

LG International Corp. and its subsidiaries

Consolidated financial statements
for the years ended December 31, 2020 and 2019
with the independent auditor's report

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Independent auditor's report

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Independent auditor's report

The Stockholders and Board of Directors LG International Corp.

Opinion

We have audited the consolidated financial statements of LG International Corp. (the "Company") and its subsidiaries (collectively referred to as the "Group"), which comprise the consolidated statements of financial position as of December 31, 2020 and 2019, and the consolidated statements of profit or loss, consolidated statements of other comprehensive income or loss, consolidated statements of changes in equity and consolidated statements of cash flows for the years then ended, and the notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the 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 ("KIFRS").

Basis for opinion

We conducted our audits in accordance with Korean Auditing Standards ("KGAAS"). Our responsibilities under those standards are further described in the Auditor's 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 audits of the consolidated financial statements in the 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.

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period. These matters were 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 these matters. For each matter below, our description of how our audit addressed the matter is provided in that context.

(1) Revenue recognition of overseas export sales

As mentioned in Note 2 to the consolidated financial statements, the Group recognizes revenue when the performance obligation identified in the contracts with the customers is fulfilled, as the amount which is expected to be received in exchange for the goods or services. The Group's overseas export sales are ₩6,931,341 million in total, accounting for approximately 61% of total sales. The Group recognizes revenue on overseas export sales when the control of goods, produced by the Group or purchased from supplier, is transferred to the customers.

We identified the risk of overstatement in overseas export sales caused by the errors in the judgment for the timing of identification and fulfillment of performance obligations in the contracts with customers as a significant risk.

The major audit procedures we have conducted in relation to the above significant risk are as follows:

- Analysis on the accounting policies of revenue recognition for major types of sales contracts and changes therein, if any
- Analysis for the contracts by type of overseas export sales (identification of performance obligation, measurement of transaction amount, allocation of transaction price, review of the appropriateness in timing of revenue recognition)
- Testing of the transactions during the current year by reconciling the records and the related documents
- Assessment for the appropriateness of cut-off for the transactions occurred around the reporting period end

(2) Impairment assessment of property, plant and equipment and intangible assets related to the resource development project of PT. Ganda Alam Makmur("GAM") (hereinafter referred as "GAM Business")

The Group engages in the exploration / development and production activities of bituminous coal in Indonesia. As mentioned in Note 2 to the consolidated financial statements, the Group recognizes the expenditures incurred directly related to the exploration and development business as overseas resource development assets and property, plant, and equipment.

The sales performance of GAM Business is sensitive to the international price of coal, exploration / development and production technology, and potential reserves of economically producible resources, and the collection period of related overseas resource development assets and property, plant, and equipment is also generally long-term.

As of December 31, 2020, the Group has overseas resource development assets and property, plant, and equipment amounting to ₩314,804 million which are related to GAM Business, and the Group assesses at the end of each reporting period whether there is any impairment indication. If impairment is identified, the Group measures the estimated recoverable amount and recognizes impairment loss. This procedure requires professional estimation and cash flows assumptions on potential reserves of resources, economic output, and international price outlook during the recoverable period. In conclusion, we identified that there is a significant risk in the Group's assessment of impairment indication and estimation of recoverable amount for the tangible and intangible assets related to GAM Business considering the materiality of amounts, uncertainty of estimation and the subjectivity of the assumptions by management.

The major audit procedures we have conducted in relation to the above significant risk are as follows:

- Analysis by understanding the Group's process related to impairment test
- Assessment of management's evaluation on whether there is an indication of impairment
- Analysis on whether the assumptions used in the valuation report (future cash flow model) are consistent with the approved budget and business plan
- Analysis by comparing the future estimates of short-term and long-term prices used in the valuation report with the estimates conducted by an independent external institution
- Analysis for the consistency and feasibility of assumptions applied to the estimation of cash flows for the measurement of the recoverable amounts

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 KIFRS, 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.

Auditor's 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 auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with KGAAS 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 KGAAS 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 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 auditor's 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 auditor's 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 to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

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

The engagement partner on the audit resulting in this independent auditor's report is Joon Yang Jeong.



March 10, 2021

This audit report is effective as of March 10, 2021, the independent auditor's report date. Accordingly, certain material subsequent events or circumstances may have occurred during the period from the independent auditor's report date to the time this report is used. Such events and circumstances could significantly affect the accompanying consolidated financial statements and may result in modifications to this report.

LG International Corp. and its subsidiaries

Consolidated financial statements
for the years ended December 31, 2020 and 2019

“The accompanying consolidated financial statements, including all footnotes and disclosures, have been prepared by, and are the responsibility of, the Group.”

Chun-sung Yoon
Chief Executive Officer
LG International Corp.

LG International Corp. and its subsidiaries
Consolidated statements of financial position
as of December 31, 2020 and 2019
(Korean won in millions)

	Notes	2020	2019
Assets			
Current assets			
Cash and cash equivalents	4, 5, 25, 26	₩ 689,988	₩ 423,582
Short-term financial assets	4, 11, 15, 25, 26	67,837	10,553
Trade accounts receivable, net	4, 11, 23, 25, 26	1,298,738	994,064
Contract assets	16	18,970	10,324
Other accounts receivable, net	4, 6, 11, 25, 26	193,442	289,084
Accrued income, net	4, 11, 25, 26	1,866	10,199
Advance payments		78,101	46,913
Prepaid expenses		90,452	63,052
Other current assets	4, 11	62,760	65,892
Inventories, net	7	645,123	519,299
Non-current assets held-for-sale	21, 30	15,550	51,083
		<u>3,162,827</u>	<u>2,484,045</u>
Non-current assets			
Investment assets	4, 8, 11, 23, 25, 26	159,677	217,458
Investment in associates	8, 21	279,426	316,607
Property, plant and equipment, net	9, 21, 29	742,372	764,608
Investment properties, net	9	4,609	5,982
Intangible assets, net	10, 21	694,846	726,860
Deferred tax assets	22	140,041	153,816
Other non-current assets	4, 5, 11	212,144	206,606
		<u>2,233,115</u>	<u>2,391,937</u>
Total assets		<u>₩ 5,395,942</u>	<u>₩ 4,875,982</u>

(Continued)

LG International Corp. and its subsidiaries
Consolidated statements of financial position
as of December 31, 2020 and 2019 (cont'd)
(Korean won in millions)

	Notes	2020	2019
Liabilities			
Current liabilities			
Short-term borrowings	4, 12, 25, 26	₩ 106,804	₩ 136,375
Trade accounts payable	4, 23, 25, 26	1,547,820	1,103,970
Other accounts payable	4, 6, 23, 25, 26	253,885	295,439
Advance received	16	40,294	47,152
Withholdings	4, 25, 26	33,482	29,987
Current tax liabilities		31,287	28,146
Accrued expenses	4, 25, 26	117,485	110,926
Current portion of bonds and long-term borrowings	4, 12, 25, 26	225,630	222,880
Deferred income	16	73,683	56,230
Deposits received	4, 25, 26	4,707	5,090
Lease liabilities	4, 25, 26, 29	68,804	59,148
Liabilities directly associated with the assets held for sale	30	14,434	30,936
		<u>2,518,315</u>	<u>2,126,279</u>
Non-current liabilities			
Bonds payable	4, 12, 25, 26	359,307	319,544
Long-term borrowings	4, 12, 25, 26	506,567	635,989
Defined benefit liabilities	19	14,277	22,446
Deferred tax liabilities	22	57,329	70,015
Lease liabilities	4, 25, 26, 29	117,403	88,056
Provisions	13	41,067	50,466
Other liabilities	4, 6, 25, 26	23,346	14,571
		<u>1,119,296</u>	<u>1,201,087</u>
Total liabilities		<u>3,637,611</u>	<u>3,327,366</u>
Equity			
Issued capital	14	193,800	193,800
Share premium	14	101,153	101,193
Other components of equity	14	(41,300)	(1,579)
Accumulated other comprehensive loss	14	(102,426)	(19,173)
Retained earnings	14	1,186,951	897,241
Equity attributable to the owners of the parent		1,338,178	1,171,482
Non-controlling interests		420,153	377,134
Total equity		<u>1,758,331</u>	<u>1,548,616</u>
Total liabilities and equity		<u>₩ 5,395,942</u>	<u>₩ 4,875,982</u>

The accompanying notes are an integral part of the consolidated financial statements.

LG International Corp. and its subsidiaries
Consolidated statements of profit or loss
for the years ended December 31, 2020 and 2019

(Korean won in millions, except per share amounts)

	Notes	2020	2019
Sales	3, 16, 23	₩ 11,282,632	₩ 10,530,857
Cost of sales	18, 23	(10,550,255)	(9,817,350)
Gross profit		732,377	713,507
Selling and administrative expenses	17, 18	(572,542)	(578,723)
Operating profit	3	159,835	134,784
Finance income	4, 20	292,143	222,796
Finance costs	4, 20	(358,176)	(271,967)
Share of profit (loss) in associates	8, 20	339,422	(6,055)
Other non-operating expenses, net	20	22,639	(154,842)
Profit (loss) before income tax		455,863	(75,284)
Income tax benefit (expense)	22	(94,257)	60,423
Profit (loss) for the year		₩ 361,606	₩ (14,861)
Attributable to:			
Owners of the parent		₩ 297,587	₩ 28,575
Non-controlling interests		₩ 64,019	₩ (43,436)
Earnings per share attributable to the equity owners of the parent:			
Basic earnings per share	14	₩ 7,932	₩ 739
Diluted earnings per share	14	₩ 7,932	₩ 739

The accompanying notes are an integral part of the consolidated financial statements.

LG International Corp. and its subsidiaries
Consolidated statements of other comprehensive income or loss
for the years ended December 31, 2020 and 2019
(Korean won in millions)

	Notes	2020	2019
Profit (loss) for the year		₩ 361,606	₩ (14,861)
<i>Other comprehensive income (loss) that may be reclassified to profit or loss in subsequent periods:</i>			
Loss on valuation of derivatives designated as cash flow hedges	4, 6	(7,538)	(6,983)
Positive adjustments of equity in equity method	8	(9,383)	(1,690)
Negative adjustments of equity in equity method	8	10,125	(378)
Change in retained earnings in equity method	8	(20)	-
Exchange differences on translation of foreign operations		(50,662)	55,732
		<u>(57,478)</u>	<u>46,681</u>
<i>Other comprehensive income (loss) that will not be reclassified to profit or loss in subsequent periods:</i>			
Loss on valuation of financial assets designated at fair value through OCI	4, 8	(39,094)	(7,879)
Re-measurement gain (loss) on defined benefit plans	19	2,678	(3,051)
		<u>(36,416)</u>	<u>(10,930)</u>
Other comprehensive income (loss) for the year, net of tax		<u>(93,894)</u>	<u>35,751</u>
Total comprehensive income for the year, net of tax		<u>₩ 267,712</u>	<u>₩ 20,890</u>
Attributable to:			
Owners of the parent		₩ 218,055	₩ 52,620
Non-controlling interests		₩ 49,657	₩ (31,730)

The accompanying notes are an integral part of the consolidated financial statements.

LG International Corp. and its subsidiaries
Consolidated statements of changes in equity
for the years ended December 31, 2020 and 2019
(Korean won in millions)

	Notes	Attributable to the owners of the parent					Total	Non-controlling interests	Total equity
		Issued capital	Share premium	Other components of equity	Accumulated other comprehensive income (loss)	Retained earnings			
As of January 1, 2019		₩ 193,800	₩ 101,163	₩ (1,579)	₩ (45,032)	₩ 880,144	₩ 1,128,496	₩ 421,040	₩ 1,549,536
Profit (loss) for the year		-	-	-	-	28,575	28,575	(43,436)	(14,861)
Loss on valuation of derivatives designated as cash flow hedges		-	-	-	(6,651)	-	(6,651)	(332)	(6,983)
Positive adjustments of equity in equity method		-	-	-	(1,692)	-	(1,692)	2	(1,690)
Negative adjustments of equity in equity method		-	-	-	(378)	-	(378)	-	(378)
Exchange differences on translation of foreign operations		-	-	-	42,502	-	42,502	13,230	55,732
Loss on valuation of financial assets designated at fair value through OCI		-	-	-	(7,922)	-	(7,922)	43	(7,879)
Re-measurement loss on defined benefit plans		-	-	-	-	(1,814)	(1,814)	(1,237)	(3,051)
Total comprehensive income (loss)		-	-	-	25,859	26,761	52,620	(31,730)	20,890
Dividends	15	-	-	-	-	(9,664)	(9,664)	(12,146)	(21,810)
Paid in capital of subsidiaries and acquisition of equity		-	30	-	-	-	30	(30)	-
As of December 31, 2019		₩ 193,800	₩ 101,193	₩ (1,579)	₩ (19,173)	₩ 897,241	₩ 1,171,482	₩ 377,134	₩ 1,548,616

(Continued)

LG International Corp. and its subsidiaries
Consolidated statements of changes in equity
for the years ended December 31, 2020 and 2019 (cont'd)
(Korean won in millions)

	Notes	Attributable to the owners of the parent					Total	Non-controlling interests	Total equity
		Issued capital	Share premium	Other components of equity	Accumulated other comprehensive income (loss)	Retained earnings			
As of January 1, 2020		₩ 193,800	₩ 101,193	₩ (1,579)	₩ (19,173)	₩ 897,241	₩ 1,171,482	₩ 377,134	₩ 1,548,616
Profit for the year		-	-	-	-	297,587	297,587	64,019	361,606
Loss on valuation of derivatives designated as cash flow hedges		-	-	-	(7,176)	-	(7,176)	(362)	(7,538)
Positive adjustments of equity in equity method		-	-	-	(9,390)	-	(9,390)	7	(9,383)
Negative adjustments of equity in equity method		-	-	-	10,125	-	10,125	-	10,125
Change in retained earnings in equity method		-	-	-	-	(21)	(21)	1	(20)
Exchange differences on translation of foreign operations		-	-	-	(37,146)	-	(37,146)	(13,516)	(50,662)
Loss on valuation of financial assets designated at fair value through OCI		-	-	-	(39,666)	-	(39,666)	572	(39,094)
Re-measurement gain on defined benefit plans		-	-	-	-	3,742	3,742	(1,064)	2,678
Total comprehensive income (loss)		-	-	-	(83,253)	301,308	218,055	49,657	267,712
Dividends	15	-	-	-	-	(11,598)	(11,598)	(11,515)	(23,113)
Paid in capital of subsidiaries and acquisition of equity		-	(40)	-	-	-	(40)	40	-
Change in the scope of consolidation		-	-	-	-	-	-	4,837	4,837
Acquisition of treasury stock		-	-	(39,721)	-	-	(39,721)	-	(39,721)
As of December 31, 2020		₩ 193,800	₩ 101,153	₩ (41,300)	₩ (102,426)	₩ 1,186,951	₩ 1,338,178	₩ 420,153	₩ 1,758,331

The accompanying notes are an integral part of the consolidated financial statements.

LG International Corp. and its subsidiaries
Consolidated statements of cash flows
for the years ended December 31, 2020 and 2019
(Korean won in millions)

	Notes	2020	2019
Cash flows from operating activities:			
Profit (loss) for the year		₩ 361,606	₩ (14,861)
Non-cash adjustments to reconcile profit			
for the year to net cash flows provided by operating activities	27	(39,477)	328,147
Working capital adjustments	27	(23,695)	(59,468)
Interest received		9,353	15,469
Interest paid		(36,675)	(48,762)
Dividends received		11,821	8,046
Income taxes paid		(28,147)	(3,613)
Net cash flows provided by operating activities		254,786	224,958
Cash flows from investing activities:			
Decrease in financial instruments		10,658	24,880
Decrease in loans		5,657	12,181
Decrease in guarantee deposits		9,262	14,569
Proceeds from disposal of equity instruments held for long-term	8	-	646
Proceeds from disposal of investment in associates	8	333,585	61,860
Proceeds from disposal of assets held for sale	30	22,688	-
Proceeds from disposal of property, plant and equipment	9	62,145	4,131
Proceeds from disposal of investment properties	9	-	133,547
Proceeds from disposal of intangible assets	10	9,208	2,552
Increase in financial instruments		(66,916)	(27,475)
Increase in loans		(14,526)	(2,653)
Increase in guarantee deposits		(15,094)	(17,122)
Acquisition of equity instruments held for long-term	8	(3,000)	(31,493)
Acquisition of investment in associates	8	-	(9)
Acquisition of property, plant and equipment	9	(44,193)	(64,401)
Acquisition of intangible assets	10	(43,655)	(33,159)
Net cash provided by investing activities		265,819	78,054
Cash flows from financing activities:			
Acquisition of treasury stock	14	(39,721)	-
Proceeds from finance liabilities	27	1,331,280	2,554,985
Repayment of finance liabilities	27	(1,412,102)	(2,683,174)
Payment of principal portion of lease liabilities	27, 29	(93,969)	(79,755)
Dividends paid to stockholders		(23,113)	(21,812)
Net cash flows used in financing activities		(237,625)	(229,756)
Net increase (decrease) in cash and cash equivalents		282,980	73,256
Cash and cash equivalents as of January 1		423,582	342,014
Exchange differences on translation of cash and cash equivalents		(16,574)	19,345
Cash equivalents included in disposal group held for sale		-	(11,033)
Cash and cash equivalents as of December 31		₩ 689,988	₩ 423,582

The accompanying notes are an integral part of the consolidated financial statements.

LG International Corp. and its subsidiaries
Notes to the consolidated financial statements
December 31, 2020 and 2019

1. Organization and business

LG International Corp. ("LGI" or the "Company") and its 83 subsidiaries including LG International (America) Inc. (collectively referred to as the "Group") prepare the consolidated financial statements in accordance with KIFRS 1110 *Consolidated Financial Statements*, and general information on the Group is as follows:

1.1 The Company

The Company was established on November 26, 1953 to engage in the import and export business. It changed its name to Bando Corporation in 1956 and to Lucky Industries Co., Ltd. in 1984. Its current name was adopted on March 1, 1995.

LGI listed its common stock on the Korea Exchange in January 1976 and was designated as a general trading company by the Korean Government on November 12, 1976.

LGI is currently engaged in the import and export of goods, and other business activities. The LGI headquarters is located in Seoul and operates 18 overseas branch offices, 5 liaison offices and 84 subsidiaries (including 60 sub-subsidiaries) as of December 31, 2020.

LG Corp. holds 24.69% of the Company's common shares as of December 31, 2020.

1.2 Consolidated subsidiaries

Subsidiaries included in consolidation are as follows:

	Country of domicile	Equity ownership (%)		Reporting date	Principal activity	Basis of control
		2020	2019			
LG International (America) Inc.	USA	100.00	100.00	Dec. 31	Export and import	Ownership over 50%
LHC Solar LLC	USA	100.00	100.00	Dec. 31	Solar energy	Ownership over 50%
LG International (Japan) Ltd.	Japan	100.00	100.00	Dec. 31	Export and import	Ownership over 50%
LG International (Hong Kong) Ltd.	Hong Kong	100.00	100.00	Dec. 31	Export and import	Ownership over 50%
LG International (Singapore) Pte. Ltd.	Singapore	100.00	100.00	Dec. 31	Export and import	Ownership over 50%
LG International (Deutschland) GmbH	Deutschland	100.00	100.00	Dec. 31	Export and import	Ownership over 50%
LG International (China) Ltd.	China	100.00	100.00	Dec. 31	Export and import	Ownership over 50%
Yantai VMI Hub LG International Co., Ltd.	China	100.00	100.00	Dec. 31	Hub	Ownership over 50%
Guangzhou Steel Flower Electrical & Machinery Co., Ltd. (*1)	China	-	100.00	Dec. 31	Steel frames	Ownership over 50%
Bowen Investment (Australia) Pty. Ltd.	Australia	100.00	100.00	Dec. 31	Coal mining	Ownership over 50%
PT. Batubara Global Energy (BGE)	Indonesia	100.00	100.00	Dec. 31	Coal mining	Ownership over 50%
PT. Megaprima Persada (MPP)	Indonesia	75.00	75.00	Dec. 31	Coal mining	Ownership over 50%
PT. Mega Global Energy (MGE)	Indonesia	100.00	100.00	Dec. 31	Coal mining	Ownership over 50%
PT. Ganda Alam Makmur (GAM)	Indonesia	60.00	60.00	Dec. 31	Coal mining	Ownership over 50%
LG International (India) Ltd.	India	100.00	100.00	Mar. 31	Export and import	Ownership over 50%
PT. Green Global Lestari (GGL)	Indonesia	100.00	100.00	Dec. 31	Palm oil	Ownership over 50%
PT. Parna Agromas (PAM)	Indonesia	95.00	95.00	Dec. 31	Palm oil	Ownership over 50%
PT. Grand Utama Mandiri (GUM)	Indonesia	95.00	95.00	Dec. 31	Palm oil	Ownership over 50%
PT. Tintin Boyok Sawit Makmur (TBSM)	Indonesia	95.00	95.00	Dec. 31	Palm oil	Ownership over 50%
PT. Tintin Boyok Sawit Makmur (TBSMD)	Indonesia	95.00	95.00	Dec. 31	Palm oil	Ownership over 50%
PT. Green Global Utama (GGU) (*2)	Indonesia	100.00	-	Dec. 31	Palm oil	Ownership over 50%
PT. LG International Indonesia (LGII) (*3)	Indonesia	100.00	100.00	Dec. 31	Service	Ownership over 50%
PT. Binsar Natorang Energi (BNE)	Indonesia	95.00	95.00	Dec. 31	Hydroelectric power	Ownership over 50%
Steel Flower Electric & Machinery (Tianjin) Co., Ltd.	China	100.00	100.00	Dec. 31	Steel frames	Ownership over 50%
Philco Resources Ltd. (Rapu-Rapu)	Malaysia	60.00	60.00	Dec. 31	Copper mining	Ownership over 50%
Resource Investment (Hong Kong) Ltd. (Wantugou)	Hong Kong	100.00	100.00	Dec. 31	Coal mining	Ownership over 50%
LG International Yakutsk Ltd.	Russia	100.00	100.00	Dec. 31	Real estate	Ownership over 50%
Korea Carbon International Co., Ltd. (Shaanxi BBM)	Hong Kong	60.00	60.00	Dec. 31	Renewable plant	Ownership over 50%
Colmineral, S.A. de C.V.	Mexico	100.00	100.00	Dec. 31	Iron ore	Ownership over 50%
Fertilizer Resources Investment Ltd.	Hong Kong	100.00	100.00	Dec. 31	Fertilizer	Ownership over 50%
Dangjin Tank Terminal Co., Ltd.	Korea	100.00	100.00	Dec. 31	Storage	Ownership over 50%
Haiphong Steel Flower Electrical & Machinery Company Limited	Vietnam	100.00	100.00	Dec. 31	Steel frames	Ownership over 50%

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1.2 Consolidated subsidiaries (cont'd)

	Country of domicile	Equity ownership (%)		Reporting date	Principal activity	Basis of control
		2020	2019			
Highland Cement International Co., Ltd. (*1)	Myanmar	-	51.00	Sep. 30	Cement	Ownership over 50%
Pantos Logistics Co., Ltd. (*4)	Korea	51.00	51.00	Dec. 31	Logistics	Ownership over 50%
Pantos Busan Newport Logistics Center Co., Ltd. (*4)	Korea	100.00	100.00	Dec. 31	Warehouse	Ownership over 50%
Helistar Air Co., Ltd. (*4)	Korea	100.00	100.00	Dec. 31	Logistics	Ownership over 50%
Hanultari Co., Ltd. (*4)	Korea	100.00	100.00	Dec. 31	Other food retail	Ownership over 50%
Pantos Logistics (China) Co., Ltd. (*4)	China	100.00	100.00	Dec. 31	Logistics	Ownership over 50%
FNS (Beijing) Logistics Co., Ltd. (*4, 5)	China	-	100.00	Dec. 31	Logistics	Ownership over 50%
Pantos Logistics (Shanghai) Co., Ltd. (*4)	China	100.00	100.00	Dec. 31	Warehouse	Ownership over 50%
Pantos Logistics (Ningbo) Co., Ltd. (*4)	China	100.00	100.00	Dec. 31	Logistics	Ownership over 50%
Pantos Logistics (Shenzhen) Co., Ltd. (*4)	China	100.00	100.00	Dec. 31	Logistics	Ownership over 50%
Pantos Logistics (H.K.) Co., Ltd. (*4)	Hong Kong	100.00	100.00	Dec. 31	Logistics	Ownership over 50%
Pantos Logistics (Taiwan) Co., Ltd. (*4)	Taiwan	100.00	100.00	Dec. 31	Logistics	Ownership over 50%
PT. Pantos Logistics Indonesia (*4)	Indonesia	99.00	99.00	Dec. 31	Logistics	Ownership over 50%
PT. Pantos Logistics Jakarta (*4)	Indonesia	100.00	100.00	Dec. 31	Logistics	Ownership over 50%
Pantos Logistics Singapore Pte. Ltd. (*4)	Singapore	100.00	100.00	Dec. 31	Logistics	Ownership over 50%
Pantos Logistics (Thailand) Co., Ltd. (*4)	Thailand	100.00	100.00	Dec. 31	Logistics	Ownership over 50%
Pantos Logistics Malaysia Sdn. Bhd. (*4)	Malaysia	100.00	100.00	Dec. 31	Logistics	Ownership over 50%
Pantos Logistics (India) Pvt. Ltd. (*4)	India	100.00	100.00	Mar. 31	Logistics	Ownership over 50%
Pantos Logistics (Cambodia) Co., Ltd. (*4)	Cambodia	100.00	100.00	Dec. 31	Logistics	Ownership over 50%
Pantos Logistics Vietnam Co., Ltd. (*2, 4)	Vietnam	100.00	99.00	Dec. 31	Logistics	Ownership over 50%
Pantos Logistics Australia Pty Ltd. (*4)	Australia	100.00	100.00	Dec. 31	Logistics	Ownership over 50%
Pantos Holdings (Thailand) Co., Ltd. (*4)	Thailand	48.50	48.50	Dec. 31	Logistics	De facto control
Pantos Logistics Myanmar Co., Ltd. (*2, 4)	Myanmar	87.96	69.99	Mar. 31	Logistics	Ownership over 50%
Pantos Logistics U.K. Ltd. (*4)	UK	100.00	100.00	Dec. 31	Logistics	Ownership over 50%
Pantos Logistics Benelux B.V. (*4)	Netherlands	100.00	100.00	Dec. 31	Logistics	Ownership over 50%
Pantos Logistics France (*4)	France	100.00	100.00	Dec. 31	Logistics	Ownership over 50%
Pantos Logistics Poland (*4)	Poland	100.00	100.00	Dec. 31	Logistics	Ownership over 50%
Pantos Logistics Germany GmbH (*4)	Deutschland	100.00	100.00	Dec. 31	Logistics	Ownership over 50%
Pantos Logistics Spain S.L. (*4)	Spain	100.00	100.00	Dec. 31	Logistics	Ownership over 50%
Pantos Logistics Ve Tic.Lgd.Sti (*4)	Turkey	100.00	100.00	Dec. 31	Logistics	Ownership over 50%
Pantos Logistics Sweden (*4)	Sweden	100.00	100.00	Dec. 31	Logistics	Ownership over 50%
Pantos Logistics Mexico (*4)	Mexico	100.00	100.00	Dec. 31	Logistics	Ownership over 50%
Pantos Do Brasil Logistica (*4)	Brazil	100.00	100.00	Dec. 31	Logistics	Ownership over 50%
Pantos Logistics Colombia SAS (*4)	Colombia	100.00	100.00	Dec. 31	Logistics	Ownership over 50%
Pantos Logistics Chile SpA (*4)	Chile	100.00	100.00	Dec. 31	Logistics	Ownership over 50%
Pantos Logistics Panama S.A. (*4)	Panama	100.00	100.00	Dec. 31	Logistics	Ownership over 50%
Pantos Logistics AR S.A. (*4)	Argentina	100.00	100.00	Dec. 31	Logistics	Ownership over 50%
Hi Logistics Brasil Servicos De Logistica LTDA (*4)	Brasil	100.00	100.00	Dec. 31	Warehouse	Ownership over 50%
FNS CIS LLC (*4)	Russia	100.00	100.00	Dec. 31	Logistics	Ownership over 50%
Pantos Logistics Kazakhstan (*4)	Kazakhstan	100.00	100.00	Dec. 31	Logistics	Ownership over 50%
Pantos Logistics Ukraine Ltd (*4)	Ukraine	100.00	100.00	Dec. 31	Logistics	Ownership over 50%
Pantos Customs Services LLC (*4)	Russia	100.00	100.00	Dec. 31	Customs	Ownership over 50%
Pantos Logistics L.L.C (Dubai) (*4)	Dubai	49.00	49.00	Dec. 31	Logistics	De facto control
Pantos Logistics L.L.C (Oman) (*4)	Oman	70.00	70.00	Dec. 31	Logistics	Ownership over 50%
Pantos Logistics Co., LTD. Saudi Arabia (*4)	Saudi Arabia	100.00	100.00	Dec. 31	Logistics	Ownership over 50%
Pantos Logistics Nigeria Limited (*4)	Nigeria	99.93	99.93	Dec. 31	Logistics	Ownership over 50%
Pantos Logistics Japan Inc. (*4)	Japan	100.00	100.00	Dec. 31	Logistics	Ownership over 50%
Hi Logistics (China) Co., Ltd. (*4)	China	100.00	100.00	Dec. 31	Logistics	Ownership over 50%
Hi Logistics RUS, LLC. (*4)	Russia	100.00	100.00	Dec. 31	Logistics	Ownership over 50%
Pantos Logistics Solutions India Private Limited (*4)	India	100.00	100.00	Mar. 31	Logistics	Ownership over 50%
Hi Logistics Egypt S.A.E (*2, 4)	Egypt	99.26	98.00	Dec. 31	Logistics	Ownership over 50%
Pantos North America, INC. (*4, 6)	USA	100.00	100.00	Dec. 31	Logistics	Ownership over 50%
Pantos Logistics Hungary KFT. (*4, 7)	Hungary	100.00	100.00	Dec. 31	Logistics	Ownership over 50%
Onecube International Logistics Co., Ltd. (*4, 7)	China	100.00	100.00	Dec. 31	Logistics	Ownership over 50%
PT. Pantos Express Indonesia (*4, 8)	Indonesia	49.00	49.00	Dec. 31	Logistics	De facto control

(*1) During the year ended December 31, 2020, Guangzhou Steel Flower Electrical & Machinery Co., Ltd. (ownership interests of 100%) and Highland Cement International Co., Ltd. (ownership interests of 51%), were disposed of and excluded from consolidation scope.

