Daewoo Shipbuilding & Marine Engineering Co., Ltd.

Separate Financial Statements

December 31, 2019 and 2018

(With Independent Auditor's Report Thereon)

INDEX

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Independent Auditors' Report

(Based on a report originally issued in Korean)

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

Opinion

We have audited the separate financial statements of Daewoo Shipbuilding & Marine Engineering Co., Ltd. (the "Company"), which comprise the separate statement of financial position as at December 31, 2019, and the separate statement of income, separate statement of comprehensive income, separate statement of changes in equity and separate statement of cash flows for the year then ended, and notes to the separate financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying separate financial statements present fairly, in all material respects, the separate financial position of the Company as at December 31, 2019, and its separate financial performance and its separate cash flows for the year then ended in accordance with International Financial Reporting Standards as adopted by the Republic of Korea ("Korean IFRS").

Basis for Opinion

We conducted our audit in accordance with Korean Standards on Auditing ("KSAs"). Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Separate Financial Statements section of our report. We are independent of the Company in accordance with the ethical requirements that are relevant to our audit of the separate financial statements in Korea, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the separate financial statements of the current period. These matters were addressed in the context of our 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.

1. Revenue recognition using the percentage of completion method

Why it is determined to be a key audit matter

As explained in Note 2 to the separate financial statements, the Company recognizes contract revenue and contract costs associated with the construction contract as revenue and expense respectively under the percentage of completion method at the end of the reporting period when the outcome of a construction contract can be estimated reliably. The percentage of completion method is based on the percentage of costs incurred to date, excluding any contract cost that does not reflect the work performed, compared to the estimated total costs of the contract. When costs incurred plus recognized profit (less recognized losses) exceeds progress billings, the excess amounts are presented as due from customers for contract work and when progress billings exceed costs incurred plus recognized profit (less recognized losses), the exceeds amounts are presented as due to customers for contract work.

(1) Revenue recognition based on input method

As explained in Note 3 to the separate financial statements, total contract revenue is measured at the initial contract amount agreed; however, total estimated contract revenue may deviate from original estimate depending on project scope changes, claims, incentive payments, or penalties for delayed delivery arising in the course of construction. Measurement of contract revenue may be influenced by the extent of uncertainties associated with the outcomes of future events. In addition, contract revenue is affected by the percentage of completion based on the cumulative accrued contract costs. The total costs of a contract are estimated based on future estimates such as material cost, labor cost, construction period and others. Given the uncertainty of estimated total contract revenue and total contract cost impact on the profit or loss for the current year (or for the succeeding years), we identified the revenue recognition based on input method as a significant risk.

(2) Uncertainty in measurement of estimated total contract costs

As explained in Note 39 to the separate financial statements, the total costs of the contract are estimated based on future estimates such as material cost, labor cost, construction period and others. There is a risk of change due to the fluctuations in exchange rates, steel prices and production costs. Given the uncertainty of estimated total contract costs and the fluctuation of estimates impact on the profit or loss for the current year (or for the succeeding years), we identified the uncertainty in measurement of estimated total contract costs as a significant risk.

(3) Measurement of the percentage of completion of a contract

As explained in Note 39 to the separate financial statements, when measuring the percentage of completion based on the cumulative accrued contract costs, only the contract costs reflecting the work performed are to be included in the accrued contract costs. There is a risk that the cost fluctuation factors of cumulative accrued contract costs include construction inefficiency costs and others. Given the uncertainty on the volatility of revenue, we identified the measurement of the percentage of completion of a contract as a significant risk.

(4) Accounting for changes in contract work

As explained in Note 39 to the separate financial statements, total contract revenue is measured based on the initial amount of revenue agreed in the contract and can be increased or decreased by changes in contract work, claims and incentive payments. The measurement of contract revenue is affected by a variety of uncertainties that depend on the outcome of future events. Due to the nature of the business, offshore plant segment is frequently subject to changes in construction such as specifications and design of the client. Given the great possibility of fluctuation in contract revenue, we identified the accounting for changes in contract work as a significant risk.

How our audit addressed the key audit matter

(1) Revenue recognition based on input method

As at December 31, 2019, we performed the following audit procedures on the Company's revenue recognition based on input method.

- Review whether the accounting policy of revenue recognition is appropriate
- Review of the internal controls related to the decision on the accounting policy of revenue recognition
- Review of the possibility of generating economic benefits
- Inquiry of the progress and significant changes of major projects
- Inquiry whether reliable measurement of estimated total contract is possible for major projects in the early stages of construction
- Analytical procedures for contract amount, cost rate and details of increase and decrease in contract assets

(2) Uncertainty in measurement of estimated total contract costs

As at December 31, 2019, we performed the following audit procedures on the Company's uncertainty in measurement of estimated total contract costs

- Review of the internal controls related to the determination of estimated total contract cost
- Inquiry and analytical procedures for changes in the main cost components of the total contract costs for each reporting period
- Retrospective review of the projects with significant changes in estimated total contract costs
- Identifying the cause of difference for the projects with significant changes in estimated total contract costs and, if necessary, verify relevant evidence
- Comparison of total contract costs between similar lines
- Collection and review of total contract cost data for major projects
- Comparison between purchase order for materials and total contract material cost by projects
- Confirmation of the approval document of the approver for the total contract costs

(3) Measurement of the percentage of completion of a contract

As at December 31, 2019, we performed the following audit procedures in relation to the cumulative accrued contract costs, which affect the Company's measurement of the percentage of completion.

- Inquiry and analytical procedures for the causes of increase and decrease in the percentage of completion for each reporting period
- Inquiry and analytical procedures for the components of cumulative accrued contract costs
- Comparison between the progress of each process (certificate of ship classification, etc.) and the cost-based progress for major projects
- Verification of sample evidence to test the actuality of cumulative input of material cost
- Adequacy test of cost incurred, recognition period and cost recognition by project

(4) Accounting for changes in contract work

As at December 31, 2019, we performed the following audit procedures on the Company's accounting and disclosure for changes in contract work.

- Review of the internal controls designed and applied by the Company to account for changes in construction
- Inquiry and analytical procedures for projects with significant changes in contract amount
- Sample test procedures for the documents for the basis of approval for the change of contract
- Review of the terms and conditions of delayed compensation for each project, the delivery date of the contract, and the contract conditions for major milestones
- Comparison between the expected delivery date for the project incurred for liquidated damages and the expected date of milestone in the contract
- Review of the adequacy of the estimated amount of liquidated damages

2. Collectability of contract assets

Why it is determined to be a key audit matter

As explained in Note 3 to the separate financial statements, the Company assesses at the end of each reporting period whether there is objective evidence for the impairment of contract assets. The objective evidence that the contract assets have been impaired includes such as deteriorating financial status of the client, delay in construction, increase in the possibility of contract cancellation due to a decrease in shipping charges, and delay in delivery schedule. After evaluating the objective evidence of impairment, the Company recognizes the impairment loss if there is objective evidence for impairment and the impairment event affects the estimated future cash flows to be recovered reliably from the construction.

As the uncertainty about the collectability of contract assets increase due to the termination of contract caused by financial deterioration of some clients, the delay in delivery schedule and other reasons, we identified collectability of contract assets with an indication of impairment as a significant risk.

How our audit addressed the key audit matter

As at December 31, 2019, in respect of the collectability of contract assets with the indication of impairment, we have performed the following audit procedures.

• Review of internal controls related to assessing the impairment indication of contract assets
• Understanding of the progress of the project, and inquiry of terms and conditions of payment, delayed compensation, delivery time, and other obligation for the projects with a significant increase in contract assets
• Review of contract termination possibility and clients' financial status
• Review of the estimation basis of management for the collectability assessment of contract assets

3. Impairment on property, plant and equipment

Why it is determined to be a key audit matter

As explained in Note 2 to the separate financial statements, the Company reviews the indication of impairment on assets at the end of each reporting period. If there are indications of impairment on CGU, the Company compares the recoverable amount and the carrying amount of CGU to determine whether the impairment loss is accounted based on the allocation to each valuation items. As at December 31, 2019, considering the significant difference between market value and net asset carrying amount and decrease of operating level below normal operating level due to the decrease in orders, we conclude that there are indications of impairment.

The management conducted an impairment assessment on the Company's property, plant and equipment using the carrying amount of CGU, the value in use based on the discounted cash flow forecast and the valuation report of tangible assets by an independent appraiser. Significant management judgments are involved in key assumptions such as estimation of future operating cash flows and discount rate, which have a significant influence on the estimation of value in use. As the book value of related assets is material in the financial statements, it is complicated to predict the discounted cash flow, and significant management judgments are involved in determining various input factors, we identified the impairment on property, plant and equipment as a significant risk.

How our audit addressed the key audit matter

We performed the following audit procedures for assessing the impairment on property, plant and equipment.

• Review of internal controls related to the process of impairment on property, plant and equipment
• Evaluation of CGU identification based on understanding of business and requirements of accounting standards
• Review of the appropriateness of evaluation methods used by the Company

• Review of capability, objectivity and competency of external experts used by the Company for impairment assessment
• Inquiry and review of valuation model and appraisal value applied by the Company

4. Provisions

Why it is determined to be a key audit matter

As explained in Note 2 to the separate financial statements, the Company recognizes provisions when the Company has a present legal or constructive obligation as a result of past events, it is probable that an outflow of resources will be required to settle the obligation and the amount can be reliably estimated. Provisions are measured at the present value of management's best estimate of the expenditure required to settle the present obligation at the end of the reporting period. When obtaining best estimate, there is an unavoidable risk and uncertainty about the related events and circumstances. Given the estimation of management is critical, we identified provisions for construction warranties, construction losses and contingent losses as a significant risk.

How our audit addressed the key audit matter

As at December 31, 2019, in respect of provisions, we have performed the following audit procedures.

• Review of internal controls related to the process of provisions
• Verification of the accuracy of the basic accounting estimate data used by the management
• Compare and analyze the basis of critical assumptions used by the management in measuring related liabilities with past performance
• Identification of the obligation to perform construction warranties in the contracts and review of the progress and termination of the performance obligation
• Review of projected potential losses and verification of accuracy in amount
• Discuss with the Company's internal lawyers about the progress and results of the lawsuit pending as a plaintiff or a defendant, and obtaining a reply by sending an inquiry to external lawyers to determine whether the expected results of the lawsuit and the extent of potential exposure are reliably measurable
• Review of the eligibility and independence of external lawyers considering professional qualifications, legal fees, etc.
• Evaluation whether the provisions are recognized in accordance with accounting standards, such as a present obligation as a result of past events, the possibility of a high outflow of resources, and a reliable estimate of the amount
• Identification of the existence of debt burden contracts and review of the possibility
• Evaluation whether the Company's disclosure of litigation and regulatory investigation properly discloses the Company's potential contingent liabilities

Other Matter

The separate financial statements of the Company for the year ended December 31, 2018, were audited by another auditor who expressed an unmodified opinion on those statements on March 21, 2019.

Responsibilities of Management and Those Charged with Governance for the Separate Financial Statements

Management is responsible for the preparation and fair presentation of the separate financial statements in accordance with Korean IFRS and for such internal control as management determines is necessary to enable the preparation of separate financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the separate financial statements, management is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Company or to cease operations.

Those charged with governance are responsible for overseeing the Company's financial reporting process.

Auditor's Responsibilities for the Audit of the Separate Financial Statements

Our objectives are to obtain reasonable assurance about whether the separate financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with KSAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these separate financial statements.

As part of an audit in accordance with KSAs, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the separate financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit 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 Company's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related

disclosures in the separate financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the separate financial statements, including the disclosures, and whether the separate financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the separate financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

The engagement partner on the audit resulting in this independent auditor's report is Jong-Jung Ahn, Certified Public Accountant.

March 13, 2020

Nexia Samduk

Seoul, Korea

This report is effective as of March 13, 2020, the auditors' report date. Accordingly, certain subsequent events or circumstances may have occurred between the auditors' report date and the time this audit report is read. Such events and circumstances could significantly affect the accompanying separate financial statements and may result in modifications to this report.

Daewoo Shipbuilding & Marine Engineering Co., Ltd.

Separate Financial Statements

For the years ended December 31, 2019 and 2018

The accompanying separate financial statements, including all footnote disclosures, were prepared by, and are the responsibility of, the Company.

Sung Geun Lee
Chief Executive Officer
Daewoo Shipbuilding & Marine Engineering Co., Ltd.

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Daewoo Shipbuilding & Marine Engineering Co., Ltd.

Separate Statements of Financial Position

As at December 31, 2019 and 2018

	Notes	*Millions of Korean Won* 2019	2018
ASSETS			
Current assets :			
Cash and cash equivalents	*4,6,7,38*	1,991,736	325,732
Short-term financial instruments	*4,6,8,38*	407,213	71,778
Financial assets at fair value through profit or loss	*4,5,6,9,18,28,38*	287	382
Current portion of financial assets at amortized cost	*4,6,9*	7	1
Trade and other receivables	*4,6,9,38,39*	367,766	711,270
Contract assets	*4,6,10,39*	2,171,367	4,349,897
Current firm commitment assets	*28*	40,109	13,897
Current portion of currency forward assets	*4,5,6,28,38*	361	12,519
Inventories	*11*	1,150,476	1,333,868
Current tax assets		3,903	-
Other current assets	*12*	680,613	496,370
Non-current assets held for sale	*13*	-	12,914
Total current assets		6,813,838	7,328,628
Non-current assets :			
Long-term financial instruments	*4,6,8*	415,983	415,652
Financial assets at fair value through profit or loss	*4,5,6,9,18,38*	28,394	20,199
Financial assets at amortized cost	*4,6,9*	24,969	37
Financial assets at fair value through other comprehensive income	*4,5,6,9*	19,087	20,087
Investments in subsidiaries	*14,44*	746	746
Investments in associates and joint ventures	*15*	9,190	11,935
Long-term trade and other receivables	*4,9,38,39*	91,610	195,913
Firm commitment assets	*28*	39,941	8,853
Currency forward assets	*4,5,6,28*	6,549	7,841
Property, plant and equipment	*16,18*	3,570,232	3,689,951
Right-of-use assets	*17,46*	28,595	-
Investment properties	*18,19*	7,676	7,795
Intangible assets	*20*	2,263	17,009
Other non-current assets	*12*	8,575	12,130
Total other non-current assets		4,253,810	4,408,148
Total assets		11,067,648	11,736,776

See the accompanying notes to the separate financial statements.

Daewoo Shipbuilding & Marine Engineering Co., Ltd.

Separate Statements of Financial Position

As at December 31, 2019 and 2018

	Notes	2019	2018
		Millions of Korean Won	
LIABILITIES AND SHAREHOLDERS' EQUITY			
Current liabilities :			
Short-term borrowings	*4,6,18,23,38,40,45*	1,065,022	1,414,638
Financial liabilities at fair value through profit or loss	*4,5,6,28,38*	-	89
Trade and other payables	*6,21,38*	911,999	1,075,880
Current portion of debentures	*6,22*	116,270	-
Current portion of long-term borrowings	*6,18,23,38,45*	204,058	197,061
Current financial guarantee liabilities	*4,5,6,18,38*	33	-
Current portion of lease liabilities	*6,17,38,42,46*	18,446	-
Current firm commitment liabilities	*28*	67	7,561
Current portion of currency forward liabilities	*4,5,6,28,38*	86,280	38,407
Contract liabilities	*10,28,39*	1,802,296	1,875,347
Provisions	*26,39,40*	351,788	558,740
Other current liabilities	*24*	176,508	125,093
Total current liabilities		4,732,767	5,292,816
Non-current liabilities :			
Debentures	*4,6,22,38,45*	511,814	575,561
Long-term borrowings	*4,6,18,23,38,40,45*	973,475	935,902
Long-term trade and other payables	*6,21,38*	43,446	66,224
Net defined benefit liabilities and other long-term employee nebefits	*25*	79,053	162,484
Provisions	*26,40*	964,351	860,188
Financial guarantee liabilities	*4,5,6,18,38*	-	480
Lease liabilities	*6,17,38,42,46*	15,590	24,145
Firm commitment liabilities	*28*	5,840	4,494
Currency forward liabilities	*4,5,6,28*	36,207	7,370
Deferred tax liabilities	*27*	73,596	75,346
Total non-current liabilities		2,703,372	2,712,194
Total liabilities		7,436,139	8,005,010
Shareholders' equity :			
Share capital	*29,38,45*	541,029	541,029
Other contributed capital	*31,38,45*	(257)	(257)
Hybrid bonds	*31,38,45*	2,332,832	2,332,832
Components of other capital	*31*	316,221	316,648
Retained earnings	*30,45*	441,684	541,514
Total shareholders' equity		3,631,509	3,731,766
Total liabilities and shareholders' equity		11,067,648	11,736,776

See the accompanying notes to the separate financial statements.

Daewoo Shipbuilding & Marine Engineering Co., Ltd.

Separate Statements of Income

For Years Ended December 31, 2019 and 2018

	Notes	2019	2018
		Millions of Korean Won	
Sales	*28,38,39,43*	8,317,582	9,599,759
Cost of sales	*37,38,39,46*	7,872,049	8,837,972
Gross profit	*43*	445,533	761,787
Selling expenses	*33,37,38*	52,360	62,998
Administrative expenses	*33,37,38*	95,006	58,370
Research and development expenses	*37*	68,737	61,566
Impairment loss (reversal of impairment loss)	*4,6,37*	(38,628)	(465,550)
Operating profit		268,058	1,044,403
Non-operating income and expense:			
Interest income	*6,34,38*	90,558	58,789
Financial income	*6,34,38*	4,388	37,111
Financial expenses	*6,34,38*	164,326	176,144
Share of profit in subsidiaries, associates and joint ventures	*14,15*	4,251	(1,472)
Foreign exchange gains	*4,5,6,35*	318,632	373,732
Foreign exchange losses	*4,5,6,35*	220,240	360,755
Other non-operating income	*6,28,36*	258,294	211,245
Other non-operating expenses	*6,28,36*	626,815	203,973
Other impairment loss (reversal of other impairment loss)	*4,6*	(7,658)	809
Profit (loss) before income tax		(59,542)	982,127
Income tax expense (benefit)	*27*	(1,820)	36,018
Profit (loss) for the year		(57,722)	946,109
		Korean Won	
Earnings per share:	*32*		
Basic earnings (loss) per share		(760)	8,614
Diluted earnings (loss) per share		(760)	5,746

See the accompanying notes to the separate financial statements.

Daewoo Shipbuilding & Marine Engineering Co., Ltd.

Separate Statements of Comprehensive Income

For Years Ended December 31, 2019 and 2018

	Notes	2019	2018
		Millions of Korean Won	
Profit (loss) for the year		(57,722)	946,109
Other comprehensive income (loss) for the year			
Items that will not be reclassified subsequently to profit or loss :	*31*		
Remeasurements of net defined benefit liabilities	*25*	(45,130)	(31,192)
Gain (loss) on revaluation of property, plant and equipment		831	(9,534)
Gain (loss) on valuation of financial assets at fair value though other comprehensive income	*6,31*	1,764	(10,450)
Total comprehensive income (loss) for the year		(100,257)	894,933

See the accompanying notes to the separate financial statements.

Daewoo Shipbuilding & Marine Engineering Co., Ltd.

Separate Statements of Changes in Equity

For Years Ended December 31, 2019 and 2018

Millions of Korean Won

		Other contributed capital			Components of other capital				
	Capital	Other capital	Treasury stock	Hybrid bond	Gain(loss) on valuation of available-for-sale financial assets	Gain(loss) on valuation of financial assets at FVTOCI	Revaluation surplus of property, plant and equipment	Retained earnings (accumulated deficit)	Total
Balance at January 1, 2018	538,281	351,885	(726)	2,284,775	12,387	-	334,940	(777,526)	2,744,016
Effect of changes in accounting policies	-	-	-	-	(12,387)	543	-	63,923	52,079
Adjusted balance at January 1, 2018	538,281	351,885	(726)	2,284,775	-	543	334,940	(713,603)	2,796,095
Transfer of capital surplus to accumulated deficit	-	(341,349)	-	-	-	-	-	341,349	-
Debt to equity swap	2,747	10,431	-	-	-	-	-	-	13,178
Issuance of permanent convertible notes	-	(20,498)	-	48,057	-	-	-	-	27,559
Total comprehensive income for the year									
Profit for the year	-	-	-	-	-	-	-	946,109	946,109
Other comprehensive income	-	-	-	-	-	(8,595)	(10,239)	(32,341)	(51,175)
Balance at December 31, 2018	541,029	469	(726)	2,332,832	-	(8,052)	324,701	541,513	3,731,766
Balance at January 1, 2019	541,029	469	(726)	2,332,832	-	(8,052)	324,701	541,513	3,731,766
Total comprehensive income for the year									-
Loss for the year	-	-	-	-	-	-	-	(57,722)	(57,722)
Other comprehensive income	-	-	-	-	-	1,763	(2,191)	(42,108)	(42,536)
Balance at December 31, 2019	541,029	469	(726)	2,332,832	-	(6,289)	322,510	441,683	3,631,509

See the accompanying notes to the separate financial statements.

Daewoo Shipbuilding & Marine Engineering Co., Ltd.

Separate Statements of Cash Flows

For Years Ended December 31, 2019 and 2018

	Notes	2019	2018
		Millions of Korean Won	
Cash Flows from Operating Activities :			
Cash generated from operations	*41,46*	2,603,464	791,298
Dividends received		3,942	5,844
Interests received		33,675	15,885
Interests paid		(101,519)	(107,095)
Income tax received (paid)		(3,003)	4,140
Net cash provided by operating activities		2,536,559	710,072
Cash Flows from Investing Activities :	*42*		
Cash inflows from investing activities:			
Decrease in short-term financial instruments		66,865	54,360
Decrease in short-term loans receivable		-	22,960
Decrease in long-term financial instruments		316,559	-
Decrease in long-term loans receivable		-	19,446
Disposal of financial assets at amortized cost		1	310
Disposal of financial assets at fair value through profit or loss		259	5,731
Disposal of financial assets at fair value through other comprehensive income		10	56
Disposal of investment in subsidiaries		-	21,067
Disposal of investment in associations and joint ventures		9,750	-
Disposal of non-current assets held for sale		10,331	92,812
Disposal of PP&E and intangible assets		8,851	1,759
Disposal of other investments		10,765	-
		423,391	218,501
Cash outflows from investing activities:			
Increase in short-term financial instruments		401,462	4,957
Increase in long-term financial instruments		312,900	40,306
Acquisition of financial instruments at fair value through profit or loss		8,108	6,250
Acquisition of financial assets at amortized cost		-	19
Increase in long-term loans receivable		18,400	1,620
Acquisition of PP&E and intangible assets		155,732	151,784
Acquisition of other investments		87	149
		(896,689)	(205,085)
Net cash provided by (used in) investing activities		(473,298)	13,416

See the accompanying notes to the separate financial statements.

