HYUNDAI HEAVY INDUSTRIES HOLDINGS CO., LTD. AND SUBSIDIARIES

Consolidated Financial Statements

December 31, 2020 and 2019

(With Independent Auditors' Report Thereon)

Contents

KPMG SAMJONG

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Independent Auditors' Report

Based on a report originally issued in Korean

To the Shareholders and Board of Directors of

Hyundai Heavy Industries Holdings Co., Ltd.

Opinion

We have audited the consolidated financial statements of Hyundai Heavy Industries Holdings Co., Ltd. and its subsidiaries ("the Group"), which comprise the consolidated statements of financial position as of December 31, 2020 and 2019, the consolidated statements of comprehensive income (loss), changes in equity and cash flows for the years then ended, and notes, comprising significant accounting policies and other explanatory information.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Group as of December 31, 2020 and 2019, and its consolidated financial performance and its consolidated cash flows for the years then ended in accordance with Korean International Financial Reporting Standards ("K-IFRS").

Basis for Opinion

We conducted our audits in accordance with Korean Standards on Auditing (KSAs). Our responsibilities under those standards are further described in the *Auditors' Responsibilities for the Audit of the Consolidated Financial Statements* section of our report. We are independent of the Group in accordance with the ethical requirements that are relevant to our audit of the consolidated financial statements in Republic of 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.

Emphasis of Matter

Without qualifying our opinion, we draw attention to following:

- Split-off of the Parent company

As described in Notes 1 and 47 to the consolidated financial statements, Hyundai Industries Holdings Co., Ltd. established a new subsidiary, Hyundai Robotics Co., Ltd., by split-offing the entire robot-related business except for the investment segment, in May 1, 2020, and converted to a holding company.

Key Audit Matter

Key audit matter is that matter that, in our professional judgment, was of most significance in our audit of the consolidated financial statements as of and for the year ended December 31, 2020. This matter was addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on this matter.

Assessment of impairment on cash-generating unit (CGU)

The management performed impairment test for the CGU by estimating the recoverable amount of CGU at the end of each reporting period. As described in *Note 4(12)* to the consolidated financial statements, an impairment loss is recognized for a CGU if the carrying amount of the CGU exceeds its recoverable amount.

The management conducted an impairment assessment on CGU whose indicators of impairment, such as decline in stock price for a long time and downturn in earnings, were identified and CGU that included goodwill as of December 31, 2020. For the assessment of impairment, the recoverable amount of the CGU was estimated, and the recoverable amount is determined to be the greater of the value in use or the net fair value. Considering significant degree of judgment in estimating the recoverable amount, the likelihood of management bias and potential effects of the impairment on the consolidated financial statements, we identified the assessment of impairment on goodwill and intangible assets as a key audit matter.

The primary procedures we performed to address this key audit matter included the following:

- Testing the effectiveness of the design, implementation and operation of the management review control over the Group's impairment assessment process.
- Assessing the qualification and independence of the external valuation specialist engaged by the Group for the impairment assessment
- Engaging our valuation specialists to assist us in evaluating the key assumptions used to determine the value-in-use which included the discount rate the valuation methodology and others.
- Comparing and analyzing the financial data used for impairment assessment and mid- to long-term business plans confirmed by the management
- Comparing and analyzing the future cash flows forecasts prepared in prior year with the current year's performance to assess the Group's ability to accurately forecast
- Evaluating the reliability of key assumptions used to estimate net fair value and the accuracy of calculations

Other Matter

The procedures and practices utilized in the Republic of Korea to audit such consolidated financial statements may differ from those generally accepted and applied in other countries.

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

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

In preparing the consolidated financial statements, management is responsible for assessing the Group'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 Group or to cease operations, or has no realistic alternative but to do so.

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

Auditors' Responsibilities for the Audit of the Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' 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 consolidated 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 consolidated 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 Group's internal control.
- Evaluate the appropriateness of accounting policies used in the preparation of the consolidated financial statements 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 Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditors' report to the related disclosures in the consolidated 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 auditors' report. However, future events or conditions may cause the Group to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

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 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 consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditors' 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 auditors' report is Won-Pyo Jeon.

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KPMG Samjong Accounting Corp.

Seoul, Korea

March 17, 2021

This report is effective as of March 17, 2021, the audit report date. Certain subsequent events or circumstances, which may occur between the audit report date and the time of reading this report, could have a material impact on the accompanying consolidated financial statements and notes thereto. Accordingly, the readers of the audit report should understand that the above audit report has not been updated to reflect the impact of such subsequent events or circumstances, if any.

HYUNDAI HEAVY INDUSTRIES HOLDINGS CO., LTD. AND SUBSIDIARIES

Consolidated Statements of Financial Position

As of December 31, 2020 and 2019

(In thousands of won)	***Note***		**2020**	**2019**
Assets				
Cash and cash equivalents	*4,5,7,41,42*	₩	2,038,500,825	2,028,484,960
Short-term financial assets	*5,6,7,41,42*		259,128,208	690,331,693
Trade and other receivables	*8,9,18,41,42,45*		2,230,645,003	2,775,961,832
Contract assets	*8,32,41,42*		227,085,015	288,715,764
Inventories	*4,10,18,35*		3,021,898,860	3,876,745,323
Derivative assets	*25,41,42*		62,445,547	24,999,676
Current tax assets			24,611,319	3,157,030
Other current assets	*11*		179,129,096	213,192,312
Assets held for sale	*46*		5,680,134	33,629,002
Total current assets			8,049,124,007	9,935,217,592
Investments in associates and joint ventures	*12,13,45*		3,685,433,545	4,093,599,830
Long-term financial assets	*5,6,7,41,42*		54,049,671	11,164,998
Long-term trade and other receivables	*8,9,18,41,42,45*		412,935,987	303,831,834
Investment property	*14,34*		9,819,838	9,819,838
Property, plant and equipment	*15,18,34*		10,679,603,834	8,408,883,562
Right-of-use assets	*16,34*		1,394,791,635	569,219,470
Intangible assets	*17,31,34*		2,008,713,707	2,151,928,719
Derivative assets	*25,41,42*		-	477,267
Deferred tax assets	*38*		252,638,040	224,194,245
Other non-current assets	*11,23*		11,842,101	7,197,834
Total non-current assets			18,509,828,358	15,780,317,597
Total assets		₩	26,558,952,365	25,715,535,189

See accompanying notes to the consolidated financial statements.

HYUNDAI HEAVY INDUSTRIES HOLDINGS CO., LTD. AND SUBSIDIARIES

Consolidated Statements of Financial Position, Continued

As of December 31, 2020 and 2019

(In thousands of won)	***Note***		**2020**	**2019**
Liabilities				
Short-term financial liabilities	*5,18,19,22,41,42*	₩	2,248,639,345	3,415,385,034
Current lease liabilities	*16,41,42*		209,473,828	121,665,490
Trade and other payables	*20,41,42,45*		3,035,635,210	3,529,116,882
Contract liability	*32*		445,439,566	450,301,655
Derivative liabilities	*25,41,42*		63,116,963	18,635,214
Income tax payable			70,312,961	275,846,611
Current provisions	*24*		207,088,273	181,157,426
Other current liabilities	*21*		56,659,945	24,237,940
Liabilities held for sale	*46*		-	5,924,631
Total current liabilities			6,336,366,091	8,022,270,883
Long-term financial liabilities	*5,18,19,22,41,42*		7,283,753,141	4,652,880,167
Non-current lease liabilities	*16, 41, 42*		1,132,975,067	459,685,748
Long-term trade and other payables	*20,41,42,45*		201,327,153	28,885,091
Non-current contract liabilities	*32*		65,104,843	65,680,399
Liabilities for defined benefit plans	*23*		30,789,438	47,777,038
Non-current provisions	*24*		87,533,236	42,560,436
Derivative liabilities	*25,41,42,44*		14,901,741	2,025,680
Deferred tax liabilities	*38*		308,347,420	477,672,950
Other non-current liabilities	*21*		-	31,401,944
Total non-current liabilities			9,124,732,039	5,808,569,453
Total liabilities			15,461,098,130	13,830,840,336
Equity				
Common stock	*26*		81,433,085	81,433,085
Capital surplus	*26*		5,192,703,064	5,171,945,404
Capital adjustments	*28*		(722,349,134)	(546,843,345)
Accumulated other comprehensive income	*29*		250,180,442	102,170,382
Retained earnings	*30*		2,212,956,223	3,183,258,255
Equity attributable to owners of the Company			7,014,923,680	7,991,963,781
Non-controlling interests	*1,27*		4,082,930,555	3,892,731,072
Total equity			11,097,854,235	11,884,694,853
Total liabilities and equity		₩	26,558,952,365	25,715,535,189

See accompanying notes to the consolidated financial statements.

HYUNDAI HEAVY INDUSTRIES HOLDINGS CO., LTD. AND SUBSIDIARIES

Consolidated Statements of Comprehensive Income (Loss)

For the years ended December 31, 2020 and 2019

(In thousands of won, except per share information)	***Note***		**2020**	**2019**
Revenue	*12,25,32,34,45*	₩	18,910,981,519	26,630,333,352
Cost of sales	*35,45*		18,341,294,237	24,800,633,574
Gross profit			569,687,282	1,829,699,778
Selling, general and administrative expenses	*33,35,41,45*		1,166,796,118	1,163,105,933
Operating profit (loss)	*5,34*		(597,108,836)	666,593,845
Finance income	*25,36,41*		588,902,049	484,829,421
Finance costs	*25,36,41*		806,564,357	756,153,973
Other non-operating income	*37,41*		136,920,205	65,642,195
Other non-operating expenses	*37,41*		375,529,869	297,715,766
Share of profit of equity accounted investees	*12,13*		228,588	39,614,956
Profit (loss) before income taxes	*38*		(1,053,152,220)	202,810,678
Income tax expense (benefit)	*38*		(263,432,695)	87,463,298
Profit (loss) for the year	*34*	₩	(789,719,525)	115,347,380
Other comprehensive income	*25,29,41*			
Items that are or may be reclassified subsequently to profit or loss:				
Effective portion of changes in fair value of cash flow hedges			(1,154,452)	(6,870,166)
Exchange differences on translating foreign operations			(9,135,258)	20,004,165
Change in equity of equity method Investments			(16,267,268)	4,502,026
			(26,556,978)	17,636,025
Items that will not be reclassified to profit or loss:				
Loss on valuation financial instruments at FVOCI			13,511,595	(1,682)
Defined benefit actuarial losses			9,781,596	(23,959,529)
Revaluation of property, plant and equipment			269,525,215	-
Changes in retained earnings of equity method investments			8,442,174	(5,474,197)
			301,260,580	(29,435,408)
Other comprehensive income (loss) for the year, net of income tax			274,703,602	(11,799,383)
Total comprehensive income (loss) for the year		₩	(515,015,923)	103,547,997

See accompanying notes to the consolidated financial statements.

Consolidated Statements of Comprehensive Income (Loss), Continued

For the years ended December 31, 2020 and 2019

(In thousands of won, except per share information)	***Note***		**2020**	**2019**
Profit (loss) attributable to:				
Owners of the Company		₩	(609,172,064)	173,230,665
Non-controlling interests			(180,547,461)	(57,883,285)
		₩	(789,719,525)	115,347,380
Total comprehensive income (loss) attributable to:				
Owners of the Company			(427,524,439)	152,710,608
Non-controlling interests			(87,491,484)	(49,162,611)
		₩	(515,015,923)	103,547,997
Earnings (loss) per share	*39*			
Basic earnings (loss) per share (in won)		₩	(42,815)	11,848

See accompanying notes to the consolidated financial statements.

HYUNDAI HEAVY INDUSTRIES HOLDINGS CO., LTD. AND SUBSIDIARIES

Consolidated Statements of Changes in Equity

For the years ended December 31, 2020 and 2019

(In thousands of won)

	Attributable to owners of the Company						
	Common stock	Capital surplus	Capital adjustments	Accumulated other comprehensive income	Retained earnings	Non-controlling interests	Total equity
Balance at January 1, 2019	₩ 81,433,085	4,783,119,008	(543,100,695)	104,030,751	3,302,009,313	2,826,668,450	10,554,159,912
Adjustment on initial application of K-IFRS 1116 (net of tax)	-	-	-	-	(2,470,347)	(271,859)	(2,742,206)
Adjusted balance at January 1, 2019	81,433,085	4,783,119,008	(543,100,695)	104,030,751	3,299,538,966	2,826,396,591	10,551,417,706
Total comprehensive income (loss) for the year							
Profit (loss) for the year	-	-	-	-	173,230,665	(57,883,285)	115,347,380
Loss on valuation of financial instruments at FVOCI	-	-	-	(636)	-	(1,046)	(1,682)
Effective portion of changes in fair value of cash flow hedges	-	-	-	(7,770,828)	-	900,662	(6,870,166)
Exchange differences on translating foreign operations	-	-	-	6,156,455	-	13,847,710	20,004,165
Change in equity of equity method investments	-	-	-	4,499,559	-	2,467	4,502,026
Actuarial losses	-	-	-	-	(17,934,779)	(6,024,750)	(23,959,529)
Change in retained earnings of equity method investments	-	-	-	-	(5,469,828)	(4,369)	(5,474,197)
Transactions with owners of the Company, recognized directly in equity							
Paid-in capital increase of subsidiaries	-	-	(2,131,200)	-	-	360,238,318	358,107,118
Dividends	-	-	-	-	(270,501,191)	(34,223,841)	(304,725,032)
Changes in scope of consolidation	-	-	-	-	229,897	(18,995,301)	(18,765,404)
Revaluation surplus reclassification	-	-	-	(4,744,919)	4,744,919	-	-
Capital transactions in the Group	-	388,723,101	(1,611,450)	-	-	821,273,345	1,208,384,996
Others	-	103,295	-	-	(580,394)	(12,795,429)	(13,272,528)
Balance at December 31, 2019	₩ 81,433,085	5,171,945,404	(546,843,345)	102,170,382	3,183,258,255	3,892,731,072	11,884,694,853

See accompanying notes to the consolidated financial statements.

HYUNDAI HEAVY INDUSTRIES HOLDINGS CO., LTD. AND SUBSIDIARIES

Consolidated Statements of Changes in Equity, Continued

For the years ended December 31, 2020 and 2019

(In thousands of won)	Attributable to owners of the Company						
	Common stock	**Capital surplus**	**Capital adjustments**	**Accumulated other comprehensive income**	**Retained earnings**	**Non-controlling interests**	**Total equity**
Balance at January 1, 2020	₩ 81,433,085	5,171,945,404	(546,843,345)	102,170,382	3,183,258,255	3,892,731,072	11,884,694,853
Total comprehensive income (loss) for the year							
Loss for the year	-	-	-	-	(609,172,064)	(180,547,461)	(789,719,525)
Gain on valuation of financial instruments at FVOCI	-	-	-	10,194,431	-	3,317,164	13,511,595
Effective portion of changes in fair value of cash flow hedges	-	-	-	(985,584)	-	(168,868)	(1,154,452)
Exchange differences on translating foreign operations	-	-	-	(6,152,609)	-	(2,982,649)	(9,135,258)
Revaluation of property, plant, equipment	-	-	-	180,224,366	-	89,300,849	269,525,215
Change in equity of equity method investments	-	-	-	(16,472,047)	-	204,779	(16,267,268)
Actuarial gains	-	-	-	-	6,404,460	3,377,136	9,781,596
Change in retained earnings of equity method investments	-	-	-	-	8,434,608	7,566	8,442,174
Transactions with owners of the Company, recognized directly in equity							
Acquisition of treasury shares	-	-	(124,266,342)	-	-	-	(124,266,342)
Retirement of treasury shares	-	-	124,266,342	-	(124,266,342)	-	-
Issuance of hybrid bonds by subsidiaries	-	-	-	-	-	428,923,640	428,923,640
Repayment of hybrid bonds by subsidiaries	-	-	-	-	-	(224,272,850)	(224,272,850)
Paid-in capital increase of subsidiaries	-	20,757,660	-	-	-	29,221,014	49,978,674
Revaluation surplus reclassification	-	-	-	(4,722,958)	4,722,958	-	-
Dividends	-	-	-	-	(270,501,191)	(72,985,374)	(343,486,565)
Reclassification of loss on valuation of financial instruments at FVOCI	-	-	-	438,280	(438,280)	-	-
Changes in scope of consolidation	-	-	(175,681,787)	(530,486)	530,486	136,284,285	(39,397,502)
Capital transactions in the Group	-	-	175,998	-	-	(175,998)	-
Others	-	-	-	(13,983,333)	13,983,333	(19,303,750)	(19,303,750)
Balance at December 31, 2020	₩ 81,433,085	5,192,703,064	(722,349,134)	250,180,442	2,212,956,223	4,082,930,555	11,097,854,235

See accompanying notes to the consolidated financial statements.

HYUNDAI HEAVY INDUSTRIES HOLDINGS CO., LTD. AND SUBSIDIARIES

Consolidated Statement of Cash Flows

For the years ended December 31, 2020 and 2019

(In thousands of won)	***Note***		**2020**	**2019**
Cash flows from operating activities				
Profit (loss) for the year		₩	(789,719,525)	115,347,380
Adjustments			2,204,553,860	1,373,327,914
Cash generated from operations	*40*		1,414,834,335	1,488,675,294
Interest received			53,922,564	59,719,860
Interest paid			(279,547,936)	(267,493,875)
Dividends received			5,509,156	81,631,255
Income taxes paid			(307,643,045)	(156,966,995)
Net cash provided by operating activities			887,075,074	1,205,565,539
Cash flows from investing activities				
Proceeds from sale of short-term financial assets			654,855,344	957,004,055
Proceeds from collection of short-term other receivables			57,820,937	38,165,516
Proceeds from collection of other current assets			4,914,379	-
Proceeds from sale of long-term financial assets			254,261,992	477,006,081
Proceeds from collection of long-term other receivables			29,069,654	39,444,869
Proceeds from sale of property, plant and equipment			13,742,825	173,850,767
Proceeds from sale of investment property			2,746,152	1,253,530
Proceeds from sale of intangible assets			1,269,935	1,237,407
Proceeds from collection of other non-current assets			13,190,680	24,188,585
Proceeds from sale of assets held for sale			60,758,864	-
Acquisition of short-term financial assets			(270,448,494)	(1,435,995,126)
Acquisition of short-term other receivables			(42,458,694)	(62,437,428)
Acquisition of long-term financial assets			(255,572,609)	(451,603,336)
Acquisition of investments in associates and joint ventures			(52,563,200)	(9,656,400)
Acquisition of long-term other receivables			(160,606,380)	(72,025,546)
Acquisition of property, plant and equipment			(2,210,805,269)	(1,245,496,773)
Acquisition of intangible assets			(36,046,520)	(101,746,185)
Acquisition of other non-current assets			(857,000)	(1,214,987)
Changes in scope of consolidation			118,322,885	28,182,962
Net cash used in investing activities			(1,818,404,519)	(1,639,842,009)
Cash flows from financing activities				
Proceeds from short-term financial liabilities			11,481,764,389	22,417,719,187
Proceeds from long-term financial liabilities			4,678,110,049	2,496,901,814
Acquisition of treasury shares			(124,266,342)	-
Refund of transaction costs related to establishment			-	361,432
Capital contribution from non-controlling interests			480,274,116	1,682,334,165
Repayment of short-term financial liabilities			(13,839,349,327)	(24,694,637,046)
Repayment of long-term financial liabilities			(941,545,070)	(57,470,503)
Dividends paid			(270,478,777)	(270,476,930)
Payment of current lease liabilities			(190,711,907)	(143,080,026)
Payment of non-current lease liabilities			(6,837,281)	-
Dividends and distribution to non-controlling interests			(316,814,028)	(67,800,526)
Net cash provided by financing activities			950,145,822	1,363,851,567
Net cash changes in assets held for sale			-	(3,234,402)
Effects of exchange rate changes on cash and cash equivalents			(8,800,512)	2,320,281
Net increase in cash and cash equivalents			10,015,865	928,660,976
Cash and cash equivalents at January 1			2,028,484,960	1,099,823,984
Cash and cash equivalents at December 31		₩	2,038,500,825	2,028,484,960

See accompanying notes to the consolidated financial statements.

1. Reporting Entity

(1) Description of the Parent company

Hyundai Heavy Industries Holdings Co., Ltd. (the "Parent Company") was incorporated on April 1, 2017 through a split-off from Korea Shipbuilding & Offshore Engineering Co., Ltd. (formerly, Hyundai Heavy Industries Co., Ltd) and is engaged in manufacturing industrial and LCD robots, investment business and others. The head office of the Company is located in Seoul, Republic of Korea.

As of December 31, 2020, the Company's major shareholders consist of Mong-Joon Chung (26.60%), National Pension Service Investment Management (10.72%), Ki-Sun Chung (5.26%), etc.

The Parent Company established a new subsidiary "Hyundai Robotics Co., Ltd." through a split-off the entire robot-related business except for investment segments, in May 1, 2020 and converted to a holding company.

(2) Consolidated subsidiaries

Subsidiaries as of December 31, 2020 and 2019 are summarized as follows:

Company	Main business	Location	Fiscal year end	Ownership (%) 2020	Ownership (%) 2019
Hyundai Oilbank Co., Ltd.	Manufacturing of petroleum products	Korea	December	74.13	74.13
Hyundai Oil Terminal Co., Ltd. (*1)	Oil storage business	Korea	December	100.00	100.00
Hyundai and Shell Base Oil Co., Ltd. (*1,4)	Manufacturing and sale of base oil	Korea	December	60.00	-
Hyundai Chemical Co., Ltd. (*1)	Crude oil refining business	Korea	December	60.00	60.00
Hyundai Oilbank (Shanghai) Co., Ltd. (*1)	Trading in petrochemical products	China	December	100.00	100.00
Hyundai Oil Singapore Pte. Ltd. (*1)	Trading in crude oil and petrochemical products, chartering	Singapore	December	100.00	100.00
MS Dandy Ltd. (*1)	Ship rental service	Marshall Islands	December	100.00	100.00
Grande Ltd. (*1)	Ship rental service	Marshall island	December	100.00	100.00
Hyundai OCI Co., Ltd. (*1)	Other based chemicals manufacture business	Korea	December	51.00	51.00
Hyundai Global Service	Engineering service	Korea	December	100.00	100.00
Hyundai Global Service Europe B.V. (*1)	Engine warranty repairs	Netherlands	December	100.00	100.00
Hyundai Global Service Americas Co., Ltd. (*1)	Engine warranty repairs	USA	December	100.00	100.00
Hyundai Global Service Singapore Pte. Ltd.(*1)	Engine warranty repairs	Singapore	December	100.00	100.00
Hyundai Global Service Colombia S.A.S.(*1)	Other Engineering services	Colombia	December	100.00	100.00
Hyundai Electric & Energy Systems Co., Ltd (*2)	Manufacture and sale of electronic and electric products	Korea	December	37.22	37.22
Hyundai Technologies Center Hungary Kft. (*1)	Research and development of technology	Hungary	December	100.00	100.00
Hyundai Electric Switzerland AG(*1)	Research and development of technology	Switzerland	December	100.00	100.00
Hdene Power Solution India Private Ltd. (*1)	Electric construction and power equipment manufacturing	India	March	100.00	100.00
Hyundai Heavy Industries Co. Bulgaria(*1)	Transformer manufacturing and sales	Bulgaria	December	-	99.09

1. Reporting Entity, Continued

(2) Consolidated subsidiaries, continued

Companies	Main business	Location	Fiscal year end	Ownership (%) 2020	Ownership (%) 2019
Hyundai Heavy Industries (China) Electric Co., Ltd. (*1)	Manufacture and sale of voltage switchboard	China	December	100.00	100.00
Hyundai Heavy Industries (Shanghai) R&D Co., Ltd. (*1)	Research and development of technology	China	December	100.00	100.00
Hyundai Power Transformers USA Inc. (*1)	Manufacture and sale of electronic and electric products	USA	December	100.00	100.00
Hyundai Electric Arabia L.L.C(*1)	Customer support services	Saudi Arabia	December	100.00	100.00
Hyundai Electric America Corporation (*1)	Sale of transformers	USA	December	100.00	-
Hyundai Construction Equipment Co., Ltd. (*2)	Manufacture and sale of machinery equipment for construction	Korea	December	33.12	33.12
Hyundai Core Motion Co., Ltd. (*1)	Supplement of construction equipment A/S machinery parts and manufacture of hydraulic functional items	Korea	December	100.00	100.00
HHI China Investment Co., Ltd. (*1)	Holding company	China	December	60.00	60.00
Hyundai Financial Leasing Co., Ltd. (*1,3)	Financing business	China	December	46.76	46.76
Hyundai (Jiangsu) Construction Machinery Co., Ltd. (*1)	Manufacture and sale of machinery equipment for construction	China	December	60.00	60.00
Changzhou Hyundai Hydraulic Machinery Co., Ltd. (*1)	Production and sale of hydraulic cylinder	China	December	100.00	100.00
Weihai Hyundai Wind Power Technology Co., Ltd. (*1)	Sale and manufacture of facilities for wind power generation	China	December	80.00	80.00
MingHe (Changzhou) Machinery Co., Ltd. (*1)	Manufacture and sale of machinery equipment for construction	China	December	100.00	-
Hyundai Construction Equipment Americas, Inc. (*1)	Sale of machinery equipment for construction	USA	December	100.00	100.00
Hyundai Construction Equipment Europe N.V. (*1)	Sale of machinery equipment for construction	Belgium	December	100.00	100.00
Hyundai Construction Equipment India Private Ltd. (*1)	Manufacture and sale of machinery equipment for construction	India	March	100.00	100.00
PT. Hyundai Construction Equipment Asia (*1)	Sale of machinery equipment for construction	Indonesia	December	69.44	69.44
Hyundai Robotics Co., Ltd.	Manufacturing of industrial robots	Korea	December	90.00	-
Hyundai LNS Co.,Ltd.(*1)	Other engineering services	Korea	December	80.10	-
Hyundai Robotics Investment (Shanghai) Co., Ltd. (*1)	Sale of robot and service	China	December	100.00	100.00
Hyundai Future Partners Co., Ltd.	Management consulting business	Korea	December	100.00	100.00
Avikus Co., Ltd.	Development and sale of software for maritime autonomous surface ships	Korea	December	100.00	-

(*1) The percentage of ownership includes indirect ownership.
(*2) Even though the Group (Hyundai Heavy Industries Holdings Co., Ltd. and its subsidiaries) has under 50% shares of the investee, it is determined that the Group has a control over the investee, since the Group has substantive power to exercise a majority of voting rights considering the circumstance in the previous shareholders' meeting (e.g. voting pattern), the dispersion of the other shareholders, etc.

1. Reporting Entity, Continued

(2) Consolidated subsidiaries, continued

(*3) The Group holds under 50% shares of the investee. However, in consideration of the shares held by the related party of the Group and the business reliance of the investee on the Group, it is determined that the Group has de facto control.
(*4) Hyundai and Shell Base Oil Co., Ltd has been changed from a joint ventures to a subsidiary due to the change in certain decisions in accordance with shareholders agreement for the year ended December 31, 2020.

(3) Changes in scope of consolidation

(i) Subsidiaries newly subject to consolidation for the year ended December 31, 2020 are as follows:

Companies	Reason
Hyundai Electric America Corporation	Establishment
Hyundai LNS Co., Ltd.	Establishment
Hyundai Robotics Co., Ltd.	Establishment
Avikus Co., Ltd.	Establishment
MingHe (Changzhou) Machinery Co., Ltd.	Acquisition
Hyundai and Shell Base Oil Co., Ltd. (*)	Acquisition

(*) Hyundai and Shell Base Oil Co., Ltd has been changed from a joint ventures to a subsidiary due to the change in certain decisions in accordance with shareholders agreement for the year ended December 31, 2020.

(ii) Subsidiaries excluded from consolidation for the year ended December 31, 2020 are as follows:

Companies	Reason
Hyundai Heavy Industries Co. Bulgaria	Sale

1. Reporting Entity, Continued

(4) Condensed financial information of consolidated subsidiaries

Condensed financial information of significant consolidated subsidiaries as of and for the years ended December 31, 2020 and 2019 are summarized as follows:

(In millions of won)

	2020					
Company	**Assets**	**Liabilities**	**Equity**	**Revenue**	**Profit (loss)**	**Total comprehensive income (loss)**
Hyundai Oilbank Co., Ltd.	₩ 11,330,728	7,087,128	4,243,600	12,491,005	(457,484)	(219,746)
Hyundai Oil Terminal Co., Ltd.	179,310	38,220	141,090	45,196	10,937	19,915
Hyundai and Shell Base Oil Co., Ltd. (*)	461,699	155,329	306,370	93,742	16,593	17,459
Hyundai Chemical Co., Ltd.	3,467,453	2,006,848	1,460,605	2,701,866	(34,735)	(28,051)
Hyundai Oil Singapore Pte. Ltd.	828,377	758,370	70,007	3,956,699	(5,243)	(8,439)
Hyundai OCI Co., Ltd.	308,994	142,853	166,141	163,874	28,475	28,414
Hyundai Global Service Co., Ltd	460,703	193,502	267,201	960,753	111,461	113,943
Hyundai Electric & Energy Systems Co., Ltd	2,078,906	1,388,349	690,557	1,566,220	(37,881)	(13,991)
Hyundai Heavy Industries (China) Electric Co., Ltd.	124,017	74,668	49,349	103,592	2,923	3,195
Hyundai Power Transformers USA Inc.	196,921	143,271	53,650	186,241	1,805	(1,671)
Hyundai Construction Equipment Co., Ltd.	2,145,520	1,086,821	1,058,699	1,705,765	(31,013)	(14,906)
Hyundai Core Motion Co., Ltd.	318,887	184,366	134,521	310,561	13,397	14,838
HHI China Investment Co., Ltd.	406,524	33,575	372,949	47,554	23,058	25,063
Hyundai Financial Leasing Co., Ltd.	422,329	189,452	232,877	39,609	14,228	15,433
Hyundai (Jiangsu) Construction Machinery Co., Ltd.	358,413	193,286	165,127	674,467	14,874	15,813
Hyundai Construction Equipment Americas, Inc.	157,841	119,891	37,950	293,700	2,468	(13)
Hyundai Construction Equipment Europe N.V.	172,191	93,763	78,428	307,787	1,027	3,382
Hyundai Construction Equipment India Private Ltd.	145,121	108,675	36,446	220,927	(3,644)	(6,998)
Hyundai Robotics Co., Ltd.	429,903	125,320	304,583	190,986	(316)	11,658

(*) Financial information after acquisition of control in November 2020.

1. Reporting Entity, Continued

(4) Condensed financial information of consolidated subsidiaries, continued

Condensed financial information of significant consolidated subsidiaries as of and for the years ended December 31, 2020 and 2019 are summarized as follows, continued:

(In millions of won)

		2019					
Company		**Assets**	**Liabilities**	**Equity**	**Revenue**	**Profit (loss)**	**Total comprehensive income (loss)**
Hyundai Oilbank Co., Ltd.	₩	10,569,293	6,087,876	4,481,417	19,046,175	218,583	202,654
Hyundai Oil Terminal Co., Ltd.		161,401	40,226	121,175	42,433	9,418	9,236
Hyundai Chemical Co., Ltd.		2,806,406	1,317,749	1,488,657	3,653,909	62,365	55,445
Hyundai Oil Singapore Pte. Ltd.		606,207	527,762	78,445	7,932,333	27,193	21,600
Hyundai OCI Co., Ltd.		304,124	166,399	137,725	180,545	23,912	23,659
Hyundai Global Service		597,344	284,085	313,259	789,472	87,548	87,360
Hyundai Electric & Energy Systems Co., Ltd.		2,062,662	1,358,114	704,548	1,553,567	(253,483)	(249,880)
Hyundai Heavy Industries (China) Electric Co., Ltd.		106,232	60,079	46,153	105,937	5,217	5,867
Hyundai Power Transformers USA Inc.		228,842	173,522	55,320	174,610	(14,160)	(11,686)
Hyundai Construction Equipment Co., Ltd.		1,956,109	882,505	1,073,604	1,965,845	(12,875)	(15,906)
Hyundai Core Motion Co., Ltd.		310,023	190,340	119,683	222,405	16,978	17,007
HHI China Investment Co., Ltd.		394,574	34,958	359,616	42,873	34,584	40,065
Hyundai Financial Leasing Co., Ltd.		360,858	131,032	229,826	30,600	13,506	17,277
Hyundai (Jiangsu) Construction Machinery Co., Ltd.		324,688	161,935	162,753	608,419	38,362	39,964
Hyundai Construction Equipment Americas, Inc.		198,211	160,248	37,963	438,673	(17,238)	(15,233)
Hyundai Construction Equipment Europe N.V.		173,901	98,853	75,048	362,757	347	1,397
Hyundai Construction Equipment India Private Ltd.		176,950	133,506	43,444	248,114	(8,453)	(7,563)

1. Reporting Entity, Continued

(5) Non-controlling interests

The information about non-controlling interests of significant consolidated subsidiaries as of December 31, 2020 and 2019 are summarized as follows:

(In millions of won)		Hyundai Oilbank Co., Ltd (*1)		Hyundai Electric & Energy Systems Co., Ltd (*2)		Hyundai Construction Equipment Co., Ltd (*3)	
		2020	2019	2020	2019	2020	2019
Ownership for non-controlling interests		25.87%	25.87%	62.63%	62.63%	63.61%	63.61%
Net assets	₩	4,243,600	4,481,417	690,557	704,548	1,058,699	1,073,604
Book value of non-controlling interests		1,471,554	1,374,068	443,156	456,249	837,063	925,007
Net income (loss)		(457,484)	218,583	(37,881)	(253,483)	(31,013)	(12,875)
The profit (loss) attributable to non-controlling interests		(118,374)	19,399	(23,760)	(157,572)	(20,395)	(8,467)
Cash flows from operating activities		358,529	781,592	202,660	26,691	186,933	261,930
Cash flows from investing activities		(860,365)	(801,430)	138,430	(158,955)	44,692	(370,885)
Cash flows from financing activities		535,549	31,285	333	(43,417)	148,758	(298)
Net increase (decrease) of cash and cash equivalents		33,713	11,447	341,423	(175,681)	380,383	(109,253)
Dividends paid to non-controlling interests		52,634	21,751	-	-	-	10,884

(*1) Non-controlling interest in Hyundai Oilbank Co., Ltd. includes hybrid bonds amounted to ₩428,924 million and ₩224,273 million issued by Hyundai Oilbank Co., Ltd. as of December 31, 2020 and 2019.
(*2) Ownership for non-controlling interest adjusted for treasury stock of Hyundai Electric & Energy Systems Co., Ltd., are 62.72% as of December 31, 2020 and 2019.
(*3) Ownership for non-controlling interest adjusted for treasury stock of Hyundai Construction Equipment Co., Ltd., are 65.76% as of December 31, 2020 and 2019.