1.2 Consolidated subsidiaries (cont'd)

- (*2) During the year ended December 31, 2020, PT.Green Global Lestari (GGL), one of the subsidiaries, acquired PT.Green Global Utama (GGU), which was included in the consolidation scope. The Group acquired additional stake of Pantos Logistics Vietnam Co., Ltd., Pantos Logistics Myanmar Co., Ltd., Hi Logistics Egypt S.A.E.
- (*3) During the year ended December 31, 2020, the Group changed the name of PT. Indonesia Renewable Resources (IRR), one of the subsidiaries (ownership interests of 100%), to PT. LG International Indonesia (LGII).
- (*4) As of December 31, 2020 and 2019, the entities are subsidiaries of Pantos Logistics Co., Ltd., and the equity interests presented above are simple sums of equity interests held by Pantos Logistics Co., Ltd. and its subsidiaries.
- (*5) During the year ended December 31, 2020, the Group excluded FNS(Beijing) Logistics Co., Ltd., one of its subsidiaries, from the consolidation scope by liquidation.
- (*6) During the year ended December 31, 2019, the Group changed the name of Hi Logistics USA, Inc. to Pantos North America, Inc.
- (*7) During the year ended December 31, 2019, the Group established Pantos Logistics Hungary KFT, Onecube International Logistics Co., Ltd. (ownership interests of 100%) and included it in the consolidation scope.
- (*8) During the year ended December 31, 2020, the Group acquired substantial control over PT. Pantos Express Indonesia, one of its associates, and included it in the scope of consolidation.

1.3 Summarized financial information of consolidated subsidiaries

The summarized financial information of consolidated subsidiaries (before elimination of intra-group transactions) are as follows (Korean won in millions):

	2020				
	Assets	Liabilities	Equity	Revenue	Profit (loss) for the year
LG International (America) Inc.	₩ 375,562	₩ 338,831	₩ 36,731	₩ 1,376,182	₩ 4,419
LHC Solar LLC	3,323	1,032	2,291	327	21
LG International (Japan) Ltd.	75,659	71,457	4,202	362,350	(245)
LG International (Hong Kong) Ltd.	111,187	102,758	8,429	308,791	2,924
LG International (Singapore) Pte. Ltd.	601,567	589,301	12,266	2,348,661	2,318
LG International (Deutschland) GmbH	14,250	4,626	9,624	11,651	936
LG International (China) Ltd.	7,901	784	7,117	5,970	61
Yantai VMI Hub LG International Co., Ltd.	4,834	821	4,013	3,077	798
Bowen Investment (Australia) Pty Ltd.	70,677	62,520	8,157	52,889	(20,149)
PT. Batubara Global Energy (BGE)	83,545	37,099	46,446	323,439	2,094
PT. Megaprima Persada (MPP)	14,434	14,434	-	412	849
PT. Mega Global Energy (MGE)	3,983	925	3,058	-	(2,844)
PT. Ganda Alam Makmur (GAM)	477,297	254,446	222,851	194,484	7,236
LG International (India) Ltd.	2,153	416	1,737	1,221	212
PT. Green Global Lestari (GGL)	151,428	24,451	126,977	-	3,915
PT. Parna Agromas (PAM)	80,555	42,812	37,743	93,789	3,954
PT. Grand Utama Mandiri (GUM)	50,220	20,530	29,690	18,314	(3,894)
PT. Tintin Boyok Sawit Makmur (TBSM)	41,910	18,742	23,168	39,791	(2,351)
PT. Tintin Boyok Sawit Makmur Dua (TBSMD)	9,923	2,131	7,792	3,332	396
PT. Green Global Utama (GGU)	79,625	73,323	6,302	268,385	1,830
PT. LG International Indonesia (LGII)	12,258	11,503	755	4,766	370
PT. Binsar Natorang Energi (BNE)	237,492	161,327	76,165	28,341	7,553
Steel Flower Electric & Machinery (Tianjin) Co., Ltd.	44,794	16,356	28,438	66,153	2,767

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1.3 Summarized financial information of consolidated subsidiaries (cont'd)

	2020				
	Assets	Liabilities	Equity	Revenue	Profit (loss) for the year
Philco Resources Ltd. (Rapu-Rapu)	3,347	3,138	209	-	(144)
Resource Investment (HongKong) Ltd. (Wantugou)	59,554	-	59,554	-	(6,551)
LG International Yakutsk Ltd.	6,050	12,327	(6,277)	1,057	(188)
Korea Carbon International Co., Ltd. (Shaanxi BBM)	7,909	7,909	-	-	5,535
Colmineral, S.A. de C.V.	3	-	3	-	-
Fertilizer Resources Investment Ltd.	131,109	-	131,109	-	10,643
Dangjin Tank Terminal Co., Ltd.	92,261	626	91,635	-	(2,325)
Haiphong Steel Flower Electrical & Machinery Company Limited	20,318	15,847	4,471	34,558	376
Pantos Logistics Co., Ltd.	1,056,113	509,276	546,837	2,728,360	72,019
Pantos Busan Newport Logistics Center Co., Ltd.	13,432	2,825	10,607	11,377	481
Helistar Air Co., Ltd.	11,742	8,826	2,916	63,831	1,401
Hanultari Co., Ltd.	323	192	131	632	5
Pantos Logistics (China) Co., Ltd.	132,998	105,858	27,140	402,377	8,537
Pantos Logistics (Shanghai) Co., Ltd.	90,202	69,899	20,303	213,870	3,675
Pantos Logistics (Ningbo) Co., Ltd.	1,650	53	1,597	591	193
Pantos Logistics (Shenzhen) Co., Ltd.	37,839	21,976	15,863	164,343	5,139
Pantos Logistics (H.K) Co., Ltd.	62,085	22,726	39,359	105,090	13,159
Pantos Logistics (Taiwan) Co., Ltd.	5,928	3,190	2,738	22,724	461
PT. Pantos Logistics Indonesia	37,712	31,800	5,912	76,450	(200)
PT. Pantos Logistics Jakarta	12,802	6,441	6,361	8,794	(265)
Pantos Logistics Singapore Pte. Ltd.	11,931	6,352	5,579	26,471	1,296
Pantos Logistics (Thailand) Co., Ltd.	36,334	24,236	12,098	96,147	670
Pantos Logistics Malaysia Sdn. Bhd.	8,889	6,847	2,042	24,428	512
Pantos Logistics (India) Pvt. Ltd.	14,274	10,656	3,618	37,310	(3,654)
Pantos Logistics (Cambodia) Co., Ltd.	2,020	1,821	199	6,393	546
Pantos Logistics Vietnam Co., Ltd.	35,509	22,821	12,688	142,063	4,784
Pantos Logistics Australia Pty Ltd.	4,000	2,221	1,779	10,688	160
Pantos Holdings (Thailand) Co., Ltd.	1,619	125	1,494	821	(5)
Pantos Logistics Myanmar Co., Ltd.	99	58	41	1,697	(257)
Pantos Logistics U.K. Ltd.	13,934	11,158	2,776	29,405	700
Pantos Logistics Benelux B.V	60,633	43,661	16,972	76,279	(261)
Pantos Logistics France	16,205	14,125	2,080	27,510	(362)
Pantos Logistics Poland	109,546	82,296	27,250	360,516	12,149
Pantos Logistics Germany GmbH	16,413	7,997	8,416	46,197	1,080
Pantos Logistics Spain S.L.	12,225	7,442	4,783	29,099	514
Pantos Logistics Ve Tic.Lgd.Sti	4,002	1,487	2,515	19,285	1,071
Pantos Logistics Sweden	3,276	4,127	(851)	6,589	(1,362)
Pantos Logistics Mexico	68,640	53,301	15,339	202,140	3,479
Pantos Do Brasil Logistica	9,481	5,251	4,230	70,852	2,901
Pantos Logistics Colombia SAS	2,830	993	1,837	6,620	362
Pantos Logistics Chile SpA	1,896	2,037	(141)	5,375	104
Pantos Logistics Panama S.A.	6,746	5,944	802	11,081	(47)
Pantos Logistics AR S.A.	1,315	536	779	3,080	406
Hi Logistics Brasil Servicos De Logistica LTDA	1,710	780	930	5,349	(693)
FNS CIS LLC	21,861	10,917	10,944	55,566	2,270
Pantos Logistics Kazakhstan	638	147	491	3,102	(107)
Pantos Logistics Ukraine Ltd	-	-	-	-	-
Pantos Customs Services LLC	473	59	414	701	(61)
Pantos Logistics L.L.C (Dubai)	5,894	3,693	2,201	17,293	20
Pantos Logistics L.L.C (Oman)	82	-	82	-	-
Pantos Logistics Co., LTD. Saudi Arabia	3,214	1,029	2,185	5,596	339
Pantos Logistics Nigeria Limited	127	42	85	-	(13)
Pantos Logistics Japan Inc.	16,247	8,398	7,849	57,858	556
Hi Logistics (China) Co., Ltd.	26,358	17,324	9,034	63,052	1,011
Hi Logistics RUS, LLC.	543	-	543	-	(252)

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1.3 Summarized financial information of consolidated subsidiaries (cont'd)

	2020				
	Assets	Liabilities	Equity	Revenue	Profit (loss) for the year
Pantos Logistics Solutions India Private Limited	10,556	7,997	2,559	66,336	(47)
Hi Logistics Egypt S.A.E	3,609	1,553	2,056	9,411	423
Pantos North America, INC.	16,584	14,559	2,025	82,926	(283)
Pantos Logistics Hungary KFT.	1,211	735	476	6,057	(433)
Onecube International Logistics Co., Ltd.	3,418	1,425	1,993	9,173	440
PT. Pantos Express Indonesia	1,113	950	163	2,105	254
	<u>₩ 4,893,409</u>	<u>₩ 3,058,634</u>	<u>₩ 1,834,775</u>	<u>₩ 10,970,950</u>	<u>₩ 153,331</u>
	2019				
	Assets	Liabilities	Equity	Revenue	Profit (loss) for the year
LG International (America) Inc.	₩ 314,388	₩ 279,809	₩ 34,579	₩ 1,265,305	₩ 6,081
LHC Solar LLC	3,673	1,256	2,417	296	(26)
LG International (Japan) Ltd.	125,621	120,402	5,219	474,155	802
LG International (Hong Kong) Ltd.	83,359	77,258	6,101	178,751	(332)
LG International (Singapore) Pte. Ltd.	309,230	298,984	10,246	2,015,920	1,486
LG International (Deutschland) GmbH	14,132	5,704	8,428	82,527	1,840
LG International (China) Ltd.	13,569	6,563	7,006	9,756	306
Yantai VMI Hub LG International Co., Ltd.	3,250	40	3,210	510	215
Guangzhou Steel Flower Electrical & Machinery Co., Ltd.	20,293	1,395	18,898	21,636	771
Bowen Investment (Australia) Pty Ltd.	90,552	62,579	27,973	71,840	7,438
PT. Batubara Global Energy (BGE)	81,208	34,532	46,676	319,162	4,333
PT. Megaprima Persada (MPP)	29,673	29,673	-	68,563	(12,822)
PT. Mega Global Energy (MGE)	6,869	679	6,190	-	(992)
PT. Ganda Alam Makmur (GAM)	484,176	254,298	229,878	183,600	(94,829)
LG International (India) Ltd.	1,756	75	1,681	1,343	193
PT. Green Global Lestari (GGL)	143,479	21,541	121,938	-	315
PT. Parna Agromas (PAM)	89,880	53,278	36,602	59,464	(2,659)
PT. Grand Utama Mandiri (GUM)	51,356	15,487	35,869	11,345	(4,413)
PT. Tintin Boyok Sawit Makmur (TBSM)	40,309	13,552	26,757	26,071	(3,379)
PT. Tintin Boyok Sawit Makmur Dua (TBSMD)	10,910	2,937	7,973	2,368	(575)
PT. Indonesia Renewable Resources (IRR)	10,509	10,039	470	702	(1,221)
PT. Binsar Natorang Energi (BNE)	249,923	169,444	80,479	40,377	11,447
Steel Flower Electric & Machinery (Tianjin) Co., Ltd.	38,448	12,902	25,546	86,418	4,269
Philco Resources Ltd. (Rapu-Rapu)	6,749	6,394	355	-	(21)
Resource Investment (HongKong) Ltd. (Wantugou)	67,610	9	67,601	-	(9,312)
LG International Yakutsk Ltd.	7,283	12,960	(5,677)	1,262	(406)
Korea Carbon International Co., Ltd. (Shaanxi BBM)	8,428	13,859	(5,431)	-	-
Colmineral, S.A. de C.V.	4	-	4	-	-
Fertilizer Resources Investment Ltd.	120,466	1	120,465	-	13,032
Dangjin Tank Terminal Co., Ltd.	94,071	110	93,961	-	(1,134)
Haiphong Steel Flower Electrical & Machinery Company Limited	19,951	15,575	4,376	26,749	(415)
Highland Cement International Co., Ltd.	10,203	20,460	(10,257)	14,285	(80,972)
Pantos Logistics Co., Ltd.	954,846	455,422	499,424	2,480,794	38,563
Pantos Busan Newport Logistics Center Co., Ltd.	11,394	1,205	10,189	9,118	737
Helistar Air Co., Ltd.	5,390	3,844	1,546	39,472	(205)
Hanultari Co., Ltd.	214	71	143	449	38
Pantos Logistics (China) Co., Ltd.	87,970	62,505	25,465	281,155	5,226
FNS (Beijing) Logistics Co., Ltd.	877	795	82	15,154	22
Pantos Logistics (Shanghai) Co., Ltd.	59,835	43,245	16,590	172,668	2,681
Pantos Logistics (Ningbo) Co., Ltd.	1,539	141	1,398	861	358
Pantos Logistics (Shenzhen) Co., Ltd.	43,665	24,493	19,172	213,902	6,377

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1.3 Summarized financial information of consolidated subsidiaries (cont'd)

	2019				
	Assets	Liabilities	Equity	Revenue	Profit (loss) for the year
Pantos Logistics (H.K) Co., Ltd.	41,214	12,381	28,833	63,048	7,914
Pantos Logistics (Taiwan) Co., Ltd.	5,383	3,101	2,282	18,827	457
PT. Pantos Logistics Indonesia	23,509	17,028	6,481	53,678	1,777
PT. Pantos Logistics Jakarta	11,516	4,439	7,077	6,932	166
Pantos Logistics Singapore Pte. Ltd.	11,437	6,913	4,524	26,692	(29)
Pantos Logistics (Thailand) Co., Ltd.	34,471	22,287	12,184	83,581	3,499
Pantos Logistics Malaysia Sdn. Bhd.	6,886	5,263	1,623	15,687	77
Pantos Logistics (India) Pvt. Ltd.	12,947	5,271	7,676	35,322	(646)
Pantos Logistics (Cambodia) Co., Ltd.	1,721	2,054	(333)	6,200	228
Pantos Logistics Vietnam Co., Ltd.	24,710	15,950	8,760	108,313	3,347
Pantos Logistics Australia Pty Ltd.	3,878	2,314	1,564	9,317	(41)
Pantos Holdings (Thailand) Co., Ltd.	1,710	115	1,595	613	67
Pantos Logistics Myanmar Co., Ltd.	882	1,275	(393)	2,507	(167)
Pantos Logistics U.K. Ltd.	14,011	11,870	2,141	23,856	441
Pantos Logistics Benelux B.V	61,948	45,245	16,703	76,246	(1,481)
Pantos Logistics France	16,132	13,766	2,366	25,399	410
Pantos Logistics Poland	99,720	83,487	16,233	283,696	7,429
Pantos Logistics Germany GmbH	14,800	7,681	7,119	48,591	1,609
Pantos Logistics Spain S.L.	12,057	7,915	4,142	25,008	636
Pantos Logistics Ve Tic.Lgd.Sti	3,891	1,795	2,096	18,608	(239)
Pantos Logistics Sweden	6,965	6,446	519	8,454	(811)
Pantos Logistics Mexico	37,423	24,142	13,281	178,140	440
Pantos Do Brasil Logistica	7,532	5,330	2,202	41,919	685
Pantos Logistics Colombia SAS	2,897	1,284	1,613	7,376	194
Pantos Logistics Chile SpA	1,409	1,658	(249)	8,209	(479)
Pantos Logistics Panama S.A.	4,244	3,344	900	13,274	(133)
Pantos Logistics AR S.A.	1,470	769	701	3,208	573
Hi Logistics Brasil Servicos		1,612			
De Logistica LTDA	3,754		2,142	6,358	(1,030)
FNS CIS LLC	22,919	11,526	11,393	50,321	382
Pantos Logistics Kazakhstan	1,806	737	1,069	6,100	21
Pantos Logistics Ukraine Ltd	-	-	-	-	-
Pantos Customs Services LLC	674	76	598	884	(180)
Pantos Logistics L.L.C (Dubai)	8,033	5,747	2,286	18,937	(832)
Pantos Logistics L.L.C (Oman)	87	-	87	-	(1)
Pantos Logistics Co., LTD. Saudi Arabia	2,932	939	1,993	5,028	(354)
Pantos Logistics Nigeria Limited	260	133	127	561	(324)
Pantos Logistics Japan Inc.	17,239	9,302	7,937	70,988	562
Hi Logistics (China) Co., Ltd.	21,238	11,794	9,444	66,456	898
Hi Logistics RUS, LLC.	1,018	38	980	-	7
Pantos Logistics Solutions					
India Private Limited	9,821	6,979	2,842	83,819	349
Hi Logistics Egypt S.A.E	2,836	1,678	1,158	7,543	102
Pantos North America, INC.	11,335	8,903	2,432	70,206	(109)
Hi Logistics Malaysia SDN. BHD.	-	-	-	-	(8)
Pantos Logistics Hungary KFT.	1,185	235	950	237	(334)
Onecube International Logistics Co., Ltd.	2,394	843	1,551	1,178	(108)
	<u>₩ 4,289,352</u>	<u>₩ 2,507,181</u>	<u>₩ 1,782,171</u>	<u>₩ 9,757,295</u>	<u>₩ (82,219)</u>

1.4 Summarized financial information of subsidiaries attributable to non-controlling interests

The summarized financial information of subsidiaries attributable to non-controlling interests which are material to the Group are as follows (Korean won in millions):

	2020		
	Profit attributable to non-controlling interests	Non-controlling interests	Dividends distributed to non-controlling interests
PT. Megaprima Persada (MPP)	₩ 212	₩ 45	₩ -
PT. Ganda Alam Makmur (GAM)	2,666	88,948	-
PT. Binsar Natorang Energi (BNE)	378	3,808	-
Pantos Logistics Co., Ltd. and its subsidiaries	57,877	319,322	11,515

	2019		
	Profit or loss attributable to non-controlling interests	Non-controlling interests	Dividends distributed to non-controlling interests
PT. Megaprima Persada (MPP)	₩ (3,443)	₩ -	₩ 1,977
PT. Ganda Alam Makmur (GAM)	(38,005)	91,986	-
PT. Binsar Natorang Energi (BNE)	573	4,024	-
Highland Cement International Co., Ltd.	(39,676)	(5,027)	-
Pantos Logistics Co., Ltd. and its subsidiaries	36,061	278,221	10,094

2. Significant accounting policies and basis of financial statements preparation

2.1 Basis of preparation

The Group prepares statutory consolidated financial statements in the Korean language in accordance with Korean International Financial Reporting Standards ("KIFRS") enacted by the *Act on External Audit of Stock Companies*. The accompanying consolidated financial statements have been translated into English from the Korean language financial statements. In the event of any differences in interpreting the consolidated financial statements or the independent auditors' report thereon, the Korean version, which is used for regulatory reporting purposes, shall prevail.

The consolidated financial statements have been prepared on a historical cost basis, except for debt and equity financial assets and derivative financial instruments that are valued at fair value. The carrying values of recognized assets and liabilities that are designated as hedged items in fair value hedges that would otherwise be carried at amortized cost are adjusted to record changes in the fair values attributable to the risks that are being hedged in effective hedge relationships. The consolidated financial statements are presented in Korean won and all values are rounded to the nearest won, except when otherwise indicated.

2.2 Basis of consolidation

The consolidated financial statements comprise the consolidated financial statements of the Group as of December 31, 2020. Control is achieved when the Group is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee. Specifically, the Group controls an investee if, and only if, the Group has:

- Power over the investee (i.e., existing rights that give it the current ability to direct the relevant activities of the investee)
- Exposure, or rights, to variable returns from its involvement with the investee
- The ability to use its power over the investee to affect its returns

Generally, there is a presumption that a majority of voting rights results in control. To support this presumption and when the Group has less than a majority of the voting or similar rights of an investee, the Group considers all relevant facts and circumstances in assessing whether it has power over an investee, including:

- The contractual arrangement(s) with the other vote holders of the investee
- Rights arising from other contractual arrangements
- The Group's voting rights and potential voting rights

The Group re-assesses whether or not it controls an investee if facts and circumstances indicate that there are changes to one or more of the three elements of control. Consolidation of a subsidiary begins when the Group obtains control over the subsidiary and ceases when the Group loses control of the subsidiary. Assets, liabilities, income and expenses of a subsidiary acquired or disposed of during the year are included in the statement of comprehensive income from the date the Group gains control until the date the Group ceases to control the subsidiary.

Profit or loss and each component of other comprehensive income (OCI) are attributed to the equity holders of the parent of the Group and to the non-controlling interests, even if this results in the non-controlling interests having a deficit balance. When necessary, adjustments are made to the financial statements of subsidiaries to bring their accounting policies into line with the Group's accounting policies. All intra-group assets and liabilities, equity, income, expenses and cash flows relating to transactions between members of the Group are eliminated in full on consolidation.

A change in the ownership interest of a subsidiary, without a loss of control, is accounted for as an equity transaction.

If the Group loses control over a subsidiary, it derecognizes the related assets (including goodwill), liabilities, non-controlling interest and other components of equity, while any resultant gain or loss is recognized in profit or loss. Any investment retained is recognized at fair value.

2.3 Summary of significant accounting policies

2.3.1 Business combinations and goodwill

Business combinations are accounted for using the acquisition method. The cost of an acquisition is measured as the aggregate of the consideration transferred, measured at acquisition date fair value and the amount of any non-controlling interest in the acquiree. For each business combination, the acquirer measures the non-controlling interest in the acquiree either at fair value or at the proportionate share of the acquiree's identifiable net assets. Acquisition costs incurred are expensed and included in selling and administrative expenses.

When the Group acquires a business, it assesses the financial assets and liabilities assumed for appropriate classification and designation in accordance with the contractual terms, economic circumstances and pertinent conditions as of the acquisition date. This includes the separation of embedded derivatives in host contracts by the acquiree.