Daewoo Shipbuilding & Marine Engineering Co., Ltd.

Separate Statements of Cash Flows

For Years Ended December 31, 2019 and 2018

	Notes	2019	2018
		Millions of Korean Won	
Cash Flows from Financing Activities :	*42*		
Cash inflows from financing activities:			
Proceeds from short-term borrowings		2,882	51,083
Reversal of payment of share issue cost		-	3
		2,882	51,086
Cash outflows from financing activities:			
Repayment of short-term borrowings		350,304	590,000
Repayment of current portion of long-term borrowings		4	4
Repayment of long-term borrowings		-	340
Repayment of lease liabilities		47,676	17,640
Payment of share issue cost		-	29
		(397,984)	(608,013)
Net cash used in financing activities		(395,102)	(556,927)
Net increase in cash and cash equivalents		1,668,159	166,561
Cash and cash equivalents at the beginning of the year		325,732	160,139
Effects of exchange rate changes on the cash and cash equivalents		(2,155)	(968)
Cash and cash equivalents at the end of the year	*7*	1,991,736	325,732

See the accompanying notes to the separate financial statements.

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 changed its name from Daewoo Shipbuilding & Commerce Co., Ltd. to Daewoo Shipbuilding & Marine Engineering Co., Ltd. on March 16, 2002. 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, 2019, the Company's major shareholder is Korea Development Bank ("KDB") (55.72%).

2. Significant Accounting Policies

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

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 Changes in Accounting Policies and Disclosures

1) 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, 2019.

- Enactment of Korean IFRS 1116 Leases

Under the new standard, with implementation of a single lease model, lessee is required to recognize assets and liabilities for all lease which lease term is over 12 months and underlying assets are not low value assets. A lessee is required to recognize a right-of-use asset and a lease liability representing its obligation to make lease payments.

With implementation of Korean IFRS 1116 Leases, the Company has changed accounting policy. The Company has adopted Korean IFRS 1116 retrospectively, as permitted under the specific transitional provisions in the standard, and recognized the cumulative impact of initially applying the standard as at January 1, 2019, the date of initial application. The Company has not restated comparatives for the 2018 reporting period. See Note 46 for further details on the impact of the application of the standard.

- Enactment of Korean IFRS 1109 Financial Instruments

The enactments made to Korean IFRS 1109 Financial Instruments enable entities to measure certain prepayable financial assets with negative compensation at amortized cost. When a modification of a financial liability measured at amortized cost that does not result in the derecognition, a modification gain or loss shall be recognized in profit or loss. The amendments do not have a significant impact on the financial statements.

- Amendments to Korean IFRS 1019 Employee Benefits

The amendments require that an entity shall calculate current service cost and net interest for the remainder of the reporting period after a plan amendment, curtailment or settlement based on updated actuarial assumptions from the date of the change. The amendments also require that a reduction in a surplus must be recognized in profit or loss even if that surplus was not previously recognized because of the impact of the asset ceiling. The amendments do not have a significant impact on the financial statements.

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

The amendments clarify that an entity shall apply Korean IFRS 1109 to financial instruments in an associate or joint venture to which the equity method is not applied. These include long-term interests that, in substance, form part of the entity's net investment in an associate or joint venture. The amendments do not have a significant impact on the financial statements.

- Enactment to Interpretation of Korean IFRS 2123 Uncertainty over Income Tax Treatments

The interpretation explains how to recognize and measure deferred and current income tax assets and liabilities where there is uncertainty over a tax treatment, and includes guidance on how to determine whether each uncertain tax treatment is considered separately or together. It also presents examples of circumstances where a judgment or estimate is required to be reassessed. The enactment does not have a significant impact on the financial statements.

2) Annual Improvements to Korean IFRS 2015 – 2017 Cycle

- Korean IFRS 1012 Income Tax

The amendments are applied to all the income tax consequences of dividends and requires an entity to recognize the income tax consequences of dividends in profit or loss, other comprehensive income or equity according to where the entity originally recognized those past transactions or events. The amendments do not have a significant impact on the financial statements.

- Korean IFRS 1023 Borrowing Costs

The amendments clarify that if a specific borrowing remains outstanding after the related qualifying asset is ready for its intended use (or sale), it becomes part of general borrowings. The amendments do not have a significant impact on the financial statements.

- Korean IFRS 1103 Business Combination

The amendments clarify that when a party to a joint arrangement obtains control of a business that is a joint operation, and had rights to the assets and obligations for the liabilities relating to that joint operation immediately before the acquisition date, the transaction is a business combination achieved in stages. In such cases, the acquirer shall remeasure its entire previously held interest in the joint operation. The amendments do not have a significant impact on the financial statements.

- Korean IFRS 1111 Joint Agreements

The amendments clarify that when a party that participates in, but does not have joint control of, a joint operation might obtain joint control of the joint operation in which the activity of the joint operation constitutes a business. In such cases, previously held interests in the joint operation are not remeasured. The amendments do not have a significant impact on the financial statements.

3) New standards and interpretations issued but not effective

The following new standards, interpretations and amendments to existing standards have been issued but not effective for annual periods beginning after January 1, 2019, and the Company has not early adopted them.

- Amendments to Korean IFRS 1103 Business Combinations

To consider the integration of the required activities and assets as a business, the amended definition of a business requires an acquisition to include an input and a substantive process that together significantly contribute to the ability to create outputs and excludes economic benefits from the lower costs. An entity can apply a concentration test, an optional test, where substantially all of the fair value of gross assets acquired is concentrated in a single asset or a group of similar assets, the assets acquired would not represent a business. These amendments should be applied for annual periods beginning on or after January 1, 2020, and earlier application of permitted. The amendments will not have a significant impact on the financial statements.

- Amendments to Korean IFRS 1001 Presentation of Financial Statements and Korean IFRS 1008 Accounting Policies, Changes in Accounting Estimates and Errors

The amendments are issued to align the definition of ‘material’ across the standards and to clarify certain aspects of the definition. The new definition states that information is material if omitting, misstating or obscuring it could reasonably be expected to influence decisions that the primary users of general purpose financial statements make on the basis of those financial statements, which provide financial information about a specific reporting entity. The amendments are applied prospectively for annual periods beginning on or after 1 January 2020, with earlier application permitted. The amendments will not have a significant impact on the financial statements.

2.2 Basis of Preparation

1) Accounting Standards

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

2) Basis of measurement

The financial statements have been prepared on the historical cost basis except for certain items including financial assets, etc. as explained in the accounting polices below.

3) Functional and presentation currency

The financial statements are presented in Korean won ("KRW"), which is the Company's functional and presentation currency.

2.3 Investments in Subsidiaries, Joint Ventures, and Associates

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. The Company recognizes dividend income from subsidiaries, joint ventures and associates in profit or loss when its right to receive the dividend is established.

2.4 Foreign Currency Translation

Items included in the financial statements of the Company are measured using the currency of the primary economic environment in which each entity operates (the "functional currency").

Foreign currency transactions are translated into the functional currency using the exchange rates at the dates of the transactions.

Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation of monetary assets and liabilities denominated in foreign currencies at year end exchange rates are generally recognized in profit or loss. They are deferred in other comprehensive income if they relate to qualifying cash flow hedges and qualifying effective portion of net investment hedges, or are attributable to monetary part of the net investment in a foreign operation.

Foreign exchange gains and losses that relate to borrowings are presented in the statement of profit or loss within foreign exchange gains and losses.

Non-monetary items that are measured at fair value in a foreign currency are translated using the exchange rates at the date when the fair value was determined. Translation differences on assets and liabilities carried at fair value are reported as part of the fair value gain or loss. For example, translation differences on non-monetary assets and liabilities such as equities held at fair value through profit or loss are recognized in profit or loss as part of the fair value gain or loss and translation differences on non-monetary assets such as equities held at fair value through other comprehensive income are recognized in other comprehensive income.

2.5 Cash and Cash Equivalents

Cash and cash equivalents include cash, cash equivalent securities, including checks issued by others and checking accounts, ordinary deposits and financial instruments with an original maturity of three months or less, which can be easily converted into cash.

2.6 Financial Instruments

1) Financial assets

(a) Classification

The Company classifies its financial assets in the following measurement categories:

- Those to be measured at fair value through profit or loss
- Those to be measured at fair value through other comprehensive income, and
- Those to be measured at amortized cost.

The classification depends on the Company's business model for managing the financial assets and the contractual terms of the cash flows.

For financial assets measured at fair value, gains and losses will either be recorded in profit or loss or other comprehensive income. For investments in debt instruments, this will depend on the business model in which the investment is held. The Company reclassifies debt investments when, and only when its business model for managing those assets changes.

For investments in equity instruments that are not held for trading, this will depend on whether the Company has made an irrevocable election at the time of initial recognition to account for the equity investment at fair value through other comprehensive income.

(b) Measurement

At initial recognition, the Company measures a financial asset at its fair value plus, in the case of a financial asset not at fair value through profit or loss, transaction costs that are directly attributable to the acquisition of the financial asset. Transaction costs of financial assets carried at fair value through profit or loss are expensed in profit or loss.

Financial assets with embedded derivatives are considered in their entirety when determining whether their cash flows are solely payment of principal and interest.

Debt instruments

Subsequent measurement of debt instruments depends on the Company's business model for managing the asset and the cash flow characteristics of the asset. The Company classifies its debt instruments into one of the following three measurement categories:

- Amortized cost: Assets that are held for collection of contractual cash flows where those cash flows represent solely payments of principal and interest are measured at amortized cost. A gain or loss on a debt investment that is subsequently measured at amortized cost and is not part of a hedging relationship is recognized in profit or loss when the asset is derecognized or impaired. Interest income from these financial assets is separately presented in the statements of comprehensive income.

- Fair value through other comprehensive income: Assets that are held for collection of contractual cash flows and for selling the financial assets, where the assets' cash flows represent solely payments of principal and interest, are measured at fair value through other comprehensive income. Movements in the carrying amount are taken through other comprehensive income, except for the recognition of impairment loss (reversal of impairment loss), interest income and foreign exchange gains and losses which are recognized in profit or loss.

When the financial asset is derecognized, the cumulative gain or loss previously recognized in other comprehensive income is reclassified from equity to profit or loss. Foreign exchange gains and losses are presented in 'foreign exchange gains and losses' and impairment losses are presented in 'other non-operating expenses'. Interest income from these financial assets is separately presented in the statements of comprehensive income.

- Fair value through profit or loss: Assets that do not meet the criteria for amortized cost or fair value through other comprehensive income are measured at fair value through profit or loss. A gain or loss on a debt investment that is subsequently measured at fair value through profit or loss and is not part of a hedging relationship is recognized in profit or loss and presented net in the statement of profit or loss within 'other non-operating income or other non-operating expenses' in the year in which it arises.

Equity instruments

The Company subsequently measures all equity investments at fair value. Where the Company's management has elected to present fair value gains and losses on equity investments, in other comprehensive income, there is no subsequent reclassification of fair value gains and losses to profit or loss following the derecognition of the investment. Dividend income from such investments continue to be recognized in profit or loss as 'finance income' when the right to receive payments is established.

Changes in the fair value of financial assets at fair value through profit or loss are recognized in 'other non-operating income or other non-operating expenses' in the statement of profit or loss as applicable. Impairment loss (reversal of impairment loss) on equity investments measured at fair value through other comprehensive income are not reported separately from other changes in fair value.

(c) Impairment

The Company assesses on a forward looking basis the expected credit losses associated with its debt instruments and contract assets carried at amortized cost and fair value through other comprehensive income. The impairment methodology applied depends on whether there has been a significant increase in credit risk. For trade receivables and lease receivables, the Company applies the simplified approach, which requires expected lifetime credit losses to be recognized from initial recognition of the receivables.

(d) Recognition and Derecognition

Regular way purchases and sales of financial assets are recognized or derecognized on trade-date, the date on which the Company commits to purchase or sell the asset. Financial assets are derecognized when the rights to receive cash flows from the financial assets have expired or have been transferred and the Company has transferred substantially all the risks and rewards of ownership.

If a transfer does not result in derecognition because the Company has retained substantially all the risks and rewards of ownership of the transferred asset, the Company continues to recognize the transferred asset in its entirety and recognizes a financial liability for the consideration received.

(e) Offsetting of financial instruments

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

2) Financial Liabilities

(a) Classification and measurement

The Company's financial liabilities at fair value through profit or loss are currency forward liabilities held for trading. A financial liability is held for trading if it is incurred principally for the purpose of repurchasing in the near term. A derivative that is not a designated as hedging instruments and an embedded derivative that is separated are also classified as held for trading.

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

Preferred shares that require mandatory redemption at a particular date are classified as liabilities. Interest expenses on these preferred shares using the effective interest method are recognized in the statement of profit or loss as 'finance costs', together with interest expenses recognized from other financial liabilities.

(b) Derecognition

Financial liabilities are removed from the statement of financial position when it is extinguished; for example, when the obligation specified in the contract is discharged or cancelled or expired or when the terms of an existing financial liability are substantially modified. The difference between the carrying amount of a financial liability extinguished or transferred to another party and the consideration paid (including any non-cash assets transferred or liabilities assumed) is recognized in profit or loss.

3) Derivative Instruments

(a) Hedge accounting

Derivatives are initially recognized at fair value on the date a derivative contract is entered into and are subsequently remeasured to their fair value at the end of each reporting period. The accounting for subsequent changes in fair value depends on whether the derivative is designated as a hedging instrument, and if so, the nature of the item being hedged. The Company has hedge relationships and designates certain derivatives as:

- Hedges of the fair value of recognized assets or liabilities or a firm commitment (fair value hedges)

At inception of the hedge relationship, the Company documents the economic relationship between hedging instruments and hedged items including whether changes in the cash flows of the hedging instruments are expected to offset changes in the cash flows of hedged items.

The full fair value of a hedging derivative is classified as a non-current asset or liability when the remaining maturity of the hedged item is more than 12 months; it is classified as a current asset or liability when the remaining maturity of the hedged item is less than 12 months. A non-derivative financial asset and a non-derivative financial liability is classified as a current or non-current based on its expected maturity and its settlement, respectively.

(b) Fair value hedge

Changes in the fair value of derivatives that are designated as fair value hedging instruments are recorded in profit or loss, together with any changes in the fair value of the hedged asset or liability that are attributable to the hedged risk.

If the hedge no longer meets the criteria for hedge accounting, the adjustment to the carrying amount of a hedged item for which the effective interest method is used is amortized to profit or loss over the period to maturity using a recalculated effective interest rate.

2.7 Inventories

Inventories are stated at the lower of cost and net realizable value. Cost is determined using the moving-weighted average method, except for goods in transit that are determined using the specific identification method.

The carrying amount of inventories sold in the period and the amount of any write-down of inventories to net realizable value and all losses of inventories in the period, less the amount of any reversal in the period of any write-down of the inventories, arising from an increase in net realizable value, is recognized as expense during the period.

2.8 Investment Property

Investment property is property held to earn rentals or for capital appreciation or both. An investment property is measured initially at its cost. An investment property is measured after initial measurement at depreciated cost (less any accumulated impairment losses). After recognition as an asset, investment property is carried at cost less accumulated depreciation and impairment losses. The Company depreciates investment properties, except for land, using the straight-line method over their useful lives of 60 years.

2.9 Property, Plant and Equipment

Land is shown at fair value based on valuations by external independent valuers. Valuations are performed in regular basis to ensure that the fair value of a revalued asset does not differ materially from its carrying amount at the end of the reporting period.

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

If an asset’s carrying amount is increased as a result of a revaluation, the increase is recognized in revaluation surplus of other comprehensive income. However, the increase is recognized in profit or loss to the extent that it reverses a revaluation decrease of the same asset previously recognized in profit or loss. Losses on revaluation is recognized in profit or loss. However, the decrease is recognized in other comprehensive income to the extent of any credit balance existing in the revaluation surplus in respect of that asset.

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

Depreciation of all property, plant and equipment, except for land, is calculated using the straight-line method to allocate their cost or revalued amounts, net of their residual values, over their estimated useful lives as follows:

	Useful lives
Buildings	12 - 60 years
Structures	12 - 50
Machinery	12 - 30
Vessels and aircraft	15 - 40
Vehicles and others	6 - 15

The assets' depreciation method, 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.

The revaluation surplus included in equity in respect of an item of property, plant and equipment is transferred directly to retained earnings when the asset is derecognized.

2.10 Intangible Assets

Intangible assets, except for goodwill, are initially recognized at its historical cost, and carried at cost less accumulated amortization and accumulated impairment losses.

Development expense that is directly attributable to internally generated by the Company are recognized when the criteria; such as, technically feasible, generate probable future economic benefits and other, are met. Membership rights that have an indefinite useful life are not subject to amortization because there is no foreseeable limit to the period over which the assets are expected to be utilized.

The Company amortizes intangible assets with a limited useful life using the straight-line method over the following periods:

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

2.11 Government Grants

Grants from the government are recognized at their fair value where there is a reasonable assurance that the grant will be received and the Company will comply with all attached conditions. Government grants related to assets are presented in the statement of financial position by deducting the grant in arriving at the carrying amount of the asset, and government grants related to income are deferred and later deducted from the related expense.

2.12 Leases

The Company recognizes 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 at the commencement date of the lease

The right-of-use asset is measured at its cost less subsequent accumulated depreciation and accumulated impairment loss with adjustments reflected arising from remeasurements of the lease liability. The cost of the right-of-use asset comprise the amount of the initial measurement of the lease liability, any initial direct costs incurred by the lessee and any lease payments made at or before the commencement date, less any lease incentive received. The right-of-use asset is depreciated over the shorter of the asset's useful life and the lease term on a straight-line basis from the commencement date of the lease.

At the commencement date, the lease liability is measured at present value of the lease payments that are not paid at that date. Lease payments include fixed payments (including in-substance fixed payments), less any lease incentives receivable, variable lease payments that depend on an index or a rate, amounts expected to be payable by the lessee under residual value guarantees, the exercise price of a purchase option if the lessee is reasonably certain to exercise that option, and payments of penalties for terminating the lease, if the lease term reflects the lessee exercising an option to terminate the lease. The variable lease payments that do not depend on an index or a rate are recognized as an expense in the period in which the event or condition that triggers those payments occurs.

When measuring the present value, the lease payments are discounted using the interest rate implicit in the lease. If such implicit rate cannot be readily determined, the Company uses the Company's incremental borrowing rate. The lease liability is subsequently increased by the amount of interest expenses recognized on the lease liability and reduced by the lease payments made.

The Company does not apply the requirements of lessee accounting to short-term leases and leases of low-value assets. The Company recognizes the lease payments associated with these leases as expenses on a straight-line basis over the lease term.

2.13 Provisions

Provisions for construction losses and construction warranties are recognized when the Company has a present legal or constructive obligation as a result of past events, it is probable that an outflow of resources will be required to settle the obligation and the amount can be reliably estimated. Provisions are measured at the present value of management's best estimate of the expenditure required to settle the present obligation at the end of the reporting period, and the increase in the provision due to the passage of time is recognized as interest expense.

2.14 Treasury stocks

Where the Company purchases its own equity share capital (treasury stocks), the consideration paid, including any directly attributable incremental costs is deducted from equity attributable to the Company's equity holders until the shares are cancelled or reissued. Where such ordinary shares are subsequently reissued, any consideration received is included in equity attributable to the Company's equity holders.

2.15 Revenue Recognition

The Company has applied Korean IFRS 1115 Revenue from Contracts with Customers.

(a) Identify performance obligation

The Company operates commercial ships division, offshore plant and special ships division and other business division. For the year ended December 31, 2019, revenue from the commercial ships division and offshore plant and special ships division amount to ₩5,612,905 million and ₩2,704,677 million, respectively, which represent 67.5% and 32.5% 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 commercial ships, offshore plants and special ships division as a performance obligation. Sales of goods and rendering of services that are distinct such as purchase and procurement activity are identified as a separate performance obligation.

(b) A performance obligation is satisfied over time

The commercial ships division and offshore plant and special ships division of the Company build and sell ships ordered by customers, and it generally 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. However, if the Company may not be able to reasonably measure the progress towards completion, the Company recognizes revenue only to the extent of the costs incurred until such time that it can reasonably measure the outcome of the performance obligation.

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.

As a result of the contract terms and conditions analysis, the Company recognizes revenue over time on the basis that 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. However, in case of a resale contract for certain ships of which contract is terminated, the revenue is recognized upon delivery as it is deemed to have an alternative use at contract inception, depending on the progress of completion of the ship's construction.

(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 goods used to satisfy a performance obligation if the Company expects at contract inception that all of the following conditions would be met: i) the goods are not distinct; ii) the customer is expected to obtain control of the goods significantly before receiving services related to the goods; iii) the costs of the transferred goods are significant relative to the total expected costs to completely satisfy the performance obligation; and iv) the Company procures the goods from a third party and is not significantly involved in designing and manufacturing the goods. Therefore, the Company excludes the cost which meets the above conditions from measuring progress and recognizes revenue at an amount equal to the cost.

(d) Variable consideration

The Company may experience variable consideration due to liquidated damage 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 recognizes 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.

(e) The existence of a significant financing component in the contract

According to Korean IFRS 1115, in determining the transaction price, the Company 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 significant financing component in a contract. The Company adjusted the promised amount of consideration for the effects of a significant financing component.

(f) Incremental costs of obtaining a contract

The Company pays broker commissions to its brokers based on certain supply contracts. 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 if the Company expects to recover those costs, and costs that are recognized as assets are amortized based on the progress towards complete satisfaction.

(g) Warranties

The Company analyzed the effect of warranties, and concluded that the impacts on the financial statements are not significant. The Company provides customers for certain project with another warranty in addition to the standard warranty assuring 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 service provided and warranty service.

2.16 Employee Benefits

The Company operates both defined contribution and defined benefit pension plans.

