Separate Financial Statements December 31, 2022 and 2021

Index

December 31, 2022 and 2021

	Page(s)
Independent Auditor's Report	1 - 4
Separate Financial Statements	_
Separate Statements of Financial Position	5
Separate Statements of Profit or Loss	6
Separate Statements of Comprehensive Income	7
Separate Statements of Changes in Equity	8
Separate Statements of Cash Flows	9
Notes to the Separate Financial Statements	10 – 117
Report on Independent Auditor's Review of Internal Control over Financial Reporting.	118 - 119
Management's Report on the Effectiveness of Internal Control over Financial Reportin	g 120



Independent Auditor's Report

(English Translation of a Report Originally Issued in Korean)

To the Board of Directors and Shareholders of LG CNS CO., LTD.

Opinion

We have audited the accompanying separate financial statements of LG CNS CO., LTD.(hereafter referred to as the "Company"), which comprise the separate statement of financial position as at December 31, 2022, and the separate statements of profit or loss, comprehensive income, changes in equity and cash flows for the year then ended, and notes to the separate financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying separate financial statements present fairly, in all material respects, the separate financial position of the Company as at December 31, 2022, and its separate financial performance and its separate cash flows for the year then ended in accordance with International Financial Reporting Standard as adopted by the Republic of Korea (Korean IFRS).

Basis for Opinion

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

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the separate financial statements of the current period. These matters were addressed in the context of our audit of the separate financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Estimation of total contract costs for construction contracts

Reasons why the matter was determined to be a key audit matter

As described in Notes 19 and 24 to the separate financial statements, the Company recognizes revenue over time using the cost-based input method to construction contracts. The Company measures the progress by project at the ratio of the accumulated amount of contract costs divided by the total contract costs. Since total contract cost is estimated on the basis of future forecasting of labor cost, outsourcing cost and others, estimation of the total contract cost affect profit or loss of current and future periods and the calculation of contract assets and contract liabilities. Since the amounts of Company's construction contract sales and costs are material to the separate financial statements and there are uncertainties, under the nature of construction contracts, that the estimation of the total contract costs may vary in the future depending on significant judgments of the Company's management, we identified estimation of total contract costs for construction contracts as a key audit matter.

How our audit addressed the Key Audit Matter

We have performed the following audit procedures to address the Key Audit Matter.

- Obtained an understanding of revenue recognition accounting policies and internal controls
- Performed tests on internal controls such as management's review and approval for the estimation and changes in total contract costs
- Examined the accuracy for reflection of the estimated total contract cost in the measurement of percentage of completion
- Performed recalculation of the percentage of completion for the projects
- Performed retrospective review of projects of which total contract costs were significantly changed during the current period
- Performed review of projects of which total contract costs were significantly changed since the end of the reporting period

Other Matters

The separate financial statements of the Company for the year ended December 31, 2021, were audited by Deloitte Anjin LLC who expressed an unqualified opinion on those statements on March 16, 2022.

Auditing standards and their application in practice vary among countries. The procedures and practices used in the Republic of Korea to audit such separate financial statements may differ from those generally accepted and applied in other countries.

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

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

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

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

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

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

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

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

- separate financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the separate financial statements, including the disclosures, and whether the separate financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

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

Seoul, Korea March 17, 2023

This report is effective as of March 17, 2023, the audit report date. Certain subsequent events or circumstances, which may occur between the audit report date and the time of reading this report, could have a material impact on the accompanying separate financial statements and notes thereto. Accordingly, the readers of the audit report should understand that there is a possibility that the above audit report may have to be revised to reflect the impact of such subsequent events or circumstances, if any.

LG CNS CO., LTD. and Subsidiaries Separate Statements of Financial Position December 31, 2022 and 2021

(in thousands of Korean won)	Notes		2022		2021
Assets					
Current assets					
Cash and cash equivalents	5,6,28,35	₩	648,866,093	₩	545,373,508
Financial institution deposits	5,28,32,35		100,000,000		100,000,000
Current derivative assets	5,28,35		11,442,050		1,621,136
Trade receivables, net	5,7,28,31,35		1,259,451,660		996,741,540
Other receivables, net	5,7,28,31,35		23,235,946		23,555,478
Inventories, net	8		51,073,840		46,562,568
Other assets	9,19,31		493,181,121		378,396,855
			2,587,250,710		2,092,251,085
Non-current assets					
Long-term financial institution deposits	5,28,32,35		12,000,000		12,000,000
Financial assets at fair value through profit or loss	5,28,32,35		24,534,227		23,281,345
Financial assets at fair value through other comprehensive income	5,28,35		2,352,237		769,139
Long-term trade receivables, net	5,7,28,31,35		5,403,118		6,228,251
Long-term other receivables, net	5,7,28,31,32,35		11,411,713		6,268,398
Property, plant and equipment, net	10,31		548,701,470		553,807,128
Investment property	11		37,133,189		32,349,308
Intangible assets	12		90,479,620		104,254,186
Investments in subsidiaries	13,31		91,085,178		84,347,595
Investments in associates	14,31		54,280,373		44,118,373
Net defined benefit assets	17		575,080		32,761
Deferred tax assets	30		63,692,921		62,278,363
Other non-current assets	9		1,169,997		91,583
Right-of-use assets	31,33		60,691,315 1,003,510,438		50,566,974 980,393,404
Total assets		₩	3,590,761,148	₩	3,072,644,489
Liabilities					
Current liabilities					
Current derivative liabilities	5,28,35	₩	1,810,103	₩	2,564,026
Trade payables	5,28,31,35		703,746,373		602,820,782
Other payables	5,28,31,35		218,789,582		190,124,491
Short-term borrowings	5,15,28,35		270,000,000		-
Current portion of long-term borrowings	5,15,28,35		259,918,154		89,982,760
Current tax liabilities	30		58,901,400		62,077,783
Current provisions	16		39,468,844		26,531,834
Other liabilities	18,19		293,044,239		247,136,802
Current lease liabilities	28,31,33,35		12,494,576		9,854,903
Non-current liabilities			1,858,173,271		1,231,093,381
Long-term other payables	5,28,31,35		1,835,004		1,364,150
Long-term borrowings	5,15,28,35		149,681,480		409,262,536
Provisions	16		3,562,373		1,214,451
Other liabilities	18		18,036,053		17,383,790
Lease liabilities	28,31,33,35		45,700,848		39,705,653
			218,815,758		468,930,580
Total liabilities			2,076,989,029		1,700,023,961
Equity					
Share capital	20		47,198,411		47,198,411
Capital surplus	20,21		138,026,095		138,026,095
Accumulated other comprehensive income (loss)	22		(13,749,346)		(13,731,028)
Retained earnings	23		1,342,296,959		1,201,127,050
Total liabilities and equity		797	1,513,772,119	1A/	1,372,620,528
Total liabilities and equity		₩	3,590,761,148	₩	3,072,644,489

The above separate statements of financial position should be read in conjunction with the accompanying notes.

LG CNS CO., LTD. and Subsidiaries Separate Statements of Profit or Loss Years ended December 31, 2022 and 2021

(in thousands of Korean won)	Notes		2022		2021
Revenue	4,24,31	₩	4,590,452,884	₩	3,826,781,022
Cost of sales	24,25,31		3,950,665,315		3,277,574,873
Gross profit			639,787,569		549,206,149
Selling and administrative expenses	24,25,31		322,013,471		273,998,801
Operating profit			317,774,098		275,207,348
Financial income Financial expenses Other non-operating income Other non-operating expenses	26 26 27 27		44,861,956 17,124,495 47,057,053 72,316,542		29,135,651 13,385,521 22,107,148 35,537,079
Profit before income tax Income tax expense Profit for the year	30	₩	320,252,070 84,459,640 235,792,430	₩	277,527,547 63,585,143 213,942,404
Earnings per share (in Korean won) Basic earnings per share Diluted earnings per share	29	₩	2,704 2,704	₩	2,454 2,454

The above separate statements of profit or loss should be read in conjunction with the accompanying notes.

LG CNS CO., LTD. and Subsidiaries Separate Statements of Comprehensive Income Years ended December 31, 2022 and 2021

(in thousands of Korean won)		2022		2021
Profit for the year	₩	235,792,430	₩	213,942,404
Items that will not be reclassified to profit or loss: Remeasurements of net defined benefit liability Gain (loss) on valuation of financial assets at fair value		422,594		61,010
through other comprehensive income		(18,318)		1,259,340
Other comprehensive income for the year, net of tax		404,276		1,320,350
Total comprehensive income for the year	₩	236,196,706	₩	215,262,754

The above separate statements of comprehensive income should be read in conjunction with the accompanying notes.

LG CNS CO., LTD. Separate Statements of Changes in Equity Years Ended December 31, 2022 and 2021

(in thousands of Korean won)	Sh	nare Capital	Ca	pital Surplus		ccumulated Other mprehensive Loss		Retained Earnings		Total Equity
Balance at January 1, 2021	₩	47,198,411	₩	138,026,095	₩	(14,990,368)	₩	1,061,677,373	₩	1,231,911,511
Total comprehensive income										
Profit for the year Gain on valuation of financial assets at fair value		-		-		-		213,942,404		213,942,404
through other comprehensive income		-		-		1,259,340		-		1,259,340
Remeasurements of net defined benefit liability		-		-		-		61,010		61,010
Transactions with owners										
Cash dividends paid								(74,553,737)		(74,553,737)
Balance at December 31, 2021	₩	47,198,411	₩	138,026,095	₩	(13,731,028)	₩	1,201,127,050	₩	1,372,620,528
Balance at January 1, 2022	₩	47,198,411	₩	138,026,095	₩	(13,731,028)	₩	1,201,127,050	₩	1,372,620,528
Total comprehensive income										
Profit for the year		-		-		-		235,792,430		235,792,430
Loss on valuation of financial assets at fair value through other comprehensive income		-		-		(18,318)		-		(18,318)
Remeasurements of net defined benefit liability		-		-		-		422,594		422,594
Transactions with owners										
Cash dividends paid								(95,045,115)		(95,045,115)
Balance at December 31, 2022	₩	47,198,411	₩	138,026,095	₩	(13,749,346)	₩	1,342,296,959	₩	1,513,772,119

The above separate statements of changes in equity should be read in conjunction with the accompanying notes.

LG CNS CO., LTD. and Subsidiaries Separate Statements of Cash Flows Years Ended December 31, 2022 and 2021

(in thousands of Korean won)	Notes		2022	2021		
Cash flows from operating activities						
Cash generated from operations	36	₩	211,099,082	₩	199,280,485	
Interest income received			9,268,273		4,826,897	
Dividend income received			29,096,826		22,338,388	
Income taxes received			143		2,689,323	
Interest paid			(10,410,125)		(11,611,266)	
Income taxes paid			(89,172,849)		(63,146,163)	
Net cash inflow from operating activities			149,881,350		154,377,664	
Cash flows from investing activities						
Inflow from settlement of derivative instruments			9,825,284		4,967,716	
Decrease in financial institution deposits			-		10,000,000	
Decrease in other receivables			4,319,574		1,857,925	
Disposal of financial assets at fair value through profit or loss					434,851	
Disposal of financial assets at fair value through other comprehensive income			=		3,292,623	
Decrease in other non-current receivables			=		239,333	
Disposal of investments in subsidiaries			=		2,600,000	
Disposal of investments in associates			=		1,872	
Disposal of property, plant and equipment			193,748		432,884	
Disposal of intangible assets			6,092,000		199,000	
Increase in long-term other payables			470,855		· =	
Outflow from settlement of derivative instruments			(27,672,172)		(10,331,981)	
Increase in other receivables			(4,685,708)		(3,426,477)	
Acquisition of financial assets at fair value through profit or loss			(2,594,460)		(6,623,720)	
Increase in long-term other receivables			(4,634,572)		(3,090,420)	
Acquisition of investments in subsidiaries			(8,883,629)		(14,941,204)	
Acquisition of investments in associates			(17,562,000)		-	
Acquisition of property, plant and equipment			(51,125,901)		(32,750,263)	
Acquisition of intangible assets			(23,187,166)		(53,139,143)	
Net cash outflow from investing activities			(119,444,147)		(100,277,004)	
Cash flows from financing activities						
Proceeds from of short-term borrowings			270,000,000		_	
Issuance of debentures			-		34.024	
Redemption of debentures			(90,000,000)		(90,000,000)	
Redemption of current lease liabilities			(10,583,744)		(11,237,209)	
Payment of dividends			(95,045,115)		(74,553,737)	
Others			(47,151)		(11,000,101)	
Net cash inflow (outflow) from financing activities		-	74,323,990		(175,756,922)	
That again mile it (againstif) from milationing again tage			7 1,020,000		(170,700,022)	
Net increase (decrease) in cash and cash equivalents			104,761,193		(121,656,262)	
Cash and cash equivalents at the beginning of the year			545,373,508		667,029,770	
Effects of exchange rate changes on cash and cash equivalents			(1,268,608)			
Cash and cash equivalents at the end of the year		₩	648,866,093	₩	545,373,508	

The above separate statements of cash flows should be read in conjunction with the accompanying notes.

Notes to the Separate Financial Statements December 31, 2022 and 2021

1. General Information

LG CNS Co., Ltd. (the "Company") was incorporated in 1987 under the laws of the Republic of Korea to engage in the business of system integration, software design and development, providing information processing services and leasing computer hardware. It was organized under a joint venture agreement among LG Engineering Co., Ltd., E.D.S. World Corporation (Far East) and others.

As of December 31, 2022, the issued capital is \forall 47,198,411 thousand, and the Company's shareholders are LG Corp. (49.95%) and others.

2. Significant Accounting Policies

The principal accounting policies applied in the preparation of these separated financial statements are set out below. These policies have been consistently applied to all the years presented, unless otherwise stated.

2.1 Basis of Preparation

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

Certain information attached to the Korean language financial statements, but not required for a fair presentation of the Company's financial position, financial performance or cash flows, is not presented in the accompanying financial statements.

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

The financial statements have been prepared on a historical cost basis, except for the following:

- Certain financial assets and liabilities (including derivative instruments), certain classes of property, plant and equipment and investment property measured at fair value
- · assets held for sale measured at fair value less costs to sell, and
- defined benefit pension plans plan assets measured at fair value

The preparation of financial statements requires the use of critical accounting estimates. Management also needs to exercise judgement in applying the Company's accounting policies. The areas involving a higher degree of judgment or complexity, or areas where assumptions and estimates are significant to the separate financial statements are disclosed in Note 3.

Notes to the Separate Financial Statements

December 31, 2022 and 2021

2.1.1 New and amended standards and interpretations adopted by the Company

The Company has applied the following standards and interpretations for the first time for their annual reporting period commencing January 1, 2022.

(a) Amendments to Korean IFRS 1103 Business Combination – Reference to the Conceptual Framework

The amendments update a reference of definition of assets and liabilities to be recognized in a business combination in revised Conceptual Framework for Financial Reporting. However, the amendments add an exception for the recognition of liabilities and contingent liabilities within the scope of Korea IFRS 1037 *Provisions, Contingent Liabilities and Contingent Assets*, and Korean IFRS 2121 *Levies*. The amendments also clarify that contingent assets should not be recognized at the acquisition date. The amendment did not have a significant impact on the financial statements.

(b) Amendments to Korean IFRS 1016 Property, Plant and Equipment - Proceeds before intended use

The amendments prohibit an entity from deducting from the cost of an item of property, plant and equipment any proceeds from selling items produced while the entity is preparing the asset for its intended use. Instead, the entity will recognize the proceeds from selling such items, and the costs of producing those items, in profit or loss. The amendment did not have a significant impact on the financial statements.

(c) Amendments to Korean IFRS 1037 Provisions, Contingent Liabilities and Contingent Assets - Onerous Contracts: Cost of Fulfilling a Contract

The amendments clarify that the direct costs of fulfilling a contract include both the incremental costs of fulfilling the contract and an allocation of other costs directly related to fulfilling contracts when assessing whether the contract is onerous. The amendment did not have a significant impact on the financial statements.

(d) Annual improvements to Korean IFRS 2018-2020

Annual improvements of Korean IFRS 2018-2020 Cycle should be applied for annual periods beginning on or after January 1, 2022, and earlier application is permitted. The amendments did not have a significant impact on the financial statements.

- Korean IFRS 1101 First time Adoption of Korean International Financial Reporting Standards – Subsidiaries that are first-time adopters
- Korean IFRS 1109 Financial Instruments Fees related to the 10% test for derecognition of financial liabilities
- · Korean IFRS 1041 Agriculture Measuring fair value

LG CNS CO., LTD. Notes to the Separate Financial Statements December 31, 2022 and 2021

2.1.2 New and amended standards and interpretations not yet adopted by the Company

The following new and amended accounting standards and interpretations that have been published that are not mandatory for December 31, 2022 reporting periods and have not been early adopted by the Company.

(a) Amendments to Korean IFRS 1001 Presentation of Financial Statements - Classification of Liabilities as Current or Non-current

The amendments clarify that liabilities are classified as either current or non-current, depending on the substantive rights that exist at the end of the reporting period. Classification is unaffected by the likelihood that an entity will exercise right to defer settlement of the liability or the expectations of management. Also, the settlement of liability includes the transfer of the entity's own equity instruments, however, it would be excluded if an option to settle them by the entity's own equity instruments if compound financial instruments is met the definition of equity instruments and recognized separately from the liability. The amendments should be applied for annual periods beginning on or after January 1, 2024, and earlier application is permitted. The Company is in review for the impact of these amendments on the financial statements.

(b) Korean IFRS 1001 Presentation of Financial Statements - Disclosure of Accounting Policies

The amendments to Korean IFRS 1001 define and require entities to disclose their material accounting policies. The amendments should be applied for annual periods beginning on or after January 1, 2023, and earlier application is permitted. The Company is in review for the impact of these amendments on the financial statements.

(c) Korean IFRS 1008 Accounting policies, changes in accounting estimates and errors - Definition of Accounting Estimates

The amendments define accounting estimates and clarify how to distinguish them from changes in accounting policies. The amendments should be applied for annual periods beginning on or after January 1, 2023, and earlier application is permitted. The Company does not expect that these amendments have a significant impact on the financial statements.

(d) Korean IFRS 1012 Income Taxes - Deferred Tax related to Assets and Liabilities arising from a Single Transaction

The amendments include an additional condition to the exemption to initial recognition of an asset or liability that a transaction does not give rise to equal taxable and deductible temporary differences at the time of the transaction. The amendments should be applied for annual periods beginning on or after January 1, 2023, and earlier application is permitted. The Company is in review for the impact of these amendments on the financial statements.

