LX International Corp. and its subsidiaries

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



Table of contents

Independent auditor's report

Consolidated financial statements	Page
Consolidated statements of financial position	1
Consolidated statements of profit	3
Consolidated statements of comprehensive income	4
Consolidated statements of changes in equity	5
Consolidated statements of cash flows	7
Notes to the consolidated financial statements	8



Ernst & Young Han Young 2-4F,6-8F, Taeyoung Building, 111, Yeouigongwon-ro, Yeongdeungpo-gu, Seoul 07241 Korea

Tel: +82 2 3787 6600 Fax: +82 2 783 5890 ey.com/kr

> 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 consolidated financial statements of LX International Corp. and its subsidiaries (collectively referred to as the "Group"), which comprise the consolidated statements of financial position as of December 31, 2022 and 2021, and the consolidated statements of profit, consolidated statements of comprehensive income, consolidated statements of changes in equity and consolidated statements of cash flows for the years then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies.

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

Basis for opinion

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

Key audit matter

The key audit matter is the matter that, in our professional judgment, was of most significance in our audit of the consolidated financial statements of the current period. The matter was addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on 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 cash generating units related to the resource development project of PT. Ganda Alam Makmur("GAM") (hereinafter referred to as "GAM Business")

The Group 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 2 to the consolidated financial statements, the Group recognizes the expenditures incurred directly from the exploration and development businesses as overseas resource development assets and property, plant, and equipment.

The sales of GAM Business is 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 overseas resource development assets and property, plant, and equipment is also generally long-term.



As of December 31, 2022, the Group has overseas resource development assets and property, plant, and equipment amounting to #458,952 million which are related to GAM Business, and the Group 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 Group 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 Group's assessment of impairment indication and estimation of recoverable amounts for the cash generating units 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 Group's processes in relation with the assessments on reversal of impairments
- 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 assumptions applied to the estimation of cash flows for the measurement of the recoverable amounts

Responsibilities of management and those charged with governance for the consolidated financial statements

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

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

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

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

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with 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 consolidated 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 consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

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

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

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

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

Ernst Joung Han Joung

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 consolidated financial statements and may result in modifications to this report.

LX International Corp. and its subsidiaries

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

"The accompanying consolidated 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. and its subsidiaries Consolidated statements of financial position as of December 31, 2022 and 2021 (Korean won in millions)

	Notes		2022		2021
Assets	Notes		2022		2021
Current assets					
Cash and cash equivalents	4, 5, 25, 26, 30	₩	1,550,675	₩	841,883
Short-term financial instruments	4, 11, 25, 26		49.952		20,787
Trade accounts receivable, net	4, 11, 23, 25, 26, 30		1,374,878		1,653,459
Contract assets	16		21,476		56,513
Other accounts receivable, net	4, 6, 11, 25, 26		202,984		265,274
Accrued income, net	4, 11, 23, 25, 26		5,109		1,450
Advance payments			179,605		131,993
Prepaid expenses	30		105,967		213,018
Other current assets	4, 11, 23, 30		288,429		165,081
Inventories, net	7		698,350		1,021,193
Non-current assets held-for-sale	31		4,779		5,896
			4,482,204		4,376,547
Non-current assets					
Investment assets	4, 8, 11, 25, 26		301,741		174,031
Investments in associates	8		391,931		322,501
Property, plant and equipment, net	9, 29, 30		1,163,340		806,503
Investment properties, net	9		4,972		4,851
Intangible assets, net	10, 28		1,069,927		749,645
Deferred tax assets	22		43,334		98,263
Other non-current assets	4, 5, 11, 19, 25, 26, 29		261,558		214,548
			3,236,803		2,370,342
Total assets		₩	7,719,007	₩	6,746,889

(Continued)

LX International Corp. and its subsidiaries Consolidated 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, 12, 25, 26	₩ 281,802	₩ 415,971
Trade accounts payable	4, 23, 25, 26, 30	1,148,951	1,619,765
Other accounts payable	4, 6, 23, 25, 26, 30	358,628	345,214
Advance received	16, 30	129,762	87,743
Withholdings	4, 25, 26, 30	212,805	107,921
Current tax liabilities		118,169	124,427
Accrued expenses	4, 25, 26, 30	157,040	130,204
Current portion of bonds			
and long-term borrowings	4, 12, 25, 26	301,170	328,656
Unearned revenue	16	84,705	173,112
Deposits received	4, 25, 26	5,564	8,512
Lease liabilities	4, 25, 26, 29, 30	106,770	77,774
Liabilities directly associated with	, , , , , , , -	, -	,
assets held for sale	31	5,655	5,655
Current portion of provisions	13, 30	24,005	5,994
	,	2,935,026	3,430,948
Non-current liabilities			
Bonds payable	4, 12, 25, 26	468,998	269,462
Long-term borrowings	4, 12, 25, 26, 30	874,902	343,586
Defined benefit liabilities	4, 12, 20, 20, 00	8,565	9,350
Deferred tax liabilities	22	109,255	62,124
Lease liabilities	4, 25, 26, 29, 30	162,950	134,103
Provisions	13, 30	116,220	99,159
Other liabilities	4, 6, 25, 26, 30	6,616	13,913
	1, 0, 20, 20, 00	1,747,506	931,697
Total liabilities		4,682,532	4,362,645
Equity			
Capital stocks	14	193,800	193,800
Capital succes	14	100,871	100,443
Other components of equity	14	(41,300)	
Accumulated other	17	(+1,500)	(+1,000)
comprehensive loss	14	41,723	(201)
Retained earnings	14	1,966,092	1,522,220
Equity attributable to	17	1,000,092	1,022,220
owners of the parent		2,261,186	1,774,962
Non-controlling interests		775,289	609,282
Total equity		3,036,475	2,384,244
Total liabilities and service			W 6 740 000
Total liabilities and equity		<u>₩ 7,719,007</u>	₩ 6,746,889

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

LX International Corp. and its subsidiaries Consolidated 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, 16, 23	₩	18,759,549	₩	16,686,533
Cost of sales	18, 23, 28		(16,924,063)		(15,335,139)
Gross profit			1,835,486		1,351,394
Selling and administrative expenses	17, 23, 28		(869,943)		(695,177)
Operating profit	3		965,543		656,217
Finance income	4, 20, 23		709,296		272,414
Finance costs	4, 20		(732,314)		(289,033)
Share of profit of associates	8, 20		97,492		89,683
Other non-operating expenses, net	4, 20, 23		93,171		5,416
Profit before income tax			1,133,188		734,697
Income tax expense	22	_	(353,877)		(194,365)
Profit for the year		₩	779,311	₩	540,332
Attributable to:					
Owners of the parent		₩	515,224	₩	350,069
Non-controlling interests		₩	264,087	₩	190,263
Earnings per share attributable to					
owners of the parent:					
Basic earnings per share	14	₩	14,325	₩	9,733
Diluted earnings per share	14	₩	14,325	₩	9,733

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

LX International Corp. and its subsidiaries Consolidated statements of comprehensive income for the years ended December 31, 2022 and 2021

(Korean won in millions)

	Notes		2022		2021
Profit for the year		₩	779,311	₩	540,332
Other comprehensive income (loss) that may be reclassified	d				
<i>to profit or loss in subsequent periods:</i> Gain on valuation of cash flow hedge derivatives	16		14,546		5,917
Equity adjustments in equity method	4, 6 8		(15,244)		10,292
	8		,		10,292
Change in retained earnings in equity method	0		(36)		-
Exchange differences on translation of foreign operations			37,434		95,219
			36,700		111,428
Other comprehensive income (loss) that will not be reclassi profit or loss in subsequent periods: Gain (loss) on valuation of financial assets designated	fied to				
at fair value through OCI	4, 8		(11,797)		10,542
Remeasurement gain (loss) on defined benefit plans	19		17,828		(1,315)
	10		6,031		9,227
Other comprehensive income for the year, net of tax			42,731		120,655
Total comprehensive income					
for the year, net of tax		₩	822,042	₩	660,987
Attributable to:					
Owners of the parent		₩	568,523	₩	451,881
Non-controlling interests		₩	253,519	₩	209,106

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

			Attributable to owners of the parent														
	Notes	Сар	ital stocks	Сар	ital surplus		Other omponents of equity		Accumulated other omprehensive loss		Retained earnings		Total		Non- ontrolling nterests	То	tal equity
As of January 1, 2021		₩	193,800	₩	101,153	₩	(41,300)	₩	(102,426)	₩	1,186,951	₩	1,338,178	₩	420,153	₩	1,758,331
Profit for the year			-		-		-		-		350,069		350,069		190,263		540,332
Loss on valuation of derivatives designated as																	
cash flow hedges			-		-		-		5,627		-		5,627		290		5,917
Equity adjustments in equity method			-		-		-		10,294		-		10,294		(2)		10,292
Change in retained earnings in equity method			-		-		-		-		-		-		-		-
Exchange differences on																	
translation of foreign operations			-		-		-		75,902		-		75,902		19,317		95,219
Gain on valuation of financial assets designated																	
at fair value through OCI			-		-		-		10,402		6		10,408		134		10,542
Remeasurement gain (loss) on defined benefit plans			-		-		-		-		(419)		(419)		(896)		(1,315)
Total comprehensive income (loss)			-		-		-		102,225		349,656		451,881		209,106		660,987
Dividends	15		-		-		-		-		(14,387)		(14,387)		(17,395)		(31,782)
Paid-in capital increase of subsidiaries and acquisiton of interests			-		-		-		-		-		-		757		757
Change in the scope of consolidation			-		(710)		-		-				(710)		(3,339)		(4,049)
As of December 31, 2021		₩	193,800	₩	100,443	₩	(41,300)	₩	(201)	₩	1,522,220	₩	1,774,962	₩	609,282	₩	2,384,244

(Continued)

LX International Corp. and its subsidiaries

Consolidated statements of changes in equity

for the years ended December 31, 2022 and 2021 (Korean won in millions)

			Attributable to owners of the parent														
	Notes	Сарі	tal stocks	Capit	tal surplus	cor	Other nponents f equity		Accumulated other omprehensive loss		Retained earnings		Total		Non- ontrolling nterests	То	otal equity
As of January 1, 2022		₩	193,800	₩	100,443	₩	(41,300)	₩	(201)	₩	1,522,220	₩	1,774,962	₩	609,282	₩	2,384,244
Profit for the year			-		-		-		-		515,224		515,224		264,087		779,311
Gain on valuation of derivatives designated as																	
cash flow hedges			-		-		-		13,818		-		13,818		728		14,546
Equity adjustments in equity method			-		-		-		(15,941)		-		(15,941)		697		(15,244)
Change in retained earnings in equity method			-		-		-		-		(36)		(36)		-		(36)
Exchange differences on																	
translation of foreign operations			-		-		-		31,820		-		31,820		5,614		37,434
Fair value therough OCI			-		-		-		12,227		(13)		12,214		(24,011)		(11,797)
Remeasurement loss on defined benefit plans			-		-		-		-		11,423		11,423		6,404		17,827
Total comprehensive income			-		-		-		41,924		526,598		568,522		253,519		822,041
Dividends	15		-		-		-		-		(82,726)		(82,726)		(89,014)		(171,740)
Change in the scope of consolidation			-		428		-		-		-		428		1,502		1,930
As of December 31, 2022		₩	193,800	₩	100,871	₩	(41,300)	₩	41,723	₩	1,966,092	₩	2,261,186	₩	775,289	₩	3,036,475

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

LX International Corp. and its subsidiaries Consolidated 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		₩	779,311	₩	540,332
Non-cash adjustments to reconcile profit					
for the year to net cash flows provided by operating activities	27		498,349		344,129
Working capital adjustments	27		156,046		(619,354)
Interest received			23,289		11,487
Interest paid			(63,890)		(44,145)
Dividends received			99,198		19,663
Income taxes paid			(269,417)		(76,522)
Net cash flows provided by (used in) operating activities			1,222,886		175,590
Cash flows from investing activities:					
Decrease in financial instruments			61,404		46,047
Decrease in loans			26,038		8,278
Decrease in guarantee deposits			67,392		9,817
Proceeds from disposal of long-term equity instruments	8		105		2,139
Proceeds from disposal of investments in associates	8		13,640		3,901
Proceeds from disposal of assets held for sale	31		3,495		8,842
	9		5,949 5,949		18,121
Proceeds from disposal of property, plant and equipment Proceeds from disposal of intangible assets	10		2,576		7,935
	10		454		837
Government grants received			1,773		525
Net cash flow from disposal of subsidiary Net cash flow from business combination			(87,510)		798
					(5,685)
Increase in financial instruments			(73,146)		
Increase in loans			(7,291)		(5,105)
Increase in guarantee deposits	0		(79,751)		(13,253)
Acquisition of equity instruments held for long-term	8		(162,180)		(8,104)
Acquisition of investments in associates	8 9		(50,200)		(2,720)
Acquisition of property, plant and equipment			(133,307)		(71,790)
Acquisition of intangible assets	10		(75,654)		(43,793)
Settlement of derivatives	-		(35,773)		(5,131)
Net cash provided by (used in) investing activities			(521,986)		(48,341)
Cash flows from financing activities:					
Proceeds from finance liabilities	27		2,680,280		2,793,890
Repayment of finance liabilities	27		(2,367,908)		(2,645,976)
Payment of principal portion of lease liabilities	27, 29		(122,604)		(98,149)
Settlement of derivatives			1,879		(9,759)
Dividends paid			(171,740)		(31,782)
Net cash provided by (used in) financing activities			19,907		8,224
Net increase in cash and cash equivalents			720,807		135,473
Cash and cash equivalents as of January 1			841,883		689,988
Exchange differences on translation of cash					,
and cash equivalents			(12,015)		16,422
Cash and cash equivalents as of December 31		₩	1,550,675	₩	841,883

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

1. Organization and business

LX International Corp. ("LXI" or the "Parent Company") and its 87 subsidiaries including LX International (America) Inc. (collectively referred to as the "Group") prepare the consolidated financial statements in accordance with KIFRS 1110 *Consolidated Financial Statements*, and general information on the Group is as follows:

1.1 The Parent Company

The Parent 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, to LG International Corp. in March 1995 and to LX International Corp. in July 1, 2021.

LXI 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.

LXI is currently engaged in the import and export of goods, and other business activities. The LXI headquarters 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 Parent Company's common shares as of December 31, 2022. The remaining equity shares are held by institutional investors, overseas investors, minority shareholders, and so on.

1.2 Consolidated subsidiaries

Subsidiaries included in consolidation are as follows:

		Equity own	ership (%)	Reporting		
	Location	2022	2021	date	Principal activity	Basis of control
LX International (America) Inc.	USA	100.00	100.00	Dec. 31	Export and import	Ownership over 50%
LHC Solar LLC	USA	100.00	100.00	Dec. 31	Solar energy	"
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) Ltd.	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. 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 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. 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 power	"
PT. Enertgy 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						
& Machinary (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. (Xinzhen)	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.				D 04		
(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	"

1.2 Consolidated subsidiaries (cont'd)

	Location	Equity own 2022	ership (%) 2021	Reporting date	Principal activity	Basis of control
					Logistics and	
Eco & logis Busan Co., Ltd (*1) Haiphong Steel Flower Electrical	Korea	100.00	-	Dec. 31	Warehouse	Ownership over 50%
& Machinery Company Limited	Vietnam	100.00	100.00	Dec. 31	Steel frames	"
Poseung Green Power Co., Ltd. (*1,7) Ordos Lezheng Trading Company	Korea	100.00	-	Dec. 31	Renewable plant	n
Limited (*6)	China	100.00	-	Dec. 31	Coal mining	"
LX Pantos Logistics Co., Ltd. (*3)	Korea	51.00	51.00	Dec. 31	Logistics	"
LXPantos Busan Newport Logistics Center Co., Ltd. (formerly, Pantos Busan						
Newport Logistics Center Co., Ltd.) (*3,4)	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	n
LX Pantos Logistics (Qingdao) Co., Ltd. (formerly, Pantos Logistics (China) Co., Ltd.						
(*3,4)	China	100.00	100.00	Dec. 31	Logistics	"
LX Pantos Logistics (Shanghai) Co., Ltd.						
(formerly, Pantos Logistics (Shanghai) Co., Ltd. (*3,4)	China	100.00	100.00	Dec. 31	Warehouse	"
LX Pantos Logistics (Ningbo) Co., Ltd.	Onina	100.00	100.00	DC0. 01	Warehouse	
(formerly, Pantos Logistics (Ningbo) Co.,						
Ltd. (*3,4)	China	100.00	100.00	Dec. 31	Logistics	n
LX Pantos Logistics (Shenzhen) Co., Ltd. (*3)	China	100.00	100.00	Dec. 31	"	n
LX Pantos Logistics (HongKong) Co., Ltd.						
(formerly, Pantos Logistics (H.K) Co., Ltd. (*3,4)	Hong Kong	100.00	100.00	Dec. 31	"	"
(3,4) LX Pantos Logistics (Taiwan) Co., Ltd. (*4)	hong Kong	100.00	100.00	Dec. 51		
(formerly, Pantos Logistics (Taiwan) Co., Ed. (4)						
Ltd. (*3,4)	Taiwan	100.00	100.00	Dec. 31	"	"
Onecube International Logistics Co., Ltd						
(*3,8)	China	-	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 India	100.00	100.00 100.00	Dec. 31 Mar. 31	"	"
LX Pantos (India) Pvt. Ltd. (*3) LX Pantos (Cambodia) Co., Ltd. (*3)	Cambodia	100.00 100.00	100.00	Dec. 31	"	"
LX Pantos Vietnam Co., Ltd. (*3)	Vietnam	100.00	100.00	Dec. 31	"	"
LX Pantos Australia Pty Ltd. (*3)	Australia	100.00	100.00	Dec. 31	"	"
LX Pantos Holdings (Thailand) Co., Ltd. (*3)	Thailand	48.50	48.50	Dec. 31	"	De facto control
Pantos Logistics Myanmar Co., Ltd. (*3,8)	Myanmar	-	87.96	Mar. 31	"	Ownership over 50%
LX Pantos U.K. Ltd. (*3)	ÛK	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) (*3,4)	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 Lojistick Ve Ticaret Ltd. Sti. (*3)	Turkey	100.00	100.00	Dec. 31	"	"
LX Pantos Sweden AB (formerly, Pantos	Quedan	100.00	100.00	Dec. 21	"	"
Logistics Sweden AB (*3,4) LX Pantos Mexico, S.A. DE C.V. (*3)	Sweden Mexico	100.00 100.00	100.00 100.00	Dec. 31 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	oolollibla			200.01		
Logistics Chile SpA) (*3,4)	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 Dubai	100.00 49.00	100.00 49.00	Dec. 31 Dec. 31	"	De facto control
Pantos Logistics L.L.C (Dubai) (*3) LX Pantos Arabia Co., LTD. (formerly, Pantos	Dubal	49.00	49.00	Dec. 31		
Logistics Co., LTD. Saudi Arabia) (*3,4)	Saudi Arabia	100.00	100.00	Dec. 31	"	Ownership over 50%
LX Pantos Japan Inc. (*3)	Japan	100.00	100.00	Dec. 31	"	"
LX Pantos Logistics (Beiging) Co., Ltd						
(formerly, Hi Logistics China Co., Ltd.) (*3,4)	China	100.00	100.00	Dec. 31	n	n

1.2 Consolidated subsidiaries (cont'd)

		Equity own	Equity ownership (%) Reporting			
	Location	2022	2021	date	Principal activity	Basis of control
LX Pantos Solutions India Private Limited (*3)	India	100.00	100.00	Mar. 31	Logistics	Ownership over 50%
LX Pantos America, INC. (*3)	USA	100.00	100.00	Dec. 31	"	"
Hi Logistics Egypt S.A.E (*3)	Egypt	99.26	99.26	Dec. 31	"	"
LX Pantos Hungary KFT. (*3)	Hungary	100.00	100.00	Dec. 31	"	"
PT. Pantos Express Indonesia (*3)	Indonesia	49.00	49.00	Dec. 31	"	De facto control
Pantos USA, INC. (*2,3,4)	USA	100.00	-	Dec. 31	"	Ownership over 50%
LPIC TN LLC (*2,3)	USA	100.00	-	Dec. 31	Warehouse	"

- (*1) For the year ended December 31, 2022, the Group established Eco & Logistics Busan Co., Ltd and acquired a 100% stake in Poseung Green Power Co., Ltd. and added them as its subsidiaries.
- (*2) For the year ended December 31, 2022, the Group acquired a 100% stake in Pantos USA, INC. and LPIC TN LLC and added them as its subsidiaries.
- (*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, name of the subsidiary was changed.
- (*5) For the year ended December 31, 2022, the Group established and acquired PT. SLX Global Healthcare (SLX) through PT. Global Investment Institutei (GII) and added it as its subsidiary (51% stake).
- (*6) For the year ended December 31, 2022, the Group established and acquired Ordos Lezheng Trading Company Limited through Resource Investment (Hong Kong) Ltd. (Xinzhen) and added it as its subsidiary.
- (*7) Poseung Green Power Co., Ltd. issued preferred stocks with voting rights in addition to common shares, and the parent's voting rights are 69.97% of the total number of voting shares.
- (*8) For the year ended December 31, 2022, the Group liquidated subsidiaries, Onecube International Logistics Co., Ltd., and Pantos logistics myanmar Co., Ltd.