For defined contribution plans, the Company pays contribution to publicly or privately administered pension insurance plans on mandatory, contractual or voluntary basis. The Company has no further payment obligation once the contribution have been paid. The contribution are recognized as employee benefit expense when they are due.

A defined benefit plan is a pension plan that is not a defined contribution plan. Generally, post-employment benefits are payable after the completion of employment, and the benefit amount depended on the employee's age, periods of service or salary levels. The liability recognized in the statement of financial position in respect of defined benefit pension plans is the present value of the defined benefit obligation at the end of the reporting period less the fair value of plan assets.

The defined benefit obligation is calculated annually by independent actuaries using the projected unit credit method. The present value of the defined benefit obligation is determined by discounting the estimated future cash outflows using interest rates of high-quality corporate bonds that are denominated in the currency in which the benefits will be paid, and that have terms approximating to the terms of the related obligation. Remeasurement gains and losses arising from experience adjustments and changes in actuarial assumptions are recognized in the period in which they occur, directly in other comprehensive income.

Changes in the present value of the defined benefit obligation resulting from plan amendments or curtailments are recognized immediately in profit or loss as past service costs.

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

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 Impairment of Non-financial Assets

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

2.18 Current and Deferred Tax

The tax expense for the period consists of current and deferred tax. Current and deferred tax is recognized in profit or loss, except to the extent that it relates to items recognized in other comprehensive income or directly in equity. In this case, the tax is also recognized in other comprehensive income or directly in equity, respectively.

The tax expense is measured at the amount expected to be paid to the taxation authorities, using the tax rates (and tax laws) that have been enacted or substantively enacted by the end of the reporting period.

Management periodically evaluates positions taken in tax returns with respect to situations in which applicable tax regulation is subject to interpretation. The Company recognizes current income tax on the basis of amounts expected to be paid to the tax authorities.

Deferred income tax is provided in full, using the liability method, on temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the separate financial statements. However, deferred income tax is not accounted for if it arises from initial recognition of an asset or liability in a transaction other than a business combination that at the time of the transaction affects neither accounting nor taxable profit or loss.

Deferred tax assets are recognized only if it is probable that future taxable amounts will be available to utilize those temporary differences and losses.

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

Deferred tax assets and liabilities are offset when there is a legally enforceable right to offset current tax assets and liabilities and when the deferred tax balances relate to the same taxation authority. Current tax assets and tax liabilities are offset where the entity has a legally enforceable right to offset and intends either to settle on a net basis.

2.19 Earnings per Share

The Company represents its diluted and basic earnings per common share in the separate statement of comprehensive income. Basic earnings per share (EPS) is calculated by dividing net profit attributable to shareholders of the Company by the weighted average number of common shares outstanding during the reporting period. Diluted earnings per share is calculated by adjusting net profit attributable to common shareholders of the Company, considering dilution effects from all potential common shares, and the weighted average number of common shares outstanding.

2.20 Non-current Assets Held for Sale

Non-current assets (or disposal group) 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.

2.21 Financial Guarantee Contracts

Financial guarantee contracts are recognized as a financial liability at the time the guarantee is issued. The liability is initially measured at fair value, subsequently at the higher of following and recognized in the statement of financial position within 'other financial liabilities'.

- the amount determined in accordance with the expected credit loss model under Korean IFRS 1109 Financial Instruments and
- the amount initially recognized less, where appropriate, the cumulative amount of income recognized in accordance with Korean IFRS 1115 Revenue from Contracts with Customers

2.22 Segment Reporting

Information of each operating segment is reported in a manner consistent with the internal business segment reporting provided to the chief executive officer. The chief executive officer is responsible for allocating resources and assessing performance of the operating segments

2.23 Corrections of Errors

Prior period errors shall be corrected by retrospective restatement in the first set of financial statements authorised for issue after their discovery except to the extent that it is impracticable to determine either the period-specific effects or the cumulative effect of the error.

3. Critical Accounting Estimates and Assumptions

The preparation of financial statements requires the Company to make estimates and assumptions concerning the future. Management also needs to exercise judgment in applying the Company's accounting policies. 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 circumstances. As the resulting accounting estimates will, by definition, seldom equal the related actual results, it can contain a significant risk of causing a material adjustment.

The estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are discussed below. Additional information of significant judgment and assumptions of certain items are included in relevant notes.

3.1 Impairment of Non-financial Assets

At the end of the reporting period, the Company assesses its non-financial assets to determine whether there is any indication of impairment. Intangible assets with indefinite useful lives are tested for impairment at least annually. 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.

3.2 Deferred Tax Assets

The Company reviews the book amount 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.

3.3 Fair Value of Financial Instruments

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

3.4 Impairment of Financial Assets

The provisions for impairment for financial assets are based on assumptions about risk of default and expected loss rates. The Company uses judgment in making these assumptions and selecting the inputs to the impairment calculation based on the Company's past history, existing market conditions as well as forward looking estimates at the end of each reporting period (Note 4).

3.5 Net Defined Benefit Liability and Other Long-term Employee Benefits

The present value of net defined benefit liability and other long-term employee benefits depends on a number of factors that are determined on an actuarial basis using a number of assumptions including the discount rate (Note 25).

3.6 Revenue Recognition

1) Revenue Recognition based on the Input Method and Measuring the Progress of Contract

The Company recognizes contract revenue and contract cost 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 determined based on the proportion of costs incurred to date, excluding any contract cost that does not reflect the work performed, 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).

2) Uncertainty of Estimated 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, 2019, when the estimation of remaining contract costs for construction in progress changes by 5%, the effect to profit for the period before income tax and net asset before income tax effect decreases by ₩528,748 million.

3) 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) 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, 2019, the maximum amount for liquidated damages arising from delays caused by the Company is estimated to be ₩132,100 million. The amount is deducted from the contract revenue amount, and would be consistently revalued until completion of construction.

The Company continuously prepares 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.

5) Uncertainty of Estimates in Collectability of Contract Assets (Due from Customer under Construction Contracts)

The Company assesses at the end of each reporting period whether there is any objective evidence that contract assets (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 recognizes the amount as ‘impairment loss’.

4. Financial Risk Management

4.1 Financial Risk Factors

The Company's activities expose it 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.

1) Market Risk Management

1-1) Foreign currency risk

Foreign exchange risk arises from expected future 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.

(a) 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' monetary assets and liabilities denominated in foreign currencies as at December 31, 2019 and 2018, are as follows:

(December 31, 2019)

										In millions of Korean won
	USD		EURO		JPY		Other currency		Total	
	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities
KRW	2,586,607	1,807,474	781	30,490	162	481	40,513	13,606	2,628,063	1,852,051

(December 31, 2018)

										In millions of Korean won
	USD		EURO		JPY		Other currency		Total	
	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities
KRW	5,098,912	1,968,207	6,093	55,107	-	282	60,530	21,015	5,165,535	2,044,611

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, 2019 and 2018, 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 for the year is as follows:

(December 31, 2019)

				In millions of Korean won
	USD	EURO	JPY	Others
10% increase (KRW weakened)	77,913	(2,971)	(32)	2,691
10% decrease (KRW strengthened)	(77,913)	2,971	32	(2,691)

(December 31, 2018)

				In millions of Korean won
	USD	EURO	JPY	Others
10% increase (KRW weakened)	313,070	(4,901)	(28)	3,952
10% decrease (KRW strengthened)	(313,070)	4,901	28	(3,952)

(b) Forward foreign exchange contracts

The Company operates internationally to win a contract for commercial ships and offshore plant projects, and is exposed to foreign exchange risk, primarily the changes of exchange rates in US dollar or Euro. Foreign exchange risk arises from advance received denominated in foreign currency from customers and an exchange rate fluctuation of delivery payment. The risk is measured through a forecast of highly probable US dollar and Euro receivables. The risk is hedged with the objective of minimizing the volatility of the sales of the Company.

The Company treasury's risk management policy is to hedge more than 40% of exposure to foreign currency risk of construction payment(firm commitment), of which the Company will receive according to payment conditions stated in the construction contract of ships and offshore plants.

The Company uses foreign currency forwards to hedge its exposure to foreign currency risk. Under the Company's policy the critical terms of the forwards must align with the hedged items.

The Company only designates the spot component of foreign currency forwards in hedge relationships.

The spot component is determined with reference to relevant spot market exchange rates. The differential between the contracted forward rate and the spot market exchange rate is defined as the forward points and discounted to present value.

The Company also entered into foreign currency forwards in relation to projected purchases for the next 12 months that do not qualify as 'highly probable' forecast transactions and hence do not satisfy the requirements for hedge accounting (economic hedges). The foreign currency forwards are subject to the same risk management policies as all other derivative contracts. However, they are accounted for as held for trading with gains or losses recognized in profit or loss.

The following details the forward foreign currency contracts outstanding as at December 31, 2019 and 2018.

(December 31, 2019)

						In millions of Korean won and USD
	Average contracted exchange rate	Sell amount		Buy amount		Fair value
(For fair value hedging)						
Sell USD	1,108.98	USD	3,338,975	KRW	3,702,868	(115,577)
(For trading)						
Sell USD	1,170.75	USD	18,000	KRW	21,074	287
Total		USD	3,356,975	KRW	3,723,942	(115,290)

(December 31, 2018)

						In millions of Korean won and USD
	Average contracted exchange rate	Sell amount		Buy amount		Fair value
(For fair value hedging)						
Sell USD	1,093.28	USD	3,738,840	KRW	4,087,603	(25,418)
(For trading)						
Sell USD	1,114.93	USD	142,083	KRW	158,412	294
Total		USD	3,880,923	KRW	4,246,015	(25,124)

(c) Effects of hedge accounting

The effects of the foreign currency related hedging instruments on the Company's financial position and performance are as follows:

		In millions of Korean won and USD
	2019	2018
(Currency forward)		
Currency forward assets	6,910	20,360
Currency forward liabilities	122,487	45,778
Notional amount	USD 3,338,975	USD 3,738,840
Maturity	2020/02 ~ 2022/09	2019/01~2021/06
Hedge ratio	1:1.06	1:0.78
Change in discounted exchange rate	(115,577)	(25,418)
Change in value of hedged item	122,872	32,670
Weighted average hedged exchange rate	1,145.15	1,100.57

1-2) Price risk

The Company's investment in marketable equity securities is made upon management's decision. As at December 31, 2019, the Company has marketable equity securities that are classified as financial assets that are measured at fair value through other comprehensive income (FVOCI).

1-3) Interest risk

The interest rate risk mainly arises through floating borrowings. The Company is exposed to interest rate risk since it has borrowings issued at floating rates. The interest rate risk is managed through the interest rate swap contract if the interest rate risk hedging is required.

(a) The Company's exposures to interest rates on financial assets and financial liabilities as at December 31, 2019 and 2018, are as follows:

		In millions of Korean won
	December 31, 2019	December 31, 2018
Fixed interest rate:		
Financial assets (*1)	2,432,077	38
Financial liabilities (*2)	(1,389,654)	(1,525,655)
Total	1,042,423	(1,525,617)
Floating interest rate:		
Financial assets (*1)	408,124	819,993
Financial liabilities (*2)	(1,480,986)	(1,597,506)
Total	(1,072,862)	(777,513)

(*1) Financial assets consist of cash and cash equivalents, short-term and long-term financial instruments and short-term, long-term loans and financial assets at amortized cost (government and public bonds).
(*2) Financial liabilities consist of short-term and long-term borrowings and debentures.

(b) The contractual re-pricing dates of the financial liabilities as at December 31, 2019 and 2018, are as follows:

In millions of Korean won

	December 31, 2019		December 31, 2018	
	Amount	Ratio	Amount	Ratio
Fixed interest rate	1,480,986	48.8%	1,597,506	47.7%
Fixed interest rate: re-pricing dates (*)	1,553,963	51.2%	1,749,855	52.3%
Up to 6 months	633,288	20.9%	830,406	24.8%
6 to 12 months	123,260	4.1%	-	0.0%
1 to 5 years	687,262	22.6%	790,611	23.6%
Over 5 years	110,153	3.6%	128,838	3.8%
Discount on debentures	(112,744)	-	(165,267)	-
Present value discounts	(51,565)	-	(58,933)	-
Total	2,870,640	100.0%	3,123,161	100.0%

(*) Re-pricing date is earlier of the contractual re-pricing dates or contract maturity.

(c) The cash flow sensitivity analyses of floating-rate financial assets and liabilities

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

	2019	2018
Financial instruments with floating interest rates:		
100bp Increase	(10,729)	(7,775)
100bp Decrease	10,729	7,775

The sensitivity analyses above have been determined based on the assumption that the amount of floating-rate financial assets and liabilities outstanding at the end of the reporting period has been identical for the whole reporting period.

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 financial assets that are measured at amortized cost (Note 9) 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 ₩21,854 million (2018: ₩62,886 million) (Notes 18 and 38).

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.

2-1) Security

For some trade receivables, the Company may obtain security in the form of Corporate Guarantee which can be called upon if the counterparty is in default under the terms of the agreement.

2-2) Impairment of Financial Assets

The Company has following types of financial assets that are subject to the expected credit loss model:

- Trade receivables and contract assets for sales of goods and provision of services,
- Contract assets relating to provision of services, and
- Other financial assets carried at amortized cost.

(a) Trade receivables and contract assets

The Company applies the simplified approach to measuring expected credit losses which uses a lifetime expected loss allowance for all trade receivables and contract assets. To measure the expected credit losses, trade receivables have been grouped based on shared credit risk characteristics.

1) Movements in the loss allowance provision for trade receivables and contract assets for the years ended December 31, 2019 and 2018, are as follows:

(Year ended December 31, 2019)

			In millions of Korean won
	Trade receivables	Contract assets	Total
Beginning balance	704,093	95,125	799,218
Impairment(reversal)	(40,452)	1,824	(38,628)
Others	39,674	(96,912)	(57,238)
Ending balance	703,315	37	703,352

(Year ended December 31, 2018)

			In millions of Korean won
	Trade receivables	Contract assets	Total
Beginning balance	1,084,635	651,574	1,736,209
Adjustment in beginning balance of retained earning	-	11	11
Loss allowance as at initial application date calculated under Korean IFRS 1109	1,084,635	651,585	1,736,220
Impairment(reversal)	(115,932)	(277,504)	(393,436)
Others	(264,610)	(278,956)	(543,566)
Ending balance	704,093	95,125	799,218

The impairment losses on trade receivables and contract assets were assessed based on the expected credit losses model considering the past credit loss experiences according to changes in the accounting standard (in prior year: the incurred loss model). The estimated impairment losses on these receivables are presented separately in the provision for impairment. The Company considered that there was evidence of impairment if any of the following indicators were present:

- Significant financial difficulties of the debtor
- Probability that the debtor will enter bankruptcy or financial reorganization, or
- Default or significant delinquency in payments.

Impairment losses on trade receivables and contract assets are presented as net impairment losses within impairment loss in the statement of profit or loss. Subsequent recoveries of amounts previously written off are credited against the same line item.

2) The Company applies the simplified approach to measuring expected credit losses which uses a lifetime expected loss allowance for all trade receivables and contract assets. To measure the expected credit losses, trade receivables have been grouped based on shared credit risk characteristics.

The loss allowance provision as at December 31, 2019 and 2018, are as follows:

(December 31, 2019)

					In millions of Korean won
			Expected loss rates	Gross carrying amount	Loss allowance provision
Trade receivables	Collective assessment	Affiliates	8.79%	913	80
		Government organizations	0.00%	20,961	-
		Others	0.59%	318,953	1,415
		Sub-total	0.44%	340,827	1,495
	Individual assessment		-	726,123	701,820
	Trade receivables total		-	1,066,950	703,315
Contract assets	Collective assessment	Affiliates	8.79%	-	-
		Government organizations	0.00%	1	-
		Others	0.59%	1,880,219	37
		Sub-total	0.00%	1,880,220	37
	Individual assessment		-	291,184	-
	Contract assets total		-	2,171,404	37

(December 31, 2018)

			Expected loss rates	Gross carrying amount	Loss allowance provision
					In millions of Korean won
Trade receivables	Collective assessment	Affiliates	8.06%	1,021	82
		Government organizations	0.00%	86,798	-
		Others	0.23%	571,176	1,295
		Sub-total	0.21%	658,995	1,377
	Individual assessment		-	715,830	702,716
	Trade receivables total		-	1,374,825	704,093
Contract assets	Collective assessment	Affiliates	8.06%	-	-
		Government organizations	0.00%	126,004	-
		Others	0.00%	3,003,717	93
		Sub-total	0.00%	3,129,721	93
	Individual assessment		-	1,315,301	95,032
	Contract assets total		-	4,445,022	95,125

(b) Other financial assets at amortized cost

Other financial assets at amortized cost include loans, other receivables, accrued income and deposits. Movements in loss allowance provision for other financial assets at amortized cost for the years ended December 31, 2019 and 2018, are as follows:

(Year ended December 31, 2019)

	Loans	Other receivables	Accrued income	Deposits	Total
					In millions of Korean won
Beginning balance	287,898	96,136	28,601	16,894	429,529
Impairment (reversal)	-	(7,467)	-	(191)	(7,658)
Ending balance	-	239	-	-	239
Ending balance	287,898	88,908	28,601	16,703	422,110

(Year ended December 31, 2018)

In millions of Korean won					
	Loans	Other receivables	Accrued income	Deposits	Total
Beginning balance	836,363	471,737	192,102	17,879	1,518,081
Adjustment in beginning balance of retained earning	-	-	-	-	-
Loss allowance as at initial application date calculated under Korean IFRS 1109	836,363	471,737	192,102	17,879	1,518,081
Impairment (reversal)	427	614	-	(232)	809
Others (*)	(548,892)	(376,215)	(163,501)	(753)	(1,089,361)
Ending balance	287,898	96,136	28,601	16,894	429,529

(*) Other includes written-off receivables amounting to ₩999,170 million due to disposal of DW Mangalia Heavy Industries S.A. and PT. DSME ENR CEPU in 2018 (Note 38 (4)).

If financial assets at amortized cost are considered to have low credit risk, loss allowance provisions are recognized based on 12-month expected credit losses. If credit risk is significantly increasing or credit is considered to be impaired, loss allowance is recognized based on lifetime expected credit losses. Management considers certain financial asset to have low credit risk when they have a low risk of default and the issuer has a strong capacity to meet its contractual cash flow obligations in the near term.

(c) Amounts recognized in profit or loss

The amounts recognized in profit or loss within 'impairment loss' in relation to impaired receivables for the years ended December 31, 2019 and 2018, are as follows:

(Year ended December 31, 2019)

In millions of Korean won

	Trade receivables	Contract assets	Other financial assets at amortized cost		Total
			Other receivables	Deposits	
Movement in impairment loss	(40,452)	1,824	168	-	(38,460)
Reversal of impairment loss	-	-	(7,635)	(191)	(7,826)
Total	(40,452)	1,824	(7,467)	(191)	(46,286)

(Year ended December 31, 2018)

In millions of Korean won

	Trade receivables	Contract assets	Other financial assets at amortized cost			Total
			Loan	Other receivables	Deposits	
Movement in impairment loss	13,788	93	1,974	2,651	-	18,506
Reversal of impairment loss	(202,297)	(277,596)	(1,547)	(2,037)	(232)	(483,709)
Total	(188,509)	(277,503)	427	614	(232)	(465,203)

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.

3-1) 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 equals to their book amount as the impact of discounting is not significant.

(December 31, 2019)

In millions of Korean won				
	Less than 1 year	Between 1 and 2 years	Over 2 years	Total
Borrowings and others(*1)	1,449,008	1,134,992	566,493	3,150,493
Trade and other payables	912,289	28,436	15,010	955,735
Financial guarantee contracts(*2)	21,854	-	-	21,854
Total	2,383,151	1,163,428	581,503	4,128,082

(*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.

3-2) 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.

(December 31, 2019)

In millions of Korean won				
	Less than 1 year	Between 1 and 2 years	Over 2 years	Total
(Net settlement)				
Currency forward	(87,993)	(33,641)	1,179	(120,455)

(December 31, 2018)

In millions of Korean won				
	Less than 1 year	Between 1 and 2 years	Over 2 years	Total
(Net settlement)				
Currency forward	(26,670)	(1,613)	1,341	(26,942)

4.2 Capital Risk Management

The Company's objectives when managing capital are to safeguard the Company's ability to continue as a going concern, so the Company can continue to provide returns for shareholders and benefits for other stakeholders, and to maintain an optimal capital structure to reduce the cost of capital. The Company's general strategy of capital risk management is consistently applied with that of previous year.

The Company monitors capital on the basis of the gearing ratio. This ratio is calculated as net borrowing divided by total capital. Net debt is total borrowings less cash and cash equivalents and short financial instruments. Total capital is 'equity' as shown in the separate statement of financial position plus net borrowing.

The gearing ratios as at December 31, 2019 and 2018, are as follows:

		In millions of Korean won
	December 31, 2019	December 31, 2018
Borrowings total (Note 22, 23)	2,870,640	3,123,162
Less: cash and cash equivalents and short-term financial instruments	(2,398,949)	(397,510)
Net debt	471,691	2,725,652
Total equity	3,631,509	3,731,766
Total capital	4,103,200	6,457,418
Gearing ratio	11.50%	42.21%

5. Fair Value

5.1 Fair Value Hierarchy

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

- Quoted prices (unadjusted) in active markets for identical assets or liabilities (Level 1).
- All inputs other than quoted prices included in level 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).

Fair value hierarchy classifications of the financial instruments that are measured at fair value as at December 31, 2019 and 2018, are as follows:

(December 31, 2019)

				In millions of Korean won
	Level 1	Level 2	Level 3	Total
Financial assets at fair value through profit or loss				
Derivative held for trading	-	287	-	287
Beneficiary certificates	3,392	-	-	3,392
Equity investments	-	25,002	-	25,002
Currency forward assets				
Derivative instrument for hedging	-	6,910	-	6,910
Financial assets at fair value through other comprehensive income				
Listed securities	1	-	-	1
Non-listed securities	-	13,455	5,632	19,087
Assets total	3,393	45,654	5,632	54,679
Financial liabilities at fair value through profit or loss				
Derivative held for trading	-	-	-	-
Currency forward liabilities				
Derivative instrument for hedging	-	122,487	-	122,487
Liabilities total	-	122,487	-	122,487

(December 31, 2018)

In millions of Korean won				
	Level 1	Level 2	Level 3	Total
Financial assets at fair value through profit or loss				
Derivative held for trading	-	382	-	382
Beneficiary certificates	3,592	-	-	3,592
Equity investments	-	16,607	-	16,607
Derivative financial assets				
Derivative instrument for hedging	-	20,360	-	20,360
Financial assets at fair value through other comprehensive income				
Listed securities	8	-	-	8
Non-listed securities	-	11,832	8,247	20,079
Assets total	3,600	49,181	8,247	61,028
Financial liabilities at fair value through profit or loss				
Derivative held for trading	-	89	-	89
Derivative financial liabilities				
Derivative instrument for hedging	-	45,778	-	45,778
Liabilities total	-	45,867	-	45,867

5.2 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.