Notes to the Separate Financial Statements December 31, 2022 and 2021

(e) New Standard: Korean IFRS 1117 Insurance Contract

Korean IFRS 1117 *Insurance Contracts* replaces Korean IFRS 1104 *Insurance Contracts*. This Standard estimates future cash flows of an insurance contract and measures insurance liabilities using discount rates applied with assumptions and risks at the measurement date. The entity recognizes insurance revenue on an accrual basis including services (insurance coverage) provided to the policyholder by each annual period. In addition, investment components (Refunds due to termination/maturity) repaid to a policyholder even if an insured event does not occur, are excluded from insurance revenue, and insurance financial income or expense and the investment income or expense are presented separately to enable users of the information to understand the sources of income or expenses. This Standard should be applied for annual periods beginning on or after January 1, 2023, and earlier application is permitted for entities that applied Korean IFRS 1109 *Financial Instruments*. The Company does not expect that this new standard have a significant impact on the financial statements.

(f) Korean IFRS 1001 Presentation of Financial Statements - Disclosure of gain or loss on valuation of financial liabilities subject to adjustment of exercise price

If the entire or a part of financial instrument, whose exercise price is subject to change due to the issuer's share price, is classified as a financial liability, the carrying amount of the financial liability and related gains and losses shall be disclosed. The amendments should be applied for annual periods beginning on or after January 1, 2023, and earlier application is permitted. The Company does not expect that these amendments have a significant impact on the financial statements.

2.2 Business Combination

Acquisitions of businesses are accounted for using the acquisition method. The consideration transferred in a business combination is measured at fair value, which is calculated as the sum of the acquisition-date fair values of the assets transferred by the Company, liabilities incurred by the Company to the former owners of the acquiree and the equity interest issued by the Company in exchange for control of the acquiree. Acquisition-related costs are recognized in profit or loss as incurred.

At the acquisition date, the identifiable assets acquired and the liabilities assumed are recognized at their fair value at the acquisition date, except that:

- Deferred tax assets or liabilities and liabilities or assets related to employee benefit arrangements are recognized and measured in accordance with Korean IFRS 1012 Income Taxes and Korean IFRS 1019 Employee Benefits, respectively.
- Liabilities or equity instruments related to share-based payment arrangements of the
 acquiree or share-based payment arrangements of the Company entered into to replace
 share-based payment arrangements of the acquiree are measured in accordance with
 Korean IFRS 1102 Share-Based Payment at the acquisition date.
- Assets (or disposal groups) that are classified as held for sale in accordance with Korean

Notes to the Separate Financial Statements December 31, 2022 and 2021

IFRS 1105 Non-Current Assets Held for Sale and Discontinued Operations are measured in accordance with that standard.

Goodwill is measured as the excess of the sum of a) the consideration transferred, b) the amount of any non-controlling interests in the acquiree and c) the fair value of the acquirer's previously held equity interest in the acquiree (if any) over the net of the acquisition-date amounts of the identifiable assets acquired and the liabilities assumed. If, after reassessment, the net of the acquisition-date amounts of the identifiable assets acquired and liabilities assumed exceeds the sum of a) the consideration transferred, b) the amount of any non-controlling interests in the acquiree and c) the fair value of the acquirer's previously held interest in the acquiree (if any); the excess is recognized immediately in profit or loss as a bargain purchase gain.

When the consideration transferred by the Company in a business combination includes contingent consideration arrangement, the contingent consideration is measured at its acquisition-date fair value and included as part of the consideration transferred in a business combination. Changes in fair value of the contingent consideration that qualify as measurement period adjustments are adjusted retrospectively, with corresponding adjustments against goodwill. Measurement period adjustments are adjustments that arise from additional information obtained during the 'measurement period' (which cannot exceed one year from the acquisition date) about facts and circumstances that existed at the acquisition date.

The subsequent accounting for changes in the fair value of the contingent consideration that do not qualify as measurement-period adjustments depends on how the contingent consideration is classified. Contingent consideration that is classified as equity is not remeasured at subsequent reporting dates and its subsequent settlement is accounted for within equity. Other contingent consideration is remeasured to fair value at subsequent reporting dates with changes in fair value recognized in profit or loss.

When a business combination is achieved in stages, the Company's previously held interests (including joint operations) in the acquired entity are remeasured to its acquisition-date fair value and the resulting gain or loss, if any, is recognized in profit or loss. Amounts arising from interests in the acquiree prior to the acquisition date that have previously been recognized in other comprehensive income are reclassified to profit or loss, where such treatment would be appropriate if that interest were disposed of.

If the initial accounting for a business combination is incomplete by the end of the reporting period in which the combination occurs, the Company reports provisional amounts for the items for which the accounting is incomplete. Those provisional amounts are adjusted during the measurement period (see above), or additional assets or liabilities are recognized, to reflect new information obtained about facts and circumstances that existed as of the acquisition date that, if known, would have affected the amounts recognized as of that date.

Notes to the Separate Financial Statements

December 31, 2022 and 2021

2.3 Foreign Currency Translation

In preparing the separate financial statements of the Company entities, transactions in currencies other than the entity's functional currency (foreign currencies) are recognized at the rates of exchange prevailing at the dates of the transactions. At the end of each reporting period, monetary items denominated in foreign currencies are retranslated at the rates prevailing at that date. Non-monetary items carried at fair value that are denominated in foreign currencies are retranslated at the rates prevailing at the date when the fair value was determined. Non-monetary items that are measured in terms of historical cost in a foreign currency are not retranslated.

Exchange differences are recognized in profit or loss in the period in which they arise, except for:

- Exchange differences on foreign currency borrowings relating to assets under construction for future productive use, which are included in the cost of those assets when they are regarded as an adjustment to interest costs on those foreign currency borrowings; and
- Exchange differences on transactions entered into in order to hedge certain foreign currency risks

2.4 Cash and cash equivalents

Cash and cash equivalents include petty cash, bank deposits and other highly liquid short-term investments with maturity of less than three months at the time of acquisition. The overdraft is included in the short-term borrowings account in the separate statements of financial position.

2.5 Financial assets and financial liabilities

Financial assets and financial liabilities are recognized in the Company's separate statements of financial position when the Company becomes a party to the contractual provisions of the instrument. Financial assets and financial liabilities are initially measured at fair value. Transaction costs that are directly attributable to the acquisition or issue of financial assets and financial liabilities (other than financial assets and financial liabilities at fair value through profit or loss) are added to or deducted from the fair value of the financial assets or financial liabilities, as appropriate, on initial recognition. Transaction costs directly attributable to the acquisition of financial assets or financial liabilities at fair value through profit or loss are recognized immediately in profit or loss.

2.6 Financial assets

All regular-way purchases or sales of financial assets are recognized and derecognized on a trade-date basis. Regular-way purchases or sales are purchases or sales of financial assets that require delivery of assets within the timeframe established by regulation or convention in the marketplace.

All recognized financial assets are measured subsequently in their entirety at either amortized cost or fair value, depending on the classification of the financial assets.

Notes to the Separate Financial Statements December 31, 2022 and 2021

Debt instruments that meet the following conditions are measured subsequently at amortized cost:

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

Debt instruments that meet the following conditions are measured subsequently at fair value through other comprehensive income:

- The financial asset is held within a business model, whose objective is achieved by both collecting contractual cash flows and selling the financial assets.
- 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.

By default, all other financial assets are measured subsequently at fair value through profit or loss.

Despite the foregoing, the Company may make the following irrevocable election/designation at initial recognition of a financial asset:

- The Company may irrevocably elect to present subsequent changes in fair value of an equity investment in other comprehensive income if certain criteria are met (see (a–3) below).
- The Company may irrevocably designate a debt investment that meets the amortized cost or fair value through other comprehensive income criteria as measured at fair value through profit or loss if doing so eliminates or significantly reduces an accounting mismatch (see (a–4) below).

(a-1) Amortized cost and effective interest method

The effective interest method is a method of calculating the amortized cost of a debt instrument and of allocating interest income over the relevant period. For financial assets other than purchased or originated credit-impaired financial assets (i.e., assets that are credit-impaired on initial recognition), the effective interest rate is the rate that exactly discounts estimated future cash receipts (including all fees and points paid or received that form an integral part of the effective interest rate, transaction costs and other premiums or discounts), excluding expected credit losses, through the expected life of the debt instrument or, where appropriate, a shorter period to the gross carrying amount of the debt instrument on initial recognition. For purchased or originated credit-impaired financial assets, a credit-adjusted effective interest rate is calculated by discounting the estimated future cash flows, including expected credit losses, to the amortized cost of the debt instrument on initial recognition.

The amortized cost of a financial asset is the amount at which the financial asset is measured at

Notes to the Separate Financial Statements December 31, 2022 and 2021

initial recognition, minus the principal repayments, plus the cumulative amortization using the effective interest method of any difference between that initial amount and the maturity amount, adjusted for any loss allowance. The gross carrying amount of a financial asset is the amortized cost of a financial asset before adjusting any loss allowance.

Interest income is recognized using the effective interest method for debt instruments measured subsequently at amortized cost and at fair value through other comprehensive income. For financial assets other than purchased or originated credit-impaired financial assets, interest income is calculated by applying the effective interest rate to the gross carrying amount of a financial asset, except for financial assets that have subsequently become credit-impaired (see below). For financial assets that have subsequently become credit-impaired, interest income is recognized by applying the effective interest rate to the amortized cost of the financial asset. If, in subsequent reporting periods, the credit risk on the credit-impaired financial instrument improves so that the financial asset is no longer credit-impaired, interest income is recognized by applying the effective interest rate to the gross carrying amount of the financial asset.

For purchased or originated credit-impaired financial assets, the Company recognizes interest income by applying the credit-adjusted effective interest rate to the amortized cost of the financial asset from initial recognition. The calculation does not revert to the gross basis even if the credit risk of the financial asset subsequently improves so that the financial asset is no longer credit-impaired.

Interest income is recognized in profit or loss and is included in the 'financial income - interest income' line item.

(a-2) Debt instruments classified as at fair value through other comprehensive income

The corporate bonds held by the Company are classified as at fair value through other comprehensive income. Fair value is determined in the manner described in Note 35. The corporate bonds are initially measured at fair value, plus transaction costs. Subsequently, changes in the carrying amount of these corporate bonds as a result of foreign exchange gains and losses, impairment gains or losses and interest income calculated using the effective interest method are recognized in profit or loss. The amounts that are recognized in profit or loss are the same as the amounts that would have been recognized in profit or loss if these corporate bonds had been measured at amortized cost. All other changes in the carrying amount of these corporate bonds are recognized in other comprehensive income and accumulated under the heading of investments revaluation reserve. When these corporate bonds are derecognized, the cumulative gains or losses previously recognized in other comprehensive income are reclassified to profit or loss.

(a-3) Equity instruments designated as at fair value through other comprehensive income

On initial recognition, the Company may make an irrevocable election (on an instrument-by-instrument basis) to designate investments in equity instruments as at fair value through other comprehensive income. Designation at fair value through other comprehensive income is not permitted if the equity investment is held for trading or if it is contingent consideration recognized

Notes to the Separate Financial Statements December 31, 2022 and 2021

by an acquirer in a business combination.

Investments in equity instruments at fair value through other comprehensive income are initially measured at fair value, plus transaction costs. Subsequently, they are measured at fair value with gains and losses arising from changes in fair value recognized in other comprehensive income and accumulated in the investments revaluation reserve. The cumulative gain or loss is not reclassified to profit or loss on disposal of the equity investments; instead, it is transferred to retained earnings.

Dividends on these investments in equity instruments are recognized in profit or loss in accordance with Korean IFRS 1109, unless the dividends clearly represent a recovery of part of the cost of the investment. Dividends are included in the 'financial income' line item in profit or loss.

The Company designated all investments in equity instruments that are not held for trading as at fair value through other comprehensive income on initial recognition.

A financial asset is held for trading if:

- · It has been acquired principally for the purpose of selling it in the near term.
- On initial recognition, it is part of a portfolio of identified financial instruments that the Company manages together and has evidence of a recent actual pattern of short-term profit-taking.
- It is a derivative (except for a derivative that is a financial guarantee contract or a designated and effective hedging instrument).

(a-4) Financial assets at fair value through profit or loss

Financial assets that do not meet the criteria for being measured at amortized cost or fair value through other comprehensive income are measured at fair value through profit or loss. Specifically:

- Investments in equity instruments are classified as at fair value through profit or loss, unless the Company designates an equity investment that is neither held for trading nor a contingent consideration arising from a business combination as at fair value through other comprehensive income on initial recognition (see (a–3) above).
- Debt instruments that do not meet the amortized cost criteria or the fair value through other comprehensive income criteria (see (a–1) and (a–2) above) are classified as at fair value through profit or loss. In addition, debt instruments that meet either the amortized cost criteria or the fair value through other comprehensive income criteria may be designated as at fair value through profit or loss upon initial recognition if such designation eliminates or significantly reduces a measurement or recognition inconsistency (so called 'accounting mismatch') that would arise from measuring assets or liabilities or recognizing the gains and losses on them on different bases.

Notes to the Separate Financial Statements December 31, 2022 and 2021

Financial assets at fair value through profit or loss are measured at fair value at the end of each reporting period, with any fair value gains or losses recognized in profit or loss to the extent they are not part of a designated hedging relationship (see hedge accounting policy). The net gain or loss recognized in profit or loss includes any dividend in the 'financial income' line item. Fair value is determined in the manner described in Note 35.

(b) Foreign exchange gains and losses

The carrying amount of financial assets that are denominated in a foreign currency is determined in that foreign currency and translated at the spot rate at the end of each reporting period. Specifically;

- For financial assets measured at amortized cost that are not part of a designated hedging relationship, exchange differences are recognized in profit or loss in the 'other gains and losses' line item;
- For debt instruments measured at fair value through other comprehensive income that are not part of a designated hedging relationship, exchange differences on the amortized cost of the debt instrument are recognized in profit or loss in the 'other gains and losses' line item. As the foreign currency element recognized in profit or loss is the same as if it was measured at amortized cost, the residual foreign currency element based on the translation of the carrying amount (at fair value) is recognized in other comprehensive income in the investments revaluation reserve;
- For financial assets measured at fair value through profit or loss that are not part of a designated hedging relationship, exchange differences are recognized in profit or loss in the 'other gains and losses' line item as part of the fair value gain or loss; and
- For equity instruments measured at fair value through other comprehensive income, exchange differences are recognized in other comprehensive income in the investments revaluation reserve.

(c) Impairment of financial assets

The Company recognizes a loss allowance for expected credit losses on investments in debt instruments that are measured at amortized cost or at fair value through other comprehensive income, lease receivables, trade receivables and contract assets, as well as on financial guarantee contracts. The amount of expected credit losses is updated at each reporting date to reflect changes in credit risk since initial recognition of the respective financial instrument.

The Company always recognizes lifetime expected credit loss for trade receivables, contract assets and lease receivables. The expected credit losses on these financial assets are estimated using a provision matrix based on the Company's historical credit loss experience, adjusted for factors that are specific to the debtors, general economic conditions and an assessment of both the current, as well as the forecast direction of conditions at the reporting date, including time value of money, where appropriate.

Notes to the Separate Financial Statements December 31, 2022 and 2021

For all other financial instruments, the Company recognizes lifetime expected credit loss when there has been a significant increase in credit risk since initial recognition. However, if the credit risk on the financial instrument has not increased significantly since initial recognition, the Company measures the loss allowance for that financial instrument at an amount equal to 12-month expected credit loss.

Lifetime expected credit loss represents the expected credit losses that will result from all possible default events over the expected life of a financial instrument. In contrast, 12-month expected credit loss represents the portion of lifetime expected credit loss that is expected to result from default events on a financial instrument that are possible within 12 months after the reporting date.

(c-1) Significant increase in credit risk

In assessing whether the credit risk on a financial instrument has increased significantly since initial recognition, the Company compares the risk of a default occurring on the financial instrument at the reporting date with the risk of a default occurring on the financial instrument at the date of initial recognition. In making this assessment, the Company considers both quantitative information and qualitative information that is reasonable and supportable, including historical experience and forward-looking information that is available without undue cost or effort. Forward-looking information includes the future prospects of the industries, in which the Company's debtors operate, obtained from economic expert reports, financial analysts, governmental bodies, relevant think-tanks and other similar organizations, as well as consideration of various external sources of actual and forecast economic information that relate to the Company's core operations.

In particular, the following information is taken into account when assessing whether credit risk has increased significantly since initial recognition:

- An actual or expected significant deterioration in the financial instrument's external (if available) or internal credit rating;
- Significant deterioration in external market indicators of credit risk for a particular financial instrument, e.g., a significant increase in the credit spread, the credit default swap prices for the debtor or the length of time or the extent to which the fair value of a financial asset has been less than its amortized cost;
- Existing or forecast adverse changes in business and financial or economic conditions that are expected to cause a significant decrease in the debtor's ability to meet its debt obligations;
- · An actual or expected significant deterioration in the operating results of the debtor;
- Significant increases in credit risk on other financial instruments of the same debtor;
- An actual or expected significant adverse change in the regulatory, economic or technological environment of the debtor that results in a significant decrease in the

Notes to the Separate Financial Statements December 31, 2022 and 2021

debtor's ability to meet its debt obligations.

Irrespective of the outcome of the above assessment, the Company presumes that the credit risk on a financial asset has increased significantly since initial recognition when contractual payments are more than 30 days past due, unless the Company has reasonable information and supportable information that demonstrates otherwise.

Despite the foregoing, the Company assumes that the credit risk on a financial instrument has not increased significantly since initial recognition if the financial instrument is determined to have low credit risk at the end of the reporting period. A financial instrument is determined to have low credit risk if:

- (1) The financial instrument has a low risk of default.
- (2) The debtor has a strong capacity to meet its contractual cash flow obligations in the near term.
- (3) Adverse changes in economic and business conditions in the longer term may, but will not necessarily, reduce the ability of the borrower to fulfil its contractual cash flow obligations.

The Company considers a financial asset to have low credit risk when the asset has external credit rating of 'investment grade' in accordance with the globally understood definition or if an external rating is not available, the asset has an internal rating of 'performing.' Performing means that the counterparty has a strong financial position and there are no past-due amounts.

For financial guarantee contracts, the date that the Company becomes a party to the irrevocable commitment is considered to be the date of initial recognition for the purposes of assessing the financial instrument for impairment. In assessing whether there has been a significant increase in the credit risk since initial recognition of a financial guarantee contracts, the Company considers the changes in the risk that the specified debtor will default on the contract.

The Company regularly monitors the effectiveness of the criteria used to identify whether there has been a significant increase in credit risk and revises them as appropriate to ensure that the criteria are capable of identifying significant increase in credit risk before the amount becomes past due.

(c-2) Definition of default

The Company considers the following as constituting an event of default for internal credit risk management purposes as historical experience indicates that financial assets that meet either of the following criteria are generally not recoverable:

Irrespective of the above analysis, the Company considers that default has occurred when a financial asset is more than 90 days past due, unless the Company has reasonable and supportable information to demonstrate that a more lagging default criterion is more appropriate.