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

	2022							
	Assets	Liabilities	Equity	Revenue	Profit (loss) for the year			
LX International (America) Inc.	209.199 ₩	160,377 ₩	48,822 ₩	1,101,150 ₩	2,694			
LHC Solar LLC	3,570	865	2,705	365	24			
LX International Japan Ltd.	62,639	57,284	5,355	271,017	1,545			
LX International (HK) Ltd.	48,904	35,369	13,535	374,639	2,812			
LX International (Singapore) Pte. Ltd.	315,943	288,196	27,747	2,565,399	5,019			
LX International (Deutschland) GmbH	13,525	2,500	11,025	19,871	759			
LX International (Shanghai) Corp.	12,193	2,912	9,281	14,516	1,235			
Yantai LX International VMI Co., Ltd	2,377	47	2,330	4,095	686			
Bowen Investment (Australia) Pty Ltd	187,525	96,908	90,617	210,774	77,373			
PT. Batubara Global Energy (BGE) PT. Megaprima Persada (MPP)	341,256 20,855	254,709 30,925	86,547 (10,070)	1,096,856 12,989	23,571			
PT. Mega Global Energy (MGE)	20,855 9,785	10,049	(10,070) (264)	7,437	(2,167) (2,328)			
PT. Ganda Alam Makmur (GAM)	9,785 855,358	250,573	(204) 604,785	835,499	307,072			
LX International India Private Limited	3,328	1,439	1,889	1,095	131			
PT. Green Global Lestari (GGL)	167,194	37,813	129,381	1,095	5,544			
PT. Parna Agromas (PAM)	98,652	43,852	54,800	108,762	6,030			
PT. Grand Utama Mandiri (GUM)	69,437	30,976	38,461	41,320	2,589			
PT. Tintin Boyok Sawit Makmur (TBSM)	49,179	15,840	33,339	76,027	5,756			
PT. Tintin Boyok Sawit Makmur	·	992						
Dua (TBSMD)	11,863		10,871	6,579	678 222			
PT. Green Global Utama (GGU)	289,311 6,118	280,322 16,111	8,989	687,448 10,476	(5,453)			
PT. LX International Indonesia (LXII) PT. Binsar Natorang Energi (BNE)	270,071	155,902	(9,993) 114,169	25,034	(5,453) 7,517			
PT. Energy Metal Indonesia (EMI)	19,268	21,036	(1,768)	69,730	(2,973)			
PT. Global Investment institusi (GII)	9,351	3,227	6,124	5,156	(2,973)			
PT. Satu Gen Indonesia (SGI)	454	5,227	454	10	(1,764)			
PT. SLX Global Healthcare (SLX)	4,044	4	4,040	-	(1,704)			
Steel Flower Electric & Machinary (Tianjin)	4,044	т	4,040		(021)			
Co., Ltd.	33,566	4,532	29,034	96,454	4,518			
Philco Resources Ltd. (Rapu-Rapu)	854	690	164	-	4			
Resource Investment (HongKong) Ltd.								
(Xinzhen)	126,816	15,565	111,251	-	55,951			
LX International Yakutsk Ltd.	8,376	15,839	(7,463)	1,416	(366)			
Korea Carbon International Co., Ltd.								
(Shaanxi BBM)	9,209	9,209	-	-	-			
Colmineral, S.A. de.C.V.	4	-	4	-	-			
Fertilizer Resources Investment Ltd.	173,681	12	173,669	-	25,002			
Dangjin Tank Terminal Co., Ltd.	97,399	7,436 8	89,963	-	(2,692)			
Eco & logis Busan Co., Ltd Haiphong Steel Flower Electrical	42,792	0	42,784	-	(216)			
& Machinery Company Limited	34,026	27,722	6,304	57,693	(1,028)			
Poseung Green Power Co., Ltd.	236,017	163,531	72,486	11,346	1,592			
Ordos Lezheng Trading Company Limitied	52,189	116	52,073	-	(4,844)			
LX Pantos Logistics Co., Ltd	1,697,652	985,511	712,141	6,000,789	177,038			
LX Pantos Busan Newport Logistics Center Co., Ltd. (formerly, Pantos Busan	, ,	,-	,	-,,	,			
Newport Logistics Center Co., Ltd.)	12,531	2,920	9,611	16,954	772			
Helistar Air Co., Ltd.	20,823	15,905	4,918	178,884	1,017			
Hanultari Co., Ltd.	386	252	134	1,022	(18)			
LX Pantos Logistics (Qingdao) Co., Ltd. (formerly, Pantos Logistics (China) Co.,								
Ltd.) LX Pantos Logistics (Shanghai) Co., Ltd.	152,375	91,015	61,360	908,448	15,738			
(formerly, Pantos Logistics (Shanghai) Co., Ltd.)	134,029	89,975	44,054	576,522	13,625			
LX Pantos Logistics (Ningbo) Co., Ltd. (formerly, Pantos Logistics (Ningbo) Co.,	2 000	101	1 065	001	170			
Ltd.)	2,099	134	1,965	991	178			

