

LX International Corp

Separate financial statements
for the years ended December 31, 2022 and 2021
with the independent auditor's report



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Independent auditor's report

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Independent auditor's report
(English Translation of a Report Originally Issued in Korean)

The Shareholders and Board of Directors
LX International Corp.

Opinion

We have audited the accompanying separate financial statements of LX International Corp. (the "Company"), which comprise the separate statements of financial position as of December 31, 2022 and 2021, and the separate statements of profit, separate statements of comprehensive income, separate statements of changes in equity and separate statements of cash flows for the years then ended, and notes to the separate financial statements, including a summary of significant accounting policies.

In our opinion, the separate financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2022 and 2021, and its financial performance and its cash flows for the years then ended in accordance with International Financial Reporting Standards as adopted by the Republic of Korea ("KIFRS").

We also have audited, in accordance with Korean Standards on Auditing ("KSA"), the Company's internal control over financial reporting ("ICFR") as of December 31, 2022, based on the criteria established in Conceptual Framework for designing and operating ICFR established by the Operating Committee of ICFR ("the ICFR Committee"), and our report dated March 15, 2023 expressed an unqualified opinion thereon.

Basis for opinion

We conducted our audits in accordance with KSA. Our responsibilities under those standards are further described in the Auditor's responsibilities for the audit of the separate financial statements section of our report. We are independent of the Company in accordance with the ethical requirements that are relevant to our audits of the separate 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

The key audit matter is the matter that, in our professional judgment, was of most significance in our audit of the separate financial statements of the current period. The matter was addressed in the context of our audit of the separate financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on the matter. For the matter below, our description of how our audit addressed the matter is provided in that context.

- (1) The assessment of reversal of Impairments on investment in subsidiary related to PT. Ganda Alam Makmur ("GAM")

The Company holds 60% stakes in PT. Ganda Alam Makmur ("GAM"), which is engaged in exploration / development and production activities for bituminous coals in Indonesia. As mentioned in Note 9 to the separate financial statements, the Company recognizes equity investment in GAM as an investment in subsidiaries and applies the equity method in the separate financial statements.

The sales of GAM are sensitive to the international prices of coals, exploration / development and production technology, and potential reserves of economically producible resources, and the collection period of related investment in a subsidiary is also generally long-term.

As of December 31, 2022, the Company has investment in a subsidiary amounting to ₩410,393 million in relation to GAM Business, and the Company assesses at the end of each reporting period whether there is any indication of impairments or reversal of impairments. If the indication of impairments or reversal of impairments is identified, the Company measures the estimated recoverable amounts and recognizes impairment losses or reversal of impairments. 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 Company's assessment of impairment indication and estimation of recoverable amounts for the investment in a subsidiary 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:

- Understanding the Company's processes in relation with the assessments on reversal of impairments
- Evaluation of the effectiveness of designing and operating internal controls related to impairment or reversal of impairment assessment
- Reviewing management's evaluation on whether there is an indication of impairment or reversal of impairment
- Engaging valuation specialists in reviewing whether the assumptions used in the valuation report (future cash flow model) are consistent with the approved budget and business plan
- Engaging valuation specialists in 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
- Engaging valuation specialists in reviewing the consistency and feasibility of the 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 separate financial statements

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

In preparing the separate financial statements, management is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Company or to cease operations, or has no realistic alternative but to do so.

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

Auditor's responsibilities for the audit of the separate financial statements

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

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

- Identify and assess the risks of material misstatement of the separate financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the separate financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the separate financial statements, including the disclosures, and whether the separate financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

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

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

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

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



March 15, 2023

This audit report is effective as of March 15, 2023, 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 separate financial statements and may result in modifications to this report.

LX International Corp.

Separate financial statements
for the years ended December 31, 2022 and 2021

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

Chun-sung Yoon
Chief Executive Officer
LX International Corp.

LX International Corp.
Separate statements of financial position
as of December 31, 2022 and 2021
(Korean won in millions)

	Notes	2022	2021
Assets			
Current assets			
Cash and cash equivalents	4, 5, 26, 27	₩ 681,340	₩ 262,489
Short-term financial instruments	4, 5, 26, 27	22,205	23,223
Trade accounts receivable	4, 12, 24, 26, 27	339,892	366,359
Other accounts receivable	4, 6, 12, 25, 26, 27	28,507	48,788
Accrued income	4, 12, 24, 26, 27	2,949	2,223
Advance payments		2,195	4,255
Prepaid expenses		2,936	2,683
Other current assets	4, 12, 24, 26, 27	11,587	12,714
Inventories, net	7	108,927	100,622
Assets held for sale	30	4,779	4,779
		<u>1,205,317</u>	<u>828,135</u>
Non-current assets			
Investment assets	4, 8, 12, 26, 27	214,862	232,689
Investments in subsidiaries	9	2,198,903	1,726,301
Investments in associates	9	121,785	97,383
Property, plant and equipment, net	10, 29	3,905	8,955
Intangible assets, net	11	12,955	13,735
Deferred tax assets	23	5,134	81,584
Other non-current assets	4, 5, 12, 20, 24, 26, 27	19,990	30,262
		<u>2,577,534</u>	<u>2,190,909</u>
Total assets		<u>₩ 3,782,851</u>	<u>₩ 3,019,044</u>

(Continued)

LX International Corp.
Separate statements of financial position
as of December 31, 2022 and 2021 (cont'd)
(Korean won in millions)

	Notes	2022	2021
Liabilities			
Current liabilities			
Short-term borrowings	4, 13, 26, 27	₩ 165,346	₩ 76,085
Trade accounts payable	4, 22, 26, 27	298,013	294,735
Other accounts payable	4, 6, 24, 26, 27	98,583	115,426
Advance received	17	2,023	4,985
Withholdings	4, 26, 27	1,318	1,299
Income tax payable		36,024	12,344
Accrued expenses	4, 26, 27	10,241	18,078
Current portion of bonds and long-term borrowings	4, 13, 26, 27	247,852	212,287
Lease liabilities	4, 24, 26, 27, 29	1,331	5,442
Liabilities directly associated with assets held for sale	30	5,655	5,655
Current portion of provisions	14	8,452	5,987
		<u>874,838</u>	<u>752,323</u>
Non-current liabilities			
Bonds	4, 13, 26, 27	399,117	269,462
Long-term borrowings	4, 13, 26, 27	189,165	175,590
Lease liabilities	4, 24, 26, 27, 29	788	1,315
Provisions	14	7,871	13,913
Other non-current liabilities	4, 26, 27	1,575	1,070
		<u>598,516</u>	<u>461,350</u>
Total liabilities		<u>1,473,354</u>	<u>1,213,673</u>
Equity			
Capital stocks	15	193,800	193,800
Capital surplus	15	102,125	102,125
Other components of equity	15	(40,690)	(40,690)
Accumulated other comprehensive loss	15	46,681	(1,177)
Retained earnings	15	2,007,581	1,551,313
Total equity		<u>2,309,497</u>	<u>1,805,371</u>
Total liabilities and equity		<u>₩ 3,782,851</u>	<u>₩ 3,019,044</u>

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

LX International Corp.
Separate statements of profit
for the years ended December 31, 2022 and 2021
(Korean won in millions, except earnings per share)

	Notes	2022	2021
Sales	3, 17, 24	₩ 4,108,362	₩ 4,155,724
Cost of sales	19, 24	<u>(3,781,837)</u>	<u>(3,967,383)</u>
Gross profit		326,525	188,341
 Selling and administrative expenses	 18, 19	 <u>(224,973)</u>	 <u>(176,011)</u>
Operating Profit		101,552	12,330
 Finance income	 4, 21	 313,475	 150,786
Finance costs	4, 21	(313,887)	(147,426)
Share of profit of subsidiaries and associates	9, 21	542,752	369,570
Other non-operating income, net	4, 21	<u>(3,470)</u>	<u>1,000</u>
Profit before tax		640,422	386,260
 Income tax expense	 23	 <u>(111,864)</u>	 <u>(38,241)</u>
Profit for the year		<u>₩ 528,558</u>	<u>₩ 348,019</u>
 Earnings per share:			
Basic and diluted, earnings per share	15	₩ 14,695	₩ 9,676

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

LX International Corp.
Separate statements of comprehensive income
for the years ended December 31, 2022 and 2021
(Korean won in millions)

	Notes	2022	2021
Profit for the year		₩ 528,558	₩ 348,019
<i>Other comprehensive income (loss)</i>			
<i>that may be reclassified to profit or loss</i>			
<i>in subsequent periods:</i>			
Gain (loss) on valuation of cash flow hedge derivatives	4, 6	(13)	123
Equity adjustments in equity method	9	35,154	85,363
Exchange differences on translation of foreign operations		490	8,244
		<u>35,631</u>	<u>93,730</u>
<i>Other comprehensive income (loss)</i>			
<i>that will not be reclassified to profit or loss</i>			
<i>in subsequent periods:</i>			
Gain on valuation of financial assets designated at fair value through OCI	4, 8	35,297	10,328
Remeasurement gain on defined benefit plans	20	4,236	529
Change in retained earnings in equity method	9	6,212	(2,145)
Equity adjustments in equity method	9	(23,083)	74
		<u>22,662</u>	<u>8,786</u>
Other comprehensive income for the year, net of tax		<u>58,293</u>	<u>102,516</u>
Total comprehensive income for the year, net of tax		<u>₩ 586,851</u>	<u>₩ 450,535</u>

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

LX International Corp.
Separate statements of changes in equity
for the years ended December 31, 2022 and 2021
(Korean won in millions)

	Capital stocks	Capital surplus	Other components of equity	Accumulated other comprehensive loss	Retained earnings	Total equity
As of January 1, 2021	₩ 193,800	₩ 102,125	₩ (40,690)	₩ (105,309)	₩ 1,219,298	₩ 1,369,224
Profit for the year	-	-	-	-	348,019	348,019
Loss on valuation of derivatives designated as cash flow hedges	-	-	-	123	-	123
Equity adjustments in equity method	-	-	-	85,437	-	85,437
Exchange differences on translation of foreign operations	-	-	-	8,244	-	8,244
Loss on valuation of FVOCI	-	-	-	10,328	-	10,328
Remeasurement gain on defined benefit plans	-	-	-	-	529	529
Change in retained earnings in equity method	-	-	-	-	(2,146)	(2,146)
Total comprehensive income (loss)	-	-	-	104,132	346,402	450,534
Dividends	-	-	-	-	(14,387)	(14,387)
Acquisition of treasury stock	-	-	-	-	-	-
As of December 31, 2021	₩ 193,800	₩ 102,125	₩ (40,690)	₩ (1,177)	₩ 1,551,313	₩ 1,805,371

(Continued)

LX International Corp.

Separate statements of changes in equity

for the years ended December 31, 2022 and 2021 (cont'd)

(Korean won in millions)

	Capital stocks	Capital surplus	Other components of equity	Accumulated other comprehensive loss	Retained earnings	Total equity
As of January 1, 2022	₩ 193,800	₩ 102,125	₩ (40,690)	₩ (1,177)	₩ 1,551,313	₩ 1,805,371
Profit for the year	-	-	-	-	528,558	528,558
Gain on valuation of derivatives designated as cash flow hedges	-	-	-	(13)	-	(13)
Equity adjustments in equity method	-	-	-	12,071	-	12,071
Exchange differences on translation of foreign operations	-	-	-	490	-	490
Fair value thorough OCI	-	-	-	35,310	(13)	35,297
Remeasurement gain on defined benefit plans	-	-	-	-	4,236	4,236
Change in retained earnings in equity method	-	-	-	-	6,213	6,213
Total comprehensive income	-	-	-	47,858	538,994	586,852
Dividends	-	-	-	-	(82,726)	(82,726)
As of December 31, 2022	₩ 193,800	₩ 102,125	₩ (40,690)	₩ 46,681	₩ 2,007,581	₩ 2,309,497

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

LX International Corp.
Separate statements of cash flows
for the years ended December 31, 2022 and 2021
(Korean won in millions)

	Notes	2022	2021
Cash flows from operating activities:			
Profit for the year		₩ 528,558	₩ 348,019
Non-cash adjustments to reconcile profit for the year			
to net cash flows provided by (used in) operating activities	28	(385,368)	(314,692)
Working capital adjustments	28	4,950	(75,915)
Interest received		18,798	21,665
Interest paid		(25,781)	(18,105)
Dividends received		238,172	36,726
Income tax paid		(28,665)	(3,333)
Net cash flows provided by (used in) operating activities		350,664	(5,635)
Cash flows from investing activities:			
Proceeds from disposal of long-term equity instruments	8	105	-
Decrease in loans		82,069	60,085
Decrease in guarantee deposits		200	350
Proceeds from disposal and capital reduction			
of investments in associates	9	13,640	3,901
Proceeds from disposal of assets held for sale		-	7,330
Proceeds from disposal of property, plant and equipment	10	-	8,299
Proceeds from disposal of intangible assets	11	2,724	2,826
Settlement of derivatives		(32,561)	(5,086)
Increase in loans		(12,417)	(4,689)
Increase in guarantee deposits		(257)	(204)
Acquisition of equity instruments held for long-term	8	(2,100)	(5,399)
Acquisition of investments in subsidiaries	9, 24	(141,674)	(8,980)
Acquisition of investments in associates	9, 24	(19,100)	(2,720)
Acquisition of property, plant and equipment	10	(900)	(1,771)
Acquisition of intangible assets	11	(521)	(2,352)
Net cash flows provided by (used in) investing activities		(110,792)	51,590
Cash flows from financing activities:			
Proceeds from financial liabilities	28	596,493	333,674
Repayments of financial liabilities	28	(329,467)	(418,593)
Payment of principal portion of lease liabilities	28, 29	(7,123)	(6,662)
Dividends paid	16	(82,726)	(14,387)
Settlement of derivatives		1,861	(5,930)
Net cash flows provided by (used in) financing activities		179,038	(111,898)
Net increase (decrease) in cash and cash equivalents		418,910	(65,943)
Cash and cash equivalents as of January 1		262,489	328,406
Exchange differences on translation of cash and cash equivalents		(59)	26
Cash and cash equivalents as of December 31		₩ 681,340	₩ 262,489

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

1. Corporate information

LX International Corp. (the “Company”) was established on November 26, 1953 to engage in the import and export business. It changed its name to Bando Corporation in June 1956, to Lucky Industries Co., Ltd. in January 1984 and to LG International Corp. in March 1995. Its current name was adopted on July 1, 2021.

The Company 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.

The Company is currently engaged in the import and export of goods, and other business activities. The Company is located in Seoul and operates 16 overseas branch offices, 5 liaison offices and 87 subsidiaries (including 60 sub-subsidiaries) as of December 31, 2022.

LX Holdings Corp. holds 24.69% of the Company's common stock as of the end of the reporting period. The remaining equity shares are held by institutional investors, overseas investors, minority shareholders, and so on.

2. Basis of preparation and summary of significant accounting policies

2.1 Basis of preparation

The Company prepares statutory 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 financial statements have been translated into English from the Korean language financial statements. In the event of any differences in interpreting the financial statements or the independent auditor's report thereon, the Korean version, which is used for regulatory reporting purposes, shall prevail.

The separate 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 separate financial statements are presented in Korean won and all values are rounded to the nearest won except when otherwise indicated.

LX International Corp. is the parent company of its subsidiaries (collectively referred to as the “Company”) and the consolidated financial statements of the Company prepared in accordance with KIFRS have been issued separately.

2.2 Summary of significant accounting policies

2.2.1 Current versus non-current classification

The Company 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.

2.2.1 Current versus non-current classification (cont'd)

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 Company classifies all other liabilities as non-current.

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

2.2.2 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.

2.2.3 Inventories

Inventories are valued at the lower of cost and net realizable value. Initial cost of inventories includes acquisition of inventories, production or conversion costs and other costs incurred in bringing each product to its present location and conditions. Initial cost of inventories is determined by using the method of specific identification, moving average and gross average.

2.2.4 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.

2.2.4.1 Financial assets

2.2.4.1.1 Initial recognition and measurement

The classification of financial assets at initial recognition depends on the financial asset's contractual cash flow characteristics and the Company's business model for managing them. With the exception of trade receivables that do not contain a significant financing component or for which the Company has applied the practical expedient, the Company 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 Company 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 amortized 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.

The Company'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 recognized on the trade date, i.e., the date that the Company commits to purchase or sell the asset.

2.2.4.1.2 Subsequent measurement

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

- financial assets at amortized 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 derecognition (equity instruments); and
- financial assets at fair value through profit or loss

Financial assets at amortized cost (debt instruments)

The Company measures financial assets at amortized 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; and
- 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 amortized cost are subsequently measured using the effective interest rate (EIR) method and are subject to impairment. Gains and losses are recognized in profit or loss when the asset is derecognized, modified or impaired.

Financial assets at fair value through OCI (debt instruments)

The Company 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; and
- 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 amortized 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 Company'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 Company 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 recognized as other non-operating income in the statement of profit or loss when the right of payment has been established, except when the Company 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.

The Company may elect to classify irrevocably its non-listed equity investments under this category.

2.2.4.1.2 Subsequent measurement (cont'd)

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 amortized 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.

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 recognized 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.

2.2.4.1.3 Derecognition of financial assets

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

- the rights to receive cash flows from the asset have expired; or
- the Company 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 Company has transferred substantially all the risks and rewards of the asset, or (b) the Company has neither transferred nor retained substantially all the risks and rewards of the asset, but has transferred control of the asset.

When the Company 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 Company's continuing involvement in the asset. In that case, the Company 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 Company has retained.

2.2.4.2 Impairment of financial assets

Further disclosures relating to impairment of financial assets are also provided in Note 12.

The Company recognizes 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 Company 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.

2.2.4.2 Impairment of financial assets (cont'd)

ECLs are recognized 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 Company applies a simplified approach in calculating ECLs. Therefore, the Company does not track changes in credit risk, but instead recognizes a loss allowance based on lifetime ECLs at each reporting date. The Company 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 Company applies the low credit risk simplification. At every reporting date, the Company 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 Company reassesses the internal credit rating of the debt instrument. In addition, the Company considers that there has been a significant increase in credit risk when contractual payments are more than 30 days past due.

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

2.2.4.3 Financial liabilities

2.2.4.3.1 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 Company's financial liabilities include trade and other payables, borrowings including bonds and derivative financial liabilities.

2.2.4.3.2 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 at 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 Company 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.

2.2.4.3.2 Subsequent measurement (cont'd)

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.

2.2.4.3.3 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.

2.2.4.4 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.

2.2.5 Derivative financial instruments and hedge accounting

2.2.5.1 Initial recognition and subsequent measurement

The Company 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; and
- hedges of a net investment in a foreign operation

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

The documentation includes identification of the hedging instrument, the hedged item, the nature of the risk being hedged and how the Company 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; and
- the hedge ratio of the hedging relationship is the same as that resulting from the quantity of the hedged item that the Company actually hedges and the quantity of the hedging instrument that the Company actually uses to hedge that quantity of hedged item.

2.2.5.1 Initial recognition and subsequent measurement (cont'd)

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 Company 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 recognized as other expense and the ineffective portion relating to commodity contracts is recognized in other operating income or expenses.

The Company designates only the spot element of forward contracts as a hedging instrument. The forward element is recognized 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 recognized 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.

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.

2.2.6 Investment in subsidiaries and associates and joint ventures

An associate is an entity over which the Company 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 Company's investments in its subsidiaries, associates and joint ventures are accounted for using the equity method.

Under the equity method, the investment in a subsidiary, an associate or a joint venture is initially recognized at cost. The carrying amount of the investment is adjusted to recognize changes in the Company's share of net assets of the subsidiary, associate or joint venture since the acquisition date. Goodwill relating to the subsidiary, 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 Company's share of the results of operations of the subsidiary, associate or joint venture. Any change in other comprehensive income or loss of those investees is presented as part of the Company's other comprehensive income or loss. In addition, when there has been a change recognized directly in the equity of the subsidiary, associate or joint venture, the Company recognizes its share of any changes, when applicable, in the statement of changes in equity. Unrealized gains and losses resulting from transactions between the Company and the subsidiary, associate or joint venture are eliminated to the extent of the interest in the subsidiary, associate or joint venture.

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

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

After application of the equity method, the Company determines whether it is necessary to recognize an impairment loss on its investment in its subsidiary, associate or joint venture. At each reporting date, the Company determines whether there is objective evidence that the investment in the subsidiary, associate or joint venture is impaired. If there is such evidence, the Company 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 a subsidiary, associate and a joint venture' in the statement of profit or loss.

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

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

The Company classifies non-current assets and disposal groups as held for sale if their carrying amounts will be recovered principally through a sale or distribution 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 the disposal of 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 or as held for distribution.

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.

2.2.8 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 Company 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 an 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	40	Straight-line method
Structures	40	"
Machinery	5	"
Vehicles	5 ~ 12	"
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 (loss) arising on derecognition of the asset (calculated as the difference between the net disposal proceeds and the carrying amount of the asset) is included in the statement of profit or loss when the asset is derecognized.