Any contingent consideration to be transferred by the acquirer will be recognized at fair value at the acquisition date. Contingent consideration classified as equity is not remeasured and its subsequent settlement is accounted for within equity. Contingent consideration classified as an asset or liability that is a financial instrument and within the scope of KIFRS 1109 Financial Instruments, is measured at fair value with the changes in fair value recognized in the statement of profit or loss in accordance with KIFRS 1109. Other contingent consideration that is not within the scope of KIFRS 1109 is measured at fair value at each reporting date with changes in fair value recognized in profit or loss.

Goodwill is initially measured at cost, being the excess of the aggregate of the consideration transferred and the amount recognized for non-controlling interests, and any previous interest held over the net identifiable assets acquired and liabilities assumed. If the fair value of the net assets acquired is in excess of the aggregate consideration transferred, the Group re-assesses whether it has correctly identified all of the assets acquired and all of the liabilities assumed and reviews the procedures used to measure the amounts to be recognized at the acquisition date. If the re-assessment still results in an excess of the fair value of net assets acquired over the aggregate consideration transferred, then the gain is recognized in profit or loss.

After initial recognition, goodwill is measured at cost less any accumulated impairment losses. For the purpose of impairment testing, goodwill acquired in a business combination is, from the acquisition date, allocated to each of the Group's cash generating units that are expected to benefit from the business combination, irrespective of whether other assets or liabilities of the acquiree are assigned to those units.

Where goodwill forms part of a cash-generating unit and part of the operation within that unit is disposed of, the goodwill associated with the operation disposed of is included in the carrying amount of the operation when determining the gain or loss on disposal of the operation. Goodwill disposed of in this circumstance is measured based on the relative values of the operation disposed of and the portion of the cash-generating unit retained.

2.3.2 Current versus non-current classification

The Group presents assets and liabilities in the statement of financial position based on current/non-current classification.

An asset is current when it is:

- Expected to be realized or intended to be sold or consumed in the normal operating cycle
- Held primarily for the purpose of trading
- Expected to be realized within twelve months after the reporting period, or
- Cash or cash equivalent unless restricted from being exchanged or used to settle a liability for at least twelve months after the reporting period

All other assets are classified as non-current.

A liability is current when:

- It is expected to be settled in the normal operating cycle
- It is held primarily for the purpose of trading
- It is due to be settled within twelve months after the reporting period, or
- There is no unconditional right to defer the settlement of the liability for at least twelve months after the reporting period

The Group classifies all other liabilities as non-current.

Deferred tax assets and liabilities are classified as non-current assets and liabilities.

2.3.3 Cash and cash equivalents

Cash and cash equivalents in the statement of financial position comprise cash at banks and on hand and cash equivalents with an original maturity of three months or less.

2.3.4 Inventories

Inventories are valued at the lower of cost and net realizable value, with cost being determined using the specific identification method and moving average method. Net realizable value is the estimated selling price in the ordinary course of business, less estimated costs of completion and the estimated costs necessary to make the sale.

2.3.5 Financial instruments – initial recognition and subsequent measurement

A financial instrument is any contract that gives rise to a financial asset of one entity and a financial liability or equity instrument of another entity.

2.3.5.1 Financial assets

2.3.5.1.1 Initial recognition and measurement

The classification of financial assets at initial recognition depends on the financial asset's contractual cash flow characteristics and the Group's business model for managing them. With the exception of trade receivables that do not contain a significant financing component or for which the Group has applied the practical expedient, the Group initially measures a financial asset at its fair value plus, in the case of a financial asset not at fair value through profit or loss, transaction costs. Trade receivables that do not contain a significant financing component or for which the Group has applied the practical expedient are measured at the transaction price determined under KIFRS 1115.

In order for a financial asset to be classified and measured at amortised cost or fair value through OCI, it needs to give rise to cash flows that are 'solely payments of principal and interest (SPPI)' on the principal amount outstanding. This assessment is referred to as the SPPI test and is performed at an instrument level.

2.3.5.1.1 Initial recognition and measurement (cont'd)

The Group's business model for managing financial assets refers to how it manages its financial assets in order to generate cash flows. The business model determines whether cash flows will result from collecting contractual cash flows, selling the financial assets, or both.

Purchases or sales of financial assets that require delivery of assets within a time frame established by regulation or convention in the market place (regular way trades) are recognised on the trade date, i.e., the date that the Group commits to purchase or sell the asset.

2.3.5.1.2 Subsequent measurement

For purposes of subsequent measurement, financial assets are classified in four categories:

- Financial assets at amortised cost (debt instruments)
- Financial assets at fair value through OCI with recycling of cumulative gains and losses (debt instruments)
- Financial assets designated at fair value through OCI with no recycling of cumulative gains and losses upon
- Financial assets at fair value through profit or loss

Financial assets at amortised cost (debt instruments)

The Group measures financial assets at amortised cost if both of the following conditions are met:

- The financial asset is held within a business model with the objective to hold financial assets in order to collect contractual cash flows
- The contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding

Financial assets at amortised cost are subsequently measured using the effective interest (EIR) method and are subject to impairment. Gains and losses are recognised in profit or loss when the asset is derecognised modified or impaired.

Financial assets at fair value through OCI (debt instruments)

The Group measures debt instruments at fair value through OCI if both of the following conditions are met:

- The financial asset is held within a business model with the objective of both holding to collect contractual cash flows and selling
- The contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding

For debt instruments at fair value through OCI, interest income, foreign exchange revaluation and impairment losses or reversals are recognized in the statement of profit or loss and computed in the same manner as for financial assets measured at amortised cost. The remaining fair value changes are recognized in OCI. Upon derecognition, the cumulative fair value change recognized in OCI is recycled to profit or loss.

The Group's debt instruments at fair value through OCI includes investments in quoted debt instruments included under other non-current financial assets.

Financial assets designated at fair value through OCI (equity instruments)

Upon initial recognition, the Group can elect to classify irrevocably its equity investments as equity instruments designated at fair value through OCI when they meet the definition of equity under KIFRS 1032 *Financial Instruments: Presentation* and are not held for trading.

Gains and losses on these financial assets are never recycled to profit or loss. Dividends are recognised as other income in the statement of profit or loss when the right of payment has been established, except when the Group benefits from such proceeds as a recovery of part of the cost of the financial asset, in which case, such gains are recorded in OCI. Equity instruments designated at fair value through OCI are not subject to impairment assessment.

2.3.5.1.2 Subsequent measurement (cont'd)

The Group elected to classify irrevocably its non-listed equity investments under this category.

Financial assets at fair value through profit or loss

Financial assets at fair value through profit or loss include financial assets held for trading and financial assets designated upon initial recognition at fair value through profit or loss. Financial assets are classified as held for trading if they are acquired for the purpose of selling or repurchasing in the near term. Derivatives, including separated embedded derivatives, are also classified as held for trading unless they are designated as effective hedging instruments. Financial assets with cash flows that are not solely payments of principal and interest are classified and measured at fair value through profit or loss, irrespective of the business model.

Notwithstanding the criteria for debt instruments to be classified at amortised cost or at fair value through OCI, as described above, debt instruments may be designated at fair value through profit or loss on initial recognition if doing so eliminates, or significantly reduces, an accounting mismatch.

Financial assets at fair value through profit or loss are carried in the statement of financial position at fair value with net changes in fair value recognized in the statement of profit or loss.

This category includes derivatives and equity instruments that do not have an irrevocable choice of dealing with changes in fair value in OCI. Dividends on listed equity instruments are recognised in profit or loss at the time the rights are established.

A derivative embedded in a hybrid contract, with a financial liability or non-financial host, is separated from the host and accounted for as a separate derivative if: the economic characteristics and risks are not closely related to the host; a separate instrument with the same terms as the embedded derivative would meet the definition of a derivative; and the hybrid contract is not measured at fair value through profit or loss. Embedded derivatives are measured at fair value with changes in fair value recognised in profit or loss. Reassessment only occurs if there is either a change in the terms of the contract that significantly modifies the cash flows that would otherwise be required or a reclassification of a financial asset out of the fair value through profit or loss category.

A derivative embedded within a hybrid contract containing a financial asset host is not accounted for separately. The financial asset host together with the embedded derivative is required to be classified in its entirety as a financial asset at fair value through profit or loss.

2.3.5.1.3 Derecognition of financial assets

A financial asset (or, where applicable, a part of a financial asset or part of a group of similar financial assets) is derecognized when:

- The rights to receive cash flows from the asset have expired, or
- The Group has transferred its rights to receive cash flows from the asset or has assumed an obligation to pay the received cash flows in full without material delay to a third party under a 'pass-through' arrangement; and either (a) the Group has transferred substantially all the risks and rewards of the asset, or (b) the Group has neither transferred nor retained substantially all the risks and rewards of the asset, but has transferred control of the asset.

When the Group has transferred its rights to receive cash flows from an asset or has entered into a pass-through arrangement, it evaluates if, and to what extent, it has retained the risks and rewards of ownership. When it has neither transferred nor retained substantially all of the risks and rewards of the asset, nor transferred control of the asset, the asset is recognized to the extent of the Group's continuing involvement in the asset. In that case, the Group also recognizes an associated liability. The transferred asset and the associated liability are measured on a basis that reflects the rights and obligations that the Group has retained.

2.3.5.2 Impairment of financial assets

Further disclosures relating to impairment of financial assets are also provided in Note 11.

The Group recognises an allowance for expected credit losses (ECLs) for all debt instruments not held at fair value through profit or loss. ECLs are based on the difference between the contractual cash flows due in accordance with the contract and all the cash flows that the Group expects to receive, discounted at an approximation of the original effective interest rate. The expected cash flows will include cash flows from the sale of collateral held or other credit enhancements that are integral to the contractual terms.

ECLs are recognised in two stages. For credit exposures for which there has not been a significant increase in credit risk since initial recognition, ECLs are provided for credit losses that result from default events that are possible within the next 12-months (a 12-month ECL). For those credit exposures for which there has been a significant increase in credit risk since initial recognition, a loss allowance is required for credit losses expected over the remaining life of the exposure, irrespective of the timing of the default (a lifetime ECL).

For trade receivables and contract assets, the Group applies a simplified approach in calculating ECLs. Therefore, the Group does not track changes in credit risk, but instead recognises a loss allowance based on lifetime ECLs at each reporting date. The Group has established a provision matrix that is based on its historical credit loss experience, adjusted for forward-looking factors specific to the debtors and the economic environment.

For debt instruments at fair value through OCI, the Group applies the low credit risk simplification. At every reporting date, the Group evaluates whether the debt instrument is considered to have low credit risk using all reasonable and supportable information that is available without undue cost or effort. In making that evaluation, the Group reassesses the internal credit rating of the debt instrument. In addition, the Group considers that there has been a significant increase in credit risk when contractual payments are more than 30 days past due.

The Group's debt instruments at fair value through OCI comprise solely of quoted bonds that are graded in the top investment category and, therefore, are considered to be low credit risk investments. It is the Group's policy to measure ECLs on such instruments on a 12-month basis. However, when there has been a significant increase in credit risk since origination, the allowance will be based on the lifetime ECL. The Group uses the ratings from the external independent credit rating agency both to determine whether the debt instrument has significantly increased in credit risk and to estimate ECLs.

The Group considers a financial asset in default when contractual payments are 1 year past due. However, in certain cases, the Group may also consider a financial asset to be in default when internal or external information indicates that the Group is unlikely to receive the outstanding contractual amounts in full before taking into account any credit enhancements held by the Group. A financial asset is written off when there is no reasonable expectation of recovering the contractual cash flows.

2.3.5.3 Financial liabilities

2.3.5.3.1 Initial recognition and measurement

Financial liabilities are classified, at initial recognition, as financial liabilities at fair value through profit or loss, loans and borrowings, payables, or as derivatives designated as hedging instruments in an effective hedge, as appropriate.

All financial liabilities are recognized initially at fair value and in the case of loans and borrowings, less directly attributable transaction costs.

The Group's financial liabilities include trade and other payables, bonds and borrowings and derivative financial liabilities.

2.3.5.3.2 Subsequent measurement

The subsequent measurement of financial liabilities depends on their classification as described below:

Financial liabilities at fair value through profit or loss

Financial liabilities at fair value through profit or loss includes financial liabilities held for trading and financial liabilities designated upon initial recognition as of fair value through profit or loss.

Financial liabilities are classified as held for trading if they are acquired for the purpose of selling in the near term. This category includes derivative financial instruments entered into by the Group that are not designated as hedging instruments in hedge relationships as defined by KIFRS 1109. Separated embedded derivatives are also classified as held for trading unless they are designated as effective hedging instruments.

Gains or losses on liabilities held for trading are recognized in the statement of profit or loss.

Borrowings

Interest-bearing borrowings are subsequently measured at amortized cost using the EIR method. Gains and losses are recognized in profit or loss when the liabilities are derecognized as well as through the EIR amortization process. Amortized cost is calculated by taking into account any discount or premium on acquisition and fees or costs that are an integral part of the EIR.

2.3.5.3.3 Derecognition of financial liabilities

A financial liability is derecognized when the obligation under the liability is discharged or cancelled or expires. When an existing financial liability is replaced by another from the same lender on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification is treated as a derecognition of the original liability and the recognition of a new liability, and the difference in the respective carrying amounts is recognized in the statement of profit or loss.

2.3.5.4 Offsetting of financial instruments

Financial assets and financial liabilities are offset and the net amount is reported in the statement of financial position if, and only if, there is a currently enforceable legal right to offset the recognized amounts and there is an intention to settle on a net basis, or to realize the assets and settle the liabilities simultaneously.

2.3.6 Derivative financial instruments and hedge accounting

2.3.6.1 Initial recognition and subsequent measurement

The Group uses derivative financial instruments such as forward currency contracts, swap currency and interest rate swaps to hedge its foreign currency risks and interest rate risks. Such derivative financial instruments are initially recognized at fair value on the date on which a derivative contract is entered into and are subsequently remeasured at fair value. Derivatives are carried as financial assets when the fair value is positive and as financial liabilities when the fair value is negative.

For the purpose of hedge accounting, hedges are classified as:

- Fair value hedges when hedging the exposure to changes in the fair value of a recognized asset or liability or an unrecognized firm commitment
- Cash flow hedges when hedging exposure to variability in cash flows that is either attributable to a particular risk associated with a recognized asset or liability or a highly probable forecast transaction or the foreign currency risk in an unrecognized firm commitment
- Hedges of a net investment in a foreign operation

At the inception of a hedge relationship, the Group formally designates and documents the hedge relationship to which the Group wishes to apply hedge accounting and the risk management objective and strategy for undertaking the hedge.

2.3.6.1 Initial recognition and subsequent measurement (cont'd)

The documentation includes identification of the hedging instrument, the hedged item, the nature of the risk being hedged and how the Group will assess whether the hedging relationship meets the hedge effectiveness requirements (including the analysis of sources of hedge ineffectiveness and how the hedge ratio is determined). A hedging relationship qualifies for hedge accounting if it meets all of the following effectiveness requirements:

- There is 'an economic relationship' between the hedged item and the hedging instrument.
- The effect of credit risk does not 'dominate the value changes' that result from that economic relationship.
- The hedge ratio of the hedging relationship is the same as that resulting from the quantity of the hedged item that the Group actually hedges and the quantity of the hedging instrument that the Group actually uses to hedge that quantity of hedged item.

Hedges which meet the strict criteria for hedge accounting are accounted for as follows:

Fair value hedges

The change in the fair value of a hedging derivative is recognized in the statement of profit or loss in finance costs. The change in the fair value of the hedged item attributable to the risk hedged is recorded as part of the carrying value of the hedged item and is also recognized in the statement of profit or loss as finance costs.

For fair value hedges relating to items carried at amortized cost, any adjustment to carrying value is amortized through the statement of profit or loss over the remaining term of the hedge using the EIR method. The EIR amortization may begin as soon as an adjustment exists and no later than when the hedged item ceases to be adjusted for changes in its fair value attributable to the risk being hedged.

If the hedge item is derecognized, the unamortized fair value is recognized immediately in the statement of profit or loss.

When an unrecognized firm commitment is designated as a hedged item, the subsequent cumulative change in the fair value of the firm commitment attributable to the hedged risk is recognized as an asset or liability with a corresponding gain (loss) recognized in the statement of profit or loss.

Cash flow hedges

The effective portion of the gain or loss on the hedging instrument is recognized in other comprehensive income or loss in the cash flow hedge reserve, while any ineffective portion is recognized immediately in the statement of profit or loss. The cash flow hedge reserve is adjusted to the lower of the cumulative gain or loss on the hedging instrument and the cumulative change in fair value of the hedged item.

The Group uses forward currency contracts as hedges of its exposure to foreign currency risk in forecast transactions and firm commitments, as well as forward commodity contracts for its exposure to volatility in the commodity prices. The ineffective portion relating to foreign currency contracts is recognised as other expense and the ineffective portion relating to commodity contracts is recognised in other operating income or expenses.

The Group designates only the spot element of forward contracts as a hedging instrument. The forward element is recognised in OCI and accumulated in a separate component of equity under cost of hedging reserve.

The amounts accumulated in OCI are accounted for, depending on the nature of the underlying hedged transaction. If the hedged transaction subsequently results in the recognition of a non-financial item, the amount accumulated in equity is removed from the separate component of equity and included in the initial cost or other carrying amount of the hedged asset or liability. This is not a reclassification adjustment and will not be recognised in OCI for the period. This also applies where the hedged forecast transaction of a non-financial asset or non-financial liability subsequently becomes a firm commitment for which fair value hedge accounting is applied.

For any other cash flow hedges, the amount accumulated in OCI is reclassified to profit or loss as a reclassification adjustment in the same period or periods during which the hedged cash flows affect profit or loss.

2.3.6.1 Initial recognition and subsequent measurement (cont'd)

If cash flow hedge accounting is discontinued, the amount that has been accumulated in OCI must remain in accumulated OCI if the hedged future cash flows are still expected to occur. Otherwise, the amount will be immediately reclassified to profit or loss as a reclassification adjustment. After discontinuation, once the hedged cash flow occurs, any amount remaining in accumulated OCI must be accounted for depending on the nature of the underlying transaction as described above.

Hedges of a net investment in a foreign operation

Hedges of a net investment in a foreign operation, including a hedge of a monetary item that is accounted for as part of the net investment, are accounted for in a way similar to cash flow hedges. Gains or losses on the hedging instrument relating to the effective portion of the hedge are recognized as OCI while any gains or losses relating to the ineffective portion are recognized in the statement of profit or loss. On disposal of the foreign operation, the cumulative value of any such gains or losses recorded in equity is transferred to the statement of profit or loss.

2.3.7 Investment in associates and joint venture

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

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

The Group's investments in its associate and joint venture are accounted for using the equity method. Under the equity method, the investment in an associate or a joint venture is initially recognized at cost. The carrying amount of the investment is adjusted to recognize changes in the Group's share of net assets of the associate or joint venture since the acquisition date. Goodwill relating to the associate or joint venture is included in the carrying amount of the investment and is not tested for impairment separately.

The statement of profit or loss and other comprehensive income reflects the Group's share of the results of operations of the associate or joint venture. Any change in OCI of those investees is presented as part of the Group's OCI. In addition, when there has been a change recognized directly in the equity of the associate or joint venture, the Group recognizes its share of any changes, when applicable, in the statement of changes in equity. Unrealized gains and losses resulting from transactions between the Group and the associate or joint venture are eliminated to the extent of the interest in the associate or joint venture.

The aggregate of the Group's share of profit or loss of an associate and a joint venture is shown on the face of the statement of profit or loss and other comprehensive income outside operating profit and represents profit or loss after tax and non-controlling interests in the subsidiaries of the associate or joint venture.

The financial statements of the associate or joint venture are prepared for the same reporting period as the Group. When necessary, adjustments are made to bring the accounting policies in line with those of the Group.

After application of the equity method, the Group determines whether it is necessary to recognize an impairment loss on its investment in its associate or joint venture. At each reporting date, the Group determines whether there is objective evidence that the investment in the associate or joint venture is impaired. If there is such evidence, the Group calculates the amount of impairment as the difference between the recoverable amount of the associate or joint venture and its carrying value, and then recognizes the loss as 'Share of profit of an associate and a joint venture' in the statement of profit or loss and other comprehensive income.

Upon loss of significant influence over the associate or joint control over the joint venture, the Group measures and recognizes any retained investment at its fair value. Any difference between the carrying amount of the associate or joint venture upon loss of significant influence or joint control and the fair value of the retained investment and proceeds from disposal is recognized in profit or loss.

2.3.8 Non-current assets held for sale (or distribution to equity holders) and discontinued operations

The Group classifies non-current assets and disposal groups as held for sale or for distribution to equity holders of the parent if their carrying amounts will be recovered principally through a sale rather than through continuing use. Such non-current assets and disposal groups classified as held for sale are measured at the lower of their carrying amount and fair value less costs to sell. Costs to sell are the incremental costs directly attributable to an asset (disposal group), excluding the finance costs and income tax expense.

The criteria for held for sale classification is regarded as met only when the disposal is highly probable and the asset or disposal group is available for immediate disposal in its present condition. Actions required to complete the disposal should indicate that it is unlikely that significant changes to the disposal will be made or that the disposal will be withdrawn. Management must be committed to the disposal expected within one year from the date of the classification.

Property, plant and equipment and intangible assets are not depreciated or amortized once classified as held for sale.

Assets and liabilities classified as held for sale or for distribution are presented separately as current items in the statement of financial position.

A disposal group qualifies as discontinued operation if it is:

- A component of the group that is a CGU or a group of CGUs
- Classified as held for sale or distribution or already disposed in such a way, or
- A major line of business or major geographical area

Discontinued operations are excluded from the results of continuing operations and are presented as a single amount as profit or loss after tax from discontinued operations in the statement of profit or loss and other comprehensive income.

2.3.9 Property, plant and equipment

Construction in progress is carried at acquisition cost less accumulated impairment loss, and property, plant and equipment is stated at cost, net of accumulated depreciation and accumulated impairment losses, if any. Such cost includes the cost of replacing part of the plant and equipment and borrowing costs for long-term construction projects if the recognition criteria are met. When significant parts of property, plant and equipment are required to be replaced in intervals, the Group recognizes such parts as individual assets with specific useful lives and depreciates them accordingly. Likewise, when a major inspection is performed, its cost is recognized in the carrying amount of the plant and equipment as a replacement if the recognition criteria are satisfied. All other repair and maintenance costs are recognized in the statement of profit or loss as incurred. The present value of the expected cost for the decommissioning of the asset after its use is included in the cost of the respective asset if the recognition criteria for a provision are met.

Depreciation of property, plant and equipment is provided using the straight-line method over the estimated useful lives of the assets as follows:

	Useful lives	Depreciation method
Buildings	8 ~ 40	Straight-line method
Structures	8 ~ 50	"
Machinery	5 ~ 8	"
Vehicles	5 ~ 12	"
Bearer plants	20	"
Others	5	"

An item of property, plant and equipment and any significant part initially recognized is derecognized upon disposal or when no future economic benefits are expected from its use or disposal. Any gain or loss arising on derecognition of the asset is included in the statement of profit or loss when the asset is derecognized.

The assets' residual values, useful lives and methods of depreciation are reviewed at each financial year end, and adjusted prospectively, if appropriate.

2.3.10 Leases

At inception of a contract, the Group assesses whether the contract is or contains, a 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.

Group as a lessee

The Group applies a single recognition and measurement approach for all leases, except for short-term leases and leases of low-value assets. The Group recognizes lease liabilities to make lease payments and right-of-use assets representing the right to use the underlying assets.

2.3.10.1 Right-of-use assets

The Group recognises right-of-use assets at the commencement date of the lease (i.e., the date the underlying asset is available for use). Right-of-use assets are measured at cost, less any accumulated depreciation and impairment losses, and adjusted for any remeasurement of lease liabilities. The cost of right-of-use assets includes the amount of lease liabilities recognised, initial direct costs incurred, and lease payments made at or before the commencement date less any lease incentives received. Right-of-use assets are depreciated on a straight-line basis over the shorter of the lease term and the estimated useful lives of the assets as follows.

	Useful lives (years)
Land	30 ~ 48
Buildings	1 ~ 30
Vehicles	1 ~ 5
Others	2 ~ 4

If ownership of the leased asset transfers to the Group at the end of the lease term or the cost reflects the exercise of a purchase option, depreciation is calculated using the estimated useful life of the asset.

The right-of-use assets are also subject to impairment. Refer to the accounting policies in section 2.3.21 Impairment of non-financial assets.

2.3.10.2 Lease liabilities

At the commencement date of the lease, the Group recognises lease liabilities measured at the present value of lease payments to be made over the lease term. The lease payments include fixed payments (including in-substance fixed payments) less any lease incentives receivable, variable lease payments that depend on an index or a rate, and amounts expected to be paid under residual value guarantees. The lease payments also include the exercise price of a purchase option reasonably certain to be exercised by the Group and payments of penalties for terminating the lease, if the lease term reflects the Group exercising the option to terminate.

Variable lease payments that do not depend on an index or a rate are recognised as expenses (unless they are incurred to produce inventories) in the period in which the event or condition that triggers the payment occurs.

In calculating the present value of lease payments, the Group uses its incremental borrowing rate at the lease commencement date because the interest rate implicit in the lease is not readily determinable. After the commencement date, the amount of lease liabilities is increased to reflect the accretion of interest and reduced for the lease payments made. In addition, the carrying amount of lease liabilities is remeasured if there is a modification, a change in the lease term, a change in the lease payments (e.g., changes to future payments resulting from a change in an index or rate used to determine such lease payments) or a change in the assessment of an option to purchase the underlying asset.

The Group's lease liabilities are included in Interest-bearing loans and borrowings (Refer to Note 25).

2.3.10.3 Short-term leases and Leases of low-value assets

The Group applies the short-term lease recognition exemption to its short-term leases of buildings and vehicle (i.e., those leases that have a lease term of 12 months or less from the commencement date and do not contain a purchase option). It also applies the lease of low-value assets recognition exemption to leases of office equipment that are considered to be low value. Lease payments on short-term leases and leases of low-value assets are recognised as expense on a straight-line basis over the lease term.

2.3.11 Borrowing costs

Borrowing costs directly attributable to the acquisition, construction or production of an asset that necessarily takes a substantial period of time to get ready for its intended use or sale are capitalized as part of the cost of the respective assets. All other borrowing costs are expensed in the period they occur. Borrowing costs consist of interest and other costs that an entity incurs in connection with the borrowing of funds.

2.3.12 Investment properties

Investment properties are measured initially at cost, including transaction costs and replacement costs which satisfied asset recognition requirements when they incurred. However, costs incurred during common maintenance activities are recognized as expenses when they occurred. Subsequent to initial recognition, investment properties are stated at cost, net of accumulated depreciation and accumulated impairment losses.