2. Basis of Preparation

The consolidated financial statements of Hyundai Heavy Industries Holdings Co., Ltd. and its subsidiaries (the "Group") have been prepared in accordance with Korean International Financial Reporting Standards ("K-IFRS"), as prescribed in the Act on External Audits of Corporations in the Republic of Korea.

The consolidated financial statements were authorized for issue by the Board of Directors on February 4, 2021 and submitted for approval to the shareholders' meeting to be held on March 25, 2021.

(1) Basis of measurement

The consolidated financial statements have been prepared on a historical cost basis, except for the following material items in the consolidated statement of financial position:

- Derivative financial instruments measured at fair value;
- Financial assets measured at fair value through profit or loss ("FVTPL");
- Financial assets measured at fair value through other comprehensive income ("FVOCI");
- Land measured at fair value; and
- Liabilities for defined benefit plans recognized at the net of the total present value of defined benefit obligations less the fair value of plan assets

(2) Functional and presentation currency

These consolidated financial statements are presented in Korean won, which is the Group's functional currency and the currency of the primary economic environment in which the Group operates.

(3) Use of estimates and judgments

The preparation of the consolidated financial statements in conformity with K-IFRS requires management to make judgments, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, income and expenses. Actual results may differ from these estimates.

Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimates are revised and in any future periods affected.

The spread of the COVID-19 pandemic during 2020 has materially affected the global economy. This may have adverse impacts on productivity, decrease or delay in recognition of sales, or the Group's ability to collect on outstanding accounts receivable, which could adversely affect the Group's financial position and results of operations. The significant accounting estimates and assumptions used in preparing the consolidated financial statements of the Group may be adjusted due to changes in the level of uncertainty from COVID-19 in the future. The ultimate impact from COVID-19 on the Group's business, financial position or results of operations may differ from the estimates reflected in the accompanying consolidated financial statements.

(i) Judgments
Information about critical judgments in applying accounting policies that have the most significant effect on the amounts recognized in the consolidated financial statements is included in the following notes:

- Note 1 – Scope of Consolidation: Whether the Group has de facto control over an investee;
- Note 12 – Investments in Associates: Whether the Group has significant influence over an associate
- Note 14 – Classification of investment property
- Note 16 – Lease: whether the Group is reasonably certain to exercise extension options

2. Basis of Preparation, Continued

(3) Use of estimates and judgments, continued

(ii) Assumptions and estimation uncertainties

Information about assumptions and estimation uncertainties that have a significant risk of resulting in a material adjustment within the next financial year are included in the following notes:

- Notes 12, 15, 17 – Impairment test: key assumptions underlying recoverable amounts, including the recoverability of investments in associates, property, plant and equipment and intangible assets;
- Note 23 – Measurement of defined benefit obligations: key actual assumptions;
- Notes 24, 43 – Recognition and measurement of provisions and contingencies: key assumptions about the likelihood and magnitude of an outflow of resources;
- Note 31 – Acquisition of subsidiary: measurement of fair value;
- Note 32 – Revenue recognition in proportion to stage of completion, the estimates of total contract costs;
- Note 38 – Measurement of deferred tax; and
- Note 42 – Measurement of account receivable and contract asset's expected credit loss: key assumptions about weighted average loss rate

(iii) Measurement of fair value

A number of the Group's accounting policies and disclosures require the measurement of fair values, for both financial and non-financial assets and liabilities. The Group has an established control framework with respect to the measurement of fair values. This includes a valuation team that has overall responsibility for overseeing all significant fair value measurements, including Level 3 fair values, and reports directly to the CFO.

The valuation team regularly reviews significant unobservable inputs and valuation adjustments. If third party information, such as broker quotes or pricing services, is used to measure fair values, then the valuation team assesses the evidence obtained from the third parties to support the conclusion that such valuations meet the requirements of K-IFRS, including the level in the fair value hierarchy in which such valuations should be classified.

Significant valuation issues are reported to the Group's Audit Committee.

When measuring the fair value of an asset or a liability, the Group uses market observable data as far as possible. Fair values are categorized into different levels in a fair value hierarchy based on the inputs used in the valuation techniques as follows:

- Level 1: Quoted prices (unadjusted) in active markets for identical assets or liabilities.
- Level 2: Inputs other than quoted prices included in Level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices).
- Level 3: Inputs for the asset or liability that are not based on observable market data (unobservable inputs).

If the inputs used to measure the fair value of an asset or a liability might be categorized in different levels of the fair value hierarchy, then the fair value measurement is categorized in its entirety in the same level of the fair value hierarchy as the lowest level input that is significant to the entire measurement. The Group recognizes transfers between levels of the fair value hierarchy at the end of the reporting period during which the change has occurred.

Further information about the assumptions made in measuring fair values is included in the following notes:

- Note 15 – Property, plant, and equipment;
- Note 25 – Derivative financial instruments;
- Note 31 – Acquisition and disposal of Subsidiary and Business; and
- Note 42 – Financial instruments

3. Changes in Accounting Policies

The Group has initially adopted standards and amendments from January 1, 2020. These amendments which are effective from January 1, 2020 have no significant effect on the Group's consolidated financial statements.

(i) K-IFRS No.1103 '*Business Combinations*' amendment (Definition of a business)

The amendment to K-IFRS No. 1103 specifies that, to be considered a business, an integrated set of activities and assets must include, at minimum, an input and a substantive process that together significantly contribute to the ability to create output. It is also clarified that a business need not include all the inputs or processes to create output. This amendment has no significant effect on the Group's consolidated financial statements.

(ii) K-IFRS No.1107 '*Financial Instruments: Disclosures*', K-IFRS No.1109 '*Financial Instruments*', K-IFRS No.1039 '*Financial Instruments: Recognition and Measurement*' amendments (Interest rate benchmark reform)

These amendments to K-IFRS No. 1109 and K-IFRS No. 1039 provide an exception for all hedging relationships directly affected by interest rate benchmark reform. A hedging relationship is affected by interest rate benchmark reform if the reform gives rise to uncertainties about the timing or the amount of interest rate benchmark-based cash flows of the hedged item or the hedging instrument. These amendments have no significant effect on its consolidated financial statements.

(iii) K-IFRS No. 1001 '*Presentation of Financial Statements*', K-IFRS No.1008 '*Accounting Policies, Changes in Accounting Estimates and Errors*' amendments (Definition of materiality)

These amendments provide a new definition of materiality. According to the new definition, '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'.

These amendments clarify that material is determined by the nature or size of the information, individually or in combination with other information, in the context of its financial statements. The information is material if it is reasonably expected that the misstatement of information will influence the decisions of the primary users. These amendments have no significant effect on the Group's consolidated financial statements.

3. Changes in Accounting Policies, Continued

(iv) COVID-19-Related Rent Concession (Amendment to K-IFRS No.1116 '*Lease*')

These amendments introduce a practical expedient for lessees – i.e. a lessee is not required to assess whether eligible rent concessions that are a direct consequence of COVID-19 pandemic are lease modification. These rent concessions have to meet all of the criteria to qualify for the practical expedient, and if they were not lease modifications, a lessee that applies the practical expedient accounts for them in accordance with other applicable guidance. This amendment is effective for periods beginning on or after June 1, 2020, with earlier application permitted. This amendment has no significant impact on the Group's consolidated financial statements.

(v) Conceptual Framework for Financial Reporting (2018)

The conceptual framework is not an accounting standard, and any contents of the conceptual framework overrides any accounting standards or its requirements. The purpose of the conceptual framework is to assist the Korea Accounting Standards Board to establish and amend K-IFRS and help preparers to develop consistent accounting policies when there are no accounting standards to apply. It also assists all parties to understand and interpret the accounting standards.

The revised conceptual framework includes some new concepts, suggests changes to the definition and recognition criteria of assets and liabilities, and clarifies some important concepts. This amendment has no significant effect on the Group's consolidated financial statements.

4. Significant Accounting Policies

The significant accounting policies applied by the Group in the preparation of its consolidated financial statements are included below and the Group has consistently applied the accounting policies to all periods presented in these consolidated financial statements, changes in accounting policies described in *Note 3*.

(1) Operating segments

An operating segment is a component of the Group that engages in business activities from which it may earn revenues and incur expenses, including revenues and expenses that relate to transactions with any of the Group's other components. All operating segment operating results are reviewed regularly by the Group's chief operating decision maker (CODM) to make decisions about resources to be allocated to the segment and assess its performance, and for which discrete financial information is available. As discussed in *Note 34* the Group has five reportable segments which are the Group's strategic business units. The strategic business units offer different products and services and are managed separately because they require different technology and marketing strategies.

Segment results that are reported to the CEO include items directly attributable to a segment as well as those that can be allocated on a reasonable basis.

(2) Basis of consolidation

(i) Business combinations

A business combination is accounted for by applying the acquisition method, unless it is a combination involving entities or business under common control.

The consideration transferred in the acquisition is generally measured at fair value, as are the identifiable net assets acquired. Any goodwill that arises is tested annually for impairment. Any gain on a bargain purchase is recognized in profit or loss immediately. Transaction costs are expensed as incurred, except if related to the issue of debt or equity securities. The costs to issue debt or equity securities are recognized in accordance with K-IFRS No. 1032, 'Financial Instruments: Presentation' and K-IFRS No. 1039, 'Financial Instruments: Recognition and Measurement'.

The consideration transferred does not include amounts related to the settlement of pre-existing relationships. Such amounts are generally recognized in profit or loss.

Any contingent consideration payable is measured at fair value at the acquisition date. If the contingent consideration is classified as equity, then it is not remeasured and settlement is accounted for within equity. Otherwise, subsequent changes in the fair value of the contingent consideration are recognized in profit or loss.

If share-based payment awards (replacement awards) are required to be exchanged for awards held by the acquiree's employees (acquiree's awards), then all or a portion of the amount of the acquirer's replacement awards is included in measuring the consideration transferred in the business combination. This determination is based on the market-based measure of the replacement awards compared with the market-based measure of the acquiree's awards and the extent to which the replacement awards relate to pre-combination service.

(ii) Non-controlling interests

Non-controlling interests are measured at their proportionate share of the acquiree's identifiable net assets on the acquisition date.

Changes in the Group's interest in a subsidiary that do not result in a loss of control are accounted for as equity transactions.

4. Significant Accounting Policies, Continued

(2) Basis of consolidation, continued

(iii) Subsidiaries
Subsidiaries are entities controlled by the Group. The Group controls an entity when it is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. The financial statements of subsidiaries are included in the consolidated financial statements from the date on which control commences until the date on which control ceases.

(iv) Loss of control
When the Group loses control over a subsidiary, it derecognizes the assets and liabilities of the subsidiary, and any related NCI and other components of equity. Any resulting gain or loss is recognized in profit or loss. Any interest retained in the former subsidiary is measured at fair value when control is lost.

(v) Interests in equity-accounted investees
The Group's interests in equity-accounted investees comprise interests in associates and joint ventures.

Associates are those entities in which the Group has significant influence, but not control or joint control, over the financial and operating policies. A joint venture is an arrangement in which the Group has joint control, whereby the Group has rights to the net assets of the arrangement, rather than rights to its assets and obligations for its liabilities.

Interests in associates and the joint venture are accounted for using the equity method. They are recognized initially at cost, which includes transaction costs. Subsequent to initial recognition, the consolidated financial statements include the Group's share of the profit or loss and OCI of equity-accounted investees, until the date on which significant influence or joint control ceases.

(vi) Transactions eliminated on consolidation
Intra-group balances and transactions, and any unrealized income and expenses arising from intra-group transactions, are eliminated. Unrealized gains arising from transactions with equity-accounted investees are eliminated against the investment to the extent of the Group's interest in the investee. Unrealized losses are eliminated in the same way as unrealized gains, but only to the extent that there is no evidence of impairment.

(vii) Acquisitions from entities under common control
The assets and liabilities acquired under business combinations under common control are recognized at the carrying amounts recognized previously in the consolidated financial statements of the ultimate parent. The difference between consideration transferred and carrying amounts of net assets acquired is recognized as part of share premium.

4. Significant Accounting Policies, Continued

(3) Cash and cash equivalents

Cash and cash equivalents comprise cash balances and call deposits with maturities of three months or less from the acquisition date that are subject to an insignificant risk of changes in their fair value and are used by the Group in the management of its short-term commitments. Equity investments are excluded from cash equivalents unless they are, in substance, cash equivalents, for example in the case of preferred shares when it has a short maturity with a specified redemption date.

Cash and cash equivalents as of December 31, 2020 and 2019 are as follows:

(In millions of won)		**2020**	**2019**
Cash	₩	2,216	455
Current deposit		106,333	56,880
MMDA and others		1,929,952	1,971,150
	₩	2,038,501	2,028,485

(4) Inventories

The cost of inventories is based on the moving-average method with the exception of cost of materials-in-transit, which is determined on the specific identification method. Cost of inventories includes expenditures incurred in acquiring the inventories, production or conversion costs and other costs incurred in bringing them to their existing location and condition.

Inventories are measured at the lower of cost and net realizable value. Net realizable value is the estimated selling price in the ordinary course of business, less the estimated costs of completion and selling expenses. The amount of any write-down of inventories to net realizable value and all losses of inventories are recognized as an expense in cost of sales in the period in which the write-down or loss occurs. The amount of any reversal of any write-down of inventories, arising from an increase in net realizable value, are recognized as a reduction in the amounts of inventories recognized as an expense in cost of sales in the period in which the reversal occurs.

4. Significant Accounting Policies, Continued

(5) Non-derivative financial assets

1) Recognition and initial measurement

Trade receivables and debt securities issued are initially recognized when they are originated. All other financial assets and financial liabilities are initially recognized when the Group becomes a party to the contractual provisions of the instrument.

A financial asset (unless it is a trade receivable without a significant financing component) or financial liability is initially measured at fair value plus, for an item not at FVTPL, transaction costs that are directly attributable to its acquisition or issue. A trade receivable without a significant financing component is initially measured at the transaction price.

2) Classification and subsequent measurement

(i) Financial assets
On initial recognition, a financial asset is classified as measured at: amortized cost; FVOCI-debt investment; FVOCI – equity investment; or FVTPL.

Financial assets are not reclassified subsequent to their initial recognition unless the Group changes its business model for managing financial assets, in which case all affected financial assets are reclassified on the first day of the first reporting period following the change in the business model.

A financial asset is measured at amortized cost if it meets both of the following conditions and is not designated as at FVPL:
- It is held within a business model whose objective is to hold assets to collect contractual cash flows; and
- Its contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

A debt investment is measured at FVOCI if it meets both of the following conditions and is not designated as at FVTPL:
- It is held within a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets; and
- Its contractual terms give rise on specified dates to cash flows that are solely payment of principal and interest on the principal amount outstanding.

On initial recognition of an equity investment that is not held for trading, the Group may irrevocably elect to present subsequent changes in the investment's fair value in OCI. This election is made on an investment-by-investment basis.

All financial assets not classified as measured at amortized cost or FVOCI as described above are measured at FVTPL. This includes all derivative financial assets. On initial recognition, the Group may irrevocably designate a financial asset that otherwise meets the requirements to be measured at amortized cost or at FVOCI as at FVTPL if doing so eliminates or significantly reduces an accounting mismatch that would otherwise arise.

4. Significant Accounting Policies, Continued

(5) Non-derivative financial assets, continued

2) Classification and subsequent measurement, continued

(ii) Financial assets – Business model assessment

The Group makes an assessment of the objective of the business model in which a financial asset is held at portfolio level because this best reflects the way the business is managed and information is provided to management. The information considered includes:

- The stated policies and objectives for the portfolio and the operation of those policies in practice. These include whether management's strategy focuses on earning contractual interest income, maintaining a particular interest rate profile, matching the duration of the financial assets to the duration of any related liabilities or expected cash outflows or realizing cash flows through the sale of the assets;
- How the performance of the portfolio is evaluated and reported to the Group's management;
- The risks that affect the performance of business model (and the financial assets held within that business model) and how those risks are managed;
- How managers of the business are compensated – e.g. whether compensation is based on the fair value of the assets managed or the contractual cash flows collected; and
- The frequency, volume and timing of sales of financial assets in prior periods, the reasons for such sales and expectations about future sales activity.

Transfers of financial assets to third parties in transactions that do not qualify for derecognition are not considered sales for this purpose, consistent with the Group's continuing recognition of the assets.

Financial assets that are held for trading or are managed and whose performance is evaluated on a fair value are measured at FVTPL.

(iii) Financial assets – Assessment whether contractual cash flows are solely payments of principal and interest

For the purposes of this assessment, 'principal' is defined as the fair value of the financial asset on initial recognition. 'Interest' is defined as consideration for the time value of money and for the credit risk associated with the principal amount outstanding during a particular period of time and for other basic lending risks and cost (e.g. liquidity risk and administrative costs), as well as a profit margin.

In assessing whether the contractual cash flows are solely payments of principal and interest, the Group considers the contractual terms of the instrument. This includes assessing whether the financial asset contains a contractual term that could change the timing or amount of contractual cash flows such that it would not meet this condition.

In making this assessment, the Group considers:

- Contingent events that would change the amount or timing of cash flow;
- Terms that may adjust the contractual coupon rate, including variable-rate features;
- Prepayment and extension features; and
- Terms that limit the Group's claim to cash flows from specified assets

A prepayment feature is consistent with the solely payments of principal and interest criterion if the prepayment amount substantially represents unpaid amounts of principal and interest on the principal amount outstanding, which may include reasonable additional compensation for early termination of the contract.

4. Significant Accounting Policies, Continued

(5) Non-derivative financial assets, continued

2) Classification and subsequent measurement, continued

(iii) Financial assets – Assessment whether contractual cash flows are solely payments of principal and interest, continued

Additionally, for a financial asset acquired at a discount or premium to its contractual par amount, a feature that permits or requires prepayment at an amount that substantially represents the contractual par amount plus accrued (but unpaid) contractual interest (which may also include reasonable additional compensation for early termination) is treated as consistent with this criterion if the fair value of the prepayment feature is insignificant at initial recognition.

(iv) Financial assets: Subsequent measurement and gains and losses

Financial assets at FVTPL	These assets are subsequently measured at fair value. Net gains and losses, including any interest or dividend income, are recognized in profit or loss.
Financial assets at amortized cost	These assets are subsequently measured at amortized cost using the effective interest method. The amortized cost is reduced by impairment losses. Interest income, foreign exchange gains and losses and impairment are recognized in profit and loss. Any gain or loss on derecognition is recognized in profit or loss
Debt investments at FVOCI	These assets are subsequently measured at fair value. Interest income is calculated using the effective interest method, foreign exchange gains and losses and impairment are recognized in profit and loss. Other net gain and losses are recognized in OCI. On derecognition, gains and losses accumulated in OCI are reclassified to profit or loss.
Equity investments at FVOCI	These assets are subsequently measured at fair value. Dividends are recognized as income in profit or loss unless the dividend clearly represents a recovery of part of the cost of the investment. Other net gains and losses are recognized in OCI and are never reclassified to profit or loss.

4. Significant Accounting Policies, Continued

(5) Non-derivative financial assets, continued

3) Derecognition

The Group derecognizes a financial asset when the contractual rights to the cash flow from financial asset expire, or it transfers the rights to receive the contractual cash flows in a transaction in which substantially all of the risks and rewards of ownership of the financial asset are transferred or in which the Group neither transfers nor retains substantially all of the risks and rewards of ownership and it does not retain control of the financial asset

The Group enters into transactions whereby it transfers assets recognized in its statement of financial position but retains either all or substantially all of the risks and rewards of the transferred assets. In these cases, the transferred assets are not derecognized.

4) Offsetting

Financial assets and financial liabilities are offset and the net amount presented in the statement of financial position when, and only when, the Group currently has a legally enforceable right to set off the amounts and it intends either to settle them on a net basis or to realize the asset and settle the liability simultaneously.

4. Significant Accounting Policies, Continued

(6) Derivative financial instruments and hedge accounting

Derivatives are initially recognized at fair value. Subsequent to initial recognition, derivatives are measured at fair value, and changes therein are accounted for as described below.

1) Hedge accounting

The Group holds forward exchange contracts, interest rate swaps, product forward and other derivative contracts to manage interest rate risk, foreign exchange risk and oil price risk. The Group designated derivatives as hedging instruments to hedge the risk of changes in the fair value of assets, liabilities or firm commitments (a fair value hedge) and foreign currency risk of highly probable forecasted transactions or firm commitments (a cash flow hedge).

On initial designation of the hedge, the Group formally documents the relationship between the hedging instrument(s) and hedged item(s), including the risk management objectives and strategy in undertaking the hedge transaction, together with the methods that will be used to assess the effectiveness of the hedging relationship.

(i) Fair value hedge

Changes in the fair value of a derivative hedging instrument designated as a fair value hedge are recognized in profit or loss. The gain or loss from remeasuring the hedging instrument at fair value for a derivative hedging instrument and the gain or loss on the hedged item attributable to the hedged risk are recognized in profit or loss in the same line item of the consolidated statement of comprehensive income.

The Group discontinues fair value hedge accounting if the hedging instrument expires or is sold, terminated or exercised, or if the hedge no longer meets the criteria for hedge accounting. Any adjustment arising from gain or loss on the hedged item attributable to the hedged risk is amortized to profit or loss from the date the hedge accounting is discontinued.

(ii) Cash flow hedge

When a derivative is designated to hedge the variability in cash flows attributable to a particular risk associated with a recognized asset or liability or a highly probable forecasted transaction that could affect profit or loss, the effective portion of changes in the fair value of the derivative is recognized in other comprehensive income, net of tax, and presented in the hedging reserve in equity. Any ineffective portion of changes in the fair value of the derivative is recognized immediately in profit or loss.

If the hedging instrument no longer meets the criteria for hedge accounting, expires or is sold, terminated, exercised, or the designation is revoked, then hedge accounting is discontinued prospectively. The cumulative gain or loss on the hedging instrument that has been recognized in other comprehensive income is reclassified to profit or loss in the periods during which the forecasted transaction occurs. If the forecasted transaction is no longer expected to occur, then the balance in other comprehensive income is recognized immediately in profit or loss.

2) Other derivative financial instruments

Changes in the fair value of other derivative financial instrument not designated as a hedging instrument are recognized immediately in profit or loss.

4. Significant Accounting Policies, Continued

(7) Impairment of financial assets

(i) Financial instruments and contract assets

The Group recognized loss allowances for expected credit losses ("ECL") on;

- Financial assets measured at amortized cost;
- Contract assets defined in K-IFRS No.1115; and
- Debt investments measured at FVOCI

The Group measures loss allowances at an amount equal to lifetime ECLs, except for the following, which are measured at 12-month ECLs;

- Debt securities that are determined to have low credit risk at the reporting date; and
- Other debt securities and bank balances for which credit risk (i.e. the risk of default occurring over the expected life of the financial instrument) has not increased significantly since initial recognition

Loss allowances for trade receivables and contract assets are always measured at an amount equal to lifetime ECLs.

When determining whether the credit risk of a financial asset has increased significantly since initial recognition and when estimating ECLs, the Group considers reasonable and supportable information that is relevant and available without undue cost or effort. This includes both quantitative and qualitative information and analysis, based on the Group's historical experience and informed credit assessment and including forward-looking information.

The Group considers a financial asset to be in default when:

- the borrower is unlikely to pay its credit obligations to the Group in full, without recourse by the Group to actions such as realizing security (if an is held); or
- past due of the financial asset is significantly increased

Lifetime ECLs are the ECLs that result from all possible default events over the expected life of a financial instrument.

12-month ECLs are the portion of ECLs that result from default events that are possible within the 12 months after the reporting date (or a shorter period if the expected life of the instrument is less than 12 months).

The longest period considered in measuring ELCs is the maximum contract period during which the group is exposed to credit risk.

4. Significant Accounting Policies, Continued

(7) Impairment of financial assets, continued

(ii) Measurement of ECLs

ECLs are probability-weighted estimate of credit losses. Credit losses are measured as the present value of all cash shortfalls (i.e. the difference between the cash flows due to the entity in accordance with the contract and the cast flows that the Group expects to receive). ECLs are discounted at the effective interest rate of financial assets.

(iii) Credit-impaired financial assets

At each reporting date, the Group assesses whether financial assets carried at amortized cost and debt securities at FVOCI are credit-impaired. A financial asset is 'credit-impaired' when one or more events that have a detrimental impact on the estimated future cash flows of the financial asset have occurred.

Evidence that a financial asset is credit-impaired includes the following observable data:

- Significant financial difficulty of the borrower or issuer;
- A breach of contract such as a default or being past due;
- The restructuring of a loan or advance by the Group on terms that the Group would not consider otherwise;
- It is probable that the borrower will enter bankruptcy or other financial reorganization; or
- The disappearance of an active market for a security because of financial difficulties.

(iv) Presentation of allowance for ECL in the statement of financial position

Loss allowances for financial assets measured at amortized cost are deducted from the gross carrying amount of the assets. For debt securities at FVOCI, the loss allowance is charged to profit or loss and is recognized in OCI.

(v) Write-off

The gross carrying amount of a financial asset is written off when the Group has no reasonable expectation of recovering a financial asset in its entirety or a portion thereof. The Group expects no significant recovery from the amount written off. However, financial assets that are written off could still be subject to enforcement activities in order to comply with the Group's procedures for recovery of amounts due.

4. Significant Accounting Policies, Continued

(8) Property, plant and equipment

Property, plant and equipment are initially measured at cost and after initial recognition, are carried at cost less accumulated depreciation and accumulated impairment losses. The cost of property, plant and equipment includes expenditures arising directly from the construction or acquisition of the asset, any costs directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management and the initial estimate of the costs of dismantling and removing the item and restoring the site on which it is located. Subsequent to initial recognition, an item of property, plant and equipment shall be carried at its cost less any accumulated depreciation and any accumulated impairment losses.

Property, plant and equipment, except for land, are depreciated on a straight-line basis over estimated useful lives that appropriately reflect the pattern in which the asset's future economic benefits are expected to be consumed. A component that is significant compared to the total cost of property, plant and equipment is depreciated over its separate useful life. Gains and losses on disposal of an item of property, plant and equipment are determined by comparing the proceeds from disposal with the carrying amount of property, plant and equipment and are recognized in profit or loss.

The useful lives of property, plant and equipment are as follows:

	Useful lives (years)
Buildings	25~50
Structures	20~50
Machinery	2~36
Other property, plant and equipment	2~20

Depreciation methods, useful lives and residual values are reviewed at the end of each reporting period and adjusted, if appropriate. The change is accounted for as a change in an accounting estimate.

4. Significant Accounting Policies, Continued

(9) Intangible assets

Intangible assets are measured initially at cost and, subsequently, are carried at cost less accumulated amortization and accumulated impairment losses.

Amortization of intangible assets except for goodwill is calculated on a straight-line basis over the estimated useful lives of intangible assets from the date that they are available for use. The residual value of intangible assets is zero. However, as there are no foreseeable limits to the periods over which club memberships are expected to be available for use, this intangible asset is determined as having indefinite useful lives and not amortized.

	Useful lives (years)
Capitalized development costs	5
Distribution networks	20
Customer relationships	8~20
Brands, Membership, Goodwill	Indefinite
Know-how	16
Technology	5~10
Order backlog	10
Other intangible assets	3~50

Useful lives and the amortization methods for intangible assets with finite useful lives are reviewed at the end of each reporting period. The useful lives of intangible assets that are not being amortized are reviewed at the end of each reporting period to determine whether events and circumstances continue to support indefinite useful life assessments for those assets. Changes are accounted for as changes in accounting estimates.

(i) Research and development
Expenditures on research activities, undertaken with the prospect of gaining new scientific or technical knowledge and understanding, are recognized in profit or loss as incurred. Development expenditures are capitalized only if development costs can be measured reliably, the product or process is technically and commercially feasible, future economic benefits are probable, and the Group intends to and has sufficient resources to complete development and to use or sell the asset. Other development expenditures are recognized in profit or loss as incurred.

(ii) Subsequent expenditures
Subsequent expenditures are capitalized only when they increase the future economic benefits embodied in the specific asset to which it relates. All other expenditures, including expenditures on internally generated goodwill and brands, are recognized in profit or loss as incurred.

(10) Government grants

Government grants are not recognized unless there is reasonable assurance that the Group will comply with the grant's conditions and that the grant will be received.

Government grants whose primary condition is that the Group purchase, construct or otherwise acquire long-term assets are deferred and recognized as deduction to depreciation expense over the useful life of the asset.

Government grants which are intended to compensate the Group for expenses incurred are recognized as other income (government grants) in profit or loss over the periods in which the Group recognizes the related costs as expenses.

4. Significant Accounting Policies, Continued

(11) Investment property

Property held for the purpose of earning rentals or benefiting from capital appreciation is classified as investment property. Investment property is initially measured at its cost. Transaction costs are included in the initial measurement. Subsequently, investment property is carried at depreciated cost less any accumulated impairment losses.

Subsequent costs are recognized in the carrying amount of investment property at cost or, if appropriate, as separate items if it is probable that future economic benefits associated with the item will flow to the Group and the cost of the item can be measured reliably. The carrying amount of the replaced part is derecognized. The costs of the day-to-day servicing are recognized in profit or loss as incurred.

(12) Impairment of non-financial assets

The carrying amounts of the Group's non-financial assets, other than assets arising from contract assets recognized from revenue from customers, employee benefits, inventories, deferred tax assets and non-current assets held for sale, are reviewed at the end of the reporting period to determine whether there is any indication of impairment. If any such indication exists, then the asset's recoverable amount is estimated. Goodwill and intangible assets that have indefinite useful lives or that are not yet available for use, irrespective of whether there is any indication of impairment, are tested for impairment annually by comparing their recoverable amount to their carrying amount.

For impairment testing, assets are grouped together into the smallest group of assets that generates cash inflows that are largely independent of the cash inflows from other assets or groups of assets ("CGUs"). The recoverable amount of an asset or CGU is the greater of its value in use and its fair value less costs to sell. The value in use is estimated by applying a pre-tax discount rate that reflect current market assessments of the time value of money and the risks specific to the asset or CGU for which estimated future cash flows have not been adjusted, to the estimated future cash flows expected to be generated by the asset or CGU.

An impairment loss is recognized in profit or loss if the carrying amount of an asset or a CGU exceeds its recoverable amount.

Goodwill acquired in a business combination is allocated to each CGU that is expected to benefit from the synergies arising from the goodwill acquired. Any impairment identified at the CGU level will first reduce the carrying value of goodwill and then be used to reduce the carrying amount of the other assets in the CGU on a pro rata basis. Except for impairment losses in respect of goodwill which are never reversed, an impairment loss is reversed if there has been a change in the estimates used to determine the recoverable amount. An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortization, if no impairment loss had been recognized.

4. Significant Accounting Policies, Continued

(13) Lease

A contract is, or contains, a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration.

(i) As a lessee

At commencement or on modification of a contract that contains a lease component, the Group allocates the consideration in the contract to each lease component on the basis of its relative stand-alone prices. However, for the leases of property the Group has elected not to separate non-lease components and account for the lease and non-lease components as a single lease component.

The Group recognizes a right-of-use asset and a lease liability at the lease commencement date. The right-of-use asset is initially measured at cost, which comprises the initial amount of the lease liability adjusted for any lease payments made at or before the commencement date, plus any initial direct costs incurred and an estimate of costs to dismantle and remove the underlying asset or to restore the underlying asset or the site on which it is located, less any lease incentives received.