2.2.8 Property, plant and equipment (cont'd)

The Company reviews the estimated residual values and expected useful lives of assets at least annually. In particular, the Company considers the impact of health, safety and environmental legislation in its assessment of expected useful lives and estimated residual values. The assets' residual values, useful lives and depreciation method are reviewed at each financial year end, and adjusted prospectively, if appropriate.

2.2.9 Leases

At inception of a contract, the Company 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.

Company as a lessee

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

2.2.9.1 Right-of-use assets

The Company recognizes 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 recognized, 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)
Buildings	1 ~ 10
Vehicles	1 ~ 5

If ownership of the leased asset transfers to the Company 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 2.2.19 Impairment of non-financial assets.

2.2.9.2 Lease liabilities

At the commencement date of the lease, the Company recognizes 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 Company and payments of penalties for terminating the lease, if the lease term reflects the Company exercising the option to terminate. Variable lease payments that do not depend on an index or a rate are recognized 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 Company 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 Company's lease liabilities are included in Interest-bearing loans and borrowings (Refer to Note 26).

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

The Company 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 recognized as expense on a straight-line basis over the lease term.

2.2.10 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.

2.2.11 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/or 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 amount at the date of change in use. If owner occupied property becomes an investment property, the Company accounts for such property in accordance with the policy stated under property, plant and equipment up to the date of change in use.

2.2.12 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 are 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 asset.

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.

2.2.12 Intangible assets (cont'd)

A summary of the policies applied to the Company'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	Straight-line method

(*) 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 Company commences test on the assets for impairment. When the book value of the asset is greater than estimated recoverable amounts for the residual period, the Company recognizes it as impairment.

2.2.13 Pension benefits and other post-employment benefits

The Company operates a defined benefit pension plan and defined contribution pension plan. The defined benefit pension plan in Korea requires contributions to be made to separately administered funds. 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 OCI 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 Company recognizes restructuring-related costs

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

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

2.2.14 Provisions

Provisions are recognized when the Company has a present obligation (legal or constructive) as a result of a past event, it is probable that 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 Company 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.

2.2.15 Onerous contracts

If the Company has a contract that is onerous, the present obligation under the contract is recognized and measured as a provision. However, before a separate provision for an onerous contract is established, the Company recognizes 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.

2.2.16 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 Company's own equity instruments.

2.2.17 Revenue from contracts with customers

The Company is in the business of sales of goods in the resource and infrastructure sectors. The company provides the supply of goods and export-import transactions through contracts with customers. Revenue from contracts with customers is recognized when control of the goods or services are transferred to the customer at an amount that reflects the consideration to which the Company expects to be entitled in exchange for those goods or services.

2.2.17.1 Sales of goods

Revenue from sale of goods is recognized 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 Company 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 Company takes into consideration whether it is principal or agency relating to the performance obligations when determining the transaction price of sales of goods.

2.2.17.2 Principal versus agent consideration

When another party is involved in providing goods or services to its customer, the Company determines whether it is a principal or an agent in these transactions by evaluating the nature of its promise to the customer. The Company 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 Company's role is only to arrange for another entity to provide the goods or services, then the Company is an agent and will need to record revenue at the net amount that it retains for its agency services.

2.2.17.3 Contract balance

Trade receivables

A receivable represents the Company's right to an amount of consideration that is unconditional. Refer to accounting policies of financial assets in the Note 2.2.4.1

Contract liabilities

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

2.2.18 Foreign currency translation

The Company's separate financial statements are presented in Korean won, which is also the Company's functional currency.

2.2.18.1 Transactions and balances

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 Company'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 rate at the date of the transaction; and non-monetary items that are measured at fair value in a foreign currency are translated using the exchange rates at the dates when the fair value was determined.

2.2.18.2 Translations of foreign operation

Assets and liabilities of foreign operation are translated into Korea won at the closing rate at the reporting date and income and expenses are translated at exchange rates prevailing at the dates of the transactions, and these exchange differences are recognized in OCI. On the disposal of a foreign operation, the cumulative amount of the exchange differences in OCI relating to that foreign operation is reclassified from equity to 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 of that foreign operation are treated as assets and liabilities of the foreign operation, and translated at the spot rate of exchange at the reporting date.

2.2.19 Impairment of non-financial assets

The Company 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 Company estimates the asset's recoverable amount. An asset's recoverable amount is the higher of an asset's or cash-generating unit's (CGU) fair value less costs to sell and its value in use and is determined for an individual asset, unless the asset does not generate cash inflows that are largely independent of those from other assets or Companies 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 Company bases its impairment calculation on detailed budgets and forecast calculations, which are prepared separately for each of the Company'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.

2.2.19 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 Company 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 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 company 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 Company 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.

2.2.20 Taxes

2.2.20.1 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 Company 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.

2.2.20.2 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; and
- 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.

2.2.20.2 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; and
- 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.

2.2.20.3 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; and
- 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.

2.2.21 Crypto assets

As there is no standard applicable to KIFRS for Crypto assets (e. g. “Klay”), the Company developed an accounting policy by applying *mutatis mutandis* to KIFRS 38 in accordance with the interpretation announced by the IFRIC in June 2019.

2.2.21.1 Initial recognition of crypto assets

The Company recognizes crypto assets as an asset because it meets the definition of an asset in the *Conceptual Framework for Financial Reporting* (a resource controlled by an entity as a result of past events or transactions; and from which future economic benefits are expected to flow to the entity). The Company determines that crypto assets meet the definition of an intangible asset as an identifiable non-monetary asset without physical substance and records crypto assets as intangible assets.

2.2.21.2 Subsequent measurement of crypto assets

The Company applies the cost method to subsequent measurements of crypto assets by applying *mutatis mutandis* to KIFRS 1038.

2.2.21.3 Derecognition of crypto assets

As the Company is obligated to transfer rights to crypto assets or pays all cash flows received under pass-through contracts to third parties without significant delay, the Company derecognizes the crypto assets when it transfers most of the risks and rewards arising from ownership of the crypto assets to others, or otherwise, when it transfers control over the crypto assets to others, although it does not either transfer or retain such assets.

When disposing of crypto assets, the difference between the cash flow received or the cash flow to be received and the book value of the assets disposed is recognized as profit or loss upon disposal, but if any obligation arising from the ownership of the crypto assets has not been fulfilled, it is recognized as profit or loss when the obligation is satisfied.

2.3 New and amended standards and interpretations

The Company applied for the first-time certain standards and amendments, which are effective for annual periods beginning on or after January 1, 2021. The Company has not early adopted any standards, interpretations or amendments that have been issued but are not yet effective.

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

An onerous contract is a contract under which the unavoidable costs of meeting the obligations under the contract costs (i.e., the costs that the Company cannot avoid because it has the contract) exceed the economic benefits expected to be received under it.

The amendments specify that when assessing whether a contract is onerous or loss-making, an entity needs to include costs that relate directly to a contract to provide goods or services including both incremental costs (e.g., the costs of direct labour and materials) and an allocation of costs directly related to contract activities (e.g., depreciation of equipment used to fulfil the contract and costs of contract management and supervision). 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.

These amendments had no impact on the separate financial statements of the Company.

2.3.2 Reference to the Conceptual Framework – Amendments to KIFRS 1103

The amendments replace a reference to a previous version of the International Accounting Standards Board (IASB)'s *Conceptual Framework* with a reference to the current version issued in March 2018 without significantly changing its requirements.

The amendments add an exception to the recognition principle of KIFRS 1103 *Business Combinations* 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 *Provisions, Contingent Liabilities and Contingent Assets* or KIFRS Interpretation 2121 *Levies*, if incurred separately. The exception requires entities to apply the criteria in KIFRS 1037 or KIFRS Interpretation 2121, respectively, instead of the Conceptual Framework, to determine whether a present obligation exists at the acquisition date.

The amendments also add a new paragraph to KIFRS 1103 to clarify that contingent assets do not qualify for recognition at the acquisition date.

In accordance with the transitional provisions, the Company applies the amendments prospectively, i.e., to business combinations occurring after the beginning of the annual reporting period in which it first applies the amendments (the date of initial application).

These amendments had no impact on the separate financial statements of the Company.

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

The amendment prohibits entities from deducting from the cost of an item of property, plant and equipment, any proceeds of the sale of 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.

In accordance with the transitional provisions, the Company applies the amendments retrospectively only to items of PP&E made available for use on or after the beginning of the earliest period presented when the entity first applies the amendment (the date of initial application).

These amendments had no impact on the separate financial statements of the Company.

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

The amendment permits a subsidiary that elects to apply paragraph D16(1) of KIFRS 1101 to measure cumulative translation differences using the amounts reported in the parent's separate financial statements, based on the parent's date of transition to KIFRS, if no adjustments were made for consolidation procedures and for the effects of the business combination in which the parent acquired the subsidiary. This amendment is also applied to an associate or joint venture that elects to apply paragraph D16(1) of KIFRS 1101.

These amendments had no impact on the separate financial statements of the Company.

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

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. There is no similar amendment proposed for KIFRS 1039 Financial Instruments: Recognition and Measurement. In accordance with the transitional provisions, the Company 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 date of initial application).

These amendments had no impact on the separate financial statements of the Company.

2.3.6 KIFRS 1041 Agriculture – Taxation in fair value measurements

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. These amendments had no impact on the separate financial statements of the Company as it did not have assets in scope of KIFRS 1041 as of the reporting date.

2.4 Significant accounting judgments, estimates and assumptions

The preparation of the Company's financial statements 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 Company's exposure to risks and uncertainties includes:

- Financial instruments risk management and policies Note 26
- Sensitivity analyses disclosures Note 20, 26

2.4.1 Judgments

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

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

The Company 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 Company 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.

2.4.2 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 Company based its assumptions and estimates on parameters available when the 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 Company. Such changes are reflected in the assumptions when they occur.

2.4.2.1 Impairment of non-financial assets

The Company 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 22 for information on the specific details of main assumptions.

2.4.2.2 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.

2.4.2.3 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.

2.4.2.4 Provision for expected credit losses of trade receivables

The Company 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 Company's historical observed default rates. The Company 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 analyzed.

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 Company's historical credit loss experience and forecast of economic conditions may also not be representative of customer's actual default in the future.

2.4.2.5 Leases - Estimating the incremental borrowing rate

The Company 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 Company 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 Company '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 Company 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).

2.4.2.6 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 Company has ₩76,505 million (2021: ₩68,890 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 Company has determined not to recognize deferred tax assets on ₩57,051 million (2021: ₩26,514 million) of tax credits carried forward, due to lack of probability of occurrence. Refer to Note 23 for details.

2.4.2.7 Special tax provisions for promoting investment and collaborative cooperation

In accordance with the *special tax provision for promoting investment and collaborative cooperation*, The Company shall pay an additional income tax calculated under the applicable tax law, if the use of corporate earnings on qualifying investments, wage increase and collaborative cooperation falls below a certain portion of its taxable income. As the Company reflects the surtax imposed due to the special tax provisions for promoting investment and collaborative cooperation when computing its income tax, the Company's income tax may change arising from changes in investment, wage increase, or dividend payouts.

2.5 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 Company's financial statements are disclosed below. The Company intends to adopt these new and amended standards and interpretations, if applicable, when they become effective.

2.5.1 KIFRS 1117 Insurance Contracts

In 2021, KIFRS 1117 *Insurance Contracts*, a comprehensive new accounting standard for insurance contracts covering recognition and measurement, presentation and disclosure was issued. Once effective, KIFRS 1117 will replace KIFRS 1104 *Insurance Contracts* that was issued in 2007. KIFRS 1117 applies to all types of insurance contracts (i.e., life, non-life, direct insurance and re-insurance), regardless of the type of entities that issue them, as well as to certain guarantees and financial instruments with discretionary participation features. A few scope exceptions will apply. The overall objective of KIFRS 1117 is to provide an accounting model for insurance contracts that is more useful and consistent for insurers. In contrast to the requirements in KIFRS 1104, which are largely based on grandfathering previous local accounting policies, KIFRS 1117 provides a comprehensive model for insurance contracts, covering all relevant accounting aspects. The core of KIFRS 1117 is the general model, supplemented by:

- a specific adaptation for contracts with direct participation features (the variable fee approach), and
- a simplified approach (the premium allocation approach) mainly for short-duration contracts.

KIFRS 1117 is effective for reporting periods beginning on or after January 1, 2023, with comparative figures required. Early application is permitted, provided the entity also applies KIFRS 1109 and KIFRS 1115 on or before the date it first applies KIFRS 1117. This standard is not applicable to the Company.

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

The 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 Company is currently assessing the impact the amendments will have on current practice and whether existing loan agreements may require renegotiation.

2.5.3 Definition of Accounting Estimates - Amendments to KIFRS 1008

The amendments clarify the distinction between changes in accounting estimates and changes in accounting policies and the correction of errors. Also, they clarify how entities use measurement techniques and inputs to develop accounting estimates. The amendments are effective for annual reporting periods beginning on or after January 1, 2023 and apply to changes in accounting policies and changes in accounting estimates that occur on or after the start of that period. Earlier application is permitted as long as this fact is disclosed. The amendments are not expected to have a material impact on the Company's separate financial statements

2.5.4 Disclosure of Accounting Policies – Amendments to KIFRS 1001

The amendments provide guidance and examples to help entities apply materiality judgements to accounting policy disclosures. The amendments aim to help entities provide accounting policy disclosures that are more useful by replacing the requirement for entities to disclose their 'significant' accounting policies with a requirement to disclose their 'material' accounting policies and adding guidance on how entities apply the concept of materiality in making decisions about accounting policy disclosures. The amendments are applicable for annual periods beginning on or after January 1, 2023 with earlier application permitted.

The Company is currently revisiting their accounting policy information disclosures to ensure consistency with the amended requirements.

2.5.5 Deferred Tax related to Assets and Liabilities arising from a Single Transaction – Amendments to KIFRS 1012

The amendments narrow the scope of the initial recognition exception under KIFRS 1012, so that it no longer applies to transactions that give rise to equal taxable and deductible temporary differences. The amendments should be applied to transactions that occur on or after the beginning of the earliest comparative period presented. In addition, at the beginning of the earliest comparative period presented, a deferred tax asset (provided that sufficient taxable profit is available) and a deferred tax liability should also be recognised for all deductible and taxable temporary differences associated with leases and decommissioning obligations. The Company is currently assessing the impact of the amendments.

3. Segment information

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

Segment	Principal activity
Resource	Mineral business, Palm business, Petroleum assets TFT
Trading/New growth	Resource Trading, Material Trading, Healthcare, IT Trading, Green, New growth
Collectively grouped	Common group management

3.1 Segment sales and operating income

Details of segment results for the years ended December 31, 2022 and 2021, are as follows (Korean won in millions):

	2022		2021	
	Sales	Operating income(loss)	Sales	Operating income(loss)
Resource	₩ 5,113	₩ (7,474)	₩ 5,659	₩ (2,124)
Trading/New growth	4,103,249	109,027	4,150,065	14,455
	₩ 4,108,362	₩ 101,553	₩ 4,155,724	₩ 12,331

3.2 Segment assets and liabilities

Details of assets and liabilities of operating segments as of December 31, 2022 and 2021, are as follows (Korean won in millions):

	2022		2021	
	Assets	Liabilities	Assets	Liabilities
Resource	₩ 890,963	₩ 121,256	₩ 765,611	₩ 145,319
Trading/New growth	1,262,463	459,094	1,074,197	423,338
Collectively grouped (*1)	1,629,424	893,004	1,179,236	645,016
	₩ 3,782,850	₩ 1,473,354	₩ 3,019,044	₩ 1,213,673

(*1) Assets and liabilities that individually do not have a material effect to a particular 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

Details of external revenue for the years ended December 31, 2022 and 2021, by geographic locations are as follows (Korean won in millions):

	2022	2021
Korea	₩ 1,766,407	₩ 1,025,808
America	333,737	623,011
Europe	76,105	87,133
Asia	1,926,709	2,381,867
Others	5,404	37,905
	₩ 4,108,362	₩ 4,155,724

4. Classification of financial instruments

4.1 Financial instruments by category

4.1.1 Financial assets

Financial assets by category as of December 31, 2022 and 2021 are as follows (Korean won in millions):

	2022				
	Financial assets at fair value through profit or loss	Financial assets at fair value through OCI	Financial assets at amortized cost	Hedge accounting- related assets	Total
Cash and cash equivalents	₩ 379,800	₩ -	₩ 301,540	₩ -	₩ 681,340
Short-term financial instruments	-	-	22,205	-	22,205
Long-term equity instruments	10,502	166,922	-	-	177,424
Trade accounts receivable	-	-	339,892	-	339,892
Other accounts receivable	863	-	27,644	-	28,507
Long-term loans	-	-	37,438	-	37,438
Other financial assets	-	-	25,561	-	25,561
	<u>₩ 391,165</u>	<u>₩ 166,922</u>	<u>₩ 754,280</u>	<u>₩ -</u>	<u>₩ 1,312,367</u>
	2021				
	Financial assets at fair value through profit or loss	Financial assets at fair value through OCI	Financial assets at amortized cost	Hedge accounting- related assets	Total
Cash and cash equivalents	₩ 117,708	₩ -	₩ 144,781	₩ -	₩ 262,489
Short-term financial instruments	-	-	23,223	-	23,223
Long-term equity instruments	8,402	121,082	-	-	129,484
Trade accounts receivable	-	-	366,359	-	366,359
Other accounts receivable	198	-	46,847	1,743	48,788
Long-term loans	-	-	103,205	-	103,205
Other financial assets	-	-	40,151	-	40,151
	<u>₩ 126,308</u>	<u>₩ 121,082</u>	<u>₩ 724,566</u>	<u>₩ 1,743</u>	<u>₩ 973,699</u>

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4.1.2 Financial liabilities

Financial liabilities by category as of December 31, 2022 and 2021 are as follows (Korean won in millions):

	2022			
	Financial liabilities at fair value through profit or loss	Financial liabilities measured at amortized cost	Hedge accounting- related liabilities	Total
Trade accounts payable	₩ -	₩ 298,013	₩ -	₩ 298,013
Other accounts payable	2,086	96,497	-	98,583
Borrowings	-	354,511	-	354,511
Bonds payable	-	399,117	-	399,117
Current portion of bonds payable and long-term borrowings	-	247,852	-	247,852
Other financial liabilities	-	14,328	-	14,328
	₩ 2,086	₩ 1,410,318	₩ -	₩ 1,412,404

	2021			
	Financial liabilities at fair value through profit or loss	Financial liabilities measured at amortized cost	Hedge accounting- related liabilities	Total
Trade accounts payable	₩ -	₩ 294,735	₩ -	₩ 294,735
Other accounts payable	1,240	114,186	-	115,426
Borrowings	-	251,675	-	251,675
Bonds payable	-	269,462	-	269,462
Current portion of bonds payable and long-term borrowings	-	212,287	-	212,287
Other financial liabilities	-	26,134	-	26,134
	₩ 1,240	₩ 1,168,479	₩ -	₩ 1,169,719

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, 2022 and 2021 are as follows (Korean won in millions):

	2022				
	Financial assets at fair value through profit or loss	Financial assets at fair value through OCI	Financial assets at amortized cost	Hedge accounting-related assets	Total
Profit or loss:					
Interest income	₩ 4,145	₩ -	₩ 13,898	₩ -	₩ 18,043
Dividend income	-	13,511	-	-	13,511
Gain on foreign currency transactions	-	-	64,306	-	64,306
Gain on foreign currency translation	-	-	(3,071)	-	(3,071)
Gain on currency forwards	34,268	-	-	-	34,268
Gain on currency swaps	-	-	-	136	136
Gain on disposal of other investments	-	-	2,146	-	2,146
Bad debt expenses	-	-	(945)	-	(945)
Other bad debt expenses	-	-	(14,219)	-	(14,219)
Loss on disposal of receivables	-	-	(2,407)	-	(2,407)
Other comprehensive income (*1):					
Gain on fair value of financial assets at FVOCI	-	45,958	-	-	45,958
Loss on valuation of cash hedge derivatives	-	-	-	(17)	(17)
	<u>₩ 38,413</u>	<u>₩ 59,469</u>	<u>₩ 59,708</u>	<u>₩ 119</u>	<u>₩ 157,709</u>