Assets Labilities Equity Revenue Toffit (loss) LX Pantos Logistics (ThongKong) Co., Ltd. (formerly, Pantos Logistics Taiwan Co., Ltd. (formerly, Pantos Logistics Myanmar Co., Ltd. (formerly, Pantos Express Indonesia (formerly, Pantos Express Indonesia (formerly, Pantos Logistics Myanmar Co., Ltd. (formerly, Pantos Logistics Myanmar Co., Ltd. (formerly, Pantos Logistics France) (formerly, Pantos Logistics Myanmar Co., Ltd. (formerly, Pantos Logistics Myanmar Co., Ltd. (formerly, Pantos Logistics Chile SpA) (formerly, Pantos Logistics Chile				2022		
LX Pantos Logistics (HongKong) Co., Ltd. (dromety, Pantos Logistics (Taiwan Co., Ltd. (dromety, Pantos Logistics (Taiwan) Co., Ltd.) 0 necube International Logistics Co., Ltd. 0 necube International Logistics Co., Ltd. 1 (7) 7683 1 (7) 7883 1 (7) 7884 1 (7) 7883 1 (7) 7884 1 (7) 7882 1 (7) 788 1 (7) 7882 1 (7)		Assets	Liabilities	Equity	Revenue	
(domenty, Pantos Logistics (HK) Co., Ltd. 72,762 17,081 55,681 106,217 3,230 LX Partos Logistics Taiwan, Co., Ltd. - - - 68 Drecube International Logistics Co., Ltd. - - - 68 PT LX Pantos Indonesia 16,136 9,426 4,3660 2,821 LX Pantos Indonesia 16,136 9,426 4,3660 2,821 LX Pantos Indonesia 14,491 7,164 7,327 66,393 3,218 LX Pantos (Inhalend) Co., Ltd. 14,491 7,164 7,327 63,393 3,218 LX Pantos (Indiand) Pv. Ltd. 14,421 14,243 1,77 19,465 (1017) LX Pantos Ventram Co., Ltd. 3,628 2,6303 3,243 2,78,886 8,664 LX Pantos Ventram Co., Ltd. 1,700 143 1,557 782 31 Prantos Logistics Myannar Co., Ltd. 1,700 143 1,557 782 31 LY Pantos Ventos Myantandos Ly 71,536 5,576 16,690 11,503 <t< td=""><td>G</td><td>53,322 ₩</td><td>19,566 ₩</td><td>33,756 ₩</td><td>285,435 ₩</td><td>10,015</td></t<>	G	53,322 ₩	19,566 ₩	33,756 ₩	285,435 ₩	10,015
Ltd.) 10.977 6.664 4.313 37,556 1.836 Onecube International Logistics Co., Ltd. - - - 69 PT, LX Pantos Indonesia 47,261 29,423 17,838 29,4676 6,712 LX Pantos Singapore Pte, Ltd. 17,109 7,683 9,426 43,660 2,821 LX Pantos Malayia Sdn. Bhd 14,441 7,164 7,327 63,333 3,218 LX Pantos Malayia Sdn. Bhd 14,442 14,243 177 19,864 (932) LX Pantos Vienhodiaj Co., Ltd. 3,631 2,254 1,377 12,455 1,017 LX Pantos Vienno Co., Ltd. 3,631 2,254 1,377 12,455 1,017 LX Pantos Vienno Co., Ltd. 4,264 1,600 2,678 17,292 323 PT. Pantos Express Indonesia 78 192 (114) (72) (104) LX Pantos Vientia Co., Ltd. - - - (14) LX Pantos Kinetiands B.V 71,536 54,575 15,966 38,741 2,359 LX Pantos Kinetiands B.V 71,536 54,575 <td< td=""><td>(formerly, Pantos Logistics (H.K) Co., Ltd.) LX Pantos Logistics Taiwan Co., Ltd.</td><td>72,762</td><td>17,081</td><td>55,681</td><td>106,217</td><td>3,230</td></td<>	(formerly, Pantos Logistics (H.K) Co., Ltd.) LX Pantos Logistics Taiwan Co., Ltd.	72,762	17,081	55,681	106,217	3,230
PT. LX Pantos Indonesia 47,261 29,423 17,838 224,676 6,772 PT. LX Pantos Jakarta 16,36 9,262 6,874 17,818 224,676 6,772 LX Pantos Singapore Pie, Ltd. 17,109 7,683 9,426 43,660 2,821 LX Pantos Malaysia Sdn. Bhd 14,491 7,164 7,327 63,333 3,218 LX Pantos Indonobials Co., Ltd. 14,420 14,243 177 12,455 1,017 LX Pantos Vienam Co., Ltd. 56,296 23,053 33,243 2276,886 8,664 LX Pantos Sustialia Py Ltd. 4,243 1,670 172,282 233 PT. Pantos Express Indonesia 78 192 (114) (72) (104) LX Pantos Natiniand Co., Ltd. - - - (14) LX Pantos Natiniand Co., Ltd. - - - (14) LX Pantos Natiniand Co., Ltd. - - - (14) LX Pantos Express Indonesia 78 192 (53) 2,505 38,741 2,359 LX Pantos Mutta Strainand Co., Ltd. - - <	Ltd.)	10,977	6,664	4,313	37,536	
PT. LX Pantos Jakarta 16,136 9,262 6,874 17,812 227 LX Pantos Kingapore Pte. Ltd. 17,109 7,683 9,426 43,660 2,821 LX Pantos Kingapore Pte. Ltd. 14,491 7,164 7,327 63,393 3,218 LX Pantos Kingapore Pte. Ltd. 14,491 7,164 177 91,964 (932) LX Pantos Kingapore Pte. Ltd. 14,420 14,243 177 91,964 (932) LX Pantos Kingapore Pte. Ltd. 156,26 23,053 33,243 276,886 8,664 LX Pantos Kingapore Pte. Ltd. 1700 143 1,557 782 31 Pantos Logistics Myanmar Co., Ltd. 1,700 143 1,557 782 31 VA Pantos Nichel and S. V 71,536 54,576 16,960 115,003 2,949 LX Pantos Nichel ands B. V 71,536 54,577 16,960 115,003 2,949 LX Pantos Nick Ltd. 32,698 26,920 5,778 44,659 1,733 2,845 621,169 33,718 LX Pantos Nick Ltd. 17,564 2,857 4,617 42,	o	-	-	-	-	
LX Pantos Singapore Pte. Ltd. 17,109 7,683 9,426 43,660 2,221 LX Pantos (Thailand) Co., Ltd. 45,002 29,398 15,604 166,991 2,012 LX Pantos (India) Pt. Ltd. 14,420 14,243 177 63,393 3,218 LX Pantos (India) Pt. Ltd. 14,420 14,243 177 12,455 1,017 LX Pantos Vietnam Co., Ltd. 36,31 2,254 1,377 12,455 1,017 LX Pantos Sustraila Pty Ltd. 4281 1,603 2,678 17,292 333 PT. Pantos Express Indonesia 78 192 (114) (72) (104) LX Pantos Logistics Manara Co., Ltd. 1,700 143 1,557 782 31 Pantos Logistics Manara Co., Ltd. 3,688 26,920 5,778 44,569 1,733 LX Pantos Holdings (Thailand) Co., Ltd (14) LX Pantos Australia Pty Ltd. 32,688 26,920 5,776 44,569 1,733 LX Pantos Logistics Manara Co., Ltd (14) LX Pantos Logistics Manara Co., Ltd. 3,2698 26,920 5,776 44,569 1,733 LX Pantos Holdings (Thailand) Co. 1,12 (14) LX Pantos Logistics Manara Co., Ltd. 3,2698 26,920 5,776 44,569 1,733 LX Pantos Funce S, AR, L (formerly, Pantos Logistics France) 27,028 21,523 5,505 38,741 2,2369 LX Pantos Funcis Logistics France) 27,028 21,523 5,505 38,741 2,2369 LX Pantos Spain Slu 13,256 6,881 6,375 45,129 1,219 LX Pantos Spain Slu 13,256 6,881 6,375 45,129 1,219 LX Pantos Spain Slu 13,256 6,881 6,375 45,129 1,219 LX Pantos Sweden AB (formerly, Pantos Logistics Sweden AB) 3,333 3,967 (634) 4,972 (13) LX Pantos Sweden AB - (12) LX Pantos Sweden AB - (12) LX Pantos Manaro S, A, DE C.V. 103,480 77,955 25,525 488,793 7,574 LX Pantos Logistics Chile SpA (12) (formerly, Pantos Logistics Chile SpA (12) HZ Pantos Logistics Chile SpA (13) LX Pantos Logistics Chile SpA (14) (formerly, Pantos Logistics Chile SpA (13) LX Pantos Logistics Chile SpA (13) LX Pantos Logistics Chile SpA (14) HZ						
LX Pantos (Thailand) Co., Ltd. 45,002 29,398 15,604 166,991 2,012 LX Pantos (India) Pvt. Ltd. 14,440 7,164 7,327 63,393 3,218 LX Pantos (India) Pvt. Ltd. 14,420 14,243 177 91,964 (932) LX Pantos Vetnam Co., Ltd. 56,296 20,053 33,243 276,886 8,664 LX Pantos Vetnam Co., Ltd. 4,281 1,603 2,678 17,292 323 Pantos Logistics Myanmar Co., Ltd. 1,700 143 1,557 782 31 Pantos Logistics Myanmar Co., Ltd. 32,698 26,920 5,778 44,569 1,733 LX Pantos V.K. Ltd. 32,698 26,920 5,778 44,569 1,333 LX Pantos Netherlands B.V 71,536 54,576 16,000 72,945 621,169 33,718 LX Pantos Netherlands B.V 71,536 54,577 100,006 72,945 621,169 33,718 LX Pantos Netherlands B.V 17,356 2,897 4,467 42,044 4,228					-	
LX Pantos Malaysia Sch. Bhd 14,491 7,164 7,327 63,333 3,218 LX Pantos (india) Pvt. Lt.d. 14,420 14,243 177 91,964 (932) LX Pantos Vietnam Co., Ltd. 3,631 2,254 1,377 12,455 1,017 LX Pantos Australia Py Ltd. 4,221 1,603 2,678 17,292 323 Pantos Logistics Myanmar Co., Ltd. 1,700 143 1,557 782 31 Pantos Logistics Myanmar Co., Ltd. 32,698 26,920 5,776 44,569 1,733 LX Pantos Hothdings (Thailand) Co., Ltd. 1,700 143 1,557 782 31 LX Pantos Netherlands B.V 71,535 54,576 16,960 115,003 2,948 LX Pantos Netherlands B.V 71,535 54,576 16,960 115,003 2,858 LX Pantos Netherlands B.V 17,2951 100,006 72,945 621,169 33,718 LX Pantos Stemary GmbH 13,256 6,881 6,375 45,129 1,219 LX Pantos Nurkey Logistic						
LX Pantos (India) PvL Ltd. 14,420 14,243 177 91,964 (932) LX Pantos (Cambodia) Co., Ltd. 36,831 2,254 1,377 12,455 1,017 LX Pantos Vietnam Co., Ltd. 56,296 23,053 33,243 276,886 8,664 LX Pantos Kustralia Ply Ltd. 4,281 1,603 2,678 17,292 323 PT. Pantos Express Indonesia 78 192 (114) (72) (104) LX Pantos Netherlands D.V. 71,536 54,576 16,960 175,033 2,949 LX Pantos Netherlands B.V. 71,536 54,576 16,960 115,003 2,949 LX Pantos Netherlands B.V. 71,536 54,576 16,960 115,003 2,949 LX Pantos Suland SP.Z.O.O 172,945 100,006 72,945 621,169 33,718 LX Pantos Suland SP.Z.O.O 172,951 100,006 72,945 64,2173 3,089 LX Pantos Suland SP.Z.O.O 172,951 10,006 72,945 64,161 14,77 LY Pantos Suland SP.Z.O					-	-
LX Pantos Vietnam Co., Ltd. 3,631 2,254 1,377 12,455 1,017 LX Pantos Vietnam Co., Ltd. 56,296 23,053 33,243 276,886 8,664 LX Pantos Australia Ply Ltd. 4,281 1,603 2,678 17,292 323 Pantos Logistics Myanmar Co., Ltd. 78 192 (114) (72) (104) LX Pantos Holdings (Thailand) Co., Ltd. 1,700 143 1,557 782 31 Pantos Logistics Myanmar Co., Ltd. 32,688 26,920 5,778 44,569 1,733 LX Pantos Netherlands B.V 71,535 54,676 16,960 115,003 2,295 LX Pantos Stetherlands B.V 71,535 54,576 621,169 33,718 LX Pantos Stetherlands B.V 13,256 6,881 6,375 45,129 1,219 LX Pantos Stevedon AB 13,256 6,881 6,375 44,224 4,228 LX Pantos Mexico, S.A. DE C.V. 103,480 7,955 2,4627 1,516 LX Pantos Mexico, S.A. DE C.V. 103,480					-	-
LX Pantos Vietnam Co., Ltd. 56.286 23,053 33,243 276,886 6,664 LX Pantos Austalia Pty Ltd. 4,281 1,603 2,678 17,292 323 Pr. Pantos Express Indonesia 78 192 (114) (72) (104) LX Pantos Netitics Myanama Co., Ltd. 1,700 143 1,557 782 31 Pantos Logistics Myanama Co., Ltd. 32,698 26,820 5,778 44,659 1,733 LX Pantos Netherlands B.V 71,536 54,576 16,960 115,003 2,949 LX Pantos Depland SP.Z.O.O 177,2951 100,006 72,945 62,1169 33,718 LX Pantos Spain Slu 13,256 6,881 6,375 45,129 1,219 LX Pantos Sueden AB (formerly, Pantos Logistics Sweden AB) 3,333 3,967 (634) 4,972 (13) LX Pantos Sueden AB (formerly, Pantos Logistics Sweden AB) 3,333 3,967 (634) 4,972 (13) LX Pantos Mungary KFT 5,279 2,837 2,442 24,622			-		-	
LX Pantos Australia Pty Ltd. 4.281 1,603 2,678 17,292 323 PT. Pantos Express Indonesia 78 192 (114) (72) (104) LX Pantos Holdings (Thailand) Co., Ltd. 1,700 143 1,557 782 31 Pantos Logistics Myanmar Co., Ltd. - - - - (14) LX Pantos Netherlands B.V 71,536 54,576 16,960 115,003 2,949 LX Pantos Netherlands B.V 71,536 54,576 16,960 115,003 2,949 LX Pantos Netherlands B.V 71,536 54,576 16,960 115,003 2,949 LX Pantos Syam Sutt 27,028 21,523 5,505 38,741 2,359 LX Pantos Syam Sutt 13,226 6,881 6,375 45,129 1,219 LX Pantos Nutrey Logistics Sweden AB 3,333 3,967 (634) 4,972 (13) LX Pantos Logistics Sweden AB 3,333 3,967 2,442 24,622 1,516 LX Pantos Logistics Sweden AB 3,333 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
PT. Pantos Express Indonesia 78 192 (114) (72) (104) LX Pantos Holdings (Thailand) Co., Ltd. 1,700 143 1,557 782 31 Pantos Logistics Myanmar Co., Ltd. 32,698 26,920 5,778 44,569 1,733 LX Pantos Netherlands B.V 71,536 54,576 16,960 150,003 2,949 LX Pantos Logistics France) 27,028 21,523 5,505 38,741 2,359 LX Pantos Soland SP.Z.O.O 172,951 100,006 72,945 621,169 33,718 LX Pantos Sturkey Logistic Vericaret Ltd. Sti. 7,364 2,897 4,467 42,044 4,228 LX Pantos Hungary KFT 5,279 2,837 2,442 24,622 1,516 LX Pantos Mexico, S.A. DE C.V. 103,480 77,955 25,525 488,793 7,574 LX Pantos Colgistica De Brasi Ltda 14,471 3,970 10,601 89,415 1,877 LX Pantos Logistica Co Insai Ltda 14,471 3,970 10,501 89,415 1,877		56,296	23,053		276,886	8,664
LX Pantos Holdings (Thailand) Co., Ltd. 1,700 143 1,557 762 31 Pantos Logistics Myanmar Co., Ltd. - - - - - - - (14) LX Pantos Netherlands B.V 71,536 54,576 16,960 115,003 2,949 LX Pantos Netherlands B.V 71,536 54,576 16,960 115,003 2,949 LX Pantos Logistics France S.A.R.L - 1 1 - - - - - - - - - - - - - - - - - - <td>,</td> <td></td> <td></td> <td></td> <td>-</td> <td></td>	,				-	
Pantos Logistics Myanmar Co., Ltd. - - - - (14) LX Pantos U.K. Ltd. 32,698 26,920 5,778 44,569 1,733 LX Pantos Netherlands B.V 71,536 54,576 16,960 115,003 2,949 LX Pantos Kenteriands B.V 71,526 5,505 38,741 2,359 LX Pantos Doland SP.Z.O.O 172,951 100,006 72,945 621,169 33,718 LX Pantos Spain Slu 13,256 6,881 6,375 45,129 1,219 LX Pantos Sueden AB (iormerly, Pantos Logistics Sweden AB) 3,333 3,967 (634) 4,972 (13) LX Pantos Swedon AB (iormerly, Pantos Logistics Cole Brasil Ltda 14,471 3,970 10,501 89,415 1,877 LX Pantos Colombia S.A.S 4,405 2,198 2,207 14,579 1,084 LX Pantos Logistics Cole Brasil Ltda 14,471 3,970 10,501 89,415 1,877 LX Pantos Logistics Cole Brasil Ltda 14,471 3,970 10,501 89,415 1,877				· · /		, ,
LX Pantos U.K. Ltd. 32,698 26,920 5,778 44,569 1,733 LX Pantos Netherlands B.V 71,536 54,576 16,960 115,003 2,949 LX Pantos France S.A.R.L (formerly, Pantos Logistics France) 27,028 21,523 5,505 38,741 2,359 LX Pantos Germany GmbH 27,979 16,301 11,678 67,131 30,089 LX Pantos Spain Slu 13,256 6,881 6,375 45,129 1,219 LX Pantos Sweden AB 7,364 2,897 2,4467 42,044 4,228 LX Pantos Logistics Sweden AB 3,333 3,967 (634) 4,972 (13) LX Pantos Logistica Do Brasil Ltda 14,471 3,970 10,501 88,415 1,877 LX Pantos Colombia S.A.S 4,405 2,198 2,207 14,579 1,084 LX Pantos Solucose Logistics Chile SpA) 2,880 2,532 348 8,837 594 LX Pantos Solucose Logistics Chile SpA) 2,880 2,532 348 8,618 (1,473) <tr< td=""><td>LX Pantos Holdings (Thailand) Co., Ltd.</td><td>1,700</td><td>143</td><td>1,557</td><td>782</td><td>31</td></tr<>	LX Pantos Holdings (Thailand) Co., Ltd.	1,700	143	1,557	782	31
LX Pantos Netherlands B.V 71,536 54,576 16,960 115,003 2,949 LX Pantos France S.A.R.L (formerly, Pantos Logistics France) 27,028 21,523 5,505 38,741 2,359 LX Pantos Poland S.P.Z.O.O 172,951 100,006 72,945 621,169 33,718 LX Pantos Spain Slu 13,256 6,881 6,375 45,129 1,219 LX Pantos Sweden AB 7,364 2,897 4,467 42,044 4,228 LX Pantos Logistics Sweden AB 7,364 2,897 6,634 4,972 (13) LX Pantos Hungary KFT 5,279 2,837 2,442 24,622 1,516 LX Pantos Logistica Do Brasil Ltda 14,471 3,970 10,501 89,415 1,877 LX Pantos Colombia S.A.S 4,405 2,198 2,207 14,579 1,084 LX Pantos Colombia S.A.S 4,405 2,188 3,015 18,203 1,282 Pantos Logistica AR S.A. 828 451 377 3,510 (134) LX Pantos S	Pantos Logistics Myanmar Co., Ltd.	-	-	-	-	(14)
LX Pantos France S.A.R.L (formerly, Pantos Logistics France) 27,028 21,523 5,505 38,741 2,359 LX Pantos Doland SP.Z.O.O 172,951 100,006 72,945 621,169 33,718 LX Pantos Spain Slu 13,256 6,881 6,375 45,129 1,219 LX Pantos Spain Slu 13,256 6,881 6,375 45,129 1,219 LX Pantos Sueden AB 7,364 2,897 4,467 42,044 4,228 LX Pantos Logistics Sweden AB 3,333 3,967 (634) 4,972 (13) LX Pantos Hungary KFT 5,279 2,837 2,442 24,622 1,516 LX Pantos Logistica Do Brasil Ltda 14,471 3,970 10,501 89,415 1,877 LX Pantos Colombia S.A.S 4,405 2,198 2,207 14,579 1,084 LX Pantos Logistics Chile SpA 6,889 3,868 3,015 18,203 1,282 Pantos Logistics AR S.A. 8,280 2,532 348 8,618 (1,034) LX Pantos Logistics Chile S	LX Pantos U.K. Ltd.	32,698	26,920	5,778	44,569	1,733
(formerly, Pantos Logistics France) 27,028 21,523 5,505 38,741 2,359 LX Pantos Poland SP.Z.O.O 172,951 100,006 72,945 621,169 33,718 LX Pantos Germany GmbH 27,979 16,301 11,678 67,131 3,089 LX Pantos Spain Slu 13,256 6,881 6,375 45,129 1,219 LX Pantos Sweden AB 7,364 2,897 4,467 42,044 4,228 LX Pantos Sweden AB 3,333 3,967 (634) 4,972 (13) LX Pantos Kungary KFT 5,279 2,837 2,442 24,622 1,516 LX Pantos Logistica Do Brasil Ltda 14,471 3,970 10,601 88,431 1,877 LX Pantos Colombia S.A.S 4,405 2,198 2,207 14,579 1,084 LX Pantos Solucoes Logistics Chile SpA 2,880 2,532 348 8,837 594 LX Pantos Colombia S.A.S 4,405 2,633 3,568 (935) 8,618 (1,034) LX Pantos Colgistics AR S.A.	LX Pantos Netherlands B.V	71,536	54,576	16,960	115,003	2,949
LX Pantos Poland SP.Z.O.O 172,951 100,006 72,945 621,169 33,718 LX Pantos Germany GmbH 27,979 16,301 11,678 67,131 3,089 LX Pantos Spain Slu 13,256 6,881 6,375 45,129 1,219 LX Pantos Sweden AB	LX Pantos France S.A.R.L					
LX Pantos Germany GmbH 27,979 16,301 11,678 67,131 3,089 LX Pantos Spain Slu 13,256 6,881 6,375 45,129 1,219 LX Pantos Sweden AB 7,364 2,897 4,467 42,044 4,228 LX Pantos Sweden AB 3,333 3,967 (634) 4,972 (13) LX Pantos Logistics Sweden AB 3,333 3,967 (634) 4,972 (13) LX Pantos Mexico, S.A. DE C.V. 103,480 77,955 25,525 488,793 7,574 LX Pantos Colombia S.A.S 4,405 2,198 2,207 14,579 1,084 LX Pantos Colombia S.A.S 4,405 2,198 2,207 14,579 1,084 LX Pantos Colombia S.A.S 4,405 2,198 3,015 18,203 1,262 Pantos Logistics Chile SpA 2,680 2,532 348 8,837 594 LX Pantos Solucoes Logistics Chile SpA 2,633 3,568 (935) 8,618 (1,034) LX Pantos Solucoes Logistics Chile SpA 2	(formerly, Pantos Logistics France)	27,028	21,523	5,505	38,741	2,359
LX Pantos Spain Siu 13,256 6,881 6,375 45,129 1,219 LX Pantos Turkey Lojistik Ve Ticaret Ltd. Sti. 7,364 2,897 4,467 42,044 4,228 LX Pantos Sweden AB (formerfy, Pantos Logistics Sweden AB) 3,333 3,967 (634) 4,972 (13) LX Pantos Hungary KFT 5,279 2,837 2,442 24,622 1,516 LX Pantos Logistico Do Brasil Ltda 14,471 3,970 10,501 89,415 1,877 LX Pantos Colombia S.A.S 4,405 2,198 2,207 14,579 1,084 LX Pantos Chile SpA (formerly, Pantos Logistics Chile SpA) 2,860 2,532 348 8,837 594 LX Pantos Solucose Logisticas Do Brasil Ltda 2,633 3,568 (935) 8,618 (1,034) LX Pantos USA, Inc. (formerly, Pantos USA, Inc.) 98,187 5,293 29,280 90,985 8,214 Pantos Logistics Ukaine Ltd - - - - - - IPIC TN LLC 28,190	LX Pantos Poland SP.Z.O.O	172,951	100,006	72,945	621,169	33,718
LX Pantos Turkey Lojistik Ve Ticaret Ltd. Sti. 7,364 2,897 4,467 42,044 4,228 LX Pantos Sweden AB	LX Pantos Germany GmbH	27,979	16,301	11,678	67,131	3,089
LX Pantos Sweden AB (formerly, Pantos Logistics Sweden AB) 3,333 3,967 (634) 4,972 (13) LX Pantos Hungary KFT 5,279 2,837 2,442 24,622 1,516 LX Pantos Mexico, S.A. DE C.V. 103,480 77,955 25,525 488,793 7,574 LX Pantos Logistica Do Brasil Ltda 14,471 3,970 10,501 89,415 1,877 LX Pantos Chile SpA (formerly, Pantos Logistics Chile SpA) 2,880 2,532 348 8,837 594 LX Pantos Solucos Logistics AR S.A. 6,899 3,884 3,015 18,203 1,282 Pantos Logistics AR S.A. 828 451 377 3,510 (134) LX Pantos USA, Inc. (formerly, Pantos USA, Inc.) 98,187 81,159 17,028 597,152 (4,173) LPIC TN LLC 27,990 26,100 1,890 1,483 341 FNS CIS LLC 34,573 5,293 29,280 90,985 8,214 Pantos Logistics Kazakhstan 19 1 18 (1) <t< td=""><td>LX Pantos Spain Slu</td><td>13,256</td><td>6,881</td><td>6,375</td><td>45,129</td><td>1,219</td></t<>	LX Pantos Spain Slu	13,256	6,881	6,375	45,129	1,219
(formerly, Pantos Logistics Sweden AB) 3,333 3,967 (634) 4,972 (13) LX Pantos Hungary KFT 5,279 2,837 2,442 24,622 1,516 LX Pantos Logistica Do Brasil Ltda 14,471 3,970 10,501 89,415 1,877 LX Pantos Colombia S.A.S 4,405 2,198 2,207 14,579 1,084 LX Pantos Chile SpA 6,899 3,884 3,015 18,203 1,282 Pantos Logistics Chile SpA 2,633 3,568 (935) 8,618 (1,034) LX Pantos Solucoes Logisticas Do 828 451 377 3,510 (134) LX Pantos USA, Inc. 2,633 3,568 (935) 8,618 (1,034) LX Pantos USA, Inc. 27,990 26,100 1,890 1,483 341 FNS CIS LLC 34,573 5,293 29,280 90,985 8,214 Pantos Logistics Kazakhstan 19 1 18 - - Pantos Logistics LLC (Dubai) 10,209 4,670	LX Pantos Turkey Lojistik Ve Ticaret Ltd. Sti.	7,364	2,897	4,467	42,044	4,228
LX Pantos Hungary KFT 5,279 2,837 2,442 24,622 1,516 LX Pantos Mexico, S.A. DE C.V. 103,480 77,955 25,525 488,793 7,574 LX Pantos Logistica Do Brasil Ltda 14,471 3,970 10,501 89,415 1,877 LX Pantos Colombia S.A.S 4,405 2,198 2,207 14,579 1,084 LX Pantos Colombia S.A.S 4,405 2,198 2,207 14,579 1,084 LX Pantos Colombia S.A.S 4,405 2,188 2,007 14,579 1,084 LX Pantos Logistics Chile SpA 6,899 3,884 3,015 18,203 1,282 Pantos Logistics AR S.A. 828 451 377 3,510 (134) LX Pantos Solucoes Logisticas Do Brasil Ltda. 2,633 3,568 (935) 8,618 (1,034) LX Pantos USA, Inc. (formerly, Pantos USA, Inc.) 98,187 81,159 17,028 597,152 (4,173) LPIC TN LLC 27,990 26,100 1,890 1,483 341 <tr< td=""><td>LX Pantos Sweden AB</td><td></td><td></td><td></td><td></td><td></td></tr<>	LX Pantos Sweden AB					
LX Pantos Mexico, S.A. DE C.V. 103,480 77,955 25,525 488,793 7,574 LX Pantos Logistica Do Brasil Ltda 14,471 3,970 10,501 89,415 1,877 LX Pantos Colombia S.A.S 4,405 2,198 2,207 14,579 1,084 LX Pantos Colombia S.A.S 4,405 2,198 2,207 14,579 1,084 LX Pantos Logistics Chile SpA (formerly, Pantos Logistics AR S.A. 6,899 3,884 3,015 18,203 1,282 Pantos Logistics AR S.A. 828 451 377 3,510 (134) LX Pantos Solucoes Logisticas Do Brasil Ltda. 2,633 3,568 (935) 8,618 (1,034) LX Pantos USA, Inc. 98,187 81,159 17,028 597,152 (4,173) LPIC TN LLC 27,990 26,100 1,890 1,483 341 PNS CIS LLC 34,573 5,293 29,280 90,985 8,214 Pantos Logistics Kazakhstan 19 1 18 - (1) Pantos Logistics L.L.C (Dubai) 10,209 4,670 5,539 34,842 <	(formerly, Pantos Logistics Sweden AB)	3,333	3,967	(634)	4,972	(13)
LX Pantos Logistica Do Brasil Ltda 14,471 3,970 10,501 89,415 1,877 LX Pantos Colombia S.A.S 4,405 2,198 2,207 14,579 1,084 LX Pantos Chile SpA 6,899 3,884 3,015 18,203 1,282 Pantos Logistics AR S.A. 6,899 3,864 3,015 18,203 1,282 Pantos Logistics AR S.A. 828 451 377 3,510 (134) LX Pantos Solucoes Logisticas Do Brasil Ltda. 2,633 3,568 (935) 8,618 (1,034) LX Pantos USA, Inc. (formerly, Pantos USA, Inc.) 98,187 81,159 17,028 597,152 (4,173) LPIC TN LLC 27,990 26,100 1,890 1,483 341 FNS CIS LLC 34,573 5,293 29,280 90,985 8,214 Pantos Logistics Kazakhstan 19 1 18 - (1) Pantos Logistics LL.C (Dubai) 10,209 4,670 5,539 34,842 2,738 LX Pantos Arabia Co., Ltd. 28,180 17,171 11,009 143,871 4,153	LX Pantos Hungary KFT	5,279	2,837	2,442	24,622	1,516
LX Pantos Colombia S.A.S 4,405 2,198 2,207 14,579 1,084 LX Pantos Chile SpA (formerly, Pantos Logistics Chile SpA) 2,880 2,532 348 8,837 594 LX Pantos Panama S.A. 6,899 3,884 3,015 18,203 1,282 Pantos Logistics AR S.A. 828 451 377 3,510 (134) LX Pantos Solucoes Logisticas Do Brasil Ltda. 2,633 3,568 (935) 8,618 (1,034) LX Pantos USA, Inc. (formerly, Pantos USA, Inc.) 98,187 81,159 17,028 597,152 (4,173) LPIC TN LLC 27,990 26,100 1,890 1,483 341 FNS CIS LLC 34,573 5,293 29,280 90,985 8,214 Pantos Logistics Kazakhstan 19 1 18 - (1) Pantos Logistics Ukraine Ltd - - - - - Pantos Logistics Co., Ltd. (formerly, Pantos LX Pantos Arabia Co., Ltd. (formerly, Pantos 2,738 XPantos Arabia Co., Ltd. 2,738 LX Pantos Logistics China) Co., Ltd. 24,922 11,977 <td>LX Pantos Mexico, S.A. DE C.V.</td> <td>103,480</td> <td>77,955</td> <td>25,525</td> <td>488,793</td> <td>7,574</td>	LX Pantos Mexico, S.A. DE C.V.	103,480	77,955	25,525	488,793	7,574
LX Pantos Chile SpA (formerly, Pantos Logistics Chile SpA) 2,880 2,532 348 8,837 594 LX Pantos Panama S.A. 6,899 3,884 3,015 18,203 1,282 Pantos Logistics AR S.A. 828 451 377 3,510 (134) LX Pantos Solucoes Logisticas Do Brasil Ltda. 2,633 3,568 (935) 8,618 (1,034) LX Pantos USA, Inc. (formerly, Pantos USA, Inc.) 98,187 81,159 17,028 597,152 (4,173) LPIC TN LLC 27,990 26,100 1,890 1,483 341 FNS CIS LLC 34,573 5,293 29,280 90,985 8,214 Pantos Logistics Kazakhstan 19 1 18 (1) Pantos Logistics LL.C (Dubai) 10,209 4,670 5,539 34,842 2,738 LX Pantos Japan Inc. 28,180 17,171 11,009 143,871 4,153 LX Pantos Solutions India Private Limited 10,526 7,475 3,051 90,449 181 LX Pantos Solutions India Private Limited 10,526 7,475 3,051 90,449 181 </td <td>LX Pantos Logistica Do Brasil Ltda</td> <td>14,471</td> <td>3,970</td> <td>10,501</td> <td>89,415</td> <td>1,877</td>	LX Pantos Logistica Do Brasil Ltda	14,471	3,970	10,501	89,415	1,877
(formerly, Pantos Logistics Chile SpA)2,8802,5323488,837594LX Pantos Panama S.A.6,8993,8843,01518,2031,282Pantos Logistics AR S.A.8284513773,510(134)LX Pantos Solucoes Logisticas DoBrasil Ltda.2,6333,568(935)8,618(1,034)LX Pantos USA, Inc.(formerly, Pantos USA, Inc.)98,18781,15917,028597,152(4,173)LPIC TN LLC27,99026,1001,8901,483341FNS CIS LLC34,5735,29329,28090,9858,214Pantos Logistics Kazakhstan19118-(1)Pantos Logistics Ukraine LtdPantos Logistics Co., LTO. Saudi Arabia)3,4071,2592,14811,744416LX Pantos Japan Inc.28,18017,17111,009143,8714,153LX Pantos Solutions India Private Limited10,5267,4753,05190,449181LX Pantos Solutions India Private Limited10,5267,4753,05190,449181 <t< td=""><td>LX Pantos Colombia S.A.S</td><td>4,405</td><td>2,198</td><td>2,207</td><td>14,579</td><td>1,084</td></t<>	LX Pantos Colombia S.A.S	4,405	2,198	2,207	14,579	1,084
LX Pantos Panama S.A. 6,899 3,884 3,015 18,203 1,282 Pantos Logistics AR S.A. 828 451 377 3,510 (134) LX Pantos Solucoes Logisticas Do Brasil Ltda. 2,633 3,568 (935) 8,618 (1,034) LX Pantos USA, Inc. 98,187 81,159 17,028 597,152 (4,173) LPIC TN LLC 27,990 26,100 1,890 1,483 341 FNS CIS LLC 34,573 5,293 29,280 90,985 8,214 Pantos Logistics Kazakhstan 19 1 18 - (1) Pantos Logistics L.L.C (Dubai) 10,209 4,670 5,539 34,842 2,738 LX Pantos Arabia Co., Ltd. (formerly, Pantos 3,407 1,259 2,148 11,744 416 LX Pantos Logistics (C., LTD. Saudi Arabia) 3,407 1,259 2,148 11,744 416 LX Pantos Logistics (Beiging) Co., Ltd. (formerly, Hi Logistics (China) Co., Ltd.) 24,922 11,977 12,945 76,039 1,847 LX Pantos Solutions India Private Limited 10,526 7,475 3,051 <td>LX Pantos Chile SpA</td> <td></td> <td></td> <td></td> <td></td> <td></td>	LX Pantos Chile SpA					
Pantos Logistics AR S.A. 828 451 377 3,510 (134) LX Pantos Solucoes Logisticas Do Brasil Ltda. 2,633 3,568 (935) 8,618 (1,034) LX Pantos USA, Inc. (formerly, Pantos USA, Inc.) 98,187 81,159 17,028 597,152 (4,173) LPIC TN LLC 27,990 26,100 1,890 1,483 341 PNS CIS LLC 34,573 5,293 29,280 90,985 8,214 Pantos Logistics Kazakhstan 19 1 18 - (1) Pantos Logistics LL.C (Dubai) 10,209 4,670 5,539 34,842 2,738 LX Pantos Arabia Co., Ltd. (formerly, Pantos 3,407 1,259 2,148 11,744 416 LX Pantos Logistics (Deiging) Co., Ltd. 24,922 11,977 12,945 76,039 1,847 LX Pantos Solutions India Private Limited 10,526 7,475 3,051 90,449 181 LX Pantos America, Inc. 69,064 16,925 52,139 175,306 6,311	(formerly, Pantos Logistics Chile SpA)	2,880	2,532	348	8,837	594
LX Pantos Solucoes Logisticas Do Brasil Ltda. 2,633 3,568 (935) 8,618 (1,034) LX Pantos USA, Inc. (formerly, Pantos USA, Inc.) 98,187 81,159 17,028 597,152 (4,173) LPIC TN LLC 27,990 26,100 1,890 1,483 341 FNS CIS LLC 34,573 5,293 29,280 90,985 8,214 Pantos Logistics Kazakhstan 19 1 18 - (1) Pantos Logistics Ukraine Ltd - - - - - Pantos Logistics L.L.C (Dubai) 10,209 4,670 5,539 34,842 2,738 LX Pantos Arabia Co., Ltd. (formerly, Pantos -	LX Pantos Panama S.A.	6,899	3,884	3,015	18,203	1,282
Brasil Ltda. 2,633 3,568 (935) 8,618 (1,034) LX Pantos USA, Inc. 98,187 81,159 17,028 597,152 (4,173) LPIC TN LLC 27,990 26,100 1,890 1,483 341 FNS CIS LLC 34,573 5,293 29,280 90,985 8,214 Pantos Logistics Kazakhstan 19 1 18 - (1) Pantos Logistics L.L.C (Dubai) 10,209 4,670 5,539 34,842 2,738 LX Pantos Japan Inc. 28,180 17,171 11,009 143,871 4,153 LX Pantos Solutions India Private Limited 10,526 7,475 3,051 90,449 181 LX Pantos America, Inc. 69,064 16,925 52,139 175,306 6,311 Hi Logistics Egypt S.A.E 6,424 2,067 4,359 23,418 2,971	Pantos Logistics AR S.A.	828	451	377	3,510	(134)
LX Pantos USA, Inc. 98,187 81,159 17,028 597,152 (4,173) LPIC TN LLC 27,990 26,100 1,890 1,483 341 FNS CIS LLC 34,573 5,293 29,280 90,985 8,214 Pantos Logistics Kazakhstan 19 1 18 - (1) Pantos Logistics Ukraine Ltd - - - - - Pantos Logistics L.L.C (Dubai) 10,209 4,670 5,539 34,842 2,738 LX Pantos Japan Inc. LX Pantos Logistics (Geiging) Co., Ltd. 28,180 17,171 11,009 143,871 4,153 LX Pantos Solutions India Private Limited 10,526 7,475 3,051 90,449 181 LX Pantos America, Inc. 69,064 16,925 52,139 175,306 6,311 Hi Logistics Egypt S.A.E 6,424 2,067 4,359 23,418 2,971	LX Pantos Solucoes Logisticas Do					
(formerly, Pantos USA, Inc.)98,18781,15917,028597,152(4,173)LPIC TN LLC27,99026,1001,8901,483341FNS CIS LLC34,5735,29329,28090,9858,214Pantos Logistics Kazakhstan19118-(1)Pantos Logistics Ukraine LtdPantos Logistics L.L.C (Dubai)10,2094,6705,53934,8422,738LX Pantos Arabia Co., Ltd. (formerly, PantosLogistics Co., LTD. Saudi Arabia)3,4071,2592,14811,744416LX Pantos Logistics (Beiging) Co., Ltd.24,92211,97712,94576,0391,847(formerly, Hi Logistics (China) Co., Ltd.)24,92211,97712,94576,0391,847LX Pantos Solutions India Private Limited10,5267,4753,05190,449181LX Pantos America, Inc.69,06416,92552,139175,3066,311Hi Logistics Egypt S.A.E6,4242,0674,35923,4182,971	Brasil Ltda.	2,633	3,568	(935)	8,618	(1,034)
LPIC TN LLC 27,990 26,100 1,890 1,483 341 FNS CIS LLC 34,573 5,293 29,280 90,985 8,214 Pantos Logistics Kazakhstan 19 1 18 - (1) Pantos Logistics Ukraine Ltd - - - - - Pantos Logistics L.L.C (Dubai) 10,209 4,670 5,539 34,842 2,738 LX Pantos Arabia Co., Ltd. (formerly, Pantos 10,209 4,670 5,539 34,842 2,738 LX Pantos Japan Inc. 10,209 4,670 1,259 2,148 11,744 416 LX Pantos Japan Inc. 28,180 17,171 11,009 143,871 4,153 LX Pantos Logistics (China) Co., Ltd. 24,922 11,977 12,945 76,039 1,847 LX Pantos Solutions India Private Limited 10,526 7,475 3,051 90,449 181 LX Pantos America, Inc. 69,064 16,925 52,139 175,306 6,311 Hi Logistics Egypt S.A.E 6,424 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
FNS CIS LLC 34,573 5,293 29,280 90,985 8,214 Pantos Logistics Kazakhstan 19 1 18 - (1) Pantos Logistics Ukraine Ltd -						
Pantos Logistics Kazakhstan 19 1 18 - (1) Pantos Logistics Ukraine Ltd -						
Pantos Logistics Ukraine Ltd - <th< td=""><td></td><td></td><td>5,293</td><td>29,280</td><td>90,985</td><td>8,214</td></th<>			5,293	29,280	90,985	8,214
Pantos Logistics L.L.C (Dubai) 10,209 4,670 5,539 34,842 2,738 LX Pantos Arabia Co., Ltd. (formerly, Pantos Logistics Co., LTD. Saudi Arabia) 3,407 1,259 2,148 11,744 416 LX Pantos Japan Inc. 28,180 17,171 11,009 143,871 4,153 LX Pantos Logistics (Beiging) Co., Ltd. 76,039 1,847 (formerly, Hi Logistics (China) Co., Ltd.) 24,922 11,977 12,945 76,039 1,847 LX Pantos Solutions India Private Limited 10,526 7,475 3,051 90,449 181 LX Pantos America, Inc. 69,064 16,925 52,139 175,306 6,311 Hi Logistics Egypt S.A.E 6,424 2,067 4,359 23,418 2,971	Pantos Logistics Kazakhstan	19	1	18	-	(1)
LX Pantos Arabia Co., Ltd. (formerly, Pantos 3,407 1,259 2,148 11,744 416 LX Pantos Japan Inc. 28,180 17,171 11,009 143,871 4,153 LX Pantos Logistics (Beiging) Co., Ltd. (formerly, Hi Logistics (China) Co., Ltd.) 24,922 11,977 12,945 76,039 1,847 LX Pantos Solutions India Private Limited 10,526 7,475 3,051 90,449 181 LX Pantos America, Inc. 69,064 16,925 52,139 175,306 6,311 Hi Logistics Egypt S.A.E 6,424 2,067 4,359 23,418 2,971	Pantos Logistics Ukraine Ltd	-	-	-	-	-
Logistics Co., LTD. Saudi Arabia) 3,407 1,259 2,148 11,744 416 LX Pantos Japan Inc. 28,180 17,171 11,009 143,871 4,153 LX Pantos Logistics (Beiging) Co., Ltd. 10,526 7,475 3,051 90,449 181 LX Pantos Solutions India Private Limited 10,526 7,475 3,051 90,449 6,311 LX Pantos America, Inc. 69,064 16,925 52,139 175,306 6,311 Hi Logistics Egypt S.A.E 6,424 2,067 4,359 23,418 2,971	Pantos Logistics L.L.C (Dubai)	10,209	4,670	5,539	34,842	2,738
LX Pantos Japan Inc. 28,180 17,171 11,009 143,871 4,153 LX Pantos Logistics (Beiging) Co., Ltd. 11,977 12,945 76,039 1,847 (formerly, Hi Logistics (China) Co., Ltd.) 24,922 11,977 12,945 76,039 1,847 LX Pantos Solutions India Private Limited 10,526 7,475 3,051 90,449 181 LX Pantos America, Inc. 69,064 16,925 52,139 175,306 6,311 Hi Logistics Egypt S.A.E 6,424 2,067 4,359 23,418 2,971	LX Pantos Arabia Co., Ltd. (formerly, Pantos					
LX Pantos Logistics (Beiging) Co., Ltd. (formerly, Hi Logistics (China) Co., Ltd.)24,92211,97712,94576,0391,847LX Pantos Solutions India Private Limited10,5267,4753,05190,449181LX Pantos America, Inc.69,06416,92552,139175,3066,311Hi Logistics Egypt S.A.E6,4242,0674,35923,4182,971	Logistics Co., LTD. Saudi Arabia)	3,407	1,259	2,148	11,744	416
(formerly, Hi Logistics (China) Co., Ltd.)24,92211,97712,94576,0391,847LX Pantos Solutions India Private Limited10,5267,4753,05190,449181LX Pantos America, Inc.69,06416,92552,139175,3066,311Hi Logistics Egypt S.A.E6,4242,0674,35923,4182,971	LX Pantos Japan Inc.	28,180	17,171	11,009	143,871	4,153
LX Pantos Solutions India Private Limited 10,526 7,475 3,051 90,449 181 LX Pantos America, Inc. 69,064 16,925 52,139 175,306 6,311 Hi Logistics Egypt S.A.E 6,424 2,067 4,359 23,418 2,971						
LX Pantos America, Inc. 69,064 16,925 52,139 175,306 6,311 Hi Logistics Egypt S.A.E 6,424 2,067 4,359 23,418 2,971	(formerly, Hi Logistics (China) Co., Ltd.)	24,922	11,977	12,945	76,039	1,847
Hi Logistics Egypt S.A.E 6,424 2,067 4,359 23,418 2,971	LX Pantos Solutions India Private Limited	10,526	7,475	3,051	90,449	181
	LX Pantos America, Inc.	69,064	16,925	52,139	175,306	6,311
₩ <u>7,804,212</u> ₩ <u>3,900,892</u> ₩ <u>3,183,320</u> ₩ <u>19,632,414</u> ₩ 843,571	Hi Logistics Egypt S.A.E	6,424	2,067	4,359	23,418	2,971
		₩ 7,804,212 ₩	3,900,892 ₩	3,183 <u>,320</u> ₩	19,632,414 ₩	843,571