The right-of-use asset is subsequently depreciated using the straight-line method from the commencement date to the end of the lease term, unless the lease transfers ownership of the underlying asset to the Group by the end of the lease term or the cost of the right-of-use asset reflects that the Group will exercise a purchase option. In that case the right-of-use asset will be depreciated over the useful life of the underlying asset, which is determined on the same basis as those of property and equipment. In addition, the right-of-use asset is periodically reduced by impairment losses, if any, and adjusted for certain remeasurements of the lease liability.

The lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date, discounted using the interest rate implicit in the lease or, if that rate cannot be readily determined, the Group's incremental borrowing rate as the discount rate.

The Group determines its incremental borrowing rate by obtaining interest rates from various external financing sources and makes certain adjustments to reflect the terms of the lease and type of the asset leased.

Lease payments included in the measurement of the lease liability comprise the following:
- fixed payments, including in-substance fixed payments;
- variable lease payments that depend on an index or a rate, initially measured using the index or rate as at the commencement date;
- amounts expected to be payable under a residual value guarantee; and
- the exercise price under a purchase option that the Group is reasonably certain to exercise, lease payments in an optional renewal period if the Group is reasonably certain to exercise an extension option, and penalties for early termination of a lease unless the Group is reasonably certain not to terminate early.

The lease liability is measured at amortized cost using the effective interest method. It is remeasured when there is a change in future lease payments arising from a change in an index or rate, if there is a change in the Group's estimate of the amount expected to be payable under a residual value guarantee, if the Group changes its assessment of whether it will exercise a purchase, extension or termination option or if there is a revised in-substance fixed lease payment.

When the lease liability is remeasured in this way, a corresponding adjustment is made to the carrying amount of the right-of-use asset or is recorded in profit or loss if the carrying amount of the right-of-use asset has been reduced to zero.

4. Significant Accounting Policies, Continued

(13) Lease, continued

(i) As a lessee, continued

- Short-term leases and lease of low-value assets

The Group has elected not to recognize right-of-use assets and lease liabilities for lease of low-value assets and short-term leases, including buildings and fixtures. The Group recognizes the lease payments associated with these leases as an expense on a straight-line basis over the lease term.

(ii) As a lessor

At inception or on modification of a contract that contains a lease component, the Group allocates the consideration in the contract to each lease component on the basis of their relative stand-alone prices.

When the Group acts as a lessor, it determines at lease inception whether each lease is a finance lease or an operating lease.

To classify each lease, the Group makes an overall assessment of whether the lease transfers substantially all of the risks and rewards incidental to ownership of the underlying asset. If this is the case, then the lease is a finance lease; if not, then it is an operating lease. As part of this assessment, the Group considers certain indicators such as whether the lease is for the major part of the economic life of the asset.

When the Group is an intermediate lessor, it accounts for its interests in the head lease and the sub-lease separately. It assesses the lease classification of a sub-lease with reference to the right-of-use asset arising from the head lease, not with reference to the underlying asset. If a head lease is a short-term lease to which the Group applies the exemption described above, then it classifies the sub-lease as an operating lease.

If an arrangement contains lease and non-lease components, then the Group applies K-IFRS No.1115 to allocate the consideration in the contract.

The Group applies the derecognition and impairment requirements in K-IFRS No.1109 to the net investment in the lease (See *Note 4(7)*). The Group further regularly reviews estimated unguaranteed residual values used in calculating the gross investment in the lease.

The Group recognizes lease payments received under operating leases as income on a straight-line basis over the lease term as part of 'other revenue'.

4. Significant Accounting Policies, Continued

(14) Borrowing costs

The Group capitalizes borrowing costs directly attributable to the acquisition, construction or production of a qualifying asset as part of the cost of that asset. Other borrowing costs are recognized in expense as incurred. A qualifying asset is an asset that requires a substantial period of time to get ready for its intended use or sale. Financial assets and inventories that are manufactured or otherwise produced over a short period of time are not qualifying assets. Assets that are ready for their intended use or sale when acquired are not qualifying assets.

To the extent that the Group borrows funds specifically for the purpose of obtaining a qualifying asset, the Group determines the amount of borrowing costs eligible for capitalization as the actual borrowing costs incurred on that borrowing during the period less any investment income on the temporary investment of those borrowings. To the extent that the Group borrows funds generally and uses them for the purpose of obtaining a qualifying asset, the Group shall determine the amount of borrowing costs eligible for capitalization by applying a capitalization rate to the expenditures on that asset. The capitalization rate shall be the weighted average of the borrowing costs applicable to the borrowings of the Group that are outstanding during the period, other than borrowings made specifically for the purpose of obtaining a qualifying asset. The amount of borrowing costs that the Group capitalizes during a period shall not exceed the amount of borrowing costs incurred during that period.

(15) Contract assets and contract liabilities

Contract assets are the sum of unsolicited amount from the ongoing construction work to be received from the client and are calculated by subtracting the proceeds from the recognized amount and the recognized loss from the sum of profits recognized in accrued costs. Accrued costs include fixed and variable indirect costs allocated on the basis of normal operating costs, which are directly related to a specific contract and common costs that can be attributed to overall contract activities.

The total amount of contract assets in which the sum of the accrued costs and the recognized profits exceeds the proceeds is indicated as contract assets in the statement of financial position. If the proceeds of the claim exceed the sum of the accrued costs and the recognized profit, the total contract liabilities are presented as contract liabilities in the statement of financial position.

(16) Non-current assets held for sale

If the carrying amount of a non-current asset or disposal group is expected to be recovered primarily through a sale transaction rather than continued use, it is classified as an asset held for sale. These conditions are considered to be met only if the asset (or disposal group) must be available for sale in its current condition and is very likely to be sold. Just before the initial classification of an asset (or group of disposal assets) for sale, it is measured as the lesser of the carrying amount and the net fair value of the asset (or assets and liabilities). At the time of initial classification, impairment loss is recognized in profit or loss immediately if the net fair value of the asset for which impairment has been recognized decreases. When net fair value increases, the impairment loss recognized in the past is recognized as profit or loss.

If a non-current asset is classified as held for sale or is part of a disposal group classified as held for sale, the asset is not amortized.

4. Significant Accounting Policies, Continued

(17) Non-derivative financial liabilities

The Group classifies non-derivative financial liabilities into financial liabilities at fair value through profit or loss or other financial liabilities in accordance with the substance of the contractual arrangement and the definitions of financial liabilities. The Group recognizes financial liabilities in the consolidated statement of financial position when the Group becomes a party to the contractual provisions of the financial liability.

(i) Financial liabilities at fair value through profit or loss
Financial liabilities at fair value through profit or loss include financial liabilities held for trading or designated as such upon initial recognition. Subsequent to initial recognition, financial liabilities at fair value through profit or loss are measured at fair value. Changes in the fair value of financial liabilities due to changes in credit risk of financial liabilities are expressed in other comprehensive income, and other changes in fair value are recognized in profit or loss. Upon initial recognition, transaction costs that are directly attributable to the acquisition are recognized in profit or loss as incurred.

(ii) Other financial liabilities
Non-derivative financial liabilities other than financial liabilities at fair value through profit or loss are classified as other financial liabilities. At the date of initial recognition, other financial liabilities are measured at fair value minus transaction costs that are directly attributable to the acquisition. Subsequent to initial recognition, other financial liabilities are measured at amortized cost using the effective interest method.

(iii) Elimination of financial liabilities
The Group derecognizes a financial liability from the consolidated statement of financial position when it is extinguished (i.e. when the obligation specified in the contract is discharged, cancelled or expires). The Group removes existing liabilities and recognizes new financial liabilities at fair value based on the new contracts when the cash flows have substantially changed due to changes in the terms and conditions of the financial liabilities.

When removing a financial liability, the difference between the carrying amount and the consideration paid (including transferred non-cash assets or liabilities owed) is recognized in profit or loss.

(18) Employee benefits

(i) Short-term employee benefits
Short-term employee benefits are employee benefits that are due to be settled within 12 months after the end of the period in which the employees render the related service. When an employee has rendered service to the Group during an accounting period, the Group recognizes the undiscounted amount of short-term employee benefits expected to be paid in exchange for that service.

(ii) Other long-term employee benefits
Other long-term employee benefits include employee benefits that are settled beyond 12 months after the end of the period in which the employees render the related service. The Group's net obligation in respect of long-term employee benefits is the amount of future benefit that employees have earned in return for their service in the current and prior periods. That benefit is discounted to determine its present value. Remeasurements are recognized in profit or loss in the period in which they arise.

4. Significant Accounting Policies, Continued

(18) Employee benefits, continued

(iii) Retirement benefits: defined benefit plans

The Group's net obligation in respect of defined benefit plans is calculated separately for each plan by estimating the amount of future benefit that employees have earned in the current period, discounting that amount and deducting the fair value of any plan assets.

The calculation of defined benefit obligations is performed annually by a qualified actuary using the projected unit credit method. When the calculation results in a potential asset for the Group, the recognized asset is limited to the present value of economic benefits available in the form of any future refunds from the plan or reductions in future contributions to the plan. To calculate the present value of economic benefits, consideration is given to any applicable minimum funding requirements.

Remeasurements of the net defined benefit liability, which comprise actuarial gains and losses, the return on plan assets (excluding interest) and the effect of the asset ceiling (if any, excluding interest), are recognized immediately in OCI. The Group determines the net interest expense (income) on the net defined benefit liability (asset) for the period by applying the discount rate used to measure the defined benefit obligation at the beginning of the annual period to the then-net defined benefit liability (asset), taking into account any changes in the net defined benefit liability (asset) during the period as a result of contributions and benefit payments. Net interest expense and other expenses related to defined benefit plans are recognized in profit or loss.

When the benefits of a plan are changed or when a plan is curtailed, the resulting change in benefit that relates to past service or the gain or loss on curtailment is recognized immediately in profit or loss. The Group recognizes gains and losses on the settlement of a defined benefit plan when the settlement occurs.

(iv) Retirement benefits: defined contribution plans

When an employee has rendered service to the Group during a period, the Group recognizes the contribution payable to a defined contribution plan in exchange for that service as a liability (accrued expense), after deducting any contribution already paid. If the contribution already paid exceeds the contribution due for service before the end of the reporting period, the Group recognizes that excess as an asset (prepaid expense) to the extent that the prepayment will lead to a reduction in future payments or a cash refund.

(v) Termination benefits

Termination benefits are expensed at the earlier of when the Group can no longer withdraw the offer of those benefits and when the Group recognizes costs for a restructuring. If benefits are not expected to be settled wholly within 12 months of the end of the reporting period, then they are discounted.

4. Significant Accounting Policies, Continued

(19) Provisions

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

The risks and uncertainties that inevitably surround many events and circumstances are taken into account in reaching the best estimate of a provision. Where the effect of the time value of money is material, provisions are determined at the present value of the expected future cash flows.

Where some or all of the expenditures required to settle a provision are expected to be reimbursed by another party, the reimbursement is recognized when, and only when, it is virtually certain that reimbursement will be received if the entity settles the obligation. The reimbursement is treated as a separate asset.

Provisions are reviewed at the end of each reporting period and adjusted to reflect the current best estimates. If it is no longer probable that an outflow of resources embodying economic benefits will be required to settle the obligation, the provision is reversed.

(i) Provision for construction losses
A provision for onerous contracts is measured at the lower of the expected cost of terminating the contract and the expected net cost of continuing with the contract, if unavoidable costs arising from the contractual obligations exceed the benefits expected to arise from the contract. Before a provision is established, the Group recognizes any impairment loss on the assets associated with that contract.

(ii) Provision for product warranty
The Group generally provides a warranty relating to product defects for a specified period of time after sales and accrues estimated costs as provision for product warranty, which may occur due to product liability suits.

(iii) Provision for construction warranty
The Group generally provides a warranty within the contract on rectification of defects after the contract's completion and accrues the rectification expense on defects based on actual claims history as provision for construction warranty.

(iv) Other provision
In accordance with the Group's published environmental policy and applicable legal requirements, a provision for site restoration is recognized.

A provision is used only for expenditures for which the provision was originally recognized.

4. Significant Accounting Policies, Continued

(20) Emissions rights

The Group accounts for greenhouse gases emission right and the relevant liability as below pursuant to the Act on Allocation and *Trading of Greenhouse Gas Emission* which became effective in 2015.

(i) Greenhouse Gases Emission Right

Greenhouse Gases Emission Right consists of emission allowances which are allocated from the government free of charge or purchased from the market. The cost includes any directly attributable costs incurred during the normal course of business.

Emission rights held for the purpose of performing the obligation are classified as an intangible asset and are initially measured at cost and after initial recognition, are carried at cost less accumulated impairment losses. Emission rights held for short-swing profits are classified as current asset and are measured at fair value with any changes in fair value recognized through profit or loss in the respective reporting period.

The Group derecognizes an emission right asset when the emission allowance is unusable, disposed or submitted to government in which the future economic benefits are no longer expected to be probable.

(ii) Emission liability

Emission liability is a present obligation of submitting emission rights to the government with regard to emission of greenhouse gas. Emission liability is recognized when there is a high possibility of outflows of resources in performing the obligation and the costs required to perform the obligation are reliably estimable. Emission liability is an amount of estimated obligations for emission rights to be submitted to the government for the performing period. The emission liability is measured based on the expected quantity of emission for the performing period in excess of emission allowance in possession and the unit price for such emission rights in the market at of the end of the reporting period.

The Group is involved in the allocation of emission and the trading scheme from 2015. From 2018 to 2020 is the one planning period, and the quantities of emission rights which are allocated free of charge during the planning period are as follows:

(In ton)	**2018**	**2019**	**2020**	**Total**
Allocated emission right free of charge	3,666,449	3,512,811	3,551,665	10,730,925

As of December 31, 2020 and 2019, there is no emission rights provided as collateral and the Group did not recognize the emission liability because the estimated quantity of emission did not exceed allocated emission right free of charge.

4. Significant Accounting Policies, Continued

(21) Foreign currency

(i) Foreign currency transactions

Transactions in foreign currencies are translated to the respective functional currencies of Group entities at exchange rates at the dates of the transactions. Monetary assets and liabilities denominated in foreign currencies are retranslated to the functional currency using the reporting date's exchange rate. Non-monetary assets and liabilities denominated in foreign currencies that are measured at fair value are retranslated to the functional currency at the exchange rate at the date that the fair value was determined.

Foreign currency differences arising on retranslation are recognized in profit or loss, except for differences arising on the retranslation of available-for-sale equity instruments, a financial liability designated as a hedge of the net investment in a foreign operation, or qualifying cash flow hedges, which are recognized in other comprehensive income. Non-monetary items that are measured in terms of historical cost in a foreign currency are translated using the exchange rate at the date of the transaction.

(ii) Foreign operations

If the presentation currency of the Group is different from a foreign operation's functional currency, the financial statements of the foreign operation are translated into the presentation currency using the following methods:

The assets and liabilities of foreign operations, whose functional currency is not the currency of a hyperinflationary economy, are translated to the presentation currency using the exchange rates at the reporting date. The income and expenses of foreign operations are translated to the functional currency using the exchange rates at the dates of the transaction. Foreign currency differences are recognized in other comprehensive income.

Any goodwill arising on the acquisition of a foreign operation and any fair value adjustments to the carrying amounts of assets and liabilities arising on the acquisition of that foreign operation are treated as assets and liabilities of the foreign operation. Thus, they are expressed in the functional currency of the foreign operation and translated at the closing rate.

When a foreign operation is disposed of, the relevant amount in the translation is transferred to profit or loss as part of the profit or loss on disposal. On the partial disposal of a subsidiary that includes a foreign operation, the relevant proportion of such cumulative amount is reattributed to non-controlling interest. In any other partial disposal of a foreign operation, the relevant proportion is reclassified to profit or loss.

(iii) Translation of the net investment in foreign operations

A monetary item that is receivable from or payable to a foreign operation, for which settlement is neither planned nor likely to occur in the foreseeable future, is a part of the entity's net investment in that foreign operation. Exchange differences arising on such monetary item are recognized initially in other comprehensive income and reclassified from equity to profit or loss on disposal of the net investment.

4. Significant Accounting Policies, Continued

(22) Equity capital

(i) Equity instruments

Ordinary shares are classified as equity. Incremental costs directly attributable to the issuance of ordinary shares and share options are recognized as a deduction from equity, net of any tax effects.

When the Group repurchases its share capital, the amount of the consideration paid is recognized as a deduction from equity and classified as treasury shares. The profits or losses from the purchase, disposal, reissue, or retirement of treasury shares are not recognized as current profit or loss. If the Group acquires and retains treasury shares, the consideration paid or received is directly recognized in equity.

(ii) Hybrid bonds

The Group classifies capital securities as financial liabilities or equity instruments in accordance with the substance of the contractual terms of capital securities. Hybrid bonds that have an unconditional right to avoid delivering cash or financial assets to pay a contractual obligation are classified as equity instrument and are presented in equity.

(23) Revenue from contracts with customers

(i) Characteristics of goods or services and timing of performance obligations

The Group is engaged in an oil refining segment that conducts business related to crude oil refining, an electric and electronic segment that manufactures and sells transformers, high-voltage circuit breakers, switchboards, rotating machines, power electronic control systems, and wind power generators, a construction equipment segment that manufactures and sells electronics, construction machinery and industrial transportation machinery, and a robot segment that manufactures and sells industrial and LCD robots.

1) In the oil refinery sector, oil products made by refining crude oil such as gasoline and diesel are used as main products and supplied to customers. Revenue is recognized in the case of a general contract because it does not correspond to the performance obligation to be fulfilled over a period of time. The time when performance obligations are fulfilled is the time when assets held by the relevant sector are transferred to the customer and controlled by the customer. We are determining when to fulfill our performance obligations. In general, export is mainly carried out under conditions such as CIF and FOB, and in case of domestic sales, it is judged that the performance obligation is fulfilled at the time when it is physically transferred to the customer.

2) The electric and electronic sector manufactures and supplies various electric and electronic devices and The electric and electronic sector manufactures and supplies various electric devices and energy solutions for all phases of the power supply process, ranging from power generation→ transmission→ distribution→consumption. The types of revenue in the segment are three: standard product supply agreement, multiple-element arrangement and Turn-key contract.

While standard product supply agreement consists of one performance obligation, multiple-element arrangement and Turn-key contracts are one contract but contain multiple distinctive obligations.

4. Significant Accounting Policies, Continued

(23) Revenue from contracts with customers, continued

(i) Characteristics of goods or services and timing of performance obligations, continued

As the electric and electronic sector manufactures and supplies various electric devices and energy solutions for all phases of the power supply process, for a general contract, revenue is recognized as a performance obligation is satisfied at a point in time.

The timing of satisfaction of performance obligations is when the goods are delivered to customers and the customers obtain control of the goods. The determination of the timing when the control is transferred to customer, is based on the entity's right to payment, the legal title, the physical possession, the significant risks and rewards of ownership, and the acceptance by the customer. Generally, the performance obligation is satisfied when the terms of trade such as CIF, FOB and DDP are met for transfer of the legal title in exports sales and when the product is delivered physically to customers in domestic sales respectively.

The contract to manufacture a highly customized product for a particular customer is supposed 'not to create an alternative use to the electric and electronic sector'. If the contract describes the electric and electronic sector would be compensated for an amount of recovery of the costs incurred plus a reasonable profit margin when terminated by the customer or another party, revenue from those contracts is recognized over time and is otherwise recognized at a point in time.

If the performance obligation is satisfied over time, the timing of the performance obligation depends on how the electric and electronic sector measures its progress to indicate performance when control of the goods or services is transferred to the customer. If the performance is not measured rationally, the performance is measured within the scope of the incurred cost. The electric and electronic sector provides design, raw material purchase, production, and trial run, it is difficult to obtain information for applying calculation method without incurring excessive cost due to the wide variety of drying processes. Therefore, it is decided that the timing of the cost injection should be satisfied because the input method that recognizes revenue based on the electric and electronic sector's inputs compared to the total inputs expected to satisfy the performance obligation can faithfully represent the electric and electronic sector's performance.

3) The construction equipment sector produces and supplies construction equipment and industrial vehicles such as excavators, wheel loaders, backhoe loaders, skid steer loaders, and forklifts. Revenue is recognized in the case of a general contract because it does not correspond to the performance obligation to be fulfilled over a period of time.

When the performance obligation is fulfilled, the assets held by the relevant sector are transferred to the customer and controlled by the customer. In the case of domestic sales, sales are recognized at the time of delivery of goods and at the time of shipment for export.

Usually, the customer pays the price at the time of delivery of the goods, and there may be a difference between some delivery time and the time of payment, but in general, the difference is not long, and the relevant sector holds the right to claim by completing the obligation at the time of delivery. In some cases, there is a reservation provision for transfer of ownership in the contract, but this is a case where the customer has not paid the sales price at the product delivery point, so it does not affect the determination of transfer of control because it is a safeguard against default.

4. Significant Accounting Policies, Continued

(23) Revenue from contracts with customers, continued

(i) Characteristics of goods or services and timing of performance obligations, continued

Export contract terms are usually FOB terms, and customers pay the full amount at the time of shipment. Differences may occur between the time of shipment and the time of payment, but generally the difference is not long, and the sector retains the claim for payment by completing the obligation at the time of shipment, and ownership and control of the asset is transferred to the customer.

4) The ship service sector is engaged in selling of components and providing technical services for ships, providing fuel oil for ships, plant business and eco-friendly ship remodeling and others. When the control of goods or service is transferred to a customer, the ship service sector recognizes revenue in an amount that reflects the expected amount of having the right to receive the goods or services.

The eco-friendly ship remodeling business of the ship service sector provides services for manufacturing, installation, and commissioning of eco-friendly facility equipment according to the customer's ship conditions at the request of the customer. Generally, the contract period is 1 year and due to the nature of the order-made production industry being customized according to the terms presented to the customer, the Group itself has no alternative use, and if the contract is terminated for the customer or other party reasons, it can claim the cost and expected profit it has already entered into. Consequently, the Group recognizes revenue over time in accordance with K-IFRS No.1115.

If the performance obligation is satisfied over time, the timing of the performance obligation depends on how the Group measures its progress to indicate performance when control of the goods or services is transferred to the customer.

If the performance is not measured rationally, the performance is measured within the scope of the incurred cost. As the eco-friendly ship remodeling business provides design, equipment purchase, installation, and commissioning, it is difficult to obtain information for applying calculation method without incurring excessive cost due to the wide variety of drying processes. Therefore, it is decided that the timing of the cost injection should be satisfied because the input method that recognizes revenue based on the Group’s inputs compared to the total inputs expected to satisfy the performance obligation can faithfully represent the Group’s performance.

4. Significant Accounting Policies, Continued

(23) Revenue from contracts with customers, continued

(ii) Significant payment conditions

1) In the refining sector, the payment conditions for revenue recognized at the time of delivery differ depending on the content of the contract with the customer, and there is almost no significant change consideration.

2) In the case of a standard product supply contract, the electric and electronics sector generally receives payment within 90 to 180 days from the billing date. In the case of the complex element order contract and the turn-key order contract, it is generally received in the form of advance payment, intermediate payment, and balance.

There is no significant financial factor in the case of a standard product supply contract, and in the case of a multi-element order contract and a turn-key order contract, the Group receives the payment of goods or services from the customer in accordance with the payment terms and the promise to the customer. There may be a significant financial component that adjusts the promised price to reflect the effect of the time value of money as differences occur between the time when you expect to transfer goods or services. However, if the expected period between the time when the Group transfers the goods or services promised to the customer and the time when the customer pays for it at the time of commencement of the contract, it reflects the effect of significant financial factors. Therefore, we apply a practical convenience method that does not adjust the promised price.

3) The construction equipment sector generally receives a price at the time of supply of goods. In the case of domestic sales contracts, there are provisions for the payment of the down payment in the contract, but in practice, it rarely occurs. In addition, there are terms of payment in installments in the domestic sales contract, but this is a transaction in which the buyer receives the loan from the financial institution, pays the purchase price, and repays the loan to the financial institution in installments in the future. This is not the case when selling products. Therefore, there is no significant difference between when the goods are transferred and when they are paid.

4) The ship service sector is charged according to the collection conditions specified in the contract or when goods are delivered and services are provided. Also, free AS business charges and collects monthly billed amount. The eco-friendly ship remodeling business is charged according to the progress of the construction, including the advance payment, the achievement amount of Milestone, and the performance deposit.

Depending on the terms of payment, a difference between when the Group receives the consideration for the goods or services from the customer and when it expects to transfer the promised goods or services to the customer may result in a significant financing component that adjusts the promised consideration to reflect the effect of the time value of money.

4. Significant Accounting Policies, Continued

(23) Revenue from contracts with customers, continued

(iii) Nature and duration of guarantee

Although the period varies depending on the product and contract, in general, the electrical and electronics sector is 24 to 48 months after product delivery, the construction equipment sector is 12 to 24 months or 1,000 to 3,000 hours after product delivery, and the ship service sector is 6 to 12 or 12 to 36 months after product delivery. This is similar to the normal warranty period of the same company. These guarantees are converted to paid AS after the specified warranty period. The warranty provided is intended to provide confidence that the product conforms to the agreed specifications and does not constitute a separate performance obligation.

(iv) Transaction price calculation method, estimation of variable cost, input variables, information

In the case of contracts for supplying standard products in the electrical and electronics sector, and contracts in the refinery and construction equipment sector, there is no need to allocate the transaction price, but it is not necessary to allocate contracts for the order of complex elements and turn-key contracts in the robot and electrical and electronics sectors. In the case, the transaction price is allocated to each of these performance obligations because it includes a number of distinct performance obligations that supply various products and services within a single contract.

The electrical and electronics sector and ship service sector apply the adjusted market assessment approach which allocates the transaction price based on the estimated stand-alone selling price. If the stand-alone selling price is not directly observable, transaction price is determined by the expected cost-plus-a-margin approach by forecasting expected cost of satisfying a performance obligation and then adding an appropriate margin.

Only if the above-mentioned two approaches are not available, the residual approach, by estimating the total transaction price less the sum of the observable stand-alone prices of other goods or services.

In the case of the electrical and electronics sector and ship service sector, due to design changes and additional work occurring due to reasons attributable to the sector or the request of the client, delayed compensation due to delay in delivery and failure to meet conditions, sales discount and sales incentives to encourage sales, etc. Due to this, the price to receive from the customer may change. In the case of sales discounts and sales incentives, the price of the change is included in the transaction price only up to a very high probability of not reversing the significant portion of the accumulated revenues already recognized, and in the case of delayed compensation, the expected price incurred by the terms of the contract is recognized by deducting from.

4. Significant Accounting Policies, Continued

(24) Finance income and finance costs

The Group's finance income and finance costs are as follows;

- interest income, expense;
- dividend income;
- the net gain or loss on the disposal of investments in debt securities measured at FVOCI;
- the net gain or loss on financial assets at FVTPL;
- the foreign currency gain or loss on financial assets and financial liabilities;
- impairment loss (and reversals) on investments in debt securities carried at amortized cost or FVOCI; and
- hedge ineffectiveness recognized in profit or loss

Interest income or expense is recognized using the effective interest method. Dividend income is recognized in profit or loss on the date on which the Group's right to receive payment is established.

In calculating interest income and expense, the effective interest rate is applied to the gross carrying amount of the asset (when the asset is not credit-impaired) or to the amortized cost of the liability. However, for financial assets that have become credit-impaired subsequent to initial recognition, interest income is calculated by applying the effective interest rate to the amortized cost of the financial asset. If the asset is no longer credit-impaired, then the calculation of interest income reverts to the gross basis.

4. Significant Accounting Policies, Continued

(25) Income taxes

Income tax expense comprises current and deferred tax. Current tax and deferred tax are recognized in profit or loss except to the extent that they relate to a business combination, or items recognized directly in equity or in other comprehensive income.

(i) Current tax

Current tax is the expected tax payable or receivable on the taxable profit or loss for the year, using tax rates enacted or substantively enacted at the end of the reporting period and any adjustment to tax payable in respect of previous years. The taxable profit is different from the accounting profit for the period since the taxable profit is calculated excluding the temporary differences, which will be taxable or deductible in determining taxable profit (tax loss) of future periods, and non-taxable or non-deductible items from the accounting profit.

Current tax assets and liabilities are offset only if certain criteria are met;

- there is a legally enforceable right to offset the recognized amount; and
- there is intends to settle in a net amount or to settle the debt while realizing the asset.

(ii) Deferred tax

Deferred tax is recognized, using the asset-liability method, in respect of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes. A deferred tax liability is recognized for all taxable temporary differences. A deferred tax asset is recognized for all deductible temporary differences to the extent that it is probable that taxable profit will be available against which they can be utilized. However, deferred tax is not recognized for taxable temporary differences arising on the initial recognition of goodwill, or the initial recognition of assets or liabilities in a transaction that is not a business combination and that affects neither accounting profit or loss nor taxable income.

The measurement of deferred tax liabilities and deferred tax assets reflects the tax consequences that would follow from the manner in which the Group expects, at the end of the reporting period, to recover or settle the carrying amount of its assets and liabilities.

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

The carrying amount of a deferred tax asset is reviewed at the end of each reporting period and reduces the carrying amount to the extent that it is no longer probable that sufficient taxable profit will be available to allow the benefit of part or all of that deferred tax asset to be utilized.

Deferred tax assets and liabilities are measured at the tax rates that are expected to be applied to the period when the asset is realized or the liability is settled, based on tax rates (and tax laws) that have been enacted or substantively enacted by the end of the reporting period.

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

4. Significant Accounting Policies, Continued

(26) Earnings (loss) per share

The Group presents basic earnings per share (EPS) data for its ordinary shares. Basic EPS is calculated by dividing the profit or loss attributable to ordinary shareholders of the Group by the weighted average number of ordinary shares outstanding during the period, adjusted for own shares held.

(27) New standards and interpretations not yet adopted

A number of new standards are effective for annual periods beginning after 1 January 2020 and earlier application is permitted; however, the Group has not early adopted the new or amended standards in preparing these consolidated financial statements.

- Interest Rate Benchmark Reform – Phase 2 (Amendments to *K-IFRS No. 1109 'Financial Instruments'*, *K-IFRS No. 1039 'Financial Instruments: Recognition and Measurement'*, *K-IFRS No. 1107 'Financial Instruments: Disclosures'*, *K-IFRS No. 1104 'Insurance Contracts'* and *K-IFRS No. 1116 'Leases')*

The following amended standards and interpretation are not expected to have a significant impact on the Group's consolidated financial statements:

- COVID-19-Related Rent Concessions (Amendment to *K-IFRS No. 1116 'Leases'*).
- Property, Plant and Equipment : Proceeds before Intended Use (Amendments to *K-FIRS No. 1016 'Property, Plant and Equipment'*)
- Reference to Conceptual Framework (Amendment to *K-IFRS No. 1103 'Business Combinations')*
- Classification of Liabilities as Current or Non-current (Amendment to *K-IFRS No. 1001 'Presentation of Financial Statements'*).
- *K-IFRS No. 1117* Insurance Contracts and Amendments to *K-IFRS No. 1117* Insurance Contracts.

5. Risk Management

The Group has exposure to the following risks from its use of financial instruments:

- Credit risk;
- Liquidity risk; and
- Market risk

This note presents information about the Group's exposure to each of the above risks, the Group's objectives, policies and processes for measuring and managing risk, and the Group's management of capital. Further quantitative disclosures are included throughout these consolidated financial statements.

(1) Financial risk management

1) Risk management framework
The Board of Directors has overall responsibility for the establishment and oversight of the Group's risk management framework.

The Group's risk management policies are established to identify and analyze the risks faced by the Group, to set appropriate risk limits and controls, and to monitor risks and adherence to limits. Risk management policies and systems are reviewed regularly to reflect changes in market conditions and the Group's activities. The Group, through its training and management standards and procedures, aims to develop a disciplined and constructive control environment in which all employees understand their roles and obligations.

The Group's Audit Committee oversees how management monitors compliance with the Group's risk management policies and procedures and reviews the adequacy of the risk management framework in relation to the risks faced by the Group. The Group's Audit Committee is assisted in its oversight role by Internal Audit. Internal Audit undertakes both regular and ad hoc reviews of risk management controls and procedures, the results of which are reported to the Audit Committee

2) Credit risk
Credit risk is the risk of financial loss to the Group if a customer or counterparty to a financial instrument fails to meet its contractual obligations and arises principally from the Group's receivables from customers and investment securities.

(i) Trade and other receivables and contract assets
The Group's exposure to credit risk is influenced mainly by the individual characteristics of each customer.

The Group establishes credit limits for each customer and each new customer is analyzed quantitatively and qualitatively before determining whether to utilize third party guarantees, insurance or factoring as appropriate.

The Group accounts for expected credit losses and their changes at the end of each reporting period in order to reflect changes in the credit risk since initial recognition of the financial asset in accordance with the expected credit loss model in relation to the impairment of the financial asset.

(ii) Investments
The Group limits its exposure to credit risk by investing only in liquid securities and only with counterparties that have high credit ratings. Management actively monitors credit ratings and given that the Group only has invested in securities with high credit ratings, does not expect a significant risk that any counterparty fails to meet its obligations.

