue is affected by the stage of completion of a contract which is determined by reference to the contract costs incurred to date. Total contract costs is estimated based on future estimates of material cost, labor cost and construction period and others. During the prior period, unexpected process delay in offshore plants have occurred, which was not expected from the prior period, and caused the delivery date to be concentrated in a specific time period with increasing the inefficiency in respective process. As a result, the general construction costs to estimated costs have significantly increased. Such process delay in offshore plants and occurrence of inefficiency caused increase in the uncertainty of estimated total contract costs.

As at December 31, 2017, when the estimation of remaining contract costs for construction in progress changes by 5%, the effect to profit for the year before income tax and net asset before income tax effect decreases by ₩272,699 million.

4.1.3 Collectability of amounts due from customer under construction contracts

The Company assess at the end of each reporting period whether there is any objective evidence that an amounts due from customer under construction contracts is impaired. The objective evidences include adverse change in customer’s financial situation, delay in construction process or increase in possibility of cancellation due to decrease in vessel price and delay in delivery schedule. After the Company’s assessment on the objective evidence of impairment and if there is objective evidence of impairment as a result of one or more events that occurred and that loss event has an impact on the estimated future cash flows of construction contract that can be reliably estimated, the Company recognize the amount as ‘impairment loss’.

As at December 31, 2017, The uncertainty of estimates in collectability of the amount due from customer under construction contracts has been increased because of contract termination and delay in contract completion that are caused by customers’ financial difficulties due to extended global oil price decline.

4.1.4 Uncertainty of estimates in total contract revenue regarding variation in contract work

The total contract revenue is measured based on the original contract price from the initially agreed contract, however, the amount of contract revenue may increase or decrease due to a variation, claim, and incentive payment. A variation is included in contract revenue by the Company when it is probable that the customer will approve the variation and the amount of revenue arising from the variation and the amount of revenue can be reliably measured. Such measurement of contract revenue is affected by a variety of uncertainties that depend on the outcome of future event.

4.1.5 Uncertainty of estimates in liquidated damage regarding delay of construction

The liquidated damage arising from delay caused by the Company in completion of contract may cause a decrease in total contract revenue; therefore, the Company estimates the liquidated damage for a project that may delay in completion schedule on a basis of historical experience. As at December 31, 2017, the maximum amount for liquidated damages arising from delays caused by the Company estimated ₩347,816 million. The best estimate of liquidated damages, which arise from delay caused by the Company, that is likely payable by the Company is ₩137,182 million, and the amount is deducted from the contract revenue amount. These amounts would be consistently revalued until completion of construction.

The Company continuously prepare countermeasure acts; such as, claim for extension of construction completion date and gives evidence of the reason that construction completion delay is not caused by the Company to their customers in order to minimize the liquidated damages.

4.2 Deferred Tax Assets

The Company reviews the carrying value of deferred tax assets at the end of each reporting period, and decrease the carrying value of deferred tax assets when it is not probable to generate sufficient taxable profit to recover all or part of deferred tax asset.

4.3 Fair Value of Financial Instruments

Equity instruments that are traded in an active market are classified as AFS financial assets and measured at fair value.

For non-marketable equity instruments, it is reasonable to discount the future expected cash flows at a current market rate applied to instruments with similar terms and risks.This valuation technique requires management’s assumption on the expected future cash flows and discount rate and, therefore, is based on uncertainty.

4.4 Post-employment Benefits Plan and Other Long-term Employee Benefits

The Company operates defined benefit pension plan, long-term seniority reward regulation, and retirement reward regulation. The service cost of the plan is determined using actuarial valuations. In order to apply actuarial valuations, it is necessary to assume a discount rate, an expected rate of return on plan assets, wage increase rate and others. Post-employment benefit plan contains significant uncertainties on the estimation due to its long-term nature.The net defined benefit liabilities and other long-term employee benefit as at December 31, 2017, are ₩136,489 million (2016: ₩147,397 million) and ₩21,903 million (2016: ₩24,646 million), respectively, and details are described in Note 23.

4.5 Impairment of Non-financial Assets

At the end of the reporting period, the Company reviews the carrying amounts of its non-financial assets to determine whether there is any indication that those assets have suffered an impairment loss. Intangible assets with indefinite useful lives are tested for impairment at least annually and whenever there is an indication that the asset may be impaired. Other non-financial assets are tested for impairment whenever there is an indication that the carrying amount will not be recoverable. In assessing value in use, management estimates future expected cash flows derived from the relevant asset or cash-generating unit and applies an appropriate discount rate to compute the present value.

4.6 Impairment of AFS Financial Assets and Investment in Subsidiaries, Associates and Joint Ventures

In assessing whether an AFS financial asset and investment in subsidiaries, associates and joint ventures is impaired, the Company evaluates, among other factors, the duration and extent to which the fair value of an asset is less than its cost and the financial health of and short-term business outlook for the investee, changes in technology and operational and financing cash flows.

5. Financial Instruments by Category

5.1 Carrying Amounts of Financial Instruments by Category

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

(in millions of Korean won)	2017						
	Loans and receivables	**Financial assets at FVTPL**	**Held-to-maturity financial assets**	**Available-for-sale financial assets**	**Derivative financial assets for hedging**	**Total (Carrying amount)**	**Fair value**
Cash and cash equivalents	₩ 160,139	₩ -	₩ -	₩ -	₩ -	₩ 160,139	₩ 160,139
Short-term and long-term financial assets	496,528	-	-	-	-	496,528	496,528
Financial assets at FVTPL[1]	-	31,377	-	-	-	31,377	31,377
Held-to-maturity financial assets	-	-	331	-	-	331	331
Available-for-sale financial assets	-	-	-	52,085	-	52,085	52,085
Trade and other receivables	574,047	-	-	-	-	574,047	574,047
Due from customers for contract work, net	4,046,598	-	-	-	-	4,046,598	4,046,598
Currency forward assets	-	-	-	-	137,775	137,775	137,775
	₩ 5,277,312	₩ 31,377	₩ 331	₩ 52,085	₩ 137,775	₩ 5,498,880	₩ 5,498,880

(in millions of Korean won)	2016						
	Loans and receivables	**Financial assets at FVTPL**	**Held-to-maturity financial assets**	**Available-for-sale financial assets**	**Derivative financial assets for hedging**	**Total (Carrying amount)**	**Fair value**
Cash and cash equivalents	₩ 144,293	₩ -	₩ -	₩ -	₩ -	₩ 144,293	₩ 144,293
Short-term and long-term financial assets	400,033	-	-	-	-	400,033	400,033
Financial assets at FVTPL[1]	-	7,140	-	-	-	7,140	7,140
Held-to-maturity financial assets	-	-	338	-	-	338	338
Available-for-sale financial assets	-	-	-	48,674	-	48,674	48,674
Trade and other receivables	616,896	-	-	-	-	616,896	616,896
Due from customers for contract work, net	4,462,694	-	-	-	-	4,462,694	4,462,694
	₩ 5,623,916	₩ 7,140	₩ 338	₩ 48,674	₩ -	₩ 5,680,068	₩ 5,680,068

[1] Financial assets at FVTPL consist of currency forward assets held for trading.

Meanwhile, the above amount is sum of current and non-current assets, less provision for impairment (accumulated impairment losses).

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

(in millions of Korean won)	2017				
	Financial liabilities at FVTPL	**Other financial liabilities**	**Derivative financial liabilities for hedging**	**Total (Carrying amount)**	**Fair value**
Borrowings	₩ -	₩ 3,024,874	₩ -	₩ 3,024,874	₩ 3,014,897
Debentures	-	530,661	-	530,661	520,664
Financial liabilities at FVTPL[1]	51,504	-	-	51,504	51,504
Trade and other payables	-	1,194,760	-	1,194,760	1,194,760
Currency forward liabilities[1]	-	-	10,286	10,286	10,286
Financial guarantee liabilities[2]	-	31,737	-	31,737	31,737
	₩ 51,504	₩ 4,782,032	₩ 10,286	₩ 4,843,822	₩ 4,823,848

(in millions of Korean won)	2016				
	Financial liabilities at FVTPL	**Other financial liabilities**	**Derivative financial liabilities for hedging**	**Total (Carrying amount)**	**Fair value**
Borrowings	₩ -	₩ 4,325,687	₩ -	₩ 4,325,687	₩ 4,325,591
Debentures	-	1,541,311	-	1,541,311	1,409,339
Financial liabilities at FVTPL[1]	10,931	-	-	10,931	10,931
Trade and other payables	-	1,711,428	-	1,711,428	1,711,428
Currency forward liabilities[1]	-	-	471,891	471,891	471,891
Financial guarantee liabilities[2]	-	181,058	-	181,058	181,058
	₩ 10,931	₩ 7,759,484	₩ 471,891	₩ 8,242,306	₩ 8,110,238

[1] Financial liabilities at FVTPL consist of currency forward liabilities held for trading and financial liabilities designated at fair value through profit or loss. Currency forward liabilities that are effective as a hedging instrument are classified as a derivative financial liabilities for hedging.
[2] As descripted in Notes 16 and 36, the Company recognized expected payment guarantees amount, based on the agreement provided to the related parties as financial guarantee liabilities.

5.2 Net Gains or Losses by Category of Financial Instruments

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

(in millions of Korean won)		2017		2016
Loans and receivables				
Interest income	₩	16,375	₩	15,354
Impairment loss[1]		(383,624)		(637,278)
Gains(Losses) on foreign currency translation, net		(306,454)		106,901
Losses on foreign currency transaction, net		(97,707)		(66,020)
Financial assets at FVTPL				
Gains on valuation of currency forward		34,079		5,747
Gains on currency forward transaction		11,092		54,680
Held-to-maturity financial assets				
Interest income		9		9
Available-for-sale financial assets				
Dividend income		476		826
Gains (losses) on valuation of AFS financial assets (other comprehensive income)		4,194		(7,340)
Gains on disposal of AFS financial assets		976		7,586
Impairment loss on AFS financial assets		-		(13,214)
Derivative financial assets for hedging				
Gains on valuation of currency forward		336,885		-
Gains on currency forward transaction		66,468		33,473
Financial liabilities at FVTPL				
Gains (losses) on valuation of currency forward		288		(4,027)
Gains (losses) on currency forward transaction		2,817		(10,865)
Gains on valuation of financial liabilities at FVTPL		2,675		-
Other financial liabilities				
Interest expenses		(33,016)		(69,291)
Gains (losses) on foreign exchange translation, net		212,721		(155,047)
Gains on foreign currencies transaction, net		113,938		53,185
Reversal of (transfer to) financial guarantee liabilities		25,547		(119,065)
Gains on debt restructuring		1,425,031		-
Capitalized financial expenses		(164,560)		(199,399)
Derivative financial liabilities for hedging				
Gains (losses) on valuation of currency forward		45,841		(162,618)
Gains on currency forward transaction		101,144		28,218

[1] The amount of impairment loss for the year ended December 31, 2017 includes reversal of provision for impairment.

6. Cash and Cash Equivalents

The cash and cash equivalents in the separate statement of cash flows are the same as the cash and cash equivalents in the separate statement of financial position. Details of cash and cash equivalents as at December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	December 31, 2017	December 31, 2016
Financial institution deposits	₩ 160,139	₩ 144,293

7. Restricted or Pledged Financial Assets

The restricted or pledged financial assets as at December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	December 31, 2017	December 31, 2016	Description
Cash and cash equivalents	₩ -	₩ 20,316	Performance guarantee
Short-term financial asset	82,504	16,927	Performance guarantee and others
Long-term financial instrument	414,024	383,107	Performance guarantee and others
	₩ 496,528	₩ 420,350	

8. Trade and Other Receivables

8.1 Details of trade and other receivables as at December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	December 31, 2017		December 31, 2016	
	Current	Non-current	Current	Non-current
Receivables from construction contracts	₩ 539,584	₩ 978,285	₩ 383,042	₩ 1,136,496
Less: Provision for impairment	(137,095)	(947,540)	(113,936)	(1,004,763)
Receivables from construction contracts, net	402,489	30,745	269,106	131,733
Loans	711,040	173,098	423,874	462,667
Less: Provision for impairment	(689,274)	(147,089)	(381,840)	(412,049)
Loans, net	21,766	26,009	42,035	50,618
Other receivable	404,509	149,250	411,162	173,980
Less: Provision for impairment	(385,818)	(85,920)	(385,111)	(94,810)
Other receivable, net	18,691	63,330	26,052	79,170
Accrued income	136,147	56,156	81,456	33,111
Less: Provision for impairment	(135,965)	(56,137)	(81,221)	(28,374)
Accrued income, net	182	19	236	4,737
Guarantee deposits provided	-	28,692	-	31,082
Less: Provision for impairment	-	(17,879)	-	(17,871)
Guarantee deposits provided, net	-	10,813	-	13,211
	₩ 443,128	₩ 130,916	₩ 337,429	₩ 279,469

The impact from discount of trade and other receivables is immaterial; therefore, the difference between the book amount and fair value of the account is also immaterial.