			2021		
	Assets	Liabilities	Equity	Revenue	Profit (loss) for the year
LX International (America) Inc. (formerly, LG International (America) Inc.)	402,590 ₩	359,217 ₩	43,373 ₩	1,711,415 ₩	3,467
LHC Solar LLC	3,475	967	2,508	316	11
LX International (Japan) Ltd. (formerly, LG International (Japan) Ltd.)	100,047	95,878	4,169	482,779	63
LX International (HK) Ltd. (formerly, LG International (Hong Kong) Ltd.)	111,314	101,232	10,082	572,449	866
LX International (Singapore) Pte. Ltd. (formerly, LG International (Singapore) Pte. Ltd.)	639,236	620,008	19,228	3,786,013	5,724
LX International (Deutschland) GmbH (formerly, LG International (Deutschland)		0.077		10.051	
GmbH)	12,580	2,377	10,203	18,251	554
LX International (Shanghai) Corp. (formerly, LG International (China) Ltd.) (*1 Yantai VMI Hub LX International Co., Ltd. (formerly, Yantai VMI Hub LG International	12,165	3,838	8,327	15,920	369
Co., Ltd.)	6,820	1,552	5,268	3,308	753
Bowen Investment (Australia) Pty Ltd.	121,232	104,781	16,451	88,299	8,082
PT. Batubara Global Energy (BGE)	269,065	209,016	60,049	676,701	10,120
PT. Megaprima Persada (MPP)	16,116	24,196	(8,080)	5,202	(8,855)
PT. Mega Global Energy (MGE)	2,935	988	1,947	5,202	(1,282)
PT. Ganda Alam Makmur (GAM)	670,633	269,010	401,623	501,210	153,200
LX International (India) Ltd. (formerly, LG International (India) Ltd.)	3,250	1,412	1,838	802	(24)
PT. Green Global Lestari (GGL)	157,949	30,657	127,292		(<u>2</u> 4) 871
PT. Parna Agromas (PAM)	90,166	39,924	50,242	64,128	9,229
PT. Grand Utama Mandiri (GUM)	61,794	24,787	37,007	26,799	5,060
	-			-	
PT. Tintin Boyok Sawit Makmur (TBSM) PT. Tintin Boyok Sawit Makmur Dua (TBSMD)	45,614 12,234	17,086 1,725	28,528 10,509	56,910 5,860	3,993 2,046
PT. Green Global Utama (GGU)	154,565	145,553	9,012	449,142	2,163
PT. LX International Indonesia (LXII) (formerly, LG International Indonesia		110,000		110,112	
(LGII)) (*1)	9,207	14,237	(5,030)	5,697	(5,600)
PT. Binsar Natorang Energi (BNE)	255,293	159,174	96,119	24,936	6,901
PT. Energy Metal Indonesia (EMI)	13,208	12,182	1,026	7,569	188
PT. Global Investment institusi (GII)	9,542	2,503	7,039	1,569	(678)
PT. Satu Gen Indonesia (SGI) Steel Flower Electric & Machinary (Tianjin)	2,177	24	2,153	-	(342)
Co., Ltd.	44,617	8,960	35,657	105,016	3,745
Philco Resources Ltd. (Rapu-Rapu) Resource Investment (HongKong) Ltd.	597	439	158	-	(55)
(Xinzhen)	131,915	8	131,907	-	65,684
LX International Yakutsk Ltd. (formerly, LG International Yakutsk Ltd.) Korea Carbon International Co., Ltd.	6,501	13,793	(7,292)	1,066	(416)
(Shaanxi BBM)	8,615	8,615	-	-	-
Colmineral, S.A. de.C.V.	3	-	3	-	-
Fertilizer Resources Investment Ltd.	160,660	-	160,660	-	18,684
Dangjin Tank Terminal Co., Ltd.	91,578	712	90,866	-	(2,470)
Haiphong Steel Flower Electrical & Machinery Company Limited	36,552	29,464	7,088	47,031	2,052
LX Pantos Logistics Co., Ltd. (formerly, Pantos Logistics Co., Ltd.)	1,468,001	815,519	652,482	4,486,440	142,479
Pantos Busan Newport Logistics Center	12.000	2 000	10.000	44.070	000
Co., Ltd.	13,906	2,980	10,926	14,976	666
Helistar Air Co., Ltd.	20,051	15,804	4,247	132,552	2,581
Hanultari Co., Ltd.	392	255	137	818	6

			2021		
	Assets	Liabilities	Equity	Revenue	Profit (loss) for the year
Pantos Logistics (China) Co., Ltd.	∀ 212,246 ₩	164,558 ₩	47,688 ₩	786,792 ₩	16,585
Pantos Logistics (Shanghai) Co., Ltd.	119,740	87,763	31,977	381,744	8,885
Pantos Logistics (Ningbo) Co., Ltd. LX Pantos Logistics (Shenzhen) Co., Ltd. (formerly, Pantos Logistics (Shenzhen)	1,887	44	1,843	615	59
Co., Ltd.	57,370	32,454	24,916	235,030	6,877
Pantos Logistics (H.K) Co., Ltd.	71,799	22,697	49,102	134,351	6,263
Pantos Logistics (Taiwan) Co., Ltd. PT. LX Pantos Logistics Indonesia	10,675	7,202	3,473	33,883	767
(formerly, Pantos Logistics Indonesia) PT. Pantos Logistics Jakarta (formerly,	53,112	40,844	12,268	172,770	5,811
Pantos Logistics Jakarta) LX Pantos Singapore Pte. Ltd. (formerly,	14,959	8,847	6,112	15,350	(505)
Pantos Logistics Sngapore Pte. Ltd.) LX Pantos (Thailand) Co., Ltd. (formerly,	14,871	7,281	7,590	28,017	1,807
Pantos Logistics (Thailand) Co., Ltd.) LX Pantos Malaysia Sdn. Bhd. (formerly,	36,713	23,515	13,198	137,618	1,365
Pantos Logistics Malaysia Sdn. Bhd.) LX Pantos (India) Pvt. Ltd. (formerly,	19,080	14,934	4,146	49,686	1,940
Pantos Logistics (India) Pvt. Ltd. LX Pantos (Cambodia) Co., Ltd. (formerly,	23,224	22,135	1,089	66,721	(2,711)
Pantos Logistics (Cambodia) Co., Ltd.) LX Pantos Vietnam Co., Ltd. (formerly,	1,902	1,536	366	5,716	148
Pantos Logistics Vietnam Co., Ltd.) LX Pantos Australia Pty Ltd. (formerly,	60,129	36,069	24,060	279,942	11,056
Pantos Logistics Australia Pty Ltd.) LX Pantos Holdings (Thailand) Co., Ltd. (formerly, Pantos Holdings (Thailand) Co.,	5,136	2,766	2,370	14,268	543
Ltd.)	1,657	176	1,481	717	18
Pantos Logistics Myanmar Co., Ltd.	68	54	14	-	(21)
LX Pantos U.K. Ltd. (formerly, Pantos Logistics U.K. Ltd.)	13,602	9,291	4,311	38,556	1,293
LX Pantos Netherlands B.V (formerly, Pantos Logistics Benelux B.V)	58,230	42,464	15,766	94,308	2,185
Pantos Logistics France	28,435	25,299	3,136	36,299	1,057
LX Pantos Poland SP.Z.O.O (formerly, Pantos Logistics Poland)	160,624	110,694	49,930	581,883	28,774
LX Pantos Germany GmbH (formerly, Pantos Logistics Germany GmbH)	21,024	9,416	11,608	64,192	3,190
LX Pantos Spain Slu (formerly, Pantos Logistics Spain S.L.)	13,499	7,296	6,203	38,344	1,415
LX Pantos Turkey Lojistik Ve Ticaret Ltd. Sti. (formerly, Pantos Logistics Ve					
Tic.Lgd.Sti)	6,484	3,060	3,424	20,966	3,583
Pantos Logistics Sweden AB	2,816	3,489	(673)	5,208	170
LX Pantos Mexico, S.A. DE C.V. (formerly, Pantos Logistics Mexico)	107,266	85,694	21,572	390,067	5,187
LX Pantos Logistics Mexico) (formerly, Pantos Do Brasil Logistica)	12,230	4,504	7,726	66,646	3,421
LX Pantos Colombia S.A.S (formerly,	12,200	4,004	1,120	00,040	0,121
Pantos Logistics Colombia SAS)	5,760	2,960	2,800	13,183	1,214
Pantos Logistics Chile SpA	4,367	3,380	987	11,461	1,211
LX Pantos Panama S.A. (formerly, Pantos					
Logistics Panama S.A.)	7,427	4,660	2,767	13,312	1,828
Pantos Logistics AR S.A. LX Pantos Solucoes Logisticas Do Brasil	1,074	314	760	2,378	68
Ltda. (formerly, Hi Logistics Brasil Servicos De Logistica LTDA)	2,573	2,525	48	6,069	(894)
FNS CIS LLC	50,229	28,832	21,397	123,506	9,339
Pantos Logistics Kazakhstan	25	6	19	472	(93)
Pantos Logistics Ukraine Ltd	-	-	-	-	-

				2021		
		Assets	Liabilities	Equity	Revenue	Profit (loss) for the year
Pantos Logistics L.L.C (Dubai)	₩	8,695 ₩	5,237 ₩	3,458 ₩	25,238 ₩	1,042
Pantos Logistics Co., LTD. Saudi Arabia		2,901	1,270	1,631	7,002	538
LX Pantos Japan Inc. (formerly, Pantos Logistics Japan Inc,)		28,919	19,230	9,689	100,711	2,618
Hi Logistics (China) Co., Ltd.		28,612	17,119	11,493	81,434	1,348
LX Pantos Solutions India Private Limited (formerly, Pantos Logistic Solutions India Private Limited)		11,618	8,619	2,999	76,342	249
Hi Logistics Egypt S.A.E		4,879	1,750	3,129	13,006	855
Pantos North America, INC. (formerly, Pantos North America, INC.) Pantos Logistics Hungary KFT. (formerly,		38,335	15,865	22,470	130,112	4,112
Pantos Logistics Hungary KTF.)		3,715	2,671	1,044	14,474	593
Onecube International Logistics Co., Ltd.		2,898	1,176	1,722	4,263	(477)
PT. Pantos Express Indonesia		215	232	(17)	510	(193)
	₩	6,497,615 ₩	4,028,801 ₩	2,468,814 ₩	17,596,336 ₩	562,355

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

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

	2022			
	Profit attributable to non-controlling interests	Non-controlling interests	Dividends distributed to non-controlling interests	
PT. Megaprima Persada (MPP)	₩ (542)	₩ (2,518)	₩ -	
PT. Ganda Alam Makmur (GAM)	123,442	241,052	49,248	
PT. Binsar Natorang Energi (BNE) LX Pantos Logistics Co., Ltd.	376	5,709	517	
and its subsidiaries	141,593	523,616	39,249	
	2021			
	Profit attributable to non-controlling interests	Non-controlling interests	Dividends distributed to non-controlling interests	
PT. Megaprima Persada (MPP)	₩ (2,214)	₩ (2,020)	₩ -	
PT. Ganda Alam Makmur (GAM)	59,998	159,174	-	
PT. Binsar Natorang Energi (BNE) LX Pantos Logistics Co., Ltd.	345	4,806	-	
and its subsidiaries	131,513	440,859	17,395	

2. Significant accounting policies and basis of financial statements preparation

2.1 Basis of preparation

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

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

2.2 Basis of consolidation

The consolidated financial statements comprise the consolidated financial statements of the Group as of December 31, 2022. Control is achieved when the Group is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee. Specifically, the Group controls an investee if, and only if, the Group has:

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

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

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

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

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

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

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

2.3 Summary of significant accounting policies

2.3.1 Business combinations and goodwill

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

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

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

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

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

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

2.3.2 Current versus non-current classification

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

An asset is current when it is:

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

All other assets are classified as non-current.

A liability is current when:

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

The Group classifies all other liabilities as non-current.

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

2.3.3 Cash and cash equivalents

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

2.3.4 Inventories

Inventories are valued at the lower of cost and net realizable value. 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.

2.3.5 Financial instruments – initial recognition and subsequent measurement

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

2.3.5.1 Financial assets

2.3.5.1.1 Initial recognition and measurement

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

In order for a financial asset to be classified and measured at 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.

2.3.5.1.1 Initial recognition and measurement (cont'd)

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

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

2.3.5.1.2 Subsequent measurement

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

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

- the financial asset is held within a business model with the objective of both holding to collect contractual cash flows and selling; 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 Group's debt instruments at fair value through OCI includes investments in quoted debt instruments included under other non-current financial assets.

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

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

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

2.3.5.1.2 Subsequent measurement (cont'd)

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

Financial assets at fair value through profit or loss

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

Notwithstanding the criteria for debt instruments to be classified at 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.

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

A derivative embedded in a hybrid contract, with a financial liability or non-financial host, is separated from the host and accounted for as a separate derivative if: the economic characteristics and risks are not closely related to the host; a separate instrument with the same terms as the embedded derivative would meet the definition of a derivative; and the hybrid contract is not measured at fair value through profit or loss. Embedded derivatives are measured at fair value with changes in fair value 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.

2.3.5.1.3 Derecognition of financial assets

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

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

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

2.3.5.2 Impairment of financial assets

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

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

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

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

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

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

2.3.5.3 Financial liabilities

2.3.5.3.1 Initial recognition and measurement

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

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

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

2.3.5.3.2 Subsequent measurement

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

Financial liabilities at fair value through profit or loss

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

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

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

Borrowings

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

2.3.5.3.3 Derecognition of financial liabilities

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

2.3.5.4 Offsetting of financial instruments

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

2.3.6 Derivative financial instruments and hedge accounting

2.3.6.1 Initial recognition and subsequent measurement

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

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

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

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

2.3.6.1 Initial recognition and subsequent measurement (cont'd)

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

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

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

Fair value hedges

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

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

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

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

Cash flow hedges

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

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

The Group 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.

2.3.6.1 Initial recognition and subsequent measurement (cont'd)

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

Hedges of a net investment in a foreign operation

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

2.3.7 Investment in associates and joint venture

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

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

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

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

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

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

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

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

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

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

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

A disposal group qualifies as discontinued operation if it is:

- > a component of the group that is a CGU or a group of CGUs;
- > classified as held for sale or distribution or already disposed in such a way; or
- > a major line of business or major geographical area.

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

2.3.9 Property, plant and equipment

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

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

	Useful lives	Depreciation method
Buildings	8 ~ 40	Straight-line method
Structures	8 ~ 50	"
Machinery	3 ~ 30	66
Vehicles	5 ~ 12	66
Bearer plants	20	44
Others	3 ~ 10	**

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

2.3.9 Property, plant and equipment (cont'd)

The Group reviews the estimated residual values and expected useful lives of assets annually. In particular, the Group 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 methods of depreciation are reviewed at each financial year end, and adjusted prospectively, if appropriate.

2.3.10 Leases

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

Group as a lessee

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

2.3.10.1 Right-of-use assets

The Group recognized 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	Depreciation method
Land	30 ~ 48	Straight-line method
Buildings	1 ~ 30	"
Vehicles	1 ~ 5	66
Others	2 ~ 4	66

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

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

2.3.10.2 Lease liabilities

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

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

2.3.10.2 Lease liabilities (cont'd)

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

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

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

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

2.3.11 Borrowing costs

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

2.3.12 Investment properties

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

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

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

2.3.13 Intangible assets

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

2.3.13 Intangible assets (cont'd)

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

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

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

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

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

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

2.3.14 Biological assets

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

2.3.15 Pensions benefits and other post-employment benefits

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

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

- > the date of the plan amendment or curtailment; and
- > the date that the Group recognizes restructuring-related costs.

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

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

2.3.16 Provisions

Provisions are recognized when the Group has a present obligation (legal or constructive) as a result of a past event, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation. Where the Group expects some or all of a provision to be reimbursed, the reimbursement is recognized as a separate asset but only when the reimbursement is virtually certain. The expense relating to any provision is presented in the statement of profit or loss, net of any reimbursement.

2.3.17 Onerous contracts

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

2.3.18 Treasury shares

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

2.3.19 Revenue from contracts with customers

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

2.3.19.1 Sales of goods

Revenue from sales of goods is 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 Group considers whether there are other promises in the contract that are separate performance obligations to which a portion of the transaction price needs to be allocated. The Group takes into consideration whether it is principal or agency relating to the performance obligations when determining the transaction price of sales of goods.

2.3.19.2 Principal versus agent consideration

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

2.3.19.3 Contract balance

Trade receivables

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

Contract liabilities

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

2.3.20 Foreign currency translation

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

2.3.20.1 Transactions and balances

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

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

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

2.3.20.2 Translation of foreign operations

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

Any goodwill arising on the acquisition of a foreign operation and any fair value adjustments to the carrying amounts of assets and liabilities arising on the acquisition are treated as assets and liabilities of the foreign operations and translated at the spot rate of exchange at the reporting date.

2.3.21 Impairment of non-financial assets

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

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

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

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

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

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

Goodwill

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

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

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

Intangible assets with indefinite useful lives excluding goodwill

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

2.3.22 Taxes

2.3.22.1 Current income tax

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

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

2.3.22.2 Deferred tax

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

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

- where the deferred tax liability arises from the initial recognition of goodwill or of an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither the accounting profit nor taxable profit or loss; 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.

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.

2.3.22.2 Deferred tax (cont'd)

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

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

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

2.3.22.3 Sales tax

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

- when the sales tax incurred on a purchase of assets or services is not recoverable from the taxation authority, in which case, the sales tax is recognized as part of the cost of acquisition of the asset or as part of the expense item, as applicable; 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.

2.3.23 Crypto assets

As there is no standard applicable to KIFRS for Crypto assets (e. g. "Klay"), the Group developed an accounting policy by applying *mutatis mutandis* to KIFRS 1038 in accordance with the interpretation announced by the IFRIC in June 2019.

2.3.23.1 Initial recognition of crypto assets

The Group 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 Group 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.

2.3.23.2 Subsequent measurement of crypto assets

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

2.3.23.3 Derecognition of crypto assets

As the Group 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 Group 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.

2.4 New and amended standards and interpretations

The Group applied for the first-time certain standards and amendments, which are effective for annual periods beginning on or after January 1, 2022. The Group has not early adopted any other standard, interpretation or amendment that has been issued but is not yet effective.

2.4.1 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 Group 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 consolidated financial statements of the Group.

2.4.2 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 Group 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 consolidated financial statements of the Group.

2.4.3 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 consolidated financial statements of the Group.

2.4.4 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 consolidated financial statements of the Group.

2.4.5 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 Group applies the amendment to financial liabilities that are modified or exchanged on or after the beginning of the annual reporting period in which the entity first applies the amendment (the date of initial application).

These amendments had no impact on the consolidated financial statements of the Group.

2.4.6 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 consolidated financial statements of the Group as it did not have assets in scope of KIFRS 1041 as of the reporting date.

2.5 Significant accounting judgments, estimates and assumptions

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

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

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

2.5.1 Judgments

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

Note 19, 25

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

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

2.5.2 Estimates and assumptions

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

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

2.5.2.1 Impairment of non-financial assets

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

2.5.2.2 Defined benefit pension plan

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

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

2.5.2.3 Fair value measurement of financial instruments

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

2.5.2.4 Provision for expected credit losses of trade receivables

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

The provision matrix is initially based on the Group's historical observed default rates. The Group will calibrate the matrix to adjust the historical credit loss experience with forward-looking information. For instance, if forecast economic conditions (i.e., gross domestic product) are expected to deteriorate over the next year which can lead to an increased number of defaults in the manufacturing sector, the historical default rates are adjusted. At every reporting date, the historical observed default rates are updated and changes in the forward-looking estimates are 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 Group's historical credit loss experience and forecast of economic conditions may also not be representative of customer's actual default in the future.

2.5.2.5 Leases - Estimating the incremental borrowing rate

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

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

2.5.2.6 Deferred tax assets

Deferred tax assets are recognized for unused tax losses to the extent that it is probable that taxable profit will be available against which the losses can be utilized. Significant management judgment is required to determine the amount of deferred tax assets that can be recognized, based upon the likely timing and the level of future taxable profits together with future tax planning strategies. The Group has \$91,593 million (2021: \$76,796 million) of tax credits carried forward which can be used to offset future taxable income but with time constraint. Among the total tax credits carried forward, the Group has determined not to recognize deferred tax assets on \$68,283 million (2021: \$32,507 million) of tax credits carried forward, due to lack of probability of occurrence. Refer to Note 22 for details.