(c-3) Credit-impaired financial assets

A financial asset is credit-impaired when one or more events that have a detrimental impact on the estimated future cash flows of that financial asset have occurred. Evidence that a financial

Notes to the Separate Financial Statements December 31, 2022 and 2021

asset is credit-impaired includes observable data about the following events:

- ① Significant financial difficulty of the issuer or the borrower;
- ② A breach of contract, such as a default or past-due event (see (c-2) above);
- ③ The lender(s) of the borrower, for economic or contractual reasons relating to the borrower's financial difficulty, having granted to the borrower a concession(s) that the lender(s) would not otherwise consider;
- 4 It is becoming probable that the borrower will enter bankruptcy or other financial reorganization; or
- ⑤ The disappearance of an active market for that financial asset because of financial difficulties.

(c-4) Write-off policy

The Company writes off a financial asset when there is information indicating that the debtor is in severe financial difficulty and there is no realistic prospect of recovery, e.g., when the debtor has been placed under liquidation or has entered into bankruptcy proceedings, or in the case of trade receivables, when the amounts are over two years past due, whichever occurs sooner. Financial assets written off may still be subject to enforcement activities under the Company's recovery procedures, taking into account legal advice, where appropriate. Any recoveries made are recognized in profit or loss.

(c-5) Measurement and recognition of expected credit losses

The measurement of expected credit losses is a function of the probability of default, loss-given default (i.e., the magnitude of the loss if there is a default) and the exposure at default. The assessment of the probability of default and loss-given default is based on historical data adjusted by forward-looking information as described above.

As for the exposure at default, for financial assets, this is represented by the assets' gross carrying amount at the end of the reporting period; for financial guarantee contracts, the exposure includes the amount drawn down at the end of the reporting period, together with any additional amounts expected to be drawn down in the future by default date determined based on historical trend, the Company's understanding of the specific future financing needs of the debtors and other relevant forward-looking information.

For financial assets, the expected credit losses is estimated as the difference between all contractual cash flows that are due to the Company in accordance with the contract and all the cash flows that the Company expects to receive, discounted at the original effective interest rate. For a lease receivable, the cash flows used for determining the expected credit losses are consistent with the cash flows used in measuring the lease receivable in accordance with Korean IFRS 1116 *Leases*.

For a financial guarantee contract, as the Company is required to make payments only in the event of a default by the debtor in accordance with the terms of the instrument that is guaranteed, the expected loss allowance is the expected payments to reimburse the holder for a credit loss that it incurs, less any amounts that the Company expects to receive from the holder, the debtor or any other party.

Notes to the Separate Financial Statements December 31, 2022 and 2021

If the Company has measured the loss allowance for a financial instrument at an amount equal to lifetime expected credit loss in the previous reporting period, but determines during the current period that the conditions for lifetime expected credit loss are no longer met, the Company measures the loss allowance at an amount equal to 12-month expected credit loss at the current period, except for assets for which simplified approach was used.

The Company recognizes an impairment gain or loss in profit or loss for all financial instruments with a corresponding adjustment to their carrying amount through a loss allowance account, except for investments in debt instruments that are measured at fair value through other comprehensive income, for which the loss allowance is recognized in other comprehensive income and accumulated in the investment revaluation reserve, and does not reduce the carrying amount of the financial asset in the separate statements of financial position.

(d) Derecognition of financial assets

The Company derecognizes a financial asset only when the contractual rights to the cash flows from the asset expire, or when it transfers the financial asset and, substantially, all the risks and rewards of ownership of the asset to another entity. If the Company neither transfers nor retains substantially all the risks and rewards of ownership and continues to control the transferred asset, the Company recognizes its retained interest in the asset and an associated liability for amounts it may have to pay. If the Company retains substantially all the risks and rewards of ownership of a transferred financial asset, the Company continues to recognize the financial asset and also recognizes a collateralized borrowing for the proceeds received.

On derecognition of a financial asset measured at amortized cost, the difference between the asset's carrying amount and the sum of the consideration received and receivable is recognized in profit or loss. In addition, on derecognition of an investment in a debt instrument classified as at fair value through other comprehensive income, the cumulative gain or loss previously accumulated in the investments revaluation reserve is reclassified to profit or loss. In contrast, on derecognition of an investment in equity instrument, which the Company has elected on initial recognition to measure at fair value through other comprehensive income, the cumulative gain or loss previously accumulated in the investments revaluation reserve is not reclassified to profit or loss, but is transferred to retained earnings.

2.7 Inventories

The acquisition costs of inventories are recognized, including both acquisition costs, conversion costs and other costs incurred, to bring the inventory to its current location.

Cost is a systematic amount of fixed and variable overhead, and is measured in the most appropriate method for each inventory category, and the unit cost measurement method is used by the individual method

In addition, inventories are measured at the lower of acquisition cost and net realizable value every subsequent period after acquisition. Net realizable value is the amount of additional cost of completion and sales expected from the expected selling price of the normal sales process, and the net realizable value is reevaluated in each subsequent period. If there is clear evidence that

Notes to the Separate Financial Statements December 31, 2022 and 2021

the circumstances that led to the reduction of inventories have been resolved or that the net realizable value has been increased due to changes in economic conditions, the valuation loss shall be reversed within the scope of not exceeding the initial carrying amount.

2.8 Investments in subsidiaries, associates and joint ventures

The Company's financial statements are separate financial statements in accordance with Korean IFRS 1027, *Separate Financial Statements*, and separate financial statements are financial statements in which an investor with joint control or significant influence over the parent or investee applies either the cost method or the equity method specified in Korean IFRS 1028 *Investments in Associates and Joint Ventures*.

The Company has accounted for investments in subsidiaries, associates and joint ventures by selecting the cost method in accordance with Korean IFRS 1027. On the other hand, dividends received from subsidiaries, associates and joint ventures are recognized in profit or loss at the time the right to a dividend is confirmed.

Associates refer to entities in which we have significant influence, and significant influence is the ability to participate in decisions about financial and sales policies of an investee, not control or joint control of such policies.

A joint venture refers to a joint arrangement in which the parties that have joint control of the arrangement have rights to the net assets of the arrangement, and joint control is a contractual agreed-upon share of the control of the arrangement and exists only when a decision on the relevant activity requires consent from all parties who share control.

The Company determines whether or not to recognize impairment losses on investments in subsidiaries, associates and joint ventures in accordance with the requirements of Internal Auditing Standard 36. In the event of an impairment sign, the entire carrying amount of the investment in the related company and the joint venture is tested for impairment in accordance with Korean IFRS 1036 *Accounting Policies, Changes in Assets*, compared with the recoverable amount (a larger of the fair value, less costs to sell, and the recoverable amount) is compared to the recoverable amount in accordance with Korean IFRS 1036. The recognized impairment loss shall not be allocated to any assets (including goodwill) that constitute a part of the carrying amount of the investment in the associate and the joint venture. In addition, reversals of impairment losses are recognized as the recoverable amount of such investments is subsequently increased in accordance with Korean IFRS 1036.

2.9 Goodwill

Goodwill resulting from an acquisition of a business is carried at cost as established at the date of acquisition of the business, less accumulated impairment losses, if any.

For the purpose of impairment testing, goodwill is allocated to each of the Company's cash generating unit (CGU) (or groups of cash generating units) that is expected to benefit from the synergies of the combination.

Notes to the Separate Financial Statements December 31, 2022 and 2021

A CGU to which goodwill has been allocated is tested for impairment annually, or more frequently when there is indication that the unit may be impaired. If the recoverable amount of the CGU is less than its carrying amount, the impairment loss is allocated first to reduce the carrying amount of any goodwill allocated to the unit and then to the other assets of the unit on a pro rata basis based on the carrying amount of each asset in the unit. Any impairment loss for goodwill is recognized directly in profit or loss. An impairment loss recognized for goodwill is not reversed in subsequent periods.

On disposal of the relevant CGU, the attributable amount of goodwill is included in the determination of the profit or loss on disposal.

2.10 Property, plant and equipment

Property, plant and equipment are stated at cost, less subsequent accumulated depreciation and accumulated impairment losses. The cost of an item of property, plant and equipment is directly attributable to their purchase or construction, which includes any costs directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management. It also includes the initial estimate of the costs of dismantling and removing the item and restoring the site at which it is located.

Subsequent costs are recognized in the carrying amount of an asset or as an asset if it is probable that future economic benefits associated with the assets will flow into the Company and the cost of the asset can be measured reliably. Routine maintenance and repairs are expensed as incurred.

The Company does not depreciate land, and depreciation is computed using the straight-line method based on the estimated useful lives of the assets as follows:

Buildings	25 - 40 years
Structures	40
Furniture and fixtures	4 – 25
Machinery, vehicles, tools and equipment and other property	3 - 20

Useful lives

The Company reviews the depreciation method and the estimated useful lives and residual values of property, plant and equipment at the end of each annual reporting period. If expectations differ from previous estimates, the changes are accounted for as a change in accounting estimate.

An item of property, plant and equipment is derecognized upon disposal or when no future economic benefits are expected to arise from the continued use of the assets. Any gain or loss arising from the disposal or retirement of an item of property, plant and equipment is determined as the difference between sales proceeds and the carrying amount of the asset and is recognized in profit or loss.

Notes to the Separate Financial Statements December 31, 2022 and 2021

2.11 Investment property

Investment properties are properties held to earn rentals and/or for capital appreciation. Investment properties are measured initially at cost, including transaction costs. Subsequent to initial recognition, investment properties are reported at cost, less accumulated depreciation and accumulated impairment losses.

Subsequent costs are recognized in carrying amount of an asset or as a separate asset if it is probable that future economic benefits associated with the assets will flow into the Group and the cost of an asset can be measured reliably. Routine maintenance and repairs are expensed as incurred.

While land is not depreciated, all other investment property is depreciated based on the respective assets estimated useful lives ranging from 25 to 40 years using the straight-line method.

The estimated useful lives, residual values and depreciation method are reviewed at the end of each reporting period, with the effect of any changes in estimate accounted for on a prospective basis.

An investment property is derecognized upon disposal or when the investment property is permanently withdrawn from use and no future economic benefits are expected from the disposal. Any gain or loss arising on derecognition of the property (calculated as the difference between the net disposal proceeds and the carrying amount of the asset) is included in profit or loss in the period in which the property is derecognized.

2.12 Intangible assets

(a) Intangible assets acquired separately

Intangible assets with finite useful lives that are acquired separately are carried at cost, less accumulated amortization and accumulated impairment losses. Amortization is recognized on a straight-line basis over their estimated useful lives. Intangible assets acquired separately compose of development costs, industrial property, software, membership, etc. They are amortized using the straight-line method for more than 5 to 10 years, with no residual value.

In relation to intangible assets with definite useful lives, the estimated useful life and amortization method are reviewed at the end of each annual reporting period, with the effect of any changes in estimate being accounted for as change in accounting estimates.

(b) Internally generated intangible assets - research and development expenditure

Expenditure on research activities is recognized as an expense in the period in which it is incurred. Expenditure arising from development (or from the development phase of an internal project) is recognized as an intangible asset if, and only if, the development project is designed to produce new or substantially improved products, and the Company can demonstrate the technical and economic feasibility and measure reliably the resources attributable to the intangible asset during

Notes to the Separate Financial Statements December 31, 2022 and 2021

its development.

The amount initially recognized for internally generated intangible assets is the sum of the expenditure incurred from the date when the intangible asset first meets the recognition criteria. Where no internally generated intangible asset can be recognized, development expenditure is recognized in profit or loss in the period in which it is incurred. Subsequent to initial recognition, internally generated intangible assets are reported at cost, less accumulated amortization and accumulated impairment losses, on the same basis as intangible assets that are acquired separately.

(c) Intangible assets acquired in a business combination

Intangible assets that are acquired in a business combination are recognized separately from goodwill and are initially recognized at their fair value at the acquisition date (which is regarded as their cost). Subsequent to initial recognition, intangible assets acquired in a business combination are reported at cost, less accumulated amortization and accumulated impairment losses, on the same basis as intangible assets that are acquired separately.

(d) Derecognition of intangible assets

An intangible asset is derecognized on disposal or when no future economic benefits are expected from its use or disposal. Gains or losses arising from derecognition of an intangible asset, measured as the difference between the net disposal proceeds and the carrying amount of the asset, are recognized in profit or loss when the asset is derecognized.

2.13 Impairment of property, plant and equipment and intangible assets other than goodwill

At the end of each reporting period, the Company reviews the carrying amounts of its property, plant and equipment and intangible assets to determine whether there is any indication that those assets have suffered an impairment loss. If any such indication exists, the recoverable amount of the asset is estimated in order to determine the extent of the impairment loss (if any). Where it is not possible to estimate the recoverable amount of an individual asset, the Company estimates the recoverable amount of the CGU to which the asset belongs. Where a reasonable and consistent basis of allocation can be identified, corporate assets are also allocated to individual CGUs, or otherwise, they are allocated to the smallest group of CGUs for which a reasonable and consistent allocation basis can be identified.

Intangible assets with indefinite useful lives and intangible assets not yet available for use are tested for impairment at least annually and whenever there is an indication that the asset may be impaired.

Recoverable amount is the higher of fair value, less costs to sell, or value in use. If the recoverable amount of an asset (or a CGU) is estimated to be less than its carrying amount, the carrying amount of the asset (or the CGU) is reduced to its recoverable amount. An impairment loss is recognized immediately in profit or loss, unless the relevant asset is carried at a revalued amount, in which case, the impairment loss is treated as a revaluation decrease.

Notes to the Separate Financial Statements December 31, 2022 and 2021

Where an impairment loss subsequently reverses, the carrying amount of the asset (or a CGU) is increased to the revised estimate of its recoverable amount so that the increased carrying amount does not exceed the carrying amount that would have been determined had no impairment loss been recognized for the asset (or the CGU) in prior years. A reversal of an impairment loss is recognized immediately in profit or loss.

2.14 Financial liabilities and equity instruments

(a) Classification as debt or equity

Debt and equity instruments are classified as either financial liabilities or as equity in accordance with the substance of the contractual arrangement and the definitions of financial liability and an equity instrument.

In addition, the Company does not reassess the classification of financial liabilities or equity instruments after the initial recognition of a financial instrument if the terms of the contract of the issued financial instrument are not subsequently modified.

(b) Equity instruments

An equity instrument is any contract that evidences a residual interest in the assets of an entity after deducting all of its liabilities. Equity instruments issued by the Company are recognized at the proceeds received, net of direct issue costs.

Repurchase of the Company's own equity instruments is recognized and deducted directly in equity. No gain or loss is recognized in profit or loss on the purchase, sale, issue or cancellation of the Company's own equity instruments.

(c) Financial liabilities

Financial liabilities are recognized when the Company becomes a party to the contract. Financial liabilities are measured at fair value on initial recognition. Transaction costs directly related to the issue of financial liabilities are deducted or added to the fair value of the financial liability upon initial recognition. However, transaction costs directly related to the issuance of financial liabilities at fair value through profit or loss are recognized as immediate profit or loss.

All financial liabilities are measured subsequently at amortized cost using the effective interest method or at fair value through profit or loss. However, financial liabilities that arise when a transfer of a financial asset does not qualify for derecognition or when the continuing involvement approach applies, and financial guarantee contracts issued by the Company, are measured in accordance with the specific accounting policies set out below.

(d) Financial liabilities at fair value through profit or loss

Financial liabilities are classified as at fair value through profit or loss when the financial liability is (i) contingent consideration of an acquirer in a business combination or (ii) held for trading or (iii) it is designated as at fair value through profit or loss.

Notes to the Separate Financial Statements December 31, 2022 and 2021

A financial liability is classified as held for trading if:

- It has been acquired principally for the purpose of repurchasing it in the near term.
- On initial recognition, it is part of a portfolio of identified financial instruments that the Company manages together and has a recent actual pattern of short-term profit-taking.
- It is a derivative that is not designated and effective as a hedging instrument.

A financial liability other than a financial liability held for trading or contingent consideration of an acquirer in a business combination may be designated as at fair value through profit or loss upon initial recognition if:

- Such designation eliminates or significantly reduces a measurement or recognition inconsistency that would otherwise arise.
- The financial liability forms part of a group of financial assets or financial liabilities or both, which is managed and its performance is evaluated on a fair value basis, in accordance with the Company's documented risk management or investment strategy, and information about the grouping is provided internally on that basis.
- It forms part of a contract containing one or more embedded derivatives, and Korean IFRS 1109 permits the entire combined contract to be designated as at fair value through profit or loss.

Financial liabilities at fair value through profit or loss are measured at fair value, with any gains or losses arising on changes in fair value recognized in profit or loss to the extent that they are not part of a designated hedging relationship. The net gain or loss recognized in profit or loss incorporates any interest paid on the financial liability and is included in the 'other gains and losses' line item in profit or loss.

However, for financial liabilities that are designated as at fair value through profit or loss, the amount of change in the fair value of the financial liability that is attributable to changes in the credit risk of that liability is recognized in other comprehensive income, unless the recognition of the effects of changes in the liability's credit risk in other comprehensive income would create or enlarge an accounting mismatch in profit or loss. The remaining amount of change in the fair value of liability is recognized in profit or loss. Changes in fair value attributable to a financial liability's credit risk that are recognized in other comprehensive income are not subsequently reclassified to profit or loss; instead, they are transferred to retained earnings upon derecognition of the financial liability.

Gains or losses on financial guarantee contracts issued by the Company that are designated by the Company as at fair value through profit or loss are recognized in profit or loss.

Fair value is determined in the manner described in Note 35.

Notes to the Separate Financial Statements December 31, 2022 and 2021

(e) Financial liabilities measured subsequently at amortized cost

Financial liabilities that are not (i) contingent consideration of an acquirer in a business combination, (ii) held for trading or (iii) designated as at fair value through profit or loss are measured subsequently at amortized cost using the effective interest method.

The effective interest method is to calculate the amortized cost of a financial liability and to allocate the interest expense over the relevant period. The effective interest rate is the interest rate that accurately matches the present value of the expected net carrying amount of the expected future cash payment, including fees and points paid or received (if appropriate) in the expected life of the financial liability (which is a major component of the effective interest rate), transaction costs and other surcharges or discounts.

(f) Financial guarantee contracts

A financial guarantee contract is a contract that requires the issuer to make specified payments to reimburse the holder for a loss it incurs because a specified debtor fails to make payments when due in accordance with the terms of a debt instruments.

Financial guarantee contract liabilities are measured initially at their fair values and, if not designated as at fair value through profit or loss, do not arise from a transfer of an asset, are measured subsequently at the higher of:

- The amount of the loss allowance determined in accordance with Korean IFRS 1109.
- The amount recognized initially less, where appropriate, cumulative amortization recognized in accordance with Korean IFRS 1115.