8.2 The aging analysis of trade receivables as at December 31, 2017 and 2016, is as follows:

(in millions of Korean won)	2017					
	Receivables from construction contracts	**Loans**	**Other receivables**	**Accrued income**	**Guarantee deposits provided**	**Total**
Receivables not past due	₩ 367,394	₩ 21,413	₩ 43,466	₩ 202	₩ 7,892	₩ 440,367
Past due but not impaired						
Up to 30 days	23,962	-	1,292	-	-	25,254
30 days to 60 days	32	-	108	-	-	140
60 days to 90 days	731	-	322	-	-	1,053
Over 90 days	12,356	-	77	-	-	12,433
	₩ 37,081	₩ -	₩ 1,799	₩ -	₩ -	₩ 38,880
Impaired						
Up to 30 days	-	805,025	-	-	20,800	825,825
30 days to 60 days	594	-	512	-	-	1,106
60 days to 90 days	22,997	-	1,640	-	-	24,637
Over 90 days	1,089,803	57,701	506,342	192,102	-	1,845,948
	₩ 1,113,394	₩ 862,726	₩ 508,494	₩ 192,102	₩ 20,800	₩ 2,697,516
	₩ 1,517,869	₩ 884,139	₩ 553,759	₩ 192,304	₩ 28,692	₩ 3,176,762

(in millions of Korean won)	2016					
	Receivables from construction contracts	**Loans**	**Other receivables**	**Accrued income**	**Guarantee deposits provided**	**Total**
Receivables not past due	₩ 202,568	₩ 85,468	₩ 40,879	₩ 139	₩ 8,468	₩ 337,522
Past due but not impaired						
Up to 30 days	-	-	268	-	-	268
30 days to 60 days	51,043	-	180	-	-	51,223
60 days to 90 days	249	-	285	-	-	534
Over 90 days	81,893	-	18,712	147	-	100,752
	133,185	-	19,445	147	-	152,777
Impaired						
Up to 30 days	-	743,372	-	-	22,614	765,986
30 days to 60 days	-	-	-	-	-	-
60 days to 90 days	-	-	531	-	-	531
Over 90 days	1,183,785	57,701	524,288	114,281	-	1,880,055
	1,183,785	801,073	524,819	114,281	22,614	2,646,572
	₩ 1,519,538	₩ 886,541	₩ 585,143	₩ 114,567	₩ 31,082	₩ 3,136,871

8.3 Movements in the provision for impairment of trade and other receivables for the years ended December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	2017					
	Receivables from construction contracts	**Loans**	**Other receivables**	**Accrued income**	**Guarantee deposits provided**	**Total**
Beginning balance	₩ 1,118,700	₩ 793,888	₩ 479,921	₩ 109,595	₩ 17,871	₩ 2,519,975
Impairment loss (reversal)	67,487	13,440	(3,155)	5,062	8	82,842
Other	(101,551)	29,035	(5,029)	77,444	-	(101)
	₩ 1,084,636	₩ 836,363	₩ 471,738	₩ 192,102	₩ 17,879	₩ 2,602,716

(in millions of Korean won)	2016					
	Receivables from construction contracts	**Loans**	**Other receivables**	**Accrued income**	**Guarantee deposits provided**	**Total**
Beginning balance	₩ 999,504	₩438,280	₩ 210,103	₩112,358	₩ -	₩1,760,245
Impairment loss (reversal)	93,800	60,355	117,222	(2,763)	17,871	286,485
Other	25,396	295,253	152,596	-	-	473,245
	₩1,118,700	₩793,888	₩ 479,921	₩109,595	₩ 17,871	₩2,519,975

The Company estimates an provision for impairment that are assessed to be impaired individually based on an individual basis, and the amount of the impairment loss recognized is the difference between the asset's book amount and the recoverable amount. The receivables with 30 days past due are classified as normal receivables and the Company maintains a provision policy for them. The receivables more than 30 days past due are classified as overdue receivables, and the Company recognizes an impairment loss for them based on aging of receivables and historical loss experience.

Provision for impaired receivables is included in administrative expenses and other non-operating expenses in the statement of profit or loss and reversal of provision is deducted from the provision for impairment. Impairment loss included in administrative expenses in the statement of profit or loss includes impairment loss on due from customers for contract work. When a trade receivable is considered uncollectible, it is written off against the provision for impairment account.

8.4 Credit quality of receivables from construction contracts that are neither past due nor impaired for the years ended December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	**2017**	**2016**
Group 1[1]	₩ 367,394	₩ 202,568
Group 2[2]	-	-
Ending balance	₩ 367,394	₩ 202,568

[1] Customers with no past bankruptcy experience.

[2] Customers with past bankruptcy experience

8.5 The maximum exposure amount of the credit risk is the book value for each category of the above receivables as at December 31, 2017. On the other hand, the Company has set up a mortgage on certain receivables and other receivables, and has provided guarantees as collateral.

9. Held-to-maturity Financial Assets and Available-for-sale Financial Assets

9.1 Held-to-maturity Financial Assets

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

(in millions of Korean won)	December 31, 2017				December 31, 2016			
	Current		Non-current		Current		Non-current	
Government and public bonds	₩	27	₩	304	₩	7	₩	331

Movements of HTM financial assets for the years ended December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	December 31, 2017				December 31, 2016			
	Current		Non-current		Current		Non-current	
Beginning balance	₩	7	₩	331	₩	11	₩	316
Acquisitions				-		-		22
Disposals		(7)		-		(4)		(7)
Liquidity transfer		27		(27)		-		-
Ending balance	₩	27	₩	304	₩	7	₩	331

9.2 Available-for-sale Financial Assets

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

(in millions of Korean won)	December 31, 2017		December 31, 2016	
Equity securities				
Listed securities	₩	8	₩	17
Beneficiary certificates		3,663		4,641
Non-listed securities		35,960		31,439
Equity investments		12,454		12,454
		52,085		48,550
Debt securities				
Government and public bonds and others		-		124
	₩	52,085	₩	48,674

Accumulated impairment losses on available-for-sale financial assets amounted to ₩37,691 million.

Movements of AFS financial assets for the years ended December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	December 31, 2017		December 31, 2016	
Beginning balance	₩	48,674	₩	98,156
Acquisitions		10		8,996
Disposals		(793)		(4,784)
Evaluation		4,194		(6,859)
Transfer and others[1]		-		(33,621)
Impairment		-		(13,214)
Ending balance	₩	52,085	₩	48,674

[1] Account substitution and equity investments in kind are included.

10. Inventories

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

(in millions of Korean won)	December 31, 2017			December 31, 2016		
	Acquisition cost	Valuation allowance	Book amount	Acquisition cost	Valuation allowance	Book amount
Work in process[1]	₩ 488,668	₩ (215,515)	₩ 273,153	₩ 454,841	₩ (68,444)	₩ 386,397
Raw materials	325,500	(49,296)	276,204	488,319	(91,758)	396,561
Supplies	12,036	-	12,036	10,094	-	10,094
Goods in transit	162,785	-	162,785	129,673	-	129,673
	₩ 988,989	₩ (264,811)	₩ 724,178	₩ 1,082,927	₩ (160,202)	₩ 922,725

[1] The Company's recognized construction in progress of which contract is terminated due to the customer's fault as work in process.

Inventories are stated in the separate statement of financial position at the lower of cost or net realizable value in case that the market value is lower than the acquisition cost.
In subsequent periods, if the market value of an impaired inventory recovers, the Company reverses the valuation loss up to the initially booked amount.

11. Other Assets

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

(in millions of Korean won)	December 31, 2017		December 31, 2016	
	Current	Non-current	Current	Non-current
Advance payments	₩ 799,214	₩ -	₩ 909,483	₩ -
Prepaid construction costs	2,243	-	1,825	-
Prepaid expenses	128,451	3,841	128,114	125,471
Others	32,716	5,794	32,513	5,795
	₩ 962,624	₩ 9,635	₩ 1,071,935	₩ 131,266

12. Non-current Assets Held-for-sale

As described in Note 42, the Company entered into an agreement with major creditor bank to stabilize the Company's financial position including disposal plan of the Company's property, plant and equipment as physical self-help plan. The Company classified the assets that are expected to meet the terms of sale within one year as a non-current assets held for sale.

Details of assets of disposal group classified as held for sale as at December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	December 31, 2017	December 31, 2016
Land	₩ 1,339	₩ 33,843
Buildings	847	13,810
Construction-in-progress	38,295	50,846
Investments in subsidiaries	-	57,421
	₩ 40,481	₩ 155,920

The Company measured a non-current asset classified as held for sale at the lower of its book amount and fair value less costs to sell. There is no related profit and loss recognized as at December 31, 2017, as the book amount exceeds the fair value less cost to sell.

13. Investments in Subsidiaries

13.1 Details of the investments in subsidiaries of the Company as at December 31, 2017, and 2016, are as follows:

(in millions of Korean won)	Location	Main business	Ownership interest (%) December 31, 2017	Ownership interest (%) December 31, 2016	Book amount December 31, 2017	Book amount December 31, 2016
DW Mangalia Heavy Industries S.A.[1]	Romania	Shipbuilding	51.00	51.00	₩ -	₩ -
DSEC Co., Ltd.[2]	Busan	Service and wholesale	-	70.07	-	-
Welliv Corp.[2,5]	Geoje	Service	-	100.00	-	20,744
DSME Construction Co., Ltd[2]	Incheon	Construction	-	99.18	-	2,250
DSME Shandong Co., Ltd	China	Manufacturing ship parts	100.00	100.00	22,806	89,017
Shinhan Heavy Industries Co., Ltd.[3]	Ulsan	Manufacturing ship parts	-	89.22		-
DeWind Co.[4]	USA	Developing wind power	100.00	100.00	-	-
Samwoo Heavy Industry Co., Ltd[3]	Gwangyang	Manufacturing ship parts	-	100.00	-	-
DK Maritime S.A	Panama	Shipping	100.00	100.00	-	-
DSME Oman LLC	Oman	Development of real estate and related business activities	70.00	70.00	-	-
DSME Far East LLC	Russia	Ship building	100.00	100.00	1	1
PT.DSME ENR CEPU	Indonesia	Investments in mining	85.00	85.00	-	-
DSME Information and Consulting	Geoje	IT service	100.00	-	200	-
					₩ 23,007	₩ 112,012

[1] The Board of Directors of the Company resolved to sell DW Mangalia Heavy Industries S.A., its subsidiary, and entered into sales contract on November 10, 2017, but 2MMS, an investment company of Romanian government, exercised its preemption right and, as a result, the sales contract is being discussed with 2MMS.
[2] Excluded from subsidiaries as sale was completed during the year ended December 31, 2017.
[3] The Company owns more than 50% of equity of Shinhan Heavy Industries Co., Ltd. and Samwoo Heavy Industry Co., Ltd. but the Company lost its control over these subsidiaries due to the agreement with its major creditor bank which was made by major creditor bank management procedure in accordance with Corporate Restructuring Promotion Act of subsidiaries during the year ended December 31, 2017. However, the Company reclassified investment in subsidiaries as investment in associates as it has a significant influence over these subsidiaries.
[4] The Company classified investment in DeWind Co. as non-current assets held for sale during the year ended December 31, 2017, as it is planned to be disposed sale within one year.
[5] Company sold 1,200,000 of its ordinary shares(100%) to Welliv Holdings, and some of the proceeds were received as a 34.39 % stake in the Welliv Private Investment Joint Company (Note 14, 40), an investor in Welliv Holdings.

13.2 Changes in the book amount of investment in subsidiaries for the years ended December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	2017			
Subsidiaries	**Beginning balance**	**Acquisition (Disposal)**	**Others**	**Ending balance**
Welliv Corp.	₩ 20,744	₩ (20,744)	₩ -	₩ -
DSME Construction Co., Ltd	2,250	(2,250)	-	-
DSME Shandong Co., Ltd[1]	89,017	-	(66,211)	22,806
DSME Far East LLC	1	-	-	1
DSME Information and Consulting	-	200	-	200
	₩ 112,012	₩ (22,794)	₩ (66,211)	₩ 23,007

(in millions of Korean won)	2016			
Subsidiaries	**Beginning balance**	**Acquisition (Disposal)**	**Others**	**Ending balance**
DSEC Co., Ltd.	₩ 57,421	₩ -	₩ (57,421)	₩ -
Welliv Corp.	20,744	-	-	20,744
DSME Construction Co., Ltd	2,244	6	-	2,250
DSME Shandong Co., Ltd	89,017	-	-	89,017
Shinhan Heavy Industries Co., Ltd.[1]	66,493	-	(66,493)	-
Samwoo Heavy Industry Co., Ltd.[1]	54,567	243	(54,810)	-
DSME Far East LLC	1	-	-	1
	₩ 290,487	₩ 249	₩ (178,724)	₩ 112,012

[1] As described in Note 42, the Company's investments in subsidiaries, which are deemed to be impaired due to a decrease in the volume and market conditions of the Company due to operating and financial difficulties, the Company recognized an impairment loss of ₩66,211 million (2016: ₩121,303 million) on certain investments in subsidiaries.

14. Investments in Associates and Joint Ventures

14.1 Details of investments in associates and joint ventures as at December 31, 2017 and 2016 are as follows:

(in millions of Korean won)			December 31, 2017		December 31, 2016	
	Location	Main business	Ownership interest (%)	Book amount	Ownership interest (%)	Book amount
Associates						
NIDAS Marine Ltd.[1]	Nigeria	Holding Company	-	₩ -	49.00	₩ -
NIDAS Shipping Services Ltd.[1]	Cyprus	Shipping	-	-	13.00	-
Korea Marine Finance Corp.[1]	Seoul	Service	-	-	35.29	3,748
Wing Ship Technology Corp.	Daejeon	Production and sale WIG-craft	23.20	-	23.20	-
TPI Megaline Co,Ltd.[2]	Seoul	Shipping	19.00	2,185	19.00	2,185
Daehan Shipping Co., Ltd.[2]	Haenam	Shipbuilding	23.35	-	23.35	-
Welliv Private Investment Joint Company[4]	Geoje	Holding Company	34.39	9,750	-	-
Shinhan Heavy Industries Co., Ltd.[3]	Ulsan	Manufacturing ship parts	89.22	-	-	-
Samwoo Heavy Industry Co., Ltd.[3]	Gwangyang	Manufacturing ship parts	100.00	-	-	-
Joint ventures						
SBM Shipyard Ltd.	Angola	Holding Company	33.33	-	33.33	-
				₩ 11,935		₩ 5,933

[1] During the year ended December 31, 2017, the Company sold all of its interest in NIDAS Marine Ltd., NIDAS Shipping Services Ltd. and Korea Marine Finance Corp.
[2] Reclassified from available-for-sale financial assets to investments in associates during the prior period.
[3] Reclassified from investment in subsidiaries to investments in associates during the year ended December 31, 2017. (Note 13)
[4] Company sold 1,200,000 of its ordinary shares(100%) to Welliv Holdings, and some of the proceeds were received as a 34.39 % stake in the Welliv Private Investment Joint Company (see Note 13, 40), an investor in Welliv Holdings.

As a senior partner of the invested company, the Company may receive a distribution equivalent to 2% of the contribution paid annually. When the remaining assets are distributed, the Company has a priority right to receive the cumulative amount of the limited partnership and amount at internal earning profit rate of 6% per annum.