Investment properties are derecognized when either they have been disposed of or when the investment property is permanently withdrawn from use and no future economic benefit is expected from its disposal. The difference between the net disposal proceeds and the carrying amount of the asset is recognized in the statement of profit or loss in the period of derecognition.

Transfers are made to or from investment property only when there is a change in use. For a transfer from investment property to owner occupied property, the deemed cost for subsequent accounting is the carrying cost at the date of change in use. If owner occupied property becomes an investment property, the Group accounts for such property in accordance with the policy stated under property, plant and equipment up to the date of change in use.

2.3.13 Intangible assets

Intangible assets acquired separately are measured on initial recognition at cost. The cost of intangible assets acquired in a business combination is its fair value as of the date of acquisition. Following initial recognition, intangible assets are carried at cost less any accumulated amortization and any accumulated impairment losses. Internally generated intangible assets, excluding capitalized development costs, are not capitalized and expenditure is reflected in the statement of profit or loss in the year in which the expenditure is incurred.

The useful lives of intangible assets are assessed as either finite or indefinite. Intangible assets with finite lives are amortized over the useful economic life and assessed for impairment whenever there is an indication that the intangible asset may be impaired. The amortization period and the amortization method for an intangible asset with a finite useful life is reviewed at least at each financial year end. Changes in the expected useful life or the expected pattern of consumption of future economic benefits embodied in the asset is accounted for by changing the amortization period or method, as appropriate, and are treated as changes in accounting estimates. The amortization expense on intangible assets with finite lives is recognized in the statement of profit or loss in the expense category consistent with the function of the intangible assets.

Intangible assets with indefinite useful lives are not amortized, but are tested for impairment annually, either individually or at the cash generating unit level. The assessment of indefinite life is reviewed annually to determine whether the indefinite life continues to be supportable. If not, the change in useful life from indefinite to finite is made on a prospective basis.

Gains or losses arising from derecognition of an intangible asset are measured as the difference between the net disposal proceeds and the carrying amount of the asset and are recognized in the statement of profit or loss when the asset is derecognized.

2.3.13 Intangible assets (cont'd)

A summary of the policies applied to the Group's intangible assets is as follows:

	Useful lives	Amortization method
Goodwill	-	Test for impairment annually
Industrial property rights	5~15 years	Straight-line method
Overseas resources development (*)	Production period	Unit of production method
Others	5 years or production period	Straight-line method or unit of production method

(*) Oil, natural gas and other natural resources exploration and development expenditures are classified as overseas resource investments. When proved reserves of oil are determined and development is sanctioned, they are depreciated on a unit of production basis. Conversely, if there is any evidence or event that implies impairment of the asset, such as suspending the exploration or development before proposing its technical feasibility and possibility of commercialization, the Group commences tests on the assets for impairment. When the book value of the asset is greater than the estimated recoverable amounts for the residual period, the Group recognizes the difference as a loss on impairment.

2.3.14 Biological assets

Biological assets (excluding bearer plants) are measured at initial recognition and at the end of each reporting period at its fair value less costs to sell. Gain or loss arising on initial recognition of a biological asset at fair value less costs to sell and from a change in fair value of a biological asset shall be included in profit or loss for the period in which it arises. Agricultural products harvested from the Group's biological assets are measured at its fair value less costs to sell at the point of harvest which becomes the cost at that date. If an active market exists for a biological asset (excluding bearer plants) or agricultural products in its present location and condition, the quoted price in that market is the appropriate basis for determining the fair value of that asset. If an entity has access to different active markets, the entity uses the most relevant one. If an active market doesn't exist, the most recent market price, market price of similar asset can be used to assess fair value.

2.3.15 Pensions benefits and other post-employment benefits

The Group operates a defined benefit pension plan and defined contribution pension plan. The defined benefit pension plan in Korea requires contributions to be made to a separately administered fund. The cost of providing benefits under the defined benefit plan is determined using the projected unit credit method. Re-measurements, comprising of actuarial gains and losses, the effect of the asset ceiling, excluding net interest and the return on plan assets (excluding net interest), are recognized immediately in the statement of financial position with a corresponding debit or credit to retained earnings through other comprehensive income in the period in which they occur. Re-measurements are not reclassified to profit or loss in subsequent periods.

Past service costs are recognized in profit or loss on the earlier of:

- The date of the plan amendment or curtailment, and
- The date that the Group recognizes restructuring-related costs

Net interest is calculated by applying the discount rate to the net defined benefit liability or asset. The Group recognizes the following changes in the net defined benefit obligation under selling and administrative expenses in the consolidated statement of profit or loss:

- Service costs comprising current service costs, past-service costs, gains and losses on curtailments and non-routine settlements
- Net interest expense or income

2.3.16 Provisions

Provisions are recognized when the Group has a present obligation (legal or constructive) as a result of a past event, it is probable that 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. Where the Group expects some or all of a provision to be reimbursed, the reimbursement is recognized as a separate asset but only when the reimbursement is virtually certain. The expense relating to any provision is presented in the statement of profit or loss, net of any reimbursement.

2.3.17 Onerous contracts

If the Group has a contract that is onerous, the present obligation under the contract is recognised and measured as a provision. However, before a separate provision for an onerous contract is established, the Group recognises any impairment loss that has occurred on assets dedicated to that contract. The unavoidable costs under a contract reflect the least net cost of exiting from the contract, which is the lower of the cost of fulfilling it and any compensation or penalties arising from failure to fulfil it.

2.3.18 Treasury shares

Own equity instruments which are reacquired (treasury shares) are recognized at cost and deducted from equity. No gain or loss is recognized in the statement of profit or loss on the purchase, sale, issue or cancellation of the Group's own equity instruments.

2.3.19 Revenue from contracts with customers

The Group is in the business of sales of goods in the resource and infrastructure sectors, transportation brokerage and storage industry. The Group provides the supply of goods, export-import transactions, transportation arrange and storage service through contracts with customers. Revenue from contracts with customers is recognised when control of the goods or services are transferred to the customer at an amount that reflects the consideration to which the Group expects to be entitled in exchange for those goods or services.

2.3.19.1 Sales of goods

Revenue from sales of goods is recognised at the point in time when control of the asset is transferred to the customer, generally on delivery of the goods. The normal credit term is 30 to 90 days upon delivery. The Group considers whether there are other promises in the contract that are separate performance obligations to which a portion of the transaction price needs to be allocated. The Group takes into consideration whether it is principal or agency relating to the performance obligations when determining the transaction price of sales of goods.

2.3.19.2 Principal versus agent consideration

When another party is involved in providing goods or services to its customer, the Group determines whether it is a principal or an agent in these transactions by evaluating the nature of its promise to the customer. The Group is a principal and records revenue on a gross basis if it controls the promised goods or services before transferring them to the customer. However, if the Group's role is only to arrange for another entity to provide the goods or services, then the Group is an agent and will need to record revenue at the net amount that it retains for its agency services.

2.3.19.3 Contract balance

Trade receivables

A receivable represents the Group's right to an amount of consideration that is unconditional. Refer to accounting policies of financial assets in the Note 2.3.5.1

Contract liabilities

A contract liability is the obligation to transfer goods or services to a customer for which the Group has received consideration (or an amount of consideration is due) from the customer. If a customer pays consideration before the Group transfers goods or services to the customer, a contract liability is recognised when the payment is made or the payment is due (whichever is earlier). Contract liabilities are recognised as revenue when the Group performs under the contract.

2.3.20 Foreign currency translation

The Group's consolidated financial statements are presented in Korean won, which is also the parent company's functional currency. Each entity in the Group determines its own functional currency and items included in the financial statements of each entity are measured using that functional currency.

2.3.20.1 Transactions and balances

Transactions in foreign currencies are initially recorded by the Group entities at their respective functional currency spot rates at the date the transaction first qualifies for recognition.

Monetary assets and liabilities denominated in foreign currencies are retranslated at the functional currency spot rate of exchange at the reporting date. All differences are taken to the statement of profit or loss with the exception of all monetary items that are designated as part of the hedge of the Group's net investment of a foreign operation. These are recognized in other comprehensive income until the net investment is disposed, at which time, the cumulative amount is reclassified to the statement of profit or loss. Tax charges and credits attributable to exchange differences on those monetary items are also recorded in other comprehensive income.

Non-monetary items that are measured in terms of historical cost in a foreign currency are translated using the exchange rates as of the dates of the initial transactions. Non-monetary items measured at fair value in a foreign currency are translated using the exchange rates at the dates when the fair value is determined.

2.3.20.2 Translation of foreign operations

On consolidation, the assets and liabilities of foreign operations are translated into Korean won at the rate of exchange prevailing at the reporting date and their income statement at exchange rates prevailing at the dates of the transactions, and these exchange differences are recognized in OCI. On disposal of a foreign operation, the component of other comprehensive income relating to that particular foreign operation is recognized in the statement of profit or loss.

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 are treated as assets and liabilities of the foreign operations and translated at the spot rate of exchange at the reporting date.

2.3.21 Impairment of non-financial assets

The Group assesses, at each reporting date, whether there is an indication that an asset may be impaired. If any indication exists, or when annual impairment testing for an asset is required, the Group estimates the asset's recoverable amount. An asset's recoverable amount is the higher of an asset's or CGU's fair value less costs of disposal and its value in use. The recoverable amount is determined for an individual asset, unless the asset does not generate cash inflows that are largely independent of those from other assets or groups of assets. When the carrying amount of an asset or CGU exceeds its recoverable amount, the asset is considered impaired and is written down to its recoverable amount.

In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. In determining fair value less costs of disposal, recent market transactions are taken into account. If no such transactions can be identified, an appropriate valuation model is used. These calculations are corroborated by valuation multiples, quoted share prices for publicly traded companies or other available fair value indicators.

The Group bases its impairment calculation on detailed budgets and forecast calculations, which are prepared separately for each of the Group's CGUs to which the individual assets are allocated. These budgets and forecast calculations generally cover a period of five years. A long-term growth rate is calculated and applied to project future cash flows after the fifth year.

Impairment losses of continuing operations, including impairment on inventories, are recognized in the statement of profit or loss and other comprehensive income in expense categories consistent with the function of the impaired asset, except for properties previously revalued with the revaluation taken to OCI. For such properties, the impairment is recognized in OCI up to the amount of any previous revaluation.

2.3.21 Impairment of non-financial assets (cont'd)

For assets excluding goodwill, an assessment is made at each reporting date as to whether there is any indication that previously recognized impairment losses may no longer exist or may have decreased. If such indication exists, the Group estimates the asset's or cash-generating unit's recoverable amount. A previously recognized impairment loss is reversed only if there has been a change in the assumptions used to determine the asset's recoverable amount since the last impairment loss was recognized. The reversal is limited so that the carrying amount of the asset does not exceed its recoverable amount, nor exceed the carrying amount that would have been determined, net of depreciation, had no impairment loss been recognized for the asset in prior years. Such reversal is recognized in the statement of profit or loss and other comprehensive income unless the asset is carried at a revalued amount, in which case, the reversal is treated as a revaluation increase.

The following criteria are also applied in assessing impairment of specific assets:

Goodwill

Goodwill is tested for impairment annually (at certain time) and when circumstances indicate that the carrying value may be impaired.

Impairment is determined for goodwill by assessing the recoverable amount of each cash-generating unit (or group of cash-generating units) to which the goodwill relates. Where the recoverable amount of the cash generating unit is less than their carrying amount an impairment loss is recognized. Impairment losses relating to goodwill cannot be reversed in future periods.

Intangible assets with indefinite useful lives excluding goodwill

For intangible assets with indefinite useful lives, the Group performs the impairment test for an individual asset or a cash-generating unit to which the asset has been allocated, annually or at any indication of impairment.

2.3.22 Taxes

2.3.22.1 Current income tax

Current income tax assets and liabilities for the current and prior periods are measured at the amount expected to be recovered from or paid to the taxation authorities. The tax rates and tax laws used to compute the amount are those that are enacted or substantively enacted, by the reporting date, in the countries where the Group operates and generates taxable income.

Current income tax relating to items recognized directly in equity is recognized in equity and not in the statement of profit or loss. Management periodically evaluates positions taken in the tax returns with respect to situations in which applicable tax regulations are subject to interpretation and establishes provisions where appropriate.

2.3.22.2 Deferred tax

Deferred tax is provided using the liability method on temporary differences at the reporting date between the tax bases of assets and liabilities and their carrying amounts for financial reporting purposes at the reporting date.

Deferred tax liabilities are recognized for all taxable temporary differences, except:

- Where the deferred tax liability arises from the initial recognition of goodwill or of an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither the accounting profit nor taxable profit or loss
- In respect of taxable temporary differences associated with investments in subsidiaries, associates and interests in joint ventures, where the timing of the reversal of the temporary differences can be controlled and it is probable that the temporary differences will not reverse in the foreseeable future

2.3.22.2 Deferred tax (cont'd)

Deferred tax assets are recognized for all deductible temporary differences, carry forward of unused tax credits and unused tax losses, to the extent that it is probable that taxable profit will be available against which the deductible temporary differences, and the carry forward of unused tax credits and unused tax losses can be utilized except:

- Where the deferred tax asset relating to the deductible temporary difference arises from the initial recognition of an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither the accounting profit nor taxable profit or loss
- In respect of deductible temporary differences associated with investments in subsidiaries, associates and interests in joint ventures, deferred tax assets are recognized only to the extent that it is probable that the temporary differences will reverse in the foreseeable future and taxable profit will be available against which the temporary differences can be utilized

The carrying amount of deferred tax assets is reviewed at each reporting date and reduced to the extent that it is no longer probable that sufficient taxable profit will be available to allow all or part of the deferred tax asset to be utilized. Unrecognized deferred tax assets are reassessed at each reporting date and are recognized to the extent that it has become probable that future taxable profits will allow the deferred tax asset to be recovered.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply in the year when the asset is realized or the liability is settled, based on tax rates (and tax laws) that have been enacted or substantively enacted at the reporting date.

Deferred tax relating to items recognized outside profit or loss is recognized outside profit or loss. Deferred tax items are recognized in correlation to the underlying transaction either in other comprehensive income or directly in equity.

Deferred tax assets and deferred tax liabilities are offset if a legally enforceable right exists to set off current tax assets against current income tax liabilities and the deferred taxes relate to the same taxable entity and the same taxation authority.

Tax benefits acquired as part of a business combination, but not satisfying the criteria for separate recognition at that date, are recognized subsequently if new information about facts and circumstances change. The adjustment is either treated as a reduction in goodwill (as long as it does not exceed goodwill) if it was incurred during the measurement period or recognized in profit or loss.

2.3.22.3 Sales tax

Expenses and assets are recognized net of the amount of sales tax, except:

- When the sales tax incurred on a purchase of assets or services is not recoverable from the taxation authority, in which case, the sales tax is recognized as part of the cost of acquisition of the asset or as part of the expense item, as applicable
- When receivables and payables are stated with the amount of sales tax included

The net amount of sales tax recoverable from, or payable to, the taxation authority is included as part of receivables or payables in the statement of financial position.

2.4 New and amended standards and interpretations

The Group applied for the first-time certain standards and amendments, which are effective for annual periods beginning on or after January 1, 2020. The Group has not early adopted any standards, interpretations or amendments that have been issued but are not yet effective.

2.4.1 Amendments to KIFRS 1103 : Definition of a Business

The amendment to KIFRS 1103 *Business Combinations* clarifies that to be considered a business, an integrated set of activities and assets must include, at a minimum, an input and a substantive process that, together, significantly contribute to the ability to create output. Furthermore, it clarifies that a business can exist without including all of the inputs and processes needed to create outputs. These amendments had no impact on the consolidated financial statements of the Group, but may impact future periods should the Group enter into any business combinations.

2.4.2 Amendments to KIFRS 1107, KIFRS 1109 and KIFRS 1039 Interest Rate Benchmark Reform

The amendments to KIFRS 1109 and KIFRS 1039 *Financial Instruments: Recognition and Measurement* provide a number of reliefs, which apply to all hedging relationships that are directly affected by interest rate benchmark reform. A hedging relationship is affected if the reform gives rise to uncertainty about the timing and/or amount of benchmark-based cash flows of the hedged item or the hedging instrument. These amendments have no impact on the consolidated financial statements of the Group as it does not have any interest rate hedge relationships.

2.4.3 Amendments to KIFRS 1001 and KIFRS 1008 Definition of Material

The amendments provide a new definition of material that states, "information is material if omitting, misstating or obscuring it could reasonably be expected to influence decisions that the primary users of general purpose financial statements make on the basis of those financial statements, which provide financial information about a specific reporting entity." The amendments clarify that materiality will depend on the nature or magnitude of information, either individually or in combination with other information, in the context of the financial statements. A misstatement of information is material if it could reasonably be expected to influence decisions made by the primary users. These amendments had no impact on the consolidated financial statements of, nor is there expected to be any future impact to the Group.

2.4.4 Conceptual Framework for Financial Reporting issued on March 29, 2018

The Conceptual Framework is not a standard, and none of the concepts contained therein override the concepts or requirements in any standard. The purpose of the Conceptual Framework is to assist the KASB in developing standards, to help preparers develop consistent accounting policies where there is no applicable standard in place and to assist all parties to understand and interpret the standards. The revised Conceptual Framework includes some new concepts, updated definitions and recognition criteria for assets and liabilities and clarifies some important concepts. These amendments had no impact on the consolidated financial statements of the Group.

2.5 Significant accounting judgments, estimates and assumptions

The preparation of the Group's financial statement requires management to make judgments, estimates and assumptions that affect the reported amounts of revenues, expenses, assets and liabilities, and the disclosure of contingent liabilities, at the end of the reporting period. However, uncertainty about these assumptions and estimates could result in outcomes that require a material adjustment to the carrying amount of the asset or liability affected in future periods.

Other disclosures relating to the Group's exposure to risks and uncertainties includes:

- Financial instruments risk management and policies Note 25
- Sensitivity analyses disclosures Note 19, 25

2.5.1 Judgments

In the process of applying the Group's accounting policies, management has made the following judgments, which have the most significant effect on the amounts recognized in the consolidated financial statements:

Determining the lease term of contracts with renewal and termination options – Group as lessee

The Group determines the lease term as the non-cancellable term of the lease, together with any periods covered by an option to extend the lease if it is reasonably certain to be exercised, or any periods covered by an option to terminate the lease, if it is reasonably certain not to be exercised.

The Group applies judgement in evaluating whether it is reasonably certain whether or not to exercise the option to renew and recognizes right-of-use assets and lease liabilities.

2.5.2 Estimates and assumptions

The key assumptions concerning the future and other key sources of estimation uncertainty at the reporting date, that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are discussed below.

The Group based its assumptions and estimates on parameters available when the consolidated financial statements were prepared. Existing circumstances and assumptions about future developments, however, may change due to market changes or circumstances arising beyond control of the Group. Such changes are reflected in the assumptions when they occur.

2.5.2.1 Impairment of non-financial assets

The Group assesses at each reporting date whether there is any objective evidence that a non-financial asset is impaired. Goodwill and intangible assets with indefinite useful lives are tested when there are indications. Other non-financial asset is tested when there are indications that carrying amount is not to be collected. In assessing value in use, management estimates future cash flows from certain assets or CGUs and selects the appropriate discount rate to calculate the present value of future cash flow. Refer to Note 21 for information on the specific details of main assumptions.

2.5.2.2 Defined benefit pension plan

The cost of the defined benefit pension plan and the present value of the pension obligation are determined using actuarial valuations. An actuarial valuation involves making various assumptions. These include the determination of the discount rate, future salary increases, mortality rates and future pension increases. Due to the complexity of the valuation, the underlying assumptions and its long term nature, a defined benefit obligation is highly sensitive to changes in these assumptions. All assumptions are reviewed at each reporting date.

In determining the appropriate discount rate, management considers the interest rates of corporate bonds in currencies consistent with the currencies of the post-employment benefit obligation with at least an 'AA' rating or above, as set by an internationally acknowledged rating agency. The mortality rate is based on publicly available mortality tables for the specific countries. Future salary increases and pension increases are based on expected future inflation rates for the respective countries.

2.5.2.3 Fair value measurement of financial instruments

When the fair values of financial assets and financial liabilities recorded in the statement of financial position cannot be measured based on quoted prices in active markets, their fair value is measured using valuation techniques including the discounted cash flow (DCF) model. The inputs to these models are taken from observable markets where possible, but where this is not feasible, a degree of judgement is required in establishing fair values. Judgements include considerations of inputs such as liquidity risk, credit risk and volatility. Changes in assumptions relating to these factors could affect the reported fair value of financial instruments.

2.5.2.4 Provision for expected credit losses of trade receivables

The Group uses a provision matrix to calculate ECLs for trade receivables. The provision rates are based on days past due for groupings of various customer segments that have similar loss patterns (i.e., by geography, product type, customer type and rating, and coverage by letters of credit and other forms of credit insurance).

The provision matrix is initially based on the Group's historical observed default rates. The Group will calibrate the matrix to adjust the historical credit loss experience with forward-looking information. For instance, if forecast economic conditions (i.e., gross domestic product) are expected to deteriorate over the next year which can lead to an increased number of defaults in the manufacturing sector, the historical default rates are adjusted. At every reporting date, the historical observed default rates are updated and changes in the forward-looking estimates are analysed.

The assessment of the correlation between historical observed default rates, forecast economic conditions and ECLs is a significant estimate. The amount of ECLs is sensitive to changes in circumstances and of forecast economic conditions. The Group's historical credit loss experience and forecast of economic conditions may also not be representative of customer's actual default in the future.

2.5.2.5 Leases - Estimating the incremental borrowing rate

The Group cannot readily determine the interest rate implicit in the lease, therefore, it uses its incremental borrowing rate (IBR) to measure lease liabilities. The IBR is the rate of interest that the Group would have to pay to borrow over a similar term, and with a similar security, the funds necessary to obtain an asset of a similar value to the right-of-use asset in a similar economic environment. The IBR therefore reflects what the Group 'would have to pay', which requires estimation when no observable rates are available or when they need to be adjusted to reflect the terms and conditions of the lease.

The Group estimates the IBR using observable inputs (such as market interest rates) when available and is required to make certain entity-specific estimates (such as the subsidiary's stand-alone credit rating).

2.5.2.6 Deferred tax assets

Deferred tax assets are recognized for unused tax losses to the extent that it is probable that taxable profit will be available against which the losses can be utilized. Significant management judgment is required to determine the amount of deferred tax assets that can be recognized, based upon the likely timing and the level of future taxable profits together with future tax planning strategies. The Group has ₩73,246 million (2019: ₩66,598 million) of tax credits carried forward which can be used to offset future taxable income but with time constraint. Among the total tax credits carried forward, the Group has determined not to recognize deferred tax assets on ₩34,312 million of tax credits carried forward, due to lack of probability of occurrence. Refer to Note 22 for details.

2.6 Standards issued but not yet effective

The new and amended standards and interpretations that are issued, but not yet effective, up to the date of issuance of the Group's financial statements are disclosed below. The Group intends to adopt these new and amended standards and interpretations, if applicable, when they become effective.

2.6.1 Amendments to KIFRS 1001: *Classification of Liabilities as Current or Non-current*

In January 2020, the IASB issued amendments to paragraphs 69 to 76 of KIFRS 1001 to specify the requirements for classifying liabilities as current or non-current. The amendments clarify:

- What is meant by a right to defer settlement
- That a right to defer must exist at the end of the reporting period
- That classification is unaffected by the likelihood that an entity will exercise its deferral right
- That only if an embedded derivative in a convertible liability is itself an equity instrument would the terms of a liability not impact its classification

The amendments are effective for annual reporting periods beginning on or after January 1, 2023 and must be applied retrospectively. The Group is currently assessing the impact the amendments will have on current practice and whether existing loan agreements may require renegotiation.

2.6.2 Reference to the Conceptual Framework – Amendments to KIFRS 1103

In May 2020, the IASB issued Amendments to KIFRS 1103 *Business Combinations* - Reference to the Conceptual Framework. The amendments are intended to replace a reference to the Framework for the Preparation and Presentation of Financial Statements, issued in 1989, with a reference to the Conceptual Framework for Financial Reporting issued in March 2018 without significantly changing its requirements. The Board also added an exception to the recognition principle of KIFRS 1103 to avoid the issue of potential 'day 2' gains or losses arising for liabilities and contingent liabilities that would be within the scope of KIFRS 1037 or KIFRS 2121 *Leases*, if incurred separately. At the same time, the Board decided to clarify existing guidance in KIFRS 1103 for contingent assets that would not be affected by replacing the reference to the Framework for the Preparation and Presentation of Financial Statements. The amendments are effective for annual reporting periods beginning on or after January 1, 2022 and apply prospectively.

2.6.3 Property, Plant and Equipment: Proceeds before Intended Use – Amendments to KIFRS 1016

In May 2020, the IASB issued Property, Plant and Equipment — Proceeds before Intended Use, which prohibits entities deducting from the cost of an item of property, plant and equipment, any proceeds from selling items produced while bringing that asset to the location and condition necessary for it to be capable of operating in the manner intended by management. Instead, an entity recognises the proceeds from selling such items, and the costs of producing those items, in profit or loss.

The amendment is effective for annual reporting periods beginning on or after January 1, 2022 and must be applied retrospectively to items of property, plant and equipment made available for use on or after the beginning of the earliest period presented when the entity first applies the amendment. The amendments are not expected to have a material impact on the Group.

2.6.4 Onerous Contracts – Costs of Fulfilling a Contract – Amendments to KIFRS 1037

In May 2020, the IASB issued amendments to KIFRS 1037 to specify which costs an entity needs to include when assessing whether a contract is onerous or loss-making.

The amendments apply a "directly related cost approach". The costs that relate directly to a contract to provide goods or services include both incremental costs and an allocation of costs directly related to contract activities. General and administrative costs do not relate directly to a contract and are excluded unless they are explicitly chargeable to the counterparty under the contract.

2.6.4 Onerous Contracts – Costs of Fulfilling a Contract – Amendments to KIFRS 1037 (cont'd)

The amendments are effective for annual reporting periods beginning on or after January 1, 2022. The Group will apply these amendments to contracts for which it has not yet fulfilled all its obligations at the beginning of the annual reporting period in which it first applies the amendments.

2.6.5 2018-2020 Annual Improvements to KIFRS

2.6.5.1 KIFRS 1101 *First-time Adoption of International Financial Reporting Standards* – Subsidiary as a first-time adopter

As part of its 2018-2020 annual improvements to KIFRS standards process, the IASB issued an amendment to KIFRS 1101 *First-time Adoption of International Financial Reporting Standards*. The amendment permits a subsidiary that elects to apply paragraph D16(a) of KIFRS 1101 to measure cumulative translation differences using the amounts reported by the parent, based on the parent's date of transition to KIFRS. This amendment is also applied to an associate or joint venture that elects to apply paragraph D16(a) of KIFRS 1101.