2.5.2.7 Special tax provisions for promoting investment and collaborative cooperation

In accordance with the *special tax provision for promoting investment and collaborative cooperation*, the Group 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 Group reflects the surtax imposed due to the special tax provisions for promoting investment and collaborative cooperation when computing its income tax, the Group's income tax may change arising from changes in investment, wage increase, or dividend payouts.

2.6 Standards issued but not yet effective

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

2.6.1 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 Group.

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

The amendments to paragraphs 69 to 76 of KIFRS 1001 specify the requirements for classifying liabilities as current or non-current. The amendments clarify:

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

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

2.6.3 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 Group's financial statements.

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

2.6.5 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 Group is currently assessing the impact of the amendments.

3. Segment information

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

Segment	Principal business activity
Resource	Mineral business, Palm business, Petroleum assets TFT
Trading/New growth	Resource Trading, Material Trading, Healthcare, IT Trading, Green, New growth
Logistics	Shipping, air transport, land transport, international courier, customs, warehousing, distribution consulting and others
Collectively grouped	Common group management

3.1 Segment sales and operating income

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

		20		2021					
			Operating				Operating		
		Sales		income		Sales	income		
Resource	₩	1,295,253	₩	343,719	₩	748,279	₩	178,827	
Trading/New growth		7,009,730		248,978		8,185,270		116,893	
Logistics		10,454,566		372,846		7,752,984		360,497	
	₩	18,759,549	₩	965,543	₩	16,686,533	₩	656,217	

3.2 Segment assets and liabilities

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

		20		2021				
		Assets		Liabilities		Assets		Liabilities
Resource	₩	1,394,161	₩	433,199	₩	1,117,780	₩	377,069
Trading/New growth		2,507,382		1,682,864		2,403,978		1,684,110
Logistics		2,038,680		1,664,056		1,934,459		1,513,339
Collectively grouped (*1)		1,778,785		902,413		1,290,672		788,127
	₩	7,719,008	₩	4,682,532	₩	6,746,889	₩	4,362,645

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

3.3 Sales by geographic region

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

		2022		2021
Korea	₩	8,784,991	₩	6,612,195
Americas		3,010,004		3,293,025
Europe		1,914,569		2,219,122
Asia		9,114,421		9,369,791
Others		281,765		192,739
Consolidation adjustments		(4,346,201)		(5,000,339)
	₩	18,759,549	₩	16,686,533

The Group has two customers – LG Electronics Inc. and LG Chem. Ltd. - accounting for more than 10% of the Group's total sales for the year ended December 31, 2022, while the relevant customer was one for LG Electronics Inc. for the year ended 31 December, 2021.

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):

	Financial assets at fair value through profit or loss		2022 Financial assets at fair Financial value through assets at OCI amortized cost			Hedg account related as	ing-	Total		
Cash and cash equivalents Short-term financial	₩	379,800	₩	-	₩	1,170,875	₩	-	₩	1,550,675
instruments		- 20.990		- 277.362		49,952		-		49,952 298,352
Trade accounts receivable		- 20,330		- 211,502		1,374,878		-		1,374,878
Other accounts receivable		882		-		202,102		-		202,984
Long-term loans		-		-		3,390		-		3,390
Other financial assets		917		-		270,433		8,077		279,427
	₩	402,589	₩	277,362	₩	3,071,630	₩	8,077	₩	3,759,658

	asse	2021 Financial Financial sets at fair assets at fair Financial ue through value through assets at						dge unting-		
	prof	it or loss		OCI	amo	rtized cost	related	lassets		Total
Cash and cash equivalents Short-term financial	₩	117,708	₩	-	₩	724,175	₩	-	₩	841,883
instruments		-		-		20,787		-		20,787
Long-term equity instruments		18,209		133,472		-		-		151,681
Trade accounts receivable		-		-		1,653,459		-		1,653,459
Other accounts receivable		198		-		263,334		1,743		265,275
Long-term loans		-		-		22,350		-		22,350
Other financial assets		587		-		259,203		-		259,790
	₩	136,702	₩	133,472	₩	2,943,308	₩	1,743	₩	3,215,225

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	Financial liabilities							
	fair value through	measured at							
	profit or loss	amortized cost	Total						
Trade accounts payable	₩ -	₩ 1,148,951	₩ 1,148,951						
Other accounts payable	2,086	356,542	358,628						
Borrowings	-	1,156,703	1,156,703						
Bonds payable	-	468,998	468,998						
Current portion of bonds payable									
and long-term borrowings	-	301,170	301,170						
Other financial liabilities		646,087	646,087						
	₩ 2,086	₩ 4,078,451	₩ 4,080,537						

4.1.2 Financial liabilities (cont'd)

				20	21			
	Financial liabilities at fair value through profit or loss		me	cial liabilities easured at ortized cost		Hedge unting-related liabilities		Total
Trade accounts payable	₩	-	₩	1,619,765	₩	-	₩	1,619,765
Other accounts payable		1,240		343,974		-		345,214
Borrowings		-		759,556		-		759,556
Bonds payable		-		269,462		-		269,462
Current portion of bonds payable and long-term								
borrowings		-		328,656		-		328,656
Other financial liabilities		-		459,638		9,449		469,087
	₩	1,240	₩	3,781,051	₩	9,449	₩	3,791,740

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									
		nancial		nancial						
		ts at fair		ets at fair		inancial	Hedge			
		e through	valu	e through	through assets at OCI amortized cost		accounting			T - (- 1
	profi	t or loss					related assets		Total	
Profit or loss:										
Interest income	₩	4,145	₩	-	₩	19,148	₩	-	₩	23,293
Dividend income		-		14,146		-		-		14,146
Gain and loss on foreign										
currency transactions		-		-		74,160		-		74,160
Gain and loss on foreign currency translation		_		_		5,903		_		5,903
Gain on currency forwards		34,346		_		- 0,300		-		34,346
Gain on currency swaps				_		_	1.	36		136
Gain on disposal of other								00		100
investment assets		-		-		2,146		-		2,146
Bad debt expenses		-		-		(3,200)		-		(3,200)
Other bad debt expenses		-		-		(25,165)		-		(25,165)
Loss on disposal of trade										
receivables		-		-		(18,566)		-		(18,566)
Gain on valuation equity		074								074
options		371		-		-		-		371
Gain (loss) on financial asset valuation		225		_		_		_		225
Valuation		220								220
Other comprehensive income										
(*1):										
Loss on fair value of financial										
assets at FVOCI		-		(16,780)		-		-		(16,780)
Gain on valuation of cash							10.0	10		10 640
hedge derivatives	₩	20.097	₩	(0.624)	₩	- 	18,64 ₩ 18.73		₩	18,648
	٧V	39,087	٧V	(2,634)	V V	54,426	₩ 18,7	04	V V	109,663

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

					20	21			
	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	₩	-	₩	9,508	₩ -	₩	10,213
Dividend income		-		7,285		-	-		7,285
Gain and loss on foreign currency transactions		-		-		61,924	-		61,924
Gain and loss on foreign									
currency translation		-		-		16,055	-		16,055
Gain on currency forwards		7,537		-		-	-		7,537
Gain on currency swaps		-		-		-	3,684		3,684
Bad debt expenses		-		-		(1,107)	-		(1,107)
Other bad debt expenses		-		-		(19,366)	-		(19,366)
Loss on disposal of receivables Loss on valuation equity		-		-		(8,902)	-		(8,902)
options		565		-		-	-		565
Gain (loss) on financial asset		-							
valuation		9		-		-	-		9
Other comprehensive income (*1):									
Gain on fair value of financial assets at FVOCI		-		13,927		-	-		13,927
Gain on valuation of cash									
hedge derivatives		-		-		-	17		17
	₩	8,816	₩	21,212	₩	58,112	₩ 3,701	₩	91,841

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

4.2.2 Gains and losses on financial liabilities

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

	fair va	2022Financial liabilities at fair value through profit or lossFinancial liabilities measured at amortized cost				Total		
Profit or loss: Interest expenses Loss on foreign currency	₩	-	₩	(59,066)	₩	(59,066)		
transactions		-		(33,109)		(33,109)		
Loss on foreign currency translation		-		5,273		5,273		
Loss on currency forwards		(69,533)		-		(69,533)		
Gain on exemption from debt		-		789		789		
	₩	(69,533)	₩	(86,113)	₩	(155,646)		

		20	21			
	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 Loss on foreign currency	₩ -	₩ (34,101)	₩ -	₩ (34,101)		
transactions Loss on foreign currency	-	(52,552)	-	(52,552)		
translation	-	(8,535)	-	(8,535)		
Loss on currency forwards Gain on exemption from	(19,228)	-	-	(19,228)		
debt	-	14,659	-	14,659		
Other comprehensive loss (*1): Gain on valuation of cash						
hedge derivatives	-	-	7,573	7,573		
	₩ (19,228)	₩ (80,529)	₩ 7,573	₩ (92,184)		

(*1) Other comprehensive loss 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	\overline{W}	3,547	₩	2,783
Short-term deposits		1,547,128		839,100
	\overline{W}	1,550,675	₩	841,883

Outstanding balances on restricted deposits included in financial instruments as of December 31, 2022 amounted to #63,246 million (#30,658 million in 2021) which consisted of mine restoration deposits and others.

6. Derivative financial instruments

6.1 Valuation of derivative financial instruments

Valuation gains and losses arising from derivative financial instruments included in other accounts receivable and payable as of December 31, 2022 and 2021 are presented as follows (Korean won in millions):

		2022					2021					
	Gain on Loss on valuation			Other comprehensive Gain on income (*1) valuation			-	ess on uation	comp	Other orehensive ome (*1)		
Currency forwards	₩	882	₩	2,086	₩	-	₩	198	₩	1,240	₩	-
Currency swaps		-		-		-		1,726		-		17
Interest rate swaps		-		-		18,665		-		-		7,428
Equity options (*2)		371		-		-		565		-		-
	₩	1,253	₩	2,086	₩	18,665	₩	2,489	₩	1,240	₩	7,445

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

(*2) This is a put option purchase agreement for PT. Global Investment Institusi's stake in PT. Pyridam Farma.

6.2 Currency forwards

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

			2022				
Currency-buy	Buying amount	Currency-sell	Selling amount	Contracted exchange rate	Gain on valuatio	n L	oss 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	12	4	-
KRW	142,211	USD	111,755	1,259.50 ~ 1,308.90	73	9	44
USD	36,527	KRW	47,827	1,250.60 ~ 1,318.70		-	1,953
JPY	240,858	USD	1,800	133.81	1	9	-
					₩ 88	2 ₩	₹ 2,086

6.2 Currency forwards (cont'd)

			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 unsettled currency swap contracts are as follows (Korean won in millions and other currencies in thousands):

2021										
			Contracted		Payment					
Contracted	Buying amount	Selling amount	exchange rate	Receivable interest rate	interest rate	Contracted	Coin	on valuation		Other hensive gain
party		amount	Tale		Tale	term	Gaint	on valuation	compre	nensive 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

6.4 Interest rate swaps

As of December 31, 2022 and 2021, gains and losses on unsettled interest rate swap contracts are as follows (Korean won in millions and foreign currencies in thousands):

			20	22			
Contracted party	Contractual principal		Receivable interest Payment rate interest rate		Contracted term	Other comprehensive gain	
Korea Development Bank	USD	102,620	LIBOR	2.77%	2017.2.27 ~ 2034. 9.25	18,665	
			20	21			
Contracted party	Contractual principal		Receivable interest rate	Payment interest rate	Contracted term	Other comprehensive gain	
Korea Development Bank	USD	102,620	LIBOR	2.77%	2017.2.27 ~ 2034. 9.25	7,428	

7. Inventories

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

	2022							
	Valuation							
	Acquisition cost			allowance		Book value		
Merchandise	\mathbb{W}	419,675	₩	(1,721)	₩	417,954		
Finished goods		66,171		-		66,171		
Raw materials		25,301		(32)		25,269		
Stored goods		6,057		-		6,057		
Materials in transit		182,899		-		182,899		
	₩	700,103	₩	(1,753)	₩	698,350		
	2021							
				Valuation				
	Acqu	isition cost	allowance		Book value			
Merchandise	₩	640,545	₩	(2,441)	₩	638,104		
Finished goods		48,848		-		48,848		
Raw materials		16,815		(7)		16,808		
Stored goods		2,313		-		2,313		
Materials in transit		315,120		-		315,120		
	₩	1,023,641	₩	(2,448)	₩	1,021,193		

For the year ended December 31, 2022, the Group recognized ₩695 million (2021: ₩1,006 million) as a reversal of loss on valuation of inventories carried at net realizable value. This is recognized in cost of sales.

8. Investment assets and investments in associates

8.1 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	₩	20,990	₩	18,209
Financial assets at fair value through OCI		277,362		133,472
Long-term loans receivable		3,389		22,350
	₩	301,741	₩	174,031

8.2 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		<u> </u>		
through profit or loss				
VL Future Environment			117 = 0.00	117 = 000
Industry Fund	-	14.16		
Pablo Air Co., Ltd.	2,407	5.69	2,499	2,499
Futureplay Co.	314,600	2.63	3,000	3,003
EIC Properties Pte. Ltd.	5,296,350		3,589	8,428
PT. Pyridam Farma	29,429,400	5.50	2,705	2,060
			16,793	20,990
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		10.00		
Ltd.	-	10.00	322	322
Oilhub Korea Yeosu Co., Ltd.	131,000	5.00	7,205	6,141
GS E&R Co., Ltd.	1,654,445	9.52	95,585	87,294
Tianjin LG Bohai Chemical		40.00	44 707	40 707
Co., Ltd		10.00	11,737	40,737
Cobalt blue holdings Ltd.	7,093,959	1.92	6,467	3,532
PT Resources		F 00	0.407	0.404
Alam Indonesia Tbk.	250,000,000	5.00	9,497	8,121
Tangshan Caofeidian Steam Coal Storage & Blending				
Co., Ltd.	-	1.50	1,075	1,177
RedcapTour Co., Ltd.	250,000	2.91	428	4,762
iPort Co., Ltd.	4,523	5.26	500	-,702
Hanjinkal Co., Ltd.	•	3.83		
Liveron Co.,Ltd.	2,560,000		160,080	95,872
Woongjin Energy Co., Ltd	30	0.11	6	-
woongjin Energy Co., Llu	754	0.01	8	8
			295,320	277,362
			₩ 312,113	₩ 298,352

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

8.2 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		Acquisition		Translation gain				
	ownership (%)	Jan. 1	(disposal)	Valuation	(loss)	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.	2.63	3,003	-	-	-	3,003			
EIC Properties Pte. Ltd.	15.50	7,337		596	495	8,428			
PT. Pyridam Farma	5.50	2,470	-	(371)	(39)	2,060			
		18,209	2,100	225	456	20,990			
Financial assets at fair value		· · · · ·							
through OCI									
Korea Ras Laffan LNG Limited		(0.00-							
(Qatar LNG project)	5.60	18,637	-	10,259	-	28,896			
Vietnam Korea Exchange Ltd.	10.00	322	-	-	-	322			
LX 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.		37,629	-	3,108	-	40,737			
Cobalt blue holdings Ltd.	1.92	3,016	-	516	-	3,532			
PT Resources Alam									
Indonesia Tbk	5.00	5,474	-	1,908	739	8,121			
Tangshan Caofeidian Steam Coal Storage & Blending Co.,	Ltd. 1.50	1,208	_	_	(31)	1,177			
RedcapTour Co., Ltd.	2.91	5,200	-	(438)	(31)	4.762			
iPort Co., Ltd.	5.26	500	-	(430)	-	4,702			
Hanjinkal Co., Ltd. (*2)	3.83	500	- 160,080	(64,208)	-	95,872			
Liveron Co.,Ltd.		-	100,000	(04,200)	-	95,672			
Woongjin Energy Co.,Ltd.	0.11 0.01	- 8	-	-	-	-			
woongjin Energy Co., Elu.	0.01			- (40 700)		8			
		133,472	159,962	(16,780)	708	277,362			
		₩ 151,681	₩ 162,062	₩ (16,555)	₩ 1,164	₩ 298,352			

8.2 Long-term equity instruments (cont'd)

	2021								
-	Equity		Acquisition		Translation gain	_			
	ownership (%)	Jan. 1	(disposal)	Valuation	(loss)	Dec. 31			
Financial assets at fair value									
through profit or loss VL Future Environment									
Industry Fund	14.16	₩ -	₩ 2,900	₩ -	₩ -	₩ 2,900			
Pablo Air Co., Ltd.	5.84	-	2,499	-		2,300			
Futureplay Co.	2.98	- 2 002	2,499	-	-				
OQ Aromatics LLC (*4)		3,003	-	-	-	3,003			
	1.00	4,779	-	-	(4,779)	-			
EIC Properties Pte. Ltd.	15.50	6,301	-	456	580	7,337			
PT. Pyridam Farma (*2)	5.50	-	2,705	(448)	213	2,470			
Financial assets at fair value		14,083	8,104	8	(3,986)	18,209			
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 LG Bohai Chemical Co.,		21,819	_	15,810	_	37,629			
Cobalt blue holdings Ltd.	2.35	1,069		1,947		3,016			
PT Resources Alam	2.00	1,005	-	1,347	-	5,010			
Indonesia Tbk	5.00	5,085	-	(59)	448	5,474			
Tangshan Caofeidian Steam	0.00	0,000		(00)		0,111			
Coal Storage & Blending									
Co., Ltd.	1.50	1,083	-	-	125	1,208			
RedcapTour Co., Ltd.	2.91	4,800	-	400	-	5,200			
Chosun Broadcasting									
Corporation (*3)	-	2,160	(2,121)	(39)	-	-			
iPort Co., Ltd.	5.26	500	-	-	-	500			
Information & Communication									
Financial Cooperative (*3)	-	17	(17)	-	-	-			
Hanmi Flexible Co.,Ltd. (*3)	-	-	-	-	-	-			
Liveron Co.,Ltd.	0.11	-	-	-	-	-			
Woongjin Energy Co.,Ltd. (*2)	0.01		8			8			
		121,103	(2,130)	13,926	573	133,472			
		₩ 135,186	₩ 5,974	₩ 13,934	₩ (3,413)	₩ 151,681			

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

- (*2) For the year ended December 31, 2022, the Group acquired 3.83% of equity interests of Hanjinkal Co., Ltd. and classified them as financial assets at fair value through OCI. For the year ended December 31, 2021, the Group acquired 5.5% of equity interests of PT. Pyridam Farma, 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. And the Group acquired 0.01% of equity interests of Woongjin Energy Co., Ltd. and classified them as financial assets at fair value through profit or loss.
- (*3) For the year ended December 31, 2021, the Group disposed the equity interests of Chosun Broadcasting Corporation, Information & Communication Financial Cooperative and Hanmi Flexible Co., Ltd. in entirety.
- (*4) For the year ended December 31, 2021, the Group classified the equity interests of OQ Aromatics LLC in entirety as non-current assets held for sale (See Note 31).

8.3 Investments in associates

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

	Country of	Equity ownership (%)			Principal business
	domicile	2022	2021	Reporting date	activity
Bio Friends INC. (*1)	Korea	10.44	11.36	12.31	Manufacturing and selling clean energy Manufacturing synthetic rubber and plastic
Ecovance INC. (*1,3)	Korea	12.71	-	12.31	materials Software
Ateam ventures INC. (*1,3) POSCO-IPPC (India Pune	Korea	11.29	-	12.31	development Processing and
Processing Center) POSCO-PWPC (Poland	India	35.00	35.00	12.31	selling steel
Wroclaw Processing Center)	Poland	40.00	40.00	12.31	"
Kernhem B.V. (*5)	Netherland	-	30.00	12.31	Oil and gas
ADA Oil LLP (*5) GS HP Sunflower Village	Kazakhstan	-	12.50	12.31	n
Int'l Corp. Oman International	Vietnam	30.00	30.00	12.31	Leasing real estate
Petrochemical Industry Company LLC Musandam Power Company	Oman	30.00	30.00	12.31	Manufacturing and selling PTA, PET Thermal power
SAOC (*1) Gansu Wuwei Cogeneration	Oman	18.00	18.00	12.31	plant Generating
Power Plant KM Resources Ltd.	China	30.00	30.00	12.31	cogeneration Mining and selling
(Rapu-Rapu) (*2) Inner Mongolia Diamond Coal	Malaysia	70.00	70.00	12.31	cooper Coal development
Industry Co., Ltd Shaanxi BBM Biomass Power	China	30.00	30.00	12.31	and sales Generating new &
Generation Co., Ltd. Inner Mongolia BDSD	China	30.00	30.00	12.31	renewable energy Manufacturing
Chemical Co., Ltd. LX Pantos Philippines, Inc. (formerly, Pantos Logistics	China	29.00	29.00	12.31	fertilizer
Philippines Inc.) (*4) Cypress Tree FP N Core	Philippine	39.99	39.99	12.31	Logistics Financial
Fund (*3)	Korea	39.52	-	12.31	investment

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

- (*2) As major decision making is decided unanimously, it is difficult to judge that control is held, so it has been classified as associate.
- (*3) For the year ended December 31, 2022, the Group acquired and classified the equity interests of the entity as investments in associates.
- (*4) For the year ended December 31, 2022, the name of associates were changed.
- (*5) For the year ended December 31, 2022 the Group disposed all the equity interests.