14.2 Changes in the book amount of the investments in associates and joint ventures for the years ended December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	2017			
	Beginning balance	**Acquisition (Disposal)**	**Other changes**	**Ending balance**
Associates				
Korea Marine Finance Corp.	₩ 3,748	₩ (3,748)	₩ -	₩ -
TPI Megaline Co,Ltd.	2,185	-	-	2,185
Welliv Private Investment Joint Company	-	9,750	-	9,750
	₩ 5,933	₩ 6,002	₩ -	₩ 11,935

(in millions of Korean won)	2016			
	Beginning balance	**Acquisition**	**Other changes**	**Ending balance**
Associates				
Korea Marine Finance Corp.	₩ 3,748	₩ -	₩ -	₩ 3,748
Dominus, Neostar private equity fund [1]	31,742	-	(31,742)	-
TPI Megaline Co,Ltd.	-	2,185	-	2,185
Daehan Shipping Co., Ltd. [2]	-	11,313	(11,313)	-
	₩ 35,490	₩ 13,498	₩ (43,055)	₩ 5,933

[1] During the prior period, the Company transferred its right to receive dividend distribution and the voting right as subordinated investor of the fund, to investors of convertible bonds of Shinhan heavy industries Co., Ltd., one of the Company's subsidiaries, for redemption of the convertible bonds. Accordingly, the Company ceased the significant influence over the fund and reclassified it as available-for-sale financial assets.
[2] Other changes consist of the impairment loss recognized relating to investment securities with impairment indicators

15. Property, Plant and Equipment

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

(in millions of Korean won)	December 31, 2017					
	Acquisition cost	**Revaluation surplus**	**Government grants**	**Accumulated depreciation**	**Accumulated impairment losses**	**Book amount**
Land	₩ 1,484,825	₩ 461,985	₩ -	₩ -	₩ (92,900)	₩ 1,853,910
Buildings	1,026,040	-	(5,507)	(377,370)	(77,221)	565,942
Structures	1,271,915	-	-	(410,118)	(80,186)	781,611
Machinery	902,865	-	(106)	(578,679)	(155,431)	168,649
Vehicle	169,425	-	-	(131,293)	(30,970)	7,162
Ships and aircraft	247,802	-	-	(106,883)	(14,012)	126,907
Tools	330,122	-	(1)	(216,644)	(102,690)	10,787
Supplies	224,236	-	(89)	(161,095)	(47,096)	15,956
Construction-in-progress	209,560	-	-	-	(15,640)	193,920
	₩ 5,866,790	₩ 461,985	₩ (5,703)	₩ (1,982,082)	₩ (616,146)	₩ 3,724,844

(in millions of Korean won)	December 31, 2016					
	Acquisition cost	**Revaluation surplus**	**Government grants**	**Accumulated depreciation**	**Accumulated impairment losses**	**Book amount**
Land	₩ 1,404,142	₩ 549,989	₩ -	₩ -	₩ (1,365)	₩ 1,952,766
Buildings	1,027,763	-	(5,648)	(358,789)	(5,220)	658,106
Structures	1,270,360	-	-	(377,055)	-	893,305
Machinery	897,398	-	(139)	(559,529)	(6,422)	331,308
Vehicle	171,616	-	-	(128,501)	-	43,115
Ships and aircraft	204,680	-	-	(100,122)	-	104,558
Tools	317,863	-	(2)	(209,454)	-	108,407
Supplies	210,671	-	(118)	(153,708)	(7,448)	49,397
Construction-in-progress	327,859	-	-	-	(72,712)	255,147
	₩ 5,832,352	₩ 549,989	₩ (5,907)	₩ (1,887,158)	₩ (93,167)	₩ 4,396,109

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

(in millions of Korean won)	2017				
	Land	**Buildings**	**Structure**	**Machinery**	**Vehicle**
At January 1	₩ 1,952,766	₩ 658,106	₩ 893,305	₩ 331,308	₩ 43,115
Acquisition	-	20	14	10,427	150
Disposals	(3,686)	(9)	-	(1)	(1)
Depreciation	-	(19,314)	(33,064)	(25,006)	(5,093)
Others[1]	(95,170)	(72,860)	(78,644)	(148,079)	(31,009)
At December 31	₩ 1,853,910	₩ 565,943	₩ 781,611	₩ 168,649	₩ 7,162

(in millions of Korean won)	2017				
	Ships and aircraft	**Tool**	**Supplies**	**Construction -in-progress**	**Total**
At January 1	₩ 104,558	₩ 108,407	₩ 49,397	₩ 255,147	₩ 4,396,109
Acquisition	4,366	14,141	16,714	21,873	67,705
Disposals	-	(188)	(4)	(2,028)	(5,917)
Depreciation	(6,761)	(8,752)	(10,775)	-	(108,765)
Others[1]	24,744	(102,821)	(39,377)	(81,071)	(624,287)
At December 31	₩ 126,907	₩ 10,787	₩ 15,955	₩ 193,921	₩ 3,724,845

(in millions of Korean won)	2016				
	Land	**Buildings**	**Structure**	**Machinery**	**Vehicle**
At January 1	₩ 2,142,613	₩ 747,310	₩ 882,036	₩ 344,681	₩ 46,668
Acquisition	16	313	95	19,454	6,057
Disposals	(124,761)	(58,689)	(23,427)	(3,014)	(289)
Depreciation	-	(22,415)	(36,835)	(38,071)	(9,405)
Others[1]	(65,102)	(8,413)	71,436	8,258	84
At December 31	₩ 1,952,766	₩ 658,106	₩ 893,305	₩ 331,308	₩ 43,115

(in millions of Korean won)	2016				
	Ships and aircraft	**Tool**	**Supplies**	**Construction -in-progress**	**Total**
At January 1	₩ 110,904	₩ 95,191	₩ 64,310	₩ 365,576	₩ 4,799,289
Acquisition	1,036	31,469	12,749	27,154	98,343
Disposals	(40)	(369)	(116)	-	(210,705)
Depreciation	(7,343)	(21,667)	(20,926)	-	(156,662)
Others[1]	1	3,783	(6,620)	(137,583)	(134,156)
At December 31	₩ 104,558	₩ 108,407	₩ 49,397	₩ 255,147	₩ 4,396,109

[1] Others mainly consist of capitalized borrowing costs, transfer of construction-in-progress to property, plant and equipment, impairment loss on property, plant and equipment and others.

As described in Note 42, the Company measured the amount of impairment loss of the cash generating units that had indication of an impairment due to decrease in the sales volume and deterioration in market condition and the assets planned to be disposed through the business normalization plan. After impairment assessment, the Company recognized total ₩627,265 million of impairment loss on property, plant and equipment, intangible assets and investment properties(including decrease in revaluation surplus of ₩86,305 million). The estimated recoverable amount from the impairment assessment is the net fair value of individual asset, which is the estimated value of the sale or potential appraisal with the potential buyer. The appraised value is classified as level 3 fair value measurement and is assessed using public announcement of officially assessed price and sales comparison approach.

16. Pledged Assets

16.1 As at December 31, 2017, the Company's assets except deposits (Note 7) that are pledged as collaterals for borrowings and others are summarized as follows:

(in millions of Korean won, in thousands of foreign currency)

Assets	Book amount		Pledged amount		Guarantee for	Borrowings amount		Lender
Investments in subsidiaries[1]	KRW	-	KRW	9,384	Loan guarantee	USD	40,637	KEXIM
Property, plant and equipment, and investment properties	KRW	3,468,253	KRW	3,735,200	Borrowings in Local currency	KRW	1,415,559	KDB, KEXIM
			USD	880,000	Borrowings in Foreign currency	USD	1,025,412	
Available-for -sale financial assets	KRW	11,500	KRW	870,998	Performance guarantee	KRW	-	KDIA
	KRW	3,479,753	KRW	4,615,582		KRW	1,415,559	
			USD	880,000		USD	1,066,049	

[1] The Company provides investment in subsidiaries as collateral for borrowing of PT. DSME ENR CEPU, a subsidiary of the Company.

16.2 Significant guarantees provided to those other than the Company's related parties as at December 31, 2017, are as follows:

(in millions of Korean won, in thousands of foreign currency)

Provided for	Guarantee Amount		Lender
Korea Line Corp.	USD	101,987	KDB and others

16.3 As at December 31, 2017, Company received refund guarantee export ships and others. Details of guarantees provided to the Company are as follows:

(in millions of Korean won, in thousands of foreign currency)

Provided by	Guarantee Limit		Actual warranty balance	
	Currency	Amount	Currency	Amount
KDB	USD	4,700,000	USD	1,958,571
			USD	4,402,409
KEXIM	USD	5,480,385	EUR	9,348
			GBP	102,178
Other financial institutions	USD	1,200,706	USD	972,442

Meanwhile, the Company has provided guarantees for the transfer of the export purpose, the raw materials for build a ship, and the export warrants related to the performance guarantee, production financing borrowing and the new funding support provided by the Korea Development Bank and the Korea Export-Import Bank(Note 42), Collateral and so on. In addition to the above, the Company is provided with performance guarantee of ₩2,082,073 million from KDIA and others.

17. Investment Properties

17.1 Investment properties as at December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	December 31, 2017		
	Land	Buildings	Total
Acquisition cost	₩ 4,661	₩ 8,473	₩ 13,134
Accumulated depreciation	-	(3,867)	(3,867)
Accumulated impairment	-	(1,354)	(1,354)
Book amount	₩ 4,661	₩ 3,252	₩ 7,913

(in millions of Korean won)	December 31, 2016		
	Land	Buildings	Total
Acquisition cost	₩ 4,661	₩ 8,473	₩ 13,134
Accumulated depreciation	-	(3,749)	(3,749)
Book amount	₩ 4,661	₩ 4,724	₩ 9,385

17.2 Changes in the book amounts of investment properties for the years ended December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	2017		
	Land	**Buildings**	**Total**
Beginning balance	₩ 4,661	₩ 4,724	₩ 9,385
Depreciation	-	(118)	(118)
Impairment	-	(1,354)	(1,354)
Ending balance	₩ 4,661	₩ 3,252	₩ 7,913

(in millions of Korean won)	2016		
	Land	**Buildings**	**Total**
Beginning balance	₩ 5,267	₩ 7,218	₩ 12,485
Acquisition	-	(142)	(142)
Depreciation	(606)	(2,352)	(2,958)
Ending balance	₩ 4,661	₩ 4,724	₩ 9,385

Income generated from the investment properties for the years ended December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	**2017**	**2016**
Rental income	₩ 163	₩ 179

Fair values of the investment properties as at December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	2017		2016	
	Book amount	**Fair value**	**Book amount**	**Fair value**
Land	₩ 4,661	₩ 4,661	₩ 4,661	₩ 4,661
Buildings	3,252	3,252	4,724	4,724
	₩ 7,913	₩ 7,913	₩ 9,385	₩ 9,385

The Company assessed the fair value of land through an independent appraiser on December, 2015.

18. Intangible Assets

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

(in millions of Korean won)	December 31, 2017			December 31, 2016		
	Cost	**Accumulated amortization**	**Book amount**	**Cost**	**Accumulated amortization**	**Book amount**
	₩ 31,919	₩ (18,580)	₩ 13,338	₩ 54,630	₩ (17,609)	₩ 37,021

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

(in millions of Korean won)	2017				
	Intellectual property rights	**Development costs**	**Facility usage rights**	**Others**	**Total**
Beginning balance	₩ 9,755	₩ 26,213	₩ 431	₩ 622	₩ 37,021
Additions (disposals)	2,229	5,171	-	-	7,400
Amortization	(576)	(1,281)	(50)	-	(1,907)
Impairment loss[1]	(10,230)	(18,715)	(381)	149	(29,177)
Ending balance	₩ 1,178	₩ 11,389	₩ -	₩ 771	₩ 13,338

[1] During current period, the company recognized ₩29,177 million of impairment loss by impairment test (Note 15).

(in millions of Korean won)	2016				
	Intellectual property rights	**Development costs**	**Facility usage rights**	**Others**	**Total**
Beginning balance	₩ 8,760	₩ 28,826	₩ 531	₩ 1,913	₩ 40,030
Additions (disposals)	2,500	3,531	-	(706)	5,325
Amortization	(1,505)	(2,702)	(100)	-	(4,307)
Impairment loss	-	(3,442)	-	(585)	(4,027)
Ending balance	₩ 9,755	₩ 26,214	₩ 431	₩ 622	₩ 37,022

19. Trade and Other Payables

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

(in millions of Korean won)	December 31, 2017		December 31, 2016	
	Current	**Non-current**	**Current**	**Non-current**
Trade payables	₩ 732,570	₩ -	₩ 1,029,288	₩ -
Other payable	237,265	114,125	438,815	136,808
Accrued expenses	98,470	-	89,510	-
Deposits received	12,330	-	17,007	-
	₩ 1,080,635	₩ 114,125	₩ 1,574,620	₩ 136,808

20. Debentures

Details of the book amount of debentures as at December 31, 2017 and 2016, are as follows:

Type	Maturity date	Annual interest rate (%) December 31, 2017	December 31, 2017	December 31, 2016
6-1st non-guarantee bonds	April 21, 2023	1.00	₩ 213,274	₩ 440,000
4-2nd non-guarantee bonds	April 21, 2023	1.00	149,142	300,000
5-2nd non-guarantee bonds	April 21, 2023	1.00	98,635	200,000
6-2nd non-guarantee bonds	April 21, 2023	1.00	29,321	60,000
7th non-guarantee bonds	April 21, 2023	1.00	148,768	350,000
Commercial papers	April 21, 2023	1.00	101,894	200,000
			741,034	1,550,000
	Less: discount on debentures		(210,373)	(8,689)
	Less: current portion		-	- (1,348,886)
			₩ 530,661	₩ 192,425

As described in Note 43, the Company and bond holders agreed to debt restructuring which includes the debt-to-equity swap of 50% or more of existing corporate bonds and CP, extending the maturity of remaining bonds and CP and decreasing interest rate of remaining bonds through bondholders' meeting and amendment of CP contract related to terms and conditions of issuing, respectively, during April, 2017. In accordance with this debt restructuring plan debt-to-equity swap of corporate bonds and CP was executed on August 12, 2017 and December 21, 2017.