The amendment is effective for annual reporting periods beginning on or after January 1, 2022 with earlier adoption permitted.

2.6.5.2 KIFRS 1109 *Financial Instruments* – Fees in the '10 per cent' test for derecognition of financial liabilities

As part of its 2018-2020 annual improvements to KIFRS standards process the IASB issued amendment to KIFRS 1109. The amendment clarifies the fees that an entity includes when assessing whether the terms of a new or modified financial liability are substantially different from the terms of the original financial liability. These fees include only those paid or received between the borrower and the lender, including fees paid or received by either the borrower or lender on the other's behalf. The Group applies the amendment to financial liabilities that are modified or exchanged on or after the beginning of the annual reporting period in which the entity first applies the amendment.

The amendment is effective for annual reporting periods beginning on or after January 1, 2022 with earlier adoption permitted. The Group will apply the amendments to financial liabilities that are modified or exchanged on or after the beginning of the annual reporting period in which the entity first applies the amendment. The amendments are not expected to have a material impact on the Group.

2.6.5.3 KIFRS 1041 *Agriculture* – Taxation in fair value measurements

As part of its 2018-2020 annual improvements to KIFRS standards process the IASB issued amendment to KIFRS 1041 *Agriculture*. The amendment removes the requirement in paragraph 22 of KIFRS 1041 that entities exclude cash flows for taxation when measuring the fair value of assets within the scope of KIFRS 1041. An entity applies the amendment prospectively to fair value measurements on or after the beginning of the first annual reporting period beginning on or after January 1, 2022 with earlier adoption permitted. The amendments are not expected to have a material impact on the Group.

2.6.5.4 Amendments to KIFRS 1116 Covid-19 Related Rent Concessions

On 28 May 2020, the IASB issued Covid-19-Related Rent Concessions - amendment to KIFRS 1116 Leases. The amendments provide relief to lessees from applying KIFRS 1116 guidance on lease modification accounting for rent concessions arising as a direct consequence of the Covid-19 pandemic. As a practical expedient, a lessee may elect not to assess whether a Covid-19 related rent concession from a lessor is a lease modification. A lessee that makes this election accounts for any change in lease payments resulting from the Covid-19 related rent concession the same way it would account for the change under KIFRS 1116 if the change were not a lease modification.

The amendment applies to annual reporting periods beginning on or after 1 June 2020. Earlier application is permitted. This amendment had no impact on the consolidated financial statements of the Group.

3. Segment information

For management purposes, the Group is organized into business units based on its products and services and has four reportable operating segments as follows:

Segment	Principal business activity
Energy/Palm	Development and sales of coal, development of metals, Agro&Food, Indonesia palm
Industrial material/Solution	IT, chemicals, metal material, project, IT, platform and others
Logistics	Shipping, air transport, land transport, international courier, customs, warehousing, distribution consulting and others
Collectively grouped	Common group management

3.1 Segment sales and operating income

Segment sales and operating income of the Group are as follows (Korean won in millions):

	2020		2019	
	Sales	Operating income (loss)	Sales	Operating income
Energy/Palm	₩ 1,281,115	₩ (17,506)	₩ 1,049,153	₩ (2,390)
Industrial material/Solution	5,325,878	17,452	5,370,001	25,235
Logistics	4,675,639	159,889	4,111,703	111,939
	<u>₩ 11,282,632</u>	<u>₩ 159,835</u>	<u>₩ 10,530,857</u>	<u>₩ 134,784</u>

3.2 Segment assets and liabilities

Segment assets and liabilities of the Group are as follows (Korean won in millions):

	2020		2019	
	Assets	Liabilities	Assets	Liabilities
Energy/Palm	₩ 1,111,356	₩ 483,825	₩ 1,146,580	₩ 521,242
Industrial material/Solution	1,645,171	1,453,352	1,605,173	1,391,292
Logistics	1,278,748	1,040,777	1,099,304	854,316
Collectively grouped (*)	1,360,667	659,657	1,024,925	560,516
	<u>₩ 5,395,942</u>	<u>₩ 3,637,611</u>	<u>₩ 4,875,982</u>	<u>₩ 3,327,366</u>

(*) Assets and liabilities that individually do not have a material effect to a specific operating segment have been collectively grouped. These include cash and cash equivalents, investment assets, property, plant and equipment, and intangible assets.

3.3 Sales by geographic region

Sales by geographic region of the Group are as follows (Korean won in millions):

	2020	2019
Korea	₩ 4,650,143	₩ 4,641,192
Americas	2,227,598	1,805,336
Europe	1,564,957	1,312,315
Asia	5,613,407	4,601,772
Others	85,290	69,566
Consolidation adjustments	(2,858,763)	(1,899,324)
	<u>₩ 11,282,632</u>	<u>₩ 10,530,857</u>

One major customer (LG Electronics) accounts for more than 10% of the Group's total sales for the year ended December 31, 2020 and 2019 (Refer to Note 23).

4. Classification of financial instruments

4.1 Financial instruments by category

4.1.1 Financial assets

Financial assets by category as of December 31, 2020 and 2019 are as follows (Korean won in millions):

2020					
	Financial assets at fair value through profit or loss	Financial assets at fair value through OCI	Financial assets at amortised cost	Hedge accounting- related assets	Total
Cash and cash equivalents	₩ 233,273	₩ -	₩ 456,715	₩ -	₩ 689,988
Short-term financial asset	-	-	67,837	-	67,837
Equity instruments held for long-term	14,082	121,103	-	-	135,185
Trade accounts receivable	-	-	1,298,738	-	1,298,738
Other accounts receivable	6,096	-	187,346	-	193,442
Long-term loans	-	-	24,492	-	24,492
Other financial assets	-	-	238,710	-	238,710
	<u>₩ 253,451</u>	<u>₩ 121,103</u>	<u>₩ 2,273,838</u>	<u>₩ -</u>	<u>₩ 2,648,392</u>
2019					
	Financial assets at fair value through profit or loss	Financial assets at fair value through OCI	Financial assets at amortised cost	Hedge accounting- related assets	Total
Cash and cash equivalents	₩ 31,000	₩ -	₩ 392,582	₩ -	₩ 423,582
Short-term financial asset	-	-	10,553	-	10,553
Equity instruments held for long-term	11,140	173,016	-	-	184,156
Trade accounts receivable	-	-	994,064	-	994,064
Other accounts receivable	1,153	-	287,931	-	289,084
Long-term loans	-	-	33,302	-	33,302
Other financial assets	-	-	240,165	1,261	241,426
	<u>₩ 43,293</u>	<u>₩ 173,016</u>	<u>₩ 1,958,597</u>	<u>₩ 1,261</u>	<u>₩ 2,176,167</u>

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4.1.2 Financial liabilities

Financial liabilities by category as of December 31, 2020 and 2019 are as follows (Korean won in millions):

2020				
	Financial liabilities at fair value through profit or loss	Financial liabilities measured at amortized cost	Hedge accounting-related liabilities	Total
Trade accounts payable	₩ -	₩ 1,547,820	₩ -	₩ 1,547,820
Other accounts payable	578	246,769	6,538	253,885
Borrowings	-	613,370	-	613,370
Bonds payable	-	359,307	-	359,307
Current portion of bonds payable and long-term borrowings	-	225,630	-	225,630
Other financial liabilities	-	348,019	17,212	365,231
	₩ 578	₩ 3,340,915	₩ 23,750	₩ 3,365,243

2019				
	Financial liabilities at fair value through profit or loss	Financial liabilities measured at amortized cost	Hedge accounting-related liabilities	Total
Trade accounts payable	₩ -	₩ 1,103,970	₩ -	₩ 1,103,970
Other accounts payable	1,890	293,549	-	295,439
Borrowings	-	772,364	-	772,364
Bonds payable	-	319,544	-	319,544
Current portion of bonds payable and long-term borrowings	-	222,880	-	222,880
Other financial liabilities	-	299,551	8,228	307,779
	₩ 1,890	₩ 3,011,858	₩ 8,228	₩ 3,021,976

4.2 Gains and losses on financial instruments

4.2.1 Gains and losses on financial assets

Gains and losses on financial assets by category for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

	2020				
	Financial assets at fair value through profit or loss	Financial assets at fair value through OCI	Financial assets at amortised cost	Hedge accounting-related assets	Total
Net income:					
Interest income	₩ -	₩ -	₩ 10,404	₩ -	₩ 10,404
Dividend income	-	4,376	-	-	4,376
Gain and loss on foreign currency transactions	-	-	(54,358)	-	(54,358)
Gain and loss on foreign currency translation	-	-	(19,163)	-	(19,163)
Gain on currency forwards	13,738	-	-	-	13,738
Gain on currency swaps	-	-	-	1,688	1,688
Bad debt expenses	-	-	(742)	-	(742)
Other bad debt expenses	-	-	(385)	-	(385)
Loss on disposal of receivables	-	-	(10,118)	-	(10,118)
Other comprehensive income (*):					
Loss on valuation of financial assets at fair value through OCI	-	(51,584)	-	-	(51,584)
	₩ 13,738	₩ (47,208)	₩ (74,362)	₩ 1,688	₩ (106,144)

(*) Other comprehensive income is the amount before income tax effect.

4.2.1 Gains and losses on financial assets (cont'd)

	2019				
	Financial assets at fair value through profit or loss	Financial assets at fair value through OCI	Financial assets at amortised cost	Hedge accounting- related assets	Total
Net income:					
Interest income	₩ -	₩ -	₩ 15,974	₩ -	₩ 15,974
Dividend income	-	6,176	-	-	6,176
Gain and loss on foreign currency transactions	-	-	27,249	-	27,249
Gain and loss on foreign currency translation	-	-	35	-	35
Gain on currency forwards	13,893	-	-	-	13,893
Gain on currency swaps	-	-	-	4,471	4,471
Bad debt expenses	-	-	(2,475)	-	(2,475)
Other bad debt expenses	-	-	(2,442)	-	(2,442)
Loss on disposal of receivables	-	-	(19,880)	-	(19,880)
Other comprehensive income (*):					
Loss on valuation of financial assets at fair value through OCI	-	(10,452)	-	-	(10,452)
Loss on valuation of derivatives designated as cash flow hedges	-	-	-	(70)	(70)
	₩ 13,893	₩ (4,276)	₩ 18,461	₩ 4,401	₩ 32,479

(*) Other comprehensive income is the amount before income tax effect.

4.2.2 Gains and losses on financial liabilities

Gain and loss on financial liabilities by category for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

	2020			
	Financial liabilities at fair value through profit or loss	Financial liabilities measured at amortized cost	Hedge accounting-related liabilities	Total
Net loss:				
Interest expenses	₩ -	₩ (42,754)	₩ -	₩ (42,754)
Loss on foreign currency transactions	-	29,709	-	29,709
Loss on foreign currency translation	-	18,915	-	18,915
Loss on currency forwards	(9,919)	-	-	(9,919)
Loss on currency swaps	-	-	(8,552)	(8,552)
Other comprehensive loss (*):				
Loss on valuation of derivatives designated as cash flow hedges	-	-	(8,984)	(8,984)
	<u>₩ (9,919)</u>	<u>₩ 5,870</u>	<u>₩ (17,536)</u>	<u>₩ (21,585)</u>

(*) Other comprehensive loss is the amount before income tax effect.

	2019			
	Financial liabilities at fair value through profit or loss	Financial liabilities measured at amortized cost	Hedge accounting-related liabilities	Total
Net loss:				
Interest expenses	₩ -	₩ (49,068)	₩ -	₩ (49,068)
Loss on foreign currency transactions	-	(30,049)	-	(30,049)
Loss on foreign currency translation	-	(1,933)	-	(1,933)
Loss on currency forwards	(16,276)	-	-	(16,276)
Other comprehensive loss (*):				
Loss on valuation of derivatives designated as cash flow hedges	-	-	(8,704)	(8,704)
	<u>₩ (16,276)</u>	<u>₩ (81,050)</u>	<u>₩ (8,704)</u>	<u>₩ (106,030)</u>

(*) Other comprehensive income is the amount before income tax effect.

5. Cash and cash equivalents

Details of cash and cash equivalents as of December 31, 2020 and 2019 are as follows (Korean won in millions):

	2020	2019
Cash on hand	₩ 2,068	₩ 747
Short-term deposits	687,920	422,835
	<u>₩ 689,988</u>	<u>₩ 423,582</u>

Outstanding balances on restricted deposits included in financial instruments as of December 31, 2020 amounted to ₩25,210 million (₩3,398 million in 2019) which consisted of mine restoration deposits and others.

6. Derivative financial instruments

6.1 Valuation of derivative financial instruments

Valuation gains and losses arising from derivative financial instruments included in other accounts receivable and payable as of December 31, 2020 and 2019 are presented as follows (Korean won in millions):

	2020			2019		
	Gain on valuation	Loss on valuation	Other comprehensive income (*1)	Gain on valuation	Loss on valuation	Other comprehensive income (*1)
Currency forwards	₩ 6,096	₩ 578	₩ -	₩ 1,153	₩ 1,890	₩ -
Currency swaps	-	8,220	(409)	2,978	-	(378)
Interest rate swaps	-	-	(8,575)	-	-	(8,326)
	<u>₩ 6,096</u>	<u>₩ 8,798</u>	<u>₩ (8,984)</u>	<u>₩ 4,131</u>	<u>₩ 1,890</u>	<u>₩ (8,704)</u>

(*1) Other comprehensive income is the amount before income tax effect.

6.2 Currency forwards

As of December 31, 2020 and 2019, gains and losses on unsettled currency forward contracts are as follows (Korean won in millions and other currencies in thousands):

2020						
Position-buy	Buying amount	Position-sell	Selling amount	Contracted exchange rate	Gain on valuation	Loss on valuation
KRW	149,116	USD	131,493	1,087.00 ~ 1,192.30	₩ 6,095	₩ 1
USD	27,143	KRW	30,096	1,087.00 ~ 1,180.80	1	568
AED	1,602	KRW	483	301.55	-	9
					<u>₩ 6,096</u>	<u>₩ 578</u>
2019						
Position-buy	Buying amount	Position-sell	Selling amount	Contracted exchange rate	Gain on valuation	Loss on valuation
KRW	121,605	USD	104,266	1,162.50 ~ 1,184.50	₩ 1,140	₩ -
KRW	735	CNY	4,395	167.24	9	-
EUR	400	KRW	515	1287.95	4	-
USD	104,843	KRW	122,427	1,152.70 ~ 1,176.00	-	1,890
					<u>₩ 1,153</u>	<u>₩ 1,890</u>

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6.3 Currency swaps

As of December 31, 2020 and 2019, gains and losses on unsettled currency swap contracts are as follows (Korean won in millions and other currencies in thousands):

2020								
Contracted party	Buying amount	Selling amount	Contracted exchange rate	Receivable interest rate	Payment interest rate	Contracted term	Loss on valuation	Other comprehensive loss
The Export Import Bank of Korea	USD 25,000	₩ 28,613	1144.50	3ML + 2.30%	3.20%	2016.4.1 ~ 2021.4.1	₩ (1,745)	₩ (346)
Hana Bank	USD 50,000	₩ 60,875	1217.50	3ML + 1.50%	1.80%	2020.4.29 ~ 2021.2.15	(6,475)	(63)
							₩ (8,220)	₩ (409)

2019								
Contracted party	Buying amount	Selling amount	Contracted exchange rate	Receivable interest rate	Payment interest rate	Contracted term	Gain on valuation	Other comprehensive loss
The Export Import Bank of Korea	USD 75,000	₩ 85,838	1,144.50	3ML + 2.30%	3.20%	2016.4.1 ~ 2021.4.1	₩ 2,978	₩ (378)

6.4 Interest rate swaps

As of December 31, 2020 and 2019, gains and losses on unsettled interest rate swap contracts are as follows (Korean won in millions and foreign currencies in thousands):

2020						Other comprehensive loss
Contracted party	Contractual principal	Receivable interest rate	Payment interest rate	Contracted term		
Korea Development Bank	USD 102,620	LIBOR	2.77%	2017.02.27 ~ 2034.09.25		(8,575)

2019						Other comprehensive loss
Contracted party	Contractual principal	Receivable interest rate	Payment interest rate	Contracted term		
Korea Development Bank	USD 102,620	LIBOR	2.77%	2017.02.27 ~ 2034.09.25		(8,326)

7. Inventories

Details of inventories as of December 31, 2020 and 2019 are as follows (Korean won in millions):

	2020		
	Acquisition cost	Valuation allowance	Book value
Merchandise	₩ 296,810	₩ (3,448)	₩ 293,362
Finished goods	23,854	-	23,854
Raw materials	12,139	(6)	12,133
Stored goods	1,284	-	1,284
Materials in transit	314,490	-	314,490
	<u>₩ 648,577</u>	<u>₩ (3,454)</u>	<u>₩ 645,123</u>

	2019		
	Acquisition cost	Valuation allowance	Book value
Merchandise	₩ 212,223	₩ (3,003)	₩ 209,220
Finished goods	23,847	(3,424)	20,423
Raw materials	12,175	(126)	12,049
Stored goods	2,902	-	2,902
Materials in transit	274,705	-	274,705
	<u>₩ 525,852</u>	<u>₩ (6,553)</u>	<u>₩ 519,299</u>

8. Investment assets and Investment in associates

8.1 Investment assets

Details of investment assets as of December 31, 2020 and 2019 are as follows (Korean won in millions):

	2020	2019
Equity instruments held for long-term:		
Financial assets at fair value through profit or loss	₩ 14,082	₩ 11,140
Financial assets at fair value through OCI	121,103	173,016
Long-term loans receivable	<u>24,492</u>	<u>33,302</u>
	<u>₩ 159,677</u>	<u>₩ 217,458</u>

8.2 Equity instruments held for long-term

As of December 31, 2020, details of equity instruments held for long-term are as follows (Korean won in millions):

	Number of shares	Equity ownership (%)	Acquisition cost	Book value
Financial assets at fair value through profit or loss				
Futureplay Co.	15,730	3.05	₩ 3,000	₩ 3,003
Aromatics Oman LLC	-	1.00	4,779	₩ 4,779
EIC Properties Pte. Ltd.	5,296,350	15.50	3,589	6,300
			<u>11,368</u>	<u>14,082</u>
Financial assets at fair value through OCI (*1)				
Korea Ras Laffan LNG Co., Ltd. (Qatar LNG project)	1,558,666	5.60	2,410	21,500
Vietnam Korea Exchange Ltd.	-	10.00	322	322
LG Int'l (Saudi) LLC (*2)	-	90.00	118	118
Oilhub Korea Yeosu Co., Ltd.	131,000	5.00	7,205	7,530
GS E&R Co., Ltd.	1,654,445	9.52	95,585	55,100
Tianjin LG Bohai Chemical	-	10.00	11,737	21,819
Cobalt blue holdings Ltd.	7,093,959	2.92	6,467	1,069
PT Resources Alam Indonesia Tbk.	250,000,000	5.00	9,497	5,085
Tangshan Caoheidian Steam Coal Storage & Blending Co., Ltd.	-	1.50	1,075	1,083
RedcapTour Co., Ltd.	250,000	2.91	428	4,800
Chosun Broadcasting Corporation	420,000	0.68	2,100	2,158
iPort Co., Ltd.	4,523	5.26	500	500
Information & Communication Financial Cooperative	42	-	15	19
Hanmi Flexible Co.,Ltd.	21	0.03	6	-
Liveron Co.,Ltd.	30	0.11	6	-
			<u>137,471</u>	<u>121,103</u>
			<u>₩ 148,839</u>	<u>₩ 135,185</u>

(*1) Financial assets measured at fair value through OCI include investments in shares of non-listed companies held as non-controlling interests. As the Group holds these investments for the purpose of business strategy, fair value changes are presented as OCI and the Group irrevocably elected to classify as financial asset at fair value through OCI.

(*2) The Group's equity interest in the entity has been excluded from investments in subsidiaries and associates as the entity is undergoing liquidation procedures and therefore has no substantial business operations.

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8.2 Equity instruments held for long-term(cont'd)

Changes in the net book value of equity instruments held for long-term as of December 31, 2020 and 2019 are as follows (Korean won in millions):

	2020					
	Equity ownership (%)	Jan. 1	Acquisition (disposal)	Valuation	Translation gain (loss)	Dec. 31
Financial assets at fair value through profit or loss						
Futureplay Co. (*1)	3.05 ₩	- ₩	3,000 ₩	3 ₩	- ₩	3,003
Aromatics Oman LLC	1.00	4,779	-	-	-	4,779
EIC Properties Pte. Ltd.	15.50	6,361	-	351	(412)	6,300
		11,140	3,000	354	(412)	14,082
Financial assets at fair value through OCI						
Korea Ras Laffan LNG Limited (Qatar LNG project)	5.60	33,853	-	(12,353)	-	21,500
Vietnam Korea Exchange Ltd.	10.00	322	-	-	-	322
LG Int'l (Saudi) LLC	90.00	118	-	-	-	118
Oilhub Korea Yeosu Co., Ltd.	5.00	9,707	-	(2,177)	-	7,530
GS E&R Co, Ltd.	9.52	96,961	-	(41,861)	-	55,100
Tianjin LG Bohai Chemical	10.00	19,358	-	2,461	-	21,819
Cobalt blue holdings Ltd.	2.92	805	-	264	-	1,069
PT Resources Alam Indonesia Tbk	5.00	4,879	-	543	(337)	5,085
Tangshan Caofeidian Steam Coal Storage & Blending Co., Ltd.	1.50	1,075	-	-	8	1,083
RedcapTour Co., Ltd.	2.91	3,913	-	888	-	4,801
Chosun Broadcasting Corporation	0.68	1,509	-	651	-	2,160
iPort Co., Ltd.	5.26	500	-	-	-	500
Information & Communication Financial Cooperative	-	16	-	-	-	16
Hanmi Flexible Co.,Ltd.	0.03	-	-	-	-	-
Liveron Co.,Ltd.	0.11	-	-	-	-	-
		173,016	-	(51,584)	(329)	121,103
	₩	184,156	₩ 3,000	₩ (51,230)	₩ (741)	₩ 135,185

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8.2 Equity instruments held for long-term(cont'd)

	2019									
	Equity ownership (%)	Jan. 1	Acquisition (disposal)	Valuation	Translation gain (loss)	Dec. 31				
Financial assets at fair value through profit or loss										
Aromatics Oman LLC	1.00	₩ 4,779	₩ -	₩ -	₩ -	₩ 4,779				
EIC Properties Pte. Ltd.	15.50	5,722	-	439	200	6,361				
		10,501	-	439	200	11,140				
Financial assets at fair value through OCI										
Korea Ras Laffan LNG Limited (Qatar LNG project)	5.60	38,255	-	(4,402)	-	33,853				
Vietnam Korea Exchange Ltd.	10.00	322	-	-	-	322				
LG Int'l (Saudi) LLC	90.00	118	-	-	-	118				
Minera Corocobre S.A (*2)	11.18	586	(586)	-	-	-				
Oilhub Korea Yeosu Co., Ltd.	5.00	7,848	-	1,859	-	9,707				
GS E&R Co. Ltd. (*1)	9.52	78,844	21,931	(3,814)	-	96,961				
Tianjin LG Bohai Chemical	10.00	17,109	-	2,249	-	19,358				
Cobalt blue holdings Ltd.	4.73	1,146	-	(341)	-	805				
PT Resources Alam Indonesia Tbk (*1)	5.00	-	9,561	(4,649)	(33)	4,879				
Tangshan Caofeidian Steam Coal Storage & Blending Co., Ltd.	1.50	1,056	-	-	19	1,075				
RedcapTour Co., Ltd.	2.91	3,788	-	125	-	3,913				
Chosun Broadcasting Corporation	0.68	1,507	-	2	-	1,509				
Kumkang Logistics (*2)	-	60	(60)	-	-	-				
iPort Co., Ltd.	5.26	500	-	-	-	500				
Information & Communication Financial Cooperative	-	15	-	1	-	16				
Hanmi Flexible Co.,Ltd. (*1)	0.03	-	6	-	(6)	-				
Liveron Co.,Ltd. (*1)	0.11	-	6	-	(6)	-				
		151,154	30,858	(8,970)	(26)	173,016				
	₩	161,655	₩	30,858	₩	(8,531)	₩	174	₩	184,156

(*1) During the year ended December 31, 2020, the Group acquired 3.23% of equity interests of Futureplay Co., Ltd. and classified it as financial assets at fair value through profit or loss. During the year ended December 31, 2019, the Group acquired additional shares of 2.02% in GS E&R Co., Ltd. from GS Holdings Corp. and acquired 5.0% of equity interests of PT. Resources Alam Indonesia Tbk. and 0.03% of equity interests of Hanmi Flexible Co., Ltd. and 0.11% of equity interests of Liveron Co., Ltd.

(*2) During the year ended December 31, 2019, the Group disposed all of its equity interests of Minera Corocobre S.A. and Kumkang Logistic.

8.3 Investment in associates

As of December 31, 2020 and 2019, details of investments in associates are as follows.

	Country of domicile	Equity ownership (%)		Reporting date	Principal business activity
		2020	2019		
Global Dynasty Natural Resource Private Equity Fund (*1)	Korea	7.46	7.46	12.31	Overseas resources development
Heungkuk Highclass Private Special Asset PEF E1	Korea	50.00	50.00	12.31	"
POSCO-IPPC (India Pune Processing Center)	India	35.00	35.00	12.31	Processing and selling steel
POSCO-PWPC (Poland Wroclaw Processing Center)	Poland	40.00	40.00	12.31	"
LG Holdings (HK) Ltd. (*2)	Hong Kong	-	25.00	12.31	Leasing real estate
Kernhem B.V.	Netherland	30.00	30.00	12.31	Oil and gas
ADA Oil LLP (*1)	Kazakhstan	12.50	12.50	12.31	"
GS HP Sunflower Village Int'l Corp.	Vietnam	30.00	30.00	12.31	Leasing real estate
Sal de Vida Korea Corp. (*3)	Korea	-	33.33	12.31	Mining and selling lithium
Oman International Petrochemical Industry Company LLC	Oman	30.00	30.00	12.31	Manufacturing and selling PTA, PET
Musandam Power Company SAOC (*1, 4)	Oman	18.00	18.00	12.31	Thermal power plant
Gansu Wuwei Cogeneration Power Plant	China	30.00	30.00	12.31	Generating cogeneration
KM Resources Ltd. (Rapu-Rapu) (*5)	Malaysia	70.00	70.00	12.31	Mining and selling cooper
Mongolia Boyuan Coal Co., Ltd. (Wantugou)	China	30.00	30.00	12.31	Mining and selling coal
Shaanxi BBM Biomass Power Generation Co., Ltd.	China	30.00	30.00	12.31	Generating new & renewable energy
Inner Mongolia BDSD Chemical Co., Ltd.	China	29.00	29.00	12.31	Manufacturing fertilizer
Pantos Logistics Philippines Inc.	Philippine	39.99	39.99	12.31	Logistics
PT. Pantos Express Indonesia (*6)	Indonesia	-	49.00	12.31	"

(*1) The entity is classified as an associate even though the Group holds less than 20% equity ownership. As the Group has rights to elect the directors of the entity and its executive participates in management as a director, it is considered that the Group has significant influence over the entities.