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

	2021				
	Financial assets at fair value through profit or loss	Financial assets at fair value through OCI	Financial assets at amortized cost	Hedge accounting- related assets	Total
Profit or loss:					
Interest income	₩ 705	₩ -	₩ 11,258	₩ -	₩ 11,963
Dividend income	-	6,573	-	-	6,573
Gain on foreign currency transactions	-	-	48,219	-	48,219
Gain on foreign currency translation	-	-	12,660	-	12,660
Gain on currency forwards	7,464	-	-	-	7,464
Gain on currency swaps	-	-	-	3,684	3,684
Bad debt expenses	-	-	(811)	-	(811)
Other bad debt expenses	-	-	(10,285)	-	(10,285)
Loss on disposal of receivables	-	-	(760)	-	(760)
Other comprehensive income (*1):					
Gain on fair value of financial assets at FVOCI	-	13,624	-	-	13,624
Gain on valuation of cash hedge derivatives	-	-	-	17	17
	<u>₩ 8,169</u>	<u>₩ 20,197</u>	<u>₩ 60,281</u>	<u>₩ 3,701</u>	<u>₩ 92,348</u>

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

4.2.2 Gains and losses on financial liabilities

Gains and losses on financial liabilities by category for the years ended December 31, 2022 and 2021 are as follows (Korean won in millions):

	2022			
	Financial liabilities at fair value through profit or loss	Financial liabilities measured at amortized cost	Hedge accounting- related liabilities	Total
Profit or loss:				
Interest expenses	₩ -	₩ (26,541)	₩ -	₩ (26,541)
Loss on foreign currency transactions	-	(37,265)	-	(37,265)
Gain on foreign currency translation	-	6,642	-	6,642
Loss on currency forwards	(69,482)	-	-	(69,482)
Gain on exemption from debt	-	548	-	548
	<u>₩ (69,482)</u>	<u>₩ (56,616)</u>	<u>₩ -</u>	<u>₩ (126,098)</u>
	2021			
	Financial liabilities at fair value through profit or loss	Financial liabilities measured at amortized cost	Hedge accounting- related liabilities	Total
Profit or loss:				
Interest expenses	₩ -	₩ (17,903)	₩ -	₩ (17,903)
Loss on foreign currency transactions	-	(43,074)	-	(43,074)
Loss on foreign currency translation	-	(7,681)	-	(7,681)
Loss on currency forwards	(19,113)	-	-	(19,113)
Gain on exemption from debt	-	13,352	-	13,352
Other comprehensive income (*1):				
Gain on valuation of cash hedge derivatives	-	-	145	145
	<u>₩ (19,113)</u>	<u>₩ (55,306)</u>	<u>₩ 145</u>	<u>₩ (74,274)</u>

(*1) 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, 2022 and 2021 are as follows (Korean won in millions):

	2022	2021
Cash on hand	₩ 19	₩ 35
Short-term deposits	681,321	262,454
	<u>₩ 681,340</u>	<u>₩ 262,489</u>

Outstanding balances of restricted deposits as of December 31, 2022 and 2021 are as follows (Korean won in millions):

	2022	2021
Restricted deposits	₩ 26,054	₩ 20,719

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, 2022 and 2021 are as follows (Korean won in millions):

	2022			2021		
	Gain on valuation	Loss on valuation	Other comprehensive income (*1)	Gain on valuation	Loss on valuation	Other comprehensive income (*1)
Currency forwards	₩ 863	₩ 2,086	₩ -	₩ 198	₩ 1,240	₩ -
Currency swaps	-	-	-	1,726	-	17
	₩ 863	₩ 2,086	₩ -	₩ 1,924	₩ 1,240	₩ 17

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

6.2 Currency forwards

As of December 31, 2022 and 2021, gains and losses on valuation of unsettled currency forward contracts are as follows (Korean won in millions and other currencies in thousands):

2022						
Position-buy	Buying amount	Position-sell	Selling amount	Contracted exchange rate	Gain on valuation	Loss on valuation
AED	1,602	KRW	553	345.25	₩ -	₩ 9
EUR	1,374	KRW	1,937	1,410.00	-	80
KRW	3,556	EUR	2,538	1,387.40 ~ 1,410.00	124	-
KRW	142,211	USD	111,755	1,259.50 ~ 1,308.90	739	44
USD	36,527	KRW	47,827	1,250.60 ~ 1,318.70	-	1,953
					₩ 863	₩ 2,086

2021						
Position-buy	Buying amount	Position-sell	Selling amount	Contracted exchange rate	Gain on valuation	Loss on valuation
AED	1,602	KRW	522	325.68	₩ -	₩ 3
CNY	3,130	KRW	582	186.00	1	-
EUR	674	KRW	903	1,340.20	4	-
KRW	35,379	AUD	41,629	849.50 ~ 852.50	-	501
KRW	12,878	EUR	9,573	1,336.76 ~ 1,350.20	3	47
KRW	209,744	USD	176,916	1,160.50 ~ 1,192.00	190	399
USD	50,114	KRW	59,868	1,187.50 ~ 1,197.10	-	290
					₩ 198	₩ 1,240

6.3 Currency swaps

As of December 31, 2021, gains and losses on valuation of unsettled currency swap contracts are as follows (Korean won in millions and other currencies in thousands):

2021								
Contracted party	Buying amount	Selling amount	Contracted exchange rate	Receivable interest rate	Payment interest rate	Contracted term	Gain on valuation	Other comprehensive gain
Shinhan Bank	USD 20,000	₩ 21,984	1,099.20	3ML + 0.90%	1.08%	2021.1.21 ~ 2022.1.18	₩ 1,726	₩ 17

7. Inventories

Details of inventories as of December 31, 2022 and 2021 are as follows (Korean won in millions):

	2022		
	Acquisition cost	Valuation allowance	Book value
Merchandise	₩ 60,010	₩ (750)	₩ 59,260
Materials in transit	49,667	-	49,667
	₩ 109,677	₩ (750)	₩ 108,927

	2021		
	Acquisition cost	Valuation allowance	Book value
Merchandise	₩ 66,386	₩ (508)	₩ 65,878
Materials in transit	34,744	-	34,744
	₩ 101,130	₩ (508)	₩ 100,622

For the year ended December 31, 2022, the Company recognized ₩242 million (2021: ₩508 million) as a loss on valuation of inventories carried at net realizable value. This is recognized in cost of sales.

8. Investment assets

Details of investment assets as of December 31, 2022 and 2021 are as follows (Korean won in millions):

	2022	2021
Long-term equity instruments		
Financial assets at fair value through profit or loss	₩ 10,502	₩ 8,402
Financial assets at fair value through OCI	166,922	121,082
Long-term loans receivable	37,438	103,205
	₩ 214,862	₩ 232,689

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8.1 Long-term equity instruments

As of December 31, 2022, details of long-term equity instruments 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				
VL Future				
Environment Industry Fund	-	14.16	₩ 5,000	₩ 5,000
Pablo Air Co., Ltd.	2,407	5.69	2,499	2,499
Futureplay Co.	314,600	2.63	3,000	3,003
			<u>10,499</u>	<u>10,502</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	28,896
Vietnam Korea Exchange Ltd.	-	10.00	322	322
Oilhub Korea Yeosu Co., Ltd.	131,000	5.00	7,205	7,317
GS E&R Co., Ltd.	1,654,445	9.52	95,585	87,294
Tianjin LG Bohai Chemical Co., Ltd.	-	10.00	11,737	40,737
Cobalt blue holdings Ltd.	7,093,959	1.92	6,467	3,532
			<u>123,726</u>	<u>166,922</u>
			<u>₩ 134,225</u>	<u>₩ 177,424</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 Company holds these investments for the purpose of business strategy, fair value changes are presented as OCI and the Company irrevocably elected to classify as financial asset at fair value through OCI.

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8.1 Long-term equity instruments (cont'd)

Changes in the net book value of long-term equity instruments as of December 31, 2022 and 2021 are as follows (Korean won in millions):

		2022									
	Equity ownership (%)		Jan. 1		Acquisition (disposal)		Valuation		Dec. 31		
Financial assets at fair value through profit or loss											
VL Future											
Environment Industry Fund	14.16	₩	2,900	₩	2,100	₩	-	₩	5,000		
Pablo Air Co., Ltd.	5.69		2,499		-		-		2,499		
Futureplay Co. (*3)	2.63		3,003		-		-		3,003		
			8,402		2,100		-		10,502		
Financial assets at fair value through OCI											
Korea Ras Laffan LNG Co., Ltd.											
(Qatar LNG project)	5.60		18,637		-		10,259		28,896		
Vietnam Korea Exchange Ltd	10.00		322		-		-		322		
LG Int'l (Saudi) LLC (*1)	-		118		(118)		-		-		
Oilhub Korea Yeosu Co., Ltd	5.00		7,317		-		(1,176)		6,141		
GS E&R Co., Ltd.	9.52		54,043		-		33,251		87,294		
Tianjin LG Bohai Chemical Co., Ltd.	10.00		37,629		-		3,108		40,737		
Cobalt blue holdings Ltd.	1.92		3,016		-		516		3,532		
			121,082		(118)		45,958		166,922		
		₩	129,484	₩	1,982	₩	45,958	₩	177,424		
2021											
	Equity ownership (%)		Jan. 1		Acquisition (disposal)		Valuation		Others	Dec. 31	
Financial assets at fair value through profit or loss											
VL Future											
Environment Industry Fund (*2)	14.16	₩	-	₩	2,900	₩	-	₩	-	2,900	
Pablo Air Co., Ltd. (*2)	5.84		-		2,499		-		-	2,499	
QQ Aromatics LLC (formerly, Aromatics Oman LLC) (*3)	1.00		4,779		-		-		(4,779)	-	
Futureplay Co.	2.98		3,003		-		-		-	3,003	
			7,782		5,399		-		(4,779)	8,402	
Financial assets at fair value through OCI											
Korea Ras Laffan LNG Limited (Qatar LNG project)	5.60		21,500		-		(2,863)		-	18,637	
Vietnam Korea Exchange Ltd.	10.00		322		-		-		-	322	
LX Int'l (Saudi) LLC	90.00		118		-		-		-	118	
Oilhub Korea Yeosu Co., Ltd.	5.00		7,530		-		(213)		-	7,317	
GS E&R Co, Ltd.	9.52		55,100		-		(1,057)		-	54,043	
Tianjin LX Bohai Chemical	10.00		21,819		-		15,810		-	37,629	
Cobalt blue holdings Ltd.	2.35		1,069		-		1,947		-	3,016	
			107,458		-		13,624		-	121,082	
		₩	115,240	₩	5,399	₩	13,624	₩	(4,779)	₩	129,484

(*1) For the year ended December 31, 2022, the Company liquidated it.

(*2) For the year ended December 31, 2021, the Company acquired 14.16% of equity interests of VL Future Environment Industry Fund and 5.84% of equity interests of Pablo Air Co., Ltd. and classified them as financial assets at fair value through profit or loss.

(*3) During the year ended December 31, 2021, the Company classified it as non-current assets held for sale. (Refer to Note 30).

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9. Investments in subsidiaries and associates

9.1 Investments in subsidiaries

As of December 31, 2022 and 2021, investments in subsidiaries are as follows.

	Location	Equity ownership (%)		Reporting date	Principal operation
		2022	2021		
LX International (America) Inc.	USA	100.00	100.00	Dec. 31	Export and import
LX International (Japan) Ltd.	Japan	100.00	100.00	Dec. 31	"
LX International (HK) Ltd.	Hong Kong	100.00	100.00	Dec. 31	"
LX International (Singapore) Pte. Ltd.	Singapore	100.00	100.00	Dec. 31	"
LX International (Deutschland) GmbH	Deutschland	100.00	100.00	Dec. 31	"
LX International (Shanghai) Corp.	China	100.00	100.00	Dec. 31	"
Yantai LX International VMI Co., Ltd	China	100.00	100.00	Dec. 31	Hub
Bowen Investment (Australia) Pty. Ltd.	Australia	100.00	100.00	Dec. 31	Coal mining
PT. Batubara Global Energy (BGE)	Indonesia	100.00	100.00	Dec. 31	"
PT. Ganda Alam Makmur (GAM)	Indonesia	60.00	60.00	Dec. 31	"
LX International India Private Limited	India	100.00	100.00	Mar. 31	Export and import
PT. Green Global Lestari (GGL)	Indonesia	100.00	100.00	Dec. 31	Palm oil
PT. LX International Indonesia (LXII)	Indonesia	100.00	100.00	Dec. 31	Industrial planting
PT. Binsar Natorang Energi (BNE)	Indonesia	95.00	95.00	Dec. 31	Hydroelectric power
PT. Global Investment Institusi (GII)	Indonesia	99.99	99.94	Dec. 31	Health Care
Steel Flower Electric & Machinery(Tianjin) Co., Ltd.	China	100.00	100.00	Dec. 31	Steel frames
Philco Resources Ltd. (Rapu-Rapu)	Malaysia	60.00	60.00	Dec. 31	Copper mining
Resource Investment (Hong Kong) Ltd. (Xinzheng)	Hong Kong	100.00	100.00	Dec. 31	Coal mining
LX International Yakutsk, LLC	Russia	100.00	100.00	Dec. 31	Real estate
Korea Carbon International Co., Ltd. (Shaanxi BBM)	Hong Kong	60.00	60.00	Dec. 31	Renewable plant
Colmineral, S.A. de.C.V.	Mexico	100.00	100.00	Dec. 31	Iron ore
Fertilizer Resources Investment Ltd.	Hong Kong	100.00	100.00	Dec. 31	Fertilizer
Dangjin Tank Terminal Co., Ltd.	Korea	100.00	100.00	Dec. 31	Storage
Haiphong Steel Flower Electrical & Machinery Company Limited	Vietnam	100.00	100.00	Dec. 31	Steel frames
Eco & Logis Busan Co., Ltd.	Korea	100.00	-	Dec. 31	Logistics and Storage
Poseung Green Power Co., Ltd.	Korea	100.00	-	Dec. 31	Renewable plant
LX Pantos Logistics Co., Ltd.	Korea	51.00	51.00	Dec. 31	Logistics

(*1) For the year ended December 31, 2022, Eco & Logis Busan Co., Ltd. was newly established and acquired a stake in Poseung Green Power Co., Ltd. and added them as a consolidated subsidiary.

(*2) Poseung Green Power Co., Ltd. issued preferred stocks with voting rights in addition to common shares, so the Company's share of common shares is 100%, and the Company's voting rights are 69.97% in the total number of voting shares, including preferred shares.

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9.1 Investments in subsidiaries (cont'd)

Details of the investments in subsidiaries as of December 31, 2022 and 2021 are as follows (Korean won in millions):

	2022			2021
	Acquisition cost	Net asset value	Net book value	Net book value
LX International (America) Inc.	₩ 21,156	₩ 48,827	₩ 48,401	₩ 40,814
LX International Japan Ltd.	401	5,355	5,059	3,418
LX International (HK) Ltd.	17,663	13,535	13,533	10,073
LX International (Singapore) Pte. Ltd.	3,288	27,747	27,252	18,953
LX International (Deutschland) GmbH	12,314	11,025	11,025	10,203
LX International (Shanghai) Corp.	6,129	9,292	9,292	8,337
Yantai LX International VMI Co., Ltd	1,070	2,330	2,330	5,268
Bowen Investment (Australia) Pty. Ltd.	26,707	90,617	90,617	16,839
PT. Batubara Global Energy (BGE)	11,753	71,245	71,245	47,575
PT. Ganda Alam Makmur (GAM)	241,090	604,785	410,393	268,018
LX International India Private Limited	943	1,889	1,889	1,838
PT. Green Global Lestari (GGL)	175,502	197,746	194,199	180,572
PT. LX International Indonesia (LXII)	98,231	(9,993)	-	-
PT. Binsar Natorang Energi (BNE)	59,071	114,169	110,036	92,889
PT. Global Investment Institusi (GII)	9,204	4,672	4,671	7,235
Steel Flower Electric & Machinery(Tianjin) Co., Ltd.	7,419	29,034	29,267	35,889
Philco Resources Ltd. (Rapu-Rapu)	4,310	164	-	-
Resource Investment (Hong Kong) Ltd. (Xinzhen)	53,176	106,576	106,576	131,908
LX International Yakutsk, LLC	5,325	(7,463)	-	-
Korea Carbon International Co., Ltd. (Shaanxi BBM)	839	-	-	-
Colmineral, S.A. de.C.V.	5	3	4	4
Fertilizer Resources Investment Ltd.	97,580	173,669	173,669	160,660
Dangjin Tank Terminal Co., Ltd.	109,720	89,963	90,718	91,620
Haiphong Steel Flower Electrical & Machinery Company Limited	7,773	6,304	6,304	7,088
Eco & Logis Busan Co., Ltd.	43,000	42,784	42,784	-
Poseung Green Power Co., Ltd.	94,950	76,801	76,801	-
LX Pantos Logistics Co., Ltd.	314,721	1,063,242	672,838	587,100
	₩ 1,423,340	₩ 2,774,318	₩ 2,198,903	₩ 1,726,301

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9.1 Investments in subsidiaries (cont'd)

The summarized financial information of major subsidiaries as of December 31, 2022 and 2021 and operation results for the years ended by December 31, 2022 and 2021 are as follows (Korean won in millions):

	2022						
	Current assets	Non-current assets	Current liabilities	Non-current liabilities	Revenue	Profit (loss) for the year	Dividends paid by subsidiaries
LX International (America), Inc.	₩ 205,971	₩ 3,233	₩ 159,689	₩ 688	₩ 1,101,150	₩ 2,718	₩ -
LX International Japan Ltd.	56,783	5,856	53,569	3,715	271,017	1,545	-
LX International (HK) Ltd.	47,041	1,863	35,314	55	374,639	2,812	-
LX International (Singapore) Pte. Ltd.	292,376	23,567	268,001	20,195	2,565,399	5,019	-
PT. Batubara Global Energy (BGE)	316,363	8,846	252,686	1,278	1,096,856	16,322	-
PT. Ganda Alam Makmur (GAM)	265,242	590,116	79,379	171,194	835,499	220,578	73,872
PT. Green Global Lestari (GGL)	16,263	221,844	5,679	34,682	-	21,374	-
Resource Investment (Hong Kong) Ltd. (Xinzhen)	55,232	66,909	15,538	27	-	51,108	77,363
Fertilizer Resources Investment Ltd.	187	173,494	12	-	-	25,002	7,484
Dangjin Tank Terminal Co., Ltd.	146	97,252	7,435	-	-	(2,702)	-
Eco & Logis Busan Co., Ltd.	2,548	40,244	6	2	-	(216)	-
Poseung Green Power Co., Ltd.	44,945	204,831	16,260	156,715	11,339	1,302	-
LX Pantos Logistics Co., Ltd.	1,748,010	981,121	1,123,125	542,764	10,672,173	287,352	40,851

	2021						
	Current assets	Non-current assets	Current liabilities	Non-current liabilities	Revenue	Profit (loss) for the year	Dividends paid by subsidiaries
LX International (America), Inc.	₩ 399,237	₩ 3,161	₩ 358,454	₩ 763	₩ 1,711,415	₩ 3,478	₩ -
LX International Japan Ltd.	92,087	7,961	90,629	5,250	482,779	63	-
LX International (HK) Ltd.	108,338	2,976	101,232	-	572,449	866	-
LX International (Singapore) Pte. Ltd.	619,178	20,058	601,115	18,893	3,786,013	5,724	-
PT. Batubara Global Energy (BGE)	244,261	11,719	208,231	88	676,701	10,927	-
PT. Ganda Alam Makmur (GAM)	224,781	445,852	176,993	92,017	501,210	153,200	-
PT. Green Global Lestari (GGL)	6,917	209,872	3,458	29,817	-	22,418	-
Resource Investment (Hong Kong) Ltd. (Xinzhen)	75,910	56,005	8	-	-	65,684	1,563
Fertilizer Resources Investment Ltd.	176	160,484	-	-	-	18,684	4,957
Dangjin Tank Terminal Co., Ltd.	263	91,315	693	19	-	(2,470)	-
LX Pantos Logistics Co., Ltd.	1,806,999	603,388	1,348,224	168,207	7,817,729	266,597	18,105

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9.1 Investments in subsidiaries (cont'd)

Changes in the net book value of investments in subsidiaries by equity method for the years ended December 31, 2022 and 2021 are as follows (Korean won in millions):

	2022						
	Jan. 1	Acquisition (disposal) and transfer	Dividends	Equity adjustments in equity method	Share of profit or loss	Others	Dec. 31
LX International (America) Inc.	₩ 40,814	₩ -	₩ -	₩ 2,928	₩ 4,659	₩ -	₩ 48,401
LX International Japan Ltd.	3,418	-	-	(359)	2,000	-	5,059
LX International (HK) Ltd.	10,073	-	-	643	2,817	-	13,533
LX International (Singapore) Pte. Ltd.	18,953	-	-	3,501	4,798	-	27,252
LX International (Deutschland) GmbH	10,203	-	-	63	759	-	11,025
LX International (Shanghai) Corp.	8,337	-	-	(280)	1,235	-	9,292
Yantai LX International VMI Co., LTD	5,268	-	(3,660)	36	686	-	2,330
Bowen Investment (Australia) Pty. Ltd. (*1)	16,839	-	-	(3,207)	63,557	13,428	90,617
PT. Batubara Global Energy (BGE)	47,575	-	-	7,261	16,409	-	71,245
PT. Ganda Alam Makmur (GAM) (*1)	268,018	-	(73,872)	12,202	133,266	70,779	410,393
LX International India Private Limited	1,838	-	-	(80)	131	-	1,889
PT. Green Global Lestari (GGL)	180,572	-	-	(7,143)	20,770	-	194,199
PT. LX International Indonesia (LXII)	-	-	-	491	(4,282)	3,791	-
PT. Binsar Natorang Energi (BNE)	92,889	-	(9,828)	19,834	7,141	-	110,036
PT. Global Investment Institusi (GII)	7,235	1,924	-	(339)	(4,149)	-	4,671
Steel Flower Electric & Machinery(Tianjin) Co., Ltd.	35,889	-	(10,561)	(579)	4,518	-	29,267
Resource Investment (Hong Kong) Ltd. (Xinzheng)	131,908	-	(77,363)	923	51,108	-	106,576
LX International Yakutsk, LLC	-	-	-	195	(321)	126	-
Colmineral, S.A. de.C.V.	4	-	-	-	-	-	4
Fertilizer Resources Investment Ltd.	160,660	-	(7,484)	(4,509)	25,002	-	173,669
Dangjin Tank Terminal Co., Ltd.	91,620	1,800	-	-	(2,702)	-	90,718
Haiphong Steel Flower Electrical & Machinery Company Limited	7,088	-	-	244	(1,028)	-	6,304
Eco & Logis Busan Co., Ltd.	-	43,000	-	-	(216)	-	42,784
Poseung Green Power Co., Ltd.	-	94,950	-	-	1,302	(19,451)	76,801
LX Pantos Logistics Co., Ltd.	587,100	-	(40,851)	(25,611)	145,952	6,248	672,838
	₩ 1,726,301	₩ 141,674	₩ (223,619)	₩ 6,214	₩ 473,412	₩ 74,921	₩ 2,198,903

(*1) Others include the effects of enlargement due to recognition of reversal of impairment loss on the assets (see Note 22).