21. Borrowings

21.1 Short-term borrowings

Details of the book amount of short-term borrowings as at December 31, 2017 and 2016, are as follows:

(in millions of Korean won, in thousands of foreign currency)

Denominated currency	Creditor	Details	Annual interest rate (%)	In December 31, 2017				In December 31, 2016			
				Foreign currency		Korean Equivalents		Foreign currency		Korean equivalents	
Short-term borrowings in Korean won	Kookmin Bank	Bank overdraft	-		-	₩	4,302		-	₩	96,645
	KDB	General loans	3		-		827,659		-		441,891
	KEXIM	Production finance	3		-		587,900		-		254,000
	KEB Hana Bank	General loans	-		-		-		-		200,000
	Woori Bank	General loans	-		-		-		-		100,000
					-	₩	1,419,861		-	₩	1,092,536
Short-term borrowings in foreign currency	KDB and others	Usance	6ML+0.3, other	USD	376,211		403,147	USD	542,659		655,803
				EUR	59				-		-
	KEXIM	Production finance	3ML +2.65, other	USD	119,169		127,678	USD	397,985		480,965
	KEB Hana Bank	General loans	-	USD	-		-	USD	225,000		271,913
				USD	495,380	₩	530,825	USD	1,165,644	₩	1,408,681
				EUR	59			EUR	-		
				USD	495,380	₩	1,950,686	USD	1,165,644	₩	2,501,217
				EUR	59			EUR	-		

21.2 Long-term borrowings

Details of the book amount of long-term borrowings as at December 31, 2017 and 2016, are as follows:

(in millions of Korean won, in thousands of foreign currency)

Denominated currency	Creditor	Details	Annual interest rate (%)	In December 31, 2017				In December 31, 2016			
				Foreign currency		Korean equivalents		Foreign currency		Korean equivalents	
Long-term borrowings in Korean won	KDB	Facilities capital	-		-	₩	-		-	₩	119,900
	Woori Bank	Facilities capital	-		-		-		-		60
	Korea Housing Guarantee	General loans	-		-		112		-		117
	Kookmin Bank	General loans	1		-		20,000		-		-
	KEB Hana Bank	General loans	1		-		91,912		-		-
	Woori Bank	General loans	1		-		19,972		-		-
	Shinhan Bank	General loans	1		-		16,000		-		-
					-	₩	147,996		-	₩	120,077
Long-term borrowings in foreign currency	KDB	Operating capital	3M Libor+2.55, others	USD	730,000		782,122	USD	730,000		882,205
	Korea National Oil Corp.	Special energy capital	-	USD	11,712		12,967	USD	11,802		13,069
	KEXIM	Overseas investment capital loans	6M Libor+3.05, others	USD	15,750		16,875	USD	15,750		19,034
	KEXIM	Production finance	3M Libor+2.65, others	USD	160,493		171,952	USD	653,774		790,086
				USD	917,955	₩	983,916	USD	1,411,326	₩	1,704,394
						₩	1,131,912			₩	1,824,471
	Less: Current portion						(435,253)				(1,171,734)
	Less: discount on loans						(57,724)				-
						₩	638,935			₩	652,737

The Company's property, plant and equipment are pledged as collaterals in relation to the above borrowings (Note 16).

22. Other Liabilities

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

(in millions of Korean won)	December 31, 2017		December 31, 2016	
Advance received	₩	14,423	₩	17,272
Income in advance		279		53
Withholdings		63,452		79,832
	₩	78,154	₩	97,157

23. Net Defined Benefit Liabilities

23.1 As at December 31, 2017 and 2016, amounts recognized in the separate statement of financial position are as follows:

(in millions of Korean won)	December 31, 2017	December 31, 2016
Present value of defined benefit obligation	₩ 388,870	₩ 397,046
Fair value of plan assets	(252,381)	(249,649)
Net defined benefit liabilities	136,489	147,397
Other long-term employee benefit liabilities	21,903	24,646

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

(in millions of Korean won)	2017			
	Present value of defined benefit obligations	Plan assets	Other long-term employee benefit obligation	Total
Beginning balance	₩ 397,046	₩ (249,649)	₩ 24,646	₩ 172,043
Current service cost	51,399	-	1,476	52,875
Past service cost	(586)	-	-	(586)
Interest expense (interest income)	10,342	(6,233)	603	4,712
	458,201	(255,882)	26,725	229,044
Remeasurements:				
Return on plan assets	-	3,664	-	3,664
Actuarial gain from change in demographic assumptions	9	-	(1,340)	(1,331)
Actuarial gain from change in financial assumptions	(10,141)	-	(507)	(10,648)
Actuarial gain from experience adjustments	4,326	-	(369)	3,957
	(5,806)	3,664	(2,216)	(4,358)
Contributions	-	(36,213)	-	(36,213)
Benefit payments	(63,525)	36,050	(2,606)	(30,081)
Ending balance	₩ 388,870	₩ (252,381)	₩ 21,903	₩ 158,392

(in millions of Korean won)	2016							
	Present value of defined benefit obligations		**Plan assets**		**Other long-term employee benefit obligation**		**Total**	
Beginning balance	₩	481,403	₩	(312,740)	₩	36,597	₩	205,260
Current service cost		70,271		-		(6,323)		63,948
Past service cost and gains or losses on settlements		(5,619)		-		-		(5,619)
Interest expense (interest income)		11,792		(7,853)		668		4,607
		557,847		(320,593)		30,942		268,196
Remeasurements:								
Return on plan assets		-		3,522		-		3,522
Actuarial loss from change in financial assumptions		(36,196)		-		(660)		(36,856)
Actuarial gain from experience adjustments		(12,748)		-		(3,893)		(16,641)
		(48,944)		3,522		(4,553)		(49,975)
Contributions		-		(3,000)		-		(3,000)
Benefit payments		(111,857)		70,422		(1,743)		(43,178)
Ending balance	₩	397,046	₩	(249,649)	₩	24,646	₩	172,043

23.3 The significant actuarial assumptions as at December 31, 2017 and 2016, are as follows:

(in percentage, %)	**2017**		**2016**	
Discount rate	2.8	%	2.6	%
Salary growth rate (including inflation rate)	1.9	%	1.9	%

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

(in millions of Korean won)	**2017**		**2016**	
Deposit and installment savings	₩	202,964	₩	233,850
Others[1]		49,417		15,799
	₩	252,381	₩	249,649

[1]Includes the contributions to the National Pension Fund.

23.5 While holding all other assumptions constant as at December 31, 2017, and in the case where significant actuarial assumptions are within the reasonable and possible changes, the fluctuation of the defined benefit obligations is as follows:

(in millions of Korean won)	2017		2016	
	Increase	**Decrease**	**Increase**	**Decrease**
Changes in 100 basis point (bp) of discount rate	₩ (32,949)	₩ 38,728	₩ (35,909)	₩ 42,579
Changes in 1 % of expected salary growth rate	39,069	(33,799)	42,445	(36,464)

Since there is correlation among actuarial assumptions, changes of assumptions will not occur in isolation and above sensitivity analyses will not show the actual change of defined benefit obligations. Also, in the above sensitivity analyses, present value of defined benefit obligations is measured by using the projected unit credit method, which is applied to measure the amount of defined benefit obligations in the statement of financial position.

23.6 The weighted average duration of the defined benefit obligations is 9.61 years. The expected maturity analysis of undiscounted pension benefits as at December 31, 2017, is as follows:

(in millions of Korean won)	**Less than 1 year**	**Between 1-2 years**	**Between 2-5 years**	**Between 5-10 years**	**Over 10 years**	**Total**
Pension benefits	₩ 31,499	₩ 47,412	₩ 121,463	₩ 190,485	₩ 478,711	₩ 869,570

The Company reviews the funding level on an annual basis and has a policy to eliminate deficit in the fund. Expected contributions to post-employment benefit plans for the year ending December 31, 2018 are ₩36,200 million.

24. Provisions

Changes in provisions for construction warranties and other provisions for the years ended December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	2017		
	Provision for construction warranties	**Other provisions**	**Total**
Beginning balance	₩ 128,436	₩ 201,431	₩ 329,867
Additional provisions	41,991	394,193	436,184
Used during period	(16,509)	(72,109)	(88,618)
Ending balance	₩ 153,918	₩ 523,515	₩ 677,433

(in millions of Korean won)	2016		
	Provision for construction warranties	**Other provisions**	**Total**
Beginning balance	₩ 77,845	₩ 50,184	₩ 128,029
Additional provisions	85,109	178,468	263,577
Used during year	(34,518)	(27,221)	(61,739)
Ending balance	₩ 128,436	₩ 201,431	₩ 329,867

25. Income Taxes Expense

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

(in millions of Korean won)		**2017**		**2016**
Income tax payable(receivable)	₩	(13,599)	₩	677
Changes in deferred income tax from temporary differences		552,111		916,754
Total amount of income tax effect		538,512		917,432
Income tax directly reflected to shareholders' equity		2,797		(6,939)
Income tax expense	₩	541,309	₩	910,492

25.2 The tax on the Company's profit (loss) before tax differs from the theoretical amount that would arise using the weighted average tax rate applicable to the profits (losses) of the Company as follows:

(in millions of Korean won)		**2017**		**2016**
Profit (loss) before tax	₩	1,280,453	₩	(2,080,504)
Tax calculated at applicable tax rates		309,870		(503,482)
Adjustments:				
Tax effect of permanent differences		(13,599)		677
Unrecognized deferred tax assets[1]		245,038		1,413,297
Income tax expense	₩	541,309	₩	910,492
Effective tax rate[2]		42.27%		-

[1] The Company recognizes a deferred tax asset for all deductible temporary differences and unused tax losses when it is probable the taxable profit will be available against which the temporary difference can be utilized. However, certain deferred tax assets recognized in the previous year, due to uncertainty of future taxable profit from drop in international oil prices and the decrease in contracts, is recognized as income tax expense.
[2] Effective tax rate is not calculated due to the loss before income tax on 2016.

25.3 Changes in temporary differences, deficit and deferred tax assets and liabilities for the years ended December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	2017		
	Beginning balance	**Increase (decrease)**	**Ending balance**
Temporary differences			
Loss on revaluation of land	₩ 236	₩ (207)	₩ 29
Research and development reserves	(16,940)	13,710	(3,230)
Provision for construction warranties	31,082	11,245	42,327
Provision for construction loss	106,627	60,137	166,764
Gain (loss) on foreign currency translation	917	112	1,029
Gain (loss) on valuation of currency forward	2,332	23,148	25,480
Investments in subsidiaries and associates and others	43,483	12,384	55,867
Changes in the fair value of available-for-sale financial assets (Other components of equity)	(3,119)	(1,580)	(4,699)
Gain on revaluation of land	(227,439)	(29,423)	(256,862)
Provision for advance depreciation	(53,312)	(7,114)	(60,426)
Provision for contingent liabilities	48,746	95,221	143,967
Other	1,037,955	225,190	1,263,145
	₩ 970,568	₩ 402,823	₩ 1,373,391
Tax losses	594,232	(167,402)	426,830
Tax refund due to accounting different from facts	393,391	(30,061)	363,330
	1,958,191	205,360	2,163,551
Recognized deferred tax asset (liabilities)	503,200	(552,111)	(48,911)
Unrecognized deferred tax asset (liabilities)	₩ 1,454,991	₩ 757,471	₩ 2,212,462

(in millions of Korean won)	2016		
	Beginning balance	**Increase (decrease)** [2]	**Ending balance**
Temporary differences			
Loss on revaluation of land	₩ 323	₩ (87)	₩ 236
Research and development reserves	(33,477)	16,537	(16,940)
Provision for construction warranties	18,838	12,243	31,081
Provision for construction loss	129,804	(23,177)	106,627
Gain (loss) on foreign currency translation	7,469	(6,552)	917
Gain (loss) on valuation of currency forward	24,555	(22,223)	2,332
Investments in subsidiaries and associates and others	43,483	-	43,483
Changes in the fair value of available-for-sale financial assets (Other components of equity)	(4,779)	1,660	(3,119)
Gain on revaluation of land	(237,862)	10,423	(227,439)
Provision for advance depreciation	(53,564)	251	(53,313)
Provision for contingent liabilities	12,145	36,601	48,746
Other	647,226	390,279	1,037,955
	₩ 554,161	₩ 416,405	₩ 970,566
Tax losses	937,418	(343,186)	594,232
Tax refund due to accounting different from facts[1]	-	393,391	393,391
	1,491,579	466,610	1,958,189
Recognized deferred tax asset (liabilities)	1,419,954	(916,754)	503,200
Unrecognized deferred tax asset (liabilities)	₩ 71,625	₩ 1,383,364	₩ 1,454,989

[1] Based on Article 58-3, the Company deducts from the corporate tax amount of each business year from the business year to which the correction belongs, the amount of tax that was overpaid due to accounting different from facts. In this case, the amount to be deducted in each business year is limited to 20% of the excessively paid tax amount, and the remaining tax amount after deduction is carried forward to the subsequent business year and there is no expiration date.

[2] Included in the fiscal year under review is the reduction in tax losses carried forward based on the notice of the tax investigation results (₩71,619 millions) and the reduction in tax refund due to accounting different from facts (₩30,061 millions).