(iii) Guarantees
The Group provides financial guarantees to subsidiaries, associates and third parties if necessary.

5. Risk Management, Continued

(1) Financial risk management, continued

3) Liquidity risk

Liquidity risk is the risk that the Group will encounter difficulty in meeting the obligations associated with its financial liabilities that are settled by delivering cash or another financial asset. The Group's approach to managing liquidity is to ensure, as far as possible, that it will always have sufficient liquidity to meet its liabilities when due, under both normal and stressed conditions, without incurring unacceptable losses or risking damage to the Group's reputation.

The Group has historically been able to satisfy its cash requirements from cash flow from operations and debt and equity financing. To the extent that the Group does not generate sufficient cash flow from operations to meet its capital requirements, the Group may rely on other financing activities, such as external long-term borrowings and offerings of debt securities, equity-linked and other debt securities.

4) Market risk

Market risk is the risk that changes in market prices, such as foreign exchange rates, interest rates and equity prices will affect the Group's income or the value of its holdings of financial instruments. The objective of market risk management is to manage and control market risk exposures within acceptable parameters, while optimizing the return.

The Group buys and sells derivatives, and also incurs financial liabilities, in order to manage market risks. All such transactions are carried out within the guidelines set by the Group. Generally, the Group seeks to apply hedge accounting in order to manage volatility in profit or loss.

(i) Currency risk

The Group is exposed to currency risk on sales, purchases and borrowings that are denominated in a currency other than the functional currency of the Group, Korean won (KRW). The currencies in which these transactions primarily are denominated are USD, EUR, JPY and others.

The Group hedges trade receivables and trade payables denominated in a foreign currency in respect of forecasted sales and purchases. The Group uses forward exchange contracts to hedge its currency risk, most with a maturity of less than two years from the reporting date. When necessary, forward exchange contracts are rolled over at maturity. Trade receivables denominated in a foreign currency have been hedged using forward contracts that mature on the same dates that the receivables are due for collection. In respect of other monetary assets and liabilities denominated in foreign currencies, the Group ensures that its net exposure is kept to an acceptable level by buying or selling foreign currencies at spot rates when necessary to address short-term imbalances.

(ii) Interest rate risk

The Group hedges interest rate risk using interest rate swap for variable interest borrowings. As a result, the risk that changes in the value of variable interest-bearing bonds and loans will affect the Group's profit or loss is avoided.

5. Risk Management, Continued

(2) Capital management

The management's policy is to maintain a strong capital base so as to maintain investor, creditor and market confidence and to sustain future development of the business. The Group monitors the liability to equity ratio and net borrowing to equity ratio, which the Group defines as total liabilities divided by total equity and net borrowing divided by total equity.

The Group's liability to equity ratio and net borrowing to equity ratio as of December 31, 2020 and 2019 are as follows:

(In millions of won, except equity ratio)		**2020**	**2019**
Total liabilities	₩	15,461,098	13,830,840
Total equity		11,097,854	11,884,695
Cash and deposits (*1)		2,247,154	2,352,694
Borrowings (*2)		9,531,986	8,068,265
Liability to equity ratio		139.32%	116.38%
Net borrowing to equity ratio (*3)		65.64%	48.09%

(*1) Cash and deposits consist of cash and cash equivalents and short-term and long-term financial instruments.
(*2) Discount on debentures is deducted from the par value of debentures.
(*3) Net borrowing represents borrowings net of cash and deposits.

The interest coverage ratio and basis of calculation for the years ended December 31, 2020 and 2019 are as follows:

(In millions of won, except ratio)		**2020**	**2019**
Operating profit (loss)	₩	(597,109)	666,594
Interest		235,607	292,438
Interest coverage ratio		(*)	2.28%

(*) The interest coverage ratio was not calculated due to operating losses for the year ended December 31, 2020.

6. Short-term and Long-term Financial Assets

Short-term and long-term financial assets as of December 31, 2020 and 2019 are summarized as follows:

(In millions of won)

		2020		2019	
		Current	Non-current	Current	Non-current
Financial instruments	₩	205,692	2,961	322,541	1,668
Financial assets measured at FVTPL		53,436	18,874	367,791	9,474
Financial assets measured at FVOCI		-	32,215	-	23
	₩	259,128	54,050	690,332	11,165

7. Restricted Financial Instruments

Financial instruments, which are restricted in use, as of December 31, 2020 and 2019 are summarized as follows:

(In millions of won)

Description		2020	2019	Restrictions
Cash and cash equivalents	₩	227	2,065	Bill deposit
Short-term financial instruments		744	579	Pledging (*)
		-	31	Public performance deposit
		4,935	2,279	Payment bill deposit
Long-term financial instruments		6,350	1,100	Pledging (*)
		1,322	-	Payment bill deposit
		6	6	Deposit pledge for license registration
		33	31	Guarantee deposits for checking accounts
	₩	13,617	6,091	

(*) The Group has provided guarantees for other liabilities.

Separately, the Group deposits ₩10,000 million in financial institutions to provide financial support to cooperative companies as of December 31, 2020.

8. Trade and Other Receivables and Contract Assets

(1) Trade and other receivables as of December 31, 2020 and 2019 are summarized as follows:

(In millions of won)		2020		2019	
		Current	**Non-current**	**Current**	**Non-current**
Trade receivables:					
Trade receivables (*)	₩	1,923,345	8,698	2,383,653	10,243
Allowance for doubtful accounts		(229,749)	(10)	(243,941)	(45)
		1,693,596	8,688	2,139,712	10,198
Other receivables:					
Account receivable		362,734	-	503,077	1
Allowance for doubtful accounts		(65,525)	-	(68,845)	(1)
Accrued income		2,968	-	3,501	-
Allowance for doubtful accounts		(51)	-	(51)	-
Loans		9,592	62,608	27,381	66,313
Allowance for doubtful accounts		(8,470)	(27)	(12,123)	(102)
Guarantee deposits		3,340	195,351	3,165	86,912
Finance lease receivables		233,989	147,024	180,357	140,641
Allowance for doubtful accounts		(1,528)	(708)	(212)	(130)
		537,049	404,248	636,250	293,634
	₩	2,230,645	412,936	2,775,962	303,832

(*) As of December 31, 2020 and 2019, the balance of trade receivables that the Group transferred but dues not past are ₩1,351,951 million and ₩525,241 million respectively. The Group transferred the trade receivables to DBS Bank and others, and accounted for derecognition as all the risks and rewards of the assets are substantially transferred.

(2) Contract assets as of December 31, 2020 and 2019 are summarized as follows:

(In millions of won)		2020	2019
Contract assets	₩	253,527	315,126
Allowance for doubtful accounts		(26,442)	(26,410)
	₩	227,085	288,716

9. Financial Lease

(1) Financial Leases as of December 31, 2020 and 2019 are summarized as follows:

(In millions of won)		2020	2019
Less than 1 year	₩	233,989	180,357
More than 1 year, less than 5 years		140,584	133,743
More than 5 years		6,440	6,898
	₩	381,013	320,998

(2) Regarding the above leases, there is no unguaranteed residual value as of December 31, 2020 and no contingent rent for the year ended December 31, 2020.

(3) Interest income regarding lease receivable as of December 31, 2020 and 2019 are summarized as follows:

(In millions of won)		2020	2019
Interest income	₩	10,640	11,559

10. Inventories

Inventories as of December 31, 2020 and 2019 are summarized as follows:

(In millions of won)		2020			2019		
		Acquisition cost	Provision for inventory valuation	Carrying amount	Acquisition cost	Provision for inventory valuation	Carrying amount
Merchandise	₩	422,952	(35,201)	387,751	384,428	(24,660)	359,768
Finished goods		506,206	(15,904)	490,302	612,097	(7,344)	604,753
Work-in-progress		514,392	(31,716)	482,676	575,749	(44,981)	530,768
Raw materials		786,566	(7,969)	778,597	1,056,435	(6,523)	1,049,912
Materials-in-transit		882,573	-	882,573	1,331,544	-	1,331,544
	₩	3,112,689	(90,790)	3,021,899	3,960,253	(83,508)	3,876,745

Reversal of losses on valuation of inventory amounting to ₩7,282 million was added to the cost of sales for the year ended December 31, 2020 and losses on valuation of inventory amounting to ₩121,039 million was deducted from the cost of sales for the year ended December 31, 2019.

11. Other Assets

Other assets as of December 31, 2020 and 2019 are summarized as follows:

(In millions of won)		2020		2019	
		Current	Non-current	Current	Non-current
Advance payments	₩	147,652	-	184,773	-
Allowance for doubtful accounts		(10,355)	-	(9,894)	-
Prepaid expenses		32,004	6,567	32,710	6,044
Plan assets		-	5,053	-	965
Others		54,335	222	66,149	189
Accumulated impairment loss		(44,507)	-	(60,546)	-
	₩	179,129	11,842	213,192	7,198

12. Investments in Associates

(1) Investments in associates as of December 31, 2020 and 2019 are summarized as follows:

(In millions of won, except percentage of ownership)

				2020		2019	
Associates (*)	**Location**	**Fiscal year end**	**Main business**	**Ownership (%)**	**Carrying amount**	**Ownership (%)**	**Carrying amount**
Korea Shipbuilding & Offshore Engineering Co., Ltd.	Korea	December	Non-financial holding company	30.95	₩ 3,391,028	30.95	₩ 3,669,040
KORAMCO Energy Plus Reit(*)	Korea	May, November	Real estate investing company	11.49	40,729	-	-
KORAMCO Ocheon PFV Co., Ltd.(*)	Korea	December	Real estate developing company	13.50	3,936	-	-
KORAMCO Banpo PFV Co., Ltd.(*)	Korea	December	Real estate developing company	13.50	3,649	-	-
KORAMCO Dongjak PFV Co., Ltd.(*)	Korea	December	Real estate developing company	13.16	1,173	-	-
KORAMCO Amsa PFV Co., Ltd.(*)	Korea	December	Real estate developing company	14.15	857	-	-
					₩ 3,441,372		₩ 3,669,040

(*) Although ownership is less than 20%, investments are classified as associates because the Group can appoint board of directors.

(2) As of December 31, 2020 and 2019, the fair values of Korea Shipbuilding & Offshore Engineering Co., Ltd. (based on the closing price of Korea Exchange) were ₩2,376,923 million and ₩2,771,251 million, respectively.

12. Investments in Associates, Continued

(3) Condensed financial information of associates as of December 31, 2020 and 2019 and for the years ended December 31, 2020 and 2019 are summarized as follows:

(In millions of won)

	2020									
Associates	**Current assets**	**Non-Current assets**	**Current liabilities**	**Non-Current liabilities**	**Equity**	**Revenue**	**Operating income (loss)**	**Profit (loss) (*)**	**Other comprehensive income**	**Total comprehensive income (loss) (*)**
Korea Shipbuilding & Offshore Engineering Co., Ltd.	₩ 13,001,432	12,242,759	9,511,529	3,311,437	12,421,225	14,903,658	74,367	(835,178)	281,860	(553,318)
KORAMCO Energy Plus REIT	25,094	1,015,535	10,166	676,022	354,441	28,554	22,469	8,921	-	8,921
KORAMCO Ocheon PFV Co., Ltd.	87,988	-	2,495	56,334	29,159	2,303	1,128	105	-	105
KORAMCO Banpo PFV Co., Ltd.	83,129	-	1,816	54,280	27,033	1,636	910	(84)	-	(84)
KORAMCO Dongjak PFV Co., Ltd.	25,639	-	704	16,024	8,911	378	42	(254)	-	(254)
KORAMCO Amsa PFV Co., Ltd.	17,848	-	574	11,220	6,054	307	(12)	(215)	-	(215)
	₩ 13,241,130	13,258,294	9,527,284	4,125,317	12,846,823	14,936,836	98,904	(826,705)	281,860	(544,845)

(*) For the year ended December 31, 2020 net loss and total comprehensive loss attributable to owners of the Parent Company were ₩833,787 million and ₩577,737 million.

12. Investments in Associates, Continued

(3) Condensed financial information of associates as of December 31, 2020 and 2019 and for the years ended December 31, 2020 and 2019 are summarized as follows, continued

(In millions of won)

	2019									
Associates	**Current assets**	**Non-Current assets**	**Current liabilities**	**Non-Current liabilities**	**Equity**	**Revenue**	**Operating income**	**Profit (*)**	**Other comprehensive loss**	**Total comprehensive income (*)**
Korea Shipbuilding & Offshore Engineering Co., Ltd.	₩ 12,552,196	12,503,177	8,949,377	3,179,681	12,926,315	15,182,553	290,152	213,081	(33,381)	179,700

(*) For the year ended December 31, 2019 net profit and total comprehensive income attributable to owners of the Parent Company were ₩164,079 million and ₩128,753 million.

12. Investments in Associates, Continued

(4) Changes in equity-method accounted investees for the years ended December 31, 2020 and 2019 are summarized as follows:

(In millions of won)

		2020					
Associates		**Beginning balance**	**Acquisition**	**Equity Income (Losses) on Investments**	**Changes in equity of equity method investments**	**Others (*)**	**Ending balance**
Korea Shipbuilding & Offshore Engineering Co., Ltd.	₩	3,669,040	-	(269,309)	(8,703)	-	3,391,028
KORAMCO Energy Plus REIT		-	40,000	1,154	(20)	(405)	40,729
KORAMCO Ocheon PFV Co., Ltd.		-	4,050	14	(128)	-	3,936
KORAMCO Banpo PFV Co., Ltd.		-	3,780	(11)	(120)	-	3,649
KORAMCO Dongjak PFV Co., Ltd.		-	1,250	(33)	(44)	-	1,173
KORAMCO Amsa PFV Co., Ltd.		-	920	(30)	(33)	-	857
	₩	3,669,040	50,000	(268,215)	(9,048)	(405)	3,441,372

(*) The effect of decrease in ownership was recognized in profit or loss.

(In millions of won)

		2019					
Associates		**Beginning balance**	**Acquisition**	**Equity Income on Investments**	**Changes in equity of equity method investments**	**Others**	**Ending balance**
Korea Shipbuilding & Offshore Engineering Co., Ltd.	₩	3,618,893	-	50,927	(780)	-	3,669,040

12. Investments in Associates, Continued

(5) Reconciliation from net assets of the associates to the carrying amount of investments in associates in the Group's consolidated financial statements as of December 31, 2020 and 2019 are summarized as follows:

(In millions of won, except percentage of ownership)

	2020				
Associates	**Ending net assets**	**Group's ownership (*1)**	**Group`s share of net assets (*2)**	**Elimination of inter-segment transactions and unrealized profits and losses**	**Ending carrying amount**
Korea Shipbuilding & Offshore Engineering Co., Ltd.	₩ 12,421,225	30.95%	3,378,729	12,299	3,391,028
KORAMCO Energy Plus REIT	354,441	11.49%	40,729	-	40,729
KORAMCO Ocheon PFV Co., Ltd.	29,159	13.50%	3,936	-	3,936
KORAMCO Banpo PFV Co., Ltd.	27,033	13.50%	3,649	-	3,649
KORAMCO Dongjak PFV Co., Ltd.	8,911	13.16%	1,173	-	1,173
KORAMCO Amsa PFV Co., Ltd.	6,054	14.15%	857	-	857
	₩ 12,846,823		3,429,073	12,299	3,441,372

(*1) As of December 31, 2020, the ownerships adjusted for the treasury shares are 30.98%.
(*2) As of December 31, 2020, the group`s share of net assets of associates is the value after considering the difference between net asset amount and non-controlling interests.

(In millions of won, except percentage of ownership)

	2019				
Associates	**Ending net assets**	**Group's ownership (*1)**	**Group`s share of net assets (*2)**	**Elimination of inter-segment transactions and unrealized profits and losses**	**Ending carrying amount**
Korea Shipbuilding & Offshore Engineering Co., Ltd.	₩ 12,926,315	30.95%	3,583,383	85,657	3,669,040

(*1) As of December 31, 2019, the ownerships adjusted for the treasury shares are 30.98%.
(*2) As of December 31, 2019, the group`s share of net assets of associates is the value after considering the difference between net asset amount and non-controlling interests.

12. Investments in Associates, Continued

(6) Impairment test

For the year ended December 31, 2020, the impairment test on Korea Shipbuilding & Offshore Engineering Co., Ltd. was performed due to the indication of impairment found. The recoverable amount is estimated based on present value of future cash flow (value in use) and net fair value, using discounted cash flows method. The recoverable amount of investments in associates was based on the CGU of subsidiaries of Korea Shipbuilding & Offshore Engineering Co., Ltd. The value in use of CGU is affected by key assumptions such as discount rate and permanent growth rate used in the discount cash flow methods.

Assumptions used in the estimate of the recoverable amount are as follows:

(in percent)

	Korea Shipbuilding & Offshore Engineering Co., Ltd.
Discount rate (%)	8.01% ~ 12.86%
Period covered by cash flow forecast	5 years
Permanent growth rate (%)	1.0%

The value in use was calculated by the following key assumptions.

(i) Cash flow estimates of each subsidiary is based on experience, 5-year business plan considering material operation consequence and external forecast data. Cash flow estimates after the forecast period are based on permanent growth.
(ii) The weighted average of equity and debt and estimated by applying cost of equity using risk-free interest rate reflecting the credit quality of country at the assessment date and the beta of the company in the same industry and corporate bond rate considering the credit quality of the company.

As of December 31, 2020, the Company evaluated impairment loss of the associate investment, so that no impairment loss was recognized as the book value of associate investments didn't exceed the recoverable amount.

13. Investments in Joint Ventures

(1) Investments in joint ventures as of December 31, 2020 and 2019 are summarized as follows:

(In millions of won, except percentage of ownership)

Joint ventures	Location	Fiscal year end	Business	2020 Ownership (%)	2020 Carrying amount	2019 Ownership (%)	2019 Carrying amount
Hyundai Cosmo Petrochemical Co., Ltd.	Korea	December	Manufacturing of petrochemicals	50.00	₩ 233,811	50.00	₩ 270,482
Hyundai and Shell Base Oil Co., Ltd. (*1)	Korea	December	Manufacture and sale of base oil	-	-	60.00	145,448
AsanKakao Medical Data Co., Ltd. (*2)	Korea	December	Development and supply of application software	45.00	4,062	45.00	4,376
Haining Hagong Hyundai Robotics. Co., Ltd. (*3)	China	December	Sale of robot and service	30.00	6,189	30.00	4,254
					₩ 244,062		₩ 424,560

(*1) Hyundai and Shell Base Oil Co., Ltd. has been changed from a joint ventures to a subsidiary due to the change in certain decisions in accordance with shareholders agreement for the year ended December 31, 2020.

(*2) The Group owns less than half of voting rights, however, the right of decision-making in certain area to be exercised jointly by the Group and Kakao Investment Co., Ltd., a party to the joint venture is material for operating the joint venture. Accordingly, the investment has been classified into a joint venture.

(*3) The Group owns less than half of voting rights, however, the right of decision-making in certain area to be exercised jointly by the Group and Hagung-zuk, a party to the joint venture is material for operating the joint venture. Accordingly, the investment has been classified into a joint venture.

13. Investments in Joint Ventures, Continued

(2) Condensed financial information of joint ventures as of December 31, 2020 and 2019 and for the years ended December 31, 2020 and 2019 are summarized as follows:

1) Summary financial information

(In millions of won)

		2020										
		Condensed financial information of joint ventures										
Joint ventures		Current assets	Non-Current assets	Current liabilities	Non-Current liabilities	Equity	Revenue	Operating loss	loss	Other comprehensive income	Total comprehensive loss	Dividends received
Hyundai Cosmo Petrochemical Co., Ltd.	₩	173,893	933,023	200,044	265,239	641,633	1,501,599	(83,329)	(67,373)	3,147	(64,226)	(5,000)
AsanKakao Medical Data Co., Ltd.		8,998	33	5	-	9,026	32	(859)	(724)	-	(724)	-
Haining Hagong Hyundai Robotics. Co., Ltd.		20,810	1,998	913	83	21,812	4,512	(3,674)	(2,194)	-	(2,194)	-
	₩	203,701	935,054	200,962	265,322	672,471	1,506,143	(87,862)	(70,291)	3,147	(67,144)	(5,000)

(In millions of won)

		2019										
		Condensed financial information of joint ventures										
Joint ventures		Current assets	Non-Current assets	Current liabilities	Non-Current liabilities	Equity	Revenue	Operating income (loss)	Profit (loss)	Other comprehensive income (loss)	Total comprehensive income (loss)	Dividends received
Hyundai Cosmo Petrochemical Co., Ltd.	₩	442,025	815,957	370,415	171,707	715,860	2,901,858	102,070	32,075	21	32,096	30,000
Hyundai and Shell Base Oil Co., Ltd.		184,681	288,506	102,822	126,328	244,037	807,043	6,740	(2,887)	(43)	(2,930)	51,600
AsanKakao Medical Data Co., Ltd.		9,698	32	5	-	9,725	-	(380)	(275)	-	(275)	-
Haining Hagong Hyundai Robotics. Co., Ltd.		17,573	544	2,973	37	15,107	3,807	(1,542)	(1,498)	-	(1,498)	-
	₩	653,977	1,105,039	476,215	298,072	984,729	3,712,708	106,888	27,415	(22)	27,393	81,600

13. Investments in Joint Ventures, Continued

(2) Condensed financial information of joint ventures as of December 31, 2020 and 2019 and for the years ended December 31, 2020 and 2019 are summarized as follows, continued:

2) Additional financial information

(In millions of won)

Joint ventures		2020 Cash and cash equivalents	Current financial liabilities	Non-current financial liabilities	Depreciation	Interest income	Interest expenses	Income tax benefit
Hyundai Cosmo Petrochemical Co., Ltd.	₩	6,669	43,049	254,204	58,114	582	6,064	(23,451)
AsanKakao Medical Data Co., Ltd.		5	-	-	1	135	-	-
Haining Hagong Hyundai Robotics. Co., Ltd.		4,360	-	-	82	29	2	(874)
	₩	11,034	43,049	254,204	58,197	746	6,066	(24,325)

(In millions of won)

Joint ventures		2019 Cash and cash equivalents	Current financial liabilities	Non-current financial liabilities	Depreciation	Interest income	Interest expenses	Income tax expense (benefit)
Hyundai Cosmo Petrochemical Co., Ltd.	₩	83,918	70,823	142,181	50,178	3,579	10,153	10,384
Hyundai and Shell Base Oil Co., Ltd.		44,833	24,996	119,884	25,719	1,490	5,334	(765)
AsanKakao Medical Data Co., Ltd.		52	-	-	-	105	-	-
Haining Hagong Hyundai Robotics. Co., Ltd.		1,706	-	-	23	45	-	-
	₩	130,509	95,819	262,065	75,920	5,219	15,487	9,619

13. Investments in Joint Ventures, Continued

(3) Changes in equity-method accounted joint ventures for the years ended December 31, 2020 and 2019 are summarized as follows:

(In millions of won)

Joint ventures		2020						
		Beginning balance	Acquisition	Share of profit (loss) of equity accounted investees	Changes in equity of equity accounted investees	Dividend	Others	Ending balance
Hyundai Cosmo Petrochemical Co., Ltd.	₩	270,482	-	(33,245)	1,574	(5,000)	-	233,811
Hyundai and Shell Base Oil Co., Ltd. (*)		145,448	-	33,322	-	-	(178,770)	-
AsanKakao Medical Data Co., Ltd.		4,376	-	(326)	12	-	-	4,062
Haining Hagong Hyundai Robotics. Co., Ltd.		4,254	2,579	(616)	(28)	-	-	6,189
	₩	424,560	2,579	(865)	1,558	(5,000)	(178,770)	244,062

(*) Hyundai and Shell Base Oil Co., Ltd. has been changed from a joint ventures to a subsidiary due to the change in certain decisions in accordance with shareholders agreement for the year ended December 31, 2020.

(In millions of won)

Joint ventures		2019					
		Beginning balance	Acquisition	Share of profit (loss) of equity accounted investees	Changes in equity of equity accounted investees	Dividend	Ending balance
Hyundai Cosmo Petrochemical Co., Ltd.	₩	258,352	-	42,120	10	(30,000)	270,482
Hyundai and Shell Base Oil Co., Ltd.		198,727	-	(1,654)	(25)	(51,600)	145,448
AsanKakao Medical Data Co., Ltd.		-	4,500	(124)	-	-	4,376
Haining Hagong Hyundai Robotics. Co., Ltd.		-	5,156	(727)	(175)	-	4,254
	₩	457,079	9,656	39,615	(190)	(81,600)	424,560

13. Investments in Joint Ventures, Continued

(4) Reconciliation from net assets to the carrying amount of investments in joint ventures in the Group's consolidated financial statements as of December 31, 2020 and 2019 are summarized as follows:

(In millions of won, except percentage of ownership)

	2020				
Joint ventures	**Ending net assets**	**Group's ownership**	**Group's share of net asset**	**Elimination of inter-segment transactions and unrealized profits and losses**	**Ending carrying amount**
Hyundai Cosmo Petrochemical Co., Ltd.	₩ 641,633	50.00%	320,817	(87,006)	233,811
AsanKakao Medical Data Co., Ltd.	9,026	45.00%	4,062	-	4,062
Haining Hagong Hyundai Robotics. Co., Ltd.	21,812	30.00%	6,544	(355)	6,189
	₩ 672,471		331,423	(87,361)	244,062

(In millions of won, except percentage of ownership)

	2019				
Joint ventures	**Ending net assets**	**Group's ownership**	**Group's share of net asset**	**Elimination of inter-segment transactions and unrealized profits and losses**	**Ending carrying amount**
Hyundai Cosmo Petrochemical Co., Ltd.	₩ 715,860	50.00%	357,930	(87,448)	270,482
Hyundai and Shell Base Oil Co., Ltd.	244,037	60.00%	146,422	(974)	145,448
AsanKakao Medical Data Co., Ltd.	9,725	45.00%	4,376	-	4,376
Haining Hagong Hyundai Robotics. Co., Ltd.	15,107	30.00%	4,532	(278)	4,254
	₩ 984,729		513,260	(88,700)	424,560

14. Investment Property

(1) Changes in investment property for the years ended December 31, 2020 and 2019 are as follows:

(In millions of won)		Land	
		2020	**2019**
Beginning balance	₩	9,820	10,635
Disposals		-	(815)
Ending balance	₩	9,820	9,820
Acquisition costs		9,820	9,820

(2) Income (expense) from investment property for the years ended December 31, 2020 and 2019 are as follows:

(In millions of won)		**2020**	**2019**
Rental income	₩	6	11
Maintenance expense – income-generating property		-	(13)
Maintenance expense – vacant property		(201)	(174)

(3) Fair value of investment property as of December 31, 2020 and 2019 are as follows:

(In millions of won)		**2020**	**2019**
Land	₩	10,774	10,774

The fair value of investment property as of January 1, 2010, the date of transition to K-IFRS, was determined by the independent appraisers, having appropriate professional qualifications and experience in relation to the assessment of real estate in the Republic of Korea. The appraisal is measured by using comparison methods to obtain the economic value based on marketability of the property. The Group updated the fair value of investment property as of December 31, 2020, using the changes in publicly assessed land price after the transition date to K-IFRS.

15. Property, Plant and Equipment

(1) Changes in property, plant and equipment for the years ended December 31, 2020 and 2019 are as follows:

(In millions of won)		2020						
		Land	Buildings	Structures	Machinery	Construction in-progress	Others	Total
Beginning balance	₩	1,832,524	704,152	1,147,955	3,553,488	828,886	341,879	8,408,884
Acquisitions / Classification		370,496	49,362	86,332	516,732	1,275,678	216,657	2,515,257
Disposals		(5,599)	(6,722)	(180)	(3,987)	(23)	(13,480)	(29,991)
Depreciation / Impairment loss		-	(27,678)	(45,541)	(262,231)	-	(141,756)	(477,206)
Effect of movements in exchange rates		56	(6,651)	(5)	(2,378)	(263)	(2,295)	(11,536)
Effects of changes in scope of consolidation		11,683	10,416	38,595	173,719	35	39,748	274,196
Ending balance	₩	2,209,160	722,879	1,227,156	3,975,343	2,104,313	440,753	10,679,604
Acquisition cost		2,210,471	1,056,977	1,887,867	6,506,299	2,105,545	1,281,498	15,048,657
Government grants		(1,311)	(2,572)	(3,034)	(5,673)	-	(269)	(12,859)
Accumulated depreciation/ impairment loss		-	(331,526)	(657,677)	(2,525,283)	(1,232)	(840,476)	(4,356,194)

As December 31, 2020, construction-in-progress are related to investment in petrochemical product facilities and others.

(In millions of won)		2019						
		Land	Buildings	Structures	Machinery	Construction in-progress	Others	Total
Beginning balance	₩	1,772,910	694,025	1,180,203	3,571,284	315,944	351,375	7,885,741
Acquisitions / Classification		168,830	70,765	9,603	277,613	561,247	108,731	1,196,789
Disposals		(139,286)	(22,074)	(601)	(5,069)	(270)	(5,201)	(172,501)
Depreciation / Impairment loss		-	(26,926)	(44,922)	(287,442)	(48,435)	(116,109)	(523,834)
Effect of movements in exchange rates		242	3,492	60	537	404	1,605	6,340
Effects of changes in scope of consolidation		29,828	(15,130)	3,612	(3,435)	(4)	1,478	16,349
Ending balance	₩	1,832,524	704,152	1,147,955	3,553,488	828,886	341,879	8,408,884
Acquisition cost		1,833,964	990,506	1,749,117	5,753,881	877,321	1,273,251	12,478,040
Government grants		(1,440)	(2,764)	(3,356)	(5,749)	-	(193)	(13,502)
Accumulated depreciation/ impairment loss		-	(283,590)	(597,806)	(2,194,644)	(48,435)	(931,179)	(4,055,654)

As December 31, 2019, construction-in-progress are related to investment in petrochemical product facilities, construction of the Yong-in Reliability Center and others.

15. Property, Plant and Equipment, Continued

(2) Revaluation of Land

As of December 31, 2020, the Group was applying the revaluation model on land. The revaluation amount was determined by the independent appraisers, having professional qualifications. The appraisal procedures included calculating the revaluation amount based on the publicly assessed land price and studying whether the amount is reasonable comparing with prices used in the recent arm's length transaction.

Carrying amounts of land under the revaluation model and the cost model as of December 31, 2020 were as follows:

(In millions of won)		2020	
		Revaluation model	**Cost model**
Land	₩	2,179,623	1,358,702

As a result of revaluation on land, gain on revaluation amounting to ₩269,525 million (net of tax effects) was recognized as other comprehensive income and accumulated gain amounted to ₩349,592 million (net of tax effects). Loss on revaluation amounting to ₩226 million was recognized as other non-operating expenses and reversal of loss on revaluation amounting to ₩35 million was recognized as profit or loss. In addition, due to partial disposal of the revalued land, gain on revaluation amounting to ₩8,667 million was reclassified to retained earnings.

(3) Measurement of fair value

(i) Fair value hierarchy
The fair value in measuring the land was classified as fair value based on input variables used by valuation techniques.

(ii) The valuation method and input variables which were used for measuring fair value of land are as follows:

Valuation method	**Significant but unobservable input variables**	**Correlation between the main unobservable variable and fair value**
Publicly assessed land price method	Time adjustment (Rate of changes in land value)	If flexibility of land value increases (decreases), then fair value increases (decreases).
	Regional contribution	If regional contribution increases (decreases), then fair value increases (decreases).
	Individual contribution	If the adjusted value of terms of residential lot and others increases (decreases), then fair value increases (decreases).
	Other contributions	If the adjusted value of the level of land value and others increases (decreases), then fair value increases (decreases).

16. Right-of-Use Assets

(1) Changes in right-of-use assets for the years ended December 31, 2020 and 2019 is as follows:

(In millions of won)

	2020						
	Land	Buildings	Structures	Machinery	Ships	Others	Total
Beginning balance	₩ 137,028	52,027	29,625	262	256,041	94,236	569,219
Additions	839	26,488	4,238	294	869,818	533,897	1,435,574
Depreciation	(4,503)	(26,770)	(22,268)	(165)	(119,808)	(45,983)	(219,497)
End/Transfer	15,047	1,499	11,817	(250)	(393,596)	(30,001)	(395,484)
Effect of changes in scope of consolidation	3,459	250	965	79	-	56	4,809
Effect of movements in exchange rates	(50)	48	169	(5)	1	8	171
Ending balance	₩ 151,820	53,542	24,546	215	612,456	552,213	1,394,792
Acquisition cost	157,694	99,924	62,490	257	803,586	609,098	1,733,049
Accumulated depreciation	(5,814)	(44,958)	(37,944)	(42)	(191,130)	(56,578)	(336,466)
Accumulated impairment loss	(60)	(1,424)	-	-	-	(307)	(1,791)

(In millions of won)

	2019						
	Land	Buildings	Structures	Machinery	Ships	Others	Total
Beginning balance	₩ 17,117	44,923	5,156	273	327,008	79,303	473,780
Additions	124,706	21,867	38,187	179	-	46,349	231,288
Depreciation	(3,449)	(23,480)	(14,805)	(204)	(85,073)	(14,025)	(141,036)
Impairment loss	(60)	(1,424)	-	-	-	(307)	(1,791)
End/Transfer	(1,570)	8,525	672	5	14,106	(17,143)	4,595
Effect of movements in exchange rates	284	1,616	415	9	-	59	2,383
Ending balance	₩ 137,028	52,027	29,625	262	256,041	94,236	569,219
Acquisition cost	140,362	76,452	44,383	465	333,916	107,540	703,118
Accumulated depreciation	(3,274)	(23,001)	(14,758)	(203)	(77,875)	(12,997)	(132,108)
Accumulated impairment loss	(60)	(1,424)	-	-	-	(307)	(1,791)

(2) The Group used incremental borrowing rate of interest to measure lease liability. Applied incremental borrowing rate is 1.00% ~ 11.59%.