8.3 Investments in associates (cont'd)

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

				2022				2021
	Acqu	isition cost	Net	asset value	Net	book value	Net	book value
Bio Friends INC.	₩	2,720	₩	2,607	₩	2,193	₩	2,550
Ecovance INC.		15,600		117,158		14,896		-
Ateam ventures INC.		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 L.L.C (*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
KM Resources Ltd.(Rapu-Rapu)		40,493		3,666		-		-
Inner Mongolia Diamond Coal Industry Co., Ltd		54,801		86,610		51,689		56,005
Shaanxi BBM Biomass Power Generation Co., Ltd.		8,255		30,617		9,185		8,592
Inner Mongolia BDSD Chemical Co., Ltd.		97,837		563,377		173,495		160,484
LX Pantos Philippines, Inc		1,273		(73)		-		37
Cypress Tree FP N Core Fund		31,100		100,956		35,777		-
	₩	355,151	₩	1,304,220	₩	391,931	₩	322,501

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

The summarized financial information of associates which were material to the Group as of December 31, 2022 and 2021 ars as follows (Korean won in millions):

								2022						
	Curre	ent assets	N	on-current assets		Current liabilities	1	Non-current liabilities	R	evenue		t (loss) for ne year		lends paid associates
Ecovan INC. POSCO-IPPC (India Pune Processing	₩	30,290	₩	89,175	₩	∛ 955	₩	1,352	₩	-	₩	(5,542)	₩	-
Center) POSCO-PWPC (Poland Wroclaw		146,622		28,900		115,518		12,002		521,499		8,925		-
Processing Center)		75,241		7,082		54,679		4		146,455		5,695		-
Musandam Power Company SAOC Gansu Wuwei Cogeneration Power		97,775		223,663		81,004		202,175		91,809		8,129		1,275
Plant Inner Mongolia Diamond Coal		122,659		397,507		60,002		260,844		279,425		8,049		-
Industry Co., Ltd. Inner Mongolia BDSD Chemical Co.,		93,280		506,659		360,523		152,806		605,067		191,590		56,071
Ltd.		168,865		573,270		126,937		51,821		423,099		88,038		9,037
Cypress Tree FP N Core Fund		1,410		99,804		258		-		-		22,256		-

								2021						
	Curr	ent assets	N	on-current assets		Current liabilities	1	Non-current liabilities	F	Revenue		it (loss) for ne year		lends paid 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
Inner Mongolia Diamond Coal														
Industry Co., Ltd (formerly, Mongolia														
Boyuan Coal Co., Ltd. (Wantugou))		80,974		453,705		347,316		86,702		390,189		217,914		70,135
Inner Mongolia BDSD Chemical Co.,														=
Ltd.		141,943		627,551		207,242		41,483		380,922		65,288		5,089

8.3 Investments in associates (cont'd)

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			
			Acquisition	D. H. H.	Change in equity adjustment in	Share of	Impairment	D
		Jan.1	(disposal)	Dividends	equity method	profit or loss	and others	Dec. 31
Bio Friends INC.	₩	2,550		₩ -	₩ 15	₩ (384)	₩ 12	₩ 2,193
Ecovance INC.		-	15,600	-	-	(704)	-	14,896
Ateamventures INC.		-	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			(000)		2.0	000		
Int'l Corp.		5,320	-	(53)	150	459	(36)	5,840
Musandam Power		0,020		(00)	100	400	(00)	0,040
Company SAOC		6,662	-	(1,275)	379	1,463	_	7,229
Gansu Wuwei Cogeneration		0,002		(1,270)	010	1,400		1,220
Power Plant		59,485	_	_	(1,654)	2,415	_	60,246
Inner Mongolia Diamond Coal		55,405	-	-	(1,004)	2,415	-	00,240
Industry Co.,		56,005		(56,071)	(8,432)	56,781	3.406	51,689
Shaanxi BBM Biomass Power		56,005	-	(50,071)	(0,432)	50,701	3,400	51,009
		0 500					502	0 105
Generation Co., Ltd.		8,592	-	-	-	-	593	9,185
Inner Mongolia BDSD				(0,007)	(40.000)	05 500	40 700	470 405
Chemical Co., Ltd.		160,484	-	(9,037)	· · · /	25,532	12,799	173,495
LX Pantos Philippines, Inc		37	-	-	2	(39)	-	-
Cypress Tree FP N Core								
Fund (*2)		-	31,100			7,363	(2,686)	35,777
	₩	322,501	₩ 48,588	₩ (66,436)	₩ (25,913)	99,103	₩ 14,088	₩ 391,931

				2021			
	Jan.1	Acquisition (disposal)	Dividends	Change in equity adjustment in equity method	Share of profit or loss	Impairment and others	Dec. 31
Bio Friends 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 OII LLP	-	-	-	(124)	660	(536)	-
GS HP Sunflower Village	4 005		(50)	100	405		5 000
Int'l Corp. Musandam Power	4,395	-	(50)	480	495	-	5,320
Company SAOC	5,409	_	(1,041)	490	1,804	_	6,662
Gansu Wuwei Cogeneration	0,400		(1,0+1)	400	1,004		0,002
Power Plant	59,647	-	(4,381)	6,467	(2,248)	-	59,485
Inner Mongolia Diamond Coal	,		(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	-,	(_,_ · · ·)		
Industry Čo.,	54,528	-	(70,135)	503	64,633	6,476	56,005
Shaanxi BBM Biomass Power							
Generation Co., Ltd.	7,886	-	-	-	-	706	8,592
Inner Mongolia BDSD							
Chemical Co., Ltd.	131,040	-	(5,089)	3,257	18,934	12,342	160,484
LX Pantos Philippines, Inc.		-		(4)	41		37
	₩ 279,426	₩ 2,720	₩ (80,696)	₩ 11,606	₩ 90,323	₩ 19,122	₩ 322,501

(*1) For the year ended December 31, 2022, the Group 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 2022.

(*2) See Note 21.

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

9. Property, plant and equipment and Investment properties

9.1 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								
			Accumulated	Accumulated					
	Acquisition cost		depreciation	impairment	Book value				
Land	₩	152,327	₩ -	₩ -	₩ 152,327				
Buildings		292,429	(61,152)	-	231,277				
Structures		258,308	(73,420)	(107)	184,781				
Machinery and equipment		272,450	(94,291)	(11)	178,148				
Vehicles		36,480	(17,072)	-	19,408				
Ships		14,026	(796)	-	13,230				
Mature biological assets		112,155	(46,035)	-	66,120				
Non-mature biological assets		7,602	-	-	7,602				
Others		84,981	(60,973)	(162)	23,846				
Construction-in-progress		20,020	-	-	20,020				
Right-of-use assets		456,364	(189,783)		266,581				
	₩	1,707,142	₩ (543,522)	₩ (280)	₩ 1,163,340				

			2	021		
		Accui				
	Acquisition cost			eciation	Boo	ok value
Land	₩	107,424	₩	-	₩	107,424
Buildings		219,611		(45,907)		173,704
Structures		189,044		(53,952)		135,092
Machinery and equipment		111,525		(55,109)		56,416
Vehicles		26,915		(14,496)		12,419
Mature biological assets		115,205		(41,304)		73,901
Non-mature biological assets		3,914		-		3,914
Others		70,785		(50,748)		20,037
Construction-in-progress		16,589		-		16,589
Right-of-use assets		339,330		(132,323)		207,007
	₩	1,200,342	₩	(393,839)	₩	806,503

9.1 **Property**, plant and equipment (cont'd)

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

		2022											
		Jan.1	Addition	Transfer		Disposals	Depreciation	Change in the scope of consolidation		Others (*1)	Dec. 31		
Land	₩	107,424			₩	- ₩		₩ 2,035			152,327		
Buildings		173,704	634	7,149		(11)	(10,521)	57,301		3,021	231,277		
Structures		135,092	1,181	13,954		(1,448)	(9,424)	39,524		5,902	184,781		
Machinery and													
equipment		56,416	15,535	3,175		(958)	(21,227)	120,361		4,846	178,148		
Vehicles		12,419	11,294	(95)		(192)	(3,623)	155		(550)	19,408		
Ship		-	50	13,976		-	(796)	-		-	13,230		
Mature biological assets Non-mature		73,901	-	-		-	(6,402)	-		(1,379)	66,120		
biological assets		3,914	4,318	-		(402)	157	-		(385)	7,602		
Others Construction-in-		20,037	13,752	1,364		(356)	(13,318)	1,729		638	23,846		
progress Right-of-use		16,589	43,221	(39,698)		(9)	(9)	-		(74)	20,020		
Assets		207,007	205,735	-		(39,068)	(130,436)	22,335		1,008	266,581		
	₩	806,503	₩ 339,012	₩ (175)	₩	(42,444)	(195,599)	₩ 243,440	₩	12,603 ₩	1,163,340		

		2021												
	Change in the scope of													
		Jan.1	Addition		Transfer (*1)		Disposals		Depreciation	consolidation		Others (*1)	Dec. 31	
Land	₩	105,670	₩	- ₩		₩	(706)	₩	-	₩ -	₩	2,460 ₩	107,4	24
Buildings		177,383	25	4	949		(1,738)		(8,281)	-		5,137	173,7	04
Structures Machinery and		131,698	1,60	7	1,205		(443)		(6,594)	-		7,619	135,0	92
equipment		29,123	26,31	1	13,862		(1,022)		(12,636)	-		778	56,4	16
Vehicles		15,711	5,65	4	(26)		(7,068)		(2,606)	-		754	12,4	19
Mature biological assets Non-mature		74,428		-	(132)		(24)		(5,764)	-		5,393	73,9	01
biological assets		1,448	2,36	8	53		(148)		-	-		193	3,9	14
Others Construction-in-		16,443	12,56	2	4,156		(2,112)		(10,710)	-		(302)	20,0	37
progress Right-of-use		4,809	23,16	0	(12,377)		(42)		-	377		662	16,5	89
Assets		185,659	129,92	1	-		(12,238)		(100,034)	-		3,699	207,0	07
	₩	742,372	₩ 201,83	7₩	7,690	₩	(25,541)	₩	(146,625)	₩ 377	₩	26,393 🚻	806,5	03

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

9.2 Investment properties

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

		2022		2021
	E	Buildings		Buildings
Acquisition cost	₩	6,662	₩	6,257
Accumulated depreciation		(1,690)		(1,406)
Net book value	₩	4,972	₩	4,851

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

		2022	2021
Jan. 1	\overline{W}	4,851 ₩	4,609
Depreciation		(209)	(157)
Others		330	399
Dec. 31	\overline{W}	4,972 ₩	4,851

9.3 Assets provided as collateral

The details of the assets provided as collateral as of December 31, 2022 are as follows (Korean won in millions):

	Net	Net book value		ed debt limit	Security holder	Description
Land and Buildings	₩	96,262	₩	124,400	Korea Development Bank	Mortgages payable
Land and Buildings	₩	6,158	₩	4,399	Kashikorn Bank	Mortgages payable

9.4 Insurance

As of December 31, 2022, the assets covered by insurance policies are as follows (Korean won in millions):

Insurance type	Covered assets		Insured up to	Insurance institutions
	Inventories and property, plant			KB Insurance Co., Ltd.
Property insurance	and equipment	₩	633,587	and others

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

10. Intangible assets

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

		2022	2021
Goodwill	₩	198,110 👯	₩ 180,409
Industrial property rights		6	10
License		17,351	19,042
Overseas resources development		385,110	257,040
Others		469,350	239,144
	₩	1,069,927 \	∀ 749,645

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	Acquisitions	Disposals		Transfer (*1)	Amortizatio	(i	Reversal of impairment impairment) (*2)		ange in the scope of nsolidation (*3)		Others (*4)		Dec. 31
Goodwill	₩	180,409			₩		₩	- 4	· /	₩	36,146	₩	· · /	-	198,110
Industrial		100,100							(10,101)		00,110		1,000		
property rights		10	-	-		-	(4	4)	-		-		-		6
License		19,042	287	(1,878)		-		-	(98)		-		(2)		17,351
Overseas resources															
development		257,040	-	-		7,901	(18,247	7)	118,519				19,897		385,110
Others		293,144	94,263	(742)		22,692	(18,362	2)	· -		46,169		32,186		469,350
	₩	749,645	₩ 94,550	₩ (2,620)	₩	30,593	₩ (36,613	3)₩	∀ 98,970	₩	82,315	₩	53,087	₩	1,069,927

								2021						
		Jan.1 Addition			Disposals		Transfer (*1)		Am	ortization	Others (*4)		(Dec. 31
Goodwill Industrial property rights License Overseas resources	₩	180,080 19 18,731	₩	1 - 2,302	₩	(2,682)	₩	-	₩	(9) 540	₩	328 - 151	₩	180,409 10 19,042
development Others	₩	256,667 239,349 694,846	₩	- 29,305 31,608	₩	(4,657) (1,476) (8,815)	₩	- 822 822	₩	(22,400) (18,057) (39,926)	₩	27,430 43,201 71,110	₩	257,040 293,144 749,645

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

(*2) See Note 21.

(*3) See Note 30.

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

The Group 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 Group has 7,484,146 Klay (2021: 6,615,173 Klay).

11. 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		
	То	otal amount	C	owance for doubtful liccounts		Net value	Тс	otal amount	C	wance for loubtful ccounts	N	Vet value
Current:	10		d						accounts			
Trade accounts												
receivable	₩	1,422,193	₩	(47,315)	₩	1,374,878	₩	1,697,509	₩	(44,050)	₩	1,653,459
Short-term loans		7,686		(7,252)		434		8,123		(7,350)		773
Other accounts		·		(· · · /								
Receivable (*1)		225,697		(23,596)		202,101		283,270		(19,936)		263,334
Current portion												
of Long-term												
other accounts receivable		6,337				6,337		E 0.29				5,928
Present value		0,337		-		0,337		5,928		-		5,920
discount		(224)		-		(224)		(210)		-		(210)
Accrued income		9,908		(4,799)		5,109		5,558		(4,108)		1,450
Short-term deposits		24,062				24,062		13,950				13,950
Current portion		_ ,,				_ ,						,
of long-term												
other												
accounts		05.040				05.040		00 500				00 500
receivable Finance lease		25,210		-		25,210		23,583		-		23,583
receivable		1,135		-		1,135		1,260		-		1,260
		1,722,004		(82,962)		1,639,042		2,038,971		(75,444)		1,963,527
Non-current:		1,722,004		(02,002)		1,000,042		2,000,071	·	(10,111)		1,000,027
Long-term												
receivables	₩	162,945	₩	-	₩	162,945	₩	159,015	₩	-	₩	159,015
Long-term loans		85,175		(81,785)		3,390		132,010		(109,660)		22,350
Long-term other												
accounts receivable	· /	6,763		(127)		6,636		14,297		(119)		14,178
Present value disco	unt	(649)		-		(649)		(1,585)		-		(1,585)
Long-term accrued		0.740		(0.740)				40.040		(0.04.0)		4 00 4
income Long-term bank		8,713		(8,713)		-		12,842		(8,218)		4,624
deposits (*2)		11,063		-		11,063		9,705		-		9,705
Long-term deposits		11,000										,
		32,572		(4,290)		28,282		29,764		(4,290)		25,474
Finance lease		500				500		4 5 4 0				4 5 4 0
receivable		526		-		526		1,546		-		1,546
	₩	307,108	XXZ	(94,915)	117	212,193	11/	357,594	117	(122,287)	III	235,307
	٧V	2,029,112	₩	(177,877)	₩	1,851,235	₩	2,396,565	₩	(197,731)	₩	2,198,834

(*1) As of December 31, 2022, other receivables related to derivatives of ₩8,959 million (₩1,941 million in 2021) and equity options of ₩917 million (₩587 million in 2021) were excluded.

(*2) As of December 31, 2022, it presents the amount after excluding ₩43,760 million (₩993 million in 2021) of excessive amount of plan assets (see Note 19).

11. 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):

		20	22		2021					
	Trade	receivables	Other	receivables	Trade r	eceivables	Other receivables			
Jan. 1	₩	44,050	₩	153,681	₩	43,167	₩	129,368		
Bad debt expenses		3,200		25,165		1,107		19,366		
Others (*1)		65		(48,284)		(224)		4,947		
Dec. 31	₩	47,315	₩	130,562	₩	44,050	₩	153,681		

(*1) For the year ended December 31, 2022, the reduction from the disposal of loans to Kernhem B.V. and ADA Oil LLP. along with the relevant equity instruments, which amounts to ₩39,540 million, is included. During 2021, the group recognized ₩9,072 million in related impairment reversals.

Aging analyses 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	₩ 1,353,643	₩ 9,758	₩ 13,134	₩ 2,466	₩ 43,192	₩ 1,422,193		
Dec. 31, 2021	1,627,536	15,697	6,776	1,401	46,099	1,697,509		

Derecognition of financial instruments

As of 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.

12. Borrowings and bonds

12.1 Short-term borrowings

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

	Description	Annual interest rate as of Dec. 31, 2022		2022		2021
Short-term operating loans	Hana Bank	1ML + 0.95% and others	₩	265,583	₩	397,079
Banker's usance	Hana Bank and others	0.41% ~ 0.52%		-		2,375
Others	-	-		16,219		16,517
			₩	281,802	₩	415,971

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

The Group has signed individual and comprehensive loan agreements (credit limit of #55,399 million) with Shinhan Bank and three 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.

12.2 Long-term borrowings

	Financial institution	Annual interest rate as of Dec. 31, 2022		2022		2021
Local currency	Woori International					
	the 1 st Co., Ltd					
	and others	2.89% and others	₩	800,097	₩	500,167
PF loan	Woori bank					
	and others (*1)	6.42%		51,454		-
	Nonghyup					
	and others (*2)	3.29%		106,519		-
Foreign currency	Korea Energy	Representative loan				
	Agency and others	interest rate -2.25%		20,252		32,094
	Mizuho bank (*3)	SOFR +3.4%		27,880		-
Less: current portion				1,006,202		532,261
				(131,300)		(188,675)
			₩	874,902	₩	343,586

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

(*1) The base rate of TrancheA loans is the implied yield curve consensus of six-month financial bonds I (bank bonds) (AAA), and the additional interest rate is 1.91%.

(*2) TrancheB loan is a fixed rate.

(*3) Due to the arrangement of the Group (see note 24-1), it is classified as a liability in accordance with KIFRS 1032

12.3 Bonds

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

			Annual					
Series	Issue date	Maturity date	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	"
119-1st	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. 28, 2022	Jan. 27, 2025	2.96%		110,000		-	"
122-2nd	Jan. 28, 2022	Jan. 28, 2027	3.14%		110,000		-	"
122-3rd	Jan. 28, 2022	Jan. 26, 2029	3.33%		80,000		-	"
Pantos bond	Apr. 18, 2022	Apr. 18, 2025	4.05%		10,000		-	"
Pantos bond	Apr. 18, 2022	Apr. 16, 2027	4.23%		60,000		-	"
Less: discount	on bonds				(1,132)		(557)	
Less: current p	ortion of bonds				(170,000)		(140,000)	
Less: current p	ortion of							
discount	on bonds				130		19	
				₩	468,998	₩	269,462	

The Group issued the 118-2nd, 119-1st, 120-1st and 120-2nd, 121-1st and 121-2nd, 122-1st, 122-2nd and 122-3rd, 2-1st and 2–2nd 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.

13. Provisions

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

		20	22		2021						
	С	urrent	Nor	n-Current	(Current	Non-Current				
Rehabilitation provisions	₩	2,874	₩	108,075	₩	8	₩	80,597			
Onerous contracts		6,709		7,177		5,986		13,396			
Provisions for litigation		3,800		968		-		5,152			
Others		10,622		-		-		14			
	₩	24,005	₩	116,220	₩	5,994	₩	99,159			

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

							20)22					
Rehabilitation		Jan. 1	Reco	gnition	Used			Change in scope c consolida	of	(Others		Dec. 31
provisions Onerous contracts	₩	80,605 ₩ 19,382		31,257 (434)	434) (415		,547) ,719)	₩	161 -	₩	₩ 1,473 1,657		110,949 13,886
Provisions for litigation Others		5,152 14		415 14,155			- ,369)	- 6,546		- (799) 6 (724)			4,768 10,622
	₩	105,153	₩	45,393	₩	•	,635)		707	₩	1,607	₩	140,225
								2021					
		Jan.	1	Reco	gnitio	on		Used		Oth	ers	[Dec. 31
Rehabilitation provisions Onerous contracts Provisions for litigati Others	ion		5,681 24,873 475 38	₩	4,0	638 785) 635 686	₩	(2,350) (5,864) - (691)		5	51,636 2,158 42 (19)	₩	80,605 19,382 5,152 14
		₩ 4	1,067	₩	19,	174	₩	(8,905)	₩	5	53,817	₩	105,153

14. Capital stocks and others

14.1 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
Ordinary shares issued		38,760,000		38,760,000
Par value per share	₩	5,000	₩	5,000
	₩	193,800	₩	193.800

14.2 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 reserves (*1)		37,286		37,286
Other capital surplus		16,479		16,052
	₩	100,871	₩	100,444

(*1) The Parent 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.

14.3 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)	₩	(40,689)	₹ (40,689)
Other capital adjustments		(611)	(611)
	\overline{W}	(41,300)	₹ (41,300)

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

14.4 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
Gain (loss) on valuation of financial assets at fair value through OCI	₩	5,024	₩	(7,203)
Gain (loss) on valuation of cash hedge derivatives		6,347		(7,471)
Negative changes in equity arising from equity method investments		(34,683)		(18,742)
Exchange differences on translation of foreign operations		65,035		33,215
	₩	41,723	₩	(201)

14.5 Retained earnings

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

		2022	2021
Legal reserve	₩	68,106 ₩	45,607
Business rationalization reserve		1,511	1,511
Improvement of financial structure reserve		13,693	13,693
Other legal reserve		2,211	2,211
Retained earnings before appropriations		1,880,571	1,459,198
	₩	1,966,092 ₩	1,522,220

14.6 Earnings per share

Earnings per share attributable to the owners of the Parent Company for the years ended December 31, 2022 and 2021 are computed as follows (Korean won):

		2022		2021
Profit for the year attributable to the owners of the Parent Company	₩	515,223,865,636	₩	350,069,144,537
Weighted-average number of ordinary shares outstanding (*1)		35,967,902		35,967,920
Basic and diluted earnings per share	₩	14,325	₩	9,733

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

	202	2	202	1
	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	(2,792,098)	(1,019,115,770)	(2,792,098)	(1,019,109,218)
Number of ordinary shares outstanding	35,967,902	13,128,284,230	35,967,902	13,128,290,782
Days of holding		365 days		365 days
Weighted-average number of ordinary shares outstanding (*2)		35,967,902		35,967,920

(*2) The weighted average number of ordinary shares in circulation for the year ended December 31, 2022 is the same as the number of common treasury shares deducted from the total number of issued common shares, because there is no change in the number of treasury shares.