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

(in millions of Korean won)		**2017**		**2016**
Deferred tax assets				
Deferred tax asset to be recovered within 12 months	₩	32,093	₩	94,476
Deferred tax asset to be recovered after more than 12 months		363,330		822,524
		395,423		917,000
Deferred tax liabilities				
Deferred tax liability to be recovered within 12 months		-		-
Deferred tax liability to be recovered after more than 12 months		(444,334)		(413,800)
		(444,334)		(413,800)
Deferred tax assets (liabilities), net	₩	(48,911)	₩	503,200

25.5 The Company recognizes a deferred tax asset for all deductible temporary differences and unused tax losses when it is probable the taxable profit will be available against which the temporary difference can be utilized. However, certain deferred tax assets recognized in the previous year, due to uncertainty of future taxable profit from drop in international oil prices and the decrease in contracts, is recognized as income tax expense. Details of unrecognized deferred tax assets as at December 31, 2017 and 2016, are as follows:

(in millions of Korean won)		**2017**		**2016**
Unused losses	₩	1,552,107	₩	2,455,503
Deductible taxable difference		6,493,209		3,556,848

The maturity of unused losses is as follows:

(in millions of Korean won)		**2017**		**2016**
Within 5 years	₩	-	₩	-
Between 5-10 years		1,552,107		2,455,503

25.6 The aggregate current and deferred tax relating to items that are charged or credited directly to equity for the years ended December 31, 2017 and 2016, is as follows:

(in millions of Korean won)	2017		
	Before tax	**Tax effect**	**After tax**
Changes in the fair value of available-for-sale financial assets	₩ 17,086	₩ (4,699)	₩ 12,387
Revaluation surplus of property, plant and equipment	461,985	(127,046)	334,939
Remeasurements	35,027	(9,632)	25,395
	₩ 514,098	₩ (141,377)	₩ 372,721

(in millions of Korean won)	2016		
	Before tax	**Tax effect**	**After tax**
Changes in the fair value of available-for-sale financial assets	₩ 12,887	₩ (3,119)	₩ 9,768
Revaluation surplus of property, plant and equipment	549,988	(133,097)	416,891
Remeasurements	32,886	(7,958)	24,928
	₩ 595,761	₩ (144,174)	₩ 451,587

26. Derivative Instruments

Details of derivative instruments held for hedging and trading purposes as at December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	December 31, 2017						
	Sales	**Other non-operating income (expense)**	**Firm commitment assets**[1]	**Firm commitment liabilities**[1]	**Due to customer for contract work**	**Currency forward assets**	**Currency forward liabilities**
For fair value hedging[1]	₩ 3,356	₩ (4,296)	₩ 5,907	₩ 93,527	₩ (2,385)	₩ 137,775	₩ 10,286
For trading[2]	-	48,275	-	-	-	31,377	252
	₩ 3,356	₩ 43,979	₩ 5,907	₩ 93,527	(2,385)	₩ 169,152	₩ 10,538

(in millions of Korean won)	December 31, 2016						
	Sales	Other non-operating income (expense)	Firm commitment assets[1]	Firm commitment liabilities[1]	Due to customer for contract work	Currency forward assets	Currency forward liabilities
For fair value hedging[1]	₩ (211,252)	₩ 11,565	₩ 458,162	₩ 1,708	₩ (9,589)	₩ -	₩ 471,891
For trading[2]	-	44,225	-	-	-	7,140	10,931
	₩ (211,252)	₩ 55,790	₩ 458,162	₩ 1,708	₩ (9,589)	₩ 7,140	₩ 482,822

[1] The Company has entered into currency forward contracts (Korean won against USD) in order to hedge exchange rate fluctuation risk and applied fair value hedge accounting to the respective firm commitment as at December 31, 2017.
[2] The Company recognized currency forward assets and liabilities held for trading purpose as financial assets (liabilities) at FVTPL.

27. Share Capital

On August 23, 2004, the Company retired 1,000,000 shares of treasury share acquired for ₩15,416 million upon the approval at the Board of Directors' meeting. Accordingly, the number of shares issued has been decreased. However, the amount of paid-up capital has not been reduced. As a result, the face value of the Company's issued shares and the ordinary share presented in the separate statement of financial position are not identical as at December 31, 2017 and December 31, 2016.

The Company's total number of authorized shares, issued shares and par value per share are 800,000,000 shares, 106,656,288 shares and ₩5,000, respectively, as at December 31, 2017 and 2016.

Changes in number of shares and share capital for the years ended December 31, 2017 and 2016, are as follows:

(in millions of Korean won, and in number of shares)	Details	Number of shares (in shares)	Share capital
January 1, 2016	Beginning balance	273,415,368	₩ 1,372,077
December 26, 2016	Capital reduction without consideration	(60,217,183)	(301,086)
December 26, 2016	Share consolidation	(191,878,367)	(959,392)
December 29, 2016	Capital increase	44,257,142	221,286
December 31, 2016	Ending balance	65,576,960	332,885
January 1, 2017	Beginning balance	65,576,960	332,885
June 29, 2017	Debt to equity swap (Note 43)	19,647,036	98,235
August 12, 2017	Debt to equity swap (Note 43	19,804,813	99,024
December 21, 2017	Debt-to-equity swap(Note 43)	1,627,479	8,137
December 31, 2017	Ending balance	106,656,288	₩ 538,281

28. Accumulated Deficit

28.1 Accumulated deficit as at December 31, 2017 and 2016, consist of:

(in millions of Korean won)		December 31, 2017		December 31, 2016
Legal reserves[1]	₩	81,080	₩	81,080
Reserve for research and human resource development		70,000		138,333
Reserve for facility expansion		3,450,000		3,450,000
Reserve for dividend equalization		70,000		70,000
Accumulated deficit before disposition		(4,448,606)		(8,068,869)
	₩	(777,526)	₩	(4,329,456)

[1] The Commercial Code of the Republic of Korea requires the Company 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 issued share capital. The reserve is not available for cash dividends payment, but may be transferred to share capital or used to reduce accumulated deficit.

28.2 The disposition of accumulated deficit for the year ended December 31, 2017 is expected to be disposed at the shareholders' meeting on March 30, 2018. The disposition date for the year ended December 31, 2016, was March 30, 2017.

The disposition of accumulated deficit for the periods ended December 31, 2017 and 2016, is as follows:

(in Korean won)		2017		2016
Undisposed accumulated deficit				
Undisposed accumulated deficit carried over from prior year	₩	(5,174,909,383,046)	₩	(5,120,922,988,290)
Remeasurements of net defined benefit liabilities		467,547,170		34,428,921,630
Reclassification of revaluation surplus		1,698,168,086		8,621,697,528
Interest of hybrid capital instrument		(15,006,849,310)		-
Profit (loss) for the year		739,144,216,539		(2,990,996,545,881)
		(4,448,606,300,561)		(8,068,868,915,013)
Transfers such as discretionary reserves				
Research and development reserves		50,000,000,000		68,333,333,333
		50,000,000,000		68,333,333,333
Transfer reserves				
Gain on capital reduction		-		1,260,477,750,000
Share premium		341,349,119,947		1,565,148,448,634
		341,349,119,947		2,825,626,198,634
Accumulated deficit available for disposition		391,349,119,947		2,893,959,531,967
Disposition of accumulated deficit:				
Undisposed accumulated deficit to be carried forward	₩	(4,057,257,180,614)	₩	(5,174,909,383,046)

29. Other Contributed Capital and Components of Other Capital

29.1 Other contributed capital as at December 31, 2017 and 2016, consists of:

(in millions of Korean won)		**December 31, 2017**		**December 31, 2016**
Other contributed capital				
Gain on capital reduction	₩	-	₩	1,260,478
Share premium		341,349		1,565,148
Others[1]		9,810		(16,798)
		351,159		2,808,828
Components of other capital				
Revaluation surplus of property, plant and equipment		334,939		416,891
Gain on valuation of AFS securities		12,387		9,768
	₩	347,326	₩	426,660

[1] Including other contributed capital amounting to ₩1,176 million, which meets the requirement for equity since agreement for debt-to-equity swqp was made but was not converted as at December 31, 2017.

29.2 Hybrid capital instrument

Hybrid capital instrument as at December 31, 2017 and 2016, consists of:

(in millions of Korean won)		**December 31, 2017**		**December 31, 2016**
8th Private unregistered non-guarantee convertible bond[1]	₩	1,000,000	₩	1,000,000
9th Private unregistered non-guarantee convertible bond[2]		1,284,775		-
	₩	2,284,775	₩	1,000,000

[1] As at December 29, 2016, the Company issued convertible to KEXIM to secure its capital, by offsetting ₩1,000,000 million of the outstanding balance of export financing loan made from November 25, 2015 to December 12, 2016.

These convertible bonds are classified as equity as there is no contractual cash payment obligation of the issuer. Details of convertible bonds issued by the Company are changed as at June 28, 2017, and the condition of bond issuance are as follows:

	Details
Bonds	8th Private unregistered non-guarantee convertible bond
Value at issue	₩ 1,000,000 million
Maturity	December 29, 2046(30 years), The maturity date can be extended under the same conditions as the discretion of the issuer.
Interest paid	Amount: 3% until June 28, 2017, 1% until Dec 31, 2021, 0.25% added every year on standard yield of 5 year maturity public unsecured corporate bonds. Payment: Pay quarterly, Optional payment suspension only if there is no reason for not suspending interest payment(*) (*)Reason for not suspending interest payment: A dividend payment decision is made in the last 12 months, or the shares of the issuer are reduced by the Company's retained earnings or purchased, repaid by the Company
Early redemption right	Optional redemption for all and part of the bonds every year, after Dec 31, 2021,
Conversion condition	₩ 40,350 per share
Trigger clause	The liquidation of the issuing company

[2] As at June 28, 2017, the Company issued convertible bonds to KEXIM to secure its capital, by offsetting ₩1,284,775 million of the outstanding balance of export financing loan made from October 17, 2014 to February 9, 2017.

These convertible bonds are classified as equity as there is no contractual cash payment obligation of the issuer. Details of convertible bonds issued by the Company are as follows:

	Details
Bonds	9th Private unregistered non-guarantee convertible bond
Value at issue	₩ 1,284,775 million
Maturity	June 28, 2047 (30 years), The maturity date can be extended under the same conditions as the discretion of the issuer.
Interest paid	Amount: 1.0% until December 31, 2021, 0.25% added every year on standard yield of 5 year maturity public unsecured corporate bonds. Payment: Pay quarterly, Optional payment suspension only if there is no reason for not suspending interest payment(*) (*)Reason for not suspending interest payment: A dividend payment decision is made in the last 12 months, or the shares of the issuer are reduced by the Company's retained earnings or purchased, repaid by the Company
Early redemption right	Optional redemption for all and part of the bonds every year, after 3 years from the issuance date,
Conversion condition	₩ 40,350 per share
Trigger clause	The liquidation of the issuing company

30. Earnings per Share

30.1 Basic earnings (losses) per share is calculated by dividing the profit (loss) attributable to equity holders of the Company by the weighted average number of ordinary shares outstanding during the year excluding ordinary shares purchased by the Company and held as treasury shares.

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

(in Korean won)		2017		2016
Profit (loss) for the period	₩	739,144,216,539	₩	(2,990,996,545,881)
Paid interest of hybrid capital instrument[1]		(26,445,004,150)		-
Profit (loss) on ordinary shares		712,699,212,389		(2,990,996,545,881)
Weighted average number of ordinary shares outstanding		83,327,667 shares		21,682,581 shares
Basic earnings (losses) per share	₩	8,553	₩	(137,945)

[1] Interest payable related to hybrid capital instrument ₩11,438 million is included as at December 31, 2017.

30.2 Weighted-average number of ordinary shares outstanding used in the calculation of earnings per share, for the years ended December 31, 2017 and 2016, is as follows:

(in shares)	2017				
	Issued shares	**Treasury shares**	**Outstanding shares**	**Number of days**	**Weighted average number of ordinary shares outstanding**
Jan 1, 2017	65,576,960	-	65,576,960	24	4,311,910
Jan 25, 2017	65,576,960	(16,207)	65,560,753	155	27,840,868
Jun 29, 2017	85,223,996	(16,207)	85,207,789	44	10,271,624
Aug 12, 2017	105,028,809	(16,207)	105,012,602	131	37,689,454
Dec 21, 2017	106,656,288	(16,207)	106,640,081	11	3,213,811
				365	83,327,667

(in shares)	2016				
	Issued shares	**Treasury shares**	**Outstanding shares**	**Number of days**	**Weighted average number of ordinary shares outstanding**
Jan 1, 2016	21,319,818	-	21,319,818	363	21,145,065
Dec 29, 2016	65,576,960	-	65,576,960	3	537,516
				366	21,682,581

The Company retired 60,217,183 shares owned by the largest shareholder on December 26, 2016. And, the Company decided to merge the remaining shares at the ratio of 10:1 (Note 27). The weighted average number of ordinary shares outstanding has been adjusted to reflect the effect of capital reduction without consideration on the beginning of the earliest period comparatively presented.

30.3 Diluted earnings is adjusted weighted average number of ordinary shares outstanding with assumption that every dilutive securities are converted to ordinary shares. The company issued dilutive securities as convertible bonds (hybrid capital instrument). Convertible bonds are assumed that converted to ordinary shares and interest cost of the convertible bonds added to earnings of ordinary shares.

(in Korean won)		**2017**		**2016**
Profit (loss) for the period	₩	712,699,212,389	₩	(2,990,996,545,881)
Interest of convertible bonds (hybrid capital instrument)		26,445,004,150		-
Profit (loss) used to determine diluted EPS		739,144,216,539		(2,990,996,545,881)
Weighted average number of ordinary shares outstanding		83,327,667 shares		21,682,581 shares
Adjustment:				
Assumption of conversion of permanent bonds		41,096,089 shares		-
Weighted average number of ordinary shares outstanding to determine diluted EPS		124,423,756 shares		21,682,581 shares
Diluted earnings (losses) per share[1]	₩	5,941	₩	(137,945)

[1] The Company Issued hybrid equity securities convertible into ordinary shares during prior year but didn't calculate diluted earnings per share due to anti-dilution effect.