(g) Foreign exchange gains and losses

For financial liabilities that are denominated in a foreign currency and are measured at amortized cost at the end of each reporting period, the foreign exchange gains and losses are determined based on the amortized cost of the instruments. These foreign exchange gains and losses are recognized in the 'other gains and losses' line item in profit or loss for financial liabilities that are not part of a designated hedging relationship. For those which are designated as hedging instruments for a hedge of foreign currency risk, foreign exchange gains and losses are recognized in other comprehensive income and accumulated in a separate component of equity.

The fair value of financial liabilities denominated in a foreign currency is determined in that foreign currency and translated at the spot rate at the end of the reporting period. For financial liabilities that are measured as at fair value through profit or loss, the foreign exchange component forms part of the fair value gains or losses and is recognized in profit or loss for financial liabilities that are not part of a designated hedging relationship.

Notes to the Separate Financial Statements December 31, 2022 and 2021

(h) Derecognition of financial liabilities

The Company removes the financial liability only if our obligations have been fulfilled, canceled or expired. The difference between the carrying amount of the financial liability derecognized and the consideration paid and payable is recognized in profit or loss.

2.15 Leases

(a) Lessee

The Company assesses whether a contract is or contains a lease, at inception of the contract. The Company recognizes a right-of-use asset and a corresponding lease liability with respect to all lease arrangements in which it is the lessee, except for short-term leases (defined as leases with a lease term of 12 months or less) and leases of low-value assets (such as tablets and personal computers, small items of office furniture and telephones). For these leases, the Company recognizes the lease payments as an operating expense on a straight-line basis over the term of the lease, unless another systematic basis is more representative of the time pattern, in which economic benefits from the leased assets are consumed.

The lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date, discounted using the rate implicit in the lease. If this rate cannot be readily determined, the Company uses its incremental borrowing rate.

The incremental borrowing rate depends on the term, currency and start date of the lease and is determined based on a series of inputs, including the alternative benchmark interest rates based on government bond rates; a country-specific risk adjustment; a credit risk adjustment based on bond yields; and an entity-specific adjustment when the risk profile of the entity that enters into the lease is different to that of the Group and the lease does not benefit from a guarantee from the Company.

Lease payments included in the measurement of the lease liability comprise:

- fixed lease payments (including in-substance fixed payments), less any lease incentives receivable;
- variable lease payments that depend on an index or rate, initially measured using the index or rate at the commencement date;
- the amount expected to be payable by the lessee under residual value guarantees;
- the exercise price of purchase options, if the lessee is reasonably certain to exercise the options; and
- payments of penalties for terminating the lease, if the lease term reflects the exercise of an option to terminate the lease.

The lease liability is presented as a separate line in the separate statements of financial position.

Notes to the Separate Financial Statements December 31, 2022 and 2021

The lease liability is subsequently measured by increasing the carrying amount to reflect interest on the lease liability (using the effective interest method) and by reducing the carrying amount to reflect the lease payments made.

The Company remeasures the lease liability (and makes a corresponding adjustment to the related right-of-use asset) whenever:

- The lease term has changed or there is a significant event or change in circumstances
 resulting in a change in the assessment of exercise of a purchase option, in which case,
 the lease liability is remeasured by discounting the revised lease payments using a
 revised discount rate.
- The lease payments change due to changes in an index or rate or a change in expected payment under a guaranteed residual value, in which case, the lease liability is remeasured by discounting the revised lease payments using an unchanged discount rate (unless the lease payments change is due to a change in a floating interest rate, in which case, a revised discount rate is used).
- A lease contract is modified and the lease modification is not accounted for as a separate lease, in which case, the lease liability is remeasured based on the lease term of the modified lease by discounting the revised lease payments using a revised discount rate at the effective date of the modification.

The right-of-use assets comprise the initial measurement of the corresponding lease liability, lease payments made at or before the commencement day, less any lease incentives received and any initial direct costs. They are subsequently measured at cost, less accumulated depreciation and impairment losses.

Whenever the Company incurs an obligation for costs to dismantle and remove a leased asset, restore the site on which it is located or restore the underlying asset to the condition required by the terms and conditions of the lease, a provision is recognized and measured under Korean IFRS 1037. To the extent that the costs relate to a right-of-use asset, the costs are included in the related right-of-use asset, unless those costs are incurred to produce inventories.

Right-of-use assets are depreciated over the shorter period of lease term and useful life of the right-of-use asset. If a lease transfers ownership of the underlying asset or the cost of the right-of-use asset reflects that the Company expects to exercise a purchase option, the related right-of-use asset is depreciated over the useful life of the underlying asset. The depreciation starts at the commencement date of the lease.

The right-of-use assets are presented as a separate line in the separate statements of financial position.

The Company applies Korean IFRS 1036 to determine whether a right-of-use asset is impaired and accounts for any identified impairment loss.

Variable rents that do not depend on an index or rate are not included in the measurement the

Notes to the Separate Financial Statements December 31, 2022 and 2021

lease liability and the right-of-use asset. The related payments are recognized as an expense in the period in which the event or condition that triggers those payments occurs and are included in profit or loss.

As a practical expedient, Korean IFRS 1116 permits a lessee not to separate non-lease components, and instead account for any lease and associated non-lease components as a single arrangement. The Company has not used this practical expedient. For contracts that contain a lease component and one or more additional lease or non-lease components, the Company allocates the consideration in the contract to each lease component on the basis of the relative standalone price of the lease component and the aggregate standalone price of the non-lease components.

(b) Lessor

Leases for which the Company is a lessor are classified as finance or operating leases. Whenever the terms of the lease transfer substantially all the risks and rewards of ownership to the lessee, the contract is classified as a finance lease. All other leases are classified as operating leases.

When the Company is an intermediate lessor, it accounts for the head lease and the sublease as two separate contracts. The sublease is classified as a finance or operating lease by reference to the right-of-use asset arising from the head lease.

Rental income from operating leases is recognized on a straight-line basis over the term of the relevant lease. Initial direct costs incurred in negotiating and arranging an operating lease are added to the carrying amount of the leased asset and recognized on a straight-line basis over the lease term.

Amounts due from lessees under finance leases are recognized as receivables at the amount of the Company's net investment in the leases. Finance lease income is allocated to accounting periods so as to reflect a constant periodic rate of return on the Company's net investment outstanding in respect of the leases.

Subsequent to initial recognition, the Company regularly reviews the estimated unguaranteed residual value and applies the impairment requirements of Korean IFRS 1109, recognizing an allowance for expected credit losses on the lease receivables.

Finance lease income is calculated with reference to the gross carrying amount of the lease receivables, except for credit-impaired financial assets for which interest income is calculated with reference to their amortized cost (i.e., after a deduction of the loss allowance).

When a contract includes both lease and non-lease components, the Company applies Korean IFRS 1115 to allocate the consideration under the contract to each component.

Notes to the Separate Financial Statements December 31, 2022 and 2021

2.16 Borrowing costs

Borrowing costs directly attributable to the acquisition, construction or production of qualifying assets, which are assets that necessarily take a substantial period of time to get ready for their intended use or sale, are added to the cost of those assets, until such time as the assets are substantially ready for their intended use or sale.

Investment income earned on the temporary investment of specific borrowings, pending their expenditure on qualifying assets, is deducted from the borrowing costs eligible for capitalization.

All other borrowing costs are recognized in profit or loss in the period in which they are incurred.

2.17 Derivative financial instruments

Derivatives are recognized initially at fair value at the date a derivative contract is entered into and are subsequently remeasured to their fair value at each reporting date. The resulting gain or loss is recognized in profit or loss immediately, unless the derivative is designated and effective as a hedging instrument, in which event, the timing of the recognition in profit or loss depends on the nature of the hedge relationship.

A derivative with a positive fair value is recognized as a financial asset, whereas a derivative with a negative fair value is recognized as a financial liability. Derivatives are not offset in the financial statements, unless the Company has both legally enforceable right and intention to offset. The impact of the Master Netting Agreements on the Company's financial position is disclosed in Note 35. A derivative is presented as a non-current asset or a non-current liability if the remaining maturity of the instrument is more than 12 months and it is not due to be realized or settled within 12 months. Other derivatives are presented as current assets or current liabilities.

2.18 Post-employment benefits costs and termination benefits

Contributions to defined contribution post-employment benefit plans are recognized as an expense when employees have rendered service entitling them to the contributions.

For defined benefit post-employment benefit plans, the cost of providing benefits is determined using the Projected Unit Credit Method, with actuarial valuations being carried out at the end of each annual reporting period. Remeasurements comprising actuarial gains and losses, the effect of the asset ceiling (if applicable) and the return on plan assets (excluding interest) are recognized immediately in the separate statements of financial position, with a charge or credit recognized in the separate statements of comprehensive income in the period in which they occur. Remeasurements recognized in the separate statements of comprehensive income are not reclassified. Past service cost is recognized in profit or loss when the plan amendment or curtailment occurs, or when the Company recognizes related restructuring costs or termination benefits, if earlier. Gains or losses on settlement of a defined benefit plan are recognized when the settlement occurs.

Notes to the Separate Financial Statements December 31, 2022 and 2021

Net interest is calculated by applying a discount rate to the net defined benefit liability or asset. Defined benefit costs are split into three categories as follows:

- service costs, which include current service cost, past service cost and gains and losses on curtailments and settlements;
- · net interest expense or income; and
- · remeasurements

Service costs are recognized in the cost of sales and selling & administrative expenses, net interest expense (or net interest income) is recognized within financial expenses and the remeasurement component in other comprehensive income. Curtailment gains and losses are accounted for as past service costs.

The defined benefit obligation recognized in the separate statements of financial position represents the actual deficit or surplus in the Company's defined benefit plans. Any surplus resulting from this calculation is limited to the present value of any economic benefits available in the form of refunds from the plans or reductions in future contributions to the plans.

A liability for a termination benefit is recognized at the earlier of when the entity can no longer withdraw the offer of the termination benefit or when the entity recognizes any related restructuring costs.

The discretionary contributions of employees or third parties reduce service cost when such contributions are paid to the plan. When specifying that there will be contributions from employees or third parties in the formal terms of the plan, accounting depends on whether contributions are linked to service as follows:

If the contributions are not linked to the service (for example, contributions to reduce the deficit arising from losses in plan assets or actuarial losses), the contributions affect the remeasurement of the net defined benefit liability (asset).

If contributions are linked to services, they reduce service costs. For the amount of contribution that is dependent on the number of years of service, the entity reduces service cost by attributing the contributions to periods of service using the attribution method required by Korean IFRS 1019 paragraph 70 for the gross benefits. For the amount of contribution that is independent of the number of years of service, the entity reduces service cost in the period in which the related service is rendered/reduces service cost by attributing contributions to the employees' periods of service in accordance with Korean IFRS 1019 paragraph 70.

2.19 Provisions and contingent liabilities

A provision is a present obligation (legal or constructive obligation) resulting from past events, and is recognized when it is likely that the obligation will be fulfilled and the amount can be estimated reliably.

Notes to the Separate Financial Statements December 31, 2022 and 2021

The amount recognized as a provision is the best estimate at the end of each reporting period for the expenditure required to fulfill the current obligation, taking into account the inevitable risks and uncertainties associated with the event and situation. If the effect of the time value of money is important, the provision is assessed as the present value of the expected expenditure to fulfill the obligation. Discount rates are pretax rates that reflect current market assessments of the time value of money and the inherent risks of debt. The increase in provisions over time is recognized in profit or loss as financial cost when incurred.

If a third party is expected to reimburse some or all of the expenses required to settle the provision, the reimbursement is almost certain to be reimbursed if the Company fulfills its obligations and the amount can be measured reliably, the reimbursement is recognized as an asset.

The balance of the provisions is reviewed at the end of each reporting period and adjusted to reflect the best estimate as of the end of the reporting period. The related provisions are reversed when the economic benefits are no longer likely to be leaked.

(a) Onerous contract

The current obligations under the onerous contract are recognized and measured as provisions. The Company determines that it is responsible for the onerous contract when the unavoidable costs arising from the performance of its contractual obligations exceed the economic benefits expected to be received under the contract.

(b) warranties

Provisions for the expected cost of warranty obligations under local sale of goods legislation are recognized at the date of sale of the relevant products at the directors' best estimate of the expenditure required to settle the Company's obligation.

(c) Restoration liabilities

Provisions for the costs to restore leased plant assets to their original condition, as required by the terms and conditions of the lease, are recognized when the obligation is incurred, either at the commencement date or as a consequence of having used the underlying asset during a particular period of the lease, at the directors' best estimate of the expenditure that would be required to restore the assets. Estimates are regularly reviewed and adjusted as appropriate for new circumstances.

(d) Contingent liabilities acquired in a business combination

Contingent liabilities acquired in a business combination are initially measured at fair value at the acquisition date. At the end of subsequent reporting periods, such contingent liabilities are measured at the higher of the amount that would be recognized in accordance with Korean IFRS 1037 *Provisions, Contingent Liabilities and Contingent Assets*, or the amount initially recognized, less cumulative amortization recognized in accordance with Korean IFRS 1115 *Revenue from Contracts with Customers*

Notes to the Separate Financial Statements December 31, 2022 and 2021

2.20 Government grants

Government grants are not recognized until there is reasonable assurance that the Company will comply with the conditions attaching to them and that the grants will be received.

The benefit of a government loan at a below-market rate of interest is treated as a government grant, measured as the difference between proceeds received and the fair value of the loan based on prevailing market interest rates.

Government grants related to assets are presented in the separate statements of financial position by deducting the grant from the carrying amount of the asset (including property, plant and equipment). The related grant is recognized in profit or loss over the life of a depreciable asset as a reduced depreciation expense.

Government grants related to income are recognized in profit or loss on a systematic basis over the periods in which the Company recognizes as expenses the related costs for which the grants are intended to compensate.

2.21 Revenue recognition

Revenue is measured on the basis of the consideration specified in the contract with the customer and excludes the amount collected on behalf of the third party. We also recognize revenue when control of goods or services is transferred to the customer.

(a) Sale of goods

The Company recognizes revenue from sale of goods when significant risks and rewards from ownership of goods have been transferred and it retains neither continuing managerial involvement to the degree usually associated with ownership nor effective control over the goods. Therefore, the Company recognizes revenue for the manufactured goods at acceptance and merchandises at delivery. Revenue is recognized by estimating the total amount of returns expected monthly using the expected return period and the return rate. Based on past experience, in case of a return condition transaction with a low importance of the amount, the entire amount of the sale is recognized as revenue. At the point of sale, a refund liability and a corresponding adjustment to revenue are recognized for those products expected to be returned. At the same time, the Company has a right to recover the product when customers exercise their right of return, so it consequently recognizes a right to returned goods asset and a corresponding adjustment to cost of sales; previously, these effects were recognized as warranty provisions.

(b) Rendering of service

The Company recognizes revenue from rendering of service using percentage-of-completion method when the outcome of the transaction can be estimated reliably, stage of completion at reporting date can be measured reliably and the costs incurred and the cost to complete the transaction can be measured reliably.

Notes to the Separate Financial Statements December 31, 2022 and 2021

(c) Construction contracts

The projects that are developed to suit the customer's characteristics are recognized as revenue over time because the assets the Company has created do not have an alternative use to themselves and they have the right to enforceable payment for performance completed. Therefore, revenue from construction contracts is recognized over time on a cost-based input method (i.e., based on the proportion of contract costs incurred for work performed to date relative to the estimated total contract costs). The directors consider that this input method is an appropriate measure of the progress toward complete satisfaction of these performance obligations under Korean IFRS 1115.

Where the outcome of a construction contract can be estimated reliably, revenue and costs are recognized by reference to the stage of completion of the contract activity at the end of the reporting period, measured based on the proportion of contract costs incurred for work performed to date relative to the estimated total contract costs, except where this would not be representative of the stage of completion. Variations in contract work, claims and incentive payments are included to the extent that the amount can be measured reliably, and its receipt is considered probable.

Where the outcome of a construction contract cannot be estimated reliably, contract revenue is recognized to the extent of contract costs incurred that are probable to be recovered. Contract costs are recognized as expenses in the period in which they are incurred.

When it is probable that total contract costs will exceed total contract revenue, the expected loss is recognized as an expense immediately.

The amount added from the recognized profit to the accumulated accrued costs exceeding the amount claimed for progress is classified as contract assets, and the amount claimed for progress exceeding the amount added from the recognized profit to the accumulated accrued costs is classified as contract liabilities. Amounts received before the related work is performed are included in the separate statements of financial position, as a liability, as advances received. Amounts billed for work performed, but not yet paid by the customer, are included in the separate statements of financial position under trade and other receivables.

2.22 Income tax

Income tax expense consists of current tax and deferred tax.

(a) Current tax payable

The tax currently payable is based on taxable profit for the year. Taxable profit differs from profit as reported in the separate statements of comprehensive income because of items of income or expense that are taxable or deductible in other years and items that are never taxable or deductible. The Company's liability for current tax is calculated using tax rates that have been enacted, or substantively enacted, by the end of the reporting period.

(b) Deferred tax

Notes to the Separate Financial Statements December 31, 2022 and 2021

Deferred tax is the tax expected to be payable or recoverable on differences between the carrying amounts of assets and liabilities in the separate financial statements and the corresponding tax bases used in the computation of taxable profit, and is accounted for using the liability method. Deferred tax liabilities are generally recognized for all taxable temporary differences. Deferred tax assets are generally recognized for all deductible temporary differences to the extent it is probable that taxable profits will be available against which those deductible temporary differences can be utilized. Such deferred tax assets and liabilities are not recognized if the temporary difference arises from goodwill or from the initial recognition (other than in a business combination) of other assets and liabilities in a transaction that affects neither the taxable profit nor the accounting profit.

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

The carrying amount of deferred tax assets is reviewed at the end of each reporting period and reduced to the extent it is no longer probable that sufficient taxable profits will be available to allow all or part of the asset to be recovered.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply in the period in which the liability is settled or the asset is realized, based on tax rates (and tax laws) that have been enacted, or substantively enacted, by the end of the reporting period. The measurement of deferred tax liabilities and assets reflects the tax consequences that would follow from the manner in which the Company expects, at the end of the reporting period, to recover or settle the carrying amount of its assets and liabilities.

Deferred tax assets and liabilities are offset if, and only if, the Company has a legally enforceable right to set off current tax assets against current tax liabilities, and the deferred tax assets and liabilities relate to income taxes levied by the same taxation authority on either the same taxable entity or different taxable entities that intend either to settle current tax liabilities and assets on a net basis or to realize the assets and settle the liabilities simultaneously in each future period in which significant amounts of deferred tax liabilities or assets are expected to be settled or recovered.