(*2) Others include the effects of reduction due to recognition of impairment loss on the assets (see Note 22).

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9.1 Investments in subsidiaries (cont'd)

	2021						
	Jan. 1	Acquisition (disposal) and transfer	Dividends	Equity adjustments in equity method	Share of profit or loss	Others	Dec. 31
LX International (America) Inc.	₩ 36,266	₩ -	₩ -	₩ 3,380	₩ 1,168	₩ -	₩ 40,814
LX International Japan Ltd.	3,711	-	-	(96)	(197)	-	3,418
LX International (HK) Ltd.	8,426	-	-	786	861	-	10,073
LX International (Singapore) Pte. Ltd.	12,173	-	-	1,238	5,542	-	18,953
LX International (Deutschland) GmbH	9,624	-	-	25	554	-	10,203
LX International (Shanghai) Corp.	7,126	-	-	842	369	-	8,337
Yantai LX International VMI Co., LTD	4,013	-	-	502	753	-	5,268
Bowen Investment (Australia) Pty. Ltd.	8,545	-	-	212	8,082	-	16,839
PT. Batubara Global Energy (BGE)	33,533	-	-	3,143	10,899	-	47,575
PT. Ganda Alam Makmur (GAM)	161,120	-	-	16,901	89,997	-	268,018
LX International India Private Limited	1,737	-	-	125	(24)	-	1,838
PT. Green Global Lestari (GGL)	149,813	-	-	9,606	21,153	-	180,572
PT. LX International Indonesia (LXII)	755	-	-	(122)	(5,644)	5,011	-
PT. Binsar Natorang Energi (BNE)	73,933	-	-	12,400	6,556	-	92,889
PT. Global Investment Institusi (GII)	-	7,280	-	786	(831)	-	7,235
Steel Flower Electric & Machinery(Tianjin) Co., Ltd.	28,653	-	-	3,474	3,762	-	35,889
Resource Investment (Hong Kong) Ltd. (Xinzhen)	59,554	-	(1,563)	8,233	65,684	-	131,908
LX International Yakutsk, LLC	-	-	-	(595)	(382)	977	-
Colmineral, S.A. de C.V.	4	-	-	-	-	-	4
Fertilizer Resources Investment Ltd.	131,109	-	(4,957)	15,824	18,684	-	160,660
Dangjin Tank Terminal Co., Ltd.	92,390	1,700	-	-	(2,470)	-	91,620
Haiphong Steel Flower Electrical & Machinery Company Limited	4,471	-	-	566	2,051	-	7,088
LX Pantos Logistics Co., Ltd.	461,426	-	(18,105)	9,673	136,251	(2,145)	587,100
	₩ 1,288,382	₩ 8,980	₩ (24,625)	₩ 86,903	₩ 362,818	₩ 3,843	₩ 1,726,301

LX International Corp.
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9.2 Investments in associates

As of December 31, 2022 and 2021, investments in associates are as follows.

	Location	Equity ownership (%)		Reporting date	Principal business activity
		2022	2021		
Biofriends INC. (*1)	Korea	10.44	11.36	12.31	Manufacturing and selling clean energy
Ecovance Co., Ltd. (*1, 2)	Korea	12.71	-	12.31	Manufacturing of synthetic rubber and plastic materials
ATEAM VENTURES Co., Ltd. (*1, 2)	Korea	11.29	-	12.31	Software development
POSCO-IPPC (India Pune Processing Center)	India	35.00	35.00	3.31	Processing and selling steel
POSCO-PWPC (Poland Wroclaw Processing Center)	Poland	40.00	40.00	12.31	"
Kernhem B.V. (*3)	Netherland	-	30.00	12.31	Oil and gas
ADA Oil LLP (*3)	Kazakhstan	-	12.50	12.31	"
GS HP Sunflower Village Int'l Corp.	Vietnam	30.00	30.00	12.31	Leasing real estate
Oman International Petrochemical Industry Company LLC	Oman	30.00	30.00	12.31	Manufacturing and selling PTA, PET
Musandam Power Company SAOC (*1)	Oman	18.00	18.00	12.31	Thermal power plant
Gansu Wuwei Cogeneration Power Plant	China	30.00	30.00	12.31	Generating Cogeneration

(*1) The entities were classified as associates even though the Company holds less than 20% equity ownership. As the Company has rights to elect the directors of the entities and its executives participate in their management as directors, the Company considered that it has significant influence over these entities.

(*2) For the year ended December 31, 2022, the Company acquired and classified it as investments in associates.

(*3) For the year ended December 31, 2022, the Company disposed all the equity interests.

Details of the investments in associates as of December 31, 2022 and 2021 are as follows (Korean won in millions):

	2022			2021
	Acquisition cost	Net asset value	Net book value	Net book value
Biofriends INC.	₩ 2,720	₩ 2,607	₩ 2,193	₩ 2,550
Ecovance Co., Ltd.	15,600	117,158	14,896	-
ATEAM VENTURES Co., Ltd.	3,500	2,027	3,500	-
POSCO-IPPC (India Pune Processing Center)	9,184	48,002	16,801	14,451
POSCO-PWPC (Poland Wroclaw Processing Center)	5,244	27,640	11,080	8,915
GS HP Sunflower Village Int'l Corp.	2,911	19,467	5,840	5,320
Oman International Petrochemical Industry Company LLC (*1)	19,766	64,587	-	-
Musandam Power Company SAOC	6,535	38,259	7,229	6,662
Gansu Wuwei Cogeneration Power Plant	55,932	199,320	60,246	59,485
	₩ 121,392	₩ 519,067	₩ 121,785	₩ 97,383

(*1) The entity has discontinued its operations, and the Company has not received recent financial statements of the entity.

LX International Corp.
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9.2 Investments in associates (cont'd)

The condensed financial information of major associates as of December 31, 2022 and 2021 is as follows (Korean won in millions):

	2022						
	Current assets	Non-current assets	Current liabilities	Non-current liabilities	Revenue	Profit (loss) for the year	Dividends paid by associates
Ecovance Co. Ltd.	₩ 30,290	₩ 89,175	₩ 955	₩ 1,352	₩ -	₩ (5,542)	₩ -
POSCO-IPPC (India Pune Processing Center)	146,622	28,900	115,518	12,002	521,499	8,925	-
POSCO-PWPC (Poland Wroclaw Processing Center)	75,241	7,082	54,679	4	146,455	5,695	-
Musandam Power Company SAOC	97,775	223,663	81,004	202,175	91,809	8,129	1,275
Gansu Wuwei Cogeneration Power Plant	122,659	397,507	60,002	260,844	279,425	8,049	-
	2021						
	Current assets	Non-current assets	Current liabilities	Non-current liabilities	Revenue	Profit (loss) for the year	Dividends paid by associates
POSCO-IPPC (India Pune Processing Center)	₩ 161,741	₩ 29,017	₩ 137,571	₩ 11,897	₩ 403,314	₩ 11,044	₩ -
POSCO-PWPC (Poland Wroclaw Processing Center)	73,142	7,791	58,701	5	125,524	5,481	-
Musandam Power Company SAOC	84,929	215,252	65,909	199,482	77,836	10,021	1,041
Gansu Wuwei Cogeneration Power Plant	98,877	429,488	57,824	273,753	191,269	(7,496)	4,381

Changes in the net book value of investments in associates for the years ended December 31, 2022 and 2021 are as follows (Korean won in millions):

	2022						
	Jan. 1	Acquisition (disposal)	Dividends	Change in equity adjustment in equity method	Share of profit or loss	Impairment and others	Dec. 31
Biofriends INC.	₩ 2,550	₩ -	₩ -	₩ 15	₩ (384)	₩ 12	₩ 2,193
Ecovance Co. Ltd.	-	15,600	-	-	(704)	-	14,896
ATEAM VENTURES Co.,Ltd.	-	3,500	-	-	-	-	3,500
POSCO-IPPC (India Pune Processing Center)	14,451	-	-	(774)	3,124	-	16,801
POSCO-PWPC (Poland Wroclaw Processing Center)	8,915	-	-	(113)	2,278	-	11,080
Kernhem B.V. (*1)	-	(1,006)	-	527	479	-	-
ADA Oil LLP (*1)	-	(606)	-	270	336	-	-
GS HP Sunflower Village Int'l Corp.	5,320	-	(53)	150	459	(36)	5,840
Musandam Power Company SAOC	6,662	-	(1,275)	379	1,463	-	7,229
Gansu Wuwei Cogeneration Power Plant	59,485	-	-	(1,654)	2,415	-	60,246
	₩ 97,383	₩ 17,488	₩ (1,328)	₩ (1,200)	₩ 9,466	₩ (24)	₩ 121,785

(*1) The company decided to sell its stake in ADA Oil LLP and Kernhem B.V., classified it as a non-current assets held for sale, and completed the sale during the current term.

	2021						
	Jan. 1	Acquisition (disposal)	Dividends	Change in equity adjustment in equity method	Share of profit or loss	Impairment and others	Dec. 31
Biofriends INC.	₩ -	₩ 2,720	₩ -	₩ -	₩ (206)	₩ 36	₩ 2,550
POSCO-IPPC (India Pune Processing Center)	9,769	-	-	817	3,865	-	14,451
POSCO-PWPC (Poland Wroclaw Processing Center)	6,752	-	-	(29)	2,192	-	8,915
Kernhem B.V.	-	-	-	(251)	153	98	-
ADA Oil LLP	-	-	-	(124)	660	(536)	-
GS HP Sunflower Village Int'l Corp.	4,395	-	(50)	480	495	-	5,320
Musandam Power Company SAOC	5,409	-	(1,041)	490	1,804	-	6,662
Gansu Wuwei Cogeneration Power Plant	59,647	-	(4,381)	6,467	(2,248)	-	59,485
	₩ 85,972	₩ 2,720	₩ (5,472)	₩ 7,850	₩ 6,715	₩ (402)	₩ 97,383

10. Property, plant and equipment

Details of property, plant and equipment as of December 31, 2022 and 2021 are as follows (Korean won in millions):

	2022		
	Acquisition cost	Accumulated depreciation	Net book value
Land	₩ 12	₩ -	₩ 12
Buildings	560	(139)	421
Structures	1,275	(920)	355
Machinery and equipment	358	(220)	138
Vehicles	259	(224)	35
Others	8,194	(7,565)	629
Construction-in-progress	-	-	-
Right-of-use assets	13,364	(11,048)	2,316
	₩ 24,022	₩ (20,116)	₩ 3,906

	2021		
	Acquisition cost	Accumulated depreciation	Net book value
Land	₩ 12	₩ -	₩ 12
Buildings	560	(125)	435
Structures	1,275	(866)	409
Machinery and equipment	236	(176)	60
Vehicles	259	(212)	47
Others	7,695	(6,891)	804
Construction-in-progress	614	-	614
Right-of-use assets	10,182	(3,608)	6,574
	₩ 20,833	₩ (11,878)	₩ 8,955

Changes in the net book value of property, plant and equipment for the years ended December 31, 2022 and 2021 are as follows (Korean won in millions):

	2022						
	Jan. 1	Additions	Transfer	Disposal	Depreciation	Dec. 31	
Land	₩ 12	₩ -	₩ -	₩ -	₩ -	₩ -	12
Buildings	435	-	-	-	(14)		421
Structures	409	-	-	-	(54)		355
Machinery and equipment	60	87	36	-	(45)		138
Vehicles	47	-	-	-	(12)		35
Others	804	504	-	-	(679)		629
Construction-in-progress	614	310	(916)	(8)	-		-
Right-of-use assets	6,574	5,135	-	(697)	(8,896)		2,316
	₩ 8,955	₩ 6,036	₩ (880)	₩ (705)	₩ (9,500)	₩	3,906

	2021						
	Jan. 1	Additions	Disposals	Depreciation	Dec. 31		
Land	₩ 12	₩ -	₩ -	₩ -	₩ -	₩	12
Buildings	449	-	-	(14)			435
Structures	463	-	-	(54)			409
Machinery and equipment	90	-	-	(30)			60
Vehicles	7,364	-	(6,916)	(401)			47
Others	1,299	1,166	(241)	(1,420)			804
Construction-in-progress	9	605	-	-			614
Right-of-use assets	6,619	9,478	(2,795)	(6,728)			6,574
	₩ 16,305	₩ 11,249	₩ (9,952)	₩ (8,647)	₩	₩	8,955

10. Property, plant and equipment (cont'd)

Details of insurance for properties are as follows (Korean won in millions):

	Insured assets	Insurance institution	Insured amount	
			2022	2021
Property insurance	Plant & equipment, etc.	KB insurance Co. Ltd. and others	₩ 42,477	₩ 42,078

11. Intangible assets

Details of intangible assets as of December 31, 2022 and 2021 are as follows (Korean won in millions):

	2022	2021
License	₩ 10,093	₩ 11,255
Others	2,862	2,480
	<u>₩ 12,955</u>	<u>₩ 13,735</u>

Changes in the net book value of intangible assets for the years ended December 31, 2022 and 2021 are as follows (Korean won in millions):

		2022					
		Jan. 1	Additions	Disposals	Reclassification	Amortization	Dec. 31
License	₩	11,255	₩ -	₩ (1,162)	₩ -	₩ -	₩ 10,093
Others		2,480	521	-	880	(1,019)	2,862
	₩	<u>13,735</u>	<u>₩ 521</u>	<u>₩ (1,162)</u>	<u>₩ 880</u>	<u>₩ (1,019)</u>	<u>₩ 12,955</u>

		2021					
		Jan. 1	Additions	Disposals	Amortization	Gain on impairment	Dec. 31
License	₩	11,287	₩ 2,043	₩ (2,615)	₩ -	₩ 540	₩ 11,255
Others		3,002	309	-	(831)	-	2,480
	₩	<u>14,289</u>	<u>₩ 2,352</u>	<u>₩ (2,615)</u>	<u>₩ (831)</u>	<u>₩ 540</u>	<u>₩ 13,735</u>

The Company participates as the Klaytn Blockchain Platform Operator (General Council Officer) and is acquiring the cryptocurrency, Klay. Acquisition of the asset does not require significant acquisition costs; therefore, it is treated as a non-retained asset. As of December 31, 2022, the Company has 7,484,146 Klay (2021: 6,615,173 Klay).

12. Trade and other receivables

Details of trade and other receivables as of December 31, 2022 and 2021 are as follows (Korean won in millions):

	2022			2021		
	Total amount	Allowance for doubtful accounts	Net value	Total amount	Allowance for doubtful accounts	Net value
Current:						
Trade receivables	₩ 380,071	₩ (40,179)	₩ 339,892	₩ 405,592	₩ (39,233)	₩ 366,359
Short-term loans	11,007	(8,802)	2,205	8,234	(5,011)	3,223
Other receivables (*1)	31,998	(4,354)	27,644	57,013	(10,166)	46,847
Current portion of Long-term other accounts receivable	6,337	-	6,337	5,928	-	5,928
Present value discount	(224)	-	(224)	(210)	-	(210)
Accrued income	6,051	(3,102)	2,949	5,092	(2,869)	2,223
Short-term deposits	2,556	-	2,556	2,658	-	2,658
	<u>437,796</u>	<u>(56,437)</u>	<u>381,359</u>	<u>484,307</u>	<u>(57,279)</u>	<u>427,028</u>
Non-current:						
Long-term loans	123,470	(86,032)	37,438	217,166	(113,961)	103,205
Long-term other receivables	6,337	(127)	6,210	11,855	(119)	11,736
Present value discount	(649)	-	(649)	(1,585)	-	(1,585)
Long-term uncollected income	16,681	(9,118)	7,563	26,957	(8,218)	18,739
Long-term bank deposits (*2)	10	-	10	10	-	10
Long-term deposits	5,101	(4,290)	811	4,943	(4,290)	653
	<u>150,950</u>	<u>(99,567)</u>	<u>51,383</u>	<u>259,346</u>	<u>(126,588)</u>	<u>132,758</u>
	<u>₩ 588,746</u>	<u>₩ (156,004)</u>	<u>₩ 432,742</u>	<u>₩ 743,653</u>	<u>₩ (183,867)</u>	<u>₩ 559,786</u>

(*1) As of December 31, 2022 other receivables related to derivatives of ₩863 million (2021: ₩1,942 million) were excluded.

(*2) As of December 31, 2022, it presents the amount after excluding ₩6,045 million (2021: ₩709 million) of excessive amount of plan assets (see Note 20).

12. Trade and other receivables (cont'd)

Changes in the net book value of allowance for doubtful accounts for the years ended December 31, 2022 and 2021 are as follows (Korean won in millions):

	2022		2021	
	Trade receivables	Other receivables	Trade receivables	Other receivables
Jan. 1	₩ 39,233	₩ 144,634	₩ 38,525	₩ 127,007
Bad debt expenses	945	14,219	811	10,285
Others (*1)	1	(43,028)	(103)	7,342
Dec. 31	₩ 40,179	₩ 115,825	₩ 39,233	₩ 144,634

(*1) For the year ended December 31, 2022, the reduction from the sale of loans to Kernhem B.V. and ADA Oil LLP. along with equity, which amounts to ₩39,540 million, is included. During 2021, the Company recognized ₩9.072 million in related impairment reversals.

Aging analysis of trade receivables as of December 31, 2022 and 2021 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
Dec. 31, 2022	₩ 335,044	₩ 1,821	₩ -	₩ 14	₩ 43,192	₩ 380,071
Dec. 31, 2021	347,509	9,056	2,921	7	46,099	405,592

As of the December 31, 2022, there are no trade accounts receivable that were transferred or factored but not derecognized because the requirements for financial instrument derecognition are not met.

13. Borrowings and bonds

13.1 Short-term borrowings

Details of short-term borrowings as of December 31, 2022 and 2021 are as follows (Korean won in millions):

Description	Financial institution	Annual interest rate as of Dec. 31, 2022	2022	2021
General borrowings	BOC and others	4.72% and others	₩ 165,346	₩ 73,710
Banker's usance	Hana Bank and others	0.41% ~ 0.52%	-	2,375
			₩ 165,346	₩ 76,085

The Company has contracts of commercial paper discount with Woori, Shinhan, Hana and KDB 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 Company has signed individual and comprehensive loan agreements (credit limit of ₩18,000 million) with Shinhan Bank and two other banks in relation to bank overdraft facilities as of December 31, 2022. In relation to the bank overdraft facilities above, long-term financial instruments are provided as collateral.