31. Selling and Admistrative Expenses

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

(in millions of Korean won)		**2017**		**2016**
Advertising	₩	1,105	₩	983
Freight and custody charges		73		-
Commission		173,337		115,950
	₩	174,515	₩	116,933

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

(in millions of Korean won)		**2017**		**2016**
Salaries	₩	39,665	₩	47,650
Post-employment benefits		4,021		11,256
Employee welfare benefits		11,596		7,227
Rental expenses		10,335		5,411
Depreciation		2,870		7,424
Bad debt expense		368,268		444,593
Repairs and maintenance expense		20,139		3,697
Travel expense		2,166		2,619
Training expense		1,147		2,408
Administrative service costs		13,484		7,615
Other		95,487		19,876
	₩	569,178	₩	559,776

32. Finance Income and Costs

Details of net finance income (costs) for the years ended December 31, 2017 and 2016, are as follows:

(in millions of Korean won)		2017		2016
Interest income:				
Deposits	₩	4,518	₩	3,711
Loans and receivables		11,857		11,643
Held-to-maturity financial assets		9		9
		16,384		15,363
Dividend income:				
AFS financial assets		476		826
Investments in associates		196		342
		672		1,168
Reversal of financial guarantee liabilities:				
Subsidiaries and others		25,547		-
Gain on debt restructuring:				
Gain on debt restructuring		1,425,031		-
		1,467,633		16,531
Interest expenses:				
Bank overdrafts and interests on loans		164,980		248,035
Others		-		89
Less: Amount included in cost of qualifying assets		(131,964)		(178,833)
		33,016		69,291
Transfer to financial guarantee liabilities:				
Subsidiaries and others		-		119,065
		33,016		188,356
Net finance income (costs)	₩	1,434,617	₩	(171,825)

33. Foreign Exchange Gains and Losses

Details of foreign exchange gains and losses for the years ended December 31, 2017 and 2016, are as follows:

(in millions of Korean won)		2017		2016
Gain on foreign currency transactions	₩	308,172	₩	306,728
Gain on foreign exchange translations		275,709		147,613
	₩	583,881	₩	454,341
Loss on foreign currency transactions		292,437		335,727
Less: Amount included in cost of qualifying assets		(497)		(16,164)
Loss on foreign currency transactions, net		291,940		319,563
Loss on foreign exchange translations		377,627		200,161
Less: Amount included in cost of qualifying assets		(8,184)		(4,402)
Loss on foreign exchange translations, net		369,443		195,759
	₩	661,383	₩	515,322
Net foreign exchange gains and losses	₩	(77,502)	₩	(60,981)

34. Other Non-operating Income and Expenses

34.1 Details of other non-operating income for the years ended December 31, 2017 and 2016, are as follows:

(in millions of Korean won)		2017		2016
Gain on valuation of firm commitment	₩	779	₩	187,809
Gain on valuation of currency forward		417,092		5,841
Gain on currency forward transactions		183,027		154,562
Gain on disposal of available-for-sales Financial assets		1,052		10,432
Gain on disposal of property, plant and equipment		2,356		26,228
Others		123,370		42,615
	₩	727,676	₩	427,487

34.2 Details of other non-operating expenses for years ended December 31, 2017 and 2016, are as follows:

(in millions of Korean won)		**2017**		**2016**
Loss on valuation of firm commitment	₩	555,413	₩	76,627
Loss on valuation of currency forward		-		166,738
Loss on currency forward transactions		1,506		49,056
Loss on disposal of property, plant and equipment		140		33,210
Other impairment loss		62,562		192,686
Impairment loss of property, plant and equipment		499,771		37,481
Impairment loss of intangible assets		29,422		3,056
Impairment loss of investment properties		112		86
Others		365,254		167,994
	₩	1,514,180	₩	726,934

35. Expenses by Nature

Expenses classified by nature for the years ended December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	2017					
	Selling and administrative and research and development expenses		**Cost of sales**		**Total**	
Changes in inventories	₩	-	₩	231,659	₩	231,659
Purchase of raw materials		-		4,107,152		4,107,152
Employee benefits		66,537		724,414		790,951
Depreciation		3,630		105,254		108,884
Amortization		22		1,886		1,908
Commission		173,360		99,445		272,805
Travel		2,372		5,895		8,267
Administrative service fees		14,695		63,426		78,121
Rent		10,411		20,730		31,141
Amount paid to subcontractor		-		1,908,523		1,908,523
Others		513,609		1,864,511		2,378,120
	₩	784,636	₩	9,132,895	₩	9,917,531

(in millions of Korean won)	2016		
	Selling and administrative and research and development expenses	**Cost of sales**	**Total**
Changes in inventories	₩ -	₩ 815,211	₩ 815,211
Purchase of raw materials	-	5,360,538	5,360,538
Employee benefits	82,370	986,768	1,069,138
Depreciation	8,596	148,208	156,804
Amortization	6	4,301	4,307
Commission	115,950	102,728	218,678
Travel	2,852	11,147	13,999
Administrative service fees	7,626	64,361	71,987
Rent	5,575	41,571	47,146
Others	505,971	4,535,218	5,041,189
	₩ 728,946	₩ 12,070,051	₩ 12,798,997

36. Related Parties

36.1 Related parties of the Company as at December 31, 2017, are as follows:

	Company
Controlling Company	KDB
Subsidiaries	DW Mangalia Heavy Industries S.A.("D.M.H.I"), DSME Shandong Co., Ltd, DeWind Co., DK Maritime S.A., DSME Oman LLC, DSME Far East LLC, DSME Information and Consulting, PT. DSME ENR CEPU
Associates	Wing Ship Technology Corp., TPI Megaline Co.,Ltd., DAEHAN SHIPBUILDING CO.,LTD, Welliv Private investment joint company Partnerships, Shinhan Heavy Industries Co., Ltd., Samwoo Heavy Industry Co., Ltd
Joint ventures	SBM Shipyard Ltd.
Other related parties	D&H Solutions AS, PT. DSME Indonesia, DSME Offshore Engineering Center, DSME Kazakhstan LLP, PAENAL YARD, PT. Petrogas Jatim Utama Cendana, KC Kazakh B.V., DeWind NOVUS III LLC, DeWind FRISCO LLC, KODE NOVUS I LLC, KODE NOVUS II LLC, Little Pringle I, Little Pringle II, SEYOUNG Academy for middle school students and others, Related parties of KDB and government related parties(KEXIM and others)[1]

[1] Disclosure of the Company do not consist of all transactions, commitments and outstanding balances in accordance with Korean IFRS 1024, para 25.

36.2 Intercompany transactions, which were eliminated in consolidation, between the Parent Company and subsidiaries are not disclosed. Significant transactions with the related parties for the years ended December 31, 2017, and 2016, are as follows:

(in millions of Korean won)	**Transaction**	**2017**	**2016**
Controlling Company:			
KDB	Interest and other income	₩ 361,498	₩ 66,217
	Interest and other expenses	66,835	208,682
	Proceeds from borrowings	658,800	1,649,946
	Redemption of borrowings	422,357	191,100
	Debt-to-equity swap	268,932	1,784,314
Subsidiaries:			
DSME Shandong Co., Ltd	Purchases	151,100	122,145
Other subsidiaries	Sales	10,514	5,467
	Purchases	325,026	604,751
	Interest and other income	6,313	14,039
	Interest and other expense	40,480	38,985
	Increase in loans	36,056	535,386
	Decrease in loans	35,399	144,441
Associates and Joint ventures:			
DAEHAN SHIPBUILDING CO., LTD and others	Sales	1,899	243
	Purchases	137,147	16,264
	Interest and other income	1,415	462
	Increase in loans	14,200	-
	Decrease in loans	5,347	-
Other related parties:			
KEXIM	Interest and other expense	83,282	109,367
	Proceeds from borrowings	817,000	1,945,302
	Redemption of borrowings	76,000	1,084,628
	Debt-to-equity swap	1,284,775	1,000,000
Related parties of KDB and others	Sales	2,329	201
	Purchases	62,311	52,706
	Interest and other income	267	7,168
	Interest and other expense	450	65,220
	Decrease in loans	108	-
Total	Sales	14,742	5,911
	Purchases	675,584	795,866
	Interest and other income	191,047	87,886
	Interest and other expense	231,186	422,263
	Proceeds from borrowings	1,475,800	3,592,248
	Redemption of borrowings	498,357	1,275,728
	Increase in loans	50,256	535,386
	Decrease in loans	40,854	144,441
	Debt-to-equity swap	₩ 1,553,707	₩ 2,784,314

36.3 Significant receivables from and payables to the related parties as at December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	December 31, 2017					
	Financial instruments and others[1]	**Trade receivables**[1]	**Other receivables**[1]	**Loans and others**[1]	**Borrowings**	**Other payables**
Controlling Company:						
KDB	₩ 855,692	₩ -	₩ 24,274	₩ 135,988	₩ 1,709,152	₩ 12,236
***Subsidiaries*:**						
DSME Shandong Co., Ltd.	-	636	1	29,316	-	4,397
D.M.H.I	-	78,667	376,914	531,796	-	-
Dewind Co.	-	-	-	115,551	-	421
DK Maritime S.A.	-	84,837	-	-	-	-
Other subsidiaries	-	9	49	78,504	-	1,515
Associates:						
DAEHAN Shipbuilding Co. Ltd. and others	-	133	2,344	89,268	-	27,351
Joint ventures:						
SBM Shipyards Ltd. and others	-	-	-	183,133	-	-
Other related parties:						
D&H Solutions AS and others	-	4,866	-	32,850	-	64
KEXIM	-	-	-	1,954	904,404	1,571
Related parties of KDB	3,311	1,589	-	-	-	31
	₩ 859,003	₩ 170,737	₩ 403,583	₩ 1,198,360	₩ 2,613,556	₩ 99,655

[1] Amount before deduction of provision for impairment loss.

(in millions of Korean won)	December 31, 2016					
	Financial instruments and others[1]	Trade receivables[1]	Other receivables[1]	Loans and others[1]	Borrowings	Other payables
Controlling Company:						
KDB	₩ 683,922	₩ -	₩ 25,796	₩ 3,228	₩ 1,889,841	₩ 230,420
***Subsidiaries*:**						
Shinhan Heavy Industry Co., Ltd.	-	142	155	60,006	-	6,980
DSME Shandong Co., Ltd.	-	-	1	794	-	1,439
D.M.H.I	-	55,076	375,109	466,235	-	13,649
Dewind Co.	-	-	-	94,340	-	13
DK Maritime S.A.	-	84,837	-	-	-	-
Other subsidiaries	-	252	5,121	132,723	-	66,531
Associates:						
DAEHAN SHIPBUILDING CO., LTD. and others	-	229	3,352	5,616	-	22,511
Joint ventures:						
SBM Shipyards Ltd. and others	-	-	-	183,133	-	-
Other related parties:						
Pangea LNG B.V and others	-	1,590	2	32,957	-	1,902
KEXIM	-	-	-	3,881	1,544,085	737
Related parties of KDB	-	-	-	10,719	-	11,768
	₩ 683,922	₩ 142,126	₩ 409,536	₩ 993,632	₩ 3,433,925	₩ 355,950

[1] Amount before deduction of provision for impairment loss.

Meanwhile, movements of provision for impairment of trade and other receivables in relation to the above receivables with related parties for the years ended December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	2017			
	Beginning balance	**Impairment loss (reversal)**	**Others[1]**	**Ending balance**
Trade receivables	₩ 139,913	₩ -	₩ 23,590	₩ 163,503
Other receivables	375,060	110	1,744	376,914
Loans and others	911,319	18,503	74,854	1,004,676
	₩ 1,426,292	₩ 18,613	₩ 100,188	₩ 1,545,093

(in millions of Korean won)	2016			
	Beginning balance	**Impairment loss (reversal)**	**Others[1,2]**	**Ending balance**
Trade receivables	₩ 151,592	₩ (3,584)	₩ (8,095)	₩ 139,913
Other receivables	201,248	30,344	143,468	375,060
Loans and others	522,649	72,527	316,143	911,319
	₩ 875,489	₩ 99,287	₩ 451,516	₩ 1,426,292

[1] In connection with the payment guarantees provided for the repayment of borrowings of D.M.H.I and Dewind Co., subsidiaries, the Company recognized guaranteed amounts to be executed as financial guarantee liabilities. Accordingly, when a loan was provided to a subsidiary during the payment guarantee agreement, the Company transferred the financial guarantee liability to provision for impairment on loans. The transferred amounts are ₩29,035 million and ₩295,253 million for the periods ended December 31, 2017 and 2016, respectively. In addition, the Company designated liabilities amounting to ₩51,252 that are expected to change conditions (e.g. debt-to-equity swap, conversion to perpetual bond, maturity extension and others) as at FVTPL.
[2] For the purpose of smooth progress on disposal of DSEC Co., Ltd., a subsidiary, the receivable amounting to ₩143,760 million held by DSEC Co., Ltd. to D.M.H.I which has low collectability transferred to the Company without costs and the Company recognized other receivables and provision for impairment on other receivable.

36.4 Key management compensation for the years ended December 31, 2017 and 2016, is as follows:

(in millions of Korean won)	**2017**	**2016**
Salaries	₩ 686	₩ 1,216
Severance and retirement benefits	23	-
	₩ 709	₩ 1,216

The Company's key management includes directors (including outside directors) who are registered executives and members of the Audit Committee.

36.5 Significant collaterals and guarantees provided for the related parties as at December 31, 2017, are as follows:

(in thousands of foreign currency)

Provided for	Guaranteed amount		Guarantor
Subsidiaries[1,2,3,4,6]	USD	96,200	KDB and others
	CAD	3,200	WEIcan
Other related parties[3,5,7]	USD	88,996	Tenjizchevroil LLP ("TCO") and others

[1] Payment guarantees for borrowings of USD 55 million are provided to financial institutions for D.M.H.I, a subsidiary.
[2] The Company provided performance guarantee to WEIcan (windmill generator buyer) for DeWind Co.
[3] The Company provided guarantees for KODE NOVUS I LLC and Dewind FRISCO LLC jointly and severally to finance for wind farm development, which is propelled by Dewind Co. and recognized a financial liability at fair value through profit or loss amounting to ₩51,252 million.
[4] Guarantees are provided for PT. DEC joint ventures in Indonesia to finance for development in CEPU oil field.
[5] The Company provided performance guarantees related to local construction of Kazakhstan for TCO FGP Module Fabrication.
[6] The Company provides performance guarantees for HHIC-Phil (Hanjin Heavy Industries and Construction Co., Ltd) for the construction contracts offered by DSSC.
[7] The Company provided performance guarantees to KazMunayGas regarding the share of mining area in Kazakhstan disposed by KC Kazakh B.V.

In connection with the payment guarantee for the related parties, the Company recognized financial guarantee liabilities amounting to ₩30,265 million.

36.6 Significant guarantees provided by related parties as at December 31, 2017, are as follows:

(in thousands of foreign currency)

Guarantor	Type of obligations guaranteed	Guaranteed amount		Type of borrowings	Borrowing amount	
Parent Company:						
KDB	Usance bills	USD	314,400	Short-term borrowings	USD	92,749
	Advance payment bonds and others	USD	4,700,000	-	USD	1,958,571
KEXIM	Advance payment bonds and others	USD	5,480,385	-	USD	4,402,409
				-	EUR	9,348
				-	GBP	102,178
Total		USD	10,494,785		USD	6,453,729
					EUR	9,348
					GBP	102,178

36.7 The Company entered into a non-cancellable long-term transportation contract with TPI Megaline Co,Ltd. of which the term is 10 years. The book amount of finance lease assets as at December 31, 2017 is ₩ 42,943 million.