15. Dividends

For the years ended December 31, 2022 and 2021, dividends attributable to the owners of the Parent Company 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 are as follows (Korean won in millions, except per share amounts):

		2022	2021
Dividend per share	\overline{W}	3,000 ₩	2,300
Dividends paid		107,904	82,726

16. Sales

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

				2022						2021		
	F	Resource		Trading ew growth		Logistics	R	esource		rading w growth	L	ogistics
Revenue recognized at a point of time												
Sales of goods	₩	1,287,472	₩	6,933,224	₩	21,621	₩	747,831	₩	8,140,711	₩	23,328
Sales of services		2,339		51,365		-		313		23,297		-
		1,289,811		6,984,589		21,621		748,144		8,164,008		23,328
Revenue recognized over period												
Sales of services		5,442		25,141		10,432,945		135		21,262		7,729,656
	₩	1,295,253	₩	7,009,730	₩	10,454,566	₩	748,279	₩	8,185,270	₩	7,752,984

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

	Segment		2022		2021
Contract assets	Logistics	₩	21,476	₩	56,513
		₩	21,476	₩	56,513
Contract liabilities					
Advance received	Resource	₩	368	₩	289
	Trading/New growth		126,968		82,083
		₩	127,336	₩	s82,372
Unearned revenue	Trading/New growth		2		2
	Logistics		84,697		173,104
		₩	84,699	₩	173,106
		₩	212,035	₩	255,478

16. Sales (cont'd)

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

					2022				
	Segment		Jan. 1		ncrease	D	ecrease		Dec. 31
Contract assets	Logistics	₩	56,513	₩	21,476	₩	(56,513)	₩	21,476
		₩	56,513	₩	21,476	₩	(56,513)	₩	21,476
Contract liabilities									
Advance received	Resource Trading/New	₩	289	₩	31,843	₩	(31,764)	₩	368
	growth		82,083		147,961		(103,076)		126,968
	<u> </u>		82,372		179,804		(134,840)		127,336
Unearned revenue	Trading/New growth		2		57		(57)		2
	Logistics		173,104		87,899		(176,406)		84,697
			173,106		88,056		(176,463)		84,699
		₩	255,478	₩	267,860	₩	(311,303)	₩	212,035
					2021				
	Segment		Jan. 1	I	2021 ncrease	D	ecrease		Dec. 31
Contract assets	Segment	₩	Jan. 1 18,970	I ₩		D ₩	ecrease (18,970)	₩	Dec. 31 56,513
Contract assets	U	₩₩			ncrease				
Contract assets Contract liabilities	U		18,970	₩	ncrease 56,513	₩	(18,970)	₩	56,513
	Logistics Resource		18,970	₩	ncrease 56,513	₩	(18,970)	₩	56,513
Contract liabilities	Logistics	₩	18,970 18,970	₩	ncrease 56,513 56,513	₩	(18,970) (18,970)	₩	56,513 56,513
Contract liabilities Advance received	Logistics Resource Trading/New	₩	<u>18,970</u> <u>18,970</u> 303	₩	ncrease 56,513 56,513 451	₩	(18,970) (18,970) (465)	₩	56,513 56,513 289
Contract liabilities	Logistics Resource Trading/New	₩	18,970 18,970 303 34,368	₩	ncrease 56,513 56,513 451 59,611	₩	(18,970) (18,970) (465) (11,896)	₩	56,513 56,513 289 82,083
Contract liabilities Advance received	Logistics Resource Trading/New growth Trading/New	₩	18,970 18,970 303 <u>34,368</u> 34,671	₩	ncrease 56,513 56,513 451 59,611	₩	(18,970) (18,970) (465) (11,896)	₩	56,513 56,513 289 82,083 82,372
Contract liabilities Advance received	Logistics Resource Trading/New growth Trading/New growth	₩	18,970 18,970 303 <u>34,368</u> 34,671 2	₩	ncrease 56,513 56,513 451 59,611 60,062	₩	(18,970) (18,970) (465) (11,896) (12,361)	₩	56,513 56,513 289 82,083 82,372 2

17. 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	₩	333,314	₩	303,082
Pension benefits		18,145		17,200
Employee welfare benefits		88,235		69,798
Travel		15,198		5,594
Taxes and dues		11,191		8,647
Rents		17,002		9,356
Depreciation		39,496		31,568
Amortization		18,621		23,291
Insurance		7,640		5,349
Custody		2,481		1,682
Freight		132,855		93,717
Load and unload		1,558		214
Service		159,316		94,037
Bad debt expenses		3,200		1,107
Expenses for overseas branch office		8,561		8,097
Others		13,130		22,438
	₩	869,943	₩	695,177

18. 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	₩	6,256,073	₩	7,732,952
Use of raw materials and supplies		823,722		539,435
Employee benefits (salaries, retirement benefits) Distribution costs (custody charges,		511,535		430,835
packaging costs, transportation expenses)		150,396		105,941
Cost of logistics sales		8,876,121		6,341,192
Depreciation and amortization		232,421		187,247
Others		943,738		692,714
	₩	17,794,006	₩	16,030,316

19. Pension benefits

The Group 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	₩	135,535	₩	148,578
Fair value of plan assets (*1)		(170,731)		(140,222)
	₩	(35,196)	₩	8,356

(*1) As of December 31, 2022, the Group classified #43,760 million(#993 million in 2021) of excessive amount of plan assets as other non-current assets.

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	₩	20,375	₩	18,645
Net interest costs		(26)		145
Management cost of plan assets		309		313
	₩	20,658	₩	19,103

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
January 1	₩	148,578	₩	135,298
Current service costs		20,375		18,645
Interest costs		3,660		2,592
Benefits paid		(13,425)		(8,516)
Transfer out		(1,127)		(661)
Re-measurement gain on defined benefit plans		(23,520)		1,100
Change in the scope of consolidation		1,226		-
Others		(232)	_	120
December 31	₩	135,535	₩	148,578

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
January 1	\mathbb{W}	140,222	₩	121,021
Return on plan assets		3,686		2,447
Contribution payable		38,333		24,286
Benefits paid		(11,813)		(6,841)
Re-measurement loss on defined benefit plans		(925)		(411)
Management costs of plan assets		(309)		(313)
Change in the scope of consolidation		1,538		-
Others		(1)		33
December 31	₩	170,731	₩	140,222

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%	5.00%
Discount rate	5.21% ~ 5.29%	1.75% ~ 2.80%

19. 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	₩	135,535	₩	146,204	₩	126,012
Discount rate		135,535		126,542		145,753

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	₩	1,147	436

20. Other non-operating income and costs

20.1 Finance income

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

	2022	2021
\overline{W}	23,292 ₩	10,213
	512,670	206,017
	124,706	37,678
	34,346	7,537
	136	3,684
	14,146	7,285
₩	709,296 ₩	272,414
		 ₩ 23,292 ₩ 512,670 124,706 34,346 136 14,146

20.2 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	₩	59,066	₩	34,101
Loss on foreign currency transactions		471,618		196,644
Loss on foreign currency translation		113,531		30,158
Loss on currency forwards		69,533		19,228
Loss on disposal of trade accounts receivable		18,566		8,902
	₩	732.314	₩	289.033

20.3 Share of profit or loss of associates

Details of share of profit or loss of associates for the years ended December 31, 2022 and 2021 are as follows (Korean won in millions):

		2022	_	2021
Share of profit of associates	₩	100,229	₩	92,778
Share of loss of associates		(1,126)		(2,455)
Gain on disposal of investments in associates (*1)		7,347		36
Loss on disposal of investments in				
associates (*1)		(6,272)		(676)
Impairment loss on investments in associates (*2)		(2,686)		-
	₩	97,492	₩	89,683

(*1) See Note 31.

(*2) See Note 21.

20.4 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):

		2022		2021
Other bad debt expenses	₩	(25,235)	₩	(19,366)
Gain on disposal of property, plant and equipment		3,656		6,030
Gain on disposal of intangible assets		48		804
Reversal of Impairment loss on intangible assets		118,519		540
Impairment loss on intangible assets		(19,549)		-
Gain on exemption from debt		789		14,659
Others		14,943		2,779
	₩	93,171	₩	5,416

21. Impairment

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

			2022		
				Investment in	
	Intangible assets	Intangible assets	Intangible assets	associates	Intangible assets
Segment			Trading		Collectively
Segment	Resources	Resources	/New growth	Logistics	grouped
	Improvement in	Improvement in		Decline in	
Reason	business	business	Increase in the	business	Fall in the market
	feasibility	feasibility	discount rate	feasibility	price
Nature of asset			Collective energy	Financial	
Nature of asset	Coal mining	Coal mining	business	investment	License
Related region	Southeast Asia	Oceania	Asia	Asia	Asia
Impairment loss					
(Impairment return)					
amount	₩ (105,689)	₩ (12,830)	₩ 19,451	₩ 2,686	₩ 98
Measuring of	Net fair value less			Fair value less	Fair value less
recoverable amount	costs to sell	Value in use	Value in use	costs to sell	costs to sell
	Zero-Growth /	Zero-Growth /	Zero-Growth /	Zero-Growth /	
Basis of estimates	DCF	DCF	DCF	DCF / OPM	-
Discount rate	11.25%	8.55%	7.05%	11.16%	-

22. 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)	₩	260,708	₩	164,602
Changes in deferred tax Deferred tax related to items recognized		102,060		46,573
in other comprehensive income		(8,891)		(16,810)
in the statement of profit or loss	₩	353,877	₩	194,365

(*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 are included for the year ended December 31, 2021.

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

		2022		2021
Profit before income tax	₩	1,133,188	₩	734,697
Statutory income tax at the tax rate (24.2% in 2022)		273,769		177,335
Adjustments: Effect of unrecognized deferred tax				
for temporary differences Current year adjustment related to the income tax		109,024		36,123
on previous years Effect of non-deductible expenses		(4,975)		(1,107)
for tax purposes		5,877		(293)
Tax credit		(38,953)		(8,686)
Foreign income tax directly charged		13,666		3,938
Income tax on non-recirculation		5,557		1,834
Others		(10,088)		(14,779)
Income tax expenses reported in the statement of profit or loss Effective tax rate (income tax expenses/	₩	353,877	₩	194,365
profit before income tax)		31.23%		26.46%

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

	_	2022	_	2021
Loss (gain) on valuation of financial assets at fair value through OCI	₩	4,996	₩	(3,385)
Equity adjustments in equity method Exchange differences on translation of foreign		(2,749)		(1,315)
operations		(2,269)		(10,634)
Gain on valuation of derivatives		(4,102)		(1,673)
Re-measurement loss (gain) on defined benefit plan	s	(4,767)		197
	₩	(8,891)	₩	(16,810)

22. 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):

	Accumu	lated temporary diff	erences	Deferred tax as	ssets (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-	₩ 147.608	₩ (97,735)	₩ 49.873	₩ 34.510	₩ 5.872
for-sale financial assets Stock dividend	,	₩ (97,735)	,	,	-,
Allowance for doubtful	12,999	-	12,999	3,146	3,003
accounts	175,001	(26,284)	148,717	39,468	30,698
Bad debt expenses	9,212	6,519	15,731	849	2,317
Accrued income	(2)	(957)	(959)	-	(222)
Interest income	3,485	270	3,755	843	867
Allowance for	5,405	270	5,755	045	007
Inventories	2,425	(844)	1,581	587	365
Gain on commodity	_,	()	.,		
Futures	(17)	17	-	(4)	-
Accrued expenses	47,274	(10,397)	36,877	11,440	8,512
Admission and denial					
on depreciation cost	4,131	2,072	6,203	1,000	1,433
Bonus	17,594	2,400	19,994	4,258	4,619
Interest related to					
loans or construction	(481)	-	(481)	(116)	(111)
Present value of					
defined benefit	100 677	(12.074)	100 602	22 402	07 000
obligation Fair value of plan	132,677	(12,074)	120,603	32,103	27,833
assets	(137,982)	(21,381)	(159,363)	(33,392)	(36,787)
Gain (loss) on foreign	(107,002)	(21,001)	(100,000)	(00,002)	(00,101)
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	0.040	(000)	E 44.4	4 505	4.054
employee	6,342	(928)	5,414	1,535	1,251
Impairment right of membership	1,482	-	1,482	359	342
Investment in	1,402		1,402	000	072
subsidiaries and					
associates	(561,073)	(177,506)	(738,579)	(92,813)	(83,721)
Financial assets at fair					
value through OCI	919	18,695	19,614	222	4,531
Impairment loss	55,002	36	55,038	13,310	12,714
Provisions	32,771	(5,267)	27,504	7,931	6,353
Taxes and dues	7,608	(7,016)	592	1,367	(316)
Guarantee commission	21,583	-	21,583	376	359
Deemed dividend	42,191	6,033	48,224	10,210	11,140
Gains from assets	(= 0.0		4 500	070	0.50
contributed	1,529	-	1,529	370	353
Transfer price	10,346	-	10,346	707	675
Capital lease	3,104	4,194	7,298	751	1,690
Commission fees	8,407	11,735	20,142	814	783
Retiremnet benefits for	4.060		4.060	057	045
resident employee Property, plant and	1,062	-	1,062	257	245
equipment	4,066	4,505	8,571	(760)	74
Intangible asset	(226,817)	(153,834)	(380,651)	(50,284)	(83,539)
	(220,017)	(100,001)	(000,001)	(00,201)	(00,000)

22. Income tax (cont'd)

		Accumulated temporary differences						Deferred tax assets (liabilities)				
		Jan. 1, 2022		let changes		ec. 31, 2022	De	ec. 31, 2021	De	ec. 31, 2022		
Goodwill	₩	(4,187)	₩	-	₩	(4,187)	₩	(1,013)	₩	(967)		
Others		4,185		(2,199)		1,986		1,013		516		
Changes in consolidated entity		21,103		(35,597)		(14,494)		5,735		(3,087)		
		(160,982)		(496,869)		(657,851)		(6,317)		(83,557)		
Deferred income tax due to tax deduction: Tax deduction carried								<u>, , , , , , , , , , , , , , , , , </u>				
forward amount							₩	44,289	₩	23,310		
Deferred income tax due to deficit carried forward:												
Deficit carried forward	₩	6,365	₩	2,608	₩	8,973	₩	-	₩	530		
Tax credits: Charged income tax due to non-recirculation							₩	<u>(1,833)</u> 36,139	₩	<u>(6,204)</u> (65,921)		
Reflected on the statements of financial position:										(00,021)		
Deferred tax assets								98,263		43,334		
Deferred tax liabilities								62,124		109,255		
Deferred tax assets, net							₩	36,139	₩	(65,921)		

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
Investment in subsidiaries, associates or joint ventures (*1)	$\overline{\mathbb{W}}$	255,853	₩	191,847
Commissions and others		43,018		29,411
	₩	298,871	₩	221,258

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

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 Group in the financial statements as of the end of the reporting period.

23. Related party disclosures

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

Transactions with 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.	₩ 6	₩ -	₩ 152	₩ -	₩ -	₩ -
	6	-	152	-	-	-
Associates:						
Kernhem B.V	2,489	-	-	1,972	-	-
ADA OII LLP	397	-	-	327	-	-
Musandam Power Company SAOC	86	-	-	31	-	3
LX Pantos Philippines, Inc. POSCO-PWPC (Poland Wroclaw	1,476	-	1,463	3,082	-	2,059
Processing Center)	-	-	-	918	-	-
Bio Friends INC.	1,575	-		1,392	-	
	6,023	-	1,463	7,722	-	2,062
Other related parties :						
LG Corp. (*1)	1	-	4,238	572	-	9,996
LG Electronics Inc. and its subsidiaries (*1)	3,734,323	20,238	5,880	7,516,838	45.641	9,111
LG Chem. Ltd. and its subsidiaries (*1)	1,173,451	43,012	616	1,552,070	96,234	290
LG Display Co., Ltd. and its subsidiaries	1,110,101	10,012	010	1,002,010	00,201	200
(*1)	169,640	198,477	4	286,689	574,645	2,866
Others (*1)	52,184	-	18,623	93,408	168	43,915
LX Hausys, Ltd and its subsidiaries (*2)	99,649	-	411	82,747	-	808
LX MMA Corp. (*2)	97,325	-	-	36,820	222	-
LX Semicon (*2)	5,459	-	-	5,543	-	-
	5,332,032	261,727	29,772	9,574,687	716,910	66,986
	₩ 5,338,061	₩ 261,727	₩ 31,387	₩ 9,582,409	₩ 716,910	₩ 69,048
						· · · · · · · · · · · · · · · · · · ·

(*1) As independent management of the Group 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.

(*2) It includes the transaction amount of LX affiliates and transaction details of other related companies.

23. Related party disclosures (cont'd)

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

	2022						
	Accounts receivable			Accounts payable	Other payables		
Corporations that have significant influence on the Group at the end of the current year:							
LX Holdings Corp.	₩ -	₩ -	₩ 3	₩ -	₩ 885		
	-	-	3	-	885		
Associates:							
KM Resources Ltd. (Rapu-Rapu) POSCO-PWPC (Poland Wroclaw	-	16,737	332	-	-		
Processing Center) POSCO-IPPC (India Pune Processing	1	-	-	-	-		
Center)	-	-	-	-	1		
Gansu Wuwei Cogeneration Power Plant LX Pantos Philippines, Inc	-	-	1	-	-		
BIO Friends INC.	100	,	10	354	-		
BIO FIIEllus INC.	138			-			
Other related parties (*1):	239	19,145	343	354	<u> </u>		
LX MMA Corp.	8,933	-	-	-	-		
LX Hausys, Ltd and its subsidiaries	5,334	-	-	-	409		
LX Semicon	1,041		-		-		
	15,308	-	-		409		
	₩ 15,547	₩ 19,145	₩ 346	₩ 354	₩ 1,295		

(*1) It includes the transaction amount of LX affiliates and transaction details of other related companies.

		2021						
		Accounts receivable		Loans Other receivables		Accounts payable	Other payables	
Corporations that have significant influence on the Group at the end of the current year:								
LX Holdings Corp.	₩	-	₩	-	₩ 2	₩ -	₩ 4,065	
		-		-	2	-	4,065	
Associates:								
ADA Oil LLP		-		11,246	26	-	-	
Kernhem B.V.		-		47,210	4,847	-	-	
KM Resources Ltd. (Rapu-Rapu)		-		9,279	-	-	-	
POSCO-PWPC (Poland Wroclaw								
Processing Center)		904		-	-	-	-	
POSCO-IPPC (India Pune Processing Center)							1	
Gansu Wuwei Cogeneration Power Plant		-		-	- 1	-	-	
Inner Mongolia Diamond Coal Indusrty		_		_	1	-	-	
Co., Ltd		-		-	75,791	-	-	
LX Pantos Philippines, Inc		121		2,785	24	96	-	
BIO Friends INC.		221		-	-	-	-	
		1,246		70,520	80,689	96	1	
Other related parties:		· · · ·						
LG Corp.		-		-	6,846	-	8,130	
LG Electronics Inc. and its subsidiaries		526,053		-	9,757	4,753	33,267	
LG Chem. Ltd. and its subsidiaries		191,105		-	5,708	2,652	33,241	
LG Display Co., Ltd. and its subsidiaries		36,144		-	23,786	93,052	3,057	
Others		23,493		-	4,421	108	11,414	
		776,795		-	50,518	100,565	89,109	
	₩	778,041	₩	70,520	₩ 131,209	₩ 100,661	₩ 93,175	

The Group recognized allowance for doubtful accounts of #16,737 million as of December 31, 2022 (2021: #48,819 million) for the trade and other receivable from the related parties.

23. 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		eipt of idend		tment in ash	Collection of an investment		Loans	Co	ollection
Corporations that have significant influence on the Group at the end of the current year:											
LX holdings Corp.	₩	22,014	₩	-	₩	-	₩ .	. ₩	-	₩	-
		22,014		-		-			-		-
Associates:											
GS HP Sunflower Int'l Village Corp.		-		53		-	-		-		-
KM Resources Ltd. (Rapu-Rapu)		-		-		-			6,805		-
Musandam Power Company SAOC		-		1,275		-			-		-
Cypress Tree FP N Core Fund		-		-		31,100			-		-
Ecovance INC.		-		-		15,600			-		-
Ateamventures INC.		-		-		3,500			-		-
LX Pantos Philippines, Inc Heungkuk Highclass Private Special		-		-		-			-		520
Asset PEF E1 (*1)		-		-		-	31		-		-
		-		1,328		50,200	31		6,805		520
Other related parties:											
LG Chem. Ltd. and its subsidiaries		-		3,894		-			-		-
		-		3,894		-			-		-
	₩	22.014	₩	5,222	₩	50,200	₩ 31	₩	6,805	₩	520

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

			2021		
	Dividend paymen	Receipt of dividend	Investment in cash	Loans	Collection
Corporations that have significant influence on the Group at the end of the current year:					
LG Corp.	₩ 3,82	₩ -	₩ -	₩ -	₩ -
	3,82	<u> </u>			
Associates:					
ADA Oil LLP			-	-	466
GS HP Sunflower Int'l Village Corp		- 50	-	-	-
KM Resources Ltd. (Rapu-Rapu)			-	4,303	-
Musandam Power Company SAOC		- 1,041	-	-	-
Gansu Wuwei Cogeneration Power Plant		- 4,382	-	-	-
Inner mogolia BDSD Chemical Co., Ltd. Inner Mongolia Diamond Coal Indusrty		- 5,089	-	-	-
Co., Ltd		- 70,135	-	-	-
BIO Friends INC.			2,720	-	-
		- 80,697	2,720	4,303	466
Other related parties:					
LG Chem. Ltd. and its subsidiaries		- 453	-		-
		- 453			-
	₩ 3,82	9 ₩ 81,150	₩ 2,720	₩ 4,303	₩ 466

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

		2022	2021
Short-term employee benefits	₩	14,444 ₩	14,358
Pension benefits		3,140	2,745
	\mathbb{W}	17,584 ₩	17,103

24. Commitments and contingencies

24.1 Guarantees provided

	Financial institution	Object	Limit	Used
Subsidiaries:	Kexim and			
PT.Ganda Alam Makmur (GAM) (*1) Associates:	others	Local finance	USD 36,000	USD 36,000
Musandam Power Company S.A.O.C	Bank Muscat Oman	Local finance	OMR 860	OMR 860

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

Meanwhile, the Group issues L/C to provide Mizuho Bank with a debt guarantee equivalent to USD 30 million.

24.2 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	Con	tract amount
Bills bought	Korea Development Bank and others	USD	60,000
Letter of credits	Shinhan Bank and others	USD	93,530
Payment guarantee	KB Kookmin Bank and others	USD	32,700
		AUD	31,192
		KRW	12,690
Bank overdrafts	Hana Bank and others	KRW	21,400
		USD	4,000
		JPY	1,100,000
		THB	20,000
		EUR	4,000
		CNY	100,000
Line of several t		INR	150,000
Line of credit	Hana Bank China and others	USD	376,450
		EUR	6,000
		AUD CNY	22,000
		THB	215,000
		MYR	257,000 6,000
		INR	280,000
		JPY	200,000
		BRL	7,000
		IDR	1,416,000,000
		VND	663,710,000
		GBP	1,000
		KRW	211,800
B2B purchase loan	Shinhan Bank and others	KRW	17,000
Trade financing	Hana Bank and others	USD	1,212,400
		JPY	12,000,000
		AUD	20,500
		CNY	195,000
		KRW	68,800
		USD	1,779,080
		KRW	331,690
		GBP	1,000
		AUD	73,692
		THB	277,000
		MYR	6,000
Tetel		EUR	10,000
Total		BRL	7,000
		JPY CNY	13,300,000
		INR	510,000 430,000
		VND	430,000 663,710,000
		IDR	1,416,000,000
		אשו	1,+10,000,000

24.2 Major agreements such as opening letters of credit (cont'd)

Meanwhile, on May 31, 2016, the Group signed a project financing agreement with Woori Bank for the Poseung Biomass power generation project, and on February 26, 2021, it signed a PF loan refinancing contract to change some loan stocks, principal, and interest rates.

				(Kore	ean won in millions)
	Financial institution		Limit		Used
PF loan (TrancheA)	Woori bank and others	₩	57,000	₩	57,000
PF loan (TrancheB)	Nonghyup and others		118,000		118,000
PF loan (TrancheC)	Woori bank		3,000		-

24.3 Guarantees received

Guarantees received by the Group as of December 31, 2022 are as follows (Korean won in millions and foreign currencies in thousands):

		Guarantee	
Financial institution	Details	amount	Description
Hana Bank and others	Bond	₩ 77,253	KRW 46,214, USD 4,945, EUR 446, HKD 3,636,
			INR 280,000, IDR 24,600,532, SGD 355, AUD 8,
			VND 318,272,000

24.4 Pledged notes and checks

The Group pledged 18 notes and 6 checks as collateral to its customers, creditors and guarantors related to various guarantees and borrowings as of December 31, 2022.

24.5 Assets pledged as collateral

The Group has a pledge on the account opened by its subsidiary, Poseung Green Power Co., Ltd. in Woori Bank and the shares of Poseung Green Power Co., Ltd. held by its parent company according to the project finance agreement (see Note 12-3). In addition, insurance underlying rights are established in operating insurance subscribed during the project, and transfer security is established to transfer all rights (including contractual status) of the Group for collateral purposes for investment contracts, REC sales contracts, and liability fuel purchase agency contracts. In addition, the factory foundation (buildings, structures, and machinery) has a mortgage. A total of W210,000 million is set as collateral in connection with the project financing agreement.

24.6 Joint and several liability on guarantees

The Parent Company and newly incorporated entity, LF Corp. are jointly and severally liable for the obligations of LXI existing prior to the spin-off.

24.7 Pending lawsuits

The Group is a defendant in various lawsuits with claims aggregating to #22,795 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 consolidated financial statements (see Note 13).