(c) Recognition of current tax payable and deferred tax

Current and deferred taxes are recognized in profit or loss, except when they relate to items that are recognized in other comprehensive income or directly in equity, in which case, the current and deferred taxes are also recognized in other comprehensive income or directly in equity, respectively. Where current tax or deferred tax arises from the initial accounting for a business combination, the tax effect is included in the accounting for the business combination.

Notes to the Separate Financial Statements December 31, 2022 and 2021

2.23 Treasury shares

In the event of reacquisition of its own equity instruments ("treasury share") the incremental costs incurred directly related to the equity transaction are accounted for by deducting the net income tax benefit from equity, and other capital items are marked as the total capital reduction item in the separate statements of financial position. On the other hand, the gain or loss on the purchase, sale or incineration of own shares is not recognized in profit or loss, but is recognized directly in equity.

2.24 Fair value

Fair value is the price that will be received on sale of assets or paid on transfer of liabilities at the measurement date in normal transactions between market participants, whether the price is directly observable or estimated using valuation techniques. In estimating the fair value of an asset or liability, we consider the characteristics of the asset or liability that market participants consider when pricing the asset or liability at the measurement date. Equity-based payment transactions within the scope of Korean IFRS 1102 Share-based Payment, lease transactions within the scope of Korean IFRS 1116 Leases, net realizable value of Korean IFRS 1002 Inventories, and the value of use of Korean IFRS 1036 Impairment of assets, are determined in accordance with the principles described in measurement or disclosure, except for measurements that are similar in part, but are not fair value.

In addition, based on the observable degree of input used for measuring fair value for financial reporting purposes and the significance of input variables for the entire fair value measurement, the fair value measurement is classified as Levels 1, 2 or 3.

- Quoted prices (unadjusted) in active markets for identical assets or liabilities that an entity can access at the measurement date (Level 1).
- · All inputs other than quoted prices included in level 1 that are observable (either directly that is, prices, or indirectly that is, derived from prices) for the asset or liability (Level 2).
- · Unobservable inputs for the asset or liability (Level 3).

2.25 Allocation of greenhouse gas emission rights and accounting for trading systems

The Company classifies the emission rights as intangible assets, and the emission rights allocated free of charge by the government are measured at zero and the sales rights purchased are measured at cost. In addition, the emission liabilities shall be measured at zero if the emission rights granted free of charge by the government are sufficient for fulfilling obligations under emission liabilities incurred in the current period in connection with the corresponding year of implementation, and the emission liabilities shall be measured at the best estimate as of the end of the reporting period for the expenditure expected to be incurred for the discharge of emission liabilities in excess of the amount of free quota.

3. Significant Accounting Estimates and Assumptions

In the application of the Company's accounting policies, management is required to make judgments, estimates and assumptions about the carrying amounts of assets and liabilities that are not readily apparent from other sources. The estimates and associated assumptions are based on historical experience and other factors that are considered to be relevant. Actual results may differ from these estimates.

Estimation and assumptions are continuously reviewed. Effects of changes in accounting estimates are recognized during the period of changes made only in case that those changes affect a corresponding period. Effects of changes are recognized during both current and future years and, in such case, those changes affect both periods.

3.1 Uncertainty on the estimation of the total construction revenue

Total contract revenue is measured based on the contract amount initially agreed upon, but can be increased or decreased as the terms of the contract change in the course of performing the contract, so measurement of contract revenue is subject to various uncertainties related to the outcome of future events. The Company includes in the contract revenue when it is likely that the customer will approve a change in the amount of revenue due to a change in the terms of the contract or when the Company is more likely to meet its performance criteria and can measure the amount more reliably.

3.2 Estimation of the total construction cost

The amount due from the customer is affected by the percentage of completion, which is estimated by reference to the total cost incurred, and the total contract cost is estimated by reference to the expected future figures, such as the material costs, the labor costs, the contract period, etc. The Company periodically reviews any changes of estimated total contract cost and reflects such changes when it calculates current progress rate at the end of reporting period.

Notes to the Separate Financial Statements December 31, 2022 and 2021

4. Operating Segments

The Company that has a single reportable segment reports entity-wide segment information based on Korean IFRS 1108 *Operating Segments*. The information at the entity level is as follows:

(1) Information about sales

(in thousands of Korean won)		2022		2021
Sales of merchandise	₩	920,787,431	₩	724,479,709
Service revenue		1,693,767,658		1,419,375,080
Construction revenue		1,975,897,795		1,682,926,233
	₩	4,590,452,884	₩	3,826,781,022

(2) Information about the region

Company sales are all generated, and all of the non-current assets are located within the country (Republic of Korea).

(3) Information on major customers

Revenue to customers that consist more than 10% of the Company's total sales for the years ended December 31, 2022 and 2021, are as follows:

(in thousands of Korean won)		2022	2021		
LG Electronics Inc. ¹	₩	882,080,023	₩	784,482,466	
LG Chem Ltd. ¹		737,020,261		591,168,064	
LG Uplus Corp. ¹		488,195,769		383,632,388	

¹ It includes the transaction of subsidiaries.

5. Classification of Financial Instruments and Fair Value

The carrying amount and fair value of financial assets and liabilities as of December 31, 2022 and 2021, are as follows:

(in thousands of Korean won)	20)22	2021			
Financial assets	Carrying amount	Fair value	Carrying amount	Fair value		
Cash and cash equivalents						
Cash and cash equivalents	₩ 648,866,093	₩ 648,866,093	₩ 545,373,508	₩ 545,373,508		
Financial assets at fair value through profit or loss						
Derivative assets for trading	11,442,050	11,442,050	1,621,136	1,621,136		
Investment ¹	24,534,227	24,534,227	23,281,345	23,281,345		
	35,976,277	35,976,277	24,902,481	24,902,481		
Financial assets at fair value through other comprehensive income						
Marketable equity securities	1,596,237	1,596,237	-	-		
Unmarketable equity securities	756,000	756,000	769,139	769,139		
	2,352,237	2,352,237	769,139	769,139		
Financial assets at amortized cost						
Financial institution deposits	112,000,000	112,000,000	112,000,000	112,000,000		
Trade receivables	1,264,854,778	1,264,854,778	1,002,969,791	1,002,969,791		
Loans	10,836,214	10,836,214	8,117,329	8,117,329		
Other receivables	10,258,654	10,258,654	12,056,714	12,056,714		
Accrued income	1,761,290	1,761,290	822,289	822,289		
Deposits	11,791,501	11,791,501	8,827,544	8,827,544		
	1,411,502,437	1,411,502,437	1,144,793,667	1,144,793,667		
	₩ 2,098,697,044	₩ 2,098,697,044	₩ 1,715,838,795	₩ 1,715,838,795		

¹ Contains investments where the Company has significant influence based on the shareholders' agreement.

(in thousands of Korean won)		20	22			20	21			
	Carrying			Fair		Carrying	Fair			
Financial liabilities		amount		value	amount			value		
Financial liabilities at fair value through profit or loss										
Derivative liabilities for trading	₩	1,810,103	₩	1,810,103	₩	2,564,026	₩	2,564,026		
Financial liabilities at amortized cost										
Trade payables		703,746,373		703,746,373		602,820,782		602,820,782		
Other payables ¹		46,161,138		46,161,138		38,329,514		38,329,514		
Accrued expenses ¹		8,246,207		8,246,207		7,211,201		7,211,201		
Dividend payables		6,126		6,126		4,422		4,422		
Deposits received		1,835,004		1,835,004		1,364,150		1,364,150		
Borrowings		679,599,634		654,796,224		499,245,297		495,725,611		
	1	,439,594,482		1,414,791,072		1,148,975,366		1,145,455,680		
	₩ 1	,441,404,585	₩	1,416,601,175	₩	1,151,539,392	₩	1,148,019,706		

¹ Other payables and accrued expenses that are not financial liabilities are excluded.

6. Cash and Cash Equivalents

Cash and cash equivalents in the separate statements of cash flows are equivalent to cash and cash equivalents in the separate statements of financial position. Details of cash and cash equivalents as of December 31, 2022 and 2021, are as follows:

(in thousands of Korean won)	2022			2021
Cash on hand	₩	5,671	₩	6,606
Bank deposits and others		648,860,422		545,366,902
	₩	648,866,093	₩	545,373,508

7. Trade and Other Receivables

Details of trade and other receivables before deducting accumulated impairment losses as of December 31, 2022 and 2021, are as follows:

(in thousands of Korean won)	2022								
	Neither past due nor impaired receivables	Past due, but not impaired receivables	Impaired receivables	Total					
Trade receivables	₩ 1,125,034,670	₩ 139,820,108	₩ 9,284,250	₩ 1,274,139,028					
Other receivable	34,034,703	612,956	3,133,931	37,781,590					
	₩ 1,159,069,373	₩ 140,433,064	₩ 12,418,181	₩ 1,311,920,618					
(in thousands of Korean won)		20)21						
	Neither past due nor impaired receivables	Past due, but not impaired receivables	Impaired receivables	Total					
Trade receivables	₩ 921,484,451	₩ 81,485,340	₩ 11,173,213	₩ 1,014,143,004					
Trade receivables Other receivable	₩ 921,484,451 27,168,041	₩ 81,485,340 2,655,834	₩ 11,173,213 5,715,502	₩ 1,014,143,004 35,539,377					

Aging analysis based on committed collection period of past due, but not impaired trade and other receivables as of December 31, 2022 and 2021, is as follows:

(in thousands of Korean won)	2022			2021		
1 day ~ 29 days	₩	114,665,740	₩	64,267,341		
30 days ~ 60 days		10,766,673		4,170,285		
61 days ~ 90 days		1,418,893		454,341		
91 days ~ 120 days		601,876		2,813,760		
More than 120 days		12,979,882		12,435,447		
	₩	140,433,064	₩	84,141,174		

Notes to the Separate Financial Statements December 31, 2022 and 2021

The Company measures the allowance for losses on trade receivables at amounts equivalent to the lifetime expected credit losses. The expected credit losses on trade receivables are estimated using the provisioning schedule based on the experience of borrowers' past defaults, in which adjusted by assessing the factors specific to the borrower and the general economic situation in the industry to which the borrower belongs to, and the current and future direction of forecast at the end of the reporting period. There are no changes in valuation techniques or important assumptions during this year.

Changes in provisions for impairment of receivables for the years ended December 31, 2022 and 2021, are as follows:

(in thousands of Korean won)		202	22		2021				
	Trade receivables		Other receivables		Trade receivables		Other receivables		
Beginning balance	₩	11,173,213	₩	5,715,502	₩	10,267,552	₩	4,714,397	
Impairment loss		50,154		343,345		853,924		1,010,470	
Reversal of impairment loss		(1,903,266)		(2,426,564)		-		-	
Write-off		(57,263)		(498,352)		-		(9,365)	
Others		21,412				51,737			
Ending balance	₩	9,284,250	₩	3,133,931	₩	11,173,213	₩	5,715,502	

Aging analysis of impaired trade and other receivables as of December 31, 2022 and 2021, is as follows:

(in thousands of Korean won)	2022			2021		
Less than 6 months	₩	2,612,918	₩	5,515,760		
More than 6 months and less than 1 year		129,868		132,343		
More than 1 year		9,675,395		11,240,612		
	₩	12,418,181	₩	16,888,715		

Notes to the Separate Financial Statements December 31, 2022 and 2021

8. Inventories

Inventories as of December 31, 2022 and 2021, are as follows:

(in thousands of Korean won)	2022								
,	Acquisition cost			Valuation allowance	Carrying amount				
Merchandise	₩	50,112,884	₩	-	₩	50,112,884			
Other inventories		960,956		_		960,956			
	₩	51,073,840	₩		₩	51,073,840			
(in thousands of Korean won)				2021					
	A	cquisition cost		Valuation allowance		Carrying amount			
Merchandise	₩	45,880,476	₩	-	₩	45,880,476			
Other inventories		773,973		(91,881)		682,092			
	₩	46,654,449	₩	(91,881)	₩	46,562,568			

Inventory costs recognized in cost of sales for the years ended December 31, 2022 and 2021, are $\mbox{$\forall$}$ 1,222,334,394 thousand and $\mbox{$\forall$}$ 922,757,352 thousand, respectively. Reversal of loss on valuation of inventories for the years ended December 31, 2022 and 2021 are $\mbox{$\forall$}$ 626 thousand and $\mbox{$\forall$}$ 17,306 thousand, respectively.

9. Other Assets

Details of other assets as of December 31, 2022 and 2021, are as follows:

(in thousands of Korean won)		202		2021				
	Current		Non-current		Current		Non-current	
Advance payments	₩	3,433,373	₩	89,033	₩	5,624,395	₩	63,436
Prepaid expenses		12,862,399		1,080,964		5,137,097		28,147
Prepaid value-added tax		17,863		-		52,046		-
Contract asset		381,913,011		-		268,622,432		-
Costs to fulfil a contract		94,882,426		-		98,848,713		-
Other current assets		72,049				112,172		
	₩	493,181,121	₩	1,169,997	₩	378,396,855	₩	91,583

Notes to the Separate Financial Statements December 31, 2022 and 2021

10. Property, Plant and Equipment

Details of property, plant and equipment as of December 31, 2022 and 2021, is as follows:

(in thousands of									
Korean won)	-				2022				
					Tools and	Furniture	Construction		
	Land	Buildings	Structures	Machinery	equipment	and fixtures	-in-progress	Others	Total
Acquisition cost	₩88,798,223	₩492,170,842	₩3,766,518	₩ 139,324	₩ 416,577	₩ 89,993,195	₩ -	₩401,809,767	₩1,077,094,446
Accumulated									
depreciation	-	(145,867,452)	(561,452)	(123,491)	(413,024)	(50,731,305)	-	(329,794,211)	(527,490,935)
Impairment loss	-	-	-	-	-	-	-	(65,267)	(65,267)
Government									
grants		(836,774)							(836,774)
Carrying amount	₩88,798,223	₩345,466,616	₩3,205,066	₩ 15,833	₩ 3,553	₩39,261,890	₩ -	₩ 71,950,289	₩ 548,701,470
(in thousands of									
Korean won)					2021				
					Tools and	Furniture	Construction		
	Land	Buildings	Structures	Machinery	equipment	and fixtures	-in-progress	Others	Total
Acquisition cost	₩86,420,271	₩487,118,742	₩3,766,519	₩ 139,324	₩ 419,886	₩86,110,109	₩ 4,880,468	₩401,864,862	₩1,070,720,181
Accumulated									
depreciation	-	(130,395,936)	(461,334)	(95,901)	(391,667)	(47,235,096)	-	(337,394,002)	(515,973,936)
Impairment loss	-	-	-	-	-	-	-	(65,297)	(65,297)
Government									
grants		(873,820)							(873,820)
Carrying amount	₩86,420,271	₩355,848,986	₩3,305,185	₩ 43,423	₩ 28,219	₩38,875,013	₩ 4,880,468	₩ 64,405,563	₩ 553,807,128

Notes to the Separate Financial Statements December 31, 2022 and 2021

Changes in property, plant and equipment for the years ended December 31, 2022 and 2021, are as follows:

(in thousands of									
Korean won)					2022				
	Land	Buildings	Structures	Machinery	Tools and equipment	Furniture and fixtures	Construction -in-progress	Others	Total
	Land	Dullulings	Suddicides	Wacililery	equipment	andnatures	продса	Oulers	Iotai
Opening net book amount	₩86,420,271	₩ 355,848,986	₩3,305,185	₩ 43,423	₩ 28,219	₩38,875,013	₩ 4,880,468	₩ 64,405,563	₩ 553,807,128
Acquisitions	2,377,952	5,233,365	-	-	-	8,094,808	865,014	33,845,730	50,416,870
Disposals	-	-	-	-	-	-	-	(50,801)	(50,801)
Depreciation	-	(15,434,470)	(100,119)	(27,590)	(24,666)	(7,703,404)	-	(26,202,745)	(49,492,993)
Transfer	-	(181,264)	-	-	-	(4,528)	(5,745,483)	(47,458)	(5,978,734)
Closing									
net book amount	₩88,798,223	₩345,466,616	₩3,205,066	₩ 15,833	₩ 3,553	₩39,261,890	₩ -	₩ 71,950,289	₩ 548,701,470
(in thousands of Korean won)					2021				
Norean won)					Tools and	Furniture	Construction		
	Land	Buildings	Structures	Machinery	equipment		-in-progress	Others	Total
Opening net book amount	₩87,980,267	₩372,557,639	₩3,162,559	₩ 72,492	₩ 52,885	₩31,771,914	₩ 3,094,197	₩ 68,314,261	₩ 567,006,214
Acquisitions	-	2,191,500	286,618	-	_	14,671,719	1,786,271	21,435,453	40,371,561
Disposals	-	(28,656)	-	-	-	(10,418)	-	(346,695)	(385,769)
Depreciation	-	(15,297,927)	(101,505)	(29,069)	(24,666)	(6,968,605)	-	(24,998,956)	(47,420,728)
Transfer	(1,559,996)	(3,930,815)	(42,487)	_	-	-	-	-	(5,533,298)
Other changes	-	357.245	-	_	_	(589,597)	-	1,500	(230,852)
Closing net book amount	₩86,420,271	₩ 355,848,986	₩3,305,185	₩ 43,423	₩ 28,219	₩38,875,013	₩ 4,880,468	₩ 64,405,563	₩ 553,807,128

Changes in government grants for the years ended December 31, 2022 and 2021, are as follows:

(in thousands of Korean won)		2022	2021			
	Buildings			Buildings		
Beginning balance	₩	873,820	₩	910,865		
Credited to depreciation expense		(37,046)		(37,045)		
Ending balance	₩	836,774	₩	873,820		

(in thousands of Korean won)

Notes to the Separate Financial Statements December 31, 2022 and 2021

Details of disposal of property, plant and equipment for the years ended December 31, 2022 and 2021, are as follows:

2022

	Buildings		fi	xtures		Others		Total
Carrying amount before disposal	₩	-	₩	-	₩	50,800	₩	50,800
Disposal amount		-		922		192,825		193,747
Gain (loss) on disposal, net	₩	-	₩	922	₩	142,025	₩	142,947
(in thousands of Korean won)		uildings		202 iture and xtures		Others		Total
	ы	mungs	11.	ktures		Oulers		Total
Carrying amount before disposal	₩	28,656	₩	10,418	₩	346,696	₩	385,770
Disposal amount	-	<u> </u>		856		602,029		602,885
Gain (loss) on disposal, net							₩	

Notes to the Separate Financial Statements December 31, 2022 and 2021

11. Investment Property

Details of investment property as of December 31, 2022 and 2021, are as follows:

(in thousands of Korean won)	2022										
		Land		Buildings ¹		Structures		Total			
Acquisition cost	₩	9,322,460	₩	35,417,973	₩	314,330	₩	45,054,763			
Accumulated depreciation		-		(7,843,940)		(77,634)		(7,921,574)			
Ending balance	₩	9,322,460	₩	27,574,033	₩	236,696	₩	37,133,189			

¹ Right-of-use assets related to LG ARTS CENTER and LG Discovery Lab are included.