(*2) For the year ended December 31, 2020, the Group disposed all of its equity ownership.

(*3) For the year ended December 31, 2020, it has been excluded from investments in associates due to liquidation.

(*4) For the year ended December 31, 2019, the Group disposed 12% of the equity shares in the investee.

(*5) As major decision making is decided unanimously, it is difficult to judge that control is held, so it has been classified as associate.

(*6) For the year ended December 31, 2020, it was reclassified as a subsidiary due to the satisfaction of de facto control requirements.

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8.3 Investment in associates (cont'd)

Details of the investments in associates as of December 31, 2020 and 2019 are as follows (Korean won in millions):

	2020			2019	
	Acquisition cost	Net asset value	Net book value	Net book value	
Global Dynasty Natural Resources Private Equity Fund	₩ 2,242	₩ (1,840)	₩ -	₩ -	
Heungkuk Highclass Private Special Asset PEF E1	4,566	(8,974)	-	-	
POSCO-IPPC (India Pune Processing Center)	9,184	27,912	9,769	8,864	
POSCO-PWPC (Poland Wroclaw Processing Center)	5,244	16,820	6,752	6,113	
LG Holdings (HK) Ltd.	-	-	-	44,660	
Kernhem B.V.	2,005	(65,654)	-	-	
ADA Oil LLP	22,011	(64,901)	-	-	
GS HP Sunflower Village Int'l Corp.	2,911	14,648	4,395	4,350	
Sal de Vida Korea Corp.	-	-	-	30	
Oman International Petrochemical Industry Company LLC	19,766	64,587	-	-	
Musandam Power Company SAOC	6,535	27,894	5,409	4,939	
Gansu Wuwei Cogeneration Power Plant	55,932	197,327	59,647	56,190	
KM Resources Ltd.(Rapu-Rapu)	40,493	3,666	-	-	
Mongolia Boyuan Coal Co., Ltd. (Wantugou)	54,801	100,596	54,528	62,609	
Shaanxi BBM Biomass Power Generation Co., Ltd.	8,255	26,287	7,886	8,392	
Inner Mongolia BDSD Chemical Co., Ltd.	97,837	421,964	131,040	120,381	
Pantos Logistics Philippines Inc.	1,273	(723)	-	79	
	₩ 333,055	₩ 759,609	₩ 279,426	₩ 316,607	

The summarized financial information of associates which were material to the Group as of December 31, 2020 and 2019 is as follows (Korean won in millions):

	2020						
	Current assets	Non-current assets	Current liabilities	Non-current liabilities	Sales	Profit (loss) for the year	Dividends paid by associates
POSCO-IPPC (India Pune Processing Center)	₩ 96,289	₩ 38,821	₩ 85,426	₩ 21,772	₩ 267,760	₩ 5,060	₩ -
POSCO-PWPC (Poland Wroclaw Processing Center)	50,541	10,778	41,873	2,626	108,292	2,325	-
Gansu Wuwei Cogeneration Power Plant	95,422	404,354	39,820	262,628	176,972	18,771	2,490
Mongolia Boyuan Coal Co., Ltd. (Wantugou)	78,996	372,262	275,037	75,625	86,094	(21,575)	-
Inner Mongolia BDSD Chemical Co., Ltd.	114,004	604,481	270,429	26,092	275,431	36,735	-

	2019						
	Current assets	Non-current assets	Current liabilities	Non-current liabilities	Sales	Profit (loss) for the year	Dividends paid by associates
LG Holdings (HK) Ltd.	₩ 23,199	₩ 155,440	₩ -	₩ -	₩ -	₩ 12,307	₩ -
Kernhem B.V.	785	66,672	-	136,867	-	445	-
ADA Oil LLP	10,098	72,127	1,301	152,818	43,116	3,866	-
Mongolia Boyuan Coal Co., Ltd. (Wantugou)	75,485	210,822	162,423	3,099	22,937	(29,685)	4,886
Inner Mongolia BDSD Chemical Co., Ltd.	149,994	637,374	344,785	59,337	308,977	45,149	-

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8.3 Investment in associates (cont'd)

Changes in the net book value of investments in associates for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

	2020						
	Jan. 1	Acquisition (disposal)	Dividends	Change in equity adjustment in equity method	Share of profit or loss	Impairment and others	Dec. 31
POSCO-IPPC (India Pune Processing Center)	₩ 8,864	₩ -	₩ -	₩ (866)	₩ 1,771	₩ -	₩ 9,769
POSCO-PWPC (Poland Wroclaw Processing Center)	6,113	-	-	(291)	930	-	6,752
LG Holdings (HK) Ltd. (LG Building Ltd.)	44,660	(32,690)	-	(12,367)	397	-	-
Kernhem B.V. (*1)	-	-	-	2,437	(1,310)	(1,127)	-
ADA Oil LLP (*1)	-	-	-	1,419	(545)	(874)	-
GS HP Sunflower Village Int'l Corp.	4,350	-	(183)	(268)	517	(21)	4,395
Sal de Vida Korea Corp.	30	(30)	-	-	-	-	-
Musandam Power Company SAOC	4,939	-	(1,079)	(324)	1,873	-	5,409
Gansu Wuwei Cogeneration Power Plant	56,190	-	(2,490)	316	5,631	-	59,647
Mongolia Boyuan Coal Co., Ltd. (Wantugou)	62,609	-	-	2,160	(6,912)	(3,329)	54,528
Shaanxi BBM Biomass Power Generation Co., Ltd.	8,392	-	-	-	-	(506)	7,886
Inner Mongolia BDSD Chemical Co., Ltd.	120,381	-	-	8,342	10,653	(8,336)	131,040
Pantos Logistics Philippines Inc.	79	-	-	15	(94)	-	-
	<u>₩ 316,607</u>	<u>₩ (32,720)</u>	<u>₩ (3,752)</u>	<u>₩ 573</u>	<u>₩ 12,911</u>	<u>₩ (14,193)</u>	<u>₩ 279,426</u>

(*1) Refer to Note 21

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8.3 Investment in associates (cont'd)

	2019						
	Jan. 1	Acquisition (disposal)	Dividends	Change in equity adjustment in equity method	Share of profit or loss	Impairment and others	Dec. 31
POSCO-IPPC (India Pune Processing Center)	₩ 9,637	₩ -	₩ -	₩ 163	₩ (936)	₩ -	₩ 8,864
POSCO-PWPC (Poland Wroclaw Processing Center)	6,355	-	-	159	(401)	-	6,113
LG Holdings (HK) Ltd. (LG Building Ltd.)	55,168	(14,893)	-	1,309	3,076	-	44,660
Kernhem B.V. (*1)	-	14,247	-	(807)	121	(13,561)	-
ADA Oil LLP (*1)	3,302	7,232	-	(385)	(342)	(9,807)	-
GS HP Sunflower Village Int'l Corp.	3,561	-	(197)	125	861	-	4,350
Sal de Vida Korea Corp.	2,418	-	-	-	-	(2,388)	30
United Copper & Moly LLC (Rosemont)	37,406	(39,909)	-	216	12	2,275	-
Musandam Power Company SAOC	8,850	(7,050)	(3,139)	303	2,746	3,229	4,939
Gansu Wuwei Cogeneration Power Plant	53,049	-	(777)	923	2,995	-	56,190
Mongolia Boyuan Coal Co., Ltd. (Wantugou)	74,790	-	(4,886)	(796)	(9,218)	2,719	62,609
Shaanxi BBM Biomass Power Generation Co., Ltd.	8,104	-	-	-	-	288	8,392
Inner Mongolia BDSD Chemical Co., Ltd.	105,474	-	-	(2,097)	13,044	3,960	120,381
Pantos Logistics Philippines Inc.	79	-	-	6	(6)	-	79
	₩ 368,193	₩ (40,373)	₩ (8,999)	₩ (881)	₩ 11,952	₩ (13,285)	₩ 316,607

(*1) Refer to Note 21

9. Property, plant and equipment and Investment properties

9.1 Property, plant and equipment

Details of property, plant and equipment as of December 31, 2020 and 2019 are as follows (Korean won in millions):

	2020			
	Acquisition cost	Accumulated depreciation	Accumulated impairment loss	Net book value
Land	₩ 105,670	₩ -	₩ -	₩ 105,670
Buildings	213,400	(36,017)	-	177,383
Structures	164,383	(32,685)	-	131,698
Machinery and equipment	89,705	(51,233)	(9,349)	29,123
Vehicles	31,658	(15,947)	-	15,711
Mature biological assets	107,330	(32,902)	-	74,428
Non-mature biological assets	1,448	-	-	1,448
Others	61,248	(44,805)	-	16,443
Construction-in-progress	4,809	-	-	4,809
Right-of-use assets	271,344	(85,685)	-	185,659
	₩ 1,050,995	₩ (299,274)	₩ (9,349)	₩ 742,372

	2019			
	Acquisition cost	Accumulated depreciation	Accumulated impairment loss	Net book value
Land	₩ 126,154	₩ -	₩ -	₩ 126,154
Buildings	248,390	(38,026)	(38,251)	172,113
Structures	170,032	(27,688)	(607)	141,737
Machinery and equipment	116,595	(50,317)	(32,089)	34,189
Vehicles	31,089	(15,125)	(543)	15,421
Mature biological assets	115,140	(29,274)	-	85,866
Non-mature biological assets	88	-	-	88
Others	65,225	(49,355)	(697)	15,173
Construction-in-progress	25,113	-	-	25,113
Right-of-use assets	209,446	(60,692)	-	148,754
	₩ 1,107,272	₩ (270,477)	₩ (72,187)	₩ 764,608

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9.1 Property, plant and equipment (cont'd)

Changes in the net book value of property, plant and equipment for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

	2020								
	Jan.1	Addition	Transfer (*1)	Disposals	Depreciation	Change in the scope of consolidation	Others (*4)	Dec. 31	
Land	₩ 126,154	₩ -	₩ -	₩ (18,974)	₩ -	₩ -	₩ (1,510)	₩ 105,670	
Buildings	172,113	1,244	37,667	(21,509)	(6,864)	-	(5,268)	177,383	
Structures	141,737	763	895	(41)	(6,632)	7	(5,031)	131,698	
Machinery and equipment	34,189	2,539	850	(390)	(7,347)	41	(759)	29,123	
Vehicles	15,421	3,763	11	(49)	(2,820)	18	(633)	15,711	
Mature biological assets	85,866	-	174	-	(5,919)	-	(5,693)	74,428	
Non-mature biological assets	88	1,604	(144)	(107)	-	-	7	1,448	
Others	15,173	10,161	1,445	(787)	(9,432)	20	(137)	16,443	
Construction-in-progress	25,113	24,118	(44,181)	-	-	(361)	120	4,809	
Right-of-use Assets (*5)	148,754	146,254	-	(14,626)	(90,263)	(4,915)	455	185,659	
	₩ 764,608	₩ 190,446	₩ (3,283)	₩ (56,483)	₩ (129,277)	₩ (5,190)	₩ (18,449)	₩ 742,372	

(*1) For the year ended December 31, 2020, construction-in-progress which are amounting to ₩3,219 million was transferred to the intangible assets.

	2019									
	Jan.1	Changes in accounting policies	Addition	Transfer (*1)	Held for sale reclassification (*2)	Disposals	Depreciation	Impairment (*3)	Others (*4)	December 31
Land	₩ 130,963	₩ -	₩ 29	₩ (4,394)	₩ (1,260)	₩ -	₩ -	₩ -	₩ 816	₩ 126,154
Buildings	221,851	-	5,849	(8,938)	(6,016)	(85)	(8,209)	(38,251)	5,912	172,113
Structures	144,847	-	1,793	1,088	-	(922)	(7,324)	(607)	2,862	141,737
Machinery and equipment	49,049	-	7,764	9,100	(752)	(1,672)	(9,377)	(22,740)	2,817	34,189
Vehicles	14,769	-	3,525	(17)	-	(74)	(2,725)	(544)	487	15,421
Mature biological assets	81,515	-	-	3,526	-	-	(5,842)	-	6,667	85,866
Non-mature biological assets	2,110	-	1,317	(3,482)	-	(12)	-	-	155	88
Others	11,842	-	13,486	20	(11)	(425)	(9,860)	(697)	818	15,173
Construction-in-progress	12,076	-	30,638	(16,155)	-	(402)	-	(1,318)	274	25,113
Right-of-use assets (*5)	-	167,306	98,292	1,061	(1,449)	(43,777)	(77,408)	-	4,729	148,754
	₩ 669,022	₩ 167,306	₩ 162,693	₩ (18,191)	₩ (9,488)	₩ (47,369)	₩ (120,745)	₩ (64,157)	₩ 25,537	₩ 764,608

(*1) For the year ended December 31, 2019, land and buildings which are amounting to ₩16,381 million were transferred to investment property, and in accordance with KIFRS 1116 *Leases*, intangible assets of ₩1,061 million were transferred to right-of-use assets.

(*2) Refer to Note 30

(*3) Refer to Note 21

(*4) Includes the effects of fluctuation in foreign currency exchange rates.

(*5) Refer to Note 29

9.2 Investment properties

Details of investment properties as of December 31, 2020 and 2019 are as follows (Korean won in millions):

	2020	2019
	Buildings	Buildings
Acquisition cost	₩ 5,734	₩ 7,285
Accumulated depreciation	(1,125)	(1,303)
Net book value	₩ 4,609	₩ 5,982

Changes in the net book value of investment properties for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

	2020	2019
Jan. 1	₩ 5,982	₩ 30,158
Transfer	-	16,381
Disposals / held for sale reclassified	-	(40,890)
Depreciation	(165)	(474)
Others	(1,208)	807
Dec. 31	₩ 4,609	₩ 5,982

The fair value of investment properties held by the Group cannot be reliably estimated.

9.3 Assets provided as collateral

The details of the assets provided as collateral as of December 31, 2020 are as follows (Korean won in millions):

	Net book value	Agreed debt limit	Security holder	Description
Land and Buildings	₩ 100,059	₩ 92,400	Korea Development Bank	Mortgages payable
Land and Buildings	₩ 6,439	₩ 4,461	Kashikorn Bank	Mortgages payable

9.4 Insurance

As of December 31, 2020, the assets covered by insurance policies are as follows (Korean won in millions):

Insurance type	Covered assets	Insured up to	Insurance institutions
Property insurance	Inventories and property, plant and equipment	₩ 261,046	KB Insurance Co., Ltd. and others

In addition, the Group carries liability insurance for loads, warehousing liability insurance, and international transport liability insurance.

10. Intangible assets

Details of intangible assets as of December 31, 2020 and 2019 are as follows (Korean won in millions):

	2020	2019
Goodwill	₩ 180,080	₩ 180,408
Industrial property rights	19	31
License	18,731	25,142
Overseas resources development	256,667	296,237
Others	239,349	225,042
	<u>₩ 694,846</u>	<u>₩ 726,860</u>

Changes in the net book value of intangible assets for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

	2020								
	January 1	Acquisitions	Disposals	Transfer (*1)	Amortization	Impairment (*3)	Change in the scope of consolidation	Others (*4)	December 31
Goodwill	₩ 180,408	₩ 40	₩ -	₩ -	₩ -	₩ (40)	₩ -	₩ (328)	₩ 180,080
Industrial property rights	31	1,016	-	-	(609)	-	-	(419)	19
License	25,142	1,479	(8,990)	1,259	-	(100)	-	(59)	18,731
Overseas resources development	296,237	4,745	-	-	(18,084)	(13,816)	-	(12,415)	256,667
Others	225,042	36,375	(90)	3,355	(15,488)	(8)	27	(9,864)	239,349
	<u>₩ 726,860</u>	<u>₩ 43,655</u>	<u>₩ (9,080)</u>	<u>₩ 4,614</u>	<u>₩ (34,181)</u>	<u>₩ (13,964)</u>	<u>₩ 27</u>	<u>₩ (23,085)</u>	<u>₩ 694,846</u>

	2019								
	January 1	Acquisitions	Disposals	Transfer (*1)	Held for sale reclassification (*2)	Amortization	Impairment (*3)	Others (*4)	December 31
Goodwill	₩ 178,711	₩ -	₩ -	₩ -	₩ -	₩ -	₩ (175)	₩ 1,872	₩ 180,408
Industrial property rights	31	-	-	-	-	-	-	-	31
License	24,971	1,615	(1,418)	1,610	-	-	(120)	(1,516)	25,142
Overseas resources development	406,741	5,868	-	-	-	(20,483)	(114,849)	18,960	296,237
Others	265,669	25,677	(1,751)	6,418	(2,448)	(15,155)	(58,681)	5,313	225,042
	<u>₩ 876,123</u>	<u>₩ 33,160</u>	<u>₩ (3,169)</u>	<u>₩ 8,028</u>	<u>₩ (2,448)</u>	<u>₩ (35,638)</u>	<u>₩ (173,825)</u>	<u>₩ 24,629</u>	<u>₩ 726,860</u>

(*1) Represents amounts transferred from property, plant and equipment (i.e. construction-in-progress).

(*2) Refer to Note 30

(*3) Refer to Note 21

(*4) Represents the effects of fluctuation in foreign currency exchange rates.

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11. Trade and other receivables

Details of trade and other receivables as of December 31, 2020 and 2019 are as follows (Korean won in millions):

	2020			2019		
	Total amount	Allowance for doubtful accounts	Net value	Total amount	Allowance for doubtful accounts	Net value
Current:						
Trade accounts receivable	₩ 1,341,905	₩ (43,167)	₩ 1,298,738	₩ 1,038,780	₩ (44,716)	₩ 994,064
Short-term loans	11,818	(6,706)	5,112	10,717	(6,780)	3,937
Other accounts receivable (*1)	198,405	(11,059)	187,346	301,215	(13,284)	287,931
Accrued income	4,570	(2,704)	1,866	20,592	(10,393)	10,199
Short-term deposits	3,081	-	3,081	3,578	-	3,578
Current portion of long-term other accounts receivable	21,644	-	21,644	21,140	-	21,140
	<u>1,581,423</u>	<u>(63,636)</u>	<u>1,517,787</u>	<u>1,396,022</u>	<u>(75,173)</u>	<u>1,320,849</u>
Non-current:						
Long-term receivables	151,381	-	151,381	162,357	-	162,357
Long-term loans	121,501	(97,009)	24,492	122,046	(88,744)	33,302
Long-term other accounts receivable (*1)	19,367	(193)	19,174	17,367	(173)	17,194
Present value discount	(2,644)	-	(2,644)	(3,960)	-	(3,960)
Long-term accrued income	15,924	(7,407)	8,517	-	-	-
Long-term bank deposits	3,556	-	3,556	3,398	-	3,398
Long-term deposits	36,424	(4,290)	32,134	30,550	(4,290)	26,260
	<u>345,509</u>	<u>(108,899)</u>	<u>236,610</u>	<u>331,758</u>	<u>(93,207)</u>	<u>238,551</u>
	<u>₩ 1,926,932</u>	<u>₩ (172,535)</u>	<u>₩ 1,754,397</u>	<u>₩ 1,727,780</u>	<u>₩ (168,380)</u>	<u>₩ 1,559,400</u>

(*1) As of December 31, 2020, other receivables related to derivatives of ₩6,096 million (₩1,153 million in 2019) were excluded. As of December 31, 2019, Long-term other accounts receivable related to derivatives of ₩1,261 million.

Changes in the net book value of allowance for doubtful accounts for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

	2020		2019	
	Trade receivables	Other receivables	Trade receivables	Other receivables
Jan. 1	₩ 44,716	₩ 123,664	₩ 44,937	₩ 100,024
Bad debt expenses	742	385	2,475	2,442
Others (*2)	(2,291)	5,319	(2,696)	21,198
Dec. 31	<u>₩ 43,167</u>	<u>₩ 129,368</u>	<u>₩ 44,716</u>	<u>₩ 123,664</u>

(*2) Impairment loss in relation to Kernhem B.V. And ADA Oil LLP., which amounts are ₩9,611 million (₩21,479 million in 2019), is included (Refer to Note 21).

Aging analyses of trade receivables as of December 31, 2020 and 2019 are as follows (Korean won in millions):

	Less than 3 months	3 to 6 months	6 to 12 months	1 to 3 years	More than 3 years	Total
2020	₩ 1,279,617	₩ 12,806	₩ 1,298	₩ 3,176	₩ 45,008	₩ 1,341,905
2019	955,713	18,276	2,500	7,874	54,417	1,038,780

11. Trade and other receivables (cont'd)

Derecognition of financial instruments

As of December 31, 2020, there are no trade accounts receivable that were transferred or factored but not derecognized because the requirements for financial instrument derecognition are not met.

12. Borrowings and bonds

12.1 Short-term borrowings

Details of short-term borrowings as of December 31, 2020 and 2019 are as follows (Korean won in millions):

	Description	Annual interest rate as of Dec. 31, 2020	2020	2019
Short-term operating loans	Woori Bank and others	3ML + 1.50% and others	₩ 102,661	₩ 98,930
Banker's usance	KEB Hana Bank	0.54% ~ 0.63%	652	528
Others	-	-	3,491	36,917
			<u>₩ 106,804</u>	<u>₩ 136,375</u>

(*) The Group has contracts of commercial paper discount with Woori, Shinhan, KEB Hana and Korea Development Bank. Amounts that have not reached maturity after discounts and do not meet the requirements of financial asset derecognition are accounted as short-term borrowings.

The Group has signed individual and comprehensive loan agreements (credit limit of ₩39,181 million) with Shinhan Bank and three other banks in relation to bank overdraft facilities as of December 31, 2020. In relation to the bank overdraft facilities above, long-term financial instruments are provided as collateral.

12.2 Long-term borrowings

Details of long-term borrowings as of December 31, 2020 and 2019 are as follows (Korean won in millions):

	Financial institution	Annual interest rate as of Dec. 31, 2020	2020	2019
Local currency	Woori International the 1 st Co., Ltd and others	2.89% and others	₩ 469,744	₩ 547,965
Foreign currency	The Export-Import Bank of Korea and others	6ML+2.32% and others	112,492	240,920
			582,236	788,885
			(75,669)	(152,896)
Less: current portion			<u>₩ 506,567</u>	<u>₩ 635,989</u>

12.3 Bonds

Details of bonds as of December 31, 2020 and 2019 are as follows (Korean won in millions):

Series	Issue date	Maturity date	Annual interest rate	2020	2019	Warranty
115th	Mar. 03, 2015	Mar. 03, 2022	2.74%	50,000	50,000	Non-warranty
116-2nd	May. 28, 2015	May. 28, 2020	2.43%	-	70,000	"
116-3rd	May. 28, 2015	May. 28, 2022	2.86%	90,000	90,000	"
117-2nd	Sep. 05, 2016	Sep. 05, 2021	2.02%	30,000	30,000	"
118-1st	Jan. 23, 2018	Jan. 22, 2021	2.57%	70,000	70,000	"
118-2nd	Jan. 23, 2018	Jan. 20, 2023	2.95%	30,000	30,000	"
119th	May. 13, 2020	May. 13, 2030	3.10%	50,000	-	"
120-1st	May. 27, 2020	May. 27, 2023	1.80%	90,000	-	"
120-2nd	May. 27, 2020	May. 27, 2025	2.07%	50,000	-	"
Pantos bond	Jun. 15, 2018	Jun. 15, 2021	3.11%	50,000	50,000	"
Less: discount on bonds				(733)	(472)	
Less: current portion of bonds				(150,000)	(70,000)	
Less: current portion of discount on bonds				40	16	
				<u>₩ 359,307</u>	<u>₩ 319,544</u>	

13. Provisions

Details of provisions as of December 31, 2020 and 2019 are as follows (Korean won in millions):

	2020		2019	
Rehabilitation provisions	₩	15,681	₩	10,605
Onerous contracts		24,873		39,354
Provisions for litigation		475		505
Others		38		2
	₩	<u>41,067</u>	₩	<u>50,466</u>

2020						
	Jan. 1	Recognition	Used	Others	Dec. 31	
Rehabilitation provisions	₩ 10,605	₩ 6,951	₩ (1,160)	₩ (715)	₩ 15,681	
Onerous contracts	39,354	(7,663)	(4,889)	(1,929)	24,873	
Provisions for litigation	505	-	-	(30)	475	
Others	2	566	(509)	(21)	38	
	<u>₩ 50,466</u>	<u>₩ (146)</u>	<u>₩ (6,558)</u>	<u>₩ (2,695)</u>	<u>₩ 41,067</u>	

2019						
	Jan. 1	Recognition	Used	Others	Dec. 31	
Rehabilitation provisions	₩ 26,719	₩ 7,894	₩ (5,951)	₩ (18,057)	₩ 10,605	
Onerous contracts	38,099	2,994	(3,076)	1,337	39,354	
Provisions for litigation	-	516	-	(11)	505	
Others	7	377	(383)	1	2	
	<u>₩ 64,825</u>	<u>₩ 11,781</u>	<u>₩ (9,410)</u>	<u>₩ (16,730)</u>	<u>₩ 50,466</u>	

14. Issued capital and others

14.1 Issued capital

Details of issued capital as of December 31, 2020 and 2019 are as follows (Korean won in millions, except per share amounts):

	2020		2019
Ordinary shares issued	38,760,000		38,760,000
Par value per share	₩ 5,000	₩	5,000
	₩ 193,800	₩	193,800

14.2 Share premium

Details of share premium as of December 31, 2020 and 2019 are as follows (Korean won in millions):

	2020		2019
Paid-in capital in excess of par value	₩ 47,106	₩	47,106
Asset revaluation reserves (*1)	37,286		37,286
Other capital reserves	16,761		16,801
	₩ 101,153	₩	101,193

(*1) The Group revalued its property, plant and equipment on July 1, 1998 in accordance with the Assets Revaluation Act, and the revaluation difference amounted to ₩87,151 million. The revaluation reserve was calculated by deducting the revaluation tax and the exchange rate adjustment difference from the revaluation difference.