24.8 Other commitments

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

Type of commitment	Counterparty	Description
Put option	Inner Mongolia BDSD Chemical Co., Ltd.	As of August 27, 2013, the Group signed a put option contract with Inner Mongolia BERUN Holding Group Co., Ltd. to acquire a 29% of equity interests of Inner Mongolia BDSD Chemical Co., Ltd., which has a coal chemical plant in Inner Mongolia, China.
Put option	Gansu Wuwei Cogeneration Power Plant	As of October 12, 2015, the Group 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 Group signed two contracts for the acquisition of convertible preferred stocks of Pablo Air Co., Ltd. with Pablo 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 Co., Ltd.	As of November 23, 2021, the Group signed contract with SKC Co., Ltd. and Daesang Co., Ltd. to sign a put option contract for the stake in Ecovance.,
Put option	Bio Friends INC.	As of May 20, 2021, the Group signed a put option contract with Bio Friends INC. and its stakeholder, Won-Jun Jo, to acquire equity shares of Bio Friends INC.
Call option	Poseung Green Power Co., Ltd.	As of October 19, 2022, the Group signed contracts with Lani Finance Limited with a call option to acquire a full stake in Poseung Green Power Co., Ltd.

24.9 Uncertainty regarding the COVID-19 impacts

Various preventions and controls, including movement restrictions, are being implemented worldwide to prevent the spread of COVID-19, and as a result, the global economy is being affected extensively. Also, various forms of governmental support policies are being announced in order to cope with Covid-19.

The business of the Group is affected by customer demands as it operates various products and product sales businesses home and abroad. Categories affected by COVID-19 are mainly recoverability of accounts receivable (see Note 11) and impairment of investment in associates (see Note 8 and Note 21). The Group prepared its financial statements by reasonably estimating the impact of COVID-19 on the Group. However, there are significant uncertainties in estimating the end of COVID-19 and its impact on the Group in the COVID-19 situation.

24.10 Uncertainty regarding the 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 Group cannot reasonably estimate the future financial impact of the Russia-Ukraine war.

25. Financial risk management objectives and policies

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

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

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

25.1 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.

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, 2022 and 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 consolidated 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.

25.1.1 Interest rate risk

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

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

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

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

25.1.1 Interest rate risk (cont'd)

Interest rate sensitivity

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

		2022				2021			
	Increa	Increase by 1%		Decrease by 1%		Increase by 1%		crease by 1%	
Interest income	\mathbb{W}	6,804	₩	(6,804)	₩	2,112	₩	(2,112)	
Interest expenses		(4,058)		4,058		(1,458)		1,458	
Net effect	₩	2,746	₩	(2,746)	₩	654	₩	(654)	

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 December 31, 2022 and 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)
			2022	
Sortation	Interest rate		Nominal amount	Average maturity (Year)
Interest rate swaps	LIBOR USD (6M)	₩	8,077	11.7
				(Korean won in millions)
			2021	
Sortation	Interest rate		Nominal amount	Average maturity (Year)
Interest rate swaps	LIBOR USD (6M)	₩	(9,449)	12.7
Currency swaps	LIBOR USD (3M)		1,743	0.1

25.1.2 Foreign currency risk

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

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

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

25.1.2 Foreign currency risk (cont'd)

Foreign currency sensitivity

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

	2022				2021			
	Increase	e by 10%	Decr	ease by 10%	Incre	ease by 10%	Dec	rease by 10%
Gain (loss) on foreign currency translation Gain (loss) on valuation of derivative financial	₩	52,857	₩	(52,857)	₩	61,837	₩	(61,837)
instruments		(9,714)		9,714		(20,702)		20,702
Net effect (*1)	₩	43,143	₩	(43,143)	₩	41,135	₩	(41,135)

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

25.2 Credit risk

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

The Group applies a simplified method of recognizing lifetime expected credit losses as a loss allowance to its account receivable.

The provision rate set for the accounts receivable of December 31, 2022 are as follows (Korean won in millions):

		Account receivable accrual date						
	Less than	3 to 6	6 to 12	1 to 3	More than			
	3month	month	month	years	3 years	Total		
Expected loss rate	0.24%	3.56%	22.81%	97.97%	88.67%			
Book value	₩ 1,353,643	₩ 9,758	₩ 13,134	₩ 2,466	₩ 43,192	₩ 1,422,193		
Provision	3,259	347	2,996	2,416	38,297	47,315		

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)	₩	1,547,128	₩	839,100
Short-term financial instruments		49,952		20,787
Long-term equity instruments:		298,352		151,681
Financial assets at fair value through profit or loss		20,990		18,209
Financial assets at fair value through OCI		277,362		133,472
Trade accounts receivable		1,374,878		1,653,459
Other accounts receivable (*2)		202,102		263,333
Long-term loans		3,390		22,350
Other financial assets (*2)		270,433		259,203
	₩	3,746,235	₩	3,209,913

(*1) Excludes cash on hand

(*2) Excludes other receivables in relation to derivatives

25.3 Maturity profile of financial assets

Other financial assets

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

			2022		
	Less than	1 to 3	3 to 5	More than	
	1 year	years	years	5 years	Total
Cash and cash equivalents	₩ 1,550,675 ₩	₩ -	₩ -	₩ -	₩ 1,550,675
Short-term financial instruments	49,952	-	-	-	49,952
Trade accounts receivable	1,371,569	3,309	-	-	1,374,878
Other accounts receivable	202,984	-	-	-	202,984
Long-term loans	-	3,390	-	-	3,390
Other financial assets	61,629	43,710	11,141	162,947	279,427
	₩ 3,236,809 ₩	₩ 50,409	₩ 11,141	₩ 162,947	₩ 3,461,306
			2021		
	Less than	1 to 3	3 to 5	More than	
	1 year	years	years	5 years	Total
Cash and cash equivalents	₩ 841,883 ₩	₩ -	₩ -	₩ -	₩ 841,883
Short-term financial instruments	20,787	-	-	-	20,787
Trade accounts receivable	1,651,200	2,259	-	-	1,653,459
Other accounts receivable	265,138	137	-	-	265,275
Long-term loans	-	22,350	-	-	22,350

39,890

64,636 ₩

11,102

11,102 ₩

162,836

<u>162,836</u> ₩ 3,063,544

259,790

45,962

₩ 2,824,970 ₩

25.4 Liquidity risk

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

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

			2022		
	Less than	1 to 3	3 to 5	More than	
	1 year	years	years	5 years	Total
Trade accounts payable	₩ 1,148,951	₩ -	₩ -	₩ -	₩ 1,148,951
Other accounts payable	358,628	-	-	-	358,628
Borrowings	413,102	336,434	147,650	390,818	1,288,004
Bonds payable	169,870	119,806	189,581	159,611	638,868
Lease liabilities	106,770	102,780	42,344	17,826	269,720
Other financial liabilities	375,408	959	-	-	376,367
	₩ 2,572,729	₩ 559,979	₩ 379,575	₩ 568,255	₩ 4,080,538
			2021		
	Less than	1 to 3	3 to 5	More than	
	1 year	years	years	5 years	Total
Trade accounts navable	₩ 1 610 765	₩	₩	₩	₩ 1 610 765

	T year	years	years	5 years	Total
Trade accounts payable	₩ 1,619,765 ₩	₩ -	₩ -	₩ -	₩ 1,619,765
Other accounts payable	345,214	-	-	-	345,214
Borrowings	604,646	140,300	37,564	165,721	948,231
Bonds payable	139,981	119,831	69,819	79,812	409,443
Lease liabilities	77,774	83,097	30,194	20,811	211,876
Other financial liabilities	246,637	10,574	-		257,211
	₩ 3.034.017 ₩	₩ 353,802	₩ 137,577	₩ 266,344	₩ 3,791,740

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

25.5 Capital management

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

In order to maintain a solid capital structure, the Group monitors the financial ratio such as debt ratio and net deposit ratio every month and implements appropriate financial structure improvement measures if necessary.

The Group'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 bonds.

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

		2022	2021		
Total liabilities (A)	\mathbb{W}	4,682,532 ₩	4,362,645		
Total equity (B)		3,036,475	2,384,244		
Cash and cash equivalents (C)		1,550,675	841,883		
Total borrowings (D)		2,196,592	1,569,550		
Debt ratio (A / B)		154.21%	182.98%		
Net borrowing ratio ((D-C) / B)		21.27%	30.52%		

26. Fair value of financial instruments

26.1 Fair value of financial instruments

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

		20	22			2021			
	В	ook value		Fair value	В	ook value	Fair value		
Financial assets: Financial assets measured at amortized cost:									
Cash and cash equivalents	₩	1,170,875	₩	1,170,875	₩	724,175	₩	724,175	
Short-term financial instruments		49,952		49,952		20,787		20,787	
Trade accounts receivable		1,374,878		1,374,878		1,653,459		1,653,459	
Long-term loans		3,390		3,390		22,350		22,350	
Other accounts receivable		202,102		202,102		263,334		263,334	
Other financial assets		270,433		270,433		259,203		259,203	
	₩	3,071,630	₩	3,071,630		2,943,308		2,943,308	
Financial assets recognized at fair value:									
Cash and cash equivalents Other accounts receivable related	₩	379,800	₩	379,800	₩	117,708	₩	117,708	
derivatives		882		882		1,941		1,941	
Long-term equity instruments		298,352		298,352		151,681		151,681	
Other financial assets		8,994		8,994		587		587	
	₩	688,028	₩	688,028	₩	271,917	₩	271,917	
	₩	3,759,658	₩	3,759,658	₩	3,215,225	₩	3,215,225	
	2022 2021								
	В	ook value		Fair value	B	Book value Fair value			
Financial liabilities: Financial liabilities measured at amortized cost:									
Borrowings	₩	1,156,703	₩	1,156,703	₩	759,556	₩	759,556	
Bonds payable Current portion of bonds and		468,998		468,998		269,462		269,462	
long-term borrowings		301,170		301,170		328,656		328,656	
Other financial liabilities		2,151,580		2,151,580		2,423,377		2,423,377	
	₩	4,078,451	₩	4,078,451	₩	3,781,051	₩	3,781,051	
Financial liabilities recognized at fair value: Other accounts payable related									
derivatives	₩	2,086	₩	2,086	₩	1,240	₩	1,240	
Others				-		9,449		9,449	
		2,086		2,086	₩	10,689	₩	10,689	
	₩	4,080,537	₩	4,080,537	₩	3,791,740	₩	3,791,740	

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

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

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

As of December 31, 2022 and 2021, the Group holds assets and liabilities measured at fair value on the statements of financial position, and assets and liabilities for which the fair values were disclosed as following (Korean won in millions):

2022									
L	evel 1		Level 2	Level 3					
₩	-	₩	882	₩	-				
	-		917		-				
	2,060		-		18,930				
	112,288		-		163,068				
	-		2,086		-				
	-		8,077		-				
		2,060	₩ - ₩ - 2,060	Level 1 Level 2 ₩ - ₩ 882 - 917 2,060 - 112,288 - - 2,086	Level 1 Level 2 ₩ - ₩ 882 - 917 2,060 - 112,288 - - 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 were no movements between the levels of the fair value hierarchy for the year ended December 31, 2022.

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

	2021									
	L	_evel 1	_	Level 2	Level 3					
Assets and liabilities measured at fair value:										
Financial assets at fair value through profit or loss:										
Other accounts receivable related to derivatives	₩	-	₩	198	₩	-				
Other financial assets related to derivatives		-		587						
Long-term equity securities (*1)		2,470		-		15,740				
Financial assets at fair value through OCI:										
Long-term equity securities (*1)		13,690		-		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		-				
Other financial liabilities		-		9,449		-				

(*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.

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%).

27. 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	₩	195,808	₩	146,781
Amortization		36,613		40,466
Pension benefits		20,658		19,103
Bad debt expenses		28,365		20,473
Interest income		(23,292)		(10,213)
Gain on foreign currency translation		(124,706)		(37,678)
Interest expenses		59,066		34,101
Loss on foreign currency translation		113,531		30,158
Gain (Loss) on disposal of other investment assets		(2,146)		1
Impairment loss on investments in associates		2,686		-
Impairment loss on intangible assets		19,549		-
Reversal of impairment loss on intangible assets		(118,519)		-
Share of profit of associates		(104,912)		(92,778)
Share of loss of associates		5,809		2,455
Loss (gain) on disposal of investments in associates	;	(1,075)		640
Income tax expenses		353,877		194,365
Gain on exemption from debt		(789)		(14,659)
Dividend income		(14,146)		(7,285)
Increase in provisions		45,393		17,803
Others		6,578		396
	₩	498,348	₩	344,129

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	₩	218,730	₩	(195,889)
Decrease (increase) in other accounts receivable		50,447		(11,288)
Increase in advance payments		(47,833)		(55,029)
Decrease (Increase) in inventories		385,446		(339,138)
Increase in other operating assets		(79,171)		(121,583)
Decrease in trade accounts payable		(467,122)		(111,365)
Increase (decrease) in other accounts payable		(36,170)		103,759
Increase in advance received		44,121		45,938
Pension benefits paid		(14,552)		(9,177)
Increase in plan assets		(26,520)		(17,445)
Increase (decrease) in provisions		(18,635)		(8,903)
Increase in other operating liabilities		147,305		100,766
	₩	156,046	₩	(619,354)

27. Statements of cash flows (cont'd)

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

		2022		2021
Other accounts payable related to acquisition of property, plant and equipment Transfer construction-in-process	₩	18,894	₩	(11,825)
(property, plant and equipment) to account		39,698		11,555
Acquisition of right-of-use assets		205,735		129,921
Receivable of dividend		19,580		(70,828)
Transfer inventories to property, plant and equipmen	t	27		8,512

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

					Non-cash changes							
			Ca	Cash flows in		Foreign	Change in the					
		Jan. 1		inancing activitie		currency ranslation		cope of solidation	Ot	hers (*1)		Dec. 31
Short-term borrowings	₩	415,971	₩	(178,582)	₩	25,623	₩	-	₩	18,790	₩	281,802
Long-term borrowings		532,261		261,095		17,818		211,599		(16,570)		1,006,203
Bonds payable		409,443		229,859		-		-		(435)		638,867
Lease liabilities		211,876		(122,604)		(743)		21,972		159,219		269,720
	₩	1,569,551	₩	189,768	₩	42,698	₩	233,571	₩	161,004	₩	2,196,592

			2021			
			Non-cash			
		Cash flows in	Foreign			
		financing currency				
	Jan. 1	activities	translation	Others (*1)	Dec. 31	
Short-term borrowings	₩ 106,804	₩ 297,825	₩ 11,342	₩ -	₩ 415,971	
Long-term borrowings	582,236	(49,785)	12,554	(12,744)	532,261	
Bonds payable	509,267	(100,126)	-	302	409,443	
Lease liabilities	186,207	(98,149)	5,903	117,915	211,876	
	₩ 1,384,514	₩ 49,765	₩ 29,799	₩ 105,473	₩ 1,569,551	

(*1) Including the decrease of liabilities owing to the exemption of debt .

28. Service concession arrangements

As of December 31, 2022, details of Service Concession Arrangements of the Group are as follows:

Content of contract	The Group entered into a contract to build a hydroelectric power plant in Sumatra, Indonesia, and to conduct electricity sales business which is generated by the facility.
Project period	In accordance with this agreement, for 30 years from the commencement date of electricity sales (based on electricity sales contract)
Classification	BOO (Build-Own-Operate)
Accounting standard	KIFRS 2112 Service Concession Arrangements
Others	The Group has recognized the minimum guaranteed price and operating rights of the facility as financial assets and intangible assets, respectively, which are acquired in exchange for the construction services for the hydroelectric power plants. For the year ended December 31, 2022, there was no revenue or cost recognized as construction services.

29. Leases

As of December 31, 2022 and 2021, details of right-of-use assets of the Group are as follows (Korean won in millions):

		2022											
		Land	E	Buildings	1	Vehicles		Ships		Others		Total	
Acquisition cost Accumulated	₩	4,154	₩	410,155	₩	20,985	₩	4,074	₩	16,996	₩	456,364	
depreciation		(548)		(169,905)		(10,425)		(4,074)		(4,831)		(189,783)	
Net book value	₩	3,606	₩	240,250	₩	10,560	₩	-	₩	12,165	₩	266,581	

		2021										
		Land	Buildings		Vehicles		Ships		Others		Total	
Acquisition cost Accumulated	₩	1,314	₩	314,818	₩	19,126	₩	4,055	₩	17	₩	339,330
depreciation		(84)		(118,599)		(9,577)		(4,055)		(8)		(132,323)
Net book value	₩	1,230	₩	196,219	₩	9,549	₩	-	₩	9	₩	207,007

Changes in right-of-use assets for the years ended December 31, 2022 and 2021 are as follows (Korean won in millions):

	2022											
Land		Buildings		Vehicles		Ships		Others		Total		
Jan.1	₩	1,230	₩	196,219	₩	9,549	₩	-	₩	9	₩	207,007
Additions		298		161,907		8,916		13,183		21,431		205,735
Depreciation		(121)		(105,987)		(7,919)		(11,405)		(5,004)		(130,436)
Disposals		-		(36,566)		(337)		(2,165)		-		(39,068)
Change in the scope												
of consolidation		2,160		19,832		343		-		-		22,335
Others		39		4,845		8		387		(4,271)		1,008
Dec. 31	₩	3,606	₩	240,250	₩	10,560	₩	-	₩	12,165	₩	266,581

		2021										
	Land		Buildings		Vehicles		Ships		Others			Total
Jan.1	₩	1,055	₩	175,642	₩	8,951	₩	-	₩	11	₩	185,659
Additions		92		115,539		3,868		10,422		-		129,921
Depreciation		(29)		(83,156)		(6,651)		(10,195)		(3)		(100,034)
Disposals		-		(11,923)		(315)		-		-		(12,238)
Others		112		117		3,696		(227)		1		3,699
Dec. 31	₩	1,230	₩	196,219	₩	9,549	₩	-	₩	9	₩	207,007

29. Leases (cont'd)

The 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	₩	211,876	₩	186,207
Additions		198,558		130,157
Interest expense		7,268		6,316
Payment		(129,873)		(104,465)
Termination		(39,338)		(12,333)
Change in the scope of consolidation		21,972		-
Others		(743)		5,994
Dec. 31	₩	269,720	₩	211,876

Details of expenses came from short-term leases and leases of low-value assets for the years ended December 31, 2022 and 2021 are as follows (Korean won in millions):

	2	2022	2021
Short-term leases	₩	52,854 ₩	∀ 55,740
Leases of low-value assets		4,155	2,567
	₩	57,009	∀ 58,307

For the year ended December 31, 2022, the Group signed sub-lease contracts, and the amount of finance lease receivables thereof is $\mathbb{W}1,662$ million. (2021: $\mathbb{W}2,806$ million.)

30. Business combinations

The Group has incorporated a 100% stake in LX PANTOS USA, INC into the subsidiary (formerly PANTOS USA, INC.), which operates a combined transportation business in the United States January 1, 2022, and a 100% stake in LPIC TN LLC into the subsidiary, a warehouse-owned corporation, on June 10, 2022 to re-enter the North American W&D business and lay the foundation for growth.

The Group acquired a 100% of the common stock of Poseung Green Power Co., Ltd. on October 19, 2022 and incorporated it as a subsidiary for securing new revenue sources through the acquisition of a biomass power company.

As of the acquisition date, the fair value of identifiable assets and liabilities of LX Pantos USA, INC. (formerly, Pantos USA INC.), LPIC TN LLC, Poseung Geen Power Co., Ltd. are as follows (Korean won millions):

	2022								
	Lک	(Pantos		Poseung green					
	U	SA, INC.	LPIN TN LLC		er Co., Ltd.		Total		
Current assets	₩		₩	₩		₩			
Cash and cash equivalent		7,676	10		14,377		22,063		
Short-term financial instruments		-	-		20,100		20,100		
Trade accounts receivable		21,674	-		4,596		26,270		
Other accounts receivable		30,645	-		-		30,645		
Advance payment		17	5		-		22		
Prepaid expense		1,828	85		153		2,066		
Other current assets		47,429	-		-		47,429		
Inventories		-			3,519		3,519		
		109,269	100		42,745		152,114		
Non-current assets									
Property, plant and equipment		1,672	32,851		186,582		221,105		
Intangible assets		-	-		46,169		46,169		
Right-of-use		20,093	-		2,242		22,335		
Other non-current assets		76	-		2,990		3,066		
		21,841	32,851		237,983		292,675		
Total assets	₩	131,110	₩ 32,951	₩	280,728	₩	444,789		
Current liabilities									
Trade payables		39,962	-		847		40,809		
Other payables		22,041	19		3,020		25,080		
Accured expenses		43,449	245		829		44,523		
Current portion of lease liabilities		1,863	-		158		2,021		
Other current liabilities		7,151	553		9,993		17,697		
		114,466	817		14,847		130,130		
Non-current liabilities									
Loans		7,113	25,507		178,979		211,599		
Lease liabilities		18,069	-		1,882		19,951		
Other non-current liabilities		161	-		9,521		9,682		
		25,343	25,057		190,382		241,232		
Total liabilities	₩	139,809	₩ 26,324	₩	205,229	₩	371,362		
Total identifiable net assets		(8,699)	6,627		75,499		73,427		
Amount of equity		(8,699)	6,627		75,499		73,427		
Transfer price		7,706	6,917		94,950		109,573		
Goodwill (*1)		16,405	290		19,451		36,146		

(*1) Due to the business combination, the fair value evaluation of the identified assets for the allocation of consideration for acquisition has not been completed as of the end of the current term. The above goodwill may vary based on the results of the fair value assessment of identifiable asset liabilities for the allocation of consideration.

30. Business combinations (cont'd)

Sales and profit and loss of LX PANTOS USA, INC. (formerly PANTOS USA, INC.) and LPIC TN LLC, Poseung Green Power Co., Ltd. after the acquisition date reflected in the consolidated profit and loss statement are as follows (Korean won millions):

	LX Pan	tos USA, INC.	LPIC TN LLC	Poseung green power Co., Ltd.
Sales	₩	597,152 ₩	1,483	₩ 11,339
Profit (loss) for the years		(4,173)	341	1,592

If LX Pantos USA, INC. (formerly, Pantos USA, INC.), LPIC TN LLC, and Poseung Green Power Co., Ltd. are included in the consolidated financial statements from the current base, the Group's sales and profit or loss will be #18,808,361 million and #789,329 million, respectively in January 1, 2022.

31. Non-current assets 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):

		20	22		2021					
	A	ssets		Liabilities		Assets		Liabilities		
Long-term equity instruments OQ Aromatics LLC (*1) Associates	₩	4,779	₩	5,655	₩	4,779	₩	5,655		
ZAO CONTRANS (*2)		-		-		1,116		-		
	₩	4,779	₩	5,655	₩	5,895	₩	5,655		

- (*1) For the year ended December 31, 2021, the Group decided to dispose 1% of its stake in OQ Aromatics LLC, which had been classified as long-term equity instruments, and reclassified the related assets and liabilities as non-current assets held for sale and non-current liabilities held for sale, respectively.
- (*2) For the year ended December 31, 2022, the Group sold ZAO CONTRANS and recognized gain on disposal of ₩5,844 million

Meanwhile, for the year ended December 31, 2022, the Group 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 Group acquired 5,000,000 common shares of Korea Glass Industrial Co., Ltd. in cash for \pm 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 consolidated financial statements

The consolidated financial statements of the Group for the year ended December 31, 2022 were approved by the Parent Company's Board of Directors on Feburary 17, 2023 for their submission to the shareholders' general meeting.