(in thousands of Korean won)	2021									
		Land		Buildings		Structures		Total		
Acquisition cost	₩	9,322,460	₩	29,491,225	₩	314,330	₩	39,128,015		
Accumulated depreciation		-		(6,710,962)		(67,745)		(6,778,707)		
Ending balance	₩	9,322,460	₩	22,780,263	₩	246,585	₩	32,349,308		

Changes in investment property for the years ended December 31, 2022 and 2021, are as follows:

(in thousands of Korean won)	2022										
		Land		Buildings		Structures		Total			
Beginning balance	₩	9,322,460	₩	22,780,263	₩	246,585	₩	32,349,308			
Depreciation		-		(1,132,978)		(9,889)		(1,142,867)			
Transfer and others		-		5,926,748		-		5,926,748			
Ending balance	₩	9,322,460	₩	27,574,033	₩	236,696	₩	37,133,189			

(in thousands of Korean won)		2021										
		Land		Buildings		Structures		Total				
Beginning balance	₩	7,762,464	₩	19,767,725	₩	213,556	₩	27,743,745				
Depreciation		-		(918,277)		(9,458)		(927,735)				
Transfer		1,559,996		3,930,815		42,487		5,533,298				
Ending balance	₩	9,322,460	₩	22,780,263	₩	246,585	₩	32,349,308				

The fair value of investment property as of December 31, 2022, are as follows:

(in thousands of Korean won)		Land		uildings and structures		Total
Carrying amount						
Sangam DDMC ¹ Right-of-use assets related to LG ARTS CENTER and	₩	13,461,407	₩	31,849,550	₩	45,310,957
LG Discovery Lab		-		5,753,885		5,753,885
Evaluation result						
Sangam DDMC ^{2,3} Right-of-use assets related to LG ARTS CENTER and			₩	343,000,000	₩	343,000,000
LG Discovery Lab ⁴				5,753,885		5,753,885

¹ Includes the value of investment property occupied by the owner (land: ₩ 4,138,947 thousand and buildings and structures: ₩ 9,792,706 thousand).

² This is the valuation amount for entire Sangam DDMC. In case of Sangam DDMC, the total value of real estate includes land and buildings, and constructions.

³ Fair value assessment was performed by an independent third party, Samchang Appraisal Co., Ltd., utilizing cost method, sales comparison approach and yield capitalization method. Capital expenditures after appraisal date are not reflected in the fair value.

⁴ The carrying amount of right-of-use assets was regarded as the fair value.

12. Intangible Assets

Details of intangible assets as of December 31, 2022 and 2021, are as follows:

(in thousands of	2022											
Korean won)	De	evelopment costs		ndustrial property rights	Computer software and others		M	embership		nstruction progress	Total	
Acquisition cost	₩	116,481,752	₩	2,983,405	₩	91,262,231	₩	13,291,595	₩	1,116,258	₩	225,135,241
Accumulated depreciation		(38,250,496)		(1,607,327)		(77,305,127)		-		-		(117,162,950)
Accumulated impairment loss		(15,649,625)		(1,307)		_		(1,841,738)		_		(17,492,670)
	₩	62,581,631	₩	1,374,771	₩	13,957,104	₩	11,449,857	₩	1,116,258	₩	90,479,621
(in thousands of						20	21					
Korean won)	De	evelopment costs		ndustrial property rights		Computer oftware and others	М	embership		onstruction progress		Total
Acquisition cost Accumulated	₩	61,917,395	₩	2,753,062	₩	91,088,811	₩	18,785,701	₩	36,661,279	₩	211,206,248
depreciation Accumulated		(27,023,520)		(1,300,744)		(71,505,364)		-		-		(99,829,628)
impairment loss		(4,762,625)		(1,307)		-		(1,841,738)		(516,764)		(7,122,434)
	₩	30,131,250	₩	1,451,011	₩	19,583,447	₩	16,943,963	₩	36,144,515	₩	104,254,186

Changes in intangible assets for the years ended December 31, 2022 and 2021, are as follows:

(in thousands of	2022									
Korean won)	Developme costs		Industrial property rights	Computer software and others	M	lembership	Construction in progress	Total		
Beginning balance	₩ 30,131,	250	₩ 1,451,010	₩ 19,583,448	₩	16,943,963	₩ 36,144,515	₩ 104,254,186		
Acquisition Increase due to internal		-	230,342	1,828,525		653,914	-	2,712,781		
development		-	-	-		-	19,076,295	19,076,295		
Disposals		-	-	(11,988)		(6,148,020)	-	(6,160,008)		
Impairment loss	(8,929,5	62)	-	-		-	(1,440,674)	(10,370,236)		
Amortization	(11,283,9	34)	(306,582)	(7,248,281)		-	-	(18,838,797)		
Transfer	52,663,	377	-	(194,600)		-	(52,663,877)	(194,600)		
Ending balance	₩ 62,581,0	31	₩ 1,374,771	₩ 13,957,104	₩	11,449,857	₩ 1,116,259	₩ 90,479,621		
(in thousands of				20)21					
(in thousands of Korean won)	Developme costs		Industrial property rights	Computer software and others		lembership	Construction in progress	Total		
•	•	ı		Computer software and others	M	lembership 15,524,349				
Korean won)	costs	ı	property rights	Computer software and others	M	·	in progress			
Korean won) Beginning balance Acquisition	costs	ı	property rights ₩ 1,384,703	Computer software and others W 19,300,815	M	15,524,349	in progress	₩ 66,534,757 9,317,812		
Korean won) Beginning balance Acquisition Increase due to internal	costs	ı	property rights ₩ 1,384,703	Computer software and others W 19,300,815	M	15,524,349	in progress ₩ 12,775,090	₩ 66,534,757 9,317,812		
Korean won) Beginning balance Acquisition Increase due to internal development	costs	300 - -	property rights ₩ 1,384,703	Computer software and others W 19,300,815	M	15,524,349 1,624,312	in progress ₩ 12,775,090	₩ 66,534,757 9,317,812 44,977,296 (204,698)		
Rorean won) Beginning balance Acquisition Increase due to internal development Disposals	costs ₩ 17,549,	300 - - - 54)	property rights ₩ 1,384,703	Computer software and others W 19,300,815	M	15,524,349 1,624,312	in progress ₩ 12,775,090	₩ 66,534,757 9,317,812 44,977,296 (204,698)		
Rorean won) Beginning balance Acquisition Increase due to internal development Disposals Impairment loss	costs ₩ 17,549,4	1 300 - - - - 54) 04)	property rights ₩ 1,384,703 342,896	Computer software and others ₩ 19,300,815	M	15,524,349 1,624,312	in progress ₩ 12,775,090	₩ 66,534,757 9,317,812 44,977,296 (204,698) (2,673,417) (13,697,564)		

There is no change in government grants in relation to the intangible assets for the years ended December 31, 2022 and 2021.

Notes to the Separate Financial Statements December 31, 2022 and 2021

Details of disposal of intangible assets for the years ended December 31, 2022 and 2021, are as follows:

(in thousands of Korean won)		2022										
	-	er software and others	Men	nbership		Total						
Carrying amount before disposal	₩	11,988	₩	6,148,020	₩	6,160,008						
Disposal amount				6,092,000		6,092,000						
Gain (loss) on disposal, net	₩	(11,988)	₩	(56,020)	₩	(68,008)						
(in thousands of Korean won)			2	2021								
		Membership			Total							
Carrying amount before disposal	₩		204,698	8 ₩		204,698						
Disposal amount			199,000	0		199,000						
Loss on disposal	₩		(5,698) ₩		(5,698)						

The expenses related to research and development for the years ended December 31, 2022 and 2021, are \forall 46,868,554 thousand and \forall 33,603,810 thousand, respectively. Those amounts are recognized in selling and administrative expenses.

13. Investments in Subsidiaries

Details of investment in subsidiaries as of December 31, 2022 and 2021, are as follows:

						2021	
Company	Location of incorporation	Major operation	Closing date	Number of ordinary shares owned by the Company	Number of ordinary shares issued	Percentage of ownership (%)	Percentage of ownership (%)
LG CNS PHILIPPINES, INC.	Philippines	Services	December 31	298,083	298,083	100.00%	100.00%
LG CNS China Inc.1	China	Services	December 31	-	-	100.00%	100.00%
LG CNS Europe B.V.	Netherlands	Services	December 31	5,000	5,000	100.00%	100.00%
LG CNS America, Inc.	USA	Services	December 31	100	100	100.00%	100.00%
LG CNS India Pvt, Ltd.	India	Services	March 31	15,319,725	15,319,725	100.00%	100.00%
PT. LG CNS Indonesia	Indonesia	Services	December 31	20,000	20,000	100.00%	100.00%
LG CNS BRASIL SERVICOS DE TI LTDA	Brazil	Services	December 31	2,471,000	2,471,000	100.00%	100.00%
BIZTECH I CO., LTD.6	South Korea	Services	December 31	10,375,721	10,798,244	96.09%	96.09%
LG CNS COLOMBIA SAS	Colombia	Services	December 31	110,000	110,000	100.00%	100.00%
LG CNS MALAYSIA SDN BHD	Malaysia	Services	December 31	1,500,002	1,500,002	100.00%	100.00%
LG CNS Saudi Arabia LLC7	Saudi Arabia	Services	December 31	-	-	-	51.00%
LG CNS JAPAN Co., Ltd.	Japan	Services	December 31	800	800	100.00%	100.00%
LG CNS UZBEKISTAN, LLC ²	UZBEKISTAN	Services	December 31	-	-	51.00%	51.00%
Hangbokmaru Co., Ltd.	South Korea	Services	December 31	140,000	140,000	100.00%	100.00%
LG CNS Vietnam Co., Ltd.3	Vietnam	Services	December 31	-	-	100.00%	100.00%
LG CNS FUND I LLC ⁴	USA	Investment Fund	December 31	-	-	100.00%	100.00%
Open Source Consulting ⁵	South Korea	Services	December 31	244,292	334,365	73.06%	56.21%
Rightbrain Co., Ltd.	South Korea	Services	December 31	204,300	330,000	61.91%	61.91%
Biztech On Co.,Ltd. ⁶	South Korea	Services	December 31	2,158,849	2,246,763	96.09%	-

¹ There are no outstanding shares based on the relevant laws and regulations of local country for an entity formed in China.

² There are no outstanding shares based on the relevant laws and regulations of local country for an entity formed in Uzbekistan.

³ There were no outstanding shares based on the relevant laws and regulations of local country for an entity formed in Vietnam.

⁴ There were no outstanding shares based on the relevant laws and regulations of local country for an entity formed in USA.

⁵ It was acquired during the year ended December 31, 2022.

⁶ It is the surviving/newly established company due to the spin-off of Biztech Partners Co., Ltd.

⁷ It was liquidated during the year ended December 31, 2022.

Changes in investments in subsidiaries for the years ended December 31, 2022 and 2021, are as follows:

(in thousands of Korean won)			2022		
	Beginning		Impairment		Ending
	balance	Acquisition	loss	Others	balance
LO ONO DUIU IDDINEO INO	₩ -	₩ -	₩ -	₩ -	₩ -
LG CNS PHILIPPINES, INC.		- ۷۷	vv -	vv -	
LG CNS China Inc.	23,231,647	-	-	-	23,231,647
LG CNS Europe B.V.	3,656,950	-	-	-	3,656,950
LG CNS America, Inc.	2,883,494	-	-	-	2,883,494
LG CNS India Pvt, Ltd.	795,429	-	-	-	795,429
PT. LG CNS Indonesia	-	-	-	-	-
LG CNS BRASIL SERVICOS					
DE TI LTDA	1,777,852	-	-	-	1,777,852
BIZTECH I CO., LTD ¹	12,098,863	-	-	(2,083,807)	10,015,055
Biztech On Co.,Ltd. ¹	-	-	-	2,083,807	2,083,807
LG CNS COLOMBIA SAS	690,134	-	-	-	690,134
LG CNS MALAYSIA SDN BH					
D	-	-	-	-	-
LG CNS Saudi Arabia LLC	-	-	-	-	-
LG CNS JAPAN Co., Ltd.	418,032	-	-	-	418,032
LG CNS UZBEKISTAN, LLC	-	-	-	-	-
Hangbokmaru Co., Ltd.	700,000	-	-	-	700,000
LG CNS Vietnam Co., Ltd.	233,340	-	-	-	233,340
LG CNS FUND I LLC	25,530,828	1,879,285	-	-	27,410,114
Open Source Consulting ²	6,382,026	6,999,975	(2,146,046)	-	11,235,955
Rightbrain Co., Ltd.	5,949,000	4,370			5,953,370
	₩ 84,347,595	₩ 8,883,630	₩ (2,146,046)	₩ -	₩ 91,085,179

¹It is the surviving/newly established company due to the spin-off of Biztech Partners Co., Ltd. ² In the current year, the Company recognized impairment losses of ₩ 2,146,046 thousand as a result of evaluating the recoverable amount of investments in the subsidiary once identifying indicators of impairment of Open Source Consulting. At the end of the current year, the recoverable amount of investments was determined based on value in use, and the discount rates applied when using the discounted future cash flow technique was 19.73%. The value-in-use calculations use cash flow projections based on historical operating performance and future business plan, and cash flow projections thereafter are extrapolated using the long-term growth rate of 2.00%.

.

LG CNS CO., LTD. Notes to the Separate Financial Statements December 31, 2022 and 2021

(in thousands of Korean won)	won) 2021							
	Beginning balance	Acquisition	Impairment Ioss	Disposal	Ending balance			
LG CNS PHILIPPINES, INC.	₩ -	₩ -	₩ -	₩ -	₩ -			
LG CNS China Inc.	23,231,647	-	-	-	23,231,647			
LG CNS Europe B.V.	3,656,950	-	-	-	3,656,950			
LG CNS America, Inc.	2,883,494	-	-	-	2,883,494			
LG CNS India Pvt, Ltd.	795,429	-	-	-	795,429			
PT. LG CNS Indonesia	-	-	-	-	-			
Entrue Brasil Servicos de T.I. Ltda.	1,777,852	-	-	-	1,777,852			
UCESS PHILIPPINES, INC.	-	-	-	-	-			
Biztech Partners Co., Ltd.	12,098,863	-	-	-	12,098,863			
LG CNS COLOMBIA SAS	690,134	-	-	-	690,134			
LG CNS MALAYSIA SDN BHD	-	-	-	-	-			
LG CNS Saudi Arabia LLC	-	-	-	-	-			
LG CNS JAPAN Co., Ltd.	418,032	-	-	-	418,032			
LG CNS UZBEKISTAN, LLC	-	-	-	-	-			
Hangbokmaru Co., Ltd.	700,000	-	-	-	700,000			
LG CNS Vietnam Co., Ltd.	233,340	-	-	-	233,340			
LG CNS FUND I LLC	16,538,625	8,992,203	-	-	25,530,828			
Sejong Green Power Corporation	7,185,287	-	(4,654,287)	(2,531,000)	-			
Open Source Consulting	6,382,026	-	-	-	6,382,026			
Rightbrain Co., Ltd.		5,949,000			5,949,000			
	₩ 76,591,679	₩ 14,941,203	₩ (4,654,287)	₩ (2,531,000)	₩ 84,347,595			

Notes to the Separate Financial Statements December 31, 2022 and 2021

14. Investments in Associates

Details of the Company's investments in associates and jointly controlled entity as of December 31, 2022 and 2021, are as follows:

				2022						2021		
	Location of		Closing	Number of shares owned by the Company Ordinary Preferred		Number of shares issued Ordinary Preferred		Percentage of	Carrying	Percentage of	Carrying	
Companies	incorporation	Major business activities	date	share	share	share	share	ownership	amount	ownership	amount	
Tmoney Co., Ltd.	South Korea	System software development and supply	December 31	3,927,167	-	11,934,085	-	3291%	₩ 21,598,660	3291%	₩ 21,598,660	
Songdo U-Life LLC ¹	South Korea	Health care, integrated wireless environment, integrated smart cards and building management	December 31	5,880	-	35,880	-	16.39%	711,333	16.39%	711,333	
RECAUDO BOGOTA S.A.S.	Colombia	Public system development and service	December 31	2,126	-	10,630	-	20.00%	2,575,022	20.00%	2,575,022	
Hellas SmarTicket Societe Anonyme	Greece	Public system development and service	December 31	22,500	-	75,000	-	30.00%	2,843,358	30.00%	2,843,358	
Daegu Natural Energy Co., Ltd.	South Korea	Powerplant construction	December 31	25,000	-	100,000	-	25.00%	-	25.00%	-	
Cloudgram Co. Ltd.	South Korea	Hosting and related service	December 31	1,075,000	-	3,075,000	-	34.96%	8,393,000	34.96%	15,793,000	
KoreaDRD Co., Ltd. ¹	South Korea	Information service and blockchain technology-related service	December 31	119,400	-	600,000	-	19.90%	597,000	19.90%	597,000	
HEMPKING INC. ²	South Korea	System software development and supply	December 31	-	25,000	100,000	25,000	-	-	-	-	
Danbi Inc.	South Korea	System software development and supply	December 31	50,000	-	250,000	-	20.00%	-	20.00%	-	
bithumb META ^{1,3}	South Korea	Other information services	December 31	600,000	-	5,800,000	-	10.34%	3,000,000	-	-	
Sejong-smartoity Co., Ltd. 13	South Korea	Residential/non-residential buildings development and supply	December 31	1,201,000	255,200	6,750,000	2,250,000	17.79%	14,562,000	-	-	
								į	₩ 54,280,373		₩ 44,118,373	

¹ The Company has significant influence since contractual right by which the Company is able to appoint one member of the Board of Directors even though the percentage of ownership is less than 20%.

² The Company has significant influence based on the shareholders' agreement. As a redeemable convertible preference share, it is classified as a financial asset at fair value through profit or loss as mentioned in Note 5.

³ It was acquired during the year ended December 31, 2022.

Notes to the Separate Financial Statements December 31, 2022 and 2021

Changes in investments in associates for the years ended December 31, 2022 and 2021, are as follows:

(in thousands of Korean won)		2022								
		Beginning balance		Acquisition		Impairment loss		Ending balance		
Tmoney Co., Ltd.	₩	21,598,660	₩	-	₩	-	₩	21,598,660		
Songdo U-Life LLC		711,333		-		-		711,333		
RECAUDO BOGOTA S.A.S.		2,575,022		-		-		2,575,022		
Hellas SmarTicket Societe Anony										
me		2,843,358		-		-		2,843,358		
Daegu Natural Energy Co., Ltd.		-		-		-		-		
Cloudgram Co. Ltd. ¹		15,793,000		-		(7,400,000)		8,393,000		
KoreaDRD Co., Ltd.		597,000		-		-		597,000		
Danbi Inc.		-		-		-		-		
bithumb META		-		3,000,000		-		3,000,000		
Sejong-smartcity Co., Ltd.		-		14,562,000				14,562,000		
	₩	44,118,373	₩	17,562,000	₩	(7,400,000)	₩	54,280,373		

¹In the current year, the Company recognized impairment losses of ₩ 7,400,000 thousand as a result of evaluating the recoverable amount of investments in the associate once identifying indicators of impairment of Cloudgram Co. Ltd. At the end of the current year, the recoverable amount of investments was determined based on value in use, and the discount rates applied when using the discounted future cash flow method was 17.91%. The value-in-use calculations use cash flow projections based on historical operating performance and future business plan, and cash flow projections thereafter are extrapolated using the long-term growth rate of 1.00%.