(3) Gain and loss regarding lease for the years ended December 31, 2020 and 2019 are as follows:

(In millions of won)

	2020	2019
Depreciation		
Land	₩ 4,503	3,449
Building	26,770	23,480
Structure	22,268	14,805
Machinery	165	204
Ship	119,808	85,073
Other asset	45,983	14,025
	₩ 219,497	141,036
Interest expense	43,400	15,265
Short-term lease payments(*)	16,412	2,046
Payments for leases of low-value assets not short-term lease(*)	1,210	1,066
Variable lease payments not included in the measurement of the lease liabilities(*)	32,477	32,796
	93,499	51,173
	₩ 312,996	192,209

(*) Included in cost of sales and selling, general and administrative expenses.

16. Right-of-Use Assets, Continued

(3) Gain and loss regarding lease for the years ended December 31, 2020 and 2019 is as follows, continued:

The total cash outflow related to leases for the year ended December 31, 2020 is amounting to ₩282,108 million.

(4) Details of the timing of the cash outflow of the lease liabilities under contract as of December 31, 2020 is as follows:

(In millions of won)

	Book value	Contractual cash flow	Less than 6 months	6~12 months	1~3 years	Over 3 years
Lease Liabilities	₩ 1,342,449	1,581,637	127,687	112,930	387,027	953,993

(5) The Group has a sub-lease in relation to the operation of gas station and the revenue from the sub-lease amounts to ₩4,515 million.

17. Intangible Assets

(1) Details of goodwill as of December 31, 2020 and 2019 are as follows:

(In millions of won)

		2020	2019
Hyundai Oilbank Co., Ltd.	₩	1,087,419	1,087,419
Hyundai Electric & Energy Systems Co., Ltd.		95,835	95,835
Hyundai Construction Equipment Co., Ltd.		-	73,120
HHI China Investment Co., Ltd.		26,615	26,615
Hyundai Construction Equipment India Private Ltd.		20,396	20,396
Hyundai and Shell Base Oil Co., Ltd.		66,311	-
Others (*)		10,541	11,646
	₩	1,307,117	1,315,031

(*) Changes due to impairment of TNA goodwill of Hyundai Core Motion Co.,Ltd. and acquisition of Avikus Co.,Ltd. for the year ended December 31,2020.

17. Intangible Assets, Continued

(2) Changes in intangible assets for the years ended December 31, 2020 and 2019 are as follows:

(In millions of won)

	2020						
	Goodwill	Customer relationships	Brands	Technologies	Development costs	Others	Total
Beginning balance	₩ 1,315,031	206,981	192,220	122,630	87,922	227,145	2,151,929
Acquisitions / Reclassification	3,533	-	-	-	41,636	8,290	53,459
Disposals	-	-	-	-	(5,274)	(83)	(5,357)
Amortization / Impairment loss (*)	(77,021)	(111,889)	-	(64,057)	(35,841)	(19,199)	(308,007)
Effect of movements in exchange rates	-	-	-	-	(44)	(17)	(61)
Effects of changes in scope of consolidation	65,574	51,093	-	-	54	30	116,751
Ending balance	₩ 1,307,117	146,185	192,220	58,573	88,453	216,166	2,008,714
Acquisition cost	1,384,138	412,141	192,220	294,000	227,965	356,826	2,867,290
Accumulated amortization/ impairment loss	(77,021)	(265,956)	-	(235,427)	(139,512)	(140,660)	(858,576)

(*) The Group recognized impairment losses of ₩226,305 million for development costs and others that are unlikely to generate future economic benefits for the year ended December 31, 2020.

(In millions of won)

	2019						
	Goodwill	Customer relationships	Brands	Technologies	Development costs	Others	Total
Beginning balance	₩ 1,308,707	231,980	192,220	172,706	54,074	132,139	2,091,826
Acquisitions / Reclassification	-	-	-	-	46,049	117,099	163,148
Amortization / Impairment loss (*)	-	(24,999)	-	(50,076)	(10,243)	(21,581)	(106,899)
Disposals	-	-	-	-	(1,993)	(166)	(2,159)
Effect of movements in exchange rates	-	-	-	-	35	183	218
Effects of changes in scope of consolidation	6,324	-	-	-	-	(529)	5,795
Ending balance	₩ 1,315,031	206,981	192,220	122,630	87,922	227,145	2,151,929
Acquisition cost	1,315,031	361,047	192,220	294,000	192,512	348,782	2,703,592
Accumulated amortization/ impairment loss	-	(154,066)	-	(171,370)	(104,590)	(121,637)	(551,663)

(*) The Group recognized impairment losses of ₩33,755 million for development costs and others that are unlikely to generate future economic benefits for the year ended December 31, 2019.

The carrying amount of intangible assets with indefinite useful lives are ₩208,067 million and ₩207,327 million, respectively, as of December 31, 2020 and 2019.

17. Intangible Assets, Continued

(3) Details of major project in development costs for the year ended December 31, 2020 is as follows:

(In millions of won)

Description	Project		2020 Carrying amount	2020 Residual Amortization period
Development costs	Eco-friendly construction machinery and others	₩	22,227	0.08~4.75 years
	Development of co-bot control and others		11,146	0.5~4.9 years
	Small construction machinery and others		17,379	Development in progress
	Development of a model to strengthen the competitiveness of large clean robots		16,349	Development in progress
	Development of 170kV 50kA GIS (hybrid extinguishing type)		3,030	Development in progress

(4) Recognition of impairment losses

The Group tests goodwill for impairment annually by comparing the recoverable amount of CGU with its carrying amount.

1) Oil Refinery sector : Hyundai Oilbank Co., Ltd.
The recoverable amount of investments in subsidiaries as of December 31, 2020, was measured based on the calculation of the value in use. The value in use is measured by applying discount rate to future cash flow to be derived from continuing use of the asset. The recoverable amount of investments in subsidiaries is measured by the calculation of the value in use, and the value in use is calculated by estimating future cash flow based on 5-year business plan approved by the segment management.

Assumptions used in calculating the value in use as of December 31, 2020, are as follows:

(In percent)

	Hyundai Oilbank Co., Ltd.
Discount rate	8.07%
Period covered by cash flow forecast	5 years
Permanent growth rate	1.0%

The value in use as of December 31, 2020, was calculated by the following key assumptions.

(i) Discount rate is the weighted average of equity and debt and estimated by applying cost of equity using risk-free interest rate reflecting the credit quality of country at the assessment date and the beta of the company in the same industry and corporate bond rate considering the credit quality of the segment.
(ii) Future cash flow is estimated based on experience, oil price estimate of external appraisers, material operational consequence and business plan, and reflected inflation rate and investment plan.

As of December 31, 2020, the Group evaluated impairment loss of the goodwill, so that no impairment loss was recognized as the book value of CGU didn't exceed the recoverable amount.

17. Intangible Assets, Continued

(4) Recognition of impairment losses, continued

2) Electric and electronic sector : Hyundai Electric & Energy Systems Co., Ltd.
The recoverable amount of investments in subsidiaries as of December 31, 2020, was measured based on the calculation of the value in use. The value in use is measured by applying discount rate to future cash flow to be derived from continuing use of the asset. The recoverable amount of investments in subsidiaries is measured by the calculation of the value in use, and the value in use is calculated by estimating future cash flow based on 5-year business plan approved by the segment management.

Assumptions used in calculating the value in use as of December 31, 2020, are as follows:

(In percent)

	2020
Discount rate	10.75%
Period covered by cash flow forecast	5 years
Permanent growth rate	1.0%

The value in use as of December 31, 2020, was calculated by the following key assumptions.
(i) Discount rate is the weighted average of equity and debt and estimated by applying cost of equity using risk-free interest rate reflecting the credit quality of country at the assessment date and the beta of the company in the same industry and weighted average borrowing rate of the segment.
(ii) Future cash flow is estimated based on experience, material operational consequence and business plan, and reflected inflation rate and investment plan.

As of December 31, 2020, the Group evaluated impairment loss of the goodwill, so that no impairment loss was recognized as the book value of CGU didn't exceed the recoverable amount.

3) Construction Equipment sector : Hyundai Construction Equipment Co., Ltd.
The recoverable amount of investments in subsidiaries as of December 31, 2020, was measured based on the calculation of the value in use. The value in use is measured by applying discount rate to future cash flow to be derived from continuing use of the asset. The recoverable amount of investments in subsidiaries is measured by the calculation of the value in use, and the value in use is calculated by estimating future cash flow based on 5-year business plan approved by the segment management.

Assumptions used in calculating the value in use as of December 31, 2020, are as follows:

(In percent)

	2020
Discount rate	10.56%
Period covered by cash flow forecast	5 years
Permanent growth rate	1.0%

The value in use as of December 31, 2020, was calculated by the following key assumptions.
(i) Discount rate is the weighted average of equity and debt and estimated by applying cost of equity using risk-free interest rate reflecting the credit quality of country at the assessment date and the beta of the company in the same industry and corporate bond rate considering the credit quality of the segment.
(ii) Future cash flow is estimated based on experience, forecast of external research institution, material operational consequence and business plan, and reflected inflation.

As of December 31, 2020 the Group tested the goodwill for impairment loss and the test showed that the book value of CGU exceeded its recoverable amount, and therefore, the Group recognized the impairment loss of ₩73,120 million, the entire book value of goodwill, and allocation between property, plant and equipment and other assets.

18. Pledged Assets

Assets pledged as collateral for the Group's borrowings as of December 31, 2020 is summarized as follows:

(In millions of won and in thousands of foreign currency)

Asset		Carrying amount	Collateralized amount	Type of borrowings	Borrowings amount	Secured creditor
Land and others	₩	128,238		Long-term		Korea Development
Machinery and others		1,248,774	1,168,103	borrowings	815,952	Bank and others
Property, plant and equipment (*)				Long-term		Korea Development
		1,923,077	2,317,897	borrowings	675,956	Bank and others
Inventory and trade receivables				Long-term borrowings		
		USD 106,446	USD 41,374	Short-term	USD 40,000	Wells Fargo & Company,
		INR 7,617,273	INR 1,200,000	borrowings	-	ICICI Bank
Land and others				Long-term		Shinhan Bank
		INR 1,172,509	USD 15,000	borrowings	USD 10,313	
Building				Long-term		BNP Paribas Fortis Bank,
		EUR 19,000	EUR 12,825	borrowings	EUR 12,825	Belgium
		USD 8,084	USD 8,000		-	Wells Fargo & Company
Ship				Long-term		HIHD Co., LTD.
		USD 18,173	USD 13,189	borrowings	USD 12,393	
	₩	3,300,089	3,486,000		1,491,908	
		USD 132,703	USD 77,563		USD 62,706	
		EUR 19,000	EUR 12,825		EUR 12,825	
		INR 8,789,782	INR 1,200,000			

(*) The Group has investment plans for the establishment of new process and the amounts agreed or to be agreed are ₩3,038,681 million as of December 31, 2020. The Group has investment plans for the construction of HPC and others (expected investment: ₩2,730,000 million), and the acquired or agreed amount for the acquisition is ₩2,384,900 million. The Group has Erection All Risks (EAR) Insurance in relation to the new HPC project amounting to ₩2,730,000 million, and provides the rights to receive insurance benefits as collaterals to Korea Development bank and other financial institutions (pledged amount: ₩2,280,000 million).

Meanwhile, Hyundai Construction Equipment Co., Ltd., a subsidiary, provides subordinated bonds (carrying amount: ₩ 3,000 million) as collaterals to Kodit 2020 the 6th Securitization specialty Co.,Ltd. for issuing debentures.

19. Short-term and Long-term Financial Liabilities

Short-term and long-term financial liabilities as of December 31, 2020 and 2019 are summarized as follows:

(In millions of won)

		2020		2019	
		Current	Non-current	Current	Non-current
Borrowings	₩	1,573,811	3,474,617	2,880,772	1,724,611
Debentures		674,422	3,809,136	534,613	2,928,269
Financial liabilities measured at FVTPL		406	-	-	-
	₩	2,248,639	7,283,753	3,415,385	4,652,880

20. Trade and Other Payables

Trade and other payables as of December 31, 2020 and 2019 are summarized as follows:

(In millions of won)

		2020		2019	
		Current	**Non-current**	**Current**	**Non-current**
Trade payables	₩	1,614,464	-	2,069,770	-
Other accounts payable		1,079,499	175,596	1,205,623	17
Accrued expense		337,614	-	247,644	-
Deposits received		4,058	25,731	6,080	28,868
	₩	3,035,635	201,327	3,529,117	28,885

21. Other Liabilities

Other liabilities as of December 31, 2020 and 2019 are summarized as follows:

(In millions of won)

		2020		2019	
		Current	**Non-current**	**Current**	**Non-current**
Unearned revenues	₩	22,980	-	22,287	-
Deferred revenues		29,271	-	-	28,714
Others		4,409	-	1,951	2,688
	₩	56,660	-	24,238	31,402

22. Borrowings and Debentures

(1) Short-term borrowings as of December 31, 2020 and 2019 are summarized as follows:

(In millions of won)

Type of borrowing	Lender	Annual Interest rate (%)		2020	2019
Domestic consolidated subsidiaries:					
General loan	The Korea Development Bank and others	1.88~3.66	₩	494,000	952,550
General loan in foreign currency	Kookmin Bank	2.03		32,640	-
Commercial paper (CP)	Hi Investment & Securities Co., Ltd. and others	3.75~3.98		80,000	450,000
Invoice loan	The Industrial and Commercial Bank of China and others	0.89~1.24		105,928	496,711
Usance L/C	Shinhan Bank and others	0.24~2.27		81,885	101,224
				794,453	2,000,485
Overseas consolidated subsidiaries:					
Foreign currency loan	Standard Chartered Bank and others	1.24~7.35		257,368	301,538
				1,051,821	2,302,023
Current portion of long-term borrowings				522,370	579,321
Current portion of discount in long-term borrowings				(380)	(572)
			₩	1,573,811	2,880,772

(2) Long-term borrowings as of December 31, 2020 and 2019 are summarized as follows:

(In millions of won)

Type of borrowing	Lender	Annual Interest rate (%)		2020	2019
Domestic consolidated subsidiaries:					
General loan	Woori Bank and others	1.45~4.23	₩	1,678,315	999,375
General fund for equipment	The Korea Development Bank and others	1.91~3.52		1,877,533	1,028,200
Commercial paper (CP)	Shinhan Bank and others	CD 3M + 0.29~0.85		320,000	150,000
				3,875,848	2,177,575
Overseas consolidated subsidiaries:					
Foreign currency loan	Wells Fargo and others	1.53~4.99		146,490	156,633
				4,022,338	2,334,208
Discount in long-term borrowings				(25,731)	(30,848)
Current portion of long-term borrowings				(522,370)	(579,321)
Current portion of discount in long-term borrowings				380	572
			₩	3,474,617	1,724,611

22. Borrowings and Debentures, Continued

(3) Debentures as of December 31, 2020 and 2019 are summarized as follows:

(In millions of won)

Description	Issue	Maturity	Annual interest rate (%)		2020	2019	Guarantee
Hyundai heavy industries holdings Co., Ltd.							
1st -2	2015-03-03	2022-03-03	3.05	₩	70,000	70,000	Debenture
3rd -1	2018-12-06	2020-12-06	-		-	80,000	Debenture
3rd -2	2018-12-06	2021-12-06	3.12		220,000	220,000	Debenture
4th -1	2019-04-11	2021-04-09	2.51		40,000	40,000	Debenture
4th -2	2019-04-11	2022-04-11	2.70		160,000	160,000	Debenture
5th	2019-06-04	2024-06-04	3.25		150,000	150,000	Debenture
6th	2020-06-24	2023-06-23	3.70		45,000	-	Debenture
7th	2020-10-16	2023-10-16	2.81		80,000	-	Debenture
Hyundai Oilbank Co., Ltd.							
114th -3	2014-11-21	2021-11-21	2.94		60,000	60,000	Debenture
115th -2	2015-03-27	2020-03-27	-		-	190,000	Debenture
115th -3	2015-03-27	2022-03-27	2.53		140,000	140,000	Debenture
116th -1	2017-07-07	2022-07-07	2.58		180,000	180,000	Debenture
116th -2	2017-07-07	2024-07-07	2.85		100,000	100,000	Debenture
117th	2018-01-26	2023-01-26	2.89		150,000	150,000	Debenture
118th -1	2018-08-28	2021-08-28	2.21		70,000	70,000	Debenture
118th -2	2018-08-28	2023-08-28	2.44		90,000	90,000	Debenture
118th -3	2018-08-28	2025-08-28	2.63		40,000	40,000	Debenture
119th -1	2019-01-28	2024-01-26	2.14		120,000	120,000	Debenture
119th -2	2019-01-28	2026-01-28	2.41		80,000	80,000	Debenture
120th -1	2019-07-09	2024-07-09	1.66		60,000	60,000	Debenture
120th -2	2019-07-09	2026-07-09	1.81		120,000	120,000	Debenture
120th -3	2019-07-09	2029-07-09	2.14		120,000	120,000	Debenture
121th -1	2019-10-14	2024-10-14	1.68		160,000	160,000	Debenture
121th -2	2019-10-14	2026-10-14	1.88		100,000	100,000	Debenture
121th -3	2019-10-14	2029-10-14	2.11		140,000	140,000	Debenture
122nd -1	2020-02-26	2023-02-26	1.49		80,000	-	Debenture
122nd -2	2020-02-26	2025-02-26	1.60		200,000	-	Debenture
122nd -3	2020-02-26	2027-02-26	1.83		80,000	-	Debenture
122nd -4	2020-02-26	2030-02-26	2.11		140,000	-	Debenture
Foreign Currency	2020-05-06	2023-05-08	1.54		108,800	-	Debenture
123rd -1	2020-07-06	2023-07-06	1.66		190,000	-	Debenture
123rd -2	2020-07-06	2025-07-06	1.88		50,000	-	Debenture
123rd -3	2020-07-06	2030-07-06	2.43		60,000	-	Debenture
124th -1	2020-10-16	2025-10-16	1.83		70,000	-	Debenture
124th -2	2020-10-16	2030-10-16	2.46		30,000	-	Debenture
Hyundai Chemical Co., Ltd.							
1st -1	2019-08-13	2024-08-13	2.48		130,000	130,000	Debenture
1st -2	2019-08-14	2024-08-13	2.48		20,000	20,000	Debenture

22. Borrowings and Debentures, Continued

(3) Debentures as of December 31, 2020 and 2019 are summarized as follows, continued:

(In millions of won)

Description	Issue	Maturity	Annual interest rate (%)	2020	2019	Guarantee
Hyundai electric & energy system Co., Ltd.						
2nd -1	2018-09-19	2020-09-18	-	₩ -	75,000	Debenture
2nd -2	2018-09-19	2021-09-17	3.35	45,000	45,000	Debenture
2nd -3	2018-09-19	2021-09-17	CD 3M +1.50	80,000	80,000	Debenture
3rd	2019-03-08	2021-03-08	3.50	20,000	20,000	Debenture
4th-1	2020-07-20	2022-07-20	3.80	30,000	-	Debenture
4th-2	2020-07-20	2023-07-20	4.00	45,000	-	Debenture
5th-1	2020-07-23	2023-07-23	3.61	50,000	-	Debenture
6th-1	2020-10-28	2023-10-28	3.88	50,000	-	Debenture
Hyundai construction equipment Co., Ltd.						
1st -1	2015-03-03	2020-03-03	-	-	50,000	Debenture
1st -4	2015-07-23	2020-07-23	-	-	90,000	Debenture
2nd -1	2018-06-04	2020-06-04	-	-	50,000	Debenture
2nd -2	2018-06-04	2021-06-04	3.38	100,000	100,000	Debenture
5th	2019-03-06	2021-03-06	2.67	10,000	10,000	Debenture
6th	2019-07-04	2022-07-04	2.27	100,000	100,000	Debenture
7th-1	2020-05-28	2022-05-27	3.00	50,000	-	Debenture
7th-2	2020-05-28	2023-05-26	3.20	100,000	-	Debenture
8th (*)	2020-05-28	2023-05-28	2.41	65,000	-	Debenture
9th (*)	2020-06-25	2023-06-25	2.92	35,000	-	Debenture
Hyundai Core Motion Co., Ltd.						
3rd	2018-08-29	2023-08-29	3.97	30,000	30,000	Debenture
4th	2018-10-16	2021-10-15	3.18	30,000	30,000	Debenture
				4,493,800	3,470,000	
Discount on debentures				(10,242)	(7,118)	
Current portion of debentures				(675,000)	(535,000)	
Current portion of discount on debentures				578	387	
				₩ 3,809,136	2,928,269	

(*) As of December 31, 2020 long-term financial instruments of ₩3,000 million are provided as collaterals of debentures.(See *Note 18*)

22. Borrowings and Debentures, Continued

(4) Aggregate maturities of the Group's borrowings and debentures as of December 31, 2020 and 2019 are summarized as follows:

(In millions of won)		2020		
Periods		**Borrowings**	**Debentures**	**Total**
Less than 1 year	₩	1,574,191	675,000	2,249,191
1 ~ 5 years		2,713,722	2,948,800	5,662,522
More than 5 years		786,246	870,000	1,656,246
	₩	5,074,159	4,493,800	9,567,959

(In millions of won)		2019		
Periods		**Borrowings**	**Debentures**	**Total**
Less than 1 year	₩	2,881,344	535,000	3,416,344
1 ~ 5 years		1,565,427	2,335,000	3,900,427
More than 5 years		189,460	600,000	789,460
	₩	4,636,231	3,470,000	8,106,231

(5) Changes in liabilities arising from financing activities for the years ended December 31, 2020 and 2019 are as follows:

(In millions of won)			2020		
			Borrowings	**Debentures**	**Total**
Beginning balance		₩	4,605,383	3,462,882	8,068,265
Cash flows from financing activities	Borrowing		14,593,091	1,566,784	16,159,875
	Repayment		(14,245,894)	(535,000)	(14,780,894)
Non-cash flows	Effects of changes in foreign exchange rates		(29,786)	(14,348)	(44,134)
	Amortization of discounts on Long-term borrowings		5,674	-	5,674
	Amortization of discounts on debentures		-	3,240	3,240
	Effects of changes in scope of consolidation		119,960	-	119,960
Ending balance		₩	5,048,428	4,483,558	9,531,986

(In millions of won)			2019		
			Borrowings	**Debentures**	**Total**
Beginning balance		₩	4,892,440	2,982,322	7,874,762
Cash flows from financing activities	Borrowing		23,389,894	1,524,727	24,914,621
	Repayment		(23,687,208)	(1,064,900)	(24,752,108)
Non-cash flows	Effects of changes in foreign exchange rates		2,246	19,310	21,556
	Amortization of discounts on Long-term borrowings		3,344	-	3,344
	Amortization of discounts on debentures		-	1,423	1,423
	Effects of changes in scope of consolidation		4,667	-	4,667
Ending balance		₩	4,605,383	3,462,882	8,068,265

23. Employee Benefits

(1) Recognized liabilities for defined benefit obligations as of December 31, 2020 and 2019 are as follows:

(In millions of won)

		2020	2019
Present value of defined benefit obligations	₩	477,000	458,278
Fair value of plan assets (*)		(446,211)	(410,501)
	₩	30,789	47,777

(*) As of December 31, 2020 and 2019, the excess payments of retirement pension of ₩ 5,053 million and ₩ 965 million are recognized as plan assets in other non-current assets. The fair value of plan assets including excess payments are ₩ 451,263 million and ₩ 311,466 million, respectively.

(2) Plan assets as of December 31, 2020 and 2019 are as follows:

(In millions of won)

		2020	2019
Retirement pension	₩	450,702	410,858
Transfer to National Pension Fund		561	608
	₩	451,263	411,466

(3) Expenses recognized in profit or loss for the years ended December 31, 2020 and 2019 are as follows:

(In millions of won)

		2020	2019
Current service costs	₩	60,661	53,760
Interest expenses on obligations		9,725	9,791
Profit on loss from reduction		-	(133)
Expected return on plan assets		(8,949)	(9,137)
Contribution		597	676
	₩	62,034	54,957

For the year ended December 31, 2020, the Group executed the voluntary retirement program. As a result, the retirement bonus was incurred amounting to ₩2,023 million recognized in selling, general and administrative expenses.

23. Employee Benefits, Continued

(4) Changes in the defined benefit obligations for the years ended December 31, 2020 and 2019 are as follows:

(In millions of won)

		2020	2019
Beginning balance	₩	458,278	407,299
Current service costs		60,661	53,760
Interest expenses on obligations		9,725	9,791
Profit and loss from reduction		-	(133)
Benefits paid		(53,480)	(49,738)
Transfers from related parties		17,001	5,613
Effect of movements in exchange rates		(69)	(39)
Actuarial gains and losses in other comprehensive income		(16,024)	32,415
Others		908	(690)
Ending balance	₩	477,000	458,278

(5) Changes in the fair value of plan assets for the years ended December 31, 2020 and 2019 are as follows:

(In millions of won)

		2020	2019
Beginning balance	₩	411,466	372,388
Benefits paid		(33,646)	(32,828)
Contributions paid into the plan		65,764	65,405
Expected return on plan assets		8,949	9,137
Actuarial losses in other comprehensive income		(1,622)	(2,636)
Other		352	-
Ending balance	₩	451,263	411,466

The Group are reviewing the level of the fund each year and taking the policy to preserve fund in the event of a loss to the fund.

(6) Expected payment date of the defined benefit obligations as of December 31, 2020 is as follows:

(In millions of won)		Within 1 year	1 ~ 2 years	2 ~ 5 years	5 ~ 10 years	More than 10 years	Total
Expected payment	₩	17,249	34,575	80,908	218,157	1,111,290	1,462,179

23. Employee Benefits, Continued

(7) Principal actuarial assumptions as of December 31, 2020 and 2019 are as follows:

(In percent)	**2020**	**2019**
Discount rate	2.20~2.71	2.28~2.56
Future salary growth rate	1.05~3.58	1.10~3.50
Future mortality (Males, at age 45)	0.20	0.20

(8) Weighted average durations of defined benefit obligations as of December 31, 2020 and 2019 are as follows:

(In years)	**2020**	**2019**
Weighted average durations	11.16	11.25

(9) Reasonably possible changes as of December 31, 2020 and 2019 to the relevant actuarial assumption would have affected the defined benefit obligation by the amounts shown below:

(In millions of won)		**2020**	
		Increase	**Decrease**
Discount rate (1% movement)	₩	(43,346)	47,588
Future salary growth (1% movement)		44,620	(41,701)

(In millions of won)		**2019**	
		Increase	**Decrease**
Discount rate (1% movement)	₩	(41,508)	49,133
Future salary growth (1% movement)		46,070	(39,807)

24. Provisions

Changes in provisions for the years ended December 31, 2020 and 2019 are as follows:

(In millions of won)

		2020					
		Provision for construction loss	**Provision for product warranty**	**Provision for construction warranty**	**Provision for emissions**	**Other provision**	**Total**
Beginning balance	₩	35,856	177,682	5,692	-	4,487	223,717
Additions		739	118,742	4,865	1,768	553	126,667
Reversals		(4,640)	(23,342)	-	-	(885)	(28,867)
Utilization		-	(71,698)	(1,219)	-	(1,401)	(74,318)
Others(*)		148	2,159	-	-	46,000	48,307
Effect of movements in exchange rates		(15)	(886)	-	-	16	(885)
Ending balance	₩	32,088	202,657	9,338	1,768	48,770	294,621
Current		32,088	159,426	2,638	1,768	11,168	207,088
Non-current		-	43,231	6,700	-	37,602	87,533

(*) Changes as the Group has acquired ship's digital control business by transfer from Hyundai Heavy Industries Co., Ltd. which is other related party included in large-scale corporate conglomerate and gas station directly operated by SK Network Co., Ltd. for the year ended December 31, 2020.

(In millions of won)

		2019				
		Provision for construction loss	**Provision for product warranty**	**Provision for construction warranty**	**Other provision**	**Total**
Beginning balance	₩	10,575	148,439	3,134	100,055	262,203
Additions and others		26,166	133,320	2,558	46,860	208,904
Reversals		(202)	(23,216)	-	(9)	(23,427)
Utilization		-	(81,132)	-	(142,434)	(223,566)
Others(*)		(683)	(790)	-	(21)	(1,494)
Effect of movements in exchange rates		-	1,061	-	36	1,097
Ending balance	₩	35,856	177,682	5,692	4,487	223,717
Current		35,856	141,889	1,555	1,857	181,157
Non-current		-	35,793	4,137	2,630	42,560

(*) The amount is liabilities held for sale of the subsidiary, Hyundai Electric & Energy System Co., Ltd., reclassified from provision of ship control division that was sold for the year ended December 31, 2019 and Hyundai Heavy Industries Co., Ltd. Bulgaria scheduled be sold.

25. Derivative Financial Instruments

The Group has entered into derivative instrument contracts with various banks to hedge the risk related to changes in foreign exchange rates, interest rate risk, crude oil prices and others. Derivatives are measured at fair value by using the forward exchange rate presented by contract counterparty and others. The evaluation details as of December 31, 2020, are as follows:

(1) The description of derivative instrument and hedge accounting

Hedge accounting	Type	Description
Cash flow hedge	Foreign currency forward	Hedges the variability in cash flows attributable to foreign currency exposure in respect of forecasted sales and purchases
	Currency swap	Hedges cash flow risk on exchange rate fluctuation of borrowings in foreign currency
	Interest rate swap	Hedges cash flow risk on interest rate fluctuation
	Product forward	Hedges cash flow risk on refinery margin fluctuation

(2) Details of the derivatives entered into by the Group as of December 31, 2020 is as follows:

(In millions of won and in thousands of foreign currency)

		Currency					
Description	Type	Sell	Buy	Contract amount	Number of contracts	Weighted average exchange rate (won)	Average maturities
Cash flow hedge	Foreign currency forward	EUR	KRW	₩ 15,365	8	₩ 1,353.70	2021-02-26
		KRW	EUR	52,277	56	1,344.60	2021-02-14
		KRW	JPY	5,373	6	1,052.10	2021-01-15
		KRW	USD	76,866	45	1,139.70	2021-05-08
		USD	KRW	145,627	26	1,154.10	2021-04-12
	Currency swap	KRW	USD	159,977	3	1,230.60	2022-11-23
	Interest rate swap	KRW	KRW	280,000	5	-	2022-01-26
	Product forward	USD	USD	306,695	42	-	2021-04-22
For trading	Foreign currency forward	KRW	USD	59,154	4	1,095.4	2021-01-06
		USD	KRW	26,000	3	1,088.0	2021-01-20

※ Terms of settlement: Settlement or collecting total
※ The contract amount: Denominated in the selling currency

25. Derivative Financial Instruments, Continued

(3) Carrying amount related to derivatives as of December 31, 2020 is as follows:

(In millions of won)

			Derivatives			
			Assets		Liabilities	
Description	**Category**		**Current**	**Non-current**	**Current**	**Non-current**
Cash flow hedge	Foreign currency forward	₩	9,443	-	3,810	-
	Foreign currency swap		-	-	4,592	14,179
	Interest rate swap		-	-	1,612	723
	Product forward		53,003	-	53,103	-
		₩	62,446	-	63,117	14,902

(In millions of won)

			Financial instruments measured at FVTPL			
			Assets		Liabilities	
Description	**Category**		**Current**	**Non-current**	**Current**	**Non-current**
For trading	Foreign currency forward	₩	9	-	406	-

(4) Gain and loss on valuation and transaction of derivatives for the year ended December 31, 2020 is as follows:

(In millions of won)

Description	**Category**		**Revenue**	**Finance income**	**Finance costs**	**Accumulated other comprehensive income (loss)**
Cash flow hedge	Foreign currency forward	₩	4,888	-	-	(2,510)
	Currency swap		-	-	4,542	(234)
	Interest rate swap		-	-	-	(1,080)
	Product forward		-	-	-	1,716
			4,888	-	4,542	(2,108)
For trading	Foreign currency forward		-	20,620	90,224	-
	Currency swap		-	-	13,995	-
	Product forward		-	26,477	35,001	-
			-	47,097	139,220	-
		₩	4,888	47,097	143,762	(2,108)

For the year ended December 31, 2020, the Group applies cash flow hedge accounting, for which the Group accounted the effective portion of the hedge amounting to (-)₩2,108 million, after netting off deferred tax effect of (-)₩1,154 million as gain (loss) on valuation of derivatives in accumulated other comprehensive income (loss). It consists of non-controlling interest portion of (-)₩169 million and controlling interest portion of (-)₩985 million.