13.2 Long-term borrowings

Details of long-term borrowings as of December 31, 2022 and 2021 are as follows (Korean won in millions):

	Financial institution	Annual interest rate as of Dec. 31, 2021	2022	2021
Local currency	Korea Energy Agency	Special energy fund rate - 2.25%	₩ 1,318	₩ 1,977
	Forestry Cooperative in Korea	1.50%	4,201	6,284
	Woori International the 1 st Co., Ltd.	2.89% ~ 2.91%	70,000	130,000
	The Export-Import Bank of Korea	Export-Import Financial Debentures 3 month + (1.36% ~ 1.39%)	78,040	87,120
	KDB Bank	CD91 rate +1.42%	80,000	-
	China Construction Bank Corporation	CD91 rate (3.98%) +1.25%	20,000	-
			253,559	225,381
		Less: current portion	(77,465)	(71,823)
			₩ 176,094	₩ 153,558
Foreign currency	Korea Energy Agency	Special energy fund rate - 2.25%	₩ 13,589	₩ 22,516
			13,589	22,516
		Less: current portion	(518)	(484)
			13,071	22,032
			₩ 189,165	₩ 175,590

13.3 Bonds

Details of bonds as of December 31, 2022 and 2021 are as follows (Korean won in millions):

Series	Issue date	Maturity date	Annual interest rate	2022	2021	Warranty
115th	Mar. 03. 2015	Mar. 03. 2022	2.74%	-	50,000	Non-warranty
116-3rd	May. 28. 2015	May. 28. 2022	2.86%	-	90,000	"
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	50,000	"
120-1st	May. 27. 2020	May. 27. 2023	1.80%	90,000	90,000	"
120-2nd	May. 27. 2020	May. 27. 2025	2.07%	50,000	50,000	"
121-1st	Aug. 06. 2021	Aug. 06. 2026	2.29%	20,000	20,000	"
121-2nd	Aug. 06. 2021	Aug. 06. 2031	3.10%	30,000	30,000	"
122-1st	Jan. 01. 2022	Jan. 27. 2025	2.96%	110,000	-	"
122-2nd	Jan. 01. 2022	Jan. 28. 2027	3.14%	110,000	-	"
122-3rd	Jan. 01. 2022	Jan. 26. 2029	3.33%	80,000	-	"
Less: discount on bonds				(1,013)	(557)	
Less: current portion of bonds				(170,000)	(140,000)	
Less: current portion of discount on bonds				130	19	
				₩ 399,117	₩ 269,462	

The Company issued the 118-2nd, 119-1st, 120-1st and 120-2nd, 121-1st and 121-2nd, 122-1st, 122-2nd and 122-3rd unsecured bonds at discounts, and the bonds are to be repaid at the maturity date at once, and the interest payment is the three-month redemption condition. Discounts on the bonds are amortized using the effective interest method over the repayment period of the bonds and added to finance costs.

14. Provisions

Details of provisions as of December 31, 2022 and 2021 are as follows (Korean won in millions):

	2022		2021	
	Current	Non-Current	Current	Non-Current
Rehabilitation provisions	₩ 1,743	₩ 141	₩ -	₩ -
Onerous contracts	6,709	7,177	5,987	13,396
Provisions for litigation	-	553	-	517
	<u>₩ 8,452</u>	<u>₩ 7,871</u>	<u>₩ 5,987</u>	<u>₩ 13,913</u>

Changes in provisions for the years ended December 31, 2022 and 2021 are as follows (Korean won in millions):

	2022				
	Jan. 1	Recognition (Reversal)	Used	Others (*1)	Dec. 31
Rehabilitation provisions	₩ -	₩ 1,884	₩ -	₩ -	₩ 1,884
Onerous contracts	19,383	(434)	(6,719)	1,656	13,886
Provisions for litigation	517	-	-	36	553
	<u>₩ 19,900</u>	<u>₩ 1,450</u>	<u>₩ (6,719)</u>	<u>₩ 1,692</u>	<u>₩ 16,323</u>

	2021				
	Jan. 1	Recognition (Reversal)	Used	Others (*1)	Dec. 31
Onerous contracts	₩ 24,873	₩ (1,785)	₩ (5,864)	₩ 2,159	₩ 19,383
Provisions for litigation	475	-	-	42	517
	<u>₩ 25,348</u>	<u>₩ (1,785)</u>	<u>₩ (5,864)</u>	<u>₩ 2,201</u>	<u>₩ 19,900</u>

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

15. Capital stocks and others

15.1 Capital stocks

Details of capital stocks as of December 31, 2022 and 2021 are as follows (Korean won in millions, except per share amounts):

	2022	2021
Number of ordinary shares issued	38,760,000	38,760,000
Par value per share	₩ 5,000	₩ 5,000
	<u>₩ 193,800</u>	<u>₩ 193,800</u>

15.2 Capital surplus

Details of capital surplus as of December 31, 2022 and 2021 are as follows (Korean won in millions):

	2022	2021
Paid-in capital in excess of par value	₩ 47,106	₩ 47,106
Asset revaluation surplus (*1)	37,286	37,286
Other capital surplus	17,732	17,732
	<u>₩ 102,124</u>	<u>₩ 102,124</u>

(*1) The Company 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.

15.3 Other components of equity

Details of other components of equity as of December 31, 2022 and 2021 are as follows (Korean won in millions):

	2022	2021
Treasury stock (*1)	₩ (40,690)	₩ (40,690)

(*1) For the year ended December 31, 2022, the Company terminated the contract of acquisition of treasury stocks with KB Securities. As of December 31, 2022, the Company has 2,792,098 shares of treasury stocks.

15.4 Accumulated other comprehensive loss

Details of accumulated other comprehensive loss as of December 31, 2022 and 2021 are as follows (Korean won in millions):

	2022	2021
Loss on valuation of FVOCI	₩ 33,191	₩ (2,119)
Gain on valuation of cash hedge derivatives	-	13
Positive (Negative) changes in equity arising from equity method investments	9,449	(2,622)
Exchange differences on translation of foreign operations	4,041	3,551
	<u>₩ 46,681</u>	<u>₩ (1,177)</u>

15.5 Retained earnings

Details of retained earnings as of December 31, 2022 and 2021 are as follows (Korean won in millions):

	2022	2021
Legal reserve	₩ 46,978	₩ 38,705
Business rationalization reserve	1,511	1,511
Improvement of financial structure reserve	13,693	13,693
Voluntary reserves and retained earnings before appropriations	1,945,399	1,497,405
	<u>₩ 2,007,581</u>	<u>₩ 1,551,314</u>

15.6 Earnings per share

The Company's per share for the years ended December 31, 2022 and 2021 are computed as follows (number of shares, Korean won):

	2022	2021
Profit for the year	₩ 528,557,909,785	₩ 348,019,242,657
Weighted-average number of ordinary shares outstanding (*1)	35,967,902	35,967,920
Basic earnings per share	₩ 14,695	₩ 9,676

(*1) The Company's weighted-average number of ordinary shares for the years ended December 31, 2022 and 2021 are computed as follows:

	2022		2021	
	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	14,147,400,000	38,760,000	14,147,400,000
Treasury shares	(2,792,074)	(1,019,109,218)	(2,792,074)	(1,019,109,218)
Number of ordinary shares outstanding	35,967,902	13,128,290,782	35,967,902	13,128,290,782
Days of holding		365 days		365 days
Weighted-average number of ordinary shares outstanding (*2)		35,967,920		35,967,920

(*2) The weighted average number of ordinary shares in circulation for the current term is the same as the number of shares deducted from the total number of issued shares, because there is no change in the number of treasury shares.

15.7 Statements of appropriation of retained earnings

The statements of appropriation of retained earnings for the years ended December 31, 2022 and 2021 are as follows (Korean won):

	2022	2021
Retained earnings before appropriations :		
Unappropriated retained earnings carried forward from the prior year	₩ -	₩ -
Re-measurement loss on defined benefit plans	4,236,219,211	528,504,099
Change in retained earnings in equity method	6,212,436,212	(2,145,403,496)
Disposal of financial assets at fair value through OCI	(13,187,064)	-
Profit for the year	528,557,909,785	348,019,242,657
	538,993,378,144	346,402,343,260
Reversal of voluntary reserves:	-	-
Appropriation:		
Legal reserve	(10,790,370,600)	(8,272,617,460)
Cash dividends (Note 16)	(107,903,706,000)	(82,726,174,600)
Voluntary reserve	(420,299,301,544)	(255,403,551,200)
	(538,993,378,144)	(346,402,343,260)
Unappropriated retained earnings to be carried forward to the next year	₩ -	₩ -

The statement of retained earnings before disposition for the year ended December 31, 2022 is scheduled to be approved at the annual stockholder's meeting to be held on March 23, 2023. The statement of retained earnings before disposition for the year ended December 31, 2021 was approved at the annual stockholder's meeting on March 24, 2022.

16. Dividends

For the years ended December 31, 2022 and 2021, dividends paid are as follows (Korean won in millions, except per share amounts):

	2022	2021
Dividend per share	₩ 2,300	₩ 400
Dividends paid	82,726	14,387

As of December 31, 2022 and 2021, proposed dividends to be approved at the general meeting of shareholders consist of the following (Korean won in millions, except per share amounts):

	2022	2021
Dividend per share	₩ 3,000	₩ 2,300
Dividends	107,904	82,726

17. Sales

Revenue from contracts with customers for the years ended December 31, 2022 and 2021 are as follows (Korean won in millions):

	2021			2020		
	Resource	Trading /New growth	Total	Resource	Trading /New growth	Total
Revenue recognized at a point of time						
Sales of goods	₩ 5,113	₩ 4,067,993	₩ 4,073,106	₩ 5,590	₩ 4,119,290	₩ 4,124,880
Sales of services	-	33,052	33,052	69	30,075	30,144
	5,113	4,101,045	4,106,158	5,659	4,149,365	4,155,024
Revenue recognized over period						
Sales of services	-	2,204	2,204	-	700	700
	₩ 5,113	₩ 4,103,249	₩ 4,108,362	₩ 5,659	₩ 4,150,065	₩ 4,155,724

(*) Sales by current and prior sectors were classified due to changes in the business structure for the current term.

Contract liabilities from contracts with customers for the years ended December 31, 2022 and 2021 are as follows (Korean won in millions):

	2022	2021
Trading/New growth	₩ 2,023	₩ 4,985

Details of changes in contract liabilities arising from contracts with customers during December 31, 2022 and 2021 are as follows (Korean won in millions):

	2022			
	Jan. 1	Increase	Decrease	Dec. 31
Resource	₩ -	₩ 31,557	₩ (31,557)	₩ -
Trading/New growth	4,985	38,763	(41,725)	2,023
	₩ 4,985	₩ 70,320	₩ (73,282)	₩ 2,023

	2021			
	Jan. 1	Increase	Decrease	Dec. 31
Resource	₩ -	₩ 569	₩ (569)	₩ -
Trading/New growth	6,683	83,941	(85,639)	4,985
	₩ 6,683	₩ 84,510	₩ (86,208)	₩ 4,985

18. Selling and administrative expenses

Details of selling and administrative expenses for the years ended December 31, 2022 and 2021 are as follows (Korean won in millions):

	2022	2021
Salaries	₩ 53,400	₩ 52,315
Retirement benefits	5,172	4,842
Employee welfare benefits	9,805	8,484
Travel	3,099	1,194
Rents	637	1,116
Depreciation	7,861	7,012
Insurance	1,261	771
Freight	88,577	58,367
Service	36,833	26,578
Loading and unloading	1,558	214
Amortization	1,019	831
Bad debt expenses	945	811
Sales commissions	150	323
Expenses for overseas branch office	7,318	7,029
Others	7,338	6,123
	<u>₩ 224,973</u>	<u>₩ 176,010</u>

19. Expenses classified by nature

Expenses classified by nature for the years ended December 31, 2022 and 2021 are as follows (Korean won in millions):

	2022	2021
Cost of goods sales	₩ 3,780,198	₩ 3,965,748
Employee benefits (salaries, retirement benefits)	58,572	57,157
Distribution costs (custody charges, packaging costs, transportation expenses)	89,876	58,809
Depreciation and amortization	10,519	9,478
Others	67,644	52,201
	<u>₩ 4,006,809</u>	<u>₩ 4,143,393</u>

20. Pension benefits

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

Details of employee benefit liabilities as of December 31, 2022 and 2021 are as follows (Korean won in millions):

	2022	2021
Present value of defined benefit obligation	₩ 28,915	₩ 34,412
Fair value of plan assets (*1)	(34,960)	(35,121)
	<u>₩ (6,045)</u>	<u>₩ (709)</u>

(*1) The Company classified fair value of plan assets exceeding present value of defined benefit obligation as other non-current assets.

20. Pension benefits (cont'd)

Expenses recognized in respect of the defined benefit plans for the years ended December 31, 2022 and 2021 are as follows (Korean won in millions):

	2022	2021
Current service costs	₩ 4,314	₩ 4,331
Net interest costs	(18)	10
Management costs of plan assets	50	75
	<u>₩ 4,346</u>	<u>₩ 4,416</u>

Changes in the present value of defined benefit obligation for the years ended December 31, 2022 and 2021 are as follows (Korean won in millions):

	2022	2021
As of January 1	₩ 34,412	₩ 34,613
Current service costs	4,314	4,331
Interest costs	821	565
Benefits paid	(3,967)	(3,912)
Transfer in (out)	(1,008)	(513)
Re-measurement loss (gain) on defined benefit plans	(5,657)	(672)
As of December 31	<u>₩ 28,915</u>	<u>₩ 34,412</u>

Changes in the fair value of plan assets for the years ended December 31, 2022 and 2021 are as follows (Korean won in millions):

	2022	2021
As of January 1	₩ 35,121	₩ 34,081
Return on plan assets	839	555
Contribution payable	2,962	4,117
Benefits paid	(3,764)	(3,582)
Re-measurement loss on defined benefit plans	(148)	25
Management costs of plan assets	(50)	(75)
As of December 31	<u>₩ 34,960</u>	<u>₩ 35,121</u>

The key components of plan assets account for total fair value of plan assets as of December 31, 2022 and 2021 as follows:

	2022	2021
Debt securities	87.00%	95.50%
Deposits	13.00%	2.73%
Others	0.00%	1.77%
	<u>100.00%</u>	<u>100.00%</u>

The principal assumptions used in actuarial calculation as of December 31, 2022 and 2021 are as follows:

	2022	2021
Salary increase rate	4.63%	5.00%
Discount rate	5.21%	2.53%

20. Pension benefits (cont'd)

Sensitivity analyses on the principal assumptions used in actuarial calculation as of December 31, 2022 are as follows (Korean won in millions):

	Defined benefit obligation		
	Dec. 31	Increase by 1%	Decrease by 1%
Salary increase rate	₩ 28,915	₩ 30,348	₩ 27,580
Discount rate	28,915	27,605	30,348

Expenses by operating a defined contribution plan for the years ended December 31, 2022 and 2021 are as follows (Korean won in millions):

	2022	2021
Retirement benefits	₩ 216	₩ 158

21. Finance income and costs

21.1 Finance income

Details of finance income for the years ended December 31, 2022 and 2021 are as follows (Korean won in millions):

	2022	2021
Interest income	₩ 18,043	₩ 11,963
Gain on foreign currency transactions	225,524	104,116
Gain on foreign currency translation	20,545	15,657
Gain on currency forwards	34,268	7,464
Gain on currency swaps	136	3,684
Dividend income	13,511	6,573
Commission revenue from guarantees	1,448	1,329
	₩ 313,475	₩ 150,786

21.2 Finance costs

Details of finance costs for the years ended December 31, 2022 and 2021 are as follows (Korean won in millions):

	2022	2021
Interest expenses	₩ 26,541	₩ 23,047
Loss on foreign currency transactions	198,484	98,972
Loss on foreign currency translation	16,974	10,678
Loss on currency forwards	69,482	19,113
Loss on disposal of receivables	2,407	760
	₩ 313,888	₩ 147,426

21.3 Share of profit (loss) of subsidiaries and associates, and related gain and loss

Share of profit (loss) of subsidiaries and associates, and related gain and loss for the years ended December 31, 2022 and 2021 are as follows (Korean won in millions):

	2022	2021
Share of profit of subsidiaries and associates	₩ 496,664	₩ 381,536
Share of loss of subsidiaries and associates	(13,786)	(12,002)
Gain on disposal of investments in subsidiaries and Associates	1,228	36
Loss on disposal of investments in subsidiaries and Associates	(6,110)	-
Impairment loss on investments in subsidiaries and Associates	(19,451)	-
Reversal of Impairment loss on investments in subsidiaries and Associates	84,207	-
	<u>₩ 542,752</u>	<u>₩ 369,570</u>

21.4 Other non-operating income and expenses

Other non-operating income and expenses for the years ended December 31, 2022 and 2021 are as follows (Korean won in millions): Gain on disposal of Property, plant and equipment Gain on disposal of intangible assets

	2022	2021
Other bad debt expenses	₩ (14,219)	₩ (10,285)
Gain on disposal of Property, plant and equipment	76	1,175
Gain on disposal of intangible assets	-	801
Gain on exemption from debt	548	13,352
Gain on disposal of other investments	2,146	-
Others	7,978	(4,043)
	<u>₩ (3,471)</u>	<u>₩ 1,000</u>

22. Impairment loss on assets

Details of impairment loss and reversal of impairment loss recognized for the year ended December 31, 2022 are as follows (Korean won in millions):

	2022		
Segment	Investments in subsidiaries Resource	Investments in subsidiaries Resource	Investments in subsidiaries Trading/New growth
Cause of impairment	Improvement of business performances	Improvement of business performances	Increase in discount rate
Nature of asset	Coal mining	Coal mining	Collective energy business
Related region	South-East Asia	Oceania	Asia
Impairment loss (Reversal of impairment loss)	₩ (70,779)	₩ (13,428)	₩ 19,451
Measuring of recoverable amount	Fair value less costs to sell	Value in use	Value in use
Basis of estimates	Zero-Growth / DCF	Zero-Growth / DCF	Zero-Growth / DCF
Discount rate	11.25%	8.55%	7.05%

23. Income tax

The major components of income tax expenses for the years ended December 31, 2022 and 2021 are as follows (Korean won in millions):

	2022	2021
Current income tax (*1)	₩ 52,348	₩ 9,172
Changes in deferred tax	76,450	44,523
Deferred tax related to items recognized in other comprehensive income (loss)	(16,934)	(15,454)
Income tax expenses reported in the statement of profit or loss	₩ 111,864	₩ 38,241

(*1) The refund of ₩1,394 million related to claim for income tax correction with regards to an increase in foreign tax payment credit due to gain on exemption of debt were included for the year ended December 31, 2021.

Reconciliations between income tax expenses at the effective income tax rate and profit before tax at the Korea statutory tax rate for the years ended December 31, 2022 and 2021 are as follows (Korean won in millions):

	2022	2021
Profit before income tax	₩ 640,422	₩ 386,261
Statutory income tax (24.1% in 2022)	154,520	93,013
Adjustments:		
Effect of recognized deferred tax for temporary differences	(30,602)	(50,409)
Current year adjustment related to the income tax on previous years	(889)	(1,733)
Effect of non-deductible expenses for tax purposes	1,846	(917)
Tax credit	(28,578)	(5,335)
Foreign income tax directly charged	11,123	1,852
Income tax on non-recirculation	5,557	1,834
Others	(1,113)	(64)
Income tax expenses	₩ 111,864	₩ 38,241
Effective tax rate (income tax expenses/ profit before income tax)	17.47%	9.90%

The major components of deferred income tax charged directly to equity for the years ended December 31, 2022 and 2021 are as follows (Korean won in millions):

	2022	2021
Loss (gain) on valuation of FVOCI	₩ (10,648)	₩ (3,297)
Equity adjustments in equity method	(4,938)	(9,317)
Exchange differences on translation of foreign operations	(80)	(2,632)
Loss (gain) on valuation of derivatives	4	(39)
Re-measurement gain on defined benefit plans	(1,272)	(169)
	₩ (16,934)	₩ (15,454)

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23. Income tax (cont'd)

Temporary differences and deferred taxes for the years ended December 31, 2022 and 2021 consist of the following (Korean won in millions):

	Accumulated temporary differences			Deferred tax assets (liabilities)	
	Jan. 1, 2022	Net changes	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2022
Deferred income tax due to temporary differences:					
Impairment of available-for-sale financial assets	₩ 147,608	₩ (97,735)	₩ 49,873	₩ 34,510	₩ 5,872
Stock dividend	12,999	-	12,999	3,146	3,003
Allowance for doubtful accounts	175,001	(26,284)	148,717	39,468	30,698
Bad debt expenses	3,492	6,515	10,007	845	2,311
Accrued income	(2)	(957)	(959)	-	(222)
Interest income	3,213	270	3,483	778	805
Allowance for inventories	508	242	750	123	173
Gain on commodity futures	(17)	17	-	(4)	-
Accrued expenses	1,576	87	1,663	381	384
Admission and denial on depreciation cost	1,015	(468)	547	246	126
Bonus	17,594	2,400	19,994	4,258	4,619
Interest related to loans or construction	(483)	-	(483)	(117)	(112)
Present value of defined benefit obligation	34,432	(5,499)	28,933	8,332	6,684
Fair value of plan assets	(34,006)	736	(33,270)	(8,229)	(7,685)
Gain (loss) on foreign currency translation	(9,655)	667	(8,988)	(2,337)	(2,076)
Interest and translation of debt related on success	5,126	(1,993)	3,133	1,241	724
Rewards for long term employee	1,070	(145)	925	259	214
Impairment right of membership	1,482	-	1,482	359	342
Investments in subsidiaries and associates	(538,396)	(269,223)	(807,619)	(75,153)	(73,873)
Financial assets at fair value through OCI	2,737	(45,951)	(43,214)	662	(9,982)
Impairment loss	53,638	247	53,885	12,980	12,447
Provisions	26,200	(4,811)	21,389	6,340	4,941
Taxes and dues	7,605	(7,016)	589	1,366	(317)
Guarantee commission	21,569	-	21,569	373	356
Deemed dividend	42,191	6,033	48,224	10,210	11,140
Gains from assets contributed	1,529	-	1,529	370	353
Transfer price	7,423	-	7,423	-	-
Finance lease	183	1,504	1,687	44	390
Commission fees	7,482	11,735	19,217	590	569
	(6,886)	(429,629)	(436,515)	41,041	(8,116)
Tax credits	-	-	-	42,376	19,454
Charged income tax due to non-recirculation	-	-	-	(1,833)	(6,204)
				₩ 81,584	₩ 5,134

23. Income tax (cont'd)

Temporary differences for which the deferred tax assets (liabilities) have not been recognized for the years ended December 31, 2022 and 2021 consist of the following (Korean won in millions):

	2022		2021
Investments in subsidiaries, associates or joint ventures (*1)	₩ 195,675	₩	151,480
Guarantee commission and others	29,411		29,411
	₩ 225,086	₩	236,890

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

The OECD/G20's comprehensive implementation system agreement on BEPS(Base Erosion and Profit Shifting) is aimed at responding to tax avoidance and tax erosion through income transfer by multinational companies in the digital economy. BEPS Pillar2 global minimum tax applies to multinationals with consolidated sales exceeding EUR 750 million.