37. Construction Contracts

37.1 Changes in the remaining balance of construction contracts for the years ended December 31, 2017, and 2016, are as follows:

(in millions of Korean won)	2017				
	Beginning balance	New contracts	Others [1]	Recognized construction revenue [2]	Ending balance
Shipbuilding	₩ 12,955,970	₩ 2,883,730	₩ (1,082,481)	₩ (6,665,614)	₩ 8,091,605
Offshore plant and special ships	7,982,303	294,124	556,376	(3,629,134)	5,203,669
Others	14,340	-	(1,896)	(2,822)	9,622
	₩ 20,952,613	₩ 3,177,854	₩ (528,001)	₩ (10,297,570)	₩13,304,896

(in millions of Korean won)	2016				
	Beginning balance	New contracts	Others [1]	Recognized construction revenue [2]	Ending balance
Shipbuilding	₩ 17,883,174	₩ 1,319,604	₩ 54,122	₩ (6,300,930)	₩12,955,970
Offshore plant and special ships	14,429,829	486,191	(1,694,250)	(5,239,467)	7,982,303
Others	37,176	-	(10,601)	(12,235)	14,340
	₩ 32,350,179	₩ 1,805,795	₩ (1,650,729)	₩ (11,552,632)	₩20,952,613

[1] Others consist of increase or decrease due to fluctuations of foreign exchange rates and changes of contract amount.
[2] Recognized construction revenue excludes increase or decrease of sales related to firm commitment assets (liabilities).

37.2 Details of in-progress construction contracts such as recognized construction profit or loss as at December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	December 31, 2017			
	Accumulated construction revenue	Accumulated construction cost	Accumulated profit (loss)	Reserve[1]
Shipbuilding	₩ 6,449,420	₩ (6,228,251)	₩ 221,169	₩ 978,285
Offshore plant and special ships	24,974,212	(26,802,761)	(1,828,549)	-
Other	132,273	(81,137)	51,136	-
	₩ 31,555,905	₩ (33,112,149)	₩ (1,556,244)	₩ 978,285

(in millions of Korean won)	December 31, 2016							
	Accumulated construction revenue		Accumulated construction cost		Accumulated profit (loss)		Reserve[1]	
Shipbuilding	₩	5,495,133	₩	(5,105,551)	₩	389,582	₩	1,136,496
Offshore plant and special ships		23,874,457		(26,472,397)		(2,597,940)		-
Other		145,612		(92,429)		53,183		-
	₩	29,515,202	₩	(31,670,377)	₩	(2,155,175)	₩	1,136,496

[1] Reserve, before the deduction of provision for impairment, refers to the receivable related to a transferred vessel for which payment term is postponed. The principal and the accrued interest are being collected in accordance with the contract.

37.3 Details of due to and from customers for contract work as at December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	December 31, 2017				December 31, 2016			
	Due from customers for contract work		Due to customers for contract work		Due from customers for contract work		Due to customers for contract work	
Shipbuilding	₩	2,364,612	₩	1,299,048	₩	2,049,325	₩	2,143,254
Offshore plant and special ships		1,668,962		1,054,142		2,412,235		2,209,630
Others		13,025		25,297		1,134		48,856
	₩	4,046,599	₩	2,378,487	₩	4,462,694	₩	4,401,740

Provision for construction loss included in the due from customers for contract work amounts to ₩299,234 million (December 31, 2016: ₩109,258 million) and provision for expected loss included in the amounts due to customers for contract work amounts to ₩307,181 million (December 31, 2016: ₩331,350 million), as at December 31, 2017.

37.4 Contractual details that contract revenue for the year ended December 31, 2017 more than 5% of sales in previous year, are as follows:

(in millions of Korean Won)	Customers	Contract date	Expected completion date[1]	Percentage of Completion	December 31, 2017				December 31, 2016			
					Due from customers for contract work		Trade receivables (receivables from construction contracts)		Due from customers for contract work		Trade receivables (receivables from construction contracts)	
					Gross	Provision	Gross	Provision[2]	Gross	Provision	Gross	Provision[2]
Drillship	America	2012-09-27	2019-09-30	98.7%	₩ 91,970	₩ -	₩ -	₩ -	₩ 99,287	₩ -	₩ -	₩ -
Drillship	Africa	2013-10-15	2018-12-31	96.5%	480,138	(206,488)	-	-	541,578	(105,744)	-	-
Drillship	Africa	2013-10-15	2018-12-30	96.4%	484,116	(206,488)	-	-	546,065	(105,744)	-	-
Drillship	America	2013-06-24	2020-06-30	97.8%	181,169	-	-	-	164,477	-	-	-
Drillship	America	2013-07-12	2021-01-30	93.3%	435,944	(127,316)	-	-	491,729	(61,430)	-	-
Drillship	America	2013-07-12	2021-01-30	89.9%	397,340	(111,282)	-	-	448,185	(77,876)	-	-
FPSO	Europe	2010-08-23	2018-10-30	99.9%	-	-	778	-	-	-	3,075	-
FP	Oceania	2011-10-14	2018-02-28	99.9%	5,915	-	2,073	-	-	-	2,338	-
FPSO	Oceania	2012-03-08	2019-01-30	97.1%	185,644	-	24,490	-	-	-	18,583	-
FP	Africa	2012-08-16	2018-03-30	98.2%	-	-	(85)	-	-	-	16,222	-
FP	Europe	2012-12-21	2018-08-30	95.8%	-	-	24,986	-	-	-	43,145	-
FP	Europe	2013-02-20	2018-03-31	99.5%	-	-	5,111	-	-	-	28,274	-
FP	Asia	2013-05-26	2018-07-19	95.3%	14,806	-	1,343	-	-	-	3,293	-
FP	Asia	2014-10-09	2020-07-27	10.0%	-	-	71,331	-	-	-	-	-
FLNG	Asia	2012-03-16	2018-02-12	99.7%	7,956	-	-	-	-	-	1	-

[1] Expected completion date is the date expected by the Company as at December 31, 2017, and it is affected by a variety of uncertainties that depend on the outcome of future events.
[2] Accumulated impairment loss excludes the loss recognized through the collective assessment.

As at December 31, 2017, two construction contracts were omitted in the disclosure according to Amendment to Korean IFRS 1011, article 45.2(2) due to contractual reasons with customers. The Company has never disclosed such above-mentioned omitted disclosures in the securities report, investment prospectus, nor quarterly report / semi-annual reports required in Capital Market Act. And, it was reported to the audit committee on March 9, 2018.

37.5 Details of contracts for using rate of accumulated contract costs incurred per operating segments divided by estimated total contract costs to measure percentage of completion, are as follows:

(in millions of Korean won)	December 31, 2017								
	Provisions for expected loss	Changes in total contract revenue		Changes in total estimated contract costs		Changes in gain (loss) from construction		Due from customers for contract work	
		Changes in estimation	Correction of error	Changes in estimation	Correction of error	Changes in estimation	Correction of error	Gross amount	Accumulated impairment loss
Shipbuilding	₩ 355,846	₩ (755,338)	₩ -	₩ (711,168)	₩ -	₩ 400,146	₩ -	₩ 2,364,612	₩ -
Offshore plant and special ships	250,568	850,142	-	(86,334)	-	1,100,572	-	2,320,537	(651,574)
Other	-	2,041	-	224	-	(1)	-	13,025	-
	₩ 606,414	₩ 96,845	₩ -	₩ (797,278)	₩ -	₩ 1,500,717	₩ -	₩ 4,698,174	₩ (651,574)

(in millions of Korean won)	December 31, 2016								
	Provisions for expected loss	Changes in total contract revenue		Changes in total estimated contract costs		Changes in gain (loss) from construction		Due from customers for contract work	
		Changes in estimation	Correction of error[1]	Changes in estimation	Correction of error[1]	Changes in estimation	Correction of error[1]	Gross amount	Accumulated impairment loss
Shipbuilding	₩ 127,694	₩ 109,012	₩ -	₩ 698,651	₩ (40)	₩ (58,176)	₩ 16	₩ 2,049,325	₩ -
Offshore plant and special ships	312,915	383,557	(130,038)	1,307,256	(93,116)	(698,934)	(99,230)	2,763,028	(350,793)
Other	-	-	-	(457)	-	2,346	-	1,134	-
	₩ 440,609	₩ 492,569	₩ (130,038)	₩ 2,005,450	₩ (93,156)	₩ (754,764)	₩ (99,214)	₩ 4,813,487	₩ (350,793)

[1] Due to errors in estimated total contract revenue and costs, the Company restated the 2015 financial statements. The effects of change in construction profit or loss from the restatement are included in the effects of the correction of the above mentioned error in the statements of financial position as at December 31, 2016.

37.6 Changes in the estimation of total contract revenues and costs

As the estimated total revenue and costs for contracts in progress have changed, details of changes in estimated total contract revenue and costs, profits or loss for the periods ended December 31, 2017 and 2016, and the succeeding period, and the impact on due from customers for contract work are as follows:

(in millions of Korean won)	2017							
	Changes in estimated total contract revenue		Changes in estimated total contract cost		Impact on profit (loss) for the year		Impact on profit (loss) for the succeeding period	
Shipbuilding	₩	(755,338)	₩	(711,168)	₩	400,146	₩	(444,316)
Offshore plant and special ships		850,142		(86,334)		1,100,571		(164,095)
Other		2,041		224		(1)		1,818
	₩	96,845	₩	(797,278)	₩	1,500,716	₩	(606,593)

(in millions of Korean won)	2016							
	Changes in estimated total contract revenue		Changes in estimated total contract cost		Impact on profit (loss) for the year		Impact on profit (loss) for the succeeding period	
Shipbuilding	₩	109,012	₩	698,651	₩	(58,176)	₩	(531,463)
Offshore plant and special ships		383,557		1,307,256		(698,934)		(224,765)
Other		-		(457)		2,346		(1,889)
	₩	492,569	₩	2,005,450	₩	(754,764)	₩	(758,117)

The impact on profit (loss) for the year(prior period) and the succeeding period is determined based on total contract costs, which are estimated based on the circumstances present from the start of the contract to the end of current period(prior period), and the estimated contract revenue as at December 31, 2017(December 31, 2016). Contract costs and contract revenue may change in the future.

38. Commitments and Contingencies

38.1 The Company provided 14 blank notes to Korea National Oil Corporation as construction warranty and others at December 31, 2017. In addition, the Company provided DSA/MSA obligation performance guarantee for NASSCO shipping of DESEC Co., Ltd. at USD 4,034 thousand.

38.2 The Company is involved in a lawsuit as a plaintiff pending in relation to repayment request of lot loans, and sixteen other pending lawsuits with aggregated claim amount of ₩ 209,330 million as at December 31, 2017. The Company requested for arbitrations to the London Maritime Arbitrators Association in relation to settlement of contract amount and additional contract cost incurred with some customers.

38.3 During the year ended December 31, 2017, some investors who bought the Company's share, corporate bonds and commercial papers sued the Company, certain accounting firm and others for damage claims asserting that they were misled by false audit report, business report, registration of securities, prospectus, etc. Including the foresaid litigation, the Company is involved 78 other lawsuits as a defendant with aggregated claim amount of USD 109,840 thousand and ₩ 255,380 million, including a pending lawsuit at Seoul High Court in relation to overtime payment request as at December 31, 2017.

The outcome of the above cases cannot be reasonably estimated, and any outflows of resources and the timing are also uncertain. As at December 31, 2017, the Company recognized the best estimated loss amounting to ₩ 502,550 million from pending litigations and performance guarantees as provisions.

38.4 The Company's major joint ventures are as follows.

The Company has invested in Nigeria oil fields Nigeria development project by forming a Korean consortium (9.75% of the Company's shares) including Korea National Oil Corp. The Company recognized the investment in Nigeria oil fields as other investment assets.
The Company has invested in Kazakhstan oil fields development project by forming a Korean consortium (5.00% of the Company's shares). The consortium has invested in Jambyl mine near the Caspian Sea by forming a Korean consortium of 27% (1.35% of the Company's shares) with Kazmunay Gas, Kazakhstani national oil company.
The Company has participated in a Korean consortium (85% of the Company's shares) with GNG Holdings Inc. for the Cepu oil field in Indonesia.
The Company has invested in "Southwest Pacific Seafloor Hydrothermal Deposit Project" with the Ministry of Land, Transport and Maritime Affairs in order to secure exclusive development rights of the project.

38.5 Corporate Judging Committee of KRX decided to evaluate the Company for suspicion of violating accounting standards and suspicion of former employee embezzlement and malpractice. The Committee granted a period of improvement for one year until September 28, 2017. Accordingly, trading of the shares issued by the Company was suspended during the period of improvement. On October 26, 2017, the Committee decided to release the trading suspension on October 30, 2017.

38.6 As at December 31, 2017, the estimated loss amounting to ₩ 65,269 million out of the claim amount of ₩ 107,755 million related to the construction contract of the Company was included in the statements of profit or loss as the repair cost (cost of goods sold).
Meanwhile, the Company is obligated to warranty liabilities in connection with the construction contracts of the Company. As a result, the Company assumes the expected warranty cost as the provision for construction warranties (Note 24).

38.7 Details of guaranteed amount to major financial institutions as at December 31, 2017 are as follows:

(in thousands of US dollar and millions of Korean won)

			Amount
KDB and others	Issuance of L/C limit	USD	1,061,800
	Foreign-currency payment guarantee limit	USD	11,381,092
	Borrowing limit	₩	4,036,443
		USD	1,025,412

38.8 The Company has been using a certain portion of a building through a lease agreement. Accordingly, rental expense recognized from the lease agreement, for the years ended December 31, 2017 and 2016, are as follows:

(in millions of Korean won)	**2017**	**2016**
Rental expenses	8,459	1,576

Meanwhile, the lease agreement entered by the Company can be renewed at the market price at the end of the lease term. Also, to terminate the agreement, the Company must notify it three months in advance. There is no purchase option when the agreement is terminated.