The expected period of exposure to cash flow risk, where cash flow hedge accounting is applied, is approximately 42 months.

26. Capital and Capital Surplus

(1) Capital

The Company is authorized to issue 160,000,000 shares of capital stock (par value ₩5,000), and as of December 31, 2020 the number of issued common shares is 15,798,617 shares. For the year ended December 31, 2020, the Company retired 488,000 share of treasury stocks. Due to retirement of shares, the total par value of shares issued does not agree with paid-in capital by ₩2,440 million.

(2) Capital surplus

Capital surplus is comprised of paid-in capital in excess of par value, capital surplus related to acquisition or disposal of interests in subsidiaries and investments in associates, and other capital surplus of the Company.

(i) Capital surplus as of December 31, 2020 and 2019 are as follows:

(In millions of won)		2020	2019
Paid-in-capital in excess of par value	₩	3,090,454	3,090,454
Other capital surplus (*)		2,102,249	2,081,491
	₩	5,192,703	5,171,945

(*) The change in other capital surplus from 2019 to 2020 is the amount resulted from paid-in capital increase of subsidiaries.

(ii) Changes in capital surplus for the years ended December 31, 2020 and 2019 are as follows:

(In millions of won)		2020	2019
Beginning balance	₩	5,171,945	4,783,119
Others		20,758	388,826
Ending balance	₩	5,192,703	5,171,945

27. Hybrid Bonds

(1) Hybrid bonds classified as non-controlling interests as of December 31, 2020 and 2019 issued by Hyundai Oilbank Co., Ltd., a subsidiary, are as follows:

(In millions of won)

Description	Issue	Maturity	Annual interest rate (%)		2020	2019
1st -1 Hybrid bond	2015-12-11	-		₩	-	160,000
1st -2 Hybrid bond	2015-12-11	-			-	65,000
2nd Hybrid bond	2020-03-30	2050-03-30	3.50		280,000	-
3rd Hybrid bond	2020-09-24	2050-09-24	3.65		130,000	-
4th Hybrid bond	2020-10-26	2050-10-26	3.65		20,000	-
					430,000	225,000
	Issuance costs				(1,076)	(727)
				₩	428,924	224,273

27. Hybrid Bonds, Continued

(2) Terms and conditions of the hybrid bonds issued by Hyundai Oilbank Co., Ltd. as of December 31, 2020 are as follows:

(In millions of won)

	2nd Hybrid bond	3rd Hybrid bond	4th Hybrid bond
Amount issued	₩ 280,000	130,000	20,000
Maturity	30 years (At maturity, it can be extended in accordance with the Group's decision)		
Interest rate	Issue date ~ 2025-03-30: Fixed rate, 3.50% Re-calculated and applied every 5 years, 5-year treasury bond yield + annual 2.215% + annual 2.00% (Step-up clauses)	Issue date ~ 2025-09-24: Fixed rate, 3.65% Re-calculated and applied every 5 years, 5-year treasury bond yield + annual 2.473% + annual 2.00% (Step-up clauses)	Issue date ~ 2025-10-26: Fixed rate, 3.65% Re-calculated and applied every 5 years, 5-year treasury bond yield + annual 2.441% + annual 2.00% (Step-up clauses
Interest payment condition	3 months deferred payment, selective payment postpone is possible		
Other	Depending on the Group's choice, the Group can redeem at the date of 5th anniversary after issuance and every interest payment thereafter.		

The Group has an unconditional option to extend the maturity of hybrid bonds at maturity. Also, payment of interest on the bonds can be postponed at the discretion of the Group. If the payment of interest is postponed, the Group cannot pay any dividend on common stock until the deferred interest is paid in full. The Group classifies hybrid bonds as equity because the Group holds unconditional rights to avoid the contractual obligation to deliver cash or other financial assets to the holder. In case of liquidation, the hybrid bonds are subordinated bonds which have priority over common stocks.

28. Capital Adjustment

(1) Capital adjustment as of December 31, 2020 and 2019 are summarized as follows:

(In millions of won)		2020	2019
Treasury stock (*)	₩	489,547	489,547
Change in equity of equity method investments		43,296	43,296
Others		189,506	14,000
	₩	722,349	546,843

(*) As of December 31, 2020 and 2019, the fair value of the treasury stock held by the parent is ₩472,008 million and ₩562,747 million, respectively.

(2) The Group's treasury stock as of December 31, 2020 and 2019 are summarized as follows:

(In millions of won, except shares data)

	2020		2019	
	Number of shares	Carrying amount	Number of shares	Carrying amount
Treasury stock(*)	1,664,931	₩ 489,547	1,664,931	₩ 489,547

(*) These are the equity interests of the company and the additional equity acquired in 2017 among the treasury stock that the parent acquired Korea Shipbuilding & Offshore Engineering Co., Ltd. (formerly, Hyundai Heavy Industries Co., Ltd.).

29. Accumulated Other Comprehensive Income

(1) Accumulated other comprehensive income as of December 31, 2020 and 2019 are summarized as follows:

(In millions of won)		2020	2019
Changes in fair value of financial Instruments measured at FVOCI	₩	10,573	(60)
Effective portion of changes in fair value of cash flow hedges		1,622	2,607
Exchange differences on translating foreign operations		(1,997)	4,156
Changes in equity of equity method investments		(109,610)	(78,624)
Revaluation of property, plant and equipment		349,592	174,091
	₩	250,180	102,170

29. Accumulated Other Comprehensive Income, Continued

(2) Other comprehensive income (loss) for the years ended December 31, 2020 and 2019 are as follows:

(In millions of won)		2020		
		Other comprehensive income (loss)	**Owners of the Company**	**Non-controlling interests**
Changes in fair value of financial instruments measured at FVOCI	₩	13,512	10,194	3,318
Effective portion of changes in fair value of cash flows hedges		(1,154)	(985)	(169)
Exchange differences on translating foreign operations		(9,135)	(6,152)	(2,983)
Change in equity of equity method investments		(16,267)	(16,472)	205
Actuarial gains and losses		9,781	6,404	3,377
Retained earnings of equity method investments		8,442	8,435	7
Revaluation of property, plant and equipment		269,525	180,224	89,301
	₩	274,704	181,648	93,056

(In millions of won)		2019		
		Other comprehensive income (loss)	**Owners of the Company**	**Non-controlling interests**
Changes in fair value of financial instruments measured at FVOCI	₩	(2)	(1)	(1)
Effective portion of changes in fair value of cash flows hedges		(6,870)	(7,771)	901
Exchange differences on translating foreign operations		20,004	6,156	13,848
Change in equity of equity method investments		4,502	4,500	2
Actuarial gains and losses		(23,959)	(17,934)	(6,025)
Retained earnings of equity method investments		(5,474)	(5,470)	(4)
	₩	(11,799)	(20,520)	8,721

30. Retained Earnings

(1) Retained earnings as of December 31, 2020 and 2019 are summarized as follows:

(In millions of won)		2020	2019
Voluntary reserves	₩	358,881	280,025
Unappropriated retained earnings		1,854,075	2,903,233
	₩	2,212,956	3,183,258

(2) Changes in retained earnings for the years ended December 31, 2020 and 2019 are as follows:

(In millions of won)		2020	2019
Beginning balance	₩	3,183,258	3,302,009
Adjustment on initial application of K-IFRS 1109, K-IFRS No.1115 & K-IFRS No.1116 (net of tax)		-	(2,470)
Profit (loss) for the year		(789,720)	115,347
Less: non-controlling interests		180,547	57,883
Retained earnings of equity method investments		8,435	(5,470)
Actuarial gains and losses		6,404	(17,934)
Reclassification of revaluation surplus		4,723	4,745
Treasury shares retirement		(124,266)	-
Dividend		(270,501)	(270,501)
Others		14,076	(351)
Ending balance	₩	2,212,956	3,183,258

31. Acquisition and Disposal of Subsidiary and Business

(1) Business combinations

1) General information
The Group acquired potential voting rights of Hyundai and Shell Base Oil Co., Ltd. and incorporated them into subsidiaries for the year ended December 31,2020.

2) Consideration Transferred
The consideration transferred at the date of acquisition is as follows:

(In millions of won)

		Amount
Cash	₩	5,536
Fair value of interest in Hyundai and Shell Base Oil Co., Ltd. (60%) (*)		263,374
		268,910

(*) The fair value of the interest was remeasured by using discounted cash flow model as at the acquisition date, and as a result of the remeasurement, the Group recognized gain on disposal of investments accounted for using the equity method amounting to ₩84,491 million.

3) Identifiable assets acquired and liabilities assumed
Detail of fair value of the identifiable assets acquired and liabilities assumed at the acquisition date are as follows:

(In millions of won)

		Amount
Assets		
Cash and cash equivalents	₩	139,694
Trade and other receivables		40,368
Inventories		19,532
Property, plant and equipment		265,071
Intangible assets		51,178
Right-of-use assets		5,067
Other assets		5,553
		526,463
Liabilities		
Short-term and long-term financial liabilities		119,960
Trade and other payables		34,497
Lease liabilities		5,296
Deferred tax liabilities		16,389
Other liabilities		12,655
		188,797
Net Asset	₩	337,666
Non-controlling Interest (*)		135,066

(*) Non-controlling interest was calculated by applying non-controlling interest rate of 40%, to the fair value of recognizable net asset.

31. Acquisition and Disposal of Subsidiary and Business, Continued

(1) Business combinations, continued

4) The goodwill from business combinations is as follows:

(In millions of won)

		Amount
Total consideration transferred	₩	268,910
Fair values of identifiable net assets		202,599
Goodwill		66,311

The goodwill of ₩66,311 million arising from the business combination is attributable to synergies such as the efficiency of the operation of the plant and others. The recognized goodwill will not be deductible for tax purpose.

5) Valuation techniques used to measure fair value of acquired significant assets are as follows:

Acquisition assets	Valuation technique
Inventories	Market approach: amount represents the estimated selling price for inventories, less all estimated costs of completion and costs necessary to make the sale. Fair value was determined considering normal profits and others.
Property, plant and equipment	Market approach or cost approach: fair value was determined considering the price generated from market transactions of similar available assets or the replacement cost taking appropriate depreciation into account.
Intangible assets	Multi-period excess profit approach: it was determined in consideration of the present value of net cash flows expected to arise from customer relationships.

6) Effect on profit or loss from transfer to consolidation
Net sales and profit of Hyundai and Shell Base Oil Co. Ltd. for the period from November 2020 (the acquisition date) included in the consolidated statements of profit or loss are ₩93,742 million and ₩16,593 million, respectively. Net sales and profit for the current reporting period as though the acquisition date had been as of the beginning of the annual reporting period are as follows:

(In millions of won)

		Before adjustment	Adjustment	After adjustment
Sales	₩	18,910,982	42,982	18,953,964
Profit or loss	₩	(789,720)	21,122	(768,598)

31. Acquisition and Disposal of Subsidiary and Business, Continued

(2) Acquisition of business segment

1) General information
The group acquired ship controlling segment from Hyundai Heavy Industries Co., Ltd., and acquired navigation assistance system segment from Korea Shipbuilding & Offshore Engineering Co., Ltd.

2) Consideration transferred
The consideration transferred at the date of acquisition is as follows:

(In millions of won)

		Ship controlling segment	Navigation assistance system segment
Cash and cash equivalents	₩	12,291	3,000

3) Identifiable assets acquired and liabilities assumed
Detail of fair value of the identifiable assets acquired and liabilities assumed at the acquisition date are as follows:

(In millions of won)

		Ship controlling segment	Navigation assistance system segment
Assets			
Cash and cash equivalents	₩	2,986	-
Trade and other receivables		629	35
Inventories		16,982	-
Property, plant and equipment		180	289
Right-of-use assets		-	-
Other assets		16	-
		20,793	324
Liabilities			
Trade and other payables		5,986	-
Provisions		2,308	-
Other liabilities		1,065	-
		9,359	-
Net Asset	₩	11,434	324

4) The goodwill and Fair values of difference

Details of acquisition amount(transfer consideration) and goodwill of investment in subsidiaries related to business combination are as follows:

(In millions of won)

		Ship controlling segment	Navigation assistance system segment
Total consideration transferred	₩	12,291	3,000
Fair values of identifiable net assets		11,434	324
Goodwill		857	2,676

31. Acquisition and Disposal of Subsidiary and Business, Continued

(2) Acquisition of business segment, continued

5) Valuation techniques used to measure fair value of acquired significant assets are as follows:

Acquisition assets	Valuation technique
Inventories	Market approach: amount represents the estimated selling price for inventories, less all estimated costs of completion and costs necessary to make the sale. Fair value was determined considering normal profits and others
Property, plant and equipment	Market approach or cost approach: fair value was determined considering the price generated from market transactions of similar available assets or the replacement cost taking appropriate depreciation into account.
Intangible assets	Multi-period excess profit approach: it was determined in consideration of the present value of net cash flows expected to arise from customer relationships

(3) Acquisition of a group of assets

1) The Group acquired 100% shares of MingHe (Changzhou) Machinery Co., Ltd.

2) The identifiable assets acquired and liabilities assumed

(In millions of won)

		MingHe (Changzhou) Machinery Co., Ltd.
Assets acquired	₩	13,088
Liabilities assumed		-
Net asset		13,088

3) Consideration transferred and fair value difference

The acquisition cost of investments in subsidiaries (consideration transferred) are as follows:

(In millions of won)

		MingHe (Changzhou) Machinery Co., Ltd.
Total consideration transferred	₩	13,162
Fair values of identifiable net assets		13,088
Relevant amount of net assets' fair value		13,088
Fair value of net assets difference (*)		74

(*) In accordance with *K-IFRS No. 1103*, the acquisition of shares of MingHe (Changzhou) Machinery Co., Ltd. is the acquisition of a group of assets that does not constitute a business. The Group allocated the difference between consideration transferred and fair value of net assets at a relative fair value ratio of assets acquired.

31. Acquisition and Disposal of Subsidiary and Business, Continued

(4) Disposition of business segment

The Group disposed all shares of Hyundai Heavy Industries Co. Bulagaria, a subsidiary of Hyundai Electronics and Energy System Co., Ltd., and lost its control. The gain on disposal is ₩719 million.

(5) Change of interest in a subsidiary

Effect on equity attributable to owners of the controlling company by the change of interest of the parent company in a subsidiary are as follow:

(In millions of won)

Subsidiary	Ownership before transaction (%)	Ownership after transaction (%)	Reason	Acquisition price / Sale price	Change of non-controlling interest	Change of controlling interest
Hyundai Robotics Co., Ltd.	100.00	90.00	Pain-in capital increase by third party allocation	49,979	29,221	20,758

32. Revenue

(1) Revenue streams

Details of revenue for the years ended December 31, 2020 and 2019 are as follows:

(In millions of won)		2020	2019
Revenue from contracts with customers	₩	19,175,403	26,599,735
Equity Income on Investments		(269,309)	50,927
Gain (loss) on valuation of hedging accounting		4,888	(20,329)
	₩	18,910,982	26,630,333

(2) Disaggregation of revenue

Details of revenue from contracts with customers for the years ended December 31, 2020 and 2019 are as follows:

(In millions of won)		2020	2019
Main products:			
Ship	₩	1,162,229	902,127
Oil refining		19,709,053	31,094,118
Electrical electronics		1,885,560	1,882,708
Construction machinery		3,653,976	3,969,616
Others		278,741	288,499
Consolidation adjustments (*)		(7,514,156)	(11,537,333)
		19,175,403	26,599,735
Region:			
Republic of Korea		13,973,092	18,924,574
North America		516,998	618,441
Asia		4,278,580	6,594,582
Europe		401,779	456,874
Others		4,954	5,264
		19,175,403	26,599,735
Revenue recognition period:			
Recognized when the goods are delivered		18,693,785	26,195,866
Recognized over time as services are provided		481,618	403,869
		19,175,403	26,599,735
Contract period:			
Short-term contract (within one year)		18,207,006	25,408,688
Long-term contract (more than one year)		968,397	1,191,047
	₩	19,175,403	26,599,735

(*) The consolidation adjustments are the amount of intra-group transactions and others.

There is no single external customer whose revenue amounts more than 10% of the Group for the years ended December 31, 2020 and 2019.

32. Revenue, Continued

(3) Contract balances

Receivables, contract assets and contract liabilities from contracts with customers as of December 31, 2020 and 2019 are as follows:

(In millions of won)		2020		2019	
		Current	**Non-current**	**Current**	**Non-current**
Trade receivables	₩	1,693,596	8,688	2,139,712	10,198
Contract assets		227,085	-	288,716	-
Contract liabilities		445,440	65,105	450,302	65,680

(4) Performance obligations and revenue recognition policies

The Group's performance obligations and revenue recognition policies are the same for the year end December 31, 2019 (*See Note 4(23)*).

(5) Construction contracts

1) Changes in outstanding contracts for the year ended December 31, 2020 is as follows:

(In millions of won)		2020
Beginning balance(*)	₩	525,518
New contracts		16,800
Recognized as revenue		(385,543)
Ending balance	₩	156,775

(*) The beginning balance includes the impact from translation of the contract balance denominated in foreign currency to Korean Won using on the appropriate exchange rate.

In connection with the construction contract, the Group has provided certain amount of deposits or letters to financial institutions for various guarantees. (e.g. bid bond, performance bond, refund guarantee, maintenance bond, etc.)

32. Revenue, Continued

(5) Construction contracts, continued

2) Accumulated profit and loss of construction in progress as of December 31, 2020 is as follows:

(In millions of won)

		2020						
					Receivables on construction contracts (*)			
		Accumulated revenue of construction	Accumulated cost of construction	Accumulated profit (loss) of construction	Billed receivables	Contracts assets	Contract liabilities	Provisions for construction loss
Ships	₩	122,194	107,902	14,292	-	5,054	37,066	-
Electrical electronics		256,736	288,545	(31,809)	9,470	2,864	5,974	12,306
Others		31,225	31,732	(507)	1,175	1,545	392	1
	₩	410,155	428,179	(18,024)	10,645	9,463	43,432	12,307

(*) As of December 31, 2020, the allowance for receivables on construction contracts amounts to ₩1,422 million.

There is no amount of retentions according to the contract terms among the receivables on construction contracts.

The Group mainly collect the consideration based on the milestone payment method. Therefore, receivables, contract assets and contract liabilities might be changed according to the progress of construction.

3) The effect of changes in estimated total contract costs

(i) Effect of changes in estimated total contract costs
For the year ended December 31, 2020, due to the factors causing the change in estimated total contract costs, the estimated total contract costs for contracts in progress have changed. Details of change in profits or loss for the current year and the future period and the impact on contract assets and contract liabilities are as follows:

(In millions of won)

		Changes in total contract revenue (*)	Changes in total estimated contract costs (*)	Effect on profit (loss) of contract (*)			Changes in contract assets	Changes in contract liabilities
				Current year	Future period	Total		
Ships	₩	(43,286)	(67,297)	27,962	(3,951)	24,011	81	4,892
Electrical electronics		(1,414)	6,712	(8,180)	54	(8,126)	(2,266)	1,272
Others		-	527	(549)	22	(527)	(5)	(258)
	₩	(44,700)	(60,058)	19,233	(3,875)	15,358	(2,190)	5,906

(*) Changes in entire contract revenue (including foreign currency fluctuation) were included.

32. Revenue, Continued

(5) Construction contracts, continued

3) The effect of changes in estimated total contract costs, continued

(i) Effect of changes in estimated total contract costs, continued

Effect on profit or loss for the current period and future period is calculated based on the total contract costs and total contract revenue estimated on the basis of situations generated in the current period. These estimations could be changed by variation of actual situations in the future.

(ii) Sensitivity analysis based on changes in the estimated total contract costs

The amount of contract assets and contract liabilities affected by the rate of progress which is determined by accumulated cost incurred divided by estimated total contract costs. Estimated total contract costs are calculated based on estimation on the materials cost, labour cost and construction period, and has a variance risk related to the fluctuation of exchange rate, changes in field installation cost, etc.

The Group has entered into foreign currency forward contracts to hedge the risk related to exchange rate fluctuation for reducing the short-term price risk.

The impacts on profit or loss of current period and future periods, contract assets and contract liabilities in case field installation cost changes 10% are as follows:

(In millions of won)

		Effect on profit or loss this year		Effect on profit or loss in the future		Changes in contract assets		Changes in contract liabilities	
		10% increase	10% decrease	10% increase	10% decrease	10% increase	10% decrease	10% increase	10% decrease
Electrical electronics	₩	(2,109)	2,266	(309)	151	(244)	464	763	(369)

33. Selling, General and Administrative Expenses

Selling, general and administrative expenses for the years ended December 31, 2020 and 2019 are as follows:

(In millions of won)		2020	2019
Salaries	₩	197,678	191,050
Bonus		44,212	51,019
Post-employment benefit costs		19,909	29,295
Employee welfare		48,278	50,729
Depreciation		40,359	35,377
Right-of-use assets depreciation		73,089	33,879
Bad debt expenses		10,695	52,637
Ordinary development costs		72,823	74,960
Advertising		43,907	51,168
Printing		951	1,092
Power cost		1,509	2,839
Warranty expenses		94,180	114,605
Insurance		8,400	6,542
Office supplies expenses		1,957	2,231
Supply expenses		2,633	769
Utility expenses		1,616	2,100
Repairs		5,906	5,467
Travel		7,993	19,456
Research		11,789	11,091
Training		1,775	3,562
Service charges		106,451	82,459
Transportation		137,170	156,833
IT service fee		7,407	5,028
Entertainment		3,795	5,697
Taxes and dues		25,309	19,533
Service contract expenses		106,403	94,813
Automobile maintenance		4,505	4,418
Sales commissions		26,935	29,796
Others		59,162	24,661
	₩	1,166,796	1,163,106

34. Operating Segments

The Group has five reportable segments, as described below, which are its strategic business units.

(i) Oil refining: Oil refining business
(ii) Electrical electronics: Manufacturing and sale of transformers, low and medium voltage circuit breakers, switchgears, power electronics and control systems and wind turbine systems
(iii) Construction equipment: Manufacturing and sale of construction equipment and wheel loaders
(iv) Ship maintenance service: Engineering service and engine A/S
(v) Others: Manufacturing of industrial and LCD robots, investment and others

Information about these reportable segments are as follows:

(1) The financial performance of each segment

(In millions of won)		2020				
		Revenue	**Inter-segment revenue**	**Operating profit (loss)**	**Profit (loss)**	**Depreciation (*2)**
Oil refining	₩	19,709,053	(6,203,999)	(594,030)	(437,451)	613,991
Electrical electronics		1,890,844	(95,117)	75,290	(39,049)	40,052
Construction equipment		3,653,582	(1,038,015)	110,951	28,515	66,243
Ship maintenance service		1,162,229	(159,661)	164,227	116,027	4,704
Others		589,525	(597,459)	302,088	84,297	9,302
Consolidation adjustments (*1)		(8,094,251)	8,094,251	(655,635)	(542,059)	44,113
	₩	18,910,982	-	(597,109)	(789,720)	778,405

(*1) Consolidation adjustments are made by eliminating intra-group transactions and unrealized profits and losses, and valuations of joint venture and investments in associates using the equity method.
(*2) Depreciation consists of depreciation of property, plant and equipment and right-of-use asset, and amortization.

(In millions of won)		2019				
		Revenue	**Inter-segment revenue**	**Operating profit (loss)**	**Profit (loss)**	**Depreciation (*2)**
Oil refining	₩	31,094,118	(10,187,819)	523,766	345,098	534,080
Electrical electronics		1,876,256	(119,798)	(153,414)	(266,979)	33,864
Construction equipment		3,955,739	(1,106,621)	157,664	77,724	71,714
Ship maintenance service		902,127	(96,851)	107,964	88,523	3,783
Others		517,377	(204,196)	246,500	589,782	6,492
Consolidation adjustments (*1)		(11,715,284)	11,715,284	(215,886)	(718,801)	29,990
	₩	26,630,333	-	666,594	115,347	679,923

(*1) Consolidation adjustments are made by eliminating intra-group transactions and unrealized profits and losses, and valuations of joint venture and investments in associates using the equity method.
(*2) Depreciation consists of depreciation of property, plant and equipment and right-of-use asset, and amortization.

34. Operating Segments, Continued

(2) The assets (liabilities) of each segment

(In millions of won)		2020	
		Assets	**Liabilities**
Oil refining	₩	16,646,748	10,228,172
Electrical electronics		2,439,660	1,631,344
Construction equipment		4,207,245	2,059,437
Ship maintenance service		558,224	273,013
Others		8,216,413	2,343,450
Consolidation adjustments (*)		(5,509,338)	(1,074,318)
	₩	26,558,952	15,461,098

(*) Consolidation adjustments are made by eliminating intra-group transactions and unrealized profits and losses, and valuations of joint venture and investments in associates using the equity method.

(In millions of won)		2019	
		Assets	**Liabilities**
Oil refining	₩	14,513,689	8,178,067
Electrical electronics		2,447,965	1,599,993
Construction equipment		3,952,165	1,825,872
Ship maintenance service		652,142	320,837
Others		8,612,925	2,756,831
Consolidation adjustments (*)		(4,463,351)	(850,760)
	₩	25,715,535	13,830,840

(*) Consolidation adjustments are made by eliminating intra-group transactions and unrealized profits and losses, and valuations of joint venture and investments in associates using the equity method.

(3) Geographical information

(In millions of won)		2020	
		Revenue	**Inter-segment revenue**
Korea	₩	20,613,772	(6,905,101)
North America		519,998	(3,000)
Asia		5,455,260	(1,176,680)
Europe		411,249	(9,470)
Others		4,954	-
Consolidation adjustments (*)		(8,094,251)	8,094,251
	₩	18,910,982	-

(*) Consolidation adjustments are made by eliminating intra-group transactions and unrealized profits and losses, and valuations of joint venture and investments in associates using the equity method.

34. Operating Segments, Continued

(3) Geographical information, continued

(In millions of won)		2019	
		Revenue	**Inter-segment revenue**
Korea	₩	27,947,852	(8,992,680)
North America		626,049	(7,608)
Asia		9,294,103	(2,699,521)
Europe		472,349	(15,475)
Others		5,264	-
Consolidation adjustments (*)		(11,715,284)	11,715,284
	₩	26,630,333	-

(*) Consolidation adjustments are made by eliminating intra-group transactions and unrealized profits and losses, and valuations of joint venture and investments in associates using the equity method.

(4) Non-current assets

(In millions of won)		2020	2019
Korea	₩	12,107,543	8,991,360
North America		121,487	133,550
Asia		134,741	131,842
Europe		51,898	54,355
Others		31,029	35,381
		12,446,698	9,346,488
Consolidation adjustments (*1)		1,646,231	1,793,364
(*2)	₩	14,092,929	11,139,852

(*1) Consolidation adjustments are made by eliminating intra-group transactions and unrealized profits and losses.

(*2) Total non-current assets consist of investment property, property, plant and equipment, intangible assets and right-of-use assets.

35. Nature of Expenses

The classification of expenses by nature for the years ended December 31, 2020 and 2019 are as follows:

(In millions of won)		2020	2019
Changes in inventories	₩	872,383	441,647
Purchase of inventories		15,205,498	22,368,403
Depreciation		477,206	465,743
Right-of-use depreciation		219,497	141,036
Amortization		81,702	73,144
Labor cost		748,323	786,045
Other expenses		1,903,481	1,687,722
	₩	19,508,090	25,963,740

Total expenses consist of cost of sales and selling, general and administrative expenses.

36. Finance Income and Finance Costs

Finance income and finance costs for the years ended December 31, 2020 and 2019 are as follows:

(In millions of won)		2020	2019
Finance income:			
Interest income	₩	35,417	41,028
Dividend income		539	59
Gain on valuation of financial instruments measured at FVTPL		42	291
Gain on disposal of financial instruments assets measured at FVTPL		47,256	21,038
Gain on foreign currency translation		104,984	38,245
Gain on foreign currency transactions		400,639	362,457
Gain on transaction of derivatives		-	21,312
Others		25	399
	₩	588,902	484,829
Finance costs:			
Interest expense	₩	235,607	292,438
Loss on valuation of financial instruments measured at FVTPL		487	166
Loss on disposal of financial instruments measured at FVTPL		124,820	28,730
Loss on foreign currency translation		40,942	39,685
Loss on foreign currency transactions		385,891	395,135
Loss on valuation of derivatives		18,537	-
Others		280	-
	₩	806,564	756,154

37. Other Non-operating Income and Other Non-operating Expenses

Other non-operating income and other non-operating expenses for the years ended December 31, 2020 and 2019 are as follows:

(In millions of won)		2020	2019
Other non-operating income:			
Gain on disposal of investment property	₩	-	438
Gain on disposal of joint venture		84,491	-
Gain on disposal of property, plant and equipment		1,428	6,291
Gain on disposal of right-of-use assets		7,622	3,357
Gain on disposal of intangible assets		292	603
Gain on disposal of other investment assets		245	389
Reversal of other allowance doubtful accounts		2,525	590
Reversal of impairment loss on property, plant and equipment		-	1,608
Reversal of impairment loss on intangible assets		-	106
Others		40,317	52,260
	₩	136,920	65,642
Other non-operating expenses:			
Service charges	₩	9,512	5,023
Loss on disposal of investments in associates		405	-
Loss on disposal of property, plant and equipment		14,768	15,050
Loss on disposal of right-of-use assets		4,120	4,738
Impairment loss on right-of-use assets		-	1,791
Impairment loss on property, plant and equipment		-	58,091
Loss on revaluation of property, plant and equipment		229	-
Loss on disposal of intangible assets		2,038	1,525
Impairment loss on intangible assets		226,305	33,861
Loss on disposal of other investment assets		-	2,841
Other bad debt expenses		237	15,604
Donation		14,783	13,758
Others		103,133	145,434
	₩	375,530	297,716

38. Income Tax Expense (Benefit)

(1) The components of income tax expense (benefit) for the years ended December 31, 2020 and 2019 are as follows:

(In millions of won)		2020	2019
Current tax expense	₩	69,087	317,907
Adjustment for prior periods		9,709	14,928
Origination and reversal of temporary differences		(240,007)	(119,002)
Income tax recognized in other comprehensive income		(95,558)	(126,383)
Others		(6,664)	13
	₩	(263,433)	87,463

(2) Income tax recognized directly in other comprehensive income for the years ended December 31, 2020 and 2019 are as follows:

(In millions of won)		2020	2019
Gains (loss) on valuation of derivatives	₩	953	(832)
Exchange differences on translating foreign operations		(343)	196
Change in equity of equity method investments		329	(9)
Actuarial gains and losses		(3,222)	7,238
Revaluation of property, plant and equipment		(88,138)	4,386
Retained earnings of equity method investments		7	11
Loss on valuation of financial instruments measured at FVOCI		(5,144)	-
Capital surplus		-	(136,842)
Others		-	(531)
Income tax recognized directly in other comprehensive loss	₩	(95,558)	(126,383)

38. Income Tax Expense (Benefit), Continued

(3) Reconciliation of effective tax rate for the years ended December 31, 2020 and 2019 are as follows:

(In millions of won)		2020	2019
Profit (loss) before income tax	₩	(1,053,152)	202,811
Income tax using each component's statutory tax rate		(219,625)	64,455
Adjustment for:			
- Tax effect of non-deductible expenses		4,692	14,385
- Tax effect of non-taxable income		(72,431)	(77,567)
- Tax credits		(2,323)	(5,801)
- Current adjustments for prior periods		9,709	14,928
- Temporary differences of deferred tax not recognized		24,744	38,431
- Tax effect of tax rate change		(22)	9,628
- Others		(8,177)	29,004
Income tax expense (benefit)	₩	(263,433)	87,463
Effective tax rate		(*)	43.13%

(*) The effective tax rate is not calculated because it is tax income.

(4) Deferred tax expenses by origination and reversal of deferred tax assets and liabilities and temporary differences for the years ended December 31, 2020 and 2019 are as follows:

(In millions of won)		2020	2019
Deferred tax assets (liabilities) at the end of the period	₩	(55,709)	(253,479)
Deferred tax assets (liabilities) at the beginning of the period		(253,479)	(381,298)
Exchange differences on translating foreign operations		(42,237)	8,817
Deferred tax effects by origination and reversal of temporary differences	₩	(240,007)	(119,002)

(5) As of December 31, 2020, the tax effects of temporary difference were calculated using the enacted statutory tax rate for the fiscal period when the temporary differences are expected to be reversed.

(6) The Group sets off a deferred tax asset against a deferred tax liability only if it relates to income taxes levied by the same taxation authority and has a legally enforceable right to set off current tax assets against current tax liabilities.