14.3 Other components of equity

Details of other components of equity as of December 31, 2020 and 2019 are as follows (Korean won in millions):

	2020		2019
Treasury stock	₩ (40,689)	₩	(968)
Other capital adjustments	(611)		(611)
	₩ (41,300)	₩	(1,579)

14.4 Accumulated other comprehensive income or loss

Details of accumulated other comprehensive income or loss as of December 31, 2020 and 2019 are as follows (Korean won in millions):

	2020		2019
Gain on valuation of financial assets at fair value through OCI	₩ (17,605)	₩	22,060
Gain(loss) on valuation of derivatives designated as cash flow hedges	(13,097)		(5,921)
Changes in equity arising from equity method investments	3,722		13,113
Negative changes in equity arising from equity method investments	(32,758)		(42,883)
Exchange differences on translation of foreign operations	(42,688)		(4,070)
Equity directly associated with the assets held for sale	-		(1,472)
	₩ (102,426)	₩	(19,173)

14.5 Retained earnings

Details of retained earnings as of December 31, 2020 and 2019 are as follows (Korean won in millions):

	2020	2019
Legal reserve	₩ 43,741	₩ 41,988
Business rationalization reserve	1,511	1,511
Improvement of financial structure reserve	13,693	13,693
Other legal reserve	2,211	2,211
Retained earnings before appropriations	1,125,795	837,838
	<u>₩ 1,186,951</u>	<u>₩ 897,241</u>

14.6 Earnings per share

Earnings per share attributable to the owners of the parent for the years ended December 31, 2020 and 2019 are computed as follows (Korean won):

	2020	2019
Profit for the year attributable to the owners of the parent	₩ 297,586,971,040	₩ 28,575,012,358
Weighted-average number of ordinary shares outstanding (*1)	37,517,383	38,659,249
Basic and diluted earnings per share	<u>₩ 7,932</u>	<u>₩ 739</u>

(*1) The weighted-average number of ordinary shares outstanding for the years ended December 31, 2020 and 2019 are as follows:

	2020		2019	
	Number of shares	Number of shares*days of holding	Number of shares	Number of shares*days of holding
Number of common shares issued	38,760,000	14,186,160,000	38,760,000	14,147,400,000
Treasury shares	(2,792,074)	(454,797,807)	(100,751)	(36,774,115)
Number of ordinary shares outstanding	<u>35,967,926</u>	<u>13,731,362,193</u>	<u>38,659,249</u>	<u>14,110,625,885</u>
Days of holding		<u>366 days</u>		<u>365 days</u>
Weighted-average number of ordinary shares outstanding		37,517,383		38,659,249

15. Dividends

For the years ended December 31, 2020 and 2019, dividends attributable to the owners of the parent are as follows (Korean won in millions, except per share amounts):

	2020	2019
Dividend per share	₩ 300	₩ 250
Dividends paid	11,598	9,665

As of December 31, 2020 and 2019, proposed dividends to be approved at the general meeting of shareholders are as follows (Korean won in millions, except per share amounts):

	2020	2019
Dividend per share	₩ 400	₩ 300
Dividends paid	14,387	11,598

16. Sales

Revenue from contracts with customers for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

	2020			2019		
	Energy/Palm	Industrial material/Solution	Logistics	Energy/Palm	Industrial material/Solution	Logistics
Revenue recognized at a point of time						
Sales of goods	₩ 1,280,633	₩ 5,274,975	₩ 19,820	₩ 1,042,304	₩ 5,299,568	₩ 17,637
Sales of services	422	23,398	-	6,400	23,442	-
	1,281,055	5,298,373	19,820	1,048,704	5,323,010	17,637
Revenue recognized over period						
Sales of services	60	27,505	4,655,819	449	46,991	4,094,066
	₩ 1,281,115	₩ 5,325,878	₩ 4,675,639	₩ 1,049,153	₩ 5,370,001	₩ 4,111,703

Details of contract assets and liabilities arising from contracts with customers as of December 31, 2020 and 2019 are as follows (Korean won in millions):

	Segment	2020	2019
Contract assets	Logistics	₩ 18,970	₩ 10,324
		₩ 18,970	₩ 10,324
Contract liabilities			
Advance received	Energy/Palm	₩ 32,303	₩ 7,306
	Industrial material/Solution	2,368	14,719
		34,671	22,025
Deferred income	Energy/Palm	2	3
	Logistics	73,674	56,221
		73,676	56,224
		₩ 108,347	₩ 78,249

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16. Sales (cont'd)

		2020				
	Segment	Jan. 1	Increase	Decrease	Dec. 31	
Contract assets	Logistics	₩ 10,324	₩ 18,970	₩ (10,324)	₩ 18,970	
		₩ 10,324	₩ 18,970	₩ (10,324)	₩ 18,970	
Contract liabilities						
Advance received	Energy/Palm Industrial material/Solution	₩ 7,306	₩ 41,529	₩ (16,532)	₩ 32,303	
		14,719	6,267	(18,618)	2,368	
		22,025	47,796	(35,150)	34,671	
Deferred income	Energy/Palm Logistics	3	51	(52)	2	
		56,221	61,242	(43,789)	73,674	
		56,224	61,293	(43,841)	73,676	
		₩ 78,249	₩ 109,089	₩ (78,991)	₩ 108,347	
2019						
	Segment	Jan. 1	Increase	Decrease	Dec. 31	
Contract assets	Logistics	₩ 7,316	₩ 10,324	₩ (7,316)	₩ 10,324	
		₩ 7,316	₩ 10,324	₩ (7,316)	₩ 10,324	
Contract liabilities						
Advance received	Energy/Palm Industrial material/Solution	₩ 4,396	₩ 20,079	₩ (17,169)	₩ 7,306	
		61,064	6,130	(52,475)	14,719	
		65,460	26,209	(69,644)	22,025	
Deferred income	Energy/Palm Industrial material/Solution Logistics	-	3	-	3	
		-	129	(129)	-	
		55,998	28,376	(28,153)	56,221	
		55,998	28,508	(28,282)	56,224	
		₩ 121,458	₩ 54,717	₩ (97,926)	₩ 78,249	

17. Selling and administrative expenses

Details of selling and administrative expenses for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

	2020	2019
Salaries	₩ 245,829	₩ 234,502
Pension benefits	16,091	16,942
Employee welfare benefits	50,690	52,122
Travel	4,726	13,401
Taxes and dues	10,300	4,609
Rents	10,619	19,030
Depreciation	30,192	21,921
Amortization	21,063	24,030
Advertising and marketing	1,605	1,803
Insurance	4,686	5,582
Custody	1,387	2,145
Freight	72,783	69,364
Service	70,479	80,452
Bad debt expenses	742	2,475
Expenses for overseas branch office	7,411	8,483
Others	23,938	21,862
	<u>₩ 572,541</u>	<u>₩ 578,723</u>

18. Expenses classified by nature

Expenses classified by nature for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

	2020	2019
Cost of goods sales	₩ 5,880,310	₩ 5,580,342
Use of raw materials and supplies	399,068	449,774
Employee benefits (salaries, retirement benefits)	355,137	336,989
Distribution costs (custody charges, packaging costs, transportation expenses)	80,468	77,347
Cost of logistics sales	3,721,182	3,258,710
Depreciation and amortization	163,624	156,858
Others	523,008	536,053
	<u>₩ 11,122,797</u>	<u>₩ 10,396,073</u>

19. Pension benefits

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

Details of employee benefit liabilities as of December 31, 2020 and 2019 are as follows (Korean won in millions):

	2020	2019
Present value of defined benefit obligation	₩ 135,298	₩ 127,118
Fair value of plan assets	(121,021)	(104,672)
	₩ 14,277	₩ 22,446

Expenses recognized in respect of the defined benefit plans for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

	2020	2019
Current service costs	₩ 18,278	₩ 15,920
Net interest costs	328	488
Management cost of plan assets	184	295
	₩ 18,790	₩ 16,703

Changes in the present value of defined benefit obligation for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

	2020	2019
January 1	₩ 127,118	₩ 114,563
Current service costs	18,278	15,920
Interest costs	2,489	2,583
Benefits paid	(8,472)	(11,912)
Transfer out	(283)	221
Re-measurement gain on defined benefit plans	(3,415)	3,740
Change in the scope of consolidation	35	-
Others	(452)	2,003
December 31	₩ 135,298	₩ 127,118

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

	2020	2019
January 1	₩ 104,672	₩ 88,146
Return on plan assets	2,161	2,094
Contribution payable	22,511	23,809
Benefits paid	(8,190)	(8,789)
Re-measurement loss on defined benefit plans	56	(308)
Management costs of plan assets	(184)	(295)
Others	(5)	15
December 31	₩ 121,021	₩ 104,672

The principal assumptions used in actuarial calculation as of December 31, 2020 and 2019 are as follows:

	2020	2019
Salary increase rate	5.00%	4.80% ~ 5.99%
Discount rate	1.75% ~ 2.25%	1.99% ~ 2.22%

19. Pension benefits (cont'd)

Sensitivity analyses on the principal assumptions used in actuarial calculation as of December 31, 2020 are as follows (Korean won in millions):

	Defined benefit obligation		
	Dec. 31	Increase by 1%	Decrease by 1%
Salary increase rate	₩ 135,298	₩ 146,656	₩ 125,191
Discount rate	135,298	125,077	147,052

The Group operates defined contribution plans for certain employees of which expenses amounting to ₩264 million and ₩670 million were recognized in 2020 and 2019, respectively.

20. Other non-operating income and costs

20.1 Finance income

Details of finance income for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

	2020	2019
Interest income	₩ 10,404	₩ 15,974
Gain on foreign currency transactions	214,517	137,603
Gain on foreign currency translation	47,420	44,441
Gain on currency forwards	13,738	13,893
Gain on currency swaps	1,688	4,471
Dividend income	4,376	6,176
Commission revenue from guarantees	-	238
	<u>₩ 292,143</u>	<u>₩ 222,796</u>

20.2 Finance costs

Details of finance costs for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

	2020	2019
Interest expenses	₩ 42,753	₩ 49,068
Loss on foreign currency transactions	239,166	140,403
Loss on foreign currency translation	47,668	46,340
Loss on currency forwards	9,919	16,276
Loss on currency swaps	8,552	-
Loss on disposal of trade accounts receivable	10,118	19,880
	<u>₩ 358,176</u>	<u>₩ 271,967</u>

20.3 Share of profit or loss in associates

Details of share of profit or loss in associates for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

	2020	2019
Share of profit in associates	₩ 21,772	₩ 22,849
Share of loss in associates	(8,861)	(10,897)
Gain on disposal of investment in associates (*1)	336,764	5,504
Loss on disposal of investment in associates (*2)	(642)	(143)
Impairment loss on investment in associates (*3)	(9,611)	(23,368)
	₩ 339,422	₩ (6,055)

(*1) During the year ended December 31, 2020, gains on disposal of investment in LG Holdings(HK) Ltd.(LG Building Ltd.) are included.

(*2) Refer to Note 30

(*3) Refer to Note 21

20.4 Other non-operating income and expenses

Other non-operating income and expenses for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

	2020	2019
Gain on disposal of investment properties	₩ -	₩ 92,657
Gain on disposal of property, plant and equipment	18,969	889
Impairment loss on property, plant and equipment (*1)	-	(64,157)
Other bad debt expenses	(385)	(2,442)
Impairment loss on intangible assets (*1)	(13,963)	(173,825)
Impairment loss on assets held for sale (*1)	(783)	(10,018)
Others	18,801	2,054
	₩ 22,639	₩ (154,842)

(*1) Refer to Note 21

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21. Impairment

Details of impairment recognized for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

	2020				
	Intangible assets	Investment in associates	Assets held for sale (*1)	Intangible assets	Intangible assets
Segment	Energy/Palm	Industrial material/Solution	Energy/Palm	Logistics	Collectively grouped
Cause of impairment	Decline in business performances	Decline in business performances	Decline in business performances	Decline in business performances	Significant decrease in price
Impairment loss	₩ 13,816	₩ 9,611	₩ 783	₩ 40	₩ 107
Measuring of recoverable amount	Value in use	Value in use	Fair value less costs to sell	Fair value less costs to sell	Value in use
Basis of estimates	Zero-Growth / DCF	Zero-Growth / DCF	-	-	-
Discount rate	5.04%	9.96%	-	-	-

(*1) Refer to Note 30

	2019				
	Intangible assets	Investment in associates	Assets held for sale (*1)	Property, plant and equipment/ Intangible assets	Intangible assets
Segment	Resources	Resources	Resources	Infra-business	Collectively grouped
Cause of impairment	Decline in business performances	Decline in business performances	Decline in business performances	Decline in business performances	Significant decrease in price
Impairment loss	₩ 165,036	₩ 23,368	₩ 10,018	₩ 72,826	₩ 120
Measuring of recoverable amount	Fair value less costs to sell	Value in use	Fair value less costs to sell	Fair value less costs to sell	Fair value less costs to sell
Basis of estimates	Zero-Growth / DCF	Zero-Growth / DCF	-	Zero-Growth / DCF	-
Discount rate	9.03%	10.66%	-	14.55%	-

(*1) Refer to Note 30

22. Income tax

The major components of income tax expenses for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

	2020	2019
Current income tax (*1)	₩ 78,845	₩ (15,821)
Changes in deferred tax	1,089	(44,146)
Deferred tax related to items recognized in other comprehensive income	14,323	(456)
Income tax expenses (benefit) reported in the statement of profit or loss	₩ 94,257	₩ (60,423)

(*1) The 2020 amounts include refunds with regards to the local income tax correction claims and adjustment due to administrative litigation of KRW 15,969 million for the year ended December 31, 2020. The 2019 amounts include the refund of ₩47,547 million and related local income taxes by the resolution of Tax Tribunal, from the additionally imposed tax resulting from the periodic tax investigation for the years from 2012 to 2016.

22. Income tax (cont'd)

Reconciliations between income tax expense at the effective income tax rate and profit before tax at the Korea statutory tax rate for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

	2020	2019
Profit (loss) before income tax	₩ 455,863	₩ (75,284)
Statutory income tax at the tax rate (24.1% in 2020)	109,857	-
Adjustments:		
Effect of unrecognized deferred tax for temporary differences	(3,153)	(9,234)
Current year adjustment related to the income tax on previous years	(18,781)	(58,443)
Effect of non-deductible expenses for tax purposes	2,730	1,121
Tax credit	(8,967)	(8,134)
Foreign income tax directly charged	4,155	2,418
Others	8,416	11,849
Income tax expenses reported in the statement of profit or loss	₩ 94,257	₩ (60,423)
Effective tax rate (income tax expenses/ profit before income tax)	21%	-

The major components of deferred income tax charged directly to equity for the years ended December 31, 2020 and 2019 are follows (Korean won in millions):

	2020	2019
Gain on valuation of financial assets at fair value through OCI	₩ 12,615	₩ 1,050
Changes in equity arising from equity method investment	170	(3,440)
Negative changes in equity arising from equity method investment	(1)	(23)
Exchange differences on translation of foreign operations	886	(1,121)
Gains and losses on valuation of derivatives	1,446	2,123
Re-measurement loss on defined benefit plans	(793)	955
	₩ 14,323	₩ (456)

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22. Income tax (cont'd)

Temporary differences and deferred taxes for the years ended December 31, 2020 and 2019 consist of the following (Korean won in millions):

	Accumulated temporary differences			Deferred tax assets (liabilities)	
	Jan. 1, 2020	Net changes	Dec. 31, 2020	Dec. 31, 2019	Dec. 31, 2020
Deferred income tax due to temporary differences:					
Impairment of available-for-sale financial assets	₩ 161,588	₩ (13,980)	₩ 147,608	₩ 37,893	₩ 34,510
Stock dividend	12,999	-	12,999	3,146	3,146
Allowance for doubtful accounts	150,529	6,510	157,039	35,136	36,570
Bad debt expenses	3,492	-	3,492	845	845
Accrued income	(3)	(2)	(5)	(1)	(1)
Interest income	2,875	163	3,038	696	735
Allowance for inventories	23	(23)	-	6	-
Gain on commodity futures	(264)	264	-	(64)	-
Loss on commodity futures	-	145	145	-	35
Accrued expenses	1,400	181	1,581	339	383
Admission and denial on depreciation cost	5,330	(467)	4,863	1,290	1,177
Bonus	5,240	(3,127)	2,113	1,268	511
Interest related to loans or construction	(483)	-	(483)	(117)	(117)
Brand loyalty	(67)	129	62	(16)	15
Present value of defined benefit obligation	40,717	(6,413)	34,304	9,854	8,302
Fair value of plan assets	(32,349)	(270)	(32,619)	(7,828)	(7,894)
Gain (loss) on foreign currency translation	(17,077)	139	(16,938)	(4,133)	(4,099)
Interest and translation of debt related on success	4,071	(74)	3,997	985	967
Rewards for long term employee	1,241	(97)	1,144	300	277
Impairment right of membership	2,677	(655)	2,022	648	489
Investment in subsidiaries and associates	(68,297)	(32,468)	(100,765)	(25,988)	(29,392)
Financial assets at fair value through OCI	(37,302)	53,664	16,362	(9,027)	3,960
Impairment loss	79,155	-	79,155	19,155	19,155
Provisions	51,422	(19,774)	31,648	12,444	7,659
Taxes and dues	6,563	(2,547)	4,016	1,114	498
Guarantee commission	21,819	(250)	21,569	375	375
Deemed dividend	26,685	13,441	40,126	6,458	9,710

LG International Corp. and its subsidiaries
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22. Income tax (cont'd)

	Accumulated temporary differences			Deferred tax assets (liabilities)	
	Jan. 1, 2020	Net changes	Dec. 31, 2020	Dec. 31, 2019	Dec. 31, 2020
Gains from assets contributed	1,529	-	1,529	370	370
Transfer price	7,423	-	7,423	-	-
Capital lease	121	17	138	29	34
Commission fees	8,050	(636)	7,414	591	573
Others	(236,712)	50,699	(186,013)	(57,285)	(45,015)
	202,395	44,569	246,964	28,483	43,778
Tax credits				29,967	38,934
Tax losses carried forward	104,757	(104,757)	-	25,351	-
				<u>₩ 83,801</u>	<u>₩ 82,712</u>

Temporary differences for which the deferred tax assets (liabilities) have not been recognized for the years ended December 31, 2020 and 2019 consist of the following (Korean won in millions):

	2020	2019
Investment in subsidiaries, associates or joint ventures (*)	₩ 264,839	₩ 227,441
Commissions and others	29,403	29,653
	<u>₩ 294,242</u>	<u>₩ 257,094</u>

(*) The Group did not recognize deferred tax assets related to temporary differences due to accumulated other comprehensive loss and accumulated losses from investment in subsidiaries or associates in which the Group has no plan for disposal in the foreseeable future.

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23. Related party disclosures

Transactions with related parties for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

	2020			2019		
	Sales	Purchase	Service	Sales	Purchase	Service
Corporations that have significant influence on the Group at the end of the current year:						
LG Corp. (*1)	₩ 4	₩ -	₩ 10,661	₩ 133,915	₩ -	₩ 13,436
	4	-	10,661	133,915	-	13,436
Associates:						
Kernhem B.V.	1,088	-	-	2,695	-	-
ADA Oil LLP	319	-	-	586	-	-
Musandam Power Company SAOC	72	-	-	140	-	-
PT. Pantos Express Indonesia	-	-	-	189	-	26
Pantos Logistics Philippines Inc.	3,806	-	1,492	3,352	-	1,679
POSCO-PWPC (Poland Wroclaw Steel Processing Center)	209	-	-	-	-	-
POSCO-IPPC (India Pune Processing Center)	-	-	-	62	-	-
	5,494	-	1,492	7,024	-	1,705
Other related parties (*2):						
LG Electronics Inc. and its subsidiaries	5,575,189	66,536	7,798	5,094,222	113,632	5,465
LG Chem. Ltd. and its subsidiaries	953,301	57,801	1,024	1,018,836	185,364	707
LG Display Co., Ltd. and its subsidiaries	261,007	381,200	255	426,419	628,546	89
Others	130,521	751	40,773	126,007	1,547	37,239
	6,920,018	506,288	49,850	6,665,484	929,089	43,500
	₩ 6,925,516	₩ 506,288	₩ 62,003	₩ 6,806,423	₩ 929,089	₩ 58,641

(*1) During the year ended December 31, 2019, the participation interests of Yeouido Twin Tower, an investment property owned by the Group, were sold to LG Corp. for ₩133,909 million.

(*2) It is not included in the scope of related parties per K-IFRS 1024 *Disclosure of Related Parties*, but it belongs to the same large-scale business groups under the Act on Monopoly Regulation and Fair Trade.

Outstanding balances from transactions with the related parties as of December 31, 2020 and 2019 are as follows (Korean won in millions):

	2020				
	Accounts receivable	Loans	Other receivables	Accounts payable	Other payables
Corporations that have significant influence on the Group at the end of the current year:					
LG Corp.	₩ -	₩ -	₩ 6,957	₩ -	₩ 117
	-	-	6,957	-	117
Associates:					
ADA Oil LLP	-	10,754	650	-	-
Kernhem B.V.	-	43,328	7,984	-	-
KM Resources Ltd.(Rapu-Rapu)	-	4,352	-	-	-
POSCO-PWPC(Poland Wroclaw Processing Center)	197	-	-	-	-
POSCO-IPPC(India Pune Processing Center)	-	-	-	-	1
Musandam Power Company SAOC	-	-	2	-	-
GS HP Sunflower Village Int'l Corp.	-	-	49	-	-
Pantos Logistics Philippines Inc.	174	2,557	15	182	-
	371	60,991	8,700	182	1
Other related parties:					
LG Electronics Inc. and its subsidiaries	537,503	-	65,387	4,212	5,121
LG Chem. Ltd. and its subsidiaries	99,482	-	4,430	168	4,659
LG Display Co., Ltd. and its subsidiaries	22,265	-	4,997	81,001	360
Others	11,009	-	6,096	345	16,030
	670,259	-	80,910	85,726	26,170
	₩ 670,630	₩ 60,991	₩ 96,567	₩ 85,908	₩ 26,288

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23. Related party disclosures (cont'd)

	2019				
	Accounts receivable	Loans	Other receivables	Accounts payable	Other payables
Corporations that have significant influence on the Group at the end of the current year:					
LG Corp.	₩ -	₩ -	₩ 7,054	₩ -	₩ -
	-	-	7,054	-	-
Associates:					
ADA Oil LLP	-	11,444	451	-	-
Gansu Wuwei Cogeneration Power Plant	-	-	767	-	-
Kernhem B.V.	-	46,107	6,895	-	-
POSCO-IPPC(India Pune Processing Center)	-	-	-	-	1
Musandam Power Company SAOC	-	-	1,055	-	-
PT. Pantos Express Indonesia	14	-	7	1	3
Pantos Logistics Philippines Inc.	429	-	29	119	-
	443	57,551	9,204	120	4
Other related parties:					
LG Electronics Inc. and its subsidiaries	307,083	-	77,081	15,197	14,135
LG Chem. Ltd. and its subsidiaries	104,886	-	24	13,215	643
LG Display Co., Ltd. and its subsidiaries	33,198	-	45,339	94,220	12,424
Others	12,514	-	10,936	53	10,148
	457,681	-	133,380	122,685	37,350
	₩ 458,124	₩ 57,551	₩ 149,638	₩ 122,805	₩ 37,354

The Group recognized allowance for doubtful accounts of ₩53,402 million as of December 31, 2020 (2019: ₩42,325 million) for the trade and other receivable from the related parties.

Transfers under finance arrangements with the related parties for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

	2020			
	Dividends	Investment in cash	Loans	Collection
Associates:				
GS HP Sunflower Village Int'l Corp.	₩ 183	₩ -	₩ -	₩ -
KM Resources Ltd.(Rapu-Rapu)	-	-	4,798	-
Musandam Power Company SAOC	1,079	-	-	-
Gansu Wuwei Cogeneration Power Plant	2,490	-	-	-
Pantos Logistics Philippines Inc.	-	-	1,523	-
	₩ 3,752	₩ -	₩ 6,321	₩ -
	2019			
	Dividends	Investment in cash	Loans	Collection
Associates:				
United Copper & Moly LLC (Rosemont) (*1)	₩ 39,918	₩ 8	₩ -	₩ -
GS HP Sunflower Village Int'l Corp.	197	-	-	-
Mongolia Boyuan Coal (Wantugou)	4,886	-	-	-
Musandam Power Company SAOC	3,139	-	-	2,861
Gansu Wuwei Cogeneration Power Plant	777	-	-	-
Pantos Logistics Philippines Inc.	-	-	979	-
	₩ 48,917	₩ 8	₩ 979	₩ 2,861

(*1) During the year ended December 31, 2019, United Copper & Moly LLC was excluded from the Group's associates due to its liquidation.

Details of compensation for key management personnel are as follows (Korean won in millions):

	2020	2019
Short-term employee benefits	₩ 13,841	₩ 13,734
Pension benefits	4,440	5,408
	₩ 18,281	₩ 19,142

24. Commitments and contingencies

24.1 Guarantees provided

	Financial institution	Object	Limit
Subsidiaries:			
PT.Ganda Alam Makmur (*1)	KEXIM and others	Local finance	₩ 44,234
Associates:			
Pantos Logistics Philippines Inc.	Shinhan Bank	"	1,101
			₩ 45,335

(*1) The Group is contingently liable for payment guarantees issued on behalf of a subsidiary, PT. Ganda Alam Markmur (GAM) and each stockholder of this subsidiary is jointly liable to provide additional capital related to guarantees.

24.2 Major agreements such as opening letters of credit

As of December 31, 2020, the agreements concluded for the establishment of Letter of credits and other financial arrangement with financial institutions are as follows (Korean won in millions and foreign currencies in thousands):

Description	Financial institution	Contract amount
Bills bought	Shinhan Bank and others	USD 125,000
Letter of credits	KEB Hana Bank and others	USD 163,530
Payment guarantee	KEB Hana Bank and others	USD 63,000
		KRW 32,714
Bank overdrafts	KEB Hana Bank and others	KRW 21,400
		GBP 1,300
		EUR 7,000
		INR 100,000
Line of credit	HSBC and others	USD 35,000
		KRW 141,800
B2B purchase loan	Shinhan Bank	KRW 15,000
Trade financing	Woori Bank and others	USD 384,000
		KRW 136,800
Loans secured by accounts receivable	Shinhan Bank	KRW 50,000
		USD 770,530
		KRW 397,714
		GBP 1,300
		EUR 7,000
		INR 100,000

24.3 Guarantees received

Guarantees received by the Group as of December 31, 2020 are as follows (Korean won in millions and foreign currencies in thousands):

	Financial institution	Guarantee amount	Description
Bonds	KEB Hana Bank and others	₩ 72,982	KRW 54,098, USD 8,186, EUR 669, HKD 6,314, SGD 727, AUD 22, PHP 48,600, VND 60,530,000, OMR 942, IDR 12,459,532

24.4 Pledged notes and checks

The Group pledged 21 notes and 9 checks as collateral to its customers, creditors and guarantors related to various guarantees and borrowings as of December 31, 2020.