The global minimum tax in Korea was passed by the National Assembly at the end of 2022 as it was included in the revision of the International Tax Adjustment Act. The Act is effective from January 1, 2024, and the enforcement decree on the global minimum tax has not been amended as of the end of the reporting period.

Since the global minimum tax in Korea has not been practically established for financial reporting purposes, there is no relevant tax effect recognized by the company in the financial statements as of the end of the reporting period.

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24. Related party disclosures

As of December 31, 2022, LX Holdings Corp., the largest shareholder of the Company, holds 24.69% of the Company's common shares and has significant influence over the Company.

Consolidated subsidiaries as of December 31, 2022 are as follows:

	Country of Domicile	Equity ownership (%)		Reporting date	Principal activity
		2022	2021		
LX International (America) Inc.	USA	100.00	100.00	Dec. 31	Export and import
LHC Solar LLC	USA	100.00	100.00	Dec. 31	Solar energy
LX International (Japan) Ltd.	Japan	100.00	100.00	Dec. 31	Export and import
LX International (HK) Ltd.	Hong Kong	100.00	100.00	Dec. 31	"
LX International (Singapore) Pte. Ltd.	Singapore	100.00	100.00	Dec. 31	"
LX International (Deutschland) GmbH	Deutschland	100.00	100.00	Dec. 31	"
LX International (Shanghai) Corp.	China	100.00	100.00	Dec. 31	"
Yantai VMI Hub LX International Co., Ltd.	China	100.00	100.00	Dec. 31	Hub
Bowen Investment (Australia) Pty. Ltd.	Australia	100.00	100.00	Dec. 31	Coal mining
PT. Batubara Global Energy (BGE)	Indonesia	100.00	100.00	Dec. 31	"
PT. Megaprima Persada (MPP)	Indonesia	75.00	75.00	Dec. 31	"
PT. Mega Global Energy (MGE)	Indonesia	100.00	100.00	Dec. 31	"
PT. Ganda Alam Makmur (GAM)	Indonesia	60.00	60.00	Dec. 31	"
LX International (India) Ltd.	India	100.00	100.00	Mar. 31	Export and import
PT. Green Global Lestari (GGL)	Indonesia	100.00	100.00	Dec. 31	Palm oil
PT. Parna Agromas (PAM)	Indonesia	95.00	95.00	Dec. 31	"
PT. Grand Utama Mandiri (GUM)	Indonesia	100.00	100.00	Dec. 31	"
PT. Tintin Boyok Sawit Makmur (TBSM)	Indonesia	100.00	100.00	Dec. 31	"
PT. Tintin Boyok Sawit Makmur Dua (TBSMD)	Indonesia	100.00	100.00	Dec. 31	"
PT. Green Global Utama (GGU)	Indonesia	100.00	100.00	Dec. 31	"
PT. LX International Indonesia (LXII)	Indonesia	100.00	100.00	Dec. 31	Service
PT. Binsar Natorang Energi (BNE)	Indonesia	95.00	95.00	Dec. 31	Hydroelectric energy
PT. Energy Metal Indonesia (EMI)	Indonesia	100.00	100.00	Dec. 31	Nickel
PT. Global Investment Institusi (GII)	Indonesia	100.00	100.00	Dec. 31	Health care
PT. Satu Gen Indonesia (SGI)	Indonesia	51.00	51.00	Dec. 31	"
PT. SLX Global Healthcare (SLX) (*5)	Indonesia	51.00	-	Dec. 31	"
Steel Flower Electric & Machinery (Tianjin) Co., Ltd	China	100.00	100.00	Dec. 31	Steel frames
Philco Resources Ltd. (Rapu-Rapu)	Malaysia	60.00	60.00	Dec. 31	Copper mining
Resource Investment (Hong Kong) Ltd. (Xinzheng)	Hong Kong	100.00	100.00	Dec. 31	Coal mining
LX International Yakutsk Ltd.	Russia	100.00	100.00	Dec. 31	Real estate
Korea Carbon International Co., Ltd. (Shaanxi BBM)	Hong Kong	60.00	60.00	Dec. 31	Renewable energy
Colmineral, S.A. de C.V.	Mexico	100.00	100.00	Dec. 31	Iron ore
Fertilizer Resources Investment Ltd.	Hong Kong	100.00	100.00	Dec. 31	Fertilizer
Dangjin Tank Terminal Co., Ltd.	Korea	100.00	100.00	Dec. 31	Storage
Haiphong Steel Flower Electrical & Machinery Company Limited	Vietnam	100.00	100.00	Dec. 31	Steel frames
Eco & Logis Busan Co., Ltd. (*2)	Korea	100.00	-		Logistics and Storage
Poseung Green Power Co., Ltd. (*2,7)	Korea	100.00	-		Renewable energy
Ordos Lezheng Trading Company Limited (*6)	China	100.00	-		Coal mining
LX Pantos Logistics Co., Ltd. (*3)	Korea	51.00	51.00	Dec. 31	Logistics
LX Pantos Busan Newport Logistics Center Co., Ltd. (formerly, Pantos Busan Newport Logistics Center Co., Ltd.) (*1,3)	Korea	100.00	100.00	Dec. 31	Warehouse
Helistar air Co., Ltd. (*3)	Korea	100.00	100.00	Dec. 31	Logistics
Hanultari Co., LTD., (*3)	Korea	100.00	100.00	Dec. 31	Other food retail
LX PANTOS LOGISTICS (QINGDAO) CO.,LTD. (formerly, PANTOS LOGISTICS (CHINA) CO., LTD.) (*1,3)	China	100.00	100.00	Dec. 31	Logistics
LX PANTOS LOGISTICS (SHANGHAI) CO.,LTD. (formerly, PANTOS LOGISTICS (SHANGHAI) CO., LTD.) (*1,3)	China	100.00	100.00	Dec. 31	Warehouse
LX PANTOS LOGISTICS (NINGBO) CO.,LTD. (formerly, PANTOS LOGISTICS (NINGBO) CO., LTD.) (*1,3)	China	100.00	100.00	Dec. 31	Logistics
LX PANTOS LOGISTICS (SHENZHEN) CO., LTD. (*3)	China	100.00	100.00	Dec. 31	"
LX PANTOS LOGISTICS (HONGKONG) CO., LTD. (formerly, PANTOS LOGISTICS (H.K) CO., LTD.) (*1,3)	Hong Kong	100.00	100.00	Dec. 31	"
LX PANTOS LOGISTICS TAIWAN CO., LTD. (formerly, PANTOS LOGISTICS (TAIWAN) CO., LTD.) (*1,3)	Taiwan	100.00	100.00	Dec. 31	"
PT. LX PANTOS INDONESIA (*3)	Indonesia	99.00	99.00	Dec. 31	"
PT. LX PANTOS JAKARTA (*3)	Indonesia	100.00	100.00	Dec. 31	"
LX PANTOS SINGAPORE PTE. LTD. (*3)	Singapore	100.00	100.00	Dec. 31	"
LX PANTOS (THAILAND) CO., LTD (*3)	Thailand	100.00	100.00	Dec. 31	"
LX PANTOS MALAYSIA SDN. BHD. (*3)	Malaysia	100.00	100.00	Dec. 31	"
LX PANTOS (INDIA) PVT. LTD. (*3)	India	100.00	100.00	Mar. 31	"
LX PANTOS (CAMBODIA) CO., LTD. (*3)	Cambodia	100.00	100.00	Dec. 31	"
LX Pantos Vietnam Co., Ltd. (*3)	Vietnam	100.00	100.00	Dec. 31	"

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24. Related party disclosures (cont'd)

	Country of Domicile	Equity ownership (%)		Reporting date	Principal activity
		2022	2021		
LX Pantos Australia Pty Ltd. (*3)	Australia	100.00	100.00	Dec. 31	Logistics
LX Pantos Holdings (Thailand) Co., Ltd. (*3)	Thailand	48.50	48.50	Dec. 31	"
Pantos Logistics Myanmar Co., Ltd. (*3,8)	Myanmar	-	87.96	Mar. 31	"
LX Pantos U.K. Ltd (*3)	UK	100.00	100.00	Dec. 31	"
LX Pantos Netherlands B. V (*3)	Netherlands	100.00	100.00	Dec. 31	"
LX PANTOS FRANCE S.A.R.L. (formerly, PANTOS LOGISTICS FRANCE) (*1,3)	France	100.00	100.00	Dec. 31	"
LX Pantos Poland SP.Z.O.O. (*3)	Poland	100.00	100.00	Dec. 31	"
LX Pantos Germany GmbH (*3)	Deutschland	100.00	100.00	Dec. 31	"
LX Pantos Spain Slu. (*3)	Spain	100.00	100.00	Dec. 31	"
LX Pantos Turkey Lojistik Ve Ticaret Ltd. Sti. (*3)	Turkey	100.00	100.00	Dec. 31	"
LX PANTOS SWEDEN AB. (formerly, Pantos Logistics Sweden AB) (*1,3)	Sweden	100.00	100.00	Dec. 31	"
LX Pantos Mexico, S.A. DE C.V. (*3)	Mexico	100.00	100.00	Dec. 31	"
LX Pantos Logistica Do Brasil Ltda (*3)	Brazil	100.00	100.00	Dec. 31	"
LX Pantos Colombia SAS (*3)	Colombia	100.00	100.00	Dec. 31	"
LX PANTOS CHILE SPA (formerly, PANTOS LOGISTICS CHILE SPA) (*1,3)	Chile	100.00	100.00	Dec. 31	"
LX Pantos Panama, S.A. (*3)	Panama	100.00	100.00	Dec. 31	"
Pantos Logistics AR S.A. (*3)	Argentina	100.00	100.00	Dec. 31	"
LX Pantos Solucoes Logisticas Do Brasil Ltda. (*3)	Brasil	100.00	100.00	Dec. 31	Warehouse
FNS CIS LLC (*3)	Russia	100.00	100.00	Dec. 31	Logistics
Pantos Logistics Kazakhstan (*3)	Kazakhstan	100.00	100.00	Dec. 31	"
Pantos Logistics Ukraine Ltd (*3)	Ukraine	100.00	100.00	Dec. 31	"
Pantos Logistics L.L.C (Dubai) (*3)	Dubai	49.00	49.00	Dec. 31	"
LX PANTOS ARABIA CO., LTD. (formerly, Pantos Logistics CO., LTD. Saudi Arabia) (*1,3)	Saudi Arabia	100.00	100.00	Dec. 31	"
LX Pantos Japan Inc. (*3)	Japan	100.00	100.00	Dec. 31	"
LX PANTOS LOGISTICS (BEIJING) CO., LTD. (formerly, Hi Logistics China Co., Ltd) (*1,3)	China	100.00	100.00	Dec. 31	"
LX Pantos Solutions India Private Limited (*3)	India	100.00	100.00	Mar. 31	"
Hi Logistics Egypt S.A.E (*3)	Egypt	99.26	99.26	Dec. 31	"
LX Pantos America, INC. (*3)	USA	100.00	100.00	Dec. 31	"
LX Pantos Hungary KFT. (*3)	Hungary	100.00	100.00	Dec. 31	"
Onecube International Logistics Co., Ltd. (*3,8)	China	-	100.00	Dec. 31	"
PT. Pantos Express Indonesia (*3)	Indonesia	49.00	49.00	Dec. 31	"
PANTOS USA, INC. (*3,4)	USA	100.00	-	Dec. 31	"
LPIC TN LLC (*3,4)	USA	100.00	-	Dec. 31	Warehouse

(*1) For the year ended December 31, 2022, the name of consolidated subsidiaries were changed.

(*2) For the year ended December 31, 2022, Eco & Logis Co., Ltd. was newly established and acquired a stake in Poseung Green Power Co., Ltd. and added as a consolidated subsidiary.

(*3) As of December 31, 2022, the entities are subsidiaries of LX Pantos Logistics Co., Ltd., and the equity ownerships presented above are simple sums of equity interests held by LX Pantos Logistics Co., Ltd. and its subsidiaries.

(*4) For the year ended December 31, 2022, Subsidiary LX Pantos Logistics Co., Ltd. acquired a 100% stake in PANTOS USA, INC, and LPIC TN LLC and added it as a consolidated subsidiary.

(*5) For the year ended December 31, 2022, Subsidiary PT. Global Investment Institutei (GII) established PT. SLX Global Healthcare and added it as a consolidated subsidiary (51% stake).

(*6) For the year ended December 31, 2022, Ordos Lezheng Trading Company Limited was established and acquired through the company's subsidiary Resource Investment (Hong Kong) Ltd. (Xinzhen) and added as a consolidated subsidiary.

(*7) Poseung Green Power Co., Ltd. issued preferred stocks with voting rights in addition to common shares, and the company's voting rights are 69.97% of the total number of voting shares.

(*8) For the year ended December 31, 2022, the company liquidated Onecube International Logistics Co.,Ltd and PANTOS LOGISTICS MYANMAR CO., LTD

LX International Corp.
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24. Related party disclosures (cont'd)

Transactions with the related parties for the years ended December 31, 2022 and 2021 are as follows (Korean won in millions):

	2022			2021		
	Sales	Purchase	Service	Sales	Purchase	Service
Corporations that have significant influence on the Group at the end of the current year:						
LX Holdings Corp.	₩ -	₩ -	₩ 51	₩ -	₩ -	₩ -
	-	-	51	-	-	-
Subsidiaries:						
LX International (America) Inc.	334,080	₩ 657	3	623,204	-	4
LX International (Japan) Ltd.	312	(284)	5	226	2,765	34
LX International (HK) Ltd.	13,756	-	10	305	-	-
LX International (Singapore) Pte. Ltd.	688,271	66,032	99	1,408,448	36,161	430
LX International (Deutschland) GmbH	-	-	-	570	65	27
LX International (Shanghai) Ltd	-	13,139	789	10	-	972
Bowen Investment (Australia) Pty Ltd	791	-	-	1,502	-	-
PT. Batubara Global Energy (BGE)	68	616,433	-	2,315	475,674	28
PT. Ganda Alam Makmur (GAM)	2,028	22,108	10	3,734	-	6
LX International India Private Limited	-	-	1,068	-	-	947
PT. Green Global Lestari (GGL)	1,591	-	-	643	-	-
PT. Tintin Boyok Sawit Makmur (TBMS)	6	-	-	7	-	-
PT. Green Global Utama (GGU)	24	-	-	19	-	-
PT. LX International Indonesia (LXII)	469	-	-	382	-	17
PT. Energy Metal Indonesia (EMI)	5	-	-	1	-	-
PT. Grand Utama Mandiri (GUM)	4	-	-	-	-	-
PT. Satu Gen Indonesia (SGI)	-	-	-	72	-	-
PT. GLOBAL INVESTMENT INSTITUSI (GII)	77	-	3,335	-	-	563
PT. Binsar Natorang Energi (BNE)	-	-	-	118	-	-
Steel Flower Electric & Machinery (Tianjin) Co., Ltd	105	-	3	116	517	3
LX International Yakutsk Ltd.	577	-	-	512	-	-
Dangjin Tank Terminal Co., Ltd.	209	-	-	147	-	-
Haiphong Steel Flower Electrical & Machinery Company Limited	5,650	-	169	5,307	27	116
Philco Resources Ltd. (Rapu-Rapu)	156	-	-	133	-	-
LX Pantos Logistics Co., Ltd.	2,688	76,994	44,004	564	50,400	20,400
LXPantos Busan Newport Logistics Center Co., Ltd.	-	319	-	-	-	-
PT. Mega Global Energy (MGE)	-	-	-	-	-	4
LX Pantos Logistics (Shenzhen) Co., Ltd.	-	-	7,403	-	-	10,117
Poseung Green Power Co., Ltd.	190	-	-	-	-	-
Yantai LX International VMI Co., LTD	-	-	1	5	-	1
	₩ 1,051,057	₩ 795,398	₩ 56,899	₩ 2,048,564	₩ 565,609	₩ 33,670

24. Related party disclosures (cont'd)

	2022			2021		
	Sales	Purchase	Service	Sales	Purchase	Service
Associates:						
POSCO-PWPC (Poland Wroclow Processing Center)	₩ -	₩ -	₩ -	₩ 908	₩ -	₩ -
Kernhem B.V. (*1)	2,489	-	-	1,972	-	-
ADA Oil LLP (*1)	397	-	-	327	-	-
Biofriends INC.	1,575	-	-	1,392	-	-
Musandam Power Company SAOC	86	-	-	31	-	3
	<u>4,547</u>	<u>-</u>	<u>-</u>	<u>4,630</u>	<u>-</u>	<u>3</u>
Other related parties:						
LG Corp. (*2)	-	-	674	567	-	2,832
LG Electronics Inc. (*2)	58,921	-	1,072	144,151	-	1,318
LG Chem Ltd. (*2)	79,290	43,012	351	173,312	95,890	5
LG Display Co., Ltd. (*2)	-	-	-	-	14,266	2,809
Others (*2)	-	-	4,930	86	399	12,983
LX MMA Corp. (*3)	52,749	-	-	8,431	222	-
LX Hausys, Ltd. (*3)	-	-	398	167	-	749
	<u>190,960</u>	<u>43,012</u>	<u>7,425</u>	<u>326,714</u>	<u>110,777</u>	<u>20,696</u>
	<u>₩ 1,246,564</u>	<u>₩ 838,410</u>	<u>₩ 64,375</u>	<u>₩ 2,379,908</u>	<u>₩ 676,386</u>	<u>₩ 54,369</u>

(*1) For the year ended December 31, 2022, the company excluded all of its shares from the scope of special relationships by selling them, and the above transactions include transactions until they are excluded from the scope of related parties.

(*2) As independent management of the Company was recognized by LG Corp., they were excluded from conglomerate LG Corp. as of June 21, 2022 and excluded the business group from the scope of related party. However, the above transactions include transactions up to June 30, 2022.

(*3) Affiliates of LX Holdings Corp. were separated from conglomerate LG Corp. but were included in the scope of related party based on affiliates of conglomerate.