(in thousands of Korean won)	2021								
	Beginning				Ending				
		balance	Imp	airment loss		balance			
Tmoney Co., Ltd.	₩	21,598,660	₩	-	₩	21,598,660			
Songdo U-Life LLC		711,333		-		711,333			
RECAUDO BOGOTA S.A.S.		2,575,022		-		2,575,022			
Hellas SmarTicket Societe Anonyme		2,843,358		-		2,843,358			
Ulleungdo Natural Energy Company		-		-		-			
Daegu Natural Energy Co., Ltd.		-		-		-			
Cloudgram Co. Ltd.		19,887,500		(4,094,500)		15,793,000			
KoreaDRD Co., Ltd.		597,000		-		597,000			
Danbi Inc.		-							
	₩	48,212,873	₩	(4,094,500)	₩	44,118,373			

15. Borrowings

Borrowings as of December 31, 2022 and 2021, are as follows:

		2022			2021	
Туре	Annual interest rate (%)	Maturity date	Carrying amount	Carrying amount		
Short-term borrowings						
Shinhan Bank	6.28	2023.10.31	₩ 100,000,000	₩	-	
Kookmin Bank	3M MOR + 2.25 6M MOR +	2023.11.03	50,000,000		-	
NongHyup Bank	2.14	2023.11.18	20,000,000		-	
KEB Hana Bank	3M CD + 2.17	2023.11.18	100,000,000			
			270,000,000			
Unguaranteed public bond						
9-3rd public offering	-	-	₩ -	₩	50,000,000	
10-2nd public offering	-	-	-		40,000,000	
11-2nd public offering	2.83	2023.04.11	110,000,000		110,000,000	
12-1st public offering	1.60	2023.05.12	150,000,000		150,000,000	
12-2nd public offering	1.75	2025.05.14	50,000,000		50,000,000	
12-3rd public offering	1.99	2027.05.14	100,000,000		100,000,000	
			410,000,000		500,000,000	
Discount on debentures			(400,366)		(754,704)	
Current portion of debentures			(259,918,154)		(89,982,760)	
			₩ 149,681,480	₩	409,262,536	

Notes to the Separate Financial Statements December 31, 2022 and 2021

16. Provisions

Changes in provisions for the years ended December 31, 2022 and 2021, are as follows:

	2022							
(in thousands of Korean won)	Beginning balance		Decrease		Reversal	Increase	Ending balance	
Provision for construction (product) warranties	₩ 17,590,725	₩	(8,990,157)	₩	(3,646,485)	₩ 13,458,419	₩ 18,412,502	
Restoration liabilities ¹	1,214,451		-		-	2,347,922	3,562,373	
Others	8,941,109		(17,086,581)		(63,335)	29,265,149	21,056,342	
	₩ 27,746,285	₩	(26,076,738)	₩	(3,709,820)	₩ 45,071,490	₩ 43,031,217	

¹ Increases in valuation of present value for the year ended December 31, 2022, amounting to ₩ 39,396 thousand are included.

	2021								
(in thousands of Korean won)	Beginning balance	Decrease	Reversal	Increase	Ending balance				
Provision for construction (product) warranties	₩ 21,983,669	₩ (12,450,763)	₩ (6,653,121)	₩ 14,710,940	₩ 17,590,725				
Restoration liabilities ¹	919,779	(18,561)	-	313,233	1,214,451				
Others	5,901,993	(4,544,259)	(343,366)	7,926,741	8,941,109				
	₩ 28,805,441	₩ (17,013,583)	₩ (6,996,487)	₩ 22,950,914	₩ 27,746,285				

¹ Increases in valuation of present value for year ended December 31, 2021, amounting to ₩ 23,557 thousand are included.

Nature of provisions and expected timing for outflow of economic benefits are as follows:

(in thousands of Korean won)	2022					
	With	in 12 months	Afte	r 12 months		Total
Provision for construction (product) warranties ¹	₩	18,412,502	₩	_	₩	18,412,502
Restoration liabilities ²	**	-	••	3,562,373	••	3,562,373
Others ³		21,056,342				21,056,342
	₩	39,468,844	₩	3,562,373	₩	43,031,217

¹ Estimated provision for construction warranties that would be expected in past service revenue.

² Measured at present value of future restoration estimation costs on leased assets.

³ Liability of compensation for damages and estimated provision related to hardware and SI construction work.

Notes to the Separate Financial Statements December 31, 2022 and 2021

(in thousands of Korean won)	2021							
	With	in 12 months	Afte	r 12 months		Total		
Provision for construction (product) warranties ¹	₩	17,590,725	₩	-	₩	17,590,725		
Restoration liabilities ²		-		1,214,451		1,214,451		
Others ³		8,941,109				8,941,109		
	₩	26,531,834	₩	1,214,451	₩	27,746,285		

¹ Estimated provision for construction warranties that would be expected in past service revenue.

17. Retirement Benefit Plan

(1) Defined contribution plan

The Company operates a defined contribution plan for employees. Obligation of the Company is to make payments to third-party funds. The benefits for employees are determined by the payments made to the funds and the investment earnings from the funds. Plan asset is managed by the third party and is segregated from the Company's assets. The contributions to defined contribution plan for the years ended December 31, 2022 and 2021, are \forall 50,080,921 thousand and \forall 43,577,405 thousand, respectively. Other payables in relation to defined contribution plans as of December 31, 2022 and 2021, are \forall 8,391,345 thousand and 5,725,298 thousand, respectively.

For the year ended December 31, 2022, the expense recognized in the current period in relation to defined contribution plan was orall 52,746,968 thousand (2021: orall 45,602,688 thousand).

(2) Defined benefit plan

The Company operates a defined benefit plan for employees, and according to the plan, employees will be paid their average salary of the final three months multiplied by the number of years vested, adjusted for payment rate and others. The valuations of related plan assets and defined benefit liability are performed by an independent reputable actuary using the projected unit credit method at its present value, relevant current service cost and past service costs.

² Measured at present value of future restoration estimation costs on leased assets.

³ Liability of compensation for damages and estimated provision related to hardware and SI construction work.

Notes to the Separate Financial Statements December 31, 2022 and 2021

Details of net defined benefit liabilities recognized in the separate statements of financial position as of December 31, 2022 and 2021, are as follows:

(in thousands of Korean won)		2022		2021
Present value of defined benefit obligations	₩	14,665,725	₩	15,108,413
Fair value of plan assets		(15,240,805)		(15,141,174)
Net defined benefit liabilities (assets)	₩	(575,080)	₩	(32,761)

Movements in the defined benefit obligations for the years ended December 31, 2022 and 2021, are as follows:

(in thousands of Korean won)	2022			2021		
Beginning balance	₩	15,108,413	₩	13,775,250		
Current service cost		2,598,610		2,590,446		
Interest expense		482,903		187,784		
Remeasurements:		(750,684)		(44,874)		
Benefit payments		(2,864,729)		(1,145,690)		
Transfer from (to) affiliated company		91,212		(254,503)		
Ending balance	₩	14,665,725	₩	15,108,413		

Profit or loss related to defined benefit plan for the years ended December 31, 2022 and 2021, are as follows:

(in thousands of Korean won)	2022		2021	
Service cost:				
Current service cost	₩	2,598,610	₩	2,590,446
Net interest on the net defined benefit liability (asset):				
Interest expense on defined benefit obligation		482,903		187,784
Interest income on plan assets		(464,211)		(186,125)
	₩	18,692	₩	1,659
Management fee for plan assets		22,887		20,884
	₩	2,640,189	₩	2,612,989

Notes to the Separate Financial Statements December 31, 2022 and 2021

On the other hand, defined benefit plan gain or loss is allocated to each item as follows:

(in thousands of Korean won)		2022	2021		
Amounts included in the retirement benefits (selling and administrative expenses)	₩	2,263,339	₩	2,124,049	
Amounts included in the commissions (selling and administrative expenses)		22,887		20,884	
Amounts included in the cost of sales		353,963		468,056	
	₩	2,640,189	₩	2,612,989	

Movements in the fair value of plan assets for the years ended December 31, 2022 and 2021, are as follows:

(in thousands of Korean won)	2022			2021		
Beginning balance	₩	15,141,174	₩	13,660,014		
Expected return on plan		464,211		186,125		
Remeasurements:						
Return on plan assets		(200,432)		35,613		
Transfer from affiliated company		623,468		110,800		
Management fee for plan assets		(22,887)		(20,884)		
Benefits paid		(2,864,729)		(1,123,494)		
Company's contributions to plan asset		2,100,000		2,293,000		
Ending balance	₩	15,240,805	₩	15,141,174		

As of December 31, 2022 and 2021, all of the plan assets are invested in financial instruments that guarantee principal and interest rate.

The significant actuarial assumptions as of December 31, 2022 and 2021, are as follows:

	2022	2021
Discount rate (%)	5.10%	2.38%
Expected rate of salary increase (%)	5.00%	5.00%

Notes to the Separate Financial Statements December 31, 2022 and 2021

The sensitivity of the defined benefit obligation to changes in the principal assumptions is:

(in thousands of Korean won)	2022						
	Defined benefit obligation		1% increase		1% decrease		
Change in discount rate	₩	14,665,725	₩	14,190,921	₩	15,173,957	
Change in rate of salary increase		14,665,725		15,173,205		14,182,704	

¹ The above sensitivity is estimated based on the assumption that holding all other assumptions constant.

Remeasurements related to net defined benefit liability for the years ended December 31, 2022 and 2021, are as follows:

(in thousands of Korean won)		2022		2021
Actuarial gains arising from changes in demographic assumptions	₩	(17,579)	₩	-
Actuarial gains arising from changes in financial assumptions		(1,538,325)		(504,688)
Actuarial losses arising from experience		852,312		497,139
Return on plan assets, excluding amounts included in interest income		200,432		(35,613)
Actuarial gains arising from transfer in/out adjustments		(47,091)		(37,325)
•	₩	(550,251)	₩	(80,487)
		,		

As of December 31, 2022, the weighted average duration of the defined benefit obligation is 3.81 years (December 31, 2021: 3.96 years). The expected maturity analysis of undiscounted pension benefits as of December 31, 2022, is as follows:

(in thousands of Korean won)	2022				
	Less than 1 year	Between 1-2 years	Between 2-5 years	Over 5 years	Total
Defined benefit obligation	₩ 1,735,266	₩ 5,251,619	₩ 3,342,442	₩ 8,084,290	₩ 18,413,617

Notes to the Separate Financial Statements December 31, 2022 and 2021

The estimated contributions expected to be paid in the next fiscal year are as follows:

(in thousands of Korean won)

2023

Estimated contribution to plan assets1

₩

2,417,965

¹ The expected amount for 2023 is calculated assuming that the ratio of the plan assets to the retirement benefit allowance as of December 31, 2022 will be maintained as of December 31, 2023.

Notes to the Separate Financial Statements

December 31, 2022 and 2021

18. Other Liabilities

Other liabilities as of December 31, 2022 and 2021, are as follows:

(in thousands of Korean won)		2022		2021				
		Current	I	Non-current		Current		Non-current
Advance receipts	₩	6,376,630	₩	-	₩	4,917,595	₩	-
Withholding value-added tax		70,017,931		-		54,864,376		-
Withholdings		48,930,135		-		41,310,940		-
Government subsidies		2,169		-		160,342		-
Contract liabilities		167,717,374		-		145,883,549		-
Other long-term employee liabilities		_		18,036,053				17,383,790
	₩	293,044,239	₩	18,036,053	₩	247,136,802	₩	17,383,790

19. Contract Assets and Liabilities

Contract assets as of December 31, 2022 and 2021, are as follows:

(in thousands of Korean won)	2022			2021		
Construction contracts	₩	388,482,188	₩	274,647,056		
Less: loss allowance		(6,569,177)		(6,024,624)		
	₩	381,913,011	₩	268,622,432		

There are no changes in estimates or important assumptions applied when assessing the loss allowance for contract assets in construction contracts for the year ended December 31, 2022.

Changes in expected credit losses of contract assets for the years ended December 31, 2022 and 2021, are as follows:

(in thousands of Korean won)		2022		2021
Beginning balance	₩	6,024,624	₩	6,121,097
Increase (decrease) in allowance for loss		544,553		(96,473)
Ending balance	₩	6,569,177	₩	6,024,624

Notes to the Separate Financial Statements December 31, 2022 and 2021

Contract costs as of December 31, 2022 and 2021, are as follows:

(in thousands of Korean won)		2022		2021		
Costs to fulfil a contract	₩	94 882 426	₩	98 848 713		

Among the costs incurred before signing the contract (or expected contract) and the costs incurred in connection with the contract, the cost of creating, increasing the value and recovering the Company's resources to fulfill its future performance obligations was recognized as the costs to fulfil a contract. In the current year, there is no impairment loss recognized regarding the costs to fulfil a contract.

Contract liabilities as of December 31, 2022 and 2021, are as follows:

(in thousands of Korean won)		2022	2021		
Construction contracts	₩	136,791,651	₩	107,674,514	
Equipment supply and maintenance		30,925,723		38,209,035	
	₩	167,717,374	₩	145,883,549	

The contract liabilities related to construction contracts are the balances received from the customers in accordance with construction contracts. This occurs when the amount received under the milestone exceeds the revenue recognized up to that point in accordance with the cost-based input method. There is no significant change in accounting policy on the contract liabilities for the year ended December 31, 2022.

Revenue recognized for the years ended December 31, 2022 and 2021, that was included in the contract liabilities at the beginning of the year, is as follows:

(in thousands of Korean won)		2022	2021	
Construction contracts	₩	101,299,946	₩	80,519,278
Equipment supply and maintenance		28,918,469		20,618,153
	₩	130,218,415	₩	101,137,431

There is no revenue recognized for the year ended December 31, 2022 from the performance obligations that were satisfied during the year ended December 31, 2021.

Notes to the Separate Financial Statements December 31, 2022 and 2021

Changes in estimated total contract amount and total contract cost for the construction contracts effective as of January 1, 2022, that recognize revenue over time by using the cost-based input method, effects of profit or loss for the current and future reporting periods and changes in contract assets and liabilities are as follows:

(in thousands of Korean won)	Changes in estimated total contract amount	Changes in estimated total contract costs	Effects of profit or loss in the current year	Effect of profit or loss in the future period	Changes in contract assets (contract liabilities) ¹
Construction contracts	₩ 37,190,519	₩ 80,691,152	₩ (39,877,970)	₩ (3,622,663)	₩ (39,877,970)

¹ The contract loss provisions related to construction contracts as of December 31, 2022, are ₩ 14,801,356 thousand.

For the year ended December 31, 2022, there is no contract in which the amount of contract is 5% or more of the sales amount of the prior year, as contracts recognized revenue using the cost-based input method.

20. Share Capital

Details of share capital as of December 31, 2022 and 2021, are as follows:

(in thousands of Korean won and in shares)	Total number of authorized shares	Total number of shares issued	Number of shares owned by related parties	Par v per s (in Kore	hare	Share capital ¹	Share premium
Ordinary share	400,000,000	87,197,353	76,142,992	₩	500	₩ 47,198,411	₩ 46,625,595

¹ As the Company purchased 7,199,469 shares via tender offer at ₩ 12,000 per share and had retired them before the prior year, the share capital and total number of shares issued multiplied by par value are not equal.

Notes to the Separate Financial Statements December 31, 2022 and 2021

21. Capital Surplus

Details of capital surplus as of December 31, 2022 and 2021, are as follows:

(in thousands of Korean won)		2022	2021		
Share premium	₩	46,625,595	₩	46,625,595	
Gain on disposal of treasury share		454,597		454,597	
Other capital surplus		90,945,903		90,945,903	
	₩	138,026,095	₩	138,026,095	

22. Accumulated Other Comprehensive Income (Loss)

Details of accumulated other comprehensive income (loss) as of December 31, 2022 and 2021, are as follows:

(in thousands of Korean won)		2022		2021		
Loss on valuation of financial assets at fair value through other comprehensive income	₩	(13,749,346)	₩	(13,731,028)		

Equity instruments designated as fair value through other comprehensive income are not recognized for impairment. Accumulated gains and losses arising from the valuation of those equity instruments are not subsequently reclassified to profit or loss. For the year ended December 31, 2022, there are no accumulated gains and losses arising from the valuation of those equity instruments that are subsequently reclassified to retained earnings.

Changes in fair value due to credit risk of financial liabilities measured at fair value through profit or loss are recognized in the other comprehensive income. Accumulated gains and losses arising from the valuation are not subsequently reclassified to profit or loss

Changes in other comprehensive income (loss) for the years ended December 31, 2022 and 2021, are as follows:

(in thousands of Korean won)		2022	2021		
Beginning balance Change in fair value of equity instruments	₩	(13,731,028)	₩	(14,990,368)	
designated as financial assets at fair value through other comprehensive income		(23,852)		1,667,479	
Loss on disposal of financial assets at fair value through other comprehensive income		-		(4,609)	
Income tax effect		5,534		(403,530)	
Ending balance	₩	(13,749,346)	₩	(13,731,028)	

Notes to the Separate Financial Statements December 31, 2022 and 2021

23. Retained Earnings and Dividends

Details of retained earnings as of December 31, 2022 and 2021, are as follows:

(in thousands of Korean won)		2022		2021		
Retained earnings unavailable for appropriation ¹	₩	23,599,206	₩	23,599,206		
Retained earnings available for appropriation		1,318,697,753		1,177,527,844		
	₩	1,342,296,959	₩	1,201,127,050		

¹ This reserve may only be used to offset future deficit, if any, or may be transferred to capital stock by the Commercial Act of the Republic of Korea.