24.5 License agreement

As of December 31, 2020, the Group maintains a license agreement with LG Corp. for the use of the “LG” brand name.

24.6 Joint and several liability on guarantees

The Group and newly incorporated entity, LF Corp. (formerly LG Fashion Corporation), are jointly and severally liable for the obligations of LGI existing prior to the spin-off.

24.7 Pending lawsuits

The Group is a defendant in various lawsuits with claims aggregating to ₩91,418 million, and as of December 31, 2020, the outcomes of litigation are not reliably determinable.

Among the above cases, the Group is in the process of arbitration with Oman government in relation to the termination of the oil business which was operated in Oman. The amount charged by Oman government is ₩73,972 million as of December 31, 2020, and the outcomes of litigation are not reliably determinable.

24.8 Uncertainty regarding the influence of COVID-19

The spread of the pandemic COVID-19 is exerting major impact on not only the national economy, but also the global economy. Also, various forms of governmental support policies are being announced in order to cope with COVID-19.

The accounts that are influenced by COVID-19 are mostly the recoverability of accounts receivable (Refer to Note 11), impairment of the investment in associates (Refer to Note 8, 21) and so on. The Group has prepared the consolidated financial statements by reasonably estimating the impact of COVID-19. However, the spread or termination of COVID-19 may affect the Group's estimation and assumptions, but the ultimate therefrom is not reasonably estimable as of December 31, 2020.

25. Financial risk management objectives and policies

The Group's principal financial liabilities, other than derivatives, comprise loans and borrowings, trade and other payables. The main purpose of these financial liabilities is to finance the Group's operations. The Group has trade receivables, loans and other receivables, and cash and short-term deposits that derive directly from its operations. The Group also holds financial assets at fair value through profit or loss and financial assets at fair value through OCI and enters into derivative transactions.

The Group is exposed to market risk, credit risk and liquidity risk.

The Board of Directors reviews and agrees policies for managing each of these risks which are summarized below. It is the Group's policy that no trading in derivatives for speculative purposes is to be undertaken.

The sensitivity analysis in the following sections relates to the financial position as of December 31, 2020 and 2019.

The sensitivity analysis has been prepared on the basis that the amount of net debt, the ratio of fixed to floating interest rates of the debt and derivatives and the proportion of financial instruments in foreign currencies are all held constant and on the basis of the hedge designations in place at December 31, 2020.

The analysis excludes the impact of movements in market variables on the carrying value of pension and other post-retirement obligations, provisions and on the non-financial assets and liabilities of foreign operations.

25. Financial risk management objectives and policies (cont'd)

The following assumptions have been made in calculating the sensitivity analyses:

- The statement of financial position sensitivity relates to derivatives and available-for-sale debt instruments.
- The sensitivity of the relevant income statement item is the effect of the assumed changes in respective market risks. This is based on the financial assets and financial liabilities held at December 31, 2020 and 2019 including the effect of hedge accounting.
- The sensitivity of equity is calculated by taking into account the effect of any associated cash flow hedges and hedges of a net investment in a foreign subsidiary at December 31, 2019 associate with changes in underlying assets.

25.1.1 Interest rate risk

Interest rate risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market interest rates. The Group's exposure to the risk of changes in market interest rates relates primarily to the Group's long-term debt obligations with floating interest rates.

The Group is exposed to interest rate risk due to its long-term debt. The Group is exposed to cash flow interest rate risk due to its borrowings with floating interest rates and fair value interest rate risk due to its borrowings with fixed interest rates.

The Group's position with regard to interest rate risk exposure is mainly related to debt obligations such as bonds, loans and interest-bearing deposits and investments. The Group has a risk management program in place to monitor and actively manage such risks.

The Group manages its interest rate risk by establishing regional and global working capital sharing systems, regularly monitoring market interest rates, and preparing action plans.

Interest rate sensitivity

The following table demonstrates the sensitivity to a reasonably possible change in interest rates on that portion of loans and borrowings, after the impact of hedge accounting. With all other variables held constant, the Group's profit before tax is affected through the impact on floating rate borrowings as follows. The Group's exposure to interest rate risk is considered to have an immaterial impact on equity (Korean won in millions).

	2020		2019	
	Increase by 1%	Decrease by 1%	Increase by 1%	Decrease by 1%
Interest income	₩ 3,311	₩ (3,311)	₩ 1,584	₩ (1,584)
Interest expenses	(2,534)	2,534	(4,018)	4,018
Net effect	₩ 777	₩ (777)	₩ (2,434)	₩ 2,434

The assumed movement in basis points for interest rate sensitivity analysis is based on the currently observable market environment.

25.1.2 Foreign currency risk

Foreign currency risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in foreign exchange rates. The Group's exposure to the risk of changes in foreign exchange rates relates primarily to the Group's operating activities (when revenue or expense are denominated in a different currency from the Group's functional currency) and the Group's net investments in foreign subsidiaries.

The Group is exposed to foreign exchange risk arising from international operations and transactions with different foreign currencies. The most prevalent foreign currencies used are the US Dollar, Euro, Japanese Yen and others.

The Group manages its foreign currency risk for each subsidiary. Each subsidiary manages its foreign currency risk by entering into hedge agreements such as, a forward contract or foreign currency loans with the Group. Exposure to currency translation risk is largely dependent on the accounting standards of the local jurisdiction and the translation methods required by such jurisdiction.

25.1.2 Foreign currency risk (cont'd)

Foreign currency sensitivity

The following table demonstrates the sensitivity to a reasonably possible change in the exchange rate, with all other variables held constant, on the Group's profit before tax (due to changes in the fair value of monetary assets and liabilities including non-designated foreign currency derivatives) (Korean won in millions):

	2020		2019	
	Increase by 10%	Decrease by 10%	Increase by 10%	Decrease by 10%
Gain (loss) on foreign currency translation	₩ 14,713	₩ (14,713)	₩ (3,816)	₩ 3,816
Gain (loss) on valuation of derivative financial instruments	(3,139)	3,139	10,603	(10,603)
Net effect (*)	₩ 11,574	₩ (11,574)	₩ 6,787	₩ (6,787)

(*) The Group manages its exchange rate risk arising from assets and liabilities denominated in foreign currencies through derivative contracts.

25.2 Credit risk

Credit risk is the risk that a counterparty will not meet its obligations under a financial instrument or customer contract, leading to a financial loss. The Group is exposed to credit risk from its operating activities (primarily for trade receivables and loan notes) and from its financing activities, including deposits with banks and financial institutions, foreign exchange transactions and other financial instruments.

The book value of financial assets represents maximum exposure to credit risk. The maximum exposures to credit risk as of December 31, 2020 and 2019 are as follows (Korean won in millions):

	2020	2019
Cash equivalents (*1)	₩ 687,920	₩ 422,835
Short-term financial instruments	67,837	10,553
Equity instruments held for long-term:		
Financial assets at fair value through profit or loss	14,082	11,140
Financial assets at fair value through OCI	121,103	173,016
Trade accounts receivable	1,298,738	994,064
Other accounts receivable (*2)	187,346	287,931
Long-term loans	24,492	33,302
Other financial assets (*2)	238,710	240,165
	₩ 2,640,228	₩ 2,173,006

(*1) Excludes cash on hand

(*2) Excludes other receivables in relation to derivatives

25.3 Maturity profile of financial assets

The table below summarizes the maturity profile of the Group's financial assets based on contractual undiscounted payments (Korean won in millions):

	2020				
	Less than 1 year	1 to 3 years	3 to 5 years	More than 5 years	Total
Cash and cash equivalents	₩ 689,988	₩ -	₩ -	₩ -	₩ 689,988
Short-term financial instruments	67,837	-	-	-	67,837
Trade accounts receivable	1,295,023	3,334	381	-	1,298,738
Other accounts receivable	192,941	501	-	-	193,442
Long-term loans	-	24,403	89	-	24,492
Other financial assets	26,592	53,215	4,281	154,622	238,710
	<u>₩ 2,272,381</u>	<u>₩ 81,453</u>	<u>₩ 4,751</u>	<u>₩ 154,622</u>	<u>₩ 2,513,207</u>

	2019				
	Less than 1 year	1 to 3 years	3 to 5 years	More than 5 years	Total
Cash and cash equivalents	₩ 423,582	₩ -	₩ -	₩ -	₩ 423,582
Short-term financial instruments	10,553	-	-	-	10,553
Trade accounts receivable	990,677	2,982	405	-	994,064
Other accounts receivable	283,537	5,547	-	-	289,084
Long-term loans	-	33,019	283	-	33,302
Other financial assets	34,916	40,732	3,421	162,357	241,426
	<u>₩ 1,743,265</u>	<u>₩ 82,280</u>	<u>₩ 4,109</u>	<u>₩ 162,357</u>	<u>₩ 1,992,011</u>

25.4 Liquidity risk

Liquidity risk refers to the risk that the Group may default on the contractual obligations that become due.

The table below summarizes the maturity profile of the Group's financial liabilities based on contractual undiscounted payments (Korean won in millions):

	2020				
	Less than 1 year	1 to 3 years	3 to 5 years	More than 5 years	Total
Trade accounts payable	₩ 1,547,820	₩ -	₩ -	₩ -	₩ 1,547,820
Other accounts payable	253,885	-	-	-	253,885
Borrowings	182,473	156,998	76,241	273,328	689,040
Bonds	149,961	259,608	49,826	49,872	509,267
Lease liabilities	68,804	71,244	25,061	21,098	186,207
Other financial liabilities	155,677	23,347	-	-	179,024
	<u>₩ 2,358,620</u>	<u>₩ 511,197</u>	<u>₩ 151,128</u>	<u>₩ 344,298</u>	<u>₩ 3,365,243</u>

	2019				
	Less than 1 year	1 to 3 years	3 to 5 years	More than 5 years	Total
Trade accounts payable	₩ 1,103,970	₩ -	₩ -	₩ -	₩ 1,103,970
Other accounts payable	295,439	-	-	-	295,439
Borrowings	289,271	165,615	134,103	336,271	925,260
Bonds	69,984	289,631	29,913	-	389,528
Lease liabilities	59,148	41,051	17,626	29,379	147,204
Other financial liabilities	146,003	14,572	-	-	160,575
	<u>₩ 1,963,815</u>	<u>₩ 510,869</u>	<u>₩ 181,642</u>	<u>₩ 365,650</u>	<u>₩ 3,021,976</u>

The table above represents the maturities of the financial liabilities at each reporting date.

25.5 Capital management

The primary objective of the Group's capital management is to ensure that it maintains a strong credit rating and healthy capital ratios in order to support its business and maximize its shareholders' value.

The Group manages its capital structure and makes adjustments to it in light of changes in economic conditions. To maintain or adjust the capital structure, the Group may adjust dividend distributions, return capital or issue new shares.

The Group monitors capital using a gearing ratio including debt and net debt ratios. The Group includes within total borrowings, interest bearing loans and borrowings, trade and other payables.

Details of gearing ratios as of December 31, 2020 and 2019 are as follows (Korean won in millions):

	2020		2019
Total liabilities (A)	₩ 3,637,611	₩	3,327,366
Total equity (B)	1,758,331		1,548,616
Cash and cash equivalents (C)	689,988		423,582
Total borrowings (D)	1,198,307		1,314,788
Debt ratio (A / B)	206.88%		214.86%
Net borrowing ratio ((D-C) / B)	28.91%		57.55%

26. Fair value of financial instruments

26.1 Fair value of financial instruments

The book value and fair value of financial instruments as of December 31, 2020 and 2019 are as follows (Korean won in millions):

	2020		2019	
	Book value	Fair value	Book value	Fair value
Financial assets:				
Financial assets measured at amortized cost:				
Cash and cash equivalents	₩ 456,715	₩ 456,715	₩ 392,582	₩ 392,582
Short-term financial assets	67,837	67,837	10,553	10,553
Trade accounts receivable	1,298,738	1,298,738	994,064	994,064
Long-term loans	24,492	24,492	33,302	33,302
Other accounts receivable	187,346	187,346	287,931	287,931
Other financial assets	238,710	238,710	240,165	240,165
	<u>2,273,838</u>	<u>2,273,838</u>	<u>1,958,597</u>	<u>1,958,597</u>
Financial assets recognized at fair value:				
Cash and cash equivalents	233,273	233,273	31,000	31,000
Other accounts receivable related derivatives	6,096	6,096	1,153	1,153
Equity instruments held for long-term	135,185	135,185	184,156	184,156
Other financial assets	-	-	1,261	1,261
	<u>374,554</u>	<u>374,554</u>	<u>217,570</u>	<u>217,570</u>
	<u>₩ 2,648,392</u>	<u>₩ 2,648,392</u>	<u>₩ 2,176,167</u>	<u>₩ 2,176,167</u>
	2020		2019	
	Book value	Fair value	Book value	Fair value
Financial liabilities:				
Financial liabilities measured at amortized cost:				
Borrowings	₩ 613,370	₩ 613,370	₩ 772,364	₩ 772,364
Bonds	359,307	359,307	319,544	319,544
Current portion of bonds and long-term borrowings	225,630	225,630	222,880	222,880
Other financial liabilities	2,142,608	2,142,608	1,697,070	1,697,070
	<u>3,340,915</u>	<u>3,340,915</u>	<u>3,011,858</u>	<u>3,011,858</u>
Financial liabilities recognized at fair value:				
Accounts payable related derivatives	7,116	7,116	1,890	1,890
Others	17,212	17,212	8,228	8,228
	<u>24,328</u>	<u>24,328</u>	<u>10,118</u>	<u>10,118</u>
	<u>₩ 3,365,243</u>	<u>₩ 3,365,243</u>	<u>₩ 3,021,976</u>	<u>₩ 3,021,976</u>

26.2 Fair value measurement of assets and liabilities on the statements of financial position

The Group uses the following hierarchy for determining and disclosing the fair value of financial instruments by valuation technique:

- Level 1: quoted (unadjusted) prices in active markets for identical assets or liabilities
- Level 2: other techniques for which all inputs which have a significant effect on the recorded fair value are observable, either directly or indirectly
- Level 3: techniques which use inputs that have a significant effect on the recorded fair value that are not based on observable market data

As of December 31, 2020 and 2019, the Group holds assets and liabilities measured at fair value on the statements of financial position, and assets and liabilities for which the fair values were disclosed as following (Korean won in millions):

	2020		
	Level 1	Level 2	Level 3
Assets and liabilities measured at fair value:			
Financial assets at fair value through profit or loss:			
Cash and cash equivalents	₩ 233,273	₩ -	₩ -
Accounts receivable related to derivatives	-	6,096	-
Equity securities (*)	-	-	9,303
Financial assets at fair value through OCI:			
Equity securities (*)	10,953	-	108,109
Financial liabilities at fair value through profit or loss:			
Accounts payable related to derivatives	-	578	-
Derivatives related to hedge accounting:			
Other financial assets	-	6,538	-
Other financial liabilities	-	17,212	-
Assets and liabilities for which fair values are disclosed:			
Cash and cash equivalents	₩ 456,715	₩ -	₩ -
Short-term financial assets	-	67,837	-
Trade accounts receivable	-	-	1,298,738
Long-term loans	-	-	24,492
Other accounts receivable	-	-	187,346
Other financial assets	-	-	238,710
Borrowings	-	613,370	-
Bonds	-	359,307	-
Current portion of bonds payable and long-term borrowings	-	225,630	-
Other financial liabilities	-	-	2,142,608

(*) Equity securities whose fair value cannot be measured reliably was measured at cost after recognizing the impairment loss. Accordingly, it has been excluded from the above fair value hierarchy.

There were no movements between the levels of the fair value hierarchy for the year ended December 31, 2020.

26.2 Fair value measurement of assets and liabilities on the statements of financial position (cont'd)

	2019		
	Level 1	Level 2	Level 3
Assets and liabilities measured at fair value:			
Financial assets at fair value through profit or loss:			
Cash and cash equivalents	₩ 31,000	₩ -	₩ -
Accounts receivable related to derivatives	-	1,153	-
Equity securities (*)	-	-	6,361
Financial assets at fair value through OCI:			
Equity securities (*)	9,597	-	161,386
Financial liabilities at fair value through profit or loss:			
Accounts payable related to derivatives	-	1,890	-
Derivatives related to hedge accounting:			
Other financial assets	-	1,261	-
Other financial liabilities	-	8,228	-
Assets and liabilities for which fair values are disclosed:			
Cash and cash equivalents	₩ 392,582	₩ -	₩ -
Short-term financial assets	-	10,553	-
Trade accounts receivable	-	-	994,064
Long-term loans	-	-	33,302
Other accounts receivable	-	-	287,931
Other financial assets	-	-	240,165
Borrowings	-	772,364	-
Bonds	-	319,544	-
Current portion of bonds payable and long-term borrowings	-	222,880	-
Other financial liabilities	-	-	1,697,070

(*) Equity securities whose fair value cannot be measured reliably was measured at cost after recognizing the impairment loss. Accordingly, it has been excluded from the above fair value hierarchy.

Valuation method and interest rate used to determine fair value

Equity securities within level 1 are traded in active markets (such as the Korea Exchange) for marketable equity securities, which were evaluated based on the closing price as of the end of the reporting period.

Derivative instruments within level 2, after calculating the expected cash flow by using the current exchange rate at the end of the reporting period, were measured at present value, and the discount rate applied was 0.66% during the period (2019: 1.53%).

Equity securities within level 3 were evaluated using the DCF as an active market does not exist for non-marketable equity securities. The discount rate applied was 7.34~14.62% during the period (2019: 5.89~14.35%).

27. Statements of cash flows

Non-cash adjustments to reconcile profit for the year to net cash flows for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

	2020	2019
Depreciation	₩ 129,442	₩ 121,219
Amortization	34,181	35,638
Pension benefits	18,791	16,703
Bad debt expenses	1,127	4,917
Interest income	(10,452)	(15,974)
Gain on foreign currency translation	(47,420)	(44,441)
Interest expenses	42,754	49,068
Loss on foreign currency translation	47,668	46,340
Gain on disposal of investment in associates	(336,764)	(5,504)
Gain on disposal of investment properties	-	(92,657)
Impairment loss on investments in associates	9,611	23,368
Impairment loss on intangible assets	13,963	173,825
Gain on investment on associates	(21,772)	(22,849)
Loss on equity method	8,861	10,897
Income tax expenses (benefit)	94,257	(60,423)
Others	(23,724)	88,020
	<u>₩ (39,477)</u>	<u>₩ 328,147</u>

Working capital adjustments for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

	2020	2019
Decrease (increase) in trade accounts receivable	₩ (314,616)	₩ 41,497
Decrease in other accounts receivable	95,126	93,813
Decrease (increase) in advance payments	(31,190)	52,990
Increase in inventories	(128,780)	(11,731)
Increase in other operating assets	(11,193)	(37,247)
Increase (decrease) in trade accounts payable	426,667	(78,078)
Decrease in other accounts payable	(45,489)	(87,357)
Decrease in advance received	(6,857)	(18,722)
Pension benefits paid	(8,755)	(11,692)
Increase in plan assets	(14,321)	(15,019)
Decrease in provisions	(7,335)	(8,554)
Increase in other operating liabilities	23,048	20,632
	<u>₩ (23,695)</u>	<u>₩ (59,468)</u>

The adjustment of liabilities arising from financing activities for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

	2020			
	Non-cash changes			
	Jan. 1	Cash flows in financing activities	Foreign currency translation	Dec. 31
Short-term borrowings	₩ 136,375	₩ (12,537)	₩ (10,005)	₩ 106,804
Long-term borrowings	788,885	(187,643)	(22,470)	582,236
Bonds payable	389,528	119,359	-	509,267
Lease liabilities	147,204	(93,969)	(70)	186,207
	<u>₩ 1,461,992</u>	<u>₩ (174,790)</u>	<u>₩ (32,545)</u>	<u>₩ 1,384,514</u>

27. Statements of cash flows (cont'd)

	Jan. 1	Cash flows in financing activities	2019 Non-cash changes		Dec. 31
			Foreign currency translation	Others	
Short-term borrowings	₩ 63,318	₩ 76,671	₩ (4,072)	₩ 458	₩ 136,375
Long-term borrowings	888,186	(114,861)	14,629	931	788,885
Bonds payable	479,147	(90,000)	-	381	389,528
Lease liabilities	-	(79,755)	2,863	224,096	147,204
	<u>₩ 1,430,651</u>	<u>₩ (207,945)</u>	<u>₩ 13,420</u>	<u>₩ 225,866</u>	<u>₩ 1,461,992</u>

28. Service concession arrangements

As of December 31, 2020, details of Service Concession Arrangements of the Group are as follows:

Content of contract	The Group entered into a contract to build a hydroelectric power plant in Sumatra, Indonesia, and to conduct electricity sales business which is generated by the facility.
Project period	In accordance with this agreement, for 30 years from the commencement date of electricity sales (based on electricity sales contract)
Classification	BOO (Build-Own-Operate)
Accounting standard	KIFRS 2112 <i>Service Concession Arrangements</i>
Others	The Group has recognized the minimum guaranteed price and operating rights of the facility as financial assets and intangible assets, respectively, which are acquired in exchange for the construction services for the hydroelectric power plants. Revenue and costs recognized as construction services in 2020 amounted to ₩6,442 million and ₩3,133 million, respectively.

29. Lease

As of December 31, 2020 and 2019, details of right-of-use assets of the Group are as follows (Korean won in millions):

	2020				
	Land	Buildings	Vehicles	Others	Total
Acquisition cost	₩ 1,103	₩ 248,256	₩ 21,970	₩ 15	₩ 271,344
Accumulated depreciation	(48)	(72,614)	(13,019)	(4)	(85,685)
Net book value	₩ 1,055	₩ 175,642	₩ 8,951	₩ 11	₩ 185,659

	2019				
	Land	Buildings	Vehicles	Others	Total
Acquisition cost	₩ 5,753	₩ 186,895	₩ 16,782	₩ 16	₩ 209,446
Accumulated depreciation	(195)	(53,316)	(7,180)	(1)	(60,692)
Net book value	₩ 5,558	₩ 133,579	₩ 9,602	₩ 15	₩ 148,754

Changes in right-of-use assets for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

	2020				
	Land	Buildings	Vehicles	Others	Total
Jan.1	₩ 5,558	₩ 133,579	₩ 9,602	₩ 15	₩ 148,754
Additions (*1)	29	129,723	16,502	-	146,254
Depreciation	(165)	(73,996)	(16,099)	(3)	(90,263)
Disposals	-	(13,794)	(832)	-	(14,626)
Held for sale reclassified (*2)	(4,915)	-	-	-	(4,915)
Others	548	130	(222)	(1)	455
Dec. 31	₩ 1,055	₩ 175,642	₩ 8,951	₩ 11	₩ 185,659

(*1) During the year ended December 31, 2020, the Group signed sales and leaseback contracts, and the related losses on disposition of right-of-use assets and property, plant and equipment amounted to ₩3,698 million and ₩1,835 million, respectively.

(*2) Refer to Note 30

	2019				
	Land	Buildings	Vehicles	Others	Total
Jan.1 (*1)	₩ 4,223	₩ 124,729	₩ 16,254	₩ 22,100	₩ 167,306
Additions	77	89,793	6,423	1,999	98,292
Depreciation	(190)	(58,228)	(13,195)	(5,795)	(77,408)
Disposals	-	(25,474)	(373)	(17,930)	(43,777)
Transfer (*2)	1,061	-	-	-	1,061
Held for sale reclassified (*3)	-	(153)	(71)	(1,225)	(1,449)
Others	387	2,912	564	866	4,729
Dec. 31	₩ 5,558	₩ 133,579	₩ 9,602	₩ 15	₩ 148,754

(*1) The adoption effect of KIFRS 1116.

29. Lease (cont'd)

(*2) In accordance with the initial adoption of KIFRS 1116 *Leases*, intangible assets of ₩1,061 million were transferred to the right-of-use assets.

(*3) PT. Megaprima Persada (MPP) and Guangzhou Steel Flower Electrical & Machinery Co., Ltd., were scheduled to sell, the right-of-use assets were reclassified to those related to non-current assets held for sale.

The details of changes in lease liabilities for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

	2020	2019
Jan.1	₩ 147,204	₩ 167,186
Additions (*1)	146,103	95,884
Interest expense	6,834	5,069
Payment	(93,969)	(79,755)
Termination	(14,961)	(44,043)
Held for sale reclassified (*2)	(5,015)	-
Others	11	2,863
Dec. 31	186,207	147,204

(*1) During the year ended December 31, 2020, the Group signed sale and leaseback contracts, and the related lease liabilities amounted to ₩5,534 million.

(*2) Refer to Note 30

Details of expenses came from short-term leases and leases of low-value assets for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

	2020	2019
Short-term leases	₩ 47,480	₩ 46,094
Leases of low-value assets	2,176	2,239
	<u>49,656</u>	<u>48,333</u>

30. Non-current assets held for sale

As of December 31, 2020 and 2019, the capital directly related to non-current assets held for sale and non-current assets held for sale are as follows (Korean won in millions):

		2020		
		Assets	Liabilities	Equity
Subsidiaries	PT. Megaprima Persada(MPP) (*1)	14,434	14,434	-
Associates	ZAO CONTRANS (*2)	1,116	-	-
		2019		
		Assets	Liabilities	Equity
Subsidiaries	Guangzhou Steel Flower Electrical & Machinery Co., Ltd. (*3)	₩ 20,293	₩ 1,262	₩ (1,472)
"	PT. Megaprima Persada(MPP) (*1)	29,673	29,673	-
Associates	ZAO CONTRANS (*2)	1,116	-	-

(*1) During the year ended December 31, 2019, the Group reclassified to non-current assets held for sale, the asset was reduced to its fair value less costs to sell and an impairment loss of ₩783 million (2019: ₩10,018 million) was recognized.

(*2) During the year ended December 31, 2017, the Group has decided to sell 51% of its equity in ZAO CONTRANS. Accordingly, the assets recognized as investment assets on associate are reclassified as non-current assets held for sale. Although the period has been extended to complete the sale during the current term, the management of the Group still has specific plans for the sale.

(*3) During the year ended December 31, 2020, the Group sold 100% of its stake in Guangzhou Steel Flower Electrical & Machinery Co., Ltd. and recognized gain on disposal of ₩2,216 million.

Also, during the year ended December 31, 2020, the Group sold 100% of its stake in Highland Cement International Co., Ltd., which had been reclassified as non-current asset held for sale this year, and recognized loss on disposal of ₩612 million.

31. Approval of financial statements

The consolidated financial statements of the Group for the year ended December 31, 2020 were approved by the Company's Board of Directors on January 29, 2021.