LX International Corp.
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24. Related party disclosures (cont'd)

Receivables and payables from transactions with the related parties as of December 31, 2022 and 2021 are as follows (Korean won in millions):

	2022				
	Accounts receivable	Loans	Other receivables	Accounts payable	Other payables
Subsidiaries:					
LX International (America) Inc.	₩ 53,588	₩ -	₩ 5,776	₩ -	₩ 2,033
LX International (Japan) Ltd.	45	-	222	803	-
LX International (HK) Ltd.	1,631	-	3	-	-
LX International (Singapore) Pte. Ltd.	79,903	-	49	12,675	486
Yantai LX International VMI Co., LTD	-	-	2	-	-
Haiphong Steel Flower Electrical & Machinery Company Limited	2,715	-	120	-	-
Bowen Investment (Australia) Pty Ltd	-	-	11	-	-
PT. Batubara Global Energy (BGE)	-	-	50	40,976	3
PT. Mega Global Energy (MGE)	-	-	9	-	1
PT. Ganda Alam Makmur (GAM)	-	-	135	-	-
PT. Green Global Lestari (GGL)	-	32,152	4,814	-	-
PT. Parna Agromas (PAM)	-	-	19	-	-
PT. Grand Utama Mandiri (GUM)	-	-	4	-	-
PT. Tintin Boyok Sawit Makmur (TBSM)	-	-	1	-	-
PT. Green Global Utama (GGU)	-	-	11	-	-
PT. LX International Indonesia (LXII)	-	8,802	1,995	-	-
PT. Energy Metal Indonesia (EMI)	-	-	3	-	-
PT. Binsar Natorang Energi (BNE)	-	-	1	-	-
Steel Flower Electric & Machinery (Tianjin) Co., Ltd.	49	-	9	-	-
LX International Yakutsk Ltd.	-	12,027	3,060	-	4
Dangjin Tank Terminal Co., Ltd.	-	2,205	1,157	-	-
LX Pantos Logistics Co., Ltd.	-	-	133	-	3,616
LXPantos Busan Newport Logistics Center Co., Ltd.	-	-	-	-	33
Philco Resources Ltd. (Rapu-Rapu)	-	4,166	405	-	-
Poseung Green Power Co., Ltd.	126	-	-	-	-
	<u>138,057</u>	<u>59,352</u>	<u>17,989</u>	<u>54,454</u>	<u>6,176</u>
Associates:					
POSCO-IPPC (India Pune Steel Processing Center)	-	-	-	-	1
KM Resources Ltd. (Rapu-Rapu)	-	9,794	332	-	-
Biofriends INC.	138	-	-	-	-
	<u>138</u>	<u>9,794</u>	<u>332</u>	<u>-</u>	<u>1</u>
Other related parties:					
LX MMA Corp.	6,721	-	-	-	-
	<u>6,721</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
	<u>₩ 144,916</u>	<u>₩ 69,146</u>	<u>₩ 18,321</u>	<u>₩ 54,454</u>	<u>₩ 6,177</u>

LX International Corp.
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24. Related party disclosures (cont'd)

	2021				
	Accounts receivable	Loans	Other receivables	Accounts payable	Other payables
Subsidiaries:					
LX International (America) Inc.	₩ 59,559	₩ -	₩ 12,750	₩ -	₩ 6,934
LX International (Japan) Ltd.	54	-	287	1	1
LX International (HK) Ltd.	-	-	36	-	-
LX International (Singapore) Pte. Ltd.	98,572	-	372	8,035	10,997
LX International (Deutschland) GmbH	321	-	17	-	-
LX International (Shanghai) Ltd.	-	-	12	-	-
Yantai LX International VMI Co., Ltd	-	-	13	-	2
Haiphong Steel Flower Electrical & Machinery Company Limited	2,632	-	66	-	18
Bowen Investment (Australia) Pty Ltd	-	35,754	720	-	-
PT. Batubara Global Energy (BGE)	-	-	765	30,153	263
PT. Mega Global Energy (MGE)	-	-	10	-	1
PT. Mega PRIMA PERSADA (MPP)	-	-	17	-	-
PT. Ganda Alam Makmur (GAM)	-	17,071	8,791	-	1
LX International India Private Limited Ltd.	-	-	18	-	-
PT. Global Investment Institusi (GII)	-	-	79	-	621
PT. Green Global Lestari (GGL)	-	27,113	3,280	-	-
PT. Parna Agromas (PAM)	-	-	69	-	1
PT. Grand Utama Mandiri (GUM)	-	-	38	-	2
PT. Tintin Boyok Sawit Makmur (TBSM)	-	-	21	-	-
PT. Green Global Utama (GGU)	-	-	32	-	1
PT. LX International Indonesia (LXII)	-	8,234	1,883	-	11
PT. Energy Metal Indonesia (EMI)	-	-	1	-	-
PT. Binsar Natorang Energi (BNE)	-	-	33	-	12
Steel Flower Electric & Machinery (Tianjin) Co., Ltd.	-	-	75	-	-
LX International Yakutsk Ltd.	-	11,250	2,468	-	3
Dangjin Tank Terminal Co., Ltd.	-	-	29	-	-
LX Pantos Logistics Co., Ltd.	621	-	10	-	2,923
LX Pantos Logistics (Shenzhen) Co., Ltd.	-	-	-	-	249
Philco Resources Ltd. (Rapu-Rapu)	-	3,897	249	-	-
	<u>161,759</u>	<u>103,319</u>	<u>32,141</u>	<u>38,189</u>	<u>22,040</u>
Associates:					
POSCO-IPPC (India Pune Steel Processing Center)	-	-	-	-	1
POSCO-PWPC (Poland Wroclaw Processing Center)	904	-	-	-	-
Gansu Wuwei Cogeneration Power Plant	-	-	1	-	-
KM Resources Ltd. (Rapu-Rapu)	-	2,784	-	-	-
Kernhem B.V.	-	47,210	4,847	-	-
Biofriends INC.	221	-	-	-	-
ADA Oil LLP	-	11,246	26	-	-
	<u>1,125</u>	<u>61,240</u>	<u>4,874</u>	<u>-</u>	<u>1</u>
Other related parties:					
LG Corp.	-	-	2,658	-	3,165
LG Electronics Inc.	11,935	-	-	-	451
LG Chem Ltd.	8,771	-	-	2,383	33,216
LG Display Co., Ltd.	-	-	-	-	2,940
Others	8,485	-	8,663	277	1,472
	<u>29,191</u>	<u>-</u>	<u>11,321</u>	<u>2,660</u>	<u>41,244</u>
	<u>₩ 192,075</u>	<u>₩ 164,559</u>	<u>₩ 48,336</u>	<u>₩ 40,849</u>	<u>₩ 63,285</u>

The Company recognized allowance for doubtful accounts of ₩29,786 million as of December 31, 2022 (2021: ₩58,131 million) for the trade and other accounts receivable from the related parties.

24. Related party disclosures (cont'd)

Transfers under finance arrangements with the related parties for the years ended December 31, 2022 and 2021 are as follows (Korean won in millions):

	2022					
	Dividend payment	Receipt of dividend	Investments in cash (capital reduction)	Collection of an investment	Loans	Collection
Corporations that have significant influence on the Group at the end of the current year:						
LX Holdings Corp.	₩ 22,014	₩ -	₩ -	₩ -	₩ -	₩ -
	22,014	-	-	-	-	-
Subsidiaries:						
Bowen Investment (Australia) Pty Ltd	-	-	-	-	-	35,754
PT. Green Global Lestari (GGL)	-	-	-	-	3,122	-
Steel Flower Electric & Machinery (Tianjin) Co., Ltd.	-	10,561	-	-	-	-
PT. Ganda Alam Makmur (GAM)	-	73,872	-	-	-	17,071
Dangjin Tank Terminal Co., Ltd.	-	-	1,800	-	2,205	-
LX Pantos Logistics Co., Ltd.	-	40,851	-	-	-	-
Resource Investment (Hong Kong) Ltd. (Xinzhen)	-	77,363	-	-	-	-
Fertilizer Resources Investment Ltd.	-	7,484	-	-	-	-
PT. Global Investment Institusi (GII)	-	-	1,924	-	-	-
Yantai LX International VMI Co., Ltd	-	3,660	-	-	-	-
PT. Binsar Natorang Energi (BNE)	-	9,828	-	-	-	-
Poseung Green Power Co., Ltd.	-	-	94,950	-	-	-
Eco & Logis Busan Co., Ltd..	-	-	43,000	-	-	-
	-	223,619	141,674	-	5,327	52,825
Associates:						
GS HP Sunflower Int'l Village Corp.	-	53	-	-	-	-
Musandam Power Company SAOC	-	1,275	-	-	-	-
KM Resources Ltd. (Rapu-Rapu)	-	-	-	-	6,805	-
Ecovance Co. Ltd.	-	-	15,600	-	-	-
ATEAM VENTURES Co.,Ltd.	-	-	3,500	-	-	-
Heungkuk Highclass	-	-	-	-	-	-
Private Special Asset PEF E1 (*1)	-	-	-	31	-	-
	-	1,328	19,100	31	6,805	-
Other related parties:						
Tianjin LG Bohai Chemical Co.,Ltd. (*2)	-	3,894	-	-	-	-
	₩ 22,014	₩ 228,841	₩ 160,774	₩ 31	₩ 12,132	₩ 52,825

(*1) As it was liquidated during 2022, it was excluded from related parties as of December 31, 2022.

(*2) It has been excluded from the scope of related parties during the current term, and the above transactions include transactions until it was excluded from the scope of related parties.

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24. Related party disclosures (cont'd)

	2021				
	Dividen payment	Dividen receive	Investment in cash	Loan	Colletion
Corporations that have significant influence on the Group at the end of the current year:					
LG Corp.	₩ 3,829	₩ -	₩ -	₩ -	₩ -
Subsidiaries:					
Bowen Investment (Australia) Pty Ltd	₩ -	₩ -	₩ -	₩ -	₩ 25,097
PT. Binsar Natorang Energi (BNE)	-	-	-	-	5,091
Dangjin Tank Terminal Co., Ltd.	-	-	1,700	-	-
PT. Green Global Lestari (GGL)	-	-	-	3,398	-
PT. Ganda Alam Makmur (GAM)	-	-	-	-	23,501
LX Pantos Logistics Co., Ltd.	-	18,105	-	-	-
Resource Investment (Hong Kong) Ltd. (Xinzhen)	-	1,563	-	-	-
Fertilizer Resources Investment Ltd.	-	4,957	-	-	-
PT. Global Investment Institusi (GII)	-	-	7,280	-	-
	₩ -	₩ 24,625	₩ 8,980	₩ 3,398	₩ 53,689
Associates:					
GS HP Sunflower Int'l Village Corp.	₩ -	₩ 50	₩ -	₩ -	₩ -
Musandam Power Company SAOC	-	1,041	-	-	-
Gansu Wuwei Cogeneration Power Plant	-	4,381	-	-	-
Biofriends INC.	-	-	2,720	-	-
ADA Oil LLP	-	-	-	-	466
KM Resources Ltd. (Rapu-Rapu)	-	-	-	1,291	-
	₩ -	₩ 5,472	₩ 2,720	₩ 1,291	₩ 466
Other related parties:					
Tianjin LG Bohai Chemical Co.,Ltd	₩ -	₩ 453	₩ -	₩ -	₩ -
	₩ 3,829	₩ 30,550	₩ 11,700	₩ 4,689	₩ 54,155

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

	2022	2021
Short-term employee benefits	₩ 9,646	₩ 9,050
Retirement benefits	2,945	2,555
	₩ 12,591	₩ 11,605

25. Commitments and contingencies

25.1 Guarantees provided

Guarantees provided by the Company as of December 31, 2022 as follows (foreign currencies in thousands):

	Financial institution	Object	Limit		Outstanding
Subsidiaries:					
LX International (America) Inc.	Mizuho and others	Local finance	USD	154,500	10,000
LX International (Japan) Ltd.	MUFG and others	"	JPY	12,038,000	64,591
			USD	254,000	820
LX International (HK) Ltd.	SMBC and others	"	HKD	1,500	50
			USD	377,000	24,378
LX International (Singapore) Pte. Ltd.	SMBC and others	"	SGD	200	37
			USD	10,000	-
LX International (Deutschland) GmbH	Mizuho and others	"	EUR	5,000	-
Bowen Investment (Australia) Pty Ltd	ANZ and others	"	AUD	77,992	17,008
	Hana Bank and others	"	USD	10,000	-
LX International (Shanghai) Corp.		"	CNY	80,000	-
LX International India Private Limited	Citi	"	INR	1,900	-
			USD	62,400	21,676
PT. Batubara Global Energy (BGE)	BTPN and others	"	IDR	1,300,000	634,324
Steel Flower Electric & Machinery(Tianjin) Co., Ltd.	HSBC and others	"	CNY	349,000	2,163
			USD	5,000	-
PT. Parna Agromas (PAM)	BTPN and others	"	IDR	21,300,000	86,408
			USD	36,000	36,000
PT. Ganda Alam Makmur (GAM) (*1)	KEXIM and others	"	IDR	2,200,000	473,052
PT. Binsar Natorang Energi (BNE)	SG	"	USD	4,679	4,679
Haipong Steel Flower Electrical & Machinery Co., Ltd.		"	USD	13,200	4,355
	HSBC and others	"	VND	436,452,000	185,334,914
	Hana Bank and others	"			
PT. Grand Utama Mandiri (GUM)		"	IDR	88,700,000	10,088,147
	Shinhan Bank and others	"			
PT. Tintin Boyok Sawit Makmur (TBSM)		"	IDR	104,700,000	74,033
PT. Mega Global Energy (MGE)	Woori Bank	"	IDR	120,000,000	-
PT. Energy Metal Indonesia (EMI)	Woori Bank	"	IDR	236,900,000	20,143,382
			USD	10,000	-
	Hana Bank and others	"	USD	2,100	-
PT. Global Investment Institusi (GII)		"	IDR	2,500,000	426,605
	Hana Bank and others	"	USD	3,100	-
PT. LX International Indonesia (LXII))		"	IDR	62,400,000	20,745,790
			USD	21,500	-
PT. Green Global Utama (GGU)	BTPN and others	"	IDR	880,000,000	308,178
Associates:					
Musandam Power Company S.A.O.C	Bank Muscat	"	OMR	860	860

(*1) The amount represents 60% of total contracted guarantees, which is the same percentage as the company's equity ownership in the subsidiary. Furthermore, the Company is jointly and severally liable for outstanding balances.

The Company issue L/C to provide Mizuho Bank with a debt guarantee equivalent to \$30 million.

25.2 Major agreements such as opening letters of credit

As of December 31, 2022, 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	KDB Bank and others	USD	60,000
Letter of credits	Shinhan Bank and others	USD	93,530
Payment guarantee	ANZ and others	USD	7,700
Bank overdrafts	Hana Bank and others	KRW	13,000
Line of credit	BOC and others	USD	20,000
		KRW	130,000
Trade financing	Woori Bank and others	USD	504,000
		KRW	30,000
Total		USD	685,230
		KRW	173,000

25.3 Guarantees received

Details of guarantees received as of December 31, 2022 and 2021 are as follows (Korean won in millions and foreign currencies in thousands):

	Financial institution	Details	Guarantee amount	
2022	Hana Bank	Bonds and others	₩	4,699
2021	Hana Bank	Bonds and others	₩	8,128

25.4 Collateralized assets

Details of collateralized assets as of December 31, 2022 are as follows (Korean won in millions):

2022	A mortgagee	Subject to collateral	Book amount	Collateral setting amount
	Woori Bank and others	8,994,800 shares of Poseung Green Power Co., Ltd	₩ 76,801	₩ 210,000

The Company pledged 17 notes and 1 checks as collateral to its customers, creditors and guarantors related to various guarantees and borrowings as of December 31, 2022.

25.5 Joint liability on guarantee

The Company and LF Corp. are jointly and severally liable for the obligations of LGI existing before the spin-off.

25.6 Pending lawsuits

The Company is a defendant in various lawsuits with claims aggregating to ₩5,997 million, and as of December 31, 2022, the outcomes of litigation are not reliably determinable. However, in some litigation cases, it was determined that there is a possibility of an outflow of resources and that the effect can be measured reliably. In this regard, the effect is already reflected in the financial statements (see Note 14).

25.7 Other commitments

As of December 31, 2022, the commitments the Company has entered into with customers other than financial institutions are as follows:

Type of commitment	Counterparty	Description
Put option	Gansu Wuwei Cogeneration Power Plant	As of the October 12, 2015, the Company signed a put option contract with Gansu Province Electricity Investment Group Co., Ltd. to acquire 30% of equity interests of Gansu Wuwei Cogeneration Power Plant for a capital increase.
Put option	Pablo Air Co., Ltd.	As of December 1, 2021, the Company signed two contracts for the acquisition of convertible preferred stocks of Pablo Air Co., Ltd. with E Air Co., Ltd. and its stakeholder, Young-Jun Kim, and signed a put option contract for the new stocks to be acquired.
Put option	Ecovance INC.	As of November 23, 2021, the Company signed contract with SKC Co., Ltd. and Daesang Co., Ltd. to sign a put option contract for the stake in Ecovance INC.
Put option	Bio Friends Co., Ltd.	As of the May 20, 2021, the Company signed a put option contract with Bio Friends Co., Ltd. and its stakeholder, Won-Jun Jo, to acquire equity shares of Bio Friends Co., Ltd.
Call option	Poseung Green Power Co., Ltd.	As of December 19, 2022, the Company signed contracts with Lani Finance Limited with a call option to acquire a full stake in Poseung green power Co., Ltd.
Subordinated loan agreement	Poseung Green Power Co., Ltd.	As of October 19, 2022, the Company signed a liability fuel purchase agency contract with Poseung green power Co., Ltd. and signed a subordinated loan agreement for the shortfall (meeting certain conditions) in the fuel non-settlement account.

25.8 Uncertainty regarding the COVID-19 impacts

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 (see Note 12), impairment of the investments in associates (see Note 9, 22) and so on. The Company has prepared financial statements by reasonably estimating the impact of Covid-19. However, the spread or termination of Covid-19 may affect the Company's estimation and assumptions, but the ultimate therefrom is not reasonably estimable as of December 31, 2021.

25.9 Uncertainty regarding Russia-Ukraine war

Armed conflicts in Ukraine, which began in February 2022, and related sanctions against Russia by the international community thereafter could affect companies subject to sanctions, as well as companies directly or indirectly operating with Ukraine or Russia, and those directly or indirectly exposed to industry or the economy of Ukraine or Russia. The Company cannot reasonably estimate the future financial impact of the Russia-Ukraine war.

26. Financial risk management objectives and policies

The Company'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 Company's operations. The Company has trade receivables, loans and other receivables, and cash and short-term deposits that derive directly from its operations. The Company 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 Company 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 Company's policy that no trading in derivatives for speculative purposes is to be undertaken.

26.1 Market risk

Market risk is the risk that the fair value of future cash flows of a financial instrument will fluctuate because of changes in market prices. Market prices comprise three types of risk: interest rate risk, currency risk, commodity price risk and other price risk, such as equity risk. Financial instruments affected by market risk include loans and borrowings, deposits, long-term equity instruments and derivatives.

The sensitivity analysis is in the following sections relate to the financial position as of December 31, 2022 and 2021.

Sensitivity analysis was conducted on the assumption that the net amount of liabilities, the composition ratio of fixed and variable liabilities, and the composition of foreign currency financial instruments were all identical and designated as hedging.

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, 2021.

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.

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

- the statement of financial position sensitivity relates to derivatives, financial assets at fair value through profit or loss and financial assets at fair value through OCI;
- the sensitivity of the relevant statement of profit or loss 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, 2022 and 2021 including the effect of hedge accounting; and
- 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, 2022 associate with changes in underlying assets.

26.1.1 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 Company's exposure to the risk of changes in market interest rates relates primarily to the Company's long-term debt obligations with floating interest rates.

The Company is exposed to interest rate risk due to its long-term debt. The Company 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 Company'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 Company has a risk management program in place to monitor and actively manage such risks.

The Company 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 Company's profit before tax is affected through the impact on floating rate borrowings as follows. There is only an immaterial impact on the Company's equity (Korean won in millions):

	2022		2021	
	Increase by 1%	Decrease by 1%	Increase by 1%	Decrease by 1%
Interest income	₩ 7,523	₩ (7,523)	₩ 3,200	₩ (3,200)
Interest expenses	(1,428)	1,428	(1,314)	1,314
Net effect	₩ 6,095	₩ (6,095)	₩ 1,886	₩ (1,886)

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

Interest rate benchmark reform

The following table demonstrates the nominal amount and weighted average maturity of derivatives as of Dec 31, 2021 with hedging relationships that will be affected by interest rate reform as financial instruments are converted to risk-free interest rates (RFR), which are analyzed by interest rate criteria. Derivatives as a hedging instrument provide a close approximation of the level of risk exposure that banks manage through a hedging relationship. (Korean won in millions, years)

Sortation	Interest rate	2021	
		Nominal amount	Average maturity (Year)
Currency swaps	LIBOR USD (3M)	₩ 1,743	0.1

26.1.2 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 Company's exposure to the risk of changes in foreign exchange rates relates primarily to the Company's operating activities (when revenue or expense are denominated in a different currency from the Company's functional currency) and the Company's net investments in foreign operations.

The Company is exposed to foreign exchange risk arising from international operations and transactions with different foreign currencies. Most widely used foreign currencies are the USD, EUR, JPY, and others.

The Company manages its foreign currency risk by entering into currency forward contracts. Exposure to currency translation risk is largely dependent on the accounting standards of the local jurisdiction and the translation methods required by such jurisdiction.