The total future minimum lease payments are as follows:

(in millions of Korean won)	**2017**	**2016**
Less than 1 year	4,167	7,446
Between 1 year and 5 years	17,846	-
	₩ 22,013	₩ 7,446

39. Cash Flows from Operating Activities

Cash flows from operating activities for the years ended December 31, 2017 and 2016, are as follow:

(in millions of Korean won)	**2017**	**2016**
1. Profit(loss) for the year	₩ 739,144	₩ (2,990,997)
2. Adjustments for	1,149,150	2,511,601
(1) Addition of expenses	3,459,929	4,578,404
Post-employment benefits	54,922	68,590
Employee benefits	(137)	(10,209)
Depreciation	108,883	156,804
Amortization	1,907	4,307
Impairment loss on property, plant and equipment	499,771	37,481
Impairment loss and other impairment losses	430,830	637,278
Loss on valuation of firm commitment	555,413	76,627
Loss on valuation of currency forward	-	166,738
Loss on disposal of AFS financial assets	76	2,846
Loss on disposal of property, plant and equipment	140	33,210
Impairment loss on investments in subsidiaries, associates and joint ventures	66,211	132,616
Loss on disposal of non-current asset held for sale	495	9,969
Impairment loss on investment properties	1,353	-
Impairment loss on intangible assets	29,422	4,027
Impairment loss on other investment assets	112	86
Interest expenses	33,016	69,291
Transfer to financial guarantee liabilities	-	119,065

Capitalized financial expense	164,560	199,399
Loss on foreign currency translation	369,443	195,759
Income tax expense	541,309	910,492
Transfer to provision for construction loss	165,806	1,573,827
Transfer to provision for construction warranties	41,991	86,104
Transfer to provision for contingent liabilities	394,193	88,481
Other expenses	213	15,616
(2) Deduction of incomes	(2,310,779)	(2,066,803)
Reversal of provision for construction loss	-	1,669,596
Reversal of provision for construction warranties	-	996
Gain on valuation of firm commitment	779	187,809
Gain on valuation of currency forward	417,092	5,841
Reversal of impairment loss and other impairment losses	9,806	-
Gain on disposal of AFS financial assets	1,052	10,432
Gain on disposal of investments in subsidiaries	58,423	-
Gain on disposal of investments in associates and joint ventures	1,126	-
Gain on disposal of non-current asset held for sale	532	-
Gain on valuation of financial assets at FVTPL	2,675	-
Gain on disposal of property, plant and equipment	2,356	26,228
Reversal of impairment loss on property, plant and equipment	9	-
Reversal of impairment loss on intangible assets	245	-
Interest income	16,384	15,363
Dividend income	672	1,168
Reversal of financial guarantee liabilities	25,547	-
Gain on foreign currency translation	275,709	147,613
Gain on debt restructuring	1,425,031	-
Gain on foreign currency transaction and debt-to-equity swaps	71,891	-
Other incomes	1,450	1,757
3. Changes in working capital	(2,972,219)	(225,465)
Trade and other receivables	(110,518)	28,921
Inventories	198,547	815,211
Due from customers for contract work	(374,633)	(141,385)
Other current assets	193,541	297,443
Non-current trade and other receivables	35,395	125,798
Firm commitment assets	(102,379)	203,319
Currency forward assets	255,080	(329,453)
Trade and other payables	(522,284)	(770,348)
Due to customers for contract work	(1,999,083)	(453,623)
Other current liabilities	(10,510)	25,598
Net defined benefit obligation	(66,294)	(46,178)
Provisions	(88,617)	19,232
Currency forward liabilities	(472,283)	-
Firm commitment liabilities	91,819	-
Cash used in operations	₩ (1,083,925)	₩ (704,861)

40. Non-cash Transactions

40.1 The principle significant non-cash transactions from investment and financing activities that are not included in the separate statements of cash flows are as follows:

(in millions of Korean won)	**2017**	**2016**
Capital increase (debt-to-equity swaps)	₩1,664,906	₩ 1,784,314
Issuance of hybrid capital instruments (refunding)	1,284,775	1,000,000
Transfer of long-term loans to the respective current assets	126,768	273,527
Transfer of long-term borrowings to current portion of long-term borrowings	254,583	577,650
Transfer of short-term loans and debentures to the respective non-current liabilities	903,742	-
Transfer of construction in progress to property, plant and equipment	6,220	61,746
Transfer to non-current asset held for sale	103,505	155,920
Transfer of financial guarantee liabilities to provision for impairment on loans receivable	29,035	295,253
Acquisition of investment in associates[1]	9,750	-
Offsetting long-term/ short-term loans and other receivables	-	141,703
Transfer of long-term financial assets to current portion	₩ 101,896	₩ -

[1] The Company disposed of 1,200,000 ordinary shares (100%) of its ordinary stock of Welliv Corp. to Welliv Holdings Co.,Ltd. and acquired 34.39% shares of Welliv Private Investment Joint Company which is an investor of Welliv Holdings Co.,Ltd. as a part of the proceeds (Note 13 and 14).

Meanwhile, cash inflows and outflows arising from short-term financial instruments, short-term loans and short-term borrowings with large frequent transactions and short-term maturities have been presented in net amounts.

40.2 The adjustment of liabilities arising from financing activities for the years ended December 31, 2017 is as follows:

(in millions of Korean won)	**Liabilities from financing activities**					
	Short-term borrowings	**Current portion of long-term borrowings**	**Current portion of long-term debentures**	**Long-term borrowings**	**Debentures**	**Total**
Beginning balance	₩ 2,501,217	₩ 1,171,734	₩ 1,348,886	₩ 652,737	₩ 192,424	₩ 5,866,998
Cash flows from financing activities	1,103,940	(40)	-	24,010	-	1,127,910
Exchange differences	(33,593)	(24,163)	-	(100,083)	-	(157,839)
Amortization	-	-	1,931	2,968	30,134	35,033
Debt Restructuring[1]	(1,497,110)	(596,130)	(941,530)	(180,612)	(101,185)	(3,316,567)
Transfer and others	(123,768)	(116,148)	(409,288)	239,916	409,288	-
Ending balance	₩ 1,950,686	₩ 435,253	₩ -	₩ 638,935	₩ 530,661	₩ 3,555,535

[1] Included the difference between the fair value of the liability that would change as a result of the debt restructuring and the book amount of the derecognized liability (Note 43).

41. Segment Information

41.1 The Company classifies its segments by the type of goods and details of the goods and services that generate income, and major customers for each segment are as follows:

Division	Goods or services	Major customers	Ratio of sales (%)
Ships	LNGC and others	Maersk Line A/S and others	62.71
Offshore plants and special ship	Marine steel structure and others	Statoil and others	36.77
Others	Energy, service	Various customers	0.52
			100.00

Financial information by segment is as follows:

(in millions of Korean won)	December 31, 2017			
	Ships	Off shore plants and special ship	Others	Total
Sales	₩ 6,668,970	₩ 3,909,685	₩ 55,378	₩ 10,634,033
Gross profit	546,144	932,052	22,942	1,501,138

(in millions of Korean won)	December 31, 2016			
	Ships	Off shore plants and special ship	Others	Total
Sales	₩ 6,089,678	₩ 5,243,160	₩ 52,612	₩ 11,385,450
Gross profit (loss)	290,285	(1,011,434)	36,547	(684,602)

41.2 The major customer who accounts more than 10% of the Company's revenue is one (December 31, 2016: one) and revenue recognized is ₩ 1,338,690 million and ₩ 1,216,425 million for the years ended December 31, 2017 and 2016, respectively.

42. Create Self-Help Plan to Stabilize Financial Position of the Company

The Company entered into an agreement with the creditor Bank on November 9, 2015 in order to handle the deterioration of financial situation from cumulative operating loss occurred for the following reasons.

1) Increase in total contract costs due to delays in offshore projects and recognized provisions for delays in deliveries.
Mainly due to the delays in the progress of the offshore projects compared to the plan, additional loss were incurred to reflect the total contract costs. In addition, the Company recognized provisions for delay as the Company believes that it is probable that the actual project delivery date may exceeds the contractual delivery date due to delay in progress.

2) Establishing provisions for impairment by assessing the collectability of the amounts due from customers as credit ratings of customers have been declined.
Customers, who are facing financial difficulties due to prolonged decline of global oil prices, have been requesting for delivery delay of drill ship. The Company considered this fact in assessing collectability of the amounts due from customer and estimated the provision for impairment.

3) Impairment loss on assets including investments in subsidiaries in consideration of decrease in the sales volume of the Company and deterioration in market condition.
As at December 31, 2017, the Company recognized impairment losses on property, plant and equipment, intangible assets, investment properties for ₩ 616,622 million (including decrease of revaluation surplus of ₩ 86,305 million), and investments in subsidiaries and due to the Company's decrease in sales volume and deterioration of market conditions. Also, the Company have prompted restructure its business (reduce, liquidate and sell business unrelated to shipbuilding and marine business) to stabilize its financial position. During the year ended December 31, 2017, the Company completed disposal of investment in DSEC Co., Ltd., and finalized disposal plan of investments in DSME Construction Co., Ltd. and Welliv Corp and others.

On June 28, 2017 and August 21, 2017, the major creditor bank management procedure began for Shinhan Heavy Industries Co., Ltd. and Samwoo Heavy Industry Co., Ltd., the Company's subsidiaries, and the Company reclassified these subsidiaries as associates as it lost its control over them due to the agreement with its major creditor bank.

Meanwhile, the Company is consistently enhancing self-supporting efforts in accordance with the agreement with the creditor bank to perform business stabilization plan. This agreement includes new capital supports, financial structure improvement (dispose un-core assets including Magok District, cost reduction and others) and enhancement of its competitiveness for mid/long-term period through capital injection plan and others.

The financial statements have been accounted for on the assumption that assets and liabilities can be recovered or repaid at book amounts through the normal business activities. There is a possibility that the financial condition and business performance will fluctuate greatly depending on the shipbuilding market condition. To improve financial structure, the Company and bond holders agreed to the debt restructuring that includes debt-to-equity swap of 50% or more of existing corporate bonds and CP, and extending the maturity and decreasing interest rate for the rest of remaining bonds through bondholders' meeting and amendment of CP contract for terms and conditions of issuing, respectively, during April, 2017. Accordingly, the Company is in the process of debt restructuring and debt-to-equity swap. June 28, 2017, the Creditor Financial Institutions (such as Korea Development Bank and other financial institutions) executed debt adjustments of debt-to-equity swap and maturity extension and new capital support up to ₩ 2.9 trillion from KDB and KEXIM Bank is in progress (see Note 43). Meanwhile, KDB and KEXIM Bank pledged to provide new capital support to DSME until the repayment date of the remaining bonds after the debt-to-equity swap and to use the reserved portion of the new funds for remaining bonds in order of priority.

43. Debt Restructuring

Since the announcement of the "DSME Restructuring Promotion Plan" for prompt normalization of management of the Company, the Company agreed to the debt restructuring that includes the debt-to-equity swap, maturity extension and interest rate changes for unsecured bonds held by financial institutions, unsecured and bearer bonds (4-2, 5-2, 6-1, 6-2 and 7th) and commercial paper (CP). This debt restructuring agreement was made based on mutual consent of creditor financial institutions, resolution of the bondholders' meeting and amended CP contract.

43.1 Details of debt restructuring are as follows:

(in millions of Korean won)	**Amount subject to debt restructuring**		**Debt to equity swaps**		**Change in terms**	
Short-term borrowings[1,4]	₩	1,608,764	₩	1,460,880	₩	147,884
Corporate bonds[2]		1,350,000		710,860		639,140
Commercial papers		194,578		97,289		97,289
Long-term borrowings[3,4]		680,673		680,653		-
	₩	3,834,015	₩	2,949,682	₩	884,313

[1] Short-term borrowings in foreign currencies that are subject to debt restructuring and change in terms are debt amounts as at June 28. Short-term borrowings include ₩80 billion of borrowings recognized on July 3, 2017, and which of ₩64 billion is subject to debt-to-equity swap on December 21, 2017.

[2] Bonds were restructured as at August 11, 2017 and December 21, 2017, and debt-to-equity swap ratio of bonds held by Korean Development Bank (7th bond amounting to ₩50 billion) and other creditors were 100% and 50.3% (total 17,435,051 shares), respectively.

[3] There is a difference of ₩20 million between long-term borrowings subject to debt restructuring and debt-to-equity swap. The difference is cash repayments.

[4] The KEXIM's unsecured debt of ₩1,284,775 million (short-term borrowings of ₩724,042 million and long-term borrowings of ₩560,733 million) was offset by issuing the same amount of convertible bonds(Notes 29).

As a result of the above-mentioned debt restructuring agreement, the Company issued new shares through a third-party allotment on June 29, 2017 (as at the date of payment) by debt-to-equity swap of creditor bank's unsecured bonds. In addition, further debt-to-equity swaps for ₩ 799,124 million of corporate bonds(1st) and CP and for ₩ 65,669 million of corporate bonds(2nd) and creditor banks were executed on August 12, 207 and December 21, 2017, respectively.

43.2 Debt-to-equity swaps and changes in terms

i) Debt-to-equity swaps

	Details
Number of shares	41,260,484 shares[1]
Types of share issued	Ordinary shares
Issue price	₩ 40,350
Sale restrictions	None

[1] 181,156 shares (assuming conversion rate of 50%) which was not converted to investment during the year ended December 31, 2017, were recognized as other paid-in capital.

ii) Debt grace period

(in millions of Korean won)	**Public offering bonds (including CP)**	**Unsecured borrowings**
Debt in the grace period	₩ 736,429	₩ 147,884
Grace period	6 years	10 years
Payment method	3-year grace, 3-year grace repayment	5-year grace, 5-year grace repayment

iii) Reduction of interest rate and treatment of delinquent interest payment

(in millions of Korean won)	**Public offering bonds (including CP)**	**Unsecured borrowings**
Target bond	₩ 736,429	₩ 147,884
Effective interest rate	1%	1%
Applicable period	6 years	10 years

43.3 The effects of debt-to-equity swaps and debt restructuring

For the year ended December 31, 2017, the Company recognized ₩ 1,425,031 million of gain on debt restructuring as finance income and ₩ 26,321 million as other capital in relation to the above-mentioned debt-to-equity swaps and debt restructuring.

44. Events After the Reporting Period

In connection with the payment guarantees provided to KODE NOVUS LLC. and Dewind FRISCO LLC., the related parties, the Board of Directors of the Company decided to accept the guarantee liability of ₩ 86,267 million due to the insolvency of the original debtor on January 31, 2018(Note 36).

45. Approval of Issuance of the Financial Statements

The separate financial statements 2017 was approved for issue by the Board of Directors on March 15, 2018.