1) There were no transfers between Levels 1 and 2 for recurring fair value measurements for the years ended December 31, 2019 and 2018.

2) Changes in Level 3 for recurring fair value measurements for the years ended December 31, 2019 and 2018, are as follows:

(Year ended December 31, 2019)

					In millions of Korean won
	Beginning balance	Purchases (Disposals)	Transfer (*)	Valuation	Ending balance
Financial assets at fair value through other comprehensive income					
Non-listed securities	8,247	(10)	(2,754)	148	5,631

(*) The Company transferred the investment from financial assets at FVOCI to investments in associates as the Company decided that it has significant influence over KC LNG Tech Co., Ltd.

(Year ended December 31, 2018)

					In millions of Korean won
	Beginning balance	Purchases (Disposals)	Transfer (*)	Valuation	Ending balance
Financial assets at fair value through other comprehensive income					
Non-listed securities	20,872	(4,679)	(7,798)	(148)	8,247

(*) As the measurement method for non-listed securities was changed from the cost method to fair valuation, the relevant amount has been transferred to Level 3 for the year ended December 31, 2018. Additionally, non-listed securities classified as Level 3 was transferred to Level 2 during the prior year.

5.3 Valuation Techniques and the Inputs

Valuation techniques and inputs used in the recurring and non-recurring fair value measurements categorized within Level 2 and Level 3 of the fair value hierarchy as at December 31, 2019 and 2018, are as follows:

	Level	Valuation techniques	Inputs	Range of inputs	Fair value (In millions of Korean won)
(Financial instruments that are measured at fair value)					
Currency forward	2	Discounted cash flows	Forward rate, credit risk adjusted discount rate	N/A	(115,290)
Equity investments	2	Discounted cash flows	Credit risk adjusted discount rate	N/A	25,002
Unlisted equity securities	2	Transaction price	Transaction price	N/A	10,487
Unlisted equity securities	2	Quoted price in inactive market	Quoted price in inactive market	N/A	2,968
Unlisted equity securities	3	Net asset value approach method	N/A	N/A	5,631

6. Financial Instruments by Category

6.1 Financial Assets

Categorizations of financial assets as at December 31, 2018 and 2019, are as follows:

(December 31, 2019)

						In millions of Korean won
	Financial assets at fair value through profit or loss	Financial assets at fair value through other comprehensive income	Financial assets at amortized costs	Derivative financial assets for hedging	Total (Carrying amount)	Fair value
Cash and cash equivalents	-	-	1,991,736	-	1,991,736	1,991,736
Short- and long-term financial assets	-	-	823,196	-	823,196	823,196
Financial assets at fair value through profit or loss (*)	28,681	-	-	-	28,681	28,681
Financial assets at amortized cost	-	-	24,976	-	24,976	24,976
Financial assets at fair value through other comprehensive income	-	19,087	-	-	19,087	19,087
Trade and other receivables	-	-	483,650	-	483,650	483,650
Contract assets	-	-	2,171,367	-	2,171,367	2,171,367
Currency forward assets	-	-	-	6,910	6,910	6,910
Total	28,681	19,087	5,494,925	6,910	5,549,603	5,549,603

(*) Financial assets at fair value through profit or loss consist of equity investments and beneficiary certificates.

(December 31, 2018)

In millions of Korean won						
	Financial assets at fair value through profit or loss	Financial assets at fair value through other comprehensive income	Financial assets at amortized costs	Derivative financial assets for hedging	Total (Carrying amount)	Fair value
Cash and cash equivalents	-	-	325,732	-	325,732	325,732
Short- and long-term financial assets	-	-	487,430	-	487,430	487,430
Financial assets at fair value through profit or loss (*)	20,582	-	-	-	20,582	20,582
Financial assets at amortized cost	-	-	38	-	38	38
Financial assets at fair value through other comprehensive income	-	20,087	-	-	20,087	20,087
Trade and other receivables	-	-	907,182	-	907,182	907,182
Contract assets	-	-	4,349,897	-	4,349,897	4,349,897
Currency forward assets	-	-	-	20,360	20,360	20,360
Total	20,582	20,087	6,070,279	20,360	6,131,308	6,131,308

(*) Financial assets at fair value through profit or loss consist of currency forward assets held for trading and equity investments.

Meanwhile, the amounts of financial assets by category in above tables are sum of current and non-current assets, net of provision for impairment.

6.2 Financial liabilities

Categorizations of financial liabilities as at December 31, 2019 and 2018, are as follows:

(December 31, 2019)

				In millions of Korean won
	Financial liabilities at amortized cost	Derivative financial liabilities for hedging	Total (Carrying amount)	Fair value
Borrowings	2,242,555	-	2,242,555	2,194,090
Debentures	628,085	-	628,085	634,004
Trade and other payables	955,445	-	955,445	955,445
Currency forward liabilities	-	122,487	122,487	122,487
Financial guarantee liabilities(*1)	33	-	33	33
Lease liabilities (*2)	34,036	-	34,036	-
Total	3,860,154	122,487	3,982,641	3,906,059

(*1) As described in Note 18, the Company recognized expected payment guarantees amount, based on the agreement provided to the related parties as financial guarantee liabilities.
(*2) Fair value of lease liabilities is not stated in accordance with Korean IFRS 1107.

(December 31, 2018)

					In millions of Korean won
	Financial liabilities at fair value through profit or loss	Financial liabilities at amortized costs	Derivative financial liabilities for hedging	Total (Carrying amount)	Fair value
Borrowings	-	2,547,600	-	2,547,600	2,549,429
Debentures	-	575,561	-	575,561	579,609
Financial liabilities at fair value through profit or loss (*1)	89	-	-	89	89
Trade and other payables	-	1,142,104	-	1,142,104	1,142,104
Currency forward liabilities	-	-	45,778	45,778	45,778
Financial guarantee liabilities (*2)	-	480	-	480	480
Finance lease liabilities	-	24,145	-	24,145	24,145
Total	89	4,289,890	45,778	4,335,757	4,341,634

(*1) Financial liabilities at fair value through profit or loss consist of currency forward liabilities held for trading.
(*2) As described in Notes 18 and 38, the Company recognized expected payment guarantees amount, based on the agreement provided to the related parties as financial guarantee liabilities

Meanwhile, the amounts of financial liabilities by category in above tables are sum of current and non-current liabilities.

6.3 Net Gains or Losses by Category of Financial Instruments (Before Income Tax Effect)

1) Financial assets

(Year ended December 31, 2019)

					In millions of Korean won
	Financial assets at fair value through profit or loss	Financial assets at fair value through other comprehensive income	Financial assets at amortized cost	Derivative financial assets for hedging	Total
Interest income	-	-	90,558	-	90,558
Dividend income	-	134	-	-	134
Reversal of impairment loss	-	-	46,286	-	46,286
Gains on foreign currency translation, net	-	-	2,366	-	2,366
Gains on foreign currency transaction, net	-	-	154,592	-	154,592
Gains on valuation of foreign exchange forward contracts, net	287	-	-	6,910	7,197
Gains on foreign exchange forward transaction, net	137	-	-	4,097	4,234
Gains on valuation of available for-sale financial assets (other comprehensive income)	-	1,764	-	-	1,764
Gains on valuation of financial assets at fair value through profit or loss	337	-	-	-	337
Gains on disposal of available for-sale financial assets	10	-	-	-	9
Total	771	1,898	293,802	11,007	307,477

(Year ended December 31, 2018)

					In millions of Korean won
	Financial assets at fair value through profit or loss	Financial assets at fair value through other comprehensive income	Financial assets at amortized cost	Derivative financial assets for hedging	Total
Interest income	-	-	58,789	-	58,789
Dividend income	-	5,540	-	-	5,540
Reversal of impairment loss	-	-	464,741	-	464,741
Gains on foreign currency translation, net	-	-	43,698	-	43,698
Gains on foreign currency transaction, net	-	-	36,714	-	36,714
Gains on valuation of foreign exchange forward contracts, net	383	-	-	(21,946)	(21,563)
Gains on foreign exchange forward transaction, net	(3,352)	-	-	(6,658)	(10,010)
Gains on valuation of available for-sale financial assets(other comprehensive income)	-	(10,657)	-	-	(10,657)
Gains on valuation of financial assets at fair value through profit or loss	(1,992)	-	-	-	(1,992)
Gains on disposal of available for-sale financial assets	786	-	-	-	786
Total	(4,175)	(5,117)	603,942	(28,604)	566,046

2) Financial liabilities

(Year ended December 31, 2019)

				In millions of Korean won
	Financial liabilities at fair value through profit or loss	Financial liabilities at amortized cost	Derivative financial liabilities for hedging	Total
Interest expenses	-	(164,326)	-	(164,326)
Losses on foreign currency translation, net	-	(38,429)	-	(38,429)
Losses on foreign currency transaction, net	-	(20,138)	-	(20,138)
Losses on valuation of foreign exchange forward contracts, net	-	-	(122,871)	(122,871)
Losses on foreign exchange forward transaction, net	(56,059)	-	(145,694)	(201,753)
Reversal of financial guarantee liabilities	-	446	-	446
Total	(56,059)	(222,447)	(268,565)	(547,071)

(Year ended December 31, 2018)

				In millions of Korean won
	Financial liabilities at fair value through profit or loss	Financial liabilities at amortized cost	Derivative financial liabilities for hedging	Total
Interest expenses	-	(176,144)	-	(176,144)
Losses on foreign currency translation, net	-	(49,658)	-	(49,658)
Losses on foreign currency transaction, net	-	(17,777)	-	(17,777)
Losses on valuation of foreign exchange forward contracts, net	(89)	-	(66,672)	(66,761)
Losses on foreign exchange forward transaction, net	(14,943)	-	(48,420)	(63,363)
Gains on valuation of financial liabilities at fair value through profit or loss	777	-	-	777
Reversal of financial guarantee liabilities	-	31,257	-	31,257
Gains on debt restructuring	-	10	-	10
Total	(14,255)	(212,312)	(115,092)	(341,659)

7. 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, 2019 and 2018, are as follows:

		In millions of Korean won
	December 31, 2019	December 31, 2018
Financial institution deposits	1,991,736	325,732

8. Restricted or Pledged Financial Assets

The restricted or pledged financial assets as at December 31, 2019 and 2018, are as follows:

			In millions of Korean won
	December 31, 2019	December 31, 2018	Description
Short-term financial asset (*)	9,123	71,778	Pledged as collaterals for performance guarantee and others
Long-term financial asset	415,983	415,652	Pledged as collaterals for performance guarantee and others
Total	425,106	487,430	

(*) The Company holds unrestricted short-term financial assets amount to ₩398,090 million as at December 31, 2019.

9. Financial Assets

9.1 Financial Assets at Fair Value through Profit or Loss

1) Financial assets at fair value through profit or loss as at December 31, 2019 and 2018, include the following classes of financial assets:

In millions of Korean won				
	December 31, 2019		December 31, 2018	
	Current	Non-current	Current	Non-current
Currency forward assets held for trading	287	-	382	-
Beneficiary certificates	-	3,392	-	3,592
Equity investments	-	25,002	-	16,607
Total	287	28,394	382	20,199

2) Amounts recognized in profit or loss for the years ended December 31, 2019 and 2018, are as follows:

In millions of Korean won		
	2019	2018
Gains(losses) on currency forward assets held for trading, net	425	(2,969)
Gains(losses) on equity investments	286	(2,096)
Gains on beneficiary certificates	60	110
Gains on non-listed securities	-	780
Total	771	(4,175)

9.2 Financial Assets at Fair Value through Other Comprehensive Income

Details of equity investments at fair value through other comprehensive income as at December 31, 2019 and 2018, are as follows:

		In millions of Korean won
	December 31, 2019	December 31, 2018
Listed securities	1	8
Non-listed securities	19,087	20,079
Total	19,088	20,087

Upon disposal of these equity investments, any balance within the accumulated other comprehensive income for these equity investments is reclassified to retained earnings.

9.3 Financial Assets at Amortized Cost

1) Details of financial assets at amortized cost as at December 31, 2019 and 2018, are as follows:

				In millions of Korean won
	December 31, 2019		December 31, 2018	
	Current	Non-current	Current	Non-current
Government and public bonds	7	24,969	1	37

2) Movements in financial assets at amortized cost for the years ended December 31, 2019 and 2018, are as follows:

In millions of Korean won				
	December 31, 2019		December 31, 2018	
	Current	Non-current	Current	Non-current
Beginning balance	1	37	27	304
Purchases	-	-	-	19
Disposals	(1)	-	(27)	(285)
Transfer(*)	7	24,932	1	(1)
Ending balance	7	24,969	1	37

(*) Includes other receivables from KDB amounting to ₩24,274 million, which were classified as non-current other financial assets at amortized cost in prior years.

9.4 Trade Receivables and Other Financial Assets at Amortized Cost

1) Trade receivables and its provisions for impairment as at December 31, 2019 and 2018, are as follows:

In millions of Korean won				
	December 31, 2019		December 31, 2018	
	Current	Non-current	Current	Non-current
Receivables from construction contracts	361,369	705,126	676,099	698,725
Less: Provision for impairment	(18,726)	(684,589)	(18,481)	(685,612)
Receivables from construction contracts (net)	342,643	20,537	657,618	13,113

Trade receivables are amounts due from customers for goods sold or services performed in the ordinary course of business. They are generally due for settlement within 30 days, and therefore, are all classified as current asset. Trade receivables are recognized initially at the amount of consideration that is unconditional, unless they contain significant financing components, when they are recognized at fair value.

2) Other financial assets at amortized costs as at December 31, 2019 and 2018, are as follows:

				In millions of Korean won
	December 31, 2019		December 31, 2018	
	Current	Non-current	Current	Non-current
Loans	173,111	140,018	143,883	150,846
Less: Provision for impairment	(173,111)	(114,787)	(143,883)	(144,015)
Loans, net	-	25,231	-	6,831
Other receivable	30,350	116,042	62,709	145,741
Less: Provision for impairment	(9,072)	(79,836)	(9,299)	(86,837)
Other receivable, net	21,278	36,206	53,410	58,904
Accrued income	32,440	7	28,836	7
Less: Provision for impairment	(28,595)	(6)	(28,594)	(6)
Accrued income, net	3,845	1	242	1
Deposits (*)	-	26,339	-	133,958
Less: Provision for impairment	-	(16,704)	-	(16,894)
Deposits, net	-	9,635	-	117,064
Total	25,123	71,073	53,652	182,800

(*) Includes ₩107.5 billion paid to Defense Acquisition Program Administration (DAPA) as deposit of contract performance guarantee during the prior year.

10. Contract Assets and Liabilities

10.1 Details of contract assets and liabilities as at December 31, 2019 and 2018, are as follows:

		In millions of Korean won
	December 31, 2019	December 31, 2018
Contract assets		
Due from customers for contract work	2,171,404	4,445,022
Loss allowance	(37)	(95,125)
Total	2,171,367	4,349,897
Contract liabilities		
Due to customers for contract work	1,601,085	1,660,814
Advance received	201,210	214,533
Total	1,802,295	1,875,347

10.2 Revenue Recognized in relation to Contract Liabilities

Revenue recognized in relation to contract liabilities for the year ended December 31, 2019, are as follows:

	In millions of Korean won
	2019
Revenue recognized that was included in the contract liability balance at the beginning of the year	1,278,829
Revenue recognized from performance obligations satisfied in prior year (*)	1,807

(*) Although the Company fulfilled its obligations in prior year, the Company recognized revenue during current year after satisfying the revenue recognition requirements.

10.3 Unsatisfied Construction Contracts

Unsatisfied performance obligations resulting from fixed-price construction contracts are as follows:

		In millions of Korean won
	December 31, 2019	December 31, 2018
Aggregate amount of the transaction price allocated to construction contracts that are partially or fully unsatisfied at the end of period	10,139,537	11,964,868

Management expects that 67.8% of the transaction price (₩6,876,522 million) allocated to the unsatisfied contracts as at December 31, 2019, will be recognized as revenue during the next reporting period. The remaining 32.2% (₩3,263,016 million) will be recognized after the following financial year. The amount disclosed above does not include variable consideration which is constrained.

11. Inventories

Details of inventories as at December 31, 2019 and 2018, are as follows:

						In millions of Korean won
	December 31, 2019			December 31, 2018		
	Acquisition cost	Valuation allowance	Carrying amount	Acquisition cost	Valuation allowance	Carrying amount
Work in process (*)	1,079,600	(311,664)	767,936	1,043,378	(233,897)	809,481
Raw materials	323,511	(29,851)	293,660	433,419	(41,138)	392,281
Supplies	16,526	-	16,526	15,494	-	15,494
Goods in transit	72,354	-	72,354	116,612	-	116,612
Total	1,491,991	(341,515)	1,150,476	1,608,903	(275,035)	1,333,868

(*) During the year ended December 31, 2018, contracts of two ships under construction were cancelled due to financial condition of customer. The Company has reclassified the corresponding contract assets amounting to ₩495,745 million 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.

12. Other Assets

12.1 Details of other assets as at December 31, 2019 and 2018, are as follows:

				In millions of Korean won
	December 31, 2019		December 31, 2018	
	Current	Non-current	Current	Non-current
Advance payments	566,185	-	408,620	-
Prepaid construction costs	4,689	-	645	-
Prepaid expenses	18,167	6,051	20,069	6,313
Incremental costs of obtaining a contract	39,720	-	31,142	-
Other investment assets	-	2,524	-	5,817
Others	51,852	-	35,894	-
Total	680,613	8,575	496,370	12,130

12.2 Assets Recognized from Incremental Costs of Obtaining a Contract

The Company has recognized an asset in relation to broker commission that would not have incurred if the contract has not been obtained.

	In millions of Korean won
	December 31, 2019
Assets recognized from incremental costs of obtaining a contract as at December 31, 2019	39,720
Amortization and impairment loss recognized as cost during the period	23,462

Above assets recognized from incremental costs of obtaining a contract are expensed in the same manner as recognition of the associated revenue.

Meanwhile, for the carrying amount of the assets exceeding the expected cost of residual consideration less direct costs not yet recognized as expenses, the Company recognized an accumulated impairment loss of ₩76,339 million for the assets as at December 31, 2018. During current period, the Company recognized the reversal of impairment loss of ₩46,265 million. Therefore, an accumulated impairment loss is ₩30,074 million for the assets as at December 31, 2019.

13. Non-current Assets Held-for-sale

As described in Note 44, 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, 2019 and 2018, are as follows:

		In millions of Korean won
	December 31, 2019	December 31, 2018
Construction-in-progress	-	12,914

Non-current asset classified as held for sale are measured at the lower of its book amount and fair value less costs to sell.

14. Investments in Subsidiaries

14.1 Details of the investments in subsidiaries of the Company as at December 31, 2019 and 2018, are as follows:

						In millions of Korean won
	Location	Main business	December 31, 2019		December 31, 2018	
			Ownership interest (%)	Book value	Ownership interest (%)	Book value
DSME Shandong Co., Ltd.	China	Manufacturing ship parts	100.00	-	100.00	-
DK Maritime S.A.	Panama	Shipping	100.00	-	100.00	-
DSME Far East LLC (*)	Russia	Shipbuilding	-	-	100.00	1
DSME Information and Consulting	Geoje	IT Service	100.00	200	100.00	200
DSME Kazakhstan LLP	Kazakhstan	Repair of ships and technical support	100.00	546	100.00	546
Total				746		747

(*) Completed liquidation during the year of 2019.

14.2 Changes in the book value of investment in subsidiaries for the years ended December 31, 2019 and 2018, are as follows:

(Year ended December 31, 2019)

				In millions of Korean won
	Beginning balance	Acquisition (Disposal)	Others	Ending balance
DSME Far East LLC (*)	1	(1)	-	-
DSME Information and Consulting	200	-	-	200
DSME Kazakhstan LLP	546	-	-	546
Total	747	(1)	-	746

(*) Completed liquidation during the year of 2019.

(Year ended December 31, 2018)

				In millions of Korean won
	Beginning balance	Acquisition (Disposal)	Others (*)	Ending balance
DSME Shandong Co., Ltd.	22,806	-	(22,806)	-
DSME Far East LLC	1	-	-	1
DSME Information and Consulting	200	-	-	200
DSME Kazakhstan LLP	-	-	546	546
Total	23,007	-	(22,260)	747

(*) As described in Note 44, 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 ₩22,806 million on certain investments in subsidiaries.

15. Investments in Associates and Joint Ventures

15.1 Details of investments in associates and joint ventures as at December 31, 2019 and 2018 are as follows:

In millions of Korean won

		Location	Main business	December 31, 2019		December 31, 2018	
				Ownership interest (%)	Book value	Ownership interest (%)	Book value
Associates	Wing Ship Technology Corp.	Daejeon	Research and Development on other engineering	23.20	-	23.20	-
	TPI Megaline Co., Ltd. (*1)	Seoul	Shipping	19.00	2,185	19.00	2,185
	Daehan Shipbuilding Co., Ltd.	Haenam	Ship building	23.35	5,132	23.35	-
	Welliv Private Investment Joint Company (*2)	Seoul	Private Equity Fund	-	-	34.39	9,750
	Shinhan Heavy Industries Co., Ltd. (*3)	Ulsan	Manufacturing ship parts	89.22	-	89.22	-
	Samwoo Heavy Industry Co., Ltd. (*3)	Gwangyang	Manufacturing ship parts	100.00	-	100.00	-
	KC LNG Tech Co., Ltd. (*1,4)	Busan	Patents management and licenses business	16.60	1,873	-	-
Joint ventures	SBM Shipyard Ltd.	Angola	Holding company (FPSO engineering and operation)	33.33	-	33.33	-
Total					9,190		11,935

(*1) The Company has classified the investment as an associate as the Company has rights to participate in the decision-making body of the investee company.
(*2) Investment and distribution on Welliv Private Investment Joint Company Partnerships has been collected due to its dissolution and its investment actives were completed during the current year.
(*3) The Company has reclassified the investment in subsidiaries as investment in associates as the Company lost its control over these subsidiaries, due to the commencement of major creditor bank management procedure during the year of 2017.
(*4) The Company has transferred the investment from financial assets at FVOCI to investments in associates as the Company decided that it has significant influence over the investee company during the year of 2019.