38. Income Tax Expense (Benefit), Continued

(7) Deferred tax assets (liabilities) recovery and payment periods are as follows:

(In millions of won)		2020	2019
Deferred tax assets (liabilities) payment due in 12 months	₩	67,172	(48,584)
Deferred tax assets (liabilities) payment due after 12 months		(122,881)	(204,895)
	₩	(55,709)	(253,479)

(8) Changes in deferred tax assets (liabilities) for the years ended December 31, 2020 and 2019 are as follows:

(In millions of won)		2020		
		Beginning balance	Change	Ending balance
Trade and other receivables	₩	45,058	9,873	54,931
Asset revaluation		(228,696)	(107,384)	(336,080)
Property, plant and equipment		39,680	1,297	40,977
Derivatives		(830)	3,937	3,107
Accrued expenses		6,705	70	6,775
Provisions		40,355	3,964	44,319
Financial assets measured at FVOCI		49	(1)	48
Others		(246,026)	88,825	(157,201)
		(343,705)	581	(343,124)
Tax losses carried forward		81,304	192,846	274,150
Tax incentives carried forward		8,922	4,243	13,265
	₩	(253,479)	197,770	(55,709)

(In millions of won)		2019		
		Beginning balance	Change	Ending balance
Trade and other receivables	₩	26,436	18,622	45,058
Asset revaluation		(240,446)	11,750	(228,696)
Property, plant and equipment		27,231	12,449	39,680
Derivatives		119	(949)	(830)
Accrued expenses		6,964	(259)	6,705
Provisions		32,980	7,375	40,355
Financial assets measured at FVOCI		48	1	49
Others		(310,615)	64,589	(246,026)
		(457,283)	113,578	(343,705)
Tax losses carried forward		69,311	11,993	81,304
Tax incentives carried forward		6,674	2,248	8,922
	₩	(381,298)	127,819	(253,479)

(9) Since it is probable that future taxable profit will be available against which the unused tax losses can be utilized, the Group recognized the related deferred tax assets.

38. Income Tax Expense (Benefit), Continued

(10) Expiration schedule of unused deficit for the year ended December 31, 2020 is as follows:

(In millions of won)

		2020
2023	₩	20,440
2024		35,365
2025		42,079
2026		68,271
2027		69,161
2028		78,983
2029		20,117
After 2030		962,270
Extinction period inexistent		20,161
	₩	1,316,847

39. Earnings (loss) per Share

(1) Basic earnings (loss) per share for the years ended December 31, 2020 and 2019 are as follows:

(In won, except share data)		2020	2019
Profit (loss) for the year, attributable to the owner of the Company	₩	(609,172,064,168)	173,230,664,307
Weighted average number of ordinary shares outstanding *(In share)(*)*		14,228,151	14,621,686
Earnings (loss) per share	₩	(42,815)	11,848

(*) Weighted average number of ordinary shares

(In shares)	2020		
	Number of shares outstanding	**Weighted average**	**Weighted average number of shares outstanding**
Beginning balance	14,621,686	366/366	14,621,686
Treasury stock	(488,000)	(*)	(393,535)
Weighted average number of ordinary shares outstanding			14,228,151

(*) The Parent company acquired treasury stocks for the year ended December 31, 2020 and calculated weighted average number of ordinary shares outstanding as at the date of acquisition.

(In shares)	2019		
	Number of shares outstanding	**Weighted average**	**Weighted average number of shares outstanding**
Beginning balance	14,621,686	365/365	14,621,686
Weighted average number of ordinary shares outstanding			14,621,686

(2) As the Group has no dilutive securities for the years ended December 31, 2020 and 2019, diluted earnings per share have not been calculated.

40. Cash Generated from Operations

(1) Cash generated from operations for the years ended December 31, 2020 and 2019 are as follows:

(In millions of won)		2020	2019
Profit (loss) for the year	₩	(789,720)	115,347
Adjustments for:			
Post-employment benefit costs		61,437	54,281
Depreciation		477,206	465,743
Right-of-use assets depreciation		219,497	141,036
Amortization		81,702	73,144
Bad debt expenses		10,695	52,637
Finance income		(140,982)	(79,660)
Finance costs		295,574	351,760
Share of profit (loss) of equity accounted investees		269,309	(50,927)
Other non-operating income		(100,493)	(37,044)
Other non-operating expenses		253,305	146,659
Share of profit of equity accounted investees		(229)	(39,615)
Income tax expense (benefit)		(263,433)	87,463
Finance income (revenue)		(24,983)	(24,805)
Finance costs (cost of sale)		6,237	2,733
Changes in assets and liabilities:			
Trade receivables		357,393	(66,556)
Other receivables		136,669	18,485
Contract assets		66,609	(136,416)
Inventories		872,383	441,647
Derivatives		34,095	(11,332)
Other current assets		22,003	(23,473)
Long-term trade receivables		1,630	14,892
Long-term other receivables		3,256	-
Other non-current assets		988	187
Trade payables		(450,766)	(269,835)
Other payables		33,168	88,157
Contract liabilities		(11,157)	200,217
Other current liabilities		(794)	15,065
Long-term other payables		(4,033)	(3,737)
Benefits paid		(53,480)	(49,738)
Succession of benefits		17,001	5,613
Plan assets		(32,503)	(32,577)
Provisions		69,482	41,093
Other non-current liabilities		(2,232)	(1,769)
	₩	1,414,834	1,488,675

40. Cash Generated from Operations, Continued

(2) Significant transactions that do not involve cash inflows and outflows operations for the years ended December 31, 2020 and 2019 are as follows:

(In millions of won)		**2020**	**2019**
Reclassification of construction-in-progress	₩	853,357	550,849
Trade payable of plant, property and equipment acquisition		(52,431)	-
Reclassification of current portion of bond and borrowings		834,512	1,113,362
Recognition of right-of-use assets and lease liabilities		1,040,089	719,705

41. Categories of Financial Instruments and Income and Costs by Categories

(1) Categories of financial instruments as of December 31, 2020 and 2019 are summarized as follows:

(In millions of won)		2020					
		Carrying amounts					
		Fair value – hedging instruments	Financial instruments measured at FVTPL	Financial instruments measured at FVOCI	Financial instruments measured at amortized cost	Total	Fair values
Assets carried at fair value:							
Derivative assets	₩	62,446	-	-	-	62,446	62,446
Financial instruments		-	72,310	32,215	-	104,525	104,525
		62,446	72,310	32,215	-	166,971	166,971
Assets carried at amortized cost:							
Cash and cash equivalents		-	-	-	2,038,501	2,038,501	-
Financial instruments (*)		-	-	-	208,653	208,653	-
Trade and other receivables		-	-	-	2,643,581	2,643,581	-
		-	-	-	4,890,735	4,890,735	-
Financial assets total		62,446	72,310	32,215	4,890,735	5,057,706	166,971
Liabilities carried at fair value:							
Financial liabilities		-	406	-	-	406	406
Derivative liabilities		78,019	-	-	-	78,019	78,019
		78,019	406	-	-	78,425	78,425
Liabilities carried at amortized cost:							
Borrowings		-	-	-	5,048,428	5,048,428	-
Debentures		-	-	-	4,483,558	4,483,558	-
Trade and other payables		-	-	-	3,236,962	3,236,962	-
Lease liabilities		-	-	-	1,342,449	1,342,449	-
		-	-	-	14,111,397	14,111,397	-
Financial liabilities total	₩	78,019	406	-	14,111,397	14,189,822	78,425

(*) The carrying amount was used as there would be no significant difference between the carrying amount and the fair value.

41. Categories of Financial Instruments and Income and Costs by Categories, Continued

(1) Categories of financial instruments as of December 31, 2020 and 2019 are summarized as follows, continued:

(In millions of won)		2019					
		Carrying amounts					
		Fair value – hedging instruments	Financial instruments measured at FVTPL	Financial instruments measured at FVOCI	Financial instruments measured at amortized cost	Total	Fair values
Assets carried at fair value:							
Derivative assets	₩	25,477	-	-	-	25,477	25,477
Financial instruments		-	377,265	13	-	377,278	377,278
		25,477	377,265	13	-	402,755	402,755
Assets carried at amortized cost:							
Cash and cash equivalents		-	-	-	2,028,485	2,028,485	-
Financial instruments (*)		-	-	10	324,209	324,219	-
Trade and other receivables		-	-	-	3,079,794	3,079,794	-
		-	-	10	5,432,488	5,432,498	-
Financial assets total		25,477	377,265	23	5,432,488	5,835,253	402,755
Liabilities carried at fair value:							
Derivative liabilities		20,661	-	-	-	20,661	20,661
		20,661	-	-	-	20,661	20,661
Liabilities carried at amortized cost:							
Borrowings		-	-	-	4,605,383	4,605,383	-
Debentures		-	-	-	3,462,882	3,462,882	-
Trade and other payables		-	-	-	3,558,002	3,558,002	-
Lease liabilities		-	-	-	581,351	581,351	-
		-	-	-	12,207,618	12,207,618	-
Financial liabilities total	₩	20,661	-	-	12,207,618	12,228,279	20,661

(*) The carrying amount was used as there would be no significant difference between the carrying amount and the fair value.

The Group did not present fair value for financial assets and financial liabilities whose carrying amount is deemed to be a reasonable approximation of fair value.

41. Categories of Financial Instruments and Income and Costs by Categories, Continued

(2) Financial instruments income and costs by categories for the years ended December 31, 2020 and 2019 are as follows:

(In millions of won)

	2020				
	Fair value – hedging instruments	Financial instruments measured at FVTPL	Financial instruments measured at FVOCI	Financial assets at amortized cost	Total
Selling, general and administrative expenses					
Bad debt expense	₩ -	-	-	(10,695)	(10,695)
Finance income					
Interest income	-	-	-	35,417	35,417
Dividend income	-	539	-	-	539
Gain on valuation of financial instruments measured at FVTPL	-	42	-	-	42
Gain on disposal of financial instruments measured at FVTPL	-	47,256	-	-	47,256
Gain on foreign currency translation	-	-	-	104,984	104,984
Gain on foreign currency transactions	-	-	-	400,639	400,639
Gain on derivatives transactions	-	-	-	-	-
Others	-	-	-	25	25
Finance cost					
Interest expense	-	-	-	(235,607)	(235,607)
Loss on valuation of financial instruments	-	(487)	-	-	(487)
Loss on disposal of financial instruments	-	(124,820)	-	-	(124,820)
Loss on foreign currency translation	-	-	-	(40,942)	(40,942)
Loss on foreign currency transaction	-	-	-	(385,891)	(385,891)
Loss on valuation of derivatives	(4,542)	(13,995)	-	-	(18,537)
Others	-	-	-	(280)	(280)
Other non- operating income (loss)					
Reversal of other allowance doubtful accounts	-	-	-	2,525	2,525
Other bad debt expenses	-	-	-	(237)	(237)
Other comprehensive income (loss)					-
Gain(loss) on valuation of derivative	(1,154)	-	-	-	(1,154)
Losses on valuation of financial instruments measured at FVOCI	-	-	13,512	-	13,512
	₩ (5,696)	(91,465)	13,512	(130,062)	(213,711)

41. Categories of Financial Instruments and Income and Costs by Categories, Continued

(2) Financial instruments income and costs by categories for the years ended December 31, 2020 and 2019 are as follows, continued:

(In millions of won)

	2019				
	Fair value – hedging instruments	Financial instruments measured at FVTPL	Financial instruments measured at FVOCI	Financial assets at amortized cost	Total
Selling, general and administrative expenses					
Bad debt expense	₩ -	-	-	(52,637)	(52,637)
Finance income					
Interest income	-	-	-	41,028	41,028
Dividend income	-	59	-	-	59
Gain on valuation of financial instruments measured at FVTPL	-	291	-	-	291
Gain on disposal of financial instruments measured at FVTPL	-	21,038	-	-	21,038
Gain on foreign currency translation	-	-	-	38,245	38,245
Gain on foreign currency transactions	-	-	-	362,457	362,457
Gain on derivatives transactions	-	21,312	-	-	21,312
Others	-	-	-	399	399
Finance cost					
Interest expense	-	-	-	(292,438)	(292,438)
Loss on valuation of financial instruments	-	(166)	-	-	(166)
Loss on disposal of financial instruments	-	(28,730)	-	-	(28,730)
Loss on foreign currency translation	-	-	-	(39,685)	(39,685)
Loss on foreign currency transaction	-	-	-	(395,135)	(395,135)
Other non- operating income (loss)					
Reversal of other allowance doubtful accounts	-	-	-	590	590
Other bad debt expenses	-	-	-	(15,604)	(15,604)
Other comprehensive income (loss)					
Gain(loss) on valuation of derivative	(6,870)	-	-	-	(6,870)
Losses on valuation of financial instruments measured at FVOCI	-	-	(2)	-	(2)
	₩ (6,870)	13,804	(2)	(352,780)	(345,848)

42. Financial Instruments

(1) Credit risk

(i) Exposure to credit risk

The carrying amount of financial assets and contract assets represents the maximum credit exposure. The maximum exposure to credit risk as of December 31, 2020 and 2019 are as follows:

(In millions of won)		2020	2019
Cash and cash equivalents (*)	₩	2,036,285	2,028,030
Fair value –hedging instruments		62,446	25,477
Financial instruments measured at FVTPL		72,310	377,265
Financial instruments		208,653	324,209
Trade receivables and other receivables		2,643,581	3,079,794
Contract asset		227,085	288,716
	₩	5,250,360	6,123,491

(*) Cash in hand were excluded.

The maximum exposure to credit risk for financial guarantee contracts is ₩4,095,961 million as of December 31, 2020 (*See notes 43 and 45*).

The maximum exposure to credit risk for financial assets at amortized cost (including contract asset) at the reporting date by geographic region are as follows:

(In millions of won)		2020	2019
Korea	₩	1,196,294	1,381,046
North America		146,954	275,579
Asia		1,482,364	1,701,957
Europe		174,473	179,875
Others		79,234	154,262
	₩	3,079,319	3,692,719

(ii) Impairment loss

The aging of financial assets at amortized cost (including contract asset) and the related allowance for impairment as of December 31, 2020 and 2019 are as follows:

(In millions of won)		2020		2019	
		Gross	Impairment	Gross	Impairment
Not past due	₩	2,650,745	(22,091)	2,982,197	(52,010)
Past due up to 6 months		293,556	(5,158)	621,256	(23,976)
Past due 6~12 months		82,864	(11,550)	102,306	(14,521)
Past due 1~3 years		102,965	(47,654)	84,545	(28,706)
More than 3 years		281,699	(246,057)	254,275	(232,647)
	₩	3,411,829	(332,510)	4,044,579	(351,860)

42. Financial Instruments, Continued

(1) Credit Risk, continued

(ii) Impairment loss, continued

The movement in the allowance for impairment in respect of financial assets at amortized cost (including contract asset) for the years ended December 31, 2020 and 2019 are as follows:

(In millions of won)		2020	2019
Beginning balance	₩	351,860	342,299
Bad debt expenses (reversal of allowance accounts)		(326)	42,106
Write-offs		(3,399)	(2,480)
Effects of changes in scope of consolidation		(15,625)	(30,065)
Ending balance	₩	332,510	351,860

The allowance accounts in respect of financial assets at amortized cost (including contract asset) are used to record impairment losses unless the Group is satisfied that all collection measures have been exhausted. At that point, the amounts are considered irrecoverable and are written off against the financial asset directly.

For the years ended December 31, 2020 and 2019 impairment losses and impairment reversals that occur in financial assets at amortized cost (including contract asset) recorded as other non-operating income are as follows:

(In millions of won)		2020	2019
Other bad debt expense	₩	(237)	(15,604)
Reversal of other allowance doubtful accounts		2,525	590
	₩	2,288	(15,014)

42. Financial Instruments, Continued

(2) Liquidity risk

(i) The contractual maturities of financial liabilities, including estimated interest payments and excluding the impact of netting agreements as of December 31, 2020 and 2019 are summarized as follows:

(In millions of won)		2020					
		Carrying amount	**Contractual cash flow**	**6 months or less**	**6~12 months**	**1~3 years**	**More than 3 years**
Non-derivative financial liabilities:							
Borrowings	₩	5,048,428	5,434,158	1,014,773	666,301	1,957,389	1,795,695
Debentures		4,483,558	4,848,437	122,850	657,549	1,989,773	2,078,265
Trade and other payables		3,236,962	3,246,048	2,987,431	56,753	193,359	8,505
Lease liabilities		1,342,449	1,581,637	127,687	112,930	387,027	953,993
Derivative financial liabilities:							
Derivative contracts used for hedging		78,019	78,036	57,146	5,942	14,837	111
Others		406	406	406	-	-	-
	₩	14,189,822	15,188,722	4,310,293	1,499,475	4,542,385	4,836,569

The maximum amount for financial guarantee contracts is ₩4,095,961 million as of December 31, 2020 (*See notes 43 and 45*).

(In millions of won)		2019					
		Carrying amount	**Contractual cash flow**	**6 months or less**	**6~12 months**	**1~3 years**	**More than 3 years**
Non-derivative financial liabilities:							
Borrowings	₩	4,605,383	4,758,236	2,197,486	729,291	1,056,387	775,072
Debentures		3,462,882	3,713,395	301,272	252,851	1,610,946	1,548,326
Trade and other payables		3,558,002	3,564,163	3,339,648	194,944	20,977	8,594
Lease liabilities		581,351	626,060	72,711	60,803	257,016	235,530
Derivative financial liabilities:							
Derivative contracts used for hedging		20,661	20,673	16,260	2,379	1,943	91
	₩	12,228,279	12,682,527	5,927,377	1,240,268	2,947,269	2,567,613

It is not expected that the cash flows included in the maturity analysis could occur significantly earlier, or at significantly different amounts.

42. Financial Instruments, Continued

(2) Liquidity risk, continued

(ii) The periods in which the cash flows associated with cash flow hedges are expected to occur as of December 31, 2020 and 2019 are summarized as follows:

(In millions of won)		2020					
		Carrying amount	**Contractual cash flow**	**6 months or less**	**6~12 months**	**1~3 years**	**More than 3 years**
Forward exchange contracts							
Assets	₩	9,443	9,498	9,109	389	-	-
Liabilities		(3,810)	(3,810)	(3,423)	(354)	(33)	-
Currency swaps							
Assets		-	-	-	-	-	-
Liabilities		(18,771)	(18,771)	(4,592)	-	(14,179)	-
Interest rate swaps							
Assets		-	-	-	-	-	-
Liabilities		(2,335)	(2,351)	(1,099)	(516)	(625)	(111)
Product forward							
Assets		53,003	53,003	47,869	5,134	-	-
Liabilities		(53,103)	(53,104)	(48,032)	(5,072)	-	-
	₩	(15,573)	(15,535)	(168)	(419)	(14,837)	(111)

42. Financial Instruments, Continued

(2) Liquidity risk, continued

(ii) The periods in which the cash flows associated with cash flow hedges are expected to occur as of December 31, 2020 and 2019 are summarized as follows, continued:

(In millions of won)		2019					
		Carrying amount	**Contractual cash flow**	**6 months or less**	**6~12 months**	**1~3 years**	**More than 3 years**
Forward exchange contracts							
Assets	₩	10,821	10,980	8,110	2,870	-	-
Liabilities		(3,213)	(3,213)	(419)	(1,887)	(907)	-
Interest rate swaps							
Assets		477	477	235	146	96	-
Liabilities		(1,732)	(1,744)	(266)	(351)	(1,036)	(91)
Product forward							
Assets		14,179	14,179	14,131	48	-	-
Liabilities		(15,716)	(15,716)	(15,575)	(141)	-	-
	₩	4,816	4,963	6,216	685	(1,847)	(91)

(3) Currency risk

(i) Exposure to currency risk:

The Group's exposure to foreign currency risk based on notional amounts as of December 31, 2020 and 2019 are as follows:

(In millions of won)		2020					
		USD	**EUR**	**CNY**	**JPY**	**Others**	**Total**
Cash and cash equivalents	₩	305,530	782	-	39	1,389	307,740
Trade and other receivables		942,919	36,850	19,388	49	90,189	1,089,395
Trade and other payables		(1,850,897)	(13,234)	(11,809)	(6,470)	(4,056)	(1,886,466)
Borrowings and debentures		(289,341)	(32,462)	-	(38,296)	-	(360,099)
Gross statement of financial position exposure		(891,789)	(8,064)	7,579	(44,678)	87,522	(849,430)
Derivative contracts		61,818	28,626	-	5,384	-	95,828
Net exposure	₩	(829,971)	20,562	7,579	(39,294)	87,522	(753,602)

(In millions of won)		2019					
		USD	**EUR**	**CNY**	**JPY**	**Others**	**Total**
Cash and cash equivalents	₩	231,128	959	-	47	1,682	233,816
Trade and other receivables		1,410,419	59,745	23,071	26	77,598	1,570,859
Trade and other payables		(1,765,685)	(15,655)	(3,451)	(12,123)	(7,177)	(1,804,091)
Borrowings and debentures		(622,231)	(66,284)	-	(23,870)	-	(712,385)
Gross statement of financial position exposure		(746,369)	(21,235)	19,620	(35,920)	72,103	(711,801)
Derivative contracts		(198,234)	58,681	-	13,828	-	(125,725)
Net exposure	₩	(944,603)	37,446	19,620	(22,092)	72,103	(837,526)

42. Financial Instruments, Continued

(3) Currency risk, continued

(ii) Sensitivity analysis

A weakening of the won, as indicated below, against the USD, EUR, CNY, JPY and other currencies as of December 31, 2020 and 2019 would have increased (decreased) profit or loss by the amounts shown below. This analysis is based on foreign currency exchange rate variances that the Group considered to be reasonably possible at the reporting date. The analysis assumes that all other variables, in particular interest rates, remain constant. The changes in profit or loss are as follows:

(In millions of won)		Profit or loss	
		2020	**2019**
USD (3 percent strengthening)	₩	(24,899)	(28,338)
EUR (3 percent strengthening)		617	1,123
CNY (3 percent strengthening)		227	589
JPY (3 percent strengthening)		(1,179)	(663)
Others (3 percent strengthening)		2,626	2,163

A strengthening of the won against the above currencies as of December 31, 2020 and 2019 would have had the equal but opposite effect on the above currencies to the amounts shown above assuming all other variables remain constant.

(4) Interest rate risk

(i) The interest rate profile of the Group's interest-bearing financial instruments as of December 31, 2020 and 2019 are as follows:

(In millions of won)		**2020**	**2019**
Fixed rate instruments:			
Financial assets	₩	1,096,371	1,607,516
Financial liabilities		(6,397,300)	(5,902,539)
	₩	(5,300,929)	(4,295,023)
Variable rate instruments:			
Financial assets	₩	1,262,180	890,876
Financial liabilities		(3,219,593)	(2,233,508)
	₩	(1,957,413)	(1,342,632)

42. Financial Instruments, Continued

(4) Interest rate risk, continued

(ii) Interest rate risk arises from savings and borrowings with floating interest rates. The Group properly hedges the risk borrowings with floating interest rates through interest rate swaps. Interest rate swap contracts as of December 31, 2020 are as follows:

(In millions won)

Counterparties	Currency	Amount	Interest rate		Expiration date
Woori Bank	KRW	₩ 40,000	Receives floating interest rate Pays fixed interest rate	CD(3M) + 1.45% 3.28%	2024.06.11
KEB Hana Bank	KRW	80,000	Receives floating interest rate Pays fixed interest rate	CD(3M) + 1.50% 3.49%	2021.09.17
Shinhan Bank	KRW	100,000	Receives floating interest rate Pays fixed interest rate	CD(3M) + 0.29% 1.40%	2021.08.20
Woori Bank	KRW	50,000	Receives floating interest rate Pays fixed interest rate	CD(3M) + 0.29% 1.50%	2021.10.07
CA-CIB	KRW	92,100	Receives floating interest rate Pays fixed interest rate	Libor(6M) + 1.30% 1.53%	2023.05.08
Shinhan Bank	KRW	30,695	Receives floating interest rate Pays fixed interest rate	Libor (6M) + 1.30% 1.48%	2023.05.08
Kookmin Bank	KRW	37,182	Receives floating interest rate Pays fixed interest rate	Libor (6M) + 2.41% 2.68%	2021.05.28
Shinhan Bank	KRW	10,000	Receives floating interest rate Pays fixed interest rate	CD(3M) + 1.73% 2.93%	2021.05.10

42. Financial Instruments, Continued

(4) Interest rate risk, continued

(iii) Cash flow sensitivity analysis for variable rate instruments

A change of 100 basis points in interest rates as of December 31, 2020 and 2019 would have increased (decreased) equity and profit or loss by the amounts shown below. This analysis assumes that all other variables, in particular foreign currency rates, remain constant. The changes in equity and profit or loss are as follows:

(In millions of won)		Profit or loss	
		100 bp increase	**100 bp decrease**
2020			
Variable rate instruments	₩	(19,574)	19,574
Interest rate swaps		2,800	(2,800)
Foreign currency swap		1,600	(1,600)
Net cash flow sensitivity	₩	(15,174)	15,174
2019			
Variable rate instruments	₩	(13,426)	13,426
Interest rate swaps		2,700	(2,700)
Net cash flow sensitivity	₩	(10,726)	10,726

(5) Fair values

(i) Fair value hierarchy

The Group classified fair value measurements in accordance with the fair value hierarchy which reflects the significance of the inputs used in fair value measurements.

- Level 1: Quoted prices (unadjusted) in active markets for identical assets or liabilities.
- Level 2: Inputs other than quoted prices included in Level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices).
- Level 3: Inputs for the asset or liability that are not based on observable market data (unobservable inputs).

The financial instruments carried at fair value, by fair value hierarchy as of December 31, 2020 and 2019 are as follows:

(In millions of won)		Level 1	Level 2	Level 3	Total
2020					
Financial assets measured at FVOCI	₩	16	-	32,199	32,215
Financial assets measured at FVTPL		-	7,561	64,749	72,310
Financial liablities measured at FVTPL		-	406		406
Derivative assets		-	62,446	-	62,446
Derivative liabilities	₩	-	78,019	-	78,019
2019					
Financial assets measured at FVOCI	₩	13	-	-	13
Financial assets measured at FVTPL		-	323,224	54,041	377,265
Derivative assets		-	25,477	-	25,477
Derivative liabilities		-	20,661	-	20,661

42. Financial Instruments, Continued

(5) Fair values, continued

(i) Fair value hierarchy, continued

The fair value of financial instruments traded in active markets is based on quoted market prices at the end of reporting period. A market is regarded as active if quoted prices are readily and regularly available from an exchange, dealer, broker, industry group, pricing service, or regulatory agency, and those prices represent actual and regularly occurring market transactions on an arm's length basis. The quoted market price used for financial assets held by the Group is the current bid price. These instruments are included in level 1. Instruments included in level 1 are comprised primarily of listed equity investments.

The fair value of financial instruments that are not traded in an active market (for example, over-the-counter derivatives) is determined by using valuation techniques. These valuation techniques maximize the use of observable market data where it is available and rely as little as possible on entity specific estimates. If all significant inputs required to fairly value an instrument are observable, the instrument is included in level 2. If one or more of the significant inputs is not based on observable market data, the instrument is included in level 3.

Specific valuation techniques used to value financial instruments include:
- Quoted market prices or dealer quotes for similar instruments.
- The fair value of forward foreign exchange contracts is determined using forward exchange rates at the end of reporting period, with the resulting value discounted back to present value.
- Other techniques, such as discounted cash flow analysis, are used to determine fair value for the remaining financial instruments.

Unlisted equity securities, investments in capital and other investments in entities newly established or having no comparative entity are excluded from the fair value valuation because their fair value cannot be measured reliably.

(ii) The valuation of the fair value hierarchy Level 2 and inputs description
The valuation techniques and input variables used in measuring Level 2 fair values as of December 31, 2020 and 2019 are as follows:

(In millions of won)

	2020	2019	Valuation techniques	Input variables
Derivatives assets:				
Derivatives	₩ 62,446	25,477	Cash flow discount model and others	Currency forward price, discount rate and others
Financial assets measured at FVTPL:				
Short-term financial assets	7,561	323,224	Cash flow discount model and others	Discount rate and others
Derivatives liabilities:				
Derivatives	78,019	20,661	Cash flow discount model and others	Currency forward price, discount rate and others
Financial liabilities measured at FVTPL:				
Derivatives	406	-	Cash flow discount model and others	Currency forward price, discount rate and others

42. Financial Instruments, Continued

(5) Fair values, continued

(iii) Valuation techniques and significant unobservable inputs at fair value hierarchy Level 3

(a) Changes in financial asset classified as Level 3 in the fair value hierarchy of assets and liabilities measured at fair value are as follows;

(In millions of won)

		2020	2019
Financial assets at FVTPL:			
Beginning balance	₩	54,041	38,873
Acquisition		10,744	16,515
Disposal		(19)	(1,686)
Transfer to Level 3 fair values		-	-
Profit or loss included in net income		(17)	(118)
Exchange differences on translating foreign operations		-	457
Ending balance	₩	64,749	54,041
Financial assets at FVTPL:			
Beginning balance	₩	-	-
Acquisition		14,495	-
Disposal		(6,394)	-
Valuation		24,098	-
Ending balance	₩	32,199	-

(b) The valuation technique and inputs of assets and liabilities classified as level 3 in the fair value hierarchy of assets and liabilities measured at fair value as of December 31, 2020 is as follows;

(In millions of won)

		Amount	Valuation technique	Input valuables	Significant unobservable inputs	Range of significant unobservable inputs
Financial assets measured at FVTPL:						
Construction Guarantee Cooperation	₩	275	Market comparison on technique	PBR	PBR	0.51
Machinery Financial Cooperation		2,552	Net asset value method	-	-	-
Short-term financial assets		53,427	Discounted cash flows	Discount rate	-	-
Others (*)		8,495	-	-	-	-
Financial assets measured at FVOCI:						
Equity instrument		32,090	Discounted free cash flows	Discount rate, growth rate	-	-
Others (*)		109	-	-	-	-
	₩	96,948				

(*) The carrying amount was used as there would be no significant difference between the carrying amount and the fair value.

42. Financial Instruments, Continued

(5) Fair values, continued

(iii) Valuation techniques and significant unobservable inputs at fair value hierarchy Level 3, continued

(c) The effect of changes in unobservable inputs as of December 31, 2020 on the fair value measurement of financial assets and financial liabilities is as follows:

(In millions of won)

				Variation effects of fair value	
				Net income	
	Unobser-vable inputs	**Effects of unobservable inputs on the measurement of fair value**	**Calculating the effects of variation**	**Favorable change**	**Unfavorable change**
Financial assets measured at FVTPL:					
Construction Guarantee Cooperation	PBR	Fair value change as increase(decrease) of price-to-book ratio	Fair value change as increase(decrease) of 1P (price-to-book ratio)	₩ 7	(7)

42. Financial Instruments, Continued

(6) Offsetting of financial assets and financial liabilities
The details of financial assets or financial liabilities netting arrangements as of December 31, 2020 and 2019 are as follows:

(In millions of won)		2020					
					Related amount: won't be setoff in the statement of financial position		
		Total recognized financial assets	Total recognized financial assets that will be setoff	Net financial assets presented in the statement of financial position	Financial instruments	Received cash security	Net amount
Financial assets							
Trade and other receivables	₩	2,935	(1,712)	1,223	-	-	1,223
Financial liabilities							
Financial liabilities measured at amortized cost		31,708	(4,898)	26,810	-	-	26,810

(In millions of won)		2019					
					Related amount: won't be setoff in the statement of financial position		
		Total recognized financial assets	Total recognized financial assets that will be setoff	Net financial assets presented in the statement of financial position	Financial instruments	Received cash security	Net amount
Financial assets							
Trade and other receivables	₩	14,213	(9,487)	4,726	-	-	4,726
Financial liabilities							
Financial liabilities measured at amortized cost		23,727	(9,487)	14,240	-	-	14,240

The 'related amount that won't be setoff in the statement of financial position' is recognized up to the amount of 'Net financial assets presented in the consolidated statement of financial position'.

43. Commitments and Contingencies

(1) As of December 31, 2020, the Group has entered into overdraft agreements with KEB Hana Bank and other financial institutions amounting to ₩30,000 million and general loan agreements with Korea Development Bank and others amounting to ₩5,375,250 million, USD 606,188 thousand, EUR 64,000 thousand, CNY 1,423,000 thousand, and INR 1,340,000 thousand.

(2) As of December 31, 2020, the Group has entered into credit facilities agreements such as letters of credit with KEB Hana Bank and others for the Group's exports and imports totaling ₩8,100 million and USD 4,563,320 thousand.

(3) As of December 31, 2020, the Group has entered into credit facilities agreements such as secured receivables loan with Shinhan Bank and others totaling ₩1,549,935 million and USD 407,812 thousand.

(4) As of December 31, 2020, the Group provides guarantees amounting to ₩1,729,000 million, USD 1,741,999 thousand, EUR 36,000 thousand, CNY 1,578,000 thousand, and INR 168,000 thousand for the borrowings and others of its subsidiaries and provides 1 case of assumption of debt agreement amounting to USD 428 thousand.

(5) In relation to the Group's contract performance guarantees of export and domestic construction, as of December 31, 2020, the Group has been provided with maximum guarantees amounting to ₩387,479 million, USD 575,163 thousand and CNY 230,000 thousand by various banking facilities.