Foreign currency sensitivity

The following table demonstrates the sensitivity to a reasonably possible change in the exchange rate. With all other variables held constant, the Company's profit before tax is affected, as follows (due to changes in the fair value of monetary assets and liabilities including undesignated foreign currency derivatives) (Korean won in millions):

	2022		2021	
	Increase by 10%	Decrease by 10%	Increase by 10%	Decrease by 10%
Gain (loss) on foreign currency translation	₩ 18,682	₩ (18,682)	₩ 27,777	₩ (27,777)
Gain (loss) on valuation of derivative financial instruments	(9,714)	9,714	(20,702)	20,702
Net effect (*1)	₩ 8,968	₩ (8,968)	₩ 7,075	₩ (7,075)

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

26.2 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 Company 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 Company applies a simplified method of recognizing lifetime expected credit losses as loss provisions for trade receivables. The provision setting rate table set for accounts receivable as of the end of the current term is as follows (Korean won in millions):

	Account receivable accrual date					Total
	Less than 3month	3 to 6 month	6 to 12 month	1 to 3 years	More than 3 years	
Expected loss rate	0.60%	0.27%	0.00%	85.71%	88.30%	
Book value	₩ 335,044	₩ 1,827	₩ -	₩ 14	₩ 43,192	₩ 380,071
Provision	2,034	5	-	12	38,139	40,179

26.2 Credit risk (cont'd)

The book value of financial assets represents maximum exposure to credit risk. The maximum exposures to credit risk as of December 31, 2022 and 2021 are as follows (Korean won in millions):

	2022	2021
Cash equivalents (*1)	₩ 681,321	₩ 262,454
Short-term financial instruments	22,205	23,223
Long-term equity instruments:		
Financial assets at fair value through profit or loss	10,502	8,402
Financial assets at fair value through OCI.	166,922	121,082
Trade accounts receivable	339,892	366,359
Other accounts receivable (*2)	27,644	46,847
Long-term loans	37,438	103,205
Other financial assets	25,561	40,151
	₩ 1,311,485	₩ 971,723

(*1) Excludes cash on hand.

(*2) Excludes other receivables in relation to derivatives.

26.3 Maturity profile of financial assets

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

	2022				
	Less than 1 year	1 to 3 years	3 to 5 years	More than 5 years	Total
Cash and cash equivalents	₩ 681,340	₩ -	₩ -	₩ -	₩ 681,340
Short-term financial instruments	22,205	-	-	-	22,205
Trade accounts receivable	338,163	1,729	-	-	339,892
Other accounts receivable	28,507	-	-	-	28,507
Long-term loans	-	23,079	4,778	9,580	37,438
Other financial assets	11,616	10,579	419	2,947	25,561
	₩ 1,081,831	₩ 35,387	₩ 5,198	₩ 12,527	₩ 1,134,943

	2021				
	Less than 1 year	1 to 3 years	3 to 5 years	More than 5 years	Total
Cash and cash equivalents	₩ 262,489	₩ -	₩ -	₩ -	₩ 262,489
Short-term financial instruments	23,223	-	-	-	23,223
Trade accounts receivable	365,944	415	-	-	366,359
Other accounts receivable	48,788	-	-	-	48,788
Long-term loans	-	19,397	59,816	23,992	103,205
Other financial assets	10,599	5,859	8,213	15,480	40,151
	₩ 711,043	₩ 25,671	₩ 68,029	₩ 39,472	₩ 844,215

26.4 Liquidity risk

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

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

	2022					Total
	Less than 1 year	1 to 3 years	3 to 5 years	More than 5 years		
Trade accounts payable	₩ 298,013	₩ -	₩ -	₩ -	₩	298,013
Other accounts payable	98,583	-	-	-		98,583
Borrowings	243,328	96,264	80,001	12,901		432,494
Bonds payable	169,870	109,823	129,683	159,611		568,987
Lease liabilities	1,331	741	47	-		2,119
Other financial liabilities	11,559	-	650	-		12,209
	₩ 822,684	₩ 206,828	₩ 210,381	₩ 172,512	₩	1,412,405

	2021					Total
	Less than 1 year	1 to 3 years	3 to 5 years	More than 5 years		
Trade accounts payable	₩ 294,735	₩ -	₩ -	₩ -	₩	294,735
Other accounts payable	115,426	-	-	-		115,426
Borrowings	148,392	116,638	37,564	21,388		323,982
Bonds payable	139,980	119,832	69,819	79,812		409,443
Lease liabilities	5,442	1,059	103	153		6,757
Other financial liabilities	19,377	-	-	-		19,377
	₩ 723,352	₩ 237,529	₩ 107,486	₩ 101,353	₩	1,169,720

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

26.5 Capital management

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

The Company's debt ratio is calculated by dividing total liabilities by total equity, and net borrowing is calculated by subtracting cash and cash equivalents from the sum of borrowings, lease liabilities and debentures. Details of gearing ratios as of December 31, 2022 and 2021 are as follows (Korean won in millions):

	2022	2021
Total liabilities (A)	₩ 1,473,354	₩ 1,213,673
Total equity (B)	2,309,497	1,805,371
Cash and cash equivalents (C)	681,340	262,489
Total borrowings (D)	1,003,599	740,181
Debt ratio (A / B)	63.80%	67.23%
Net borrowing ratio ((D-C) / B)	13.95%	26.46%

27. Fair value

27.1 Fair value of financial instruments

The book value and fair value of financial instruments as of December 31, 2022 and 2021 are as follows (Korean won in millions):

	2022		2021	
	Book value	Fair value	Book value	Fair value
Financial assets:				
Financial assets measured at amortized cost (*1):				
Cash and cash equivalents	₩ 301,540	₩ 301,540	₩ 144,781	₩ 144,781
Short-term financial instruments	22,205	22,205	23,223	23,223
Trade accounts receivable	339,892	339,892	366,359	366,359
Long-term loans	37,438	37,438	103,205	103,205
Other accounts receivable	27,644	27,644	46,847	46,847
Other financial assets	25,561	25,561	45,998	45,998
	<u>754,280</u>	<u>754,280</u>	<u>724,566</u>	<u>724,566</u>
Financial assets recognized at fair value:				
Cash and cash equivalents	379,800	379,800	117,708	117,708
Other accounts receivable related derivatives	863	863	1,941	1,941
Long-term equity instruments	177,424	177,424	115,239	115,239
	<u>558,087</u>	<u>558,087</u>	<u>249,133</u>	<u>249,133</u>
	<u>₩ 1,312,367</u>	<u>₩ 1,312,367</u>	<u>₩ 973,699</u>	<u>₩ 973,699</u>
	2022		2021	
	Book value	Fair value	Book value	Fair value
Financial liabilities:				
Financial liabilities measured at amortized cost (*1):				
Borrowings	₩ 354,511	₩ 354,511	₩ 251,675	₩ 251,675
Bonds payable	399,117	399,117	269,462	269,462
Current portion of bonds and long-term borrowings	247,852	247,852	212,287	212,287
Other financial liabilities	408,838	408,838	435,055	435,055
	<u>1,410,318</u>	<u>1,410,318</u>	<u>1,168,479</u>	<u>1,168,479</u>
Financial liabilities recognized at fair value:				
Other accounts payable related derivatives	2,086	2,086	1,240	1,240
	<u>2,086</u>	<u>2,086</u>	<u>1,240</u>	<u>1,240</u>
	<u>₩ 1,412,404</u>	<u>₩ 1,412,404</u>	<u>₩ 1,169,719</u>	<u>₩ 1,169,719</u>

(*1) As the carrying amounts are considered to be a reasonable approximation of the fair values, the carrying amounts have been stated as the fair values.

27.2 Fair value measurement of assets and liabilities recorded in the statements of financial position

The Company 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, 2022 and 2021, the Company holds the assets and liabilities measured at fair value in the statements of financial position, and assets and liabilities for which the fair values were disclosed as follows (Korean won in millions):

	2022		
	Level 1	Level 2	Level 3
Financial assets at fair value through profit or loss:			
Other accounts receivable related to derivatives	₩ -	₩ 863	₩ -
Equity instruments held for long-term (*1)	-	-	10,502
Financial assets at fair value through OCI:			
Equity instruments held for long-term (*1)	3,532	-	163,068
Financial liabilities at fair value through profit or loss:			
Other accounts payable related to derivatives	-	2,086	-

(*1) 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 was no movement between the levels of the fair value hierarchy for the year ended December 31, 2022.

	2021		
	Level 1	Level 2	Level 3
Financial assets at fair value through profit or loss:			
Other accounts receivable related to derivatives	₩ -	₩ 198	₩ -
Equity instruments held for long-term (*1)	-	-	8,402
Financial assets at fair value through OCI:			
Equity instruments held for long-term (*1)	3,016	-	117,626
Financial liabilities at fair value through profit or loss:			
Other accounts payable related to derivatives	-	1,240	-
Derivatives related to hedge accounting:			
Other accounts receivable related to derivatives	-	1,743	-

(*1) Equity instruments held for long-term whose fair value cannot be measured reliably was measured at cost after recognizing the impairment loss.

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 3.98% during the period (2021: 1.29%).

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 6.72%~15.70% during the period (2021: 6.93%~12.99%).

28. Statements of cash flows

Non-cash adjustments to reconcile profit for the year to net cash flows for the years ended December 31, 2022 and 2021 are as follows (Korean won in millions):

	2022	2021
Depreciation	₩ 9,500	₩ 8,647
Amortization	1,019	831
Impairment loss reversal on intangible assets	-	(540)
Retirement benefits	4,346	4,416
Bad debt expenses	15,165	11,096
Interest income	(18,043)	(11,963)
Gain on foreign currency translation	(20,545)	(15,657)
Interest expenses	26,541	17,903
Loss on foreign currency translation	16,974	10,678
Gain (Loss) on disposal of investments in subsidiaries and associates	4,882	(36)
Impairment loss on investments in subsidiaries and associates	19,451	-
Reversal of impairment loss on investments in subsidiaries and associates	(84,207)	-
Share of profit of subsidiaries and associates	(496,664)	(381,536)
Share of loss of subsidiaries and associates	13,786	12,002
Gains on disposal of other investments	(2,146)	-
Income tax expenses	111,864	38,241
Gain on exemption from debt	(548)	(13,352)
Dividend income	(13,511)	(6,573)
Provision reversal	(434)	(1,785)
Gain (loss) related to derivatives	35,079	7,966
Others	(7,877)	4,970
	₩ (385,368)	₩ (314,692)

Working capital adjustments for the years ended December 31, 2022 and 2021 are as follows (Korean won in millions):

	2022	2021
Decrease (increase) in trade accounts receivable	₩ 14,347	₩ (61,731)
Decrease (increase) in other accounts receivable	16,595	(27,966)
Decrease in advance payments	2,060	1,344
Increase in inventories	(8,546)	(47,674)
Decrease (increase) in other operating assets	919	(3,056)
Increase in trade payables	12,277	12,377
Increase (decrease) in other accounts payable	(17,873)	75,121
Decrease in advance received	(2,962)	(1,698)
Severance and retirement benefits paid	(4,975)	(4,425)
Decrease (increase) in plan assets	802	(535)
Decrease in provisions	(6,719)	(5,864)
Decrease in other operating liabilities	(975)	(11,808)
	₩ 4,950	₩ (75,915)

Significant non-cash transactions for the years ended December 31, 2022 and 2021 are as follows (Korean won in millions):

	2022	2021
Acquisition of right-of-use assets	₩ 5,135	₩ 9,478
Non-receipt of dividend	284	-

28. Statements of cash flows (cont'd)

The adjustment of liabilities arising from financing activities for the years ended December 31, 2022 and 2021 are as follows (Korean won in millions):

	2022				
	Jan. 1	Cash flows in financing activities	Non-cash changes		Dec. 31
			Foreign currency translation	Others (*1)	
Short-term borrowings	₩ 76,085	₩ 90,512	₩ (1,251)	₩ -	₩ 165,346
Long-term borrowings	247,896	17,456	2,343	(547)	267,148
Bonds	409,443	159,057	-	487	568,987
Lease liabilities	6,757	(7,123)	-	2,485	2,119
	<u>₩ 740,181</u>	<u>₩ 259,902</u>	<u>₩ 1,092</u>	<u>₩ 2,425</u>	<u>₩ 1,003,600</u>

	2021				
	Jan. 1	Cash flows in financing activities	Non-cash changes		Dec. 31
			Foreign currency translation	Others (*1)	
Short-term borrowings	₩ 55,052	₩ 19,304	₩ 1,729	₩ -	₩ 76,085
Long-term borrowings	313,494	(54,098)	1,852	(13,352)	247,896
Bonds	459,290	(50,126)	-	279	409,443
Lease liabilities	6,757	(6,661)	-	6,661	6,757
	<u>₩ 834,593</u>	<u>₩ (91,581)</u>	<u>₩ 3,581</u>	<u>₩ (6,412)</u>	<u>₩ 740,181</u>

(*1) The amount of reduction due to exemption of debt is included.

29. Leases

Details of and changes in right-of-use asset for the years ended December 31, 2021 and 2020 are as follows (Korean won in thousands):

	2022		
	Buildings	Vehicles	Total
Acquisition cost	₩ 11,567	₩ 1,797	₩ 13,364
Accumulated depreciation	(10,200)	(848)	(11,048)
Net book value	<u>₩ 1,367</u>	<u>₩ 949</u>	<u>₩ 2,316</u>

	2021		
	Buildings	Vehicles	Total
Acquisition cost	₩ 8,506	₩ 1,676	₩ 10,182
Accumulated depreciation	(2,661)	(947)	(3,608)
Net book value	<u>₩ 5,845</u>	<u>₩ 729</u>	<u>₩ 6,574</u>

29. Leases (cont'd)

Details of and changes in right-of-use asset for the years ended December 31, 2022 and 2021 are as follows (Korean won in thousands):

	2022		
	Buildings	Vehicles	Total
Jan. 1	₩ 5,845	₩ 729	₩ 6,574
Additions	4,198	937	5,135
Depreciation	(8,072)	(624)	(8,696)
Disposals	(604)	(93)	(697)
Dec. 31	₩ 1,367	₩ 949	₩ 2,316
Acquisition cost	11,567	1,797	13,364
Accumulated depreciation	(10,200)	(848)	(11,048)
Net book value	1,367	949	2,316

	2021		
	Buildings	Vehicles	Total
Jan. 1	₩ 5,426	₩ 1,193	₩ 6,619
Additions	9,012	466	9,478
Depreciation	(6,024)	(704)	(6,728)
Disposals	(2,569)	(226)	(2,795)
Dec. 31	₩ 5,845	₩ 729	₩ 6,574
Acquisition cost	8,506	1,676	10,182
Accumulated depreciation	(2,661)	(947)	(3,608)
Net book value	5,845	729	6,574

Details of changes in lease liabilities for the years ended December 31, 2022 and 2021 are as follows (Korean won in millions):

	2022	2021
Jan.1	₩ 6,757	₩ 6,757
Addition	3,251	9,478
Interest expense	89	111
Payment	(7,212)	(6,773)
Termination	(766)	(2,816)
Dec.31	₩ 2,119	₩ 6,757

Details of expenses came from short-term leases and leases of low-value assets are as follows (Korean won in millions):

	2022	2021
Short-term leases	₩ 13,731	₩ 11,079
Leases of low-value assets	190	154
	₩ 13,921	₩ 11,233

30. Non-current Assets as held for sale

As of December 31, 2022 and 2021, 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):

	2022		2021	
	Assets	Liabilities	Assets	Liabilities
Long-term equity instruments				
QQ Aromatics LLC (formerly, Aromatics Oman LLC) (*1)	₩ 4,779	₩ 5,655	₩ 4,779	₩ 5,655

(*1) For the year ended December 31, 2021, the Company decided to dispose 1% of its stake in Aromatics Oman LLC, which had been classified as equity instruments held for long-term, and reclassified the related assets and liabilities with non-current assets held for sale and non-current liabilities held for sale respectively.

Meanwhile, during the current term, the Company sold ADA Oil LLP and Kernhem B.V, which had been classified as held for sale, and recognized loss on disposal of ₩5,863 million

32. Events after the reporting date

As of January 3, 2023, The Company acquired 5,000,000 common shares of Korea Glass Industrial Co., Ltd. in cash for ₩590,446 million and incorporated them into the consolidated subsidiary for the purpose of securing new revenue sources through diversification of its business portfolio.

33. Approval of separate financial statements

The separate financial statements of the Company for the year ended December 31, 2022 were approved and authorized for issue by the Company's Board of Directors on February 17, 2023 for their submission to the shareholders' general meeting.

Auditor's opinion on internal control over financial reporting

The accompanying independent auditor's report on internal control over financial reporting is attached as a result of auditing the separate financial statements of LX International Corp. for the year ended December 31, 2022 and the internal control over financial reporting in accordance with the Article 8 of the *Act on External Audit of Stock Companies*.

1. Independent auditor's report on internal control over financial reporting
2. Management's report on the effectiveness of internal control over financial reporting (ICFR)

Independent auditor's report on internal control over financial reporting

(English Translation of a Report Originally Issued in Korean)

The Shareholders and Board of Directors LX International Corp.

Opinion on internal control over financial reporting

We have audited LX International Corp.'s (the "Company") internal control over financial reporting ("ICFR") based on the Conceptual Framework for Design and Operation of ICFR established by the operating committee of ICFR (the "ICFR Committee") as of December 31, 2022.

In our opinion, the Company's ICFR has been effectively designed and operated, in all material respects, as of December 31, 2022, in accordance with the Conceptual Framework for Design and Operation of ICFR.

We also have audited, in accordance with Korean Standards on Auditing ("KSA"), the separate statement of financial position as of December 31, 2022, and the separate statement of profit or loss, separate statement of comprehensive income, separate statement of changes in equity and separate statement of cash flows for the year then ended, and notes to the separate financial statements, including a summary of significant accounting policies, and our report dated March 15, 2023 expressed an unqualified opinion thereon.

Basis for opinion on ICFR

We conducted our audit in accordance with KSA. Our responsibilities under those standards are further described in the Auditor's responsibilities for the audit of ICFR section of our report. We are independent of the Company in accordance with the ethical requirements that are relevant to our audit of ICFR 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.

Responsibilities of management and those charged with governance for ICFR

Management is responsible for designing, implementing, and maintaining an effective ICFR, and for assessing the effectiveness of the ICFR included in the accompanying report on the effectiveness of the ICFR.

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

Auditor's responsibilities for the audit of ICFR

Our responsibility is to express an opinion of the Company's ICFR based on our audit. We conducted our audit in accordance with KSA. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective ICFR was maintained in all material respects.

An audit of ICFR involves performing procedures to obtain audit evidence as to whether a material weakness exists. The procedures selected depend on the auditor's judgment, including the assessment of the risks that a material weakness exists. An audit also includes testing and evaluating the design and operating effectiveness of ICFR based on obtaining an understanding of ICFR and the assessed risk.

ICFR definition and inherent limitations

A company's ICFR is implemented by those charged with governance, management, and other employees and is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of separate financial statements for external purposes in accordance with International Financial Reporting Standards as adopted by the Republic of Korea ("KIFRS"). A company's ICFR includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of separate financial statements in accordance with KIFRS, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the separate financial statements.

Because of its inherent limitations, ICFR may not prevent or detect misstatements of the separate financial statements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that ICFR may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

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

Ernst & Young Han Young

March 15, 2023

This audit report is effective as of March 15, 2023, 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 Company's internal control over financial reporting and may result in modifications to this report.

ICFR Operating Status Report

To the Shareholders, Board of Directors, and Audit Committee of LX International Corp.

We, as the Chief Executive Officer and the Internal Accounting Manager of LX International Corp. ("the Company"), assessed operating status of the Company's Internal Control over Financial Reporting ("ICFR") for the year ending December 31, 2022.

Design and operation of ICFR is the responsibility of the Company's management, including the Chief Executive Officer and the Internal Accounting Manager (collectively, "We", "Our" or "Us").

We evaluated whether the Company effectively designed and operated its ICFR to prevent and detect errors or frauds which may cause a misstatement in financial statements to ensure preparation and disclosure of reliable financial information.

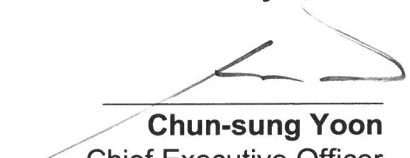
We used the 'Conceptual Framework for Designing and Operating Internal Control over Financial Reporting' established by the Operating Committee of Internal Control over Financial Reporting in Korea (the "ICFR Committee") as the criteria for design and operation of the Company's ICFR. And we conducted an evaluation of ICFR based on the 'Management Guideline for Evaluating and Reporting Effectiveness of Internal Control over Financial Reporting' established by the ICFR Committee.

Based on our assessment, we concluded that the Company's ICFR is designed and operated effectively as of December 31, 2022, in all material respects, in accordance with the 'Conceptual Framework for Designing and Operating Internal Control over Financial Reporting'.

We certify that this report does not contain any untrue statement of a fact, or omit to state a fact necessary to be presented herein.

We also certify that this report does not contain or present any statements which might cause material misunderstandings of the readers, and we have reviewed and verified this report with sufficient care.

February 7, 2023



Chun-sung Yoon
Chief Executive Officer



Byeong-il Min
Internal Accounting Manager