15.2 Changes in the book amount of the investments in associates and joint ventures for the years ended December 31, 2019 and 2018, are as follows:

(Year ended December 31, 2019)

					In millions of Korean won
		Beginning balance	Acquisition (Disposal)	Others	Ending balance
Associates	TPI Megaline Co., Ltd.	2,185	-	-	2,185
	Welliv Private Investment Joint Company	9,750	(9,750)	-	-
	Daehan Shipbuilding Co., Ltd.	-	-	5,132	5,132
	KC LNG Tech Co., Ltd.	-	-	1,873	1,873
Total		11,935	(9,750)	7,005	9,190

(Year ended December 31, 2018)

					In millions of Korean won
		Beginning balance	Acquisition (Disposal)	Others	Ending balance
Associates	TPI Megaline Co., Ltd.	2,185	-	-	2,185
	Welliv Private Investment Joint Company	9,750	-	-	9,750
Total		11,935	-	-	11,935

16. Property, Plant and Equipment

16.1 Details of property, plant and equipment as at December 31, 2019 and 2018, are as follows:

(December 31, 2019)

					In millions of Korean won
	Land	Buildings	Structures	Machinery	Vehicle
Cost	1,559,620	1,056,647	1,305,236	955,996	178,692
Revaluation surplus	405,729	-	-	-	-
Government grants	-	(5,223)	-	(82)	-
Accumulated depreciation	-	(417,047)	(475,597)	(576,098)	(126,864)
Accumulated impairment losses	(56,754)	(91,243)	(104,162)	(191,724)	(41,724)
Book amount	1,908,595	543,134	725,477	188,092	10,104

					In millions of Korean won
	Ships and aircraft	Tools	Supplies	Construction-in-progress	Total
Cost	188,530	329,009	234,883	116,383	5,924,996
Revaluation surplus	-	-	-	-	405,729
Government grants	-	-	(41)	-	(5,346)
Accumulated depreciation	(107,984)	(210,259)	(154,501)	-	(2,068,350)
Accumulated impairment losses	(7,856)	(114,586)	(67,244)	(11,504)	(686,797)
Book amount	72,690	4,164	13,097	104,879	3,570,232

(December 31, 2018)

In millions of Korean won					
	Land	Buildings	Structures	Machinery	Vehicle
Cost	1,485,596	1,035,342	1,278,077	945,978	175,511
Revaluation surplus	408,751	-	-	-	-
Government grants	-	(5,365)	-	(95)	-
Accumulated depreciation	-	(397,478)	(442,318)	(587,755)	(129,901)
Accumulated impairment losses	(57,092)	(80,548)	(80,179)	(155,032)	(30,969)
Book amount	1,837,254	551,951	755,580	203,096	14,641

In millions of Korean won						
	Ships and aircraft	Finance lease ships and aircraft (*)	Tools	Supplies	Construction-in-progress	Total
Cost	207,389	39,698	331,718	232,351	191,137	5,922,797
Revaluation surplus	-	-	-	-	-	408,751
Government grants	-	-	-	(60)	-	(5,520)
Accumulated depreciation	(111,577)	(15,879)	(212,876)	(159,730)	-	(2,057,514)
Accumulated impairment losses	(14,012)	-	(102,404)	(46,822)	(11,504)	(578,562)
Book amount	81,800	23,819	16,438	25,739	179,633	3,689,951

(*) In accordance with Korean IFRS 1116 Leases, finance lease ships and aircraft are classified as right-of-use assets. (Note 17)

16.2 Changes in property, plant and equipment for the years ended December 31, 2019 and 2018, are as follows:

(Year ended December 31, 2019)

In millions of Korean won

	Beginning balance (*1)	Acquisition	Disposals	Depreciation	Others (*2)	Ending balance
Land	1,837,254	2,925	(6,618)	-	75,034	1,908,595
Buildings	551,951	1,539	(1,033)	(20,855)	11,532	543,134
Structures	755,580	225	(1)	(33,389)	3,061	725,476
Machinery	203,096	53,341	(407)	(22,044)	(45,894)	188,092
Vehicle	14,641	8,856	-	(2,299)	(11,094)	10,104
Ships and aircraft	81,800	1,269	-	(6,300)	(4,079)	72,690
Tools	16,437	4,533	(10)	(3,336)	(13,460)	4,164
Supplies	25,739	14,780	(7)	(6,618)	(20,797)	13,097
Construction-in-progress	179,633	66,547	-	-	(141,301)	104,879
Total	3,666,131	154,015	(8,076)	(94,841)	(146,998)	3,570,231

(*1) In accordance with Korean IFRS 1116 Leases, finance lease ships and aircraft which are classified as right-of-use assets are excluded.
(*2) Others mainly consist of transfer of construction-in-progress to property, plant and equipment, impairment loss, and other account transfers.

(Year ended December 31, 2018)

In millions of Korean won

	Beginning balance	Acquisition	Disposals	Depreciation	Others (*)	Ending balance
Land	1,853,910	2	-	-	(16,658)	1,837,254
Buildings	565,943	390	-	(19,094)	4,712	551,951
Structures	781,611	120	-	(32,192)	6,041	755,580
Machinery	168,649	52,822	(53)	(21,126)	2,804	203,096
Vehicle	7,162	10,441	(61)	(2,902)	1	14,641
Ships and aircraft	126,907	100	-	(6,451)	(38,756)	81,800
Finance lease ships and aircraft	-	-	-	(15,879)	39,698	23,819
Tools	10,787	8,605	(6)	(4,083)	1,134	16,437
Supplies	15,955	14,254	(8)	(4,622)	160	25,739
Construction-in-progress	193,921	63,612	-	-	(77,900)	179,633
Total	3,724,845	150,346	(128)	(106,349)	(78,764)	3,689,950

(*) Others mainly consist of transfer of construction-in-progress to property, plant and equipment, impairment loss, and other account transfers.

16.3 As described in Note 44, 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 ₩141,881 million of impairment loss on property, plant and equipment, and ₩14,051 million of impairment loss on intangible assets. 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.

16.4 Line items including depreciation (including depreciation on investment properties) in the statements of profit or loss for the years ended December 31, 2019 and 2018, are as follows:

		In millions of Korean won
	2019	2018
Cost of sales	90,990	104,384
Selling and administrative expenses	1,645	1,186
Research and development expenses	2,324	897
Total	94,959	106,467

16.5 Property, plant and equipment measured at fair value

Land measured at fair value is included in Level 3.

1) The Company engages external, independent and qualified valuers to determine the fair value of the land owned by the Company. The accounting team reviews whether the assumptions used in the independent valuation report and changes in value are reasonable. The external valuators applied a publicly assessed land price method, which calculates the value of land based on the official price of land that is deemed to have a similar valuation factors or the value of use, adjusted by fixed date of appraisal, local factors, individual factors and others. And, the Company reviewed the reasonableness of appraisal results using the sales comparison approach, of which determines the value of land based on the sales cases for the land and the nearby areas with similar value of land.

2) Valuation techniques and the inputs

Valuation techniques and inputs used in the recurring fair value measurements categorized within Level 3 of the fair value hierarchy as at December 31, 2019, are as follows:

	Level	Valuation techniques	Inputs	Range of inputs	Correlation between unobservable variable inputs and fair value
Land	3	Publicly assessed land price method	Fixed date of appraisal	0.94015 ~ 1.034195	When land price change rate rises (falls), fair value increases (decreases)
			Local factors	1	When the regional factor increases (decreases), fair value increases (decreases)
			Individual factors	0.112 ~ 4.180	When the correction value such as the ground condition increases (decreases), fair value increases (decreases)
			Others	1.13 ~ 8.33	The correction for land price level etc. increases (decrease), fair value increases (decreases)

16.6 Contractual Commitments for the Acquisition of Property, Plant and Equipment

According to the agreement entered with Seoul National University in 2015, the Company constructs tank facilities for testing purpose in Siheung Campus, and transfers its ownership in 25 years. Details of contractual commitments for the acquisition of property, plant and equipment as at December 31, 2019 and 2018, are as follows:

		In millions of Korean won
	December 31, 2019	December 31, 2018
Property, plant and equipment	36,722	40,719

17. Right-of-use Assets

17.1 Changes in right-of-use assets for the year ended December 31, 2019, are as follows:

In millions of Korean won					
	Beginning balance (*1)	Acquisition	Depreciation	Others (*2)	Ending balance
Lease-Buildings	21,433	2,981	(11,272)	211	13,353
Lease- Structures	125	-	(18)	(107)	-
Lease- Machinery	29,256	11,120	(14,747)	(21,094)	4,535
Lease- Ships and aircraft	27,234	-	(18,954)	(217)	8,063
Lease- Vehicle	2,633	2,065	(1,892)	(512)	2,294
Lease-Land	952	1,845	(1,631)	(816)	350
Total	81,633	18,011	(48,514)	(22,535)	28,595

(*1) Beginning balance are adjusted in accordance with Korean IFRS 1116 Leases.
(*2) Others consist of the disposal of right-of-use assets and the difference in connection with reassessment of right-of-use assets.

17.2 Details of lease liabilities as at December 31, 2019 and 2018, are as follows:

In millions of Korean won		
	December 31, 2019	December 31, 2018
Current liabilities	18,446	-
Non-current liabilities	15,590	24,145
Total	34,036	24,145

17.3 In connection with lease, cash outflows and total interest expenses are ₩47,676 million and ₩2,210 million, respectively, for the year ended December 31, 2019.

17.4 The expenses relating to short-term leases and leases of low-value assets are ₩187 million and ₩263 million, respectively, for the year ended December 31, 2019. These expenses are included in cost of sales and administrative expenses.

17.5 Residual maturity of lease liabilities in contracts is as follows:

In millions of Korean won			
	Less than 1 year	1 year – 5 years	Total
Lease liabilities	18,446	15,590	34,036

18. Pledged Assets

18.1 As at December 31, 2019, the Company's assets except deposits (Note 8) that are pledged as collaterals for performance guarantee and others are summarized as follows:

In millions of Korean won, thousands of USD					
Assets	Book amount	Pledged amount	Guaranteed	Borrowings amount	Lender
PPE and Investment properties	3,432,037	3,735,200	Borrowings in local currency	625,559	KDB and KEXIM
		USD 880,000	Borrowings in Foreign currency	USD 1,036,685	
Financial assets at fair value through profit or loss	23,783	25,858	Performance guarantee	-	KDIA and Machinery Financial Cooperative
Total	3,455,820	3,761,058		625,559	
		USD 880,000		USD 1,036,685	

18.2 Significant guarantees provided to other than the Company's related parties as at December 31, 2019, are as follows:

In, thousands of USD		
Provided for	Guarantee Amount	Lender
Korea Line Corp.	USD 18,875	KDB and others

18.3 The Company is provided performance guarantees such as RG (Refund Guarantee) relating to the export of ships. Details of guarantees provided to the Company are as follows:

				In thousands of USD and EUR
Provided by	Guarantee Limit		Actual warranty balance	
	Currency	Amount	Currency	Amount
KDB	USD	4,700,000	USD	1,461,601
KEXIM	USD	2,931,531	USD	2,021,442
			EUR	9,348
			GBP	10,000
			KRW	12,616
Other financial institutions	USD	95,000	USD	92,247

In addition to the above, the Company is provided with performance guarantee of ₩2,199,592 million from KDIA and others. The entire amount of ₩18,400 million loaned to affiliates is also guaranteed. Meanwhile, the Company provides a mortgage of transfer on i) export object under construction, ii) raw materials for construction and iii) export payment, relating to performance guarantee provided, borrowing on shipbuilding financing and the new funding support limit provided by the Korea Development Bank and the Korea Export-Import Bank (Note 45).

19. Investment Properties

19.1 Investment properties as at December 31, 2019 and 2018, are as follows:

(December 31, 2019)

			In millions of Korean won
	Land	Buildings	Total
Acquisition cost	4,661	8,473	13,134
Accumulated depreciation	-	(4,105)	(4,105)
Accumulated impairment loss	-	(1,353)	(1,353)
Book amount	4,661	3,015	7,676

(December 31, 2018)

			In millions of Korean won
	Land	Buildings	Total
Acquisition cost	4,661	8,473	13,134
Accumulated depreciation	-	(3,986)	(3,986)
Accumulated impairment loss	-	(1,353)	(1,353)
Book amount	4,661	3,134	7,795

19.2 Changes in the book amounts of investment properties for the years ended December 31, 2019 and 2018, are as follows:

(Year ended December 31, 2019)

			In millions of Korean won
	Land	Buildings	Total
Beginning balance	4,661	3,134	7,795
Depreciation	-	(119)	(119)
Ending balance	4,661	3,015	7,676

(Year ended December 31, 2018)

			In millions of Korean won
	Land	Buildings	Total
Beginning balance	4,661	3,253	7,914
Depreciation	-	(119)	(119)
Ending balance	4,661	3,134	7,795

19.3 Income generated from the investment properties for the years ended December 31, 2019 and 2018, are as follows:

		In millions of Korean won
	2019	2018
Rental revenue	163	163

19.4 Fair values of the investment properties as at December 31, 2019 and 2018, are as follows:

				In millions of Korean won
	December 31, 2019		December 31, 2018	
	Book value	Fair value	Book value	Fair value
Land	4,661	6,792	4,661	6,992
Buildings	3,015	3,300	3,134	3,689
Total	7,676	10,092	7,795	10,681

20. Intangible Assets

20.1 Intangible assets as at December 31, 2019 and 2018, are as follows:

		In millions of Korean won
	December 31, 2019	December 31, 2018
Acquisition cost	47,384	40,382
Accumulated depreciation and impairment	(45,121)	(23,373)
Book amount	2,263	17,009

20.2 Changes in book amounts of intangible assets for the years ended December 31, 2019 and 2018, are as follows:

(Year ended December 31, 2019)

					In millions of Korean won
	Beginning balance	Acquisition (disposal)	Amortization	Impairment loss (*)	Ending balance
Intellectual property rights	2,956	1,678	(459)	(2,582)	1,593
Development costs	13,417	23	(147)	(13,293)	-
Others	636	(2)	-	36	670
Total	17,009	1,699	(606)	(15,839)	2,263

(*) As described in Note 44, 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 ₩141,881 million of impairment loss on property, plant and equipment, and ₩14,051 million of impairment loss on intangible assets. 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.

(Year ended December 31, 2018)

In millions of Korean won					
	Beginning balance	Acquisition (disposal)	Amortization	Impairment loss	Ending balance
Intellectual property rights	1,178	2,179	(401)	-	2,956
Development costs	11,389	2,214	(186)	-	13,417
Others	771	(20)	-	(115)	636
Total	13,338	4,373	(587)	(115)	17,009

21. Trade and Other Payables

Trade and other payables as at December 31, 2019 and 2018, are as follows:

In millions of Korean won				
	December 31, 2019		December 31, 2018	
	Current	Non-current	Current	Non-current
Trade payables (*)	561,119	-	663,265	-
Accounts payable	184,642	43,446	223,979	66,224
Accrued expenses	142,158	-	171,388	-
Deposits received	24,080	-	17,248	-
Total	911,999	43,446	1,075,880	66,224

(*) Trade payables are unsecured and are usually paid within 45~90 days of recognition. The carrying amounts of trade and other payables, and accrued expenses are considered to be the same as their fair values, due to their short-term nature.

22. Debentures

Details of the book amount of debentures as at December 31, 2019 and 2018, are as follows:

				In millions of Korean won
	Maturity date	Annual interest rate (%)	December 31, 2019	December 31, 2018
4-2nd non-guarantee bonds	April 21, 2023	1.00	149,102	149,102
5-2nd non-guarantee bonds	April 21, 2023	1.00	98,635	98,635
6-1st non-guarantee bonds	April 21, 2023	1.00	213,113	213,113
6-2nd non-guarantee bonds	April 21, 2023	1.00	29,316	29,316
7th non-guarantee bonds	April 21, 2023	1.00	148,768	148,768
Commercial papers	April 21, 2023	1.00	101,894	101,894
Total			740,828	740,828
Less: Discount on debentures			(105,754)	(165,267)
Less: Discount on current portion of debentures			(6,990)	-
Less: Current portion of debentures			(116,270)	-
Book value			511,814	575,561

As described in Note 45, in April 2017, the Company and the bond holders agreed on debt restructuring of issued corporate bonds and CPs which was concluded through bond holder's meeting and amendment of CP contracts, respectively. The debt restructuring of corporate bonds includes debt-to-equity swap of 50% or more of issued bonds, extension of maturity of remaining bonds, and decrease in interest rate of remaining bonds. Regarding the CPs, debt restructuring includes debt-to-equity swap of 50% of CP's held by individuals, extension of maturity of remaining CPs, and split issuance. In accordance with this debt restructuring plan debt-to-equity swap of corporate bonds and CP is planned to be executed on August 12, 2017, December 22, 2017 and March 15, 2018.

23. Borrowings

23.1 Details of the book amount of short-term borrowings as at December 31, 2019 and 2018, are as follows:

					In millions of Korean won
	Creditor	Description	Annual interest rate (%)	December 31, 2019	December 31, 2018
Short-term borrowings in Korean won	Kookmin Bank	Overdraft	-	7,725	4,843
	KDB	General loan	3.00	432,659	532,659
	KEXIM	Export financing loan/restructure operation loan	3.00	192,900	292,900
Sub-total				633,284	830,402
Short-term borrowings in foreign currencies	KDB and others	USANCE	6ML+0.3 and others	293,764	450,993
	KEXIM	Export financing loan	3ML+2.65	137,974	133,243
Sub-total				431,738	584,236
Total				1,065,022	1,414,638

23.2 Details of the book amount of long-term borrowings as at December 31, 2019 and 2018, are as follows:

					In millions of Korean won
	Creditor	Description	Annual interest rate (%)	December 31, 2019	December 31, 2018
Long-term borrowings in Korean won	Korea Housing Guarantee	General loan	-	105	109
	Kookmin Bank	General loan	1.00	20,000	20,000
	KEB	General loan	1.00	91,912	91,912
	Woori Bank	General loan	1.00	19,972	19,972
	Shinhan Bank	General loan	1.00	16,000	16,000
Sub-total				147,989	147,993
Long-term borrowings in foreign currencies	KDB	Operating loan	3ML+2.55 and others	845,194	816,213
	Korea Energy Agency	Energy special loan	-	13,216	12,627
	KEXIM	Overseas investment loan	6ML+3.05 and others	18,235	17,610
		Export financing loan	3ML+2.65 and others	185,819	179,447
		Operating loan	1.00	13,051	12,604
	Woori Bank	Operating loan	1.00	5,593	5,402
Sub-total				1,081,108	1,043,903
Total				1,229,097	1,191,896
Less: Current portion				(204,058)	(197,061)
Less: Discount on loans				(51,565)	(58,933)
Book value				973,474	935,902

The Company’s property, plant and equipment are pledged as collaterals in relation to above borrowings (Note 18).

24. Other Current Liabilities

Other current liabilities as at December 31, 2019 and 2018, are as follows:

		In millions of Korean won
	December 31, 2019	December 31, 2018
Advance received	-	2,738
Unearned income	2	-
Withholdings	176,506	122,355
Total	176,508	125,093

25. Net Defined Benefit Liabilities and Other Long-Term Employee Benefit Liabilities

25.1 As at December 31, 2019 and 2018, amounts recognized in the separate statement of financial position are as follows:

		In millions of Korean won
	December 31, 2019	December 31, 2018
Present value of defined benefit obligation	451,818	418,410
Fair value of plan assets	(399,250)	(277,618)
Net defined benefit liabilities	52,568	140,792
Other long-term employee benefit liabilities	26,486	21,692

25.2 Changes in net defined benefit liability and other long-term employee benefit liabilities for the years ended December 31, 2019 and 2018, are as follows:

(Year ended December 31, 2019)

				In millions of Korean won
	Present value of defined benefit obligation	Fair value of plan assets	Other long-term employee benefit obligation	Total
Beginning balance	418,410	(277,618)	21,692	162,484
Current service cost	51,133	-	7,688	58,821
Interest expense (income)	9,809	(6,507)	512	3,814
Sub-total	479,352	(284,125)	29,892	225,119
Remeasurements:				
Return on plan assets	-	1,126	-	1,126
Actuarial gains (losses) arising from change in demographic assumptions	3	-	21	24
Actuarial gains (losses) arising from change in financial assumptions	24,993	-	(113)	24,880
Actuarial gains (losses) arising from experience adjustments	19,008	-	445	19,453
Sub-total	44,004	1,126	353	45,483
Contributions	-	(152,300)	-	(152,300)
Benefit payments	(71,538)	36,049	(3,759)	(39,248)
Ending balance	451,818	(399,250)	26,486	79,054

(Year ended December 31, 2018)

				In millions of Korean won
	Present value of defined benefit obligation	Fair value of plan assets	Other long-term employee benefit obligation	Total
Beginning balance	388,870	(252,381)	21,903	158,392
Current service cost	47,566	-	1,220	48,786
Interest expense (income)	11,046	(7,168)	621	4,499
Sub-total	447,482	(259,549)	23,744	211,677
Contributions				
Return on plan assets	-	3,854	-	3,854
Actuarial gains (losses) arising from change in demographic assumptions	438	-	(773)	(335)
Actuarial gains (losses) arising from change in financial assumptions	22,240	-	522	22,762
Actuarial gains (losses) arising from experience adjustments	14,291	-	(201)	14,090
Sub-total	36,969	3,854	(452)	40,371
Contributions	-	(54,200)	-	(54,200)
Benefit payments	(66,041)	32,277	(1,600)	(35,364)
Ending balance	418,410	(277,618)	21,692	162,484

24.3 The significant actuarial assumptions as at December 31, 2019 and 2018, are as follows:

	December 31, 2019	December 31, 2018
Discount rate	2.06%	2.39%
Future salary growth rate	2.13%	2.00%

24.4 Plan assets as at December 31, 2019 and 2018, consist of:

		In millions of Korean won
	December 31, 2019	December 31, 2018
Deposit and installment savings	54,915	157,841
Others (*)	344,335	119,777
Total	399,250	277,618

(*) Includes the contributions to the National Pension Fund.