(6) As of December 31, 2020, the Group has entered into a share option agreement with the Shell Petroleum Company Limited ("Shell"), a shareholder of Hyundai Shell Base Oil Co., Ltd. According to the agreement, Shell holds a put option to sell its 40% of shares to Hyundai Oilbank Co., Ltd. that evaluated by the external evaluation institution at that time (From August 2014 to August 2021: If the supply of raw materials from Hyundai Oilbank Co., Ltd. to Hyundai Shell Base Oil Co., Ltd. falls below a certain level, After August 2021: no condition). Also, Hyundai Oilbank Co., Ltd. holds a call option to purchase its 40% of shares from Shell that evaluated by the external evaluation institution at that time (From August 2021 to August 2029: If the volume of products purchased from Hyundai Shell Base Oil Co., Ltd. falls below a certain level, After August 2029: no condition).

(7) As of December 31, 2020, the Group has been provided guarantees for the borrowings from Lotte Chemical Co., Ltd. and Hyundai OCI Co., Ltd. amounting to ₩1,046,000 million and ₩160,000 million, respectively.

(8) As of December 31, 2020, the Group has entered into an agreement about the land (book value of ₩37,558 million) that acquired from Daegu Metropolitan City that Daegu Metropolitan City can reclaim the land if the Hyundai Robotic Co.,Ltd. do not dispose land within five years after transferring ownership or do not use contractual purpose acquired from Daegu Metropolitan City.

(9) In accordance with Article 530, paragraph 9.1 of the Commercial law, an existing entity, Korea Shipbuilding & Offshore Engineering Co., Ltd. and newly established entity, Hyundai Electric & Energy Systems Co., Ltd., Hyundai Construction Equipment Co., Ltd., and Hyundai Heavy Industries Holdings Co., Ltd. are jointly liable for the liability Korea Shipbuilding & Offshore Engineering Co., Ltd. prior to split-off.

(10) In accordance with Article 530, paragraph 9.1 of the Commercial law, an existing entity, Hyundai Heavy Industries Holdings Co., Ltd. and newly established entity, Hyundai Robotics Co., Ltd. are jointly liable for the liability of Hyundai Heavy Industries Holdings Co., Ltd. prior to split-off.

43. Commitments and Contingencies, Continued

(11) As of December 31, 2020, Hyundai Electric & Energy Systems Co., Ltd., a subsidiary, has granted a debt guarantee amounting to ₩44,973 million for the loan for treasury stock of employee stock ownership association based on the board of directors' decision on October 31, 2017. The amount of debt is ₩37,477 million at the time of guarantee and the amount of debt guarantee is based on 120% of the debt. Due to the repayment of debt from certain employees' stock ownership association, the remaining balance of debt is ₩17,491 million and debt guarantee is ₩32,683 million as of December 31, 2020.

In addition, Hyundai Electric & Energy Systems Co., Ltd., a subsidiary, has granted a debt guarantee amounting to ₩18,248 million for the loan for treasury stock of employee stock ownership association based on the board of directors' decision on 2019. The amount of debt is ₩15,207 million at the time of guarantee and the amount of debt guarantee is based on 120% of the debt. Due to the repayment of debt from certain employees' stock ownership association, the remaining balance of debt is ₩11,131 million.

(12) As of December 31, 2020, Hyundai Construction Equipment Co., Ltd., a subsidiary, provided a debt guarantee amounting to ₩70,250 million for the borrowing of treasury stock of the employees 'shareholders' equity in the amount of the amount allocated for treasury stock issuance on October 31, 2017 by resolution of the board of directors. Debt guarantees amounted to ₩58,542 million at the time of guarantee, and the guaranteed guarantee amount is based on 120% of the debt amount. As a result of repayment of loans to certain employees of the Group's employees, the Group's outstanding loan balance amounted to ₩33,379 million as of December 31, 2020, and the amount of the guaranteed guarantee amounted to ₩35,000 million.

(13) As of December 31, 2020, the Group has entered into a contract with shareholders that grants call options to Aramco Overseas Company B.V., 2.9% of the interest in Hyundai Oilbank Co., Ltd.

(14) As of December 31, 2020, Hyundai Oilbank Co., Ltd., a subsidiary, has signed a long-term crude oil purchase contract and refinery product supply contract with Saudi Aramco and others, and the details of the contract are as follows:

	Contract for the sale of crude oil equipment		**Refinery product supply contract**
The counterparty to the contract	Saudi Arabian Oil Company	Aramco Trading Co	Aramco Trading Singapore Pte Ltd.
Contract period	2020.01.01 ~ 2039.12.31		2020.02.01 ~ 2039.12.31
Contracted product	Saudi crude oil	Saudi and others' crude oil	Gasoline, diesel, aviation oil

(15) For the year ended December 31, 2020, the Group has entered into a lease contract with KORAMCO ENERGY PLUS REIT, and the contract period is 10 years from the commencement date of the contract, June 1, 2020. The Group has an option to extend the contract period by 5 years if requested by the Group before two and a half years from the closing date of the contract.

(16) The Group provides one blank check to Korea National Oil Corporation as collaterals in relation to the emergency lease of petroleum reserve. In addition, the Group provides a payment guarantee issued by Kookmin Bank to NTS Seosan District Office in relation to the delay in payment of the transportation tax. In this regard, the guaranteed amount is ₩308,000 million and the guarantee period is from November 30, 2020 to April 30, 2021.

44. Litigations

(1) Ordinary wage lawsuit

1) Ordinary wage lawsuit (Supreme Court 2016da7975)

Date of filing	December 28, 2012.
Litigant	Plaintiff: Kyung-Hwan Jeong and nine others, Defendant: Korea Shipbuilding & Offshore Engineering Co., Ltd.
Litigation content	Plaintiff filed a suit claiming that total bonuses should be included in the ordinary wage category and recalculated.
Litigation value	₩630 million
The progress of litigation	Defendant partially lost the first trial (Ulsan District Court 2012 gahap 10108) on February 12, 2015. Defendant won the second trial (Busan High Court 2015 na 1888) on January 13, 2016. Plaintiff filled appeals and the third trial is in progress (Supreme Court 2016 da 7975) on January 28, 2016. Supreme Court is in progress on March 19, 2020.
Future litigation schedule and countermeasures	Currently, the 3rd trial at the supreme court is in progress and the Supreme Court examines a principal law. Discussion under dispute.
The effect on the Group as a result of litigation	If Korea Shipbuilding & Offshore Engineering Co., Ltd. loses the case, it is expected to make an additional loss from compensation. Currently, the impact on the Group's financial statements, if any, cannot be reliably estimated.

2) Ordinary wage lawsuits (Busan High Court 2020na54524)

Date of filing	July 9, 2015
Litigant	Plaintiff: Dong-guk, Kim and 12,436 others, Defendant: Korea Shipbuilding & Offshore Engineering Co., Ltd.
Litigation content	Plaintiff filed a suit claiming that total bonuses should be included in the ordinary wage category and recalculated.
Litigation value	₩1,250 million
The progress of litigation	Filed a lawsuit on July 9, 2015 Defendant won the first trials (Ulsan District Court 2015 gahap 2351) on May 30, 2018 Plaintiff filled appeals and the third trial is in progress (Busan High Court 2020 na 54524) on June 20, 2018 First date of a sentence on November 7, 2018
Future litigation schedule and countermeasures	Currently, appeal process is in progress.
The effect on the Group as a result of litigation	If Korea Shipbuilding & Offshore Engineering Co., Ltd.(formerly, Hyundai Heavy Industries Co., Ltd.) loses the case, it is expected to make an additional loss from compensation. Currently, the impact on the Group's financial statements, if any, cannot be reliably estimated.

Above-mentioned cases submitted to Korea Shipbuilding & Offshore Engineering Co., Ltd. are transferred only to the plaintiffs to which the newly established company belongs.

44. Litigations, Continued

(2) Claim for defect in KWI/IWI wind-power turbine product (American Arbitration Association/International Centre for Dispute Resolution)

Date of filing	April 11, 2017
Litigant	Claimant: Kingston Wind, Ipswich Wind, D&C Construction Defendant: Korea Shipbuilding & Offshore Engineering Co., Ltd., Hyundai Corporation
Litigation content	Plaintiff filed an arbitration claiming that Korea Shipbuilding & Offshore Engineering Co., Ltd. has made a false representation of the product and has willfully breached the express warranty.
Litigation value	USD 79 million
The progress of litigation	Confirmation of ICDR arbitration application on April 11, 2017. Response submitted on June 2, 2017. Negotiated agreement on October 13, 2017. Settle court of arbitration (appoint chairman) on January 29, 2018. Filed arbitrated documents on July 19, 2018. Plaintiff claimed statement of claim (litigation value USD 424 million → USD 62 million) on October 17, 2018. Plaintiff's additional claim (litigation value USD 62 million → USD 79 million) on January 15, 2019. Submit answer on February 1, 2019. Supplementary written submissions on March 28, 2019. Acquisition of additional statements of reply on June 11, 2019. Submission of additional written documents (Rejoinder) on September 6, 2019. Send USD 5.5Mil's agreement proposal to the other company on September 19, 2019. Mediation Hearing (First week of both companies' statements and fact-related witness questioning, second week of expert witness questioning) on November 1, 2019. Closing Hearing progress on March 4, 2020 Arbitration agreement on June 15, 2020 Concluding arbitration by agreement between the parties on July 5, 2020

44. Litigations, Continued

(3) The transformer's antidumping

1) The transformer's second annual antidumping appeal (US Court of Appeals for the Federal Circuit)

Date of filing	March 2016.
Litigant	Plaintiff: ABB, INC., Defendant: United States Government
Litigation content	In March 2016, ABB, INC., appealed the US Department of Commerce's antidumping duties determination rate of 4.07% in the second annual review to the United States Court of International Trade (CIT).
The progress of litigation	The International Trade Court upheld a 16.13% tariff rate at the U.S. Department of Commerce on May 26, 2020(U.S time). Appeals to Court of Appeals for the Federal Circuit (CAFC) on July 24, 2020.
Future litigation schedule and countermeasures	Procedures for investigation of evidence are scheduled.
The effect on the Group as a result of litigation	Since the electric and electronic business is under the jurisdiction of the Group before the division, and we will reflect the impact in our financial statements as determined by the U.S. Court of Appeals for the Federal Circuit(CAFC) and may pay additional tariffs or receive refunds.

2) The transformer's third annual antidumping appeal (US Court of Appeals for the Federal Circuit)

Date of filing	March 30, 2017.
Litigant	Plaintiff: Korea Shipbuilding & Offshore Engineering Co., Ltd. Defendant: United States Government
Litigation content	Before spin-off, March 14, 2017, Korea Shipbuilding & Offshore Engineering Co., Ltd. the US Department of Commerce's antidumping duties determination rate of 60.81% about transformer that electro electronic segment of Korea Shipbuilding & Offshore Engineering Co., Ltd. exported in the second annual review to the United States Court of International Trade (CIT).
The progress of litigation	The International Trade Court decided that the U.S. Department of Commerce would accept a tariff rate of 60.81% on August 2, 2019. Appeals to the Court of Appeals for the Federal Circuit (CAFC) on October 1, 2019. The Court of Appeals for the Federal Circuit (CAFC) upheld 60.81% tariff rate citing ruling by the International Trade Court on October 30, 2020. Appeals to the US Supreme Court on February 11, 2021.
The effect on the Group as a result of litigation	The Group will reflect impact of CIT Final judgment on consolidated financial statements. Currently, the impact on the Group's financial statements, if any, expected to be maximum USD 27,765 thousand but cannot be reliably estimated.

44. Litigations, Continued

(3) The transformer's antidumping, continued

3) The transformer's fourth annual antidumping appeal (US Court of International Trade)

Date of filing	March 30, 2018.
Litigant	Plaintiff: Korea Shipbuilding & Offshore Engineering Co., Ltd. Defendant: United States Government
Litigation content	March 12, 2018, Korea Shipbuilding & Offshore Engineering Co., Ltd. appealed the US Department of Commerce's antidumping duties determination rate of 60.81% about transformer that electro electronic segment of Hyundai Heavy Industries Co., Ltd. exported in the four annual review to the United States Court of International Trade (CIT).
The progress of litigation	Litigation process is in progress.
Future litigation schedule and countermeasures	Procedures for investigation of evidence are scheduled.
The effect on the Group as a result of litigation	The Group will reflect impact of CIT Final judgment on consolidated financial statements. Currently, the impact on the Group's financial statements, if any, expected to be maximum USD 55,931 thousand but cannot be reliably estimated.

4) The Transformer's fifth annual antidumping appeal (US Court of International Trade)

Date of filing	May 8, 2019.
Litigant	Plaintiff: Korea Shipbuilding & Offshore Engineering Co., Ltd. Defendant: United States Government
Litigation content	April 17, 2019, Korea Shipbuilding & Offshore Engineering Co., Ltd. appealed the US Department of Commerce's antidumping duties determination rate of 60.81% about transformer that electro electronic segment of Hyundai Heavy Industries Co., Ltd. exported in the second annual review to the United States Court of International Trade (CIT).
The progress of litigation	The International Trade Court decided that the U.S. Department of Commerce would accept a tariff rate of 60.81% on August 4, 2020 Appeals to the Court of Appeals for the Federal Circuit (CAFC) on October 2, 2020.
Future litigation schedule and countermeasures	Procedures for investigation of evidence are scheduled.
The effect on the Group as a result of litigation	The Group will reflect impact of CIT Final judgment on consolidated financial statements. Currently, the impact on the Group's financial statements, if any, expected to be maximum USD 37,534 thousand but cannot be reliably estimated.

44. Litigations, Continued

(3) The transformer's antidumping, continued

5) The Transformer's sixth annual antidumping appeal (US Court of International Trade)

Date of filing	May 27, 2020.
Litigant	Plaintiff: The Group Defendant: United States Government
Litigation content	April 16, 2020, the Group appealed the US Department of Commerce's antidumping duties determination rate of 60.81% about transformer that the Group exported in the sixth annual review to the United States Court of International Trade (CIT).
The progress of litigation	Litigation process is in progress.
Future litigation schedule and countermeasures	Procedures for investigation of evidence are scheduled.
The effect on the Company as a result of litigation	The Group have deposited tariffs according to the US Department of Commerce's anti-dumping tariff rate of 60.81%, so there is no additional tariff burden based on the judgment.

(4) Counterindemnity charged sue related to LPG price-fixing (Seoul Central District Court 2012 gahap 85828 and three cases)

Date of filing	April 2, 2010 etc.
Litigant	Plaintiff: Taxi operator, the disabled and others, Defendant: Hyundai Oilbank Co., Ltd. and six others
Litigation content	The Fair Trade Commission imposed fines on two LPG importers and four domestic oil refinery companies including subsidiaries for alleged collusive price-fixing on LPG prices from January 1, 2003 to December 31, 2008. 1,751 private taxi drivers, corporate taxi drivers and others jointly filed a lawsuit against four domestic oil refinery companies including Hyundai Oilbank Co., Ltd. and two LPG importers claiming damages. On the other hand, Hyundai Oilbank Co., Ltd., has filed a lawsuit against Fair Trade Commission Hyundai Oilbank and filed a lawsuit against Hyundai Oilbank and won on revocation lawsuit and corrective order.
Litigation value	₩12,370 million
The progress of litigation	The first trial suit is currently pending (Seoul Central District Court)
Future litigation schedule and countermeasures	The Group plans to appeal against a decision, if it loses the first trial (entirely or partly).
The effect on the Group as a result of litigation	If Hyundai Oilbank Co., Ltd. loses the case, it is expected to make an additional loss from compensation. Currently, the impact on the Group's financial statements, if any, cannot be reliably estimated.

44. Litigations, Continued

(5) Counterindemnity charged sue related to land contamination for Hankook Shell Oil Co., Ltd. (Seoul High District Court 2020 na 2052465)

Date of filing	February 21, 2012
Litigant	Plaintiff: Hankook Shell Oil Co., Ltd., Defendant: Hyundai Oilbank Co., Ltd.
Litigation content	Hankook Shell Oil Co., Ltd. filed litigation for damages of contamination clean-up costs and others including already accrued costs and costs likely to accrue in the future due to fuel spills at Busan refinery in the past and current Busan oil reservoir of Hyundai Oilbank Co., Ltd. on the site of the Hankook Shell Oil Co., Ltd.
Litigation value	₩14,244 million (Decrease the purpose of the plaintiff's claim from ₩14,775 million)
The progress of litigation	The first trial suit is partially won on August 20, 2020. The second trial suit and appeal on September 10, 2020. According to the first sentence, the quotation amount was ₩7,970 million. If the Group miss the payment, it incurs arrear interest, Hankook Shell Oil Co., Ltd. paid ₩ 11,030 million (quotation amount ₩7,970 million + arrear interest as of August 20, 2020 ₩3,060 million).
Future litigation schedule and countermeasures	Currently pending in the appeals court (Seoul High Court) and will be appealed if lose even a part of it.
The effect on the Group as a result of litigation	If Hyundai Oilbank Co., Ltd. loses the case, it is expected to make an additional loss from compensation. Currently, the impact on the Group's financial statements, if any, cannot be reliably estimated

(6) In addition to the cases mentioned above, the Group is currently a defendant in 1 case of lawsuit filed with Korea Shipbuilding & Offshore Engineering Co., Ltd. before the split and 30 cases of lawsuits involving claims and administrative appeals of oversea corporation amounted to ₩59,250 million after the split. Currently, the impact on the Group's financial statements, if any, cannot be reliably estimated. The first trial of product-liability lawsuit filed in USA after the split is in favor of the controlling company, and currently the appeal of the plaintiff and the impact on the Group's financial statements, if any, cannot be reliably estimated.

(7) In addition to the cases mentioned above, the Group has filed various lawsuits pending. Currently, the impact on the Group's consolidated financial statements, if any, cannot be reliably estimated. However, management of the Group believes that the ultimate outcomes will not have a significant impact on the Group's consolidated financial statements.

45. Related Parties

(1) Transactions between the Company and its subsidiaries are eliminated in the preparation of the consolidated financial statements and the related parties as of December 31, 2020 is as follows:

Description (*)	Company	Main business
Associates	Korea Shipbuilding & Offshore Engineering Co., Ltd.	Non-finance holding company
	Koramco Energy Plus Reit and 4 companies	Real estate investing company
Joint ventures	Hyundai Cosmo Petrochemical Co., Ltd.	Manufacture of basic chemicals for petrochemical industry
	Asan Kakao Medical Data Co., Ltd.	Application software development and supply
	Haining Hagong Hyundai Robotics. Co., Ltd.	Sale of robot and service
Others (large-scale corporate conglomerate)	Hyundai Heavy Industries Co., Ltd.	Shipbuilding
	Hyundai Samho Heavy Industries Co., Ltd.	Shipbuilding
	Hyundai Mipo Dockyard Co., Ltd.	Shipbuilding
	Aramco Overseas Company B.V and subsidiaries	Oil refinery
	Other related companies of Korea Shipbuilding & Offshore Engineering Co., Ltd.	Others

(*) The related parties of the newly established company are classified based on the dominant position and subsidiary relationship of the newly established company, the status of related companies, and the large business group affiliates.

45. Related Parties, Continued

(2) Transactions with related parties

1) Significant transactions for the years ended December 31, 2020 and 2019 with related parties are as follows:

(In millions of won)

Description		2020			
		Revenue and other	Purchases and other		
		Revenue (*1)	Purchase of raw materials	Purchase of Property, Plant and Equipment	Others purchase
Associates:					
Korea Shipbuilding & Offshore Engineering Co., Ltd.(*2)	₩	715	2,687	825	35,757
Koramco Energy Plus Reit		-	-	349,726	4,728
Others		-	-	43,228	650
		715	2,687	393,779	41,135
Joint ventures:					
Hyundai Cosmo Petrochemical Co., Ltd.		1,253,829	635,879	3,807	7,007
Haining Hagong Hyundai Robotics. Co., Ltd.		646	13	-	-
Hyundai and Shell Base Oil Co., Ltd.(*3)		364,549	70,480	-	300
		1,619,024	706,372	3,807	7,307
Other related parties (large-scale corporate conglomerate):					
Hyundai Heavy Industries Co., Ltd.		186,624	21,873	653	39,326
Hyundai Samho Heavy Industries Co., Ltd.		66,957	-	7	676
Hyundai Mipo Dockyard Co., Ltd.		42,509	-	-	134
Hyundai Heavy Industries Power Systems Co., Ltd.		19,095	59,830	-	5,844
Hyundai E&T Co., Ltd.		546	6,923	-	3,836
Hyundai Energy Solutions America Inc.		17,670	230	-	1,044
Hyundai Heavy Industries MOS Co., Ltd.		160	4,488	-	5,015
Ulsan Hyundai Football Club Co., Ltd.		29	142	-	17,742
Hyundai Heavy Industries Brazil - Manufacturing and Trading of Construction Equipment		74,904	15,752	-	345
S-Oil Co., Ltd.(*4)		266,850	12,270	2	268,940
Aramco Trading Singapore Pte Ltd.(*5)		416,302	123,042	-	-
Saudi Arabian Oil Company(*5)		-	1,659,916	-	-
Aramco Trading Limited(*5)		-	1,498,898	-	-
Aramco Trading Company(*5)		-	899,064	-	823
Aramco Overseas Company B.V(*5)		-	27,723	-	-
Others		12,327	-	-	56
		1,103,973	4,330,151	662	343,781
	₩	2,723,712	5,039,210	398,248	392,223

(*1) Including sales of property, plant and equipment, interest income and others.
(*2) Hyundai Oilbank Co., Ltd. acquired shares of Daehan Oil Pipeline Corporation from Korea Shipbuilding & Offshore Engineering Co., Ltd. and acquisition amount of ₩14,386 million is included in others purchase.
(*3) Due to changes in the shareholders' agreements, Hyundai and Shell Base Oil Co., Ltd. has been incorporated as a subsidiary on November 2020. The transaction amounts until October 2020, before changes in the agreement between shareholders and acquiring a control are disclosed.
(*4) Inventory exchange amount between S-oil Co., Ltd. and Hyundai Oilbank Co., Ltd. are included.
(*5) Aramco Overseas Company B.V affiliates and Hyundai Oilbank Co., Ltd. have signed long-term crude oil purchase and refinery supply contracts.

45. Related Parties, Continued

(2) Transactions with related parties, continued

1) Significant transactions for the years ended December 31, 2020 and 2019 with related parties are as follows, continued:

(In millions of won)

		2019			
		Revenue and other	Purchases and other		
Description		Revenue (*1)	Purchase of raw materials	Purchase of Property, Plant and Equipment	Others purchase
Associates:					
Korea Shipbuilding & Offshore Engineering Co., Ltd.	₩	73,018	15,745	2,835	31,521
Joint ventures:					
Hyundai Cosmo Petrochemical Co., Ltd.		2,139,692	1,224,645	-	6,199
Hyundai and Shell Base Oil Co., Ltd.		757,194	154,057	-	-
		2,896,886	1,378,702	-	6,199
Other related parties (large-scale corporate conglomerate):					
Hyundai Heavy Industries Co., Ltd.		90,211	13,308	202	20,442
Hyundai Samho Heavy Industries Co., Ltd.		58,890	-	-	1,384
Hyundai Mipo Dockyard Co., Ltd.		44,951	-	-	122
Hyundai Heavy Industries Power Systems Co., Ltd.		5,310	82,785	-	24,959
Hyundai Hyms Co., Ltd. (*2)		3,799	-	-	2,994
Hyundai E&T Co., Ltd.		523	7,613	-	3,046
Hyundai Energy Solutions Co.,Ltd.		2,022	-	-	950
Hyundai Heavy Industries Turbo Machinery Co., Ltd. (*2)		5,973	34	-	84
Hyundai Heavy Industries Mos Co., Ltd.		164	4,646	-	4,509
Ulsan Hyundai Football Club Co., Ltd.		55	-	-	17,843
Hyundai Heavy Industries Brazil - Manufacturing and Trading of Construction Equipment		53,636	8,824	-	353
Others		6,337	61	-	13
		271,871	117,271	202	76,699
	₩	3,241,775	1,511,718	3,037	114,419

(*1) Including sales of property, plant and equipment, interest income and others.
(*2) As of December 31, 2019, it has been excluded from other related parties and includes transactions up to the day before the exclusion of the Group.

45. Related Parties, Continued

(2) Transactions with related parties, continued

2) Outstanding balances as of December 31, 2020 and 2019 between the Group and associates or joint ventures are as follows:

(In millions of won)		2020			
		Trade and other receivables		Trade and other payables	
		Trade Receivable	Other receivables	Trade Payables	other payables
Associates:					
Korea Shipbuilding & Offshore Engineering Co., Ltd.	₩	2	213	2,929	1,843
Koramco Energy Plus Reit		-	92,097	-	309,129
Others		-	3,137	-	40,187
		2	95,447	2,929	351,159
Joint ventures:					
Hyundai Cosmo Petrochemical Co., Ltd.		40,663	1,120	22,665	13,237
Other related parties (large-scale corporate conglomerate):					
Hyundai Heavy Industries Co., Ltd.		54,173	14,592	7,784	4,778
Hyundai Samho Heavy Industries Co., Ltd.		18,854	1,561	50	176
Hyundai Mipo Dockyard Co., Ltd.		11,641	3,106	28	528
Hyundai Heavy Industries Power Systems Co., Ltd.		984	15,196	3,686	-
Hyundai E&T Co., Ltd.		-	-	889	-
Hyundai Energy Solutions America Inc.		207	-	51	-
Hyundai Heavy Industries MOS Co., Ltd.		20	-	1,312	-
Ulsan Hyundai Football Club Co., Ltd.		4	3,091	-	-
Hyundai Heavy Industries Brazil - Manufacturing and Trading of Construction Equipment		32,240	3,886	2,269	47
S-Oil Co., Ltd.(*1)		-	15,598	1,550	-
Aramco Trading Singapore Pte Ltd.(*2)		2,004	-	2,871	-
Saudi Arabian Oil Company(*2)		-	-	200,548	-
Aramco Trading Limited(*2)		-	-	53,741	-
Aramco Trading Company(*2)		-	-	58,470	-
Others		8	-	-	4,853
		120,135	57,030	333,249	10,382
	₩	160,800	153,597	358,843	374,778

(*1) Inventory exchange amount between S-oil Co., Ltd. And Hyundai Oilbank Co., Ltd. are included.
(*2) Aramco Overseas Company B.V and Hyundai Oilbank Co., Ltd. have signed long-term crude oil purchase and refinery supply contracts.

45. Related Parties, Continued

(2) Transactions with related parties, continued

2) Outstanding balances as of December 31, 2020 and 2019 between the Group and associates or joint ventures are as follows, continued:

'In millions of won)		2019			
		Trade and other receivables		Trade and other payables	
		Trade Receivable	Other receivables	Trade Payables	other payables
Associates:					
Korea Shipbuilding & Offshore Engineering Co., Ltd.	₩	3,437	1,861	7,272	4,860
Joint ventures:					
Hyundai Cosmo Petrochemical Co., Ltd.		33,707	2,987	127,135	811
Hyundai and Shell Base Oil Co., Ltd.		10,138	29	23,315	91
Haining Hagong Hyundai Robotics. Co., Ltd.		-	-	2,643	-
		43,845	3,016	153,093	902
Other related parties (large-scale corporate conglomerate):					
Hyundai Heavy Industries Co., Ltd.		54,131	3,416	10,960	16,997
Hyundai Samho Heavy Industries Co., Ltd.		23,256	24	171	500
Hyundai Mipo Dockyard Co., Ltd.		8,659	-	-	68
Hyundai E&T Co., Ltd.		-	116	894	2
Ulsan Hyundai Football Club Co., Ltd.		2	2,833	5	-
Hyundai Heavy Industries Mos Co., Ltd.		24	-	1,487	-
Hyundai Heavy Industries Power Systems Co., Ltd.		127	19,772	13,051	56
Hyundai Heavy Industries Brazil - Manufacturing and Trading of Construction Equipment		32,220	4,731	423	-
S-Oil Co., Ltd.		-	20,286	-	-
Aramco Trading Company		-	-	80,360	-
Others		1,255	664	167	8,112
		119,674	51,842	107,518	25,735
	₩	166,956	56,719	267,883	31,497

(3) Fund transactions with related parties

1) HHI China Investment Co., Ltd., a subsidiary company, has cashpooling arrangements with other related parties, and the details of the Group's fund transactions under the agreement are as follows:

(In thousands of CNY currency)		2020		
		Beginning balance	Change	Ending balance
Yantai Hyundai Moon Heavy Industries Co., Ltd.	Borrowing	-	17,335	17,335
	Loan	2,073	(2,073)	-

(In thousands of CNY currency)		2019		
		Beginning balance	Change	Ending balance
Yantai Hyundai Moon Heavy Industries Co., Ltd.	Borrowing	4,645	(4,645)	-
	Loan	-	2,073	2,073

45. Related Parties, Continued

(3) Fund transactions with related parties

2) For the year ended December 31, 2020 Hyundai Oilbank Co., Ltd., a subsidiary, acquired interest in Koramco Energy Plus Reit, an associate, and 4 companies investing ₩50,000 million and recognized lease liabilities of ₩368,656 million due to rent of gas station, one of transactions with associates.

3) For the year ended December 31, 2020 Hyundai Oilbank Co., Ltd., a subsidiary, paid dividends of ₩34,581 million to Aramco Overseas Company B.V which has significant influence over the Group and received dividends of ₩5 million from Hyundai Cosmo Petrochemical Co., Ltd., a joint venture.

(4) Details of guarantees provided by the Group for the related parties as of December 31, 2020 is as follows:

(In thousands of USD currency)

Guarantee provider	Guarantee recipient	Provider	Type of guarantees	Currency	Guaranteed amount
HHI China Investment Co., Ltd.	Yantai Hyundai Moon Heavy Industries Co., Ltd.	Bank of Communications Co., Ltd.	Payment guarantee	USD	4,632
		Ningbo Bank	Payment guarantee	USD	10,955
Hyundai constructions Equipment Co., Ltd.	Hyundai Heavy Industries Brazil - Manufacturing and Trading of Construction Equipment	KEB Hana Bank	Payment guarantee	USD	8,400
				USD	23,987

(5) Compensation for key management of the Group for the years ended December 31, 2020 and 2019 are as follows:

(In millions of won)		2020	2019
Short-term employee benefits	₩	14,966	14,989
Post-employment benefits		2,090	2,666
	₩	17,056	17,655

Key management is defined as directors and internal auditors who have important roles and responsibilities involving the planning, operation and control of the Group.

46. Disposal group held for sale

Assets held for sale and liabilities held for sale for the years 2020 and 2019 are as follows:

(In millions of won)		2020	2019
Hyundai Heavy Industries Co. Bulgaria(*1)	₩		
Assets held for sale		-	33,629
Liabilities held for sale		-	(5,925)
Hyundai Constructions Equipment Co., Ltd.			
Property, Plant and Equipment(*2)		4,335	-
Weihai Hyundai Wind Power Technology Co., Ltd.			
Right-of-use assets(*3)		1,345	-
	₩	5,680	27,704

(*1) Hyundai Heavy Industries Co. Bulgaria has been disposed for the year ended December 31, 2020.
(*2) Hyundai Constructions Equipment Co., Ltd. classified the performance test site as assets held for sale as the site will be used for the construction of the Ulsan Autonomous Ship Demonstration Center. The site has been disposed on February 2021.
(*3) Weihai Hyundai Wind Power Technology Co., Ltd., a subsidiary, decided to sell right of land use and the asset is expected to be sold in the first half of 2021.

As of December 31, 2020, accumulated gain on revaluation of assets held for sale recognized in other comprehensive income are ₩676 million net of tax effects.

47. Split-off

The Company established a new subsidiary, Hyundai Robotics Co., Ltd. by split-off the entire robot-related business except for certain segments such as investment in May 1, 2020.

		2020
Division method	Split-off	
Companies	Surviving company	Hyundai Heavy Industries Holdings Co., Ltd.
	Newly established company	Hyundai Robotics Co., Ltd.
Schedule	Board of Directors resolution date	December 13, 2019
	Shareholders' General Meeting date	March 25, 2020
	Splitter date	May 1, 2020

48. Subsequent Events

(1) The board of directors of the Company decided to acquire shares of Doosan Infracore Co., Ltd. in February 5, 2021 and has entered into a Share Purchase Agreement with Doosan Heavy Industries & Construction Co., Ltd. in February 5, 2021.
(2) The Company decided to split their ordinary shares by lowering the par value from ₩ 5,000 to ₩1,000. The stock split is scheduled for April 13, 2021.
(3) The Company established Hyundai Genuine Co., Ltd. and incorporated as a subsidiary in February 2021.
(4) The board of directors of the Company decided to sell a part of shares of Hyundai Global Service Co., Ltd. on February 23, 2021
(5) The Group invested ₩950 million in Kohygen Co., Ltd. which was established with the purpose to expand infrastructure for hydrogen gas stations.
(6) On January 28, 2021, the Group issued ₩400,000 million of corporate bonds.