24.5 While holding all other assumptions constant as at December 31, 2019, 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
	2019		2018	
	Increase	Decrease	Increase	Decrease
Changes in 100 basis point (bp) of discount rate	(39,406)	46,520	(35,498)	41,847
Changes in 1 % of expected salary growth rate	46,216	(39,902)	42,173	(36,379)

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.

24.6 The weighted average duration of the defined benefit obligations is 10.12 years. The expected maturity analysis of undiscounted pension benefits as at December 31, 2019, 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	41,109	38,994	105,840	200,186	1,026,424	1,412,553

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, 2019 are ₩109,179 million.

26. Provisions

26.1 Changes in provisions for construction warranties and other provisions for the years ended December 31, 2019 and 2018, are as follows:

(Year ended December 31, 2019)

In millions of Korean won

	Current		Non-current		Total
	Provision for construction losses	Other provisions	Provision for construction warranties	Other provisions	
Beginning balance	535,561	23,179	306,814	553,374	1,418,928
Additional (Reversal) provisions	(258,728)	36,566	41,011	209,945	28,794
Used during period	-	15,209	(73,971)	(72,822)	(131,584)
Ending balance	276,833	74,954	273,854	690,497	1,316,138

(Year ended December 31, 2018)

In millions of Korean won

	Current		Non-current		Total
	Provision for construction losses	Other provisions	Provision for construction warranties	Other provisions	
Beginning balance	-	-	153,918	523,515	677,433
Effect of changes in accounting policies	457,691	-	-	-	457,691
Adjusted amount	457,691	-	153,918	523,515	1,135,124
Additional (Reversal) provisions	77,870	23,179	170,560	(40,179)	231,430
Used during period	-	-	(17,664)	70,038	52,374
Ending balance	535,561	23,179	306,814	553,374	1,418,928

27. Income Taxes Expense

27.1 Income tax expense for the years ended December 31, 2019 and 2018, consists of:

		In millions of Korean won
	2019	2018
Income tax payable (receivable)	(901)	(4,140)
Changes in deferred income tax from temporary differences	(1,750)	40,158
Total amount of income tax effect	(2,651)	36,018
Income tax directly reflected to shareholders' equity	831	-
Income tax expense (benefit)	(1,820)	36,018

27.2 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
	2019	2018
Profit (loss) before tax	(59,542)	982,127
Tax calculated at applicable tax rate	(16,374)	270,085
Adjustments :		
Tax effect of permanent differences	(8,201)	(11,932)
Unrecognized deferred tax assets (*1)	35,889	(222,135)
Others	(13,134)	-
Income tax expense (benefit)	(1,820)	36,018
Effective tax rate (*2)	-	3.67%

(*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, the Company did not recognize deferred tax assets for certain deductible temporary differences and accumulated deficit due to uncertainty of future taxable profit from drop in international oil prices and the decrease in contracts.
(*2) Effective tax rate for 2019 is not calculated due to income tax benefit.

27.3 Changes in deferred tax assets and liabilities for the year ended December 31, 2019 and 2018, are as follows:

(Year ended December 31, 2019)

In millions of Korean won

	Temporary differences			
	Beginning balance	Increase(decrease)		Ending balance
		Adjustments (*1)	During the year	
Temporary differences				
Loss on revaluation of land	2,346	-	(2)	2,344
Provision for construction warranties	306,814	-	(32,960)	273,854
Provision for construction loss	535,561	-	(258,728)	276,833
Gain (loss) on foreign currency translation	2,258	-	-	2,258
Gain (loss) on valuation of currency forward	14,678	-	26,919	41,597
Changes in the fair value of available-for-sale financial assets (Other components of equity)	8,052	-	(1,764)	6,289
Gain on revaluation of land	(932,293)	-	2,551	(929,742)
Provision for advance depreciation	(219,395)	-	521	(218,874)
Provision for contingent liabilities	553,110	-	(38,996)	514,115
Others	1,775,867	789,131	124,529	2,689,527
Sub-total	2,046,998	789,131	(177,929)	2,658,200
Tax losses	3,544,658	(741,898)	267,293	3,070,053
Tax refund due to accounting different from facts (*2)	1,325,564	-	271	1,325,835
Total	6,917,220	47,233	89,635	7,054,088
Recognized deferred tax asset (liabilities)	(273,986)	-	6,364	(267,622)
Unrecognized deferred tax asset(liabilities)	7,191,206	47,233	83,271	7,321,710

	Deferred tax assets(liabilities)			
	Beginning balance	Increase(decrease)		Ending balance
		Beginning balance adjustments(*1)	During the year	
Temporary differences				
Loss on revaluation of land	645	-	(1)	644
Provision for construction warranties	84,374	-	(9,064)	75,310
Provision for construction loss	147,279	-	(71,150)	76,129
Gain (loss) on foreign currency translation	621	-	-	621
Gain (loss) on valuation of currency forward	4,036	-	7,403	11,439
Changes in the fair value of available-for-sale financial assets (Other components of equity)	2,214	-	(485)	1,729
Gain on revaluation of land	(256,381)	-	701	(255,680)
Provision for advance depreciation	(60,334)	-	143	(60,191)
Provision for contingent liabilities	152,105	-	(10,724)	141,381
Others	488,364	217,011	34,246	739,621
Sub-total	562,923	217,011	(48,931)	731,003
Tax losses	974,781	(204,022)	73,506	844,265
Tax refund due to accounting different from facts (*2)	364,530	-	75	364,605
Total	1,902,234	12,989	24,650	1,939,873
Recognized deferred tax asset (liabilities)	(75,346)	-	1,750	(73,596)
Unrecognized deferred tax asset(liabilities)	1,977,580	12,989	22,900	2,013,469

(*1) Temporary differences as of January 1, 2019 reflected previous year's additional tax adjustment after the financial statements were issued.

(*2) In accordance with Article 58-3 of the Corporate Tax Law and Article 95-3 of the Enforcement Decree of the Corporate Tax Law, taxes that are overpaid due to other accounting treatments are deducted from the corporate tax amount of each fiscal year from the fiscal year falls. In this case, the amount deducted in each fiscal year is limited to 20% of the overpaid tax amount, and the remaining tax amount after the deduction is carried forward to the subsequent year, and there is no maturity.

(Year ended December 31, 2018)

	Temporary differences		
	Beginning balance	Increase (decrease)	Ending balance
Temporary differences			
Loss on revaluation of land	104	2,242	2,346
Provision for construction warranties	153,918	152,896	306,814
Provision for construction loss	606,415	(70,854)	535,561
Gain (loss) on foreign currency translation	3,742	(1,484)	2,258
Gain (loss) on valuation of currency forward	92,654	(77,976)	14,678
Changes in the fair value of available-for-sale financial assets (Other components of equity)	(17,086)	25,138	8,052
Gain on revaluation of land	(934,043)	1,750	(932,293)
Provision for advance depreciation	(219,731)	336	(219,395)
Provision for contingent liabilities	523,515	29,595	553,110
Others	4,784,664	(3,008,797)	1,775,867
Sub-total	4,994,152	(2,947,154)	2,046,998
Tax losses	1,552,108	1,992,550	3,544,658
Tax refund due to accounting different from facts	1,321,200	4,364	1,325,564
Total	7,867,460	(950,240)	6,917,220
Recognized deferred tax asset (liabilities)	(177,859)	(96,127)	(273,986)
Unrecognized deferred tax asset(liabilities)	8,045,319	(854,113)	7,191,206

	Deferred tax assets(liabilities)		
	Beginning balance	Increase (decrease)	Ending balance
Temporary differences			
Loss on revaluation of land	29	616	645
Provision for construction warranties	42,327	42,047	84,374
Provision for construction loss	166,764	(19,485)	147,279
Gain (loss) on foreign currency translation	1,029	(408)	621
Gain (loss) on valuation of currency forward	25,480	(21,444)	4,036
Changes in the fair value of available-for-sale financial assets (Other components of equity)	(4,699)	6,913	2,214
Gain on revaluation of land	(256,862)	481	(256,381)
Provision for advance depreciation	(60,426)	92	(60,334)
Provision for contingent liabilities	143,967	8,138	152,105
Others	1,315,782	(827,418)	488,364
Sub-total	1,373,391	(810,468)	562,923
Tax losses	426,830	547,951	974,781
Tax refund due to accounting different from facts	363,330	1,200	364,530
Total	2,163,551	(261,317)	1,902,234
Recognized deferred tax asset (liabilities)	(48,911)	(26,435)	(75,346)
Unrecognized deferred tax asset(liabilities)	2,212,462	(234,882)	1,977,580

27.4 The analysis of deferred tax assets and liabilities as at December 31, 2019 and 2018, is as follows:

		In millions of Korean won
	December 31, 2019	December 31, 2018
Deferred tax assets		
Deferred tax asset to be recovered within 12 months	-	-
Deferred tax asset to be recovered after more than 12 months	364,605	364,530
Sub-total	364,605	364,530
Deferred tax liabilities		
Deferred tax liability to be recovered within 12 months	-	-
Deferred tax liability to be recovered after more than 12 months	(438,201)	(439,876)
Sub-total	(438,201)	(439,876)
Deferred tax assets (liabilities), net	(73,596)	(75,346)

27.5 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, the Company did not recognize deferred tax assets for certain deductible temporary differences and accumulated deficit due to uncertainty of future taxable profit from drop in international oil prices and the decrease in contracts. Details of unrecognized deferred tax assets as at December 31, 2019 and 2018, are as follows:

		In millions of Korean won
	December 31, 2019	December 31, 2018
Unused losses (*)	3,070,053	3,544,658
Deductible taxable difference	4,251,657	3,646,549

(*) The maturity of unused losses is as follows:

		In millions of Korean won
	December 31, 2019	December 31, 2018
Between 5-10 years	3,070,053	3,544,658

27.6 The aggregate current and deferred tax relating to items that are charged or credited directly to equity for the years ended December 31, 2019 and 2018, is as follows:

(December 31, 2019)

In millions of Korean won			
	Before tax	Tax effect	After tax
Revaluation surplus of property, plant and equipment	444,840	(122,331)	322,509
Total	444,840	(122,331)	322,509

(December 31, 2018)

In millions of Korean won			
	Before tax	Tax effect	After tax
Revaluation surplus of property, plant and equipment	447,862	(123,162)	324,700
Total	447,862	(123,162)	324,700

28. Derivative Instruments

Details of derivative instruments held for hedging and trading purposes as at December 31, 2019 and 2018, are as follows:

(December 31, 2019)

In millions of Korean won

	Sales	Other non-operating income (expense)	Firm commitment assets (*1)	Firm commitment liabilities (*1)	Contract liabilities	Currency forward assets	Currency forward liabilities
For fair value hedging (*1)	(135,746)	(58,566)	80,050	5,906	450	6,910	122,487
For trading(*2)	-	(55,634)	-	-	-	287	-
Total	(135,746)	(114,200)	80,050	5,906	450	7,197	122,487

(*1) The Company has entered into currency forward contracts (Korean won against USD) in order to hedge exchange rate fluctuation risk regarding foreign currency contract about ship and others. In addition, the Company applied fair value hedge accounting to the respective firm commitment.
(*2) The Company recognized currency forward assets and liabilities held for trading purpose as financial assets (liabilities) at fair value through profit or loss.

(December 31, 2018)

In millions of Korean won

	Sales	Other non-operating income (expense)	Firm commitment assets (*1)	Firm commitment liabilities (*1)	Contract liabilities	Currency forward assets	Currency forward liabilities
For fair value hedging (*1)	(37,241)	(10,773)	22,749	12,055	248	20,360	45,778
For trading(*2)	-	(18,001)	-	-	-	382	89
Total	(37,241)	(28,774)	22,749	12,055	248	20,742	45,867

(*1) The Company has entered into currency forward contracts (Korean won against USD) in order to hedge exchange rate fluctuation risk regarding foreign currency contract about ship and others. In addition, the Company applied fair value hedge accounting to the respective firm commitment.
(*2) The Company recognized currency forward assets and liabilities held for trading purpose as financial assets (liabilities) at fair value through profit or loss.

29. 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, 2019 and 2018.

The Company's total number of authorized shares, issued shares and par value per share are 800,000,000 shares, 107,205,752 shares and ₩5,000, respectively, as at December 31, 2019 and 2018.

			In millions of Korean won
Date	Details	Number of shares (unit: shares)	Share capital
January 1, 2018	Beginning balance	106,656,288	538,281
March 14, 2018	Debt to equity swap	549,464	2,747
December 31, 2018	Ending balance	107,205,752	541,028
January 1, 2019	Beginning balance	107,205,752	541,028
December 31, 2019	Ending balance	107,205,752	541,028

30. Retained Earnings

30.1 Retained earnings as at December 31, 2019 and 2018, are as follows:

		In millions of Korean won
	December 31, 2019	December 31, 2018
Legal reserves (*)	81,080	81,080
Reserve for research and human resource development	-	20,000
Reserve for facility expansion	3,450,000	3,450,000
Reserve for dividend equalization	70,000	70,000
Accumulated deficits before disposition	(3,159,396)	(3,079,566)
Total	441,684	541,514

(*) 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.

30.2 The disposition of accumulated deficit for the year ended December 31, 2019 is expected to be disposed at the shareholders' meeting on March 25, 2020. The disposition date for the year ended December 31, 2018, was March 29, 2019.

The disposition of accumulated deficit for the periods ended December 31, 2019 and 2018, is as follows:

(in Korean won)	2019	2018
Undisposed accumulated deficit		
Undisposed accumulated deficit carried over from prior year	(3,059,565,617,802)	(4,057,257,180,614)
Changes in accounting policy	-	63,923,132,546
Remeasurements of net defined benefit liabilities	(45,129,603,467)	(31,191,559,884)
Reclassification of revaluation surplus	3,021,802,000	704,732,000
Loss on valuation of financial assets at fair value through other comprehensive income	-	(1,853,912,430)
Interest of hybrid capital instrument	-	-
Profit (loss) for the year	(57,722,248,994)	946,109,170,580
	(3,159,395,668,263)	(3,079,565,617,802)
Transfers such as discretionary reserves		
Research and development reserves	-	20,000,000,000
	-	20,000,000,000
Transfer reserves		
Share premium	-	-
	-	-
Accumulated deficit available for disposition	-	20,000,000,000
Disposition of accumulated deficit:		
Undisposed accumulated deficit to be carried forward	(3,159,395,668,263)	(3,059,565,617,802)

31. Other Capital

31.1 Other contributed capital and components of other capital as at December 31, 2019 and 2018, are as follows:

In millions of Korean won

		December 31, 2019	December 31, 2018
Other contributed capital	Share premium	10,437	10,437
	Others(*)	(10,694)	(10,694)
	Sub-total	(257)	(257)
Components of other capital	Revaluation surplus of property, plant and equipment	322,509	324,700
	Loss on valuation of financial assets at fair value through other comprehensive income	(6,689)	(8,052)
	Sub-total	316,220	316,648

(*) Others include ₩1,060 million of other contributed capital, which qualifies as equity even though actual debt-to-equity swap is not completed as the number and price of issuing shares are fixed as at December 31, 2019.

31.2 Hybrid capital instrument as at December 31, 2019 and 2018, are as follows:

In millions of Korean won

	December 31, 2019	December 31, 2018
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	1,284,775
10th Private unregistered non-guarantee convertible bond (*3)	48,057	48,057
Total	2,332,832	2,332,832

(*1) As at December 29, 2016, the Company issued convertible notes to KEXIM to secure its capital, by offsetting ₩1,000,000 million of the outstanding balance of export financing loan (expiry date: January 2, 2018) 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. Conditions for issue of the convertible bonds have changed as of June 28, 2017 and details of changed conditions are as follows:

	Details
Bonds	8th Private unregistered non-guarantee convertible bond
Value at issue	KRW 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 payment	Amount: 3% until June 28, 2017, 1% 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 December 31, 2021
Conversion condition	KRW 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 won of the outstanding balance of export financing loan (expiry date : December 31, 2017) 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	KRW 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 payment	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 December 31, 2021
Conversion condition	KRW 40,350 per share
Trigger clause	The liquidation of the issuing company

(*3) As at March 14, 2018, the Company issued convertible bonds to KEXIM to secure its capital, by offsetting ₩48,057 million won of the outstanding balance of export financing loan (expiry date: March 27, 2018) made from January 31, 2018.

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	10th Private unregistered non-guarantee convertible bond
Value at issue	KRW 48,057 million
Maturity	March 14, 2048 (30 years), The maturity date can be extended under the same conditions as the discretion of the issuer.
Interest payment	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 December 31, 2021
Conversion condition	KRW 40,350 per share
Trigger clause	The liquidation of the issuing company

32. Earnings Per Share

32.1 Basic earnings per share for the years ended December 31, 2019 and 2018, are as follows:

		In Korean won
	2019	2018
Profit (loss) for the period	(57,722,248,994)	946,109,170,580
Paid interest of hybrid capital instrument (*)	(23,767,597,850)	(23,595,078,890)
Profit (loss)on ordinary shares	(81,489,846,844)	922,514,091,690
Weighted average number of ordinary shares outstanding	107,189,545 shares	107,189,545 shares
Basic earnings (loss) per share	(760)	8,614

(*) Interest payable related to hybrid capital instrument ₩23,768 million (accumulated: ₩58,801 million) is included as at December 31, 2019.

32.2 Weighted-average number of ordinary shares outstanding used in the calculation of earnings per share, for the years ended December 31, 2019 and 2018, respectively, are as follows:

(Year ended December 31, 2019)

						In shares
	Issued shares	Treasury shares	Outstanding shares	Number of days	Accumulated number of shares	Weighted average number of ordinary shares outstanding
January 1, 2019	107,205,752	(16,207)	107,189,545	365	39,124,183,925	107,189,545
Total				365	39,124,183,925	107,189,545

(Year ended December 31, 2018)

						In shares
	Issued shares	Treasury shares	Outstanding shares	Number of days	Accumulated number of shares	Weighted average number of ordinary shares outstanding
January 1, 2018	106,656,288	(16,207)	106,640,081	72	7,678,085,832	21,035,852
March 14, 2018	107,205,752	(16,207)	107,189,545	293	31,406,536,685	86,045,306
Total				365	39,084,622,517	107,081,158

32.3 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
	2019	2018
Profit (loss) on ordinary shares	(81,489,846,844)	922,514,091,690
Interest of convertible bonds (hybrid capital instrument)	23,767,597,850	23,595,078,890
Profit (loss) used to determine diluted EPS	(57,722,248,994)	946,109,170,580
Weighted average number of ordinary shares outstanding	107,189,545 shares	107,081,158 shares
Adjustment:		
Assumption of conversion of permanent bonds	57,814,925 shares	57,579,988 shares
Weighted average number of ordinary shares outstanding	165,004,470 shares	164,661,146 shares
Diluted earnings (loss) per share	(760)	5,746

(*) Diluted and basic earnings per share for the year ended December 31, 2019 are equal because there is no dilution effect in dilutive securities.

33. Selling and Administrative Expenses

33.1 Details of selling expenses for the years ended December 31, 2019 and 2018, are as follows:

		In millions of Korean won
	2019	2018
Advertising	2,490	1,574
Freight and custody charges	1	12
Commission	49,224	59,870
Sales promotional expenses	645	1,543
Total	52,360	62,999

33.2 Details of administrative expenses for the years ended December 31, 2019 and 2018, are as follows:

		In millions of Korean won
	2019	2018
Salaries	54,165	49,987
Post-employment benefits	5,129	3,933
Employee benefits	13,027	14,191
Rental expenses	2,423	5,018
Depreciation	1,645	1,186
Right-in-use assets depreciation	4,678	-
Repairs and maintenance	11,689	6,691
Travel expense	2,923	2,979
Training expense	3,378	1,139
Administrative service costs	12,866	12,125
Tax and due	1,908	(45,025)
Others	(18,825)	6,146
Total	95,006	58,370

34. Interest Income, Finance Income and Costs

The Company classifies interest incomes and expenses as finance income and costs, and details of net finance income (costs) for the years ended December 31, 2019 and 2018, are as follows:

		In millions of Korean won
	2019	2018
Interest income		
Deposits	28,739	7,048
Trade and other receivables	61,152	51,742
Held-to-maturity financial assets	666	(1)
Interest income total	90,557	58,789
Dividend income		
Financial assets at fair value through other comprehensive income	134	5,540
Investments in subsidiaries and associates	3,808	304
Dividend income total	3,942	5,844
Reversal of financial guarantee liabilities		
Subsidiaries and others	446	31,257
Gain on debt restructuring		
Gain on debt restructuring	-	10
Financial income total	4,388	37,111
Interest expenses		
Bank overdrafts and interests on Loans	164,326	176,144
Total interest expenses	164,326	176,144
Financial income(expenses), net	(69,381)	(80,244)

35. Foreign Exchange Gains and Losses

Details of foreign exchange gains and losses for the years ended December 31, 2019 and 2018, are as follows:

		In millions of Korean won
	2019	2018
Gain on foreign currency transactions	284,052	314,868
Gain on foreign exchange translations	34,580	58,864
Total foreign exchange gains	318,632	373,732
Loss on foreign currency transactions	149,597	295,931
Loss on foreign exchange translations	70,643	64,824
Total foreign exchange losses	220,240	360,755
Net foreign exchange gains	98,392	12,977

36. Other Non-Operating Income and Expenses

36.1 Details of other non-operating income for the years ended December 31, 2019 and 2018, are as follows:

		In millions of Korean won
	2019	2018
Gain on valuation of firm commitment	206,729	137,351
Gain on valuation of currency forward	7,197	6,214
Gain on currency forward transactions	5,079	5,746
Gain on disposal of property, plant and equipment	3,092	1,604
Others	36,198	60,330
Total	258,295	211,245

36.2 Details of other non-operating expenses for the years ended December 31, 2019 and 2018, are as follows:

		In millions of Korean won
	2019	2018
Loss on valuation of firm commitment	7,736	4,429
Loss on valuation of currency forward	122,871	94,538
Loss on currency forward transactions	202,597	79,119
Loss on disposal of property, plant and equipment	2,314	59
Impairment loss on property, plant and equipment	141,882	-
Impairment loss on intangible assets	15,880	114
Contingency loss	133,261	13,466
Others	274	12,248
Total	626,815	203,973

37. Expenses by Nature

Expenses classified by nature for the years ended December 31, 2019 and 2018, are as follows:

(Year ended December 31, 2019)

			In millions of Korean won
	Selling and administrative expenses, research and development expenses and impairment loss	Cost of sales	Total
Changes in inventories	-	183,392	183,392
Purchase of raw materials	-	3,559,633	3,559,633
Employee benefits	87,669	843,549	931,218
Depreciation	3,969	90,990	94,959
Right-in-use assets depreciation	4,677	43,837	48,514
Amortization	11	595	606
Commission	49,250	69,192	118,442
Travel	3,402	4,321	7,723
Administrative service fees	13,536	63,627	77,163
Rent	2,617	27,751	30,368
Amount paid to subcontractor	-	1,958,838	1,958,838
Others	12,344	1,026,324	1,038,668
Total	177,475	7,872,049	8,049,524

(Year ended December 31, 2018)

In millions of Korean won

	Selling and administrative expenses, research and development expenses and impairment loss	Cost of sales	Total
Changes in inventories	-	(609,690)	(609,690)
Purchase of raw materials	-	4,333,672	4,333,672
Employee benefits	81,994	825,154	907,148
Depreciation	2,083	104,385	106,468
Amortization	10	577	587
Commission	59,901	98,819	158,720
Travel	3,213	3,300	6,513
Administrative service fees	13,620	67,532	81,152
Rent	5,185	20,271	25,456
Amount paid to subcontractor	-	1,778,565	1,778,565
Others	(448,622)	2,215,387	1,766,765
Total	(282,616)	8,837,972	8,555,356

38. Related Parties

38.1 Related parties of the Company as at December 31, 2019, are as follows:

	Company
Controlling company	KDB
Subsidiaries (*1)	DSME Shandong Co., Ltd., DK Maritime S.A., DSME Information and Consulting, DSME Kazakhstan LLP
Associates (*2)	Wing Ship Technology Corp., TPI Megaline Co., Ltd., Daehan Shipbuilding Co., Ltd., Shinhan Heavy Industries Co., Ltd., Samwoo Heavy Industry Co., Ltd., KC LNG Tech Co., Ltd.
Joint ventures	SBM Shipyard Ltd.
Other related parties	D&H Solutions AS, PT. DSME Indonesia, DSME Offshore Engineering Center, PAENAL YARD, KC Kazakh B.V., SEYOUNG Academy for middle school students and others, Related parties of KDB and government related parties (KEXIM and others) (*3) and others

(*1) DSME Far East LLC has been excluded from the related parties as liquidation was completed during the current year.
(*2) Welliv Private Investment Joint Company Partnerships has been excluded from the associates as investment actives were completed during the current year.
(*3) In accordance with the exemption on disclosure of related party transactions regarding government related special entity as prescribed under Korean IFRS 1024, the Company has not disclosed all transactions, commitments and outstanding balances concerning the government related special entity.

38.2 Significant transactions with the related parties for the years ended December 31, 2019 and 2018, are as follows:

				In millions of Korean won
	Company	Transaction	2019	2018
Controlling company	KDB	Interest and other income	36,563	20,992
		Interest and other expenses	385,645	211,330
Subsidiaries	DSME Shandong Co., Ltd.	Sales	3,171	2,296
		Purchases	149,207	91,995
	Other subsidiaries	Sales	148	1,248
		Purchases	41,030	26,541
		Interest and other income	17	5,521
		Interest and other expenses	5,788	17,902
Associates and joint ventures	DAEHAN SHIPBUILDING CO., LTD. and others	Sales	4,273	3,298
		Purchases	378,971	415,325
		Interest and other income	1,188	3,170
		Interest and other expenses	20,963	42,490
Other related parties	KEXIM	Interest and other expenses	37,398	47,392
	Related parties of KDB and others(*)	Sales	1,041,525	359,360
		Purchases	91,224	114,475
		Interest and other income	102	156
		Interest and other expenses	302	1,346
Total		Sales	1,049,117	366,202
		Purchases	660,432	648,336
		Interest and other income	37,870	29,839
		Interest and other expenses	450,096	320,460

(*) The Company entered into shipbuilding contracts of nil (2018: ₩1,213,841 million) with Hyundai Merchant Marine Co., Ltd. and its subsidiaries for the year ended December 31, 2019. The Company recognized sales of ₩1,032,139 million (2018: ₩359,258 million) for the year ended December 31, 2019. As at December 31, 2019 and 2018, the remaining contract balance amounted to ₩315,678 million and ₩1,314,864 million, respectively.

38.3 Significant financial transactions with the related parties for the years ended December 31, 2019 and 2018, are as follows:

In millions of Korean won

	Company	Transaction	Year ended December 31, 2019	Year ended December 31, 2018
Controlling company	KDB	Proceeds from borrowings	-	-
		Redemption of borrowings	107,186	302,597
Subsidiaries	Other subsidiaries	Decrease in loans	-	1,547
		Debt-to-equity swap	-	25
Other related parties	KEXIM	Proceeds from borrowings	-	60,393
		Redemption of borrowings	100,000	295,000
		Debt-to-equity swap (permanent bonds conversion)	-	48,314
	Related parties of KDB and others	Debt acquisition	-	86,275
Total		Proceeds from borrowings	-	60,393
		Redemption of borrowings	207,186	597,597
		Decrease in loans	-	1,547
		Debt-to-equity swap	-	25
		Debt-to-equity swap (permanent bonds conversion)	-	48,314
		Debt acquisition	-	86,275

38.4 Significant receivables from and payables to the related parties as at December 31, 2019 and 2018, are as follows:

(December 31, 2019)

						In millions of Korean won
	Receivables(*1)				Debts	
	Financial instruments and others	Trade receivables and others	Other receivables	Loan and others	Borrowings	Other payables and others
Controlling company:						
KDB	2,206,980	-	-	6,815	1,362,914	125,292
Subsidiaries:						
DSME Shandong Co., Ltd.	-	544	-	25,379	-	-
DK Maritime S.A.	-	84,837	-	-	-	-
Others	-	15	31	-	-	3,588
Associates:						
Daehan Shipbuilding Co., Ltd. and others	-	252	2,283	125,563	-	`16,371
Joint ventures:						
SBM Shipyard Ltd. and others	-	-	-	183,133	-	-
Other related parties:						
KC Kazakh B.V. and others	-	3,566	-	32,850	-	-
KEXIM (*2)	-	-	-	1,199	547,979	1,006
Related parties of KDB	3,149	490,259	-	33,318	-	10,331
Total	2,210,129	579,473	2,314	408,257	1,910,893	156,588

(*1) Amount before deduction of provision for impairment loss.
(*2) Hybrid capital instrument classified as equity were not included in the borrowings. (Note 31)

(December 31, 2018)

						In millions of Korean won
	Receivables(*1)				Debts	
	Financial instruments and others	Trade receivables and others	Financial instruments and others	Trade receivables and others	Financial instruments and others	Trade receivables and others
Controlling company:						
KDB	883,102	-	24,274	21,299	1,441,119	42,650
Subsidiaries:						
DSME Shandong Co., Ltd.	-	423	4,472	41,370	-	1,453
DK Maritime S.A.	-	84,837	-	-	-	-
Others	-	11	165	-	-	2,833
Associates:						
Daehan Shipbuilding Co., Ltd. and others	-	588	2,401	97,526	-	31,404
Joint ventures:						
SBM Shipyard Ltd. and others	-	-	-	183,133	-	-
Other related parties:						
PAENAL YARD and others	-	3,722	-	32,850	-	-
KEXIM (*2)	-	-	-	1,487	635,804	1,191
Related parties of KDB	3,242	198,293	-	8,464	-	15,244
Total	886,344	287,874	31,312	386,129	2,076,923	94,775

(*1) Amount before deduction of provision for impairment loss.
(*2) Hybrid capital instrument classified as equity were not included in the borrowings. (Note 31)

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, 2019 and 2018, are as follows:

(Year ended December 31, 2019)

				In millions of Korean won
	Beginning balance	Impairment loss (reversal)	Others	Ending balance
Trade receivables	88,558	(38)	-	88,520
Other receivables	2,238	8	-	2,246
Loans and others	299,978	-	-	299,978
Total	390,774	(30)	-	390,744

(Year ended December 31, 2018)

				In millions of Korean won
	Beginning balance	Impairment loss	Others (*)	Ending balance
Trade receivables	163,503	2,967	(77,912)	88,558
Other receivables	376,914	2,238	(376,914)	2,238
Loans and others	1,004,676	427	(705,125)	299,978
Total	1,545,093	5,632	(1,159,951)	390,774

(*) After debt-to-equity swap on the loan receivable amounting to ₩114,115 million, the Company sold the entire shares of Dewind Co., its subsidiary. Also, the Company wrote off ₩987,377 million and ₩11,793 million of trade receivables and others due to disposal of DW Mangalia Heavy Industries S.A. and PT. DSME ENR CEPU, subsidiaries of the Company.

38.5 Key management compensation for the years ended December 31, 2019 and 2018, is as follows:

		In millions of Korean won
	2019	2018
Salaries	2,942	897
Post-employment benefits	79	100
Total	3,021	997

The Company’s key management includes directors (including outside directors) who are registered executives and members of the Audit Committee. The Company paid severance amounting to ₩553 million to its key management for the year ended December 31, 2019.

38.6 Significant collaterals and guarantees provided for the related parties as at December 31, 2019, are as follows:

			in thousands of USD
	Provided for	Guaranteed amount	Guarantor
Performance guarantee	DSME Kazakhstan LLP (*1)	8,227	Tengizchevroil LLP (TCO), etc.
Performance guarantee	KC Kazakh B.V. (*2)	250	KazMunayGas

(*1) The Company provided performance guarantees related to local construction of Kazakhstan to TCO FGP Module Fabrication.
(*2) The Company provided performance guarantees to KazMunayGas regarding the share of mining area in Kazakhstan disposed of by KC Kazakh B.V.

In connection with the payment guarantee for the related parties, the Company acquired ₩86,275 million of loans where the original borrower failed to repay the principal and this amount was used to offset the above financial liabilities at fair value through profit or loss. In relation to the liabilities acquired from the related parties, the Company executed debt adjustment through debt-to-equity swap, conversion to perpetual bond and etc. during the prior year. (Notes 31 and 45)

38.7 Significant guarantees provided by related parties as at December 31, 2019, are as follows:

<table>
<tr><td colspan="5" align="right">In thousands of USD, EUR and GBP, millions of Korean won</td></tr>
<tr><th>Guarantor</th><th>Detail</th><th>Guaranteed amount</th><th>Type</th><th>Borrowing amount</th></tr>
<tr><td colspan="5">Controlling company:</td></tr>
<tr><td rowspan="2">KDB</td><td>USANCE</td><td>USD 314,400</td><td>Short-term borrowings</td><td>USD 73,468</td></tr>
<tr><td>AP BOND and others</td><td>USD 4,700,000</td><td>-</td><td>USD 1,461,601</td></tr>
<tr><td colspan="5">Other related parties:</td></tr>
<tr><td rowspan="4">KEXIM</td><td rowspan="4">AP BOND and others</td><td rowspan="4">USD 2,931,531</td><td>-</td><td>USD 2,021,442</td></tr>
<tr><td>-</td><td>EUR 9,348</td></tr>
<tr><td>-</td><td>GBP 10,000</td></tr>
<tr><td>-</td><td>KRW 12,616</td></tr>
<tr><td>Hyundai Merchant Marine Co., Ltd.</td><td>Performance guarantee</td><td>USD 1,506,809</td><td>Ship building</td><td>USD 0</td></tr>
<tr><td colspan="2" rowspan="4">Total</td><td rowspan="4">USD 9,452,740</td><td></td><td>USD 3,556,511</td></tr>
<tr><td></td><td>EUR 9,348</td></tr>
<tr><td></td><td>GBP 10,000</td></tr>
<tr><td></td><td>KRW 12,616</td></tr>
</table>

38.8 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 right-of-use assets and lease liabilities as at December 31, 2019 is ₩7,939 million and ₩7,566 million, respectively.

39. Construction Contracts

39.1 Changes in the remaining balance of construction contracts for the years ended December 31, 2019 and 2018, are as follows:

(Year ended December 31, 2019)

					In millions of Korean won
	Beginning balance	New contracts	Others (*1)	Recognized construction revenue (*2)	Ending balance
Commercial ships	8,151,916	3,358,315	341,113	(5,767,572)	6,083,772
Offshore plant and special ships	3,807,667	1,606,396	1,272,459	(2,631,562)	4,054,960
Others	5,286	-	(3,541)	(939)	806
Total	11,964,869	4,964,711	1,610,031	(8,400,073)	10,139,538

(*1) Others consist of increase or decrease due to fluctuations of foreign exchange rates and changes of contract amount.
(*2) Addition or subtraction on sales related to firm commitment assets (liabilities) is excluded.

(Year ended December 31, 2018)

					In millions of Korean won
	Beginning balance	New contracts	Others (*1)	Recognized construction revenue (*2)	Ending balance
Commercial ships	8,091,605	6,334,736	252,242	(6,526,667)	8,151,916
Offshore plant and special ships	5,203,669	737,390	839,128	(2,972,520)	3,807,667
Others	9,622	535	(14,034)	9,163	5,286
Total	13,304,896	7,072,661	1,077,336	(9,490,024)	11,964,869

(*1) Others consist of increase or decrease due to fluctuations of foreign exchange rates and changes of contract amount.
(*2) Addition or subtraction on sales related to firm commitment assets (liabilities) is excluded.

39.2 Details of in-progress construction contracts such as recognized construction profit or loss as at December 31, 2019 and 2018, are as follows:

(December 31, 2019)

				In millions of Korean won
	Accumulated construction revenue	Accumulated construction cost	Accumulated construction profit(loss)	Reserve(*)
Commercial ships	3,679,468	(3,844,399)	(164,931)	705,126
Offshore plant and special ships	16,338,499	(16,519,595)	(181,096)	-
Others	1,369	(1,174)	195	-
Total	20,019,336	(20,365,168)	(345,832)	705,126

(*) Reserve refers to the receivables 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.

(December 31, 2018)

				In millions of Korean won
	Accumulated construction revenue	Accumulated construction cost	Accumulated construction profit(loss)	Reserve(*)
Commercial ships	5,907,686	(6,021,195)	(113,509)	698,725
Offshore plant and special ships	18,382,809	(19,730,780)	(1,347,971)	-
Others	118,299	(79,579)	38,720	-
Total	24,408,794	(25,831,554)	(1,422,759)	698,725

(*) Reserve refers to the receivables 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.

39.3 Details of due to and from customers for contract work as at December 31, 2019 and 2018, are as follows:

In millions of Korean won

	December 31, 2019		December 31, 2018	
	Contract assets (*1)	Contract liabilities(*2)	Contract assets (*1)	Contract liabilities(*2)
Commercial ships	1,674,325	633,039	2,805,320	690,169
Offshore plant and special ships	497,078	1,160,451	1,544,540	1,162,762
Others	1	8,805	37	22,416
Total	2,171,404	1,802,295	4,349,897	1,875,347

(*1) Incremental costs of obtaining a contract and the loss recognized through the collective assessment are not included in the above contract assets.
(*2) Advance received which is not a construction contract are not included in the above contract liabilities.

39.4 Contractual details where contract revenue for the year ended December 31, 2019 is more than 5% of sales in prior year, are as follows:

In millions of Korean won

	Customers	Contract date	Expected completion date(*1) / Completion date	Percentage of Completion (%)	December 31, 2019			
					Contract assets (Due from customers for contract work)		Trade receivables (receivables from construction contracts)	
					Gross	Provision (*2)	Gross	Provision (*2)
Drillship	Europe	2012-09-27	2021-09-30	98.79%	102,015	-	24	-
Drillship	Africa	2013-10-15	2019-03-15	100.00%	-	-	-	-
Drillship	Africa	2013-10-15	2019-05-16	100.00%	-	-	-	-
Drillship	Europe	2013-06-24	2022-06-30	98.45%	189,169	-	15	-
FPSO	Oceania	2012-03-08	2020-03-30	99.72%	103,708	-	-	-
Fixed Platform	Africa	2012-08-16	2019-12-20	100.00%	187	-	20,031	-
Fixed Platform	Europe	2012-12-21	2020-01-15	99.32%	-	-	7,337	-
Fixed Platform	Asia	2013-05-26	2020-05-15	96.61%	-	-	1,933	-
Fixed Platform	Asia	2014-10-09	2021-02-28	82.01%	-	-	99,456	-

In millions of Korean won

	Customers	Contract date	Expected completion date(*1) / Completion date	Percentage of Completion (%)	December 31, 2018			
					Contract assets (Due from customers for contract work)		Trade receivables (receivables from construction contracts)	
					Gross	Provision (*2)	Gross	Provision (*2)
Drillship	Europe	2012-09-27	2021-09-30	98.79%	113,925	-	-	-
Drillship	Africa	2013-10-15	2019-03-15	100.00%	501,066	(45,441)	-	-
Drillship	Africa	2013-10-15	2019-05-16	100.00%	505,218	(49,591)	-	-
Drillship	Europe	2013-06-24	2022-06-30	98.45%	195,092	-	-	-
FPSO	Oceania	2012-03-08	2020-03-30	99.72%	109,495	-	10,252	-
Fixed Platform	Africa	2012-08-16	2019-12-20	100.00%	78,435	-	39,418	-
Fixed Platform	Europe	2012-12-21	2020-01-15	99.32%	-	-	23,708	-
Fixed Platform	Asia	2013-05-26	2020-05-15	96.61%	10,423	-	-	-
Fixed Platform	Asia	2014-10-09	2021-02-28	82.01%	-	-	167,434	-

(*1) Expected completion date is the date expected by the Company as at December 31, 2019, 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, 2019, three construction contracts were omitted in the disclosure according to Korean IFRS 1115, article 129.2(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. The Company reported to the Audit Committee on February 7, 2020 that this item will not be disclosed in the financial statements.

39.5 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:

(December 31, 2019)

In millions of Korean won

	Provisions for expected losses	Changes in estimation			Contract Assets (Due from customers contract work)	
		Changes in estimated total contract revenue	Changes in estimated total contract cost	Changes in gain(loss) from construction	Gross amount	Accumulated impairment loss (*)
Commercial ships	184,284	200,887	96,221	186,341	1,674,325	-
Offshore plant and special ships	92,550	925,321	443,065	453,801	497,078	-
Others	-	6	(435)	418	1	-
Total	276,834	1,126,214	538,851	640,560	2,171,404	-

(*) Accumulated impairment loss excludes the loss recognized through the collective assessment.

(December 31, 2018)

In millions of Korean won

	Provisions for expected losses	Changes in estimation			Contract Assets (Due from customers contract work)	
		Changes in estimated total contract revenue	Changes in estimated total contract cost	Changes in gain(loss) from construction	Gross amount	Accumulated impairment loss
Commercial ships	395,946	(32,795)	(54,561)	195,487	2,805,320	-
Offshore plant and special ships	139,615	878,130	669,354	193,636	1,639,665	(95,125)
Others	-	(12,253)	(900)	(12,253)	37	-
Total	535,561	833,082	613,893	376,870	4,445,022	(95,125)

39.6 Changes in the estimation of total contract revenues and costs.

The impact of changes in estimated total contract revenue and costs on profit or loss for the years ended December 31, 2019 and 2018, and for the succeeding period are as follows:

(Year ended December 31, 2019)

				In millions of Korean won
	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 year
Commercial ships	200,887	96,221	186,341	(81,674)
Offshore plant and special ships	925,321	443,065	453,801	28,455
Others	6	(435)	418	24
Total	1,126,214	538,851	640,560	(53,195)

(Year ended December 31, 2018)

				In millions of Korean won
	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 year
Commercial ships	(32,795)	(54,561)	195,487	(173,721)
Offshore plant and special ships	878,130	669,354	193,636	15,140
Others	(12,253)	(900)	(12,253)	900
Total	833,082	613,893	376,870	(157,681)

The impact on profit (loss) for the current period (prior period) and the succeeding period is determined based on total contract costs, which are estimated based on the circumstances present from the commencement of the contract to the end of current period (prior period), and the estimated contract revenue as at December 31, 2019 (December 31, 2018). Contract costs and contract revenue may change in the future.

40. Commitments and Contingencies

40.1 The Company provided 14 blank notes to Korea National Oil Corporation as construction warranty and others at December 31, 2019.

40.2 The Company is involved in a lawsuit as a plaintiff pending in relation to repayment request of lot loans, and 21 other pending lawsuits with aggregated claim amount of ₩921,178 million as at December 31, 2019. 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.

40.3 Certain investors who bought the Company’s share, corporate bonds and commercial papers sued the Company, 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 in 82 other lawsuits as a defendant with aggregated claim amount of USD 173,748 thousand and ₩322,993 million.

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, 2019. The Company recognized the best estimated loss amounting to ₩727,071 million from pending litigations and performance guarantees as provisions as at December 31, 2019.

40.4 The Company paid penalty surcharge in accordance with the order of Fair Trade Commission (the “Order”) requiring to pay a penalty surcharge and comply with a corrective order, for the violation of Fair Transactions in Subcontracting Act, including the violation of Prohibition against Fixing Unreasonable Subcontract Consideration, etc. In this case, the Company filed for (1) an administrative proceeding with the high court challenging the Order and (2) a stay of the execution of the Order.

While the administrative proceeding for challenging the Order is still under the high court proceeding, the high court partially (as further explained below) granted a stay of the execution of the Order on May 2, 2019, which grant has been appealed by the opposing party on May 8, 2019 and is currently under the Supreme Court proceeding. The partially granted order for stay provides for suspension of the Order, until the final judgment on the administrative proceeding, for: publication of the violation, imposing penalty points, suspension of business and limitation on bidding participation. When the final and conclusive judgment of said proceeding is delivered, there may be a negative impact on the Company’s qualification to participate in the bidding process for doing business with public agencies/institutions for a certain period of time.

40.5 The Company’s major joint ventures are as follows:

(a) 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. However, the Company is considering business withdrawal. The Company recognized the investment in Nigeria oil fields as other investment assets.

(b) The Company has invested in Kazakhstan oil fields development project by forming a Korean consortium (5.00% of the Company’s shares). However, the Company is considering business withdrawal. 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

(c) 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

(d) The Company formed consortiums, including Ersai Caspian Contractor LLC, to provide on-site management supervision and personnel training services for TCO projects in Kazakhstan.

40.6 As at December 31, 2019, the estimated loss amounting to ₩122,495 million out of the claim amount of ₩169,524 million related to the construction contract of the Company was included in the statement of financial position as provisions for construction warranties.

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 26)

40.7 Details of guaranteed amount to major financial institutions as at December 31, 2019 are as follows:

		In millions of Korean won and thousands of USD
Financial institutions	Details	Amount
KDB and others	Issuance of L/C limit	USD 1,072,800
	Foreign-currency payment guarantee limit	USD 7,726,531
	Borrowing limit	USD 1,041,516
		KRW 3,845,543

41. Cash Flows from Operating Activities

Cash flows from operating activities for the years ended December 31, 2019 and 2018, are as follow:

		In millions of Korean won
	2019	2018
1. Profit (loss) for the year	(57,722)	946,109
2. Adjustments for	588,043	(60,170)
(1) Addition of expenses	1,782,805	338,413
Post-employment benefits	56,507	51,443
Employee benefits	8,552	1,842
Depreciation	94,961	106,467
Right-in-use assets depreciation	48,515	-
Amortization	606	587
Impairment loss	(29,827)	(461,157)
Valuation loss on inventories	77,768	-
Loss on disposal of held-to-maturity financial assets	-	2
Loss on valuation of firm commitment	7,736	4,429
Loss on valuation of currency forward contracts	122,871	94,538
Loss on currency forward transactions	202,597	-
Impairment loss on property, plant and equipment	141,882	-
Loss on disposal of property, plant and equipment	2,313	59
Loss on revaluation of property, plant and equipment	-	2,292
Loss on use-right-assets and liabilities off-set	6	-
Loss on valuation of fair value through profit or loss	38	-
Impairment loss on investment in associates, joint ventures and subsidiaries	881	22,807
Loss on disposal of intangible assets	19	-
Impairment loss on intangible assets	1,829	114
Loss on valuation of intangible assets	14,051	-
Impairment loss on other investment assets	108	127
Interest expenses	104,205	176,144
Loss on foreign currency translation	70,643	64,824

		In millions of Korean won
	2019	2018
Income tax expense (income)	(1,820)	36,018
Transfer to provision for construction loss	474,647	30,886
Transfer to provision for construction warranties	59,820	188,463
Transfer to provision for contingent liabilities	255,932	13,526
Transfer to other provision	4,225	-
Repairs and maintenance expenses	422	1,467
Sales promotional expenses	-	1,543
Loss on valuation of financial assets at fair value through profit or loss	-	1,992
Amortization of discount on bonds	52,524	-
Amortization of present value discount	7,598	-
Miscellaneous loss	3,196	-
(2) Deduction of income	(1,194,763)	(398,583)
Reversal of impairment loss and other impairment losses	16,460	3,584
Gain on disposal of investment in subsidiaries	-	21,334
Gain on disposal of investment in associates and joint ventures	-	-
Gain on valuation of firm commitment	206,729	137,351
Gain on valuation of currency forward contracts	12,276	6,214
Gain on disposal of property, plant and equipment	3,092	1,604
Reversal of impairment loss on associations and joint ventures	5,132	-
Gain on disposal of non-current assets held-for-sale	-	128
Gain on valuation of financial liabilities at fair value through profit or loss	374	777
Gain on disposal of financial assets at fair value through profit or loss	9	786
Reversal of valuation loss on inventories	11,287	-
Interest income	90,558	58,789
Dividends income	3,942	5,845
Gain on use-right assets-liabilities off-set	213	-
Reversal of impairment loss on intangible assets	41	66
Reversal of impairment loss on other investment assets	7,493	-

Daewoo Shipbuilding & Marine Engineering Co., Ltd.
Notes to the Separate Financial Statements
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		In millions of Korean won
	2019	2018
Reversal of provision for construction loss	733,375	-
Reversal of provision for construction warranties	18,809	17,903
Reversal of provision for contingent liabilities	46,814	53,704
Reversal of financial guarantee liabilities	446	31,257
Gain on foreign currency translation	34,580	58,864
Gain on debt restructuring	-	10
Gain on foreign currency translation of debt-to-equity swap	-	367
Miscellaneous income	3,133	-
3. Change in working capital	2,073,144	(94,641)
Trade and other receivables	186,704	(100,917)
Inventories	127,099	(71,715)
Contract assets	2,210,140	(222,540)
Other current assets	(167,177)	438,129
Non-current trade and other receivables	113,911	20,861
Firm commitment assets	141,692	116,080
Currency forward assets	(30,494)	60,086
Financial assets at fair value to profit or loss	(11,306)	-
Other non-current assets	-	(1,582)
Trade and other payables	(186,143)	(85,374)
Contract liabilities	4,316	(410,492)
Other current liabilities	123,901	260,467
Non-current trade and other payables	-	32,897
Net defined benefit obligation and other long-term employee benefit liabilities	(185,106)	(90,018)
Provisions	(77,993)	5,620
Other current liabilities	10,976	-
Currency forward liabilities	(181,227)	35,329
Firm commitment liabilities	(6,149)	(81,472)
Cash generated from operations	2,603,464	791,298

42. Non-Cash Transactions

42.1 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
	2019	2018
Capital increase (debt-to-equity swaps)	-	13,170
Issuance of hybrid capital instruments (refunding)	-	48,057
Taking over liabilities of other related parties	-	86,275
Write-off of short-term loans	-	544,197
Application of new lease policy	57,814	-
Transfer of contract assets to inventories (*)	-	495,745
Write-off of contract assets write-off	96,912	-
Write-off of other receivables due to disposal of investment in subsidiaries	-	778,050
Extension of maturity of debentures and long-term borrowings	-	246,418
Transfer of long-term borrowings to current portion of long-term borrowings	116,274	-
Transfer of other receivables to financial assets at amortized cost	24,939	-
Transfer of construction in progress to property, plant and equipment	136,184	14,783
Transfer of long-term financial assets to the respective current assets	-	38,678
Transfer to non-current asset held for sale	-	83,349

(*) Due to the termination of the contracts associated with two ships under construction during the period, the Company reclassified those contracts from contract assets to work-in-process. (Note 11)

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.

42.2 The adjustment of liabilities arising from financing activities for the years ended December 31, 2019 and 2018, are as follows:

(Year ended December 31, 2019)

In millions of Korean won

	Beginning balance	Cash flow from financial activities	Changes in exchange rate	Amortization	Transfer and others	Ending balance
Current						
Short-term borrowings	1,414,638	(347,421)	(2,195)	-	-	1,065,022
Current portion of long-term borrowings	197,061	(4)	6,997	-	4	204,058
Current portion of Debentures	-	-	-	-	116,270	116,270
Current portion of lease liabilities	-	(47,676)	1,483	2,210	62,429	18,446
Sub-total	1,611,699	(395,101)	6,285	2,210	178,703	1,403,796
Non-current						
Long-term borrowings	935,902	-	29,980	7,597	(4)	973,475
Debentures	575,561	-	-	52,524	(116,270)	511,815
Lease liabilities	24,145	-	-	-	(8,555)	15,590
Sub-total	1,535,608	-	29,980	60,121	(124,829)	1,500,880
Total	3,147,307	(395,101)	36,265	62,331	53,874	2,904,676

(Year ended December 31, 2018)

In millions of Korean won							
	Beginning balance	Cash flow from financial activities	Changes in exchange rate	Amortization	Debt restructuring (*)	Transfer and others	Ending balance
Current							
Short-term borrowings	1,950,687	(538,917)	2,501	-	(86,275)	86,642	1,414,638
Current portion of long-term borrowings	435,253	(4)	8,230	-	-	(246,418)	197,061
Sub-total	2,385,940	(538,921)	10,731	-	(86,275)	(159,776)	1,611,699
Non-current							
Long-term borrowings	638,935	(340)	34,502	6,886	9,474	246,445	935,902
Debentures	530,661	-	-	45,107	(207)	-	575,561
Lease liabilities	-	(17,640)	-	2,086	-	39,699	24,145
Sub-total	1,169,596	(17,980)	34,502	54,079	9,267	286,144	1,535,608
Total	3,555,536	(556,901)	45,233	54,079	(77,008)	126,368	3,147,307

(*) 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 45).

43. Segment Information

43.1 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 customer	Sales ratio (%)
Commercial ships	LNGC and others	Hyundai Merchant Marine Co., Ltd. and others	67.5%
Offshore plants and special ships	Marine steel structure and others	TENGIZCHEVROIL LLP (TCO) and others	31.7%
Others	Energy, service	Various customers	0.8%
Total			100.0%

43.2 Financial information by segment is as follows:

(Year ended December 31, 2019)

				In millions of Korean won
	Commercial ships	Offshore plants and special ships	Others	Total
Sales	5,612,905	2,634,371	70,306	8,317,582
Gross profit	(30,347)	434,296	41,584	445,533

(Year ended December 31, 2018)

				In millions of Korean won
	Commercial ships	Offshore plants and special ships	Others (*)	Total
Sales	6,489,426	3,065,675	44,658	9,599,759
Gross profit	318,354	371,925	71,508	761,787

(*) The Company believes that it is probable that the Company wins the lawsuit regarding work holiday allowance, based on the Supreme Court en banc decision regarding similar lawsuit. Therefore, the Company recognized reversal of provision amounting to ₩69,697 million, which is included in gross profit or loss of other division.

43.3 The number of major customer who accounts more than 10% of the Company's revenue is three (2018: two) and their revenue amount to ₩2,585,969 million and ₩2,555,807 million for the years ended December 31, 2019 and 2018, respectively.

43.4 The Company does not separately disclose operating income and net income by region and segment and assets and liabilities by segment.

44. 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 incurred for the following reasons.

44.1 Increase in total contract costs due to delays in offshore projects and recognition of provisions for delays in deliveries.

Due to consistent delays in the progress of the offshore projects compared to the plan, this has been reflected in the total contract costs and as a consequence additional loss has been recognized. In addition, the Company recognized provisions for delay as the Company believes that it is probable that the actual project delivery date may exceed the contractual delivery date due to delay in progress.

44.2 Recognition provisions for impairment by assessing the collectability of the amounts due from customers as credit ratings of customers 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.

44.3 Impairment loss on assets including property, plant and equipment and investments in subsidiaries

As described in Notes 16 and 20, the Company measured the amount of impairment loss of the cash generating units due to decrease in the sales volume and deterioration in market condition. After impairment assessment, the Company recognized total ₩141,881 million of impairment loss on property, plant and equipment, and ₩14,051 million of impairment loss on intangible assets.

During the year ended December 31, 2018, the Company recognized impairment losses on investments in subsidiaries of ₩22,806 million. Also, the Company have prompted restructure of its business to stabilize its financial position. The Company completed disposal of investment in DSEC Co., Ltd., DSME Construction Co., Ltd., Welliv Corp, Dewind Co., DW Mangalia Heavy Industries S.A., PT. DSME ENR CEPU and others.

On June 28, 2017 and August 21, 2017, the major creditor bank’s 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 (disposal of 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 i) debt-to-equity swap of 50% or more of existing corporate bonds and CP,

ii) extending the maturity and iii) decreasing interest rate for the rest of remaining bonds through bondholders' meeting and contract amendment on the terms and conditions of issuing CP during April, 2017. Accordingly, the Company is in the process of debt restructuring and debt-to-equity swap. In addition on June 28, 2017, the Creditor Financial Institutions (such as Korea Development Bank and other financial institutions) executed debt adjustments which includes debt-to-equity swap and maturity extension, and new capital support up to ₩2.9 trillion from KDB and KEXIM Bank is in progress (Note 45). 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 first.

45. Debt Restructuring

Since the announcement of the "DSME Restructuring Promotion Plan" for prompt normalization of management of the Company during March, 2017, the Company agreed to the debt restructuring that includes the debt-for-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.

45.1 Details of debt restructuring are as follows:

In millions of Korean won

	Amount subject to debt restructuring	Debt to equity swaps	Change in terms	Others
Short-term borrowings(*1,4,5)	1,695,039	1,529,533	165,058	448
Debentures (*2)	1,350,000	711,066	638,934	-
Commercial papers	194,578	97,289	97,289	-
Long-term borrowings (*3,4)	680,673	680,653	-	20
Total	3,920,290	3,018,541	901,281	468

(*1) Short-term borrowings in foreign currencies that are subject to debt restructuring and change in terms are debt amounts as at June 29, 2017. Short-term borrowings include ₩80 billion of borrowings recognized on July 3, 2017, of which ₩64 billion was restructured during the fourth quarter of 2017. In addition, short-term borrowings include ₩86,275 million of borrowings which were taken over as the original debtor failed to repay loan regarding guarantee liabilities for subsidiaries and associates on January 31, 2018, of which debt-to-equity swap, conversion to perpetual bond, and change in terms were executed during the first quarter of 2018.

(*2) Debt-to-equity swap of bonds was executed at August 12, 2017, December 22, 2017, and March 15, 2018. In addition, 50.4% of bonds held by other creditors were restructured (17,474,086 shares) except for the Korean Development Bank's bonds (7th bond amounting to ₩50 billion) which is subject to 100% debt to equity swap.

(*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) In 2017, 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. In 2018, the KEXIM's unsecured debt of ₩48,057 million was offset by issuing the same amount of convertible bonds. (Note 31)

(*5) The amount has occurred due to differences in exchange rates among the date of initial recognition of the borrowings in foreign currency subject to debt restructuring, the date of debt-to-equity swap, and the period-end date of December 31, 2019.

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 in August 12, 2017, for ₩65,669 million of corporate bonds(2nd) and creditor bank in December 22, 2017, and for ₩13,177 million of corporate bonds(3rd) and creditor bank in March 15, 2018 were executed.

45.2 Debt-to-equity swaps and changes in terms

1) Debt to equity swaps

	Details
Number of shares	41,775,998 shares(*)
Types of share issued	Ordinary shares
Issue price	KRW 40,350
Sale restrictions	None

(*) 147,206 shares (assuming conversion rate of 50%) which was not converted to investment as at December 31, 2019, were recognized as other paid-in capital.

2) Debt grace period

		In millions of Korean won
	Public offering bonds (including CP)	Unsecured borrowings
Debt in the grace period	736,223	165,059
Grace period	6 years	10 years
Payment method	3-year grace, 3-year installment payment	5-year grace, 5-year installment payment

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

		In millions of Korean won
	Public offering bonds (including CP)	Unsecured borrowings
Target bond	736,223	165,059
Effective interest rate	1.00%	1.00%
Applicable period	6 years	10 years

46. Changes in Accounting Policies

As explained in Note 2, the Company has applied Korean IFRS 1116 Leases from January 1, 2019. In accordance with the transitional provisions in Korean IFRS 1116, comparative figures have not been restated. The application of Korean IFRS 1116 has impact on the financial statements as follows:

The application of Korean IFRS 1116 recognized lease liabilities in relation to leases that were previously classified as operating leases in accordance with Korean IFRS 1017. These liabilities were measured at the present value of the lease payments, discounted at the lessee's incremental borrowing interest rate on January 1, 2019. The weighted average incremental borrowing rate applied to lease liabilities is 3.26% on January 1, 2019.

The difference between the discounted operating lease commitments and lease liabilities recognized at the date of initial application is as follows:

In millions of Korean won

	Amount
Announced operating lease contracts at December 31, 2018	59,775
Amount discounted with incremental borrowing rate	(1,960)
Financial lease liabilities recognized at December 31, 2018	24,145
Lease liabilities recognized at January 1, 2019	81,959

Right-of use assets are measured at the same amount as the lease liabilities by adjusting for advance or unpaid lease payments in respect of lease recognized in the statement of financial position as at December 31, 2018. As a result, property, plant and equipment and lease liabilities increased by ₩57,816 million, respectively, on January 1, 2019.

The Company adopted following practical expedients when applying Korean IFRS 1116 at the date of initial application:

- Applying a single discount rate to a portfolio of leases with reasonably similar characteristics

- A lease for which the lease term ends within 12 months of the date of initial application is accounted for the same manner as a short-term lease

- Excluding initial direct costs from the measurement of the right-of-use assets at the date of initial application

- Using hindsight, such as in determining the lease term if the contract contains options to extend or terminate the lease

The Company does not apply Korean IFRS 1116 to contracts that were not previously identified as containing a lease applying Korean IFRS 1017 and Interpretation of Korean IFRS 2104.

47. Capital Increase with Consideration by Allotment to the Third Party for the Change of Governance

The Company decided to issue 42,750,877 ordinary shares with the resolution of the Company's Board of Directors on January 31, 2019. This capital increase with consideration will be executed according to the basic agreements entered among Hyundai Heavy Industries Co., Ltd. (HHIC), Hyundai Heavy Industries Holdings Co., Ltd. and the Korean Development Bank (KDB) on January 31, 2019, as well as the new share subscription agreement entered between the Company and HHIC on the same date, in relation to the sale of the Company's shares held by KDB, the Company's largest shareholder.

This capital increase is expected to be executed when certain conditions are satisfied such as the approval from the Fair Trade Commission (including overseas related agencies) and the approvals from KDB and HHIC on the business combination based on the in-kind contribution agreement. In addition, the contract may be terminated at the commencement of the rehabilitation or bankruptcy procedure in accordance with the Act on the Debtor Rehabilitation and Bankruptcy

48. Events After the Reporting Period

The Company's separate financial statements for the year ended December 31, 2019 were approved by the Board of Directors on March 10, 2020, and are subject to change with the approval of shareholders at their Annual General Meeting.

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Report on Independent Auditor's Audit of Internal Control over Financial Reporting

(Based on a report originally issued in Korean)

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

Opinion on Internal Control over Financial Reporting

We have audited Daewoo Shipbuilding & Marine Engineering Co., Ltd. (the "Company") Internal Control over Financial Reporting as at December 31, 2019, based on Conceptual Framework for Designing and Operating Internal Control over Financial Reporting.

In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as at December 31, 2019, based on Conceptual Framework for Designing and Operating Internal Control over Financial Reporting.

We also have audited, in accordance with Korean Standards on Auditing, the separate financial statements of the Company, which comprise the separate statements of financial position as at December 31, 2019, and the separate statements of income, separate statements of comprehensive income, separate statements of changes in equity and separate statements of cash flow for the year then ended, and notes to the separate financial statements including a summary of significant accounting policies, and our report dated on March 13, 2020, expressed unmodified opinion.

Basis for Opinion on Internal Control over Financial Reporting

We conducted our audit in accordance with Korean Standards on Auditing. Our responsibility under these standards are further described in the Auditor's Responsibilities for the Audit of Internal Control over Financial Reporting section of our report. We are independent of the Company in accordance with the ethical requirements of the Republic of Korea that are relevant to our audit of internal control over financial reporting and we have fulfilled our other ethical responsibilities in accordance with the ethical requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion

Responsibilities of Management and Those Charged with Governance for Internal Control over Financial Reporting

Management is responsible for designing, implementing and maintaining effective internal control over financial reporting, and for its assessment about the effectiveness of internal control over financial reporting, included in the accompanying Report on the Effectiveness of Internal Control over Financial Reporting.

Those charged with governance have the responsibilities for overseeing internal control over financial reporting.

Auditor’s Responsibilities for the Audit of Internal Control over Financial Reporting

Our responsibility is to express opinion on the Company’s internal control over financial reporting based on our audit. We conducted the audit in accordance with Korean Standards on Auditing. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects.

An audit of internal control over financial reporting involves performing procedures to obtain audit evidence about whether a material weakness exists. The procedures selected depend on the auditor’s judgment, including the assessment of the risks that a material weakness exists. An audit includes obtaining an understanding of internal control over financial reporting and testing and evaluating the design and operating effectiveness of internal control over financial reporting based on the assessed risk.

Definition and Inherent Limitations of Internal Control over Financial Reporting

An entity’s internal control over financial reporting is a process effected by those charged with governance, management, and other personnel, designed to provide reasonable assurance regarding the preparation of reliable financial statements in accordance with International Financial Reporting Standards as adopted by the Republic of Korea. An entity’s internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the entity; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with International Financial Reporting Standards as adopted by the Republic of Korea, and that receipts and expenditures of the entity are being made only in accordance with authorizations of management and those charged with governance; and (3) provide reasonable assurance regarding prevention, or timely detection and correction of unauthorized acquisition, use, or disposition of the entity’s assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent, or detect and correct, misstatements. Also, projections of any assessment of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

The engagement partner on the audit resulting in this independent auditor’s report is Jong-Jung Ahn, Certified Public Accountant.

March 13, 2020

Seoul, Korea

This report is effective as of March 13, 2020, the auditors’ report date. Accordingly, certain subsequent events or circumstances, which may occur between the auditors’ report date and the time of reading this report, could have a material impact on the Company’s internal control over financial reporting thereto. According, there is a possibility that above audit report have to be revised.

Report on the Operations of the Internal Accounting Control System

To the Shareholders, Board of Directors and Audit Committee of

Daewoo Shipbuilding & Marine Engineering Co., Ltd.

We, as the Chief Executive Officer and the Internal Accounting Control Officer of Daewoo Shipbuilding & Marine Engineering Co., Ltd. (the “Company”), assessed the status of the design and operations of the Company’s Internal Accounting Control System (“IACS”) for the year ended December 31, 2019.

The Company’s management including the Chief Executive Officer and the Internal Accounting Control Officer is responsible for designing and operating IACS.

We evaluated whether the Company effectively designed and operated its IACS to prevent and detect any error or fraud which may cause a misstatement in the financial statements to ensure preparation and disclosure of reliable financial information. We used the ‘Conceptual Framework for Designing and Operating IACS established by the Operating Committee of IACS in Korea’ as the criteria for design and operation of the Company’s IACS.

Based on the assessment, we concluded that the Company’s IACS is designed and operated effectively as at December 31, 2019, in all material respects, in accordance with the Conceptual Framework for Designing and Operating IACS.

We certify that this report does not contain any untrue statement of a fact, or omit to state a fact necessary to be presented herein. I also certify that this report does not contain or present any statements which may cause material misunderstanding of the readers, and we have reviewed and verified this report with sufficient care.

February 17, 2020

Yong Suck Choi, Internal Accounting Control Officer

Sung Geun Lee, Chief Executive Officer