Changes in retained earnings for the years ended December 31, 2022 and 2021, are as follows:

(in thousands of Korean won)		2022	2021		
Beginning balance	₩	1,201,127,050	₩	1,061,677,373	
Profit for the year		235,792,430		213,942,404	
Dividends paid		(95,045,115)		(74,553,737)	
Remeasurements of net defined benefit liabilities recognized		550,252		80,487	
Income tax effect		(127,658)		(19,477)	
Ending balance	₩	1,342,296,959	₩	1,201,127,050	

Details of dividend payments for the years ended December 31, 2022 and 2021, are as follows:

(in thousands of Korean won and in shares)		2022		2021
Total number of shares issued		87,197,353		87,197,353
Number of shares attributable to dividend		87,197,353		87,197,353
(X) Dividend per share (in Korean won)	₩	1,090	₩	855
Total dividends	₩	95,045,115	₩	74,553,737

Notes to the Separate Financial Statements December 31, 2022 and 2021

The appropriation of retained earnings for the year ended December 31, 2022, is expected to be appropriated at the shareholders' meeting on March 28, 2023. The appropriation date for the year ended December 31, 2021, was March 24, 2022.

The appropriation of retained earnings for the years ended December 31, 2022 and 2021, is as follows:

(in thousands of Korean won)	2022		2021		
Unappropriated retained earnings carried over from prior year	₩ 1,062,243	,448 ₩	943,285,149		
Profit for the year	235,792	,430	213,942,404		
Remeasurements of net defined benefit liabilities	422	,594	61,010		
Retained earnings available for appropriation	1,298,458	,472	1,157,288,563		
Transfers such as discretionary reserves		-	-		
Appropriation of retained earnings:					
Earned profit reserves		-	-		
Dividends	103,764	,850	95,045,115		
Unappropriated retained earnings to be carried forward	₩ 1,194,693	,622 ₩	1,062,243,448		

24. Revenue and Operating Profit

The Company is making profit by transferring goods and services over time or at a point in time in the following key business unit. The classification of key business unit is consistent with the disclosure of revenue by reportable segments in accordance with Korean IFRS 1108:

560,960,290
163,519,419
724,479,709
419,375,080
305,553,642
377,372,591
102,301,313
826,781,022

Details of operating profit for the years ended December 31, 2022 and 2021, are as follows:

(in thousands of Korean won)	2022		2021			
Revenue						
Sales of merchandise	₩	920,787,431	₩	724,479,709		
Service revenue		1,693,767,658		1,419,375,080		
Construction revenue		1,975,897,795		1,682,926,233		
		4,590,452,884		3,826,781,022		
Cost of goods sold						
Cost of merchandise		822,628,295		651,536,690		
Service cost		1,445,472,979		1,209,484,295		
Construction cost		1,682,564,041		1,416,553,888		
		3,950,665,315		3,277,574,873		
Gross profit		639,787,569		549,206,149		
Selling and administrative expenses						
Salaries and wages		122,602,506		113,402,869		
Retirement benefits		10,410,605		9,307,103		
Welfare		21,484,058		24,185,509		
Depreciation		7,156,758		6,327,443		
Amortization of intangible assets		5,033,866		4,117,772		
Research and development						
expenses		46,868,554		33,603,810		
Commission		11,978,611		8,078,349		
Training expenses		7,192,301		5,365,596		
Service contract expenses		46,704,785		33,008,194		
Rent expense		3,625,012		4,379,320		
Bad debt expenses (reversal)		(1,853,112)		853,924		
Increase in provision		3,217,831		613,323		
Others		37,591,696		30,755,589		
		322,013,471		273,998,801		
Operating profit	₩	317,774,098	₩	275,207,348		

25. Breakdown of Expenses by Nature

Breakdown of expenses by nature for the years ended December 31, 2022 and 2021, are as follows:

(in thousands of Korean won)	2022							
		Selling and Changes in administrative inventories expenses		Cost of sales			Total	
Changes in inventories:								
Merchandise	₩	(4,232,408)	₩	-	₩	826,860,703	₩	822,628,295
Other inventories		(278,864)		-		399,984,963		399,706,099
		(4,511,272)		-		1,226,845,666		1,222,334,394
Employee benefits		-		154,497,169		710,276,514		625,856,247
Depreciation and amortization		-		12,190,623		68,360,585		58,814,140
Commission		-		11,978,611		168,242,062		126,873,497
Rent expense		-		3,625,012		211,756,057		141,377,088
Service contract expenses		-		46,704,785		1,148,239,734		847,252,190
Others		-		93,017,271		421,455,969		353,669,927
	₩	(4,511,272)	₩	322,013,471	₩	3,955,176,587	₩	2,745,530,551

(in thousands of Korean won)	2021							
	Changes in inventories		Selling and administrative expenses		(Cost of sales		Total
Changes in inventories:								
Merchandise	₩	(16,941,222)	₩	-	₩	668,477,912	₩	651,536,690
Other inventories		414,704		-		270,805,958		271,220,662
		(16,526,518)				939,283,870		922,757,352
Employee benefits		-		146,895,481		644,851,639		791,747,120
Depreciation and								
amortization		-		10,445,215		62,536,112		72,981,327
Commission		-		8,078,349		197,271,442		205,349,791
Rent expense		-		4,379,320		100,004,708		104,384,028
Service contract expenses		-		33,008,194		981,617,905		1,014,626,099
Others				71,192,242		368,535,715		439,727,957
	₩	(16,526,518)	₩	273,998,801	₩	3,294,101,391	₩	3,551,573,674

Notes to the Separate Financial Statements December 31, 2022 and 2021

26. Financial Income and Expenses

Financial income for the years ended December 31, 2022 and 2021, is as follows:

(in thousands of Korean won)		2022		2021
Interest income	₩	11,180,221	₩	6,048,739
Dividend income		29,133,596		22,338,388
Gain on foreign currency translation and transaction		4,282,527		691,347
Gain on valuation of financial assets at fair value through profit or loss		265,612		57,177
	₩	44,861,956	₩	29,135,651

Interest income included in financial income for the years ended December 31, 2022 and 2021, is as follows:

(in thousands of Korean won)		2022	2021			
Interest income by effective interest method Financial assets at amortized cost	₩	11,180,221	₩	6,048,739		

Financial expenses for the years ended December 31, 2022 and 2021, are as follows:

(in thousands of Korean won)		2022	2021		
Interest expense	₩	12,439,528	₩	12,540,401	
Loss on foreign currency translation and					
transaction		4,173,275		788,521	
Loss on valuation of					
financial assets at fair value through profit or					
loss		240		22,198	
Loss on disposal of					
financial assets at fair value through profit or					
loss		-		16,900	
Loss on disposal of					
financial assets at fair value through other					
comprehensive income		-		17,501	
Loss on transaction of derivatives		47,151		-	
Loss on valuation of derivatives		464,300		<u>-</u>	
	₩	17,124,494	₩	13,385,521	

Notes to the Separate Financial Statements December 31, 2022 and 2021

Interest expenses included in financial expenses for the years ended December 31, 2022 and 2021, are as follows:

(in thousands of Korean won)	-	2022		2021	
Bank overdrafts and loan interest	₩	2,432,603	₩	-	
Interest expense on debentures		9,289,116		10,898,614	
Interest expense on lease liabilities		1,134,951		985,968	
Other interest expense		323,604		1,382,864	
Less: interest expense capitalized1		(740,746)		(727,045)	
	₩	12,439,528	₩	12,540,401	

¹ Capitalization interest rates used for the years ended December 31, 2022 and 2021, are 2.51 % and 2.23 %, respectively.

Notes to the Separate Financial Statements December 31, 2022 and 2021

27. Other Non-Operating Income and Expenses

Other non-operating income and expenses for the years ended December 31, 2022 and 2021, are as follows:

(in thousands of Korean won)		2022		2021
Other non-operating income:				
Rental income	₩	3,381,172	₩	2,974,146
Commission		643,222		685,838
Reversal of other bad debt expenses		2,426,564		-
Gain on foreign currency translation and transaction		18,880,807		8,496,509
Gain on disposal of property, plant and equipment		179,112		460,952
Gain on disposal of right of use asset		102,956		68,978
Gain on disposal of intangible assets		51,220		-
Gain on transactions of derivatives		9,825,284		4,967,716
Gain on valuation of derivatives		11,442,050		1,621,136
Reversal of impairment of investments in		11,112,000		1,021,100
associates		-		1,872
Miscellaneous gain		124,666		2,829,999
	₩	47,057,053	₩	22,107,148
Other non-operating expenses:				
Other bad debt expenses	₩	343,345	₩	1,010,469
Loss on foreign currency translation and transaction		21,255,037		6,486,432
Loss on disposal of property, plant and				
equipment		36,165		243,836
Loss on disposal of right of use asset		43,979		3,897
Loss on disposal of intangible assets		119,228		5,698
Loss on impairment of intangible assets		10,370,237		2,673,417
Loss on transaction of derivatives		26,729,283		12,315,065
Loss on valuation of derivatives		1,345,802		2,564,026
Loss on disposal of investments in subsidiaries		-		16,760
Impairment loss on investments in subsidiaries		2,146,046		4,654,288
Impairment loss on investments in associates		7,400,000		4,094,500
Donations and contributions		1,830,000		1,390,000
Miscellaneous loss		697,420		78,690
	₩	72,316,542	₩	35,537,079

Notes to the Separate Financial Statements December 31, 2022 and 2021

28. Net Gains (Losses) on Financial Instruments by Category

Net gains or losses on each category of financial instruments for the years ended December 31, 2022 and 2021, are as follows:

(in thousands of			20	022			
Korean won)	Financial assets at amortized cost	Financial assets at fair value through profit or loss	Financial assets at fair value through other comprehensive income	Financial liabilities at amortized cost	Financial liabilities at fair value through profit or loss	Other financial	Total
Reversal of bad debt expenses Gain (loss) on valuation	₩ 3,936,331	₩ -	₩	- ₩ -	₩ -	₩ -	₩ 3,936,331
of derivatives Gain (loss) on transactions of	-	11,442,050			(1,810,102)	-	9,631,948
derivatives	-	9,825,284		-	(26,776,434)	-	(16,951,150)
Interest income	11,180,221	-			-	-	11,180,221
Interest expenses	-	-		(10,980,973)	-	(1,134,951)	(12,115,924)
Dividend income	-	17,996			-	-	17,996
Gain on valuation of financial assets at fair value through profit or loss Gain on valuation of financial assets at fair value through other	-	265,372			-	-	265,372
comprehensive income	-	-	(23,852) -	-	-	(23,852)
Gain (loss) on foreign currency translation and transaction	1,119,524			- (2,388,573)			(1,269,049)
สาน เกลกรสบแบก		-	₩ (23,852		+++ (20 506 F26)	+++ (1 124 0F1)	· · · · · · · · · · · · · · · · · · ·
	VV 10,230,076	₩ 21,550,702	vv (23,032	₩ (13,369,546)	₩ (28,586,536)	vv (1,134,931)	₩ (5,328,107)

(in thousands of	2021								
Korean won)	Financial assets at amortized cost	Financial assets at fair value through profit or loss	Financial assets at fair value through other comprehensive income	Financial liabilities at amortized cost	Financial liabilities at fair value through profit or loss	Other financial	Total		
Bad debt expenses	₩ (1,864,394)	₩ -	₩ -	₩ -	₩ -	₩ -	₩ (1,864,394)		
Gain (loss) on valuation of derivatives	-	1,621,136	-	-	(2,564,026)	-	(942,890)		
Gain (loss) on transactions of derivatives	-	4,967,716	-	-	(12,315,064)	-	(7,347,348)		
Interest income	6,043,606	-	-	-	-	-	6,043,606		
Interest expenses	-	-	-	(10,898,614)	-	(985,968)	(11,884,582)		
Dividend income	-	619,391	62,803	-	-	-	682,194		
Gain on valuation of financial assets at fair value through profit or loss	-	34,979	-	-	-	-	34,979		
Loss on transaction of financial assets at fair value through profit or loss	-	(16,899)	-	-	-	-	(16,899)		
Gain on valuation of financial assets at fair value through other comprehensive income	-	-	1,667,479	-			1,667,479		
Gain (loss) on foreign currency translation and transaction	3,504,506	_	_	(2,418,370)	_	_	1,086,136		
and transaction	3,504,500 ₩ 7,683,718		<u></u>	(2,416,370) ₩(13,316,984)	√ (14,879,090)	₩ (985,968)	√√ (12,541,721)		
	VV 1,000,1 10	v v v , , , , , , , , , , , , , , , , ,	VV 1,130,202	vv(13,310,304)	vv(14,013,090)	vv (300,300)	۷۷ (۱∠,J+۱,1∠۱)		

Notes to the Separate Financial Statements December 31, 2022 and 2021

29. Earnings per share

Basic earnings per share is calculated by dividing the profit for the year attributable to ordinary shareholders by the weighted average number of ordinary shares outstanding.

Details of calculation of earnings per share for the years ended December 31, 2022 and 2021, are as follows:

(in thousands of Korean won)		2022	2021		
Profit for the year	₩	005 700 400	744	040 040 404	
Less: Profit attributable to the preferred	VV	235,792,430	₩	213,942,404	
shareholders of the Company		-		-	
Undeclared participating preferred share dividend		-		-	
Profit attributable to the ordinary shareholders of the Company		235,792,430		213,942,404	
Weighted average number of ordinary shares outstanding		87,197,353		87,197,353	
Basic earnings per share (in Korean won)	₩	2,704	₩	2,454	
•					

The Company did not issue any potential ordinary shares. Therefore, basic earnings per share is identical to diluted earnings per share.

LG CNS CO., LTD. Notes to the Separate Financial Statements

December 31, 2022 and 2021

30. Income taxes

Income tax expense for the years ended December 31, 2022 and 2021, consists of:

(in thousands of Korean won)		2022		2021	
Current income tax payable	₩	85,505,666	₩	86,492,360	
Adjustment relating to prior income tax expense		490,657		7,053,512	
Tax expenses related to the variation of temporary difference		(1,536,683)		(29,960,729)	
Beginning deferred tax assets due to temporary differences		62,278,363		32,740,642	
Ending deferred tax assets due to temporary differences		63,692,921		62,278,363	
Deferred tax directly reflected in equity	_	(122,125)		(423,008)	
Income tax expense	₩	84,459,640	₩	63,585,143	

Reconciliation between accounting income and income tax expense of the Company for the years ended December 31, 2022 and 2021, is as follows

(in thousands of Korean won)		2022	2021		
Profit before income tax expense Tax at domestic tax rates applicable to profits in the	₩	320,252,070	₩	277,527,547	
respective countries		77,707,319		66,699,667	
Adjustments:		6,752,321		(3,114,524)	
Income not subject to tax		(31,462)		(74,191)	
Expenses not deductible for tax purposes		5,100,080		2,498,504	
Adjustment relating to prior income tax expense		490,657		7,053,511	
Effect of tax credit and exemption Temporary differences not recognized as deferred tax		(17,095,245)		(10,535,033)	
assets		1,900,040		939,290	
Foreign tax adjustment		11,331,974		(5,498,837)	
Impact of changes in tax rate		2,424,488		-	
Others		2,631,789		2,502,232	
Income tax expense	₩	84,459,640	₩	63,585,143	

The aggregate current and deferred tax relating to items that are charged or credited directly to equity for the years ended December 31, 2022 and 2021, is as follows:

(in thousands of Korean won)		2022	2021		
Gain (loss) on valuation of financial assets at fair value through other comprehensive income	₩	5,534	₩	(403,530)	
Remeasurements of defined benefit plan		(127,658)		(19,478)	
Total deferred tax directly reflected in equity		(122,124)		(423,008)	

Changes in deferred tax assets (liabilities) for the years ended December 31, 2022 and 2021, are as follows

(in thousands of Korean won)	2022								
	Begir	nning balance		eflected in ofit or loss	R	eflected in equity	End	ding balance	
Temporary differences:									
Valuation of derivative instruments	₩	228,179	₩	(2,570,509)	₩	-	₩	(2,342,330)	
Property, plant and equipment		8,217,946		2,514,245		-		10,732,191	
Financial lease		351,140		330,845		-		681,985	
Intangible assets		577,139		(264,747)		-		312,392	
Financial assets at fair value									
through other comprehensive income		(193,285)		(53,816)		5,534		(241,567)	
Accrued expense		32,561,776		2,429,933		-		34,991,709	
Provisions		13,005,078		1,219,067		(127,658)		14,096,487	
Doubtful receivable		960,293		(135,754)		-		824,539	
Government grants		250,267		(55,632)		-		194,635	
Other		2,714,083		(755,124)		-		1,958,959	
Carried forward tax credit		3,605,746	-	(1,121,825)				2,483,921	
Deferred tax assets (liabilities)	₩	62,278,362	₩	1,536,683	₩	(122,124)	₩	63,692,921	

(in thousands of Korean won)	2021								
	Beginning balance		Reflected in profit or loss		Reflected in equity		Ending balance		
Temporary differences:									
Valuation of derivative instruments	₩	(479,906)	₩	708,085	₩	-	₩	228,179	
Equity method investments		806,871		(806,871)		-		-	
Property, plant and equipment		6,905,422		1,312,524		-		8,217,946	
Financial lease		270,093		81,047		-		351,140	
Intangible assets Financial assets at fair value through other comprehensive		578,212		(1,072)		-		577,140	
income		378,271		(168,026)		(403,530)		(193,285)	
Accrued expense		9,430,279		23,131,497		-		32,561,776	
Provisions		12,293,169		731,387		(19,478)		13,005,078	
Doubtful receivable		960,293		-		-		960,293	
Government grants		260,303		(10,036)		-		250,267	
Other		1,710,573		1,003,510		-		2,714,083	
Carried forward tax credit		(372,938)		3,978,684		-		3,605,746	
Deferred tax assets (liabilities)	₩	32,740,642	₩	29,960,729	₩	(423,008)	₩	62,278,363	

As of December 31, 2022 and 2021, details related to unrecognized deferred tax assets (liabilities) (excluding investment assets and equity-related assets) are as follows:

(in thousands of Korean won)	2	2021		
Unused tax credit	₩	1,242,908	₩	-

Notes to the Separate Financial Statements December 31, 2022 and 2021

Details of unrecognized temporary differences as deferred tax assets (liabilities) related to investments in subsidiaries and associates as of December 31, 2022 and 2021, are as follows

(in thousands of Korean won)	2022		2021		
Investments in subsidiaries	₩	4,055,354	₩	1,719,890	
Investments in associates		30,124,029		22,724,029	
	₩	34,179,383	₩	24,443,919	

The timing of collection and settlement of deferred tax assets (liabilities) is as follows.

(in thousands of Korean won)		2022	2021		
Deferred tax assets					
Deferred tax asset to be recovered after more than 12 months	₩	21,892,334	₩	21,278,039	
Deferred tax asset to be recovered within 12 months		44,384,484		41,193,609	
		66,276,818		62,471,648	
Deferred tax liabilities					
Deferred tax liability to be recovered after more than 12 months		-		-	
Deferred tax liability to be recovered within 12 months		(2,583,897)		(193,285)	
		(2,583,897)		(193,285)	
Deferred tax assets (liabilities), net	₩	63,692,921	₩	62,278,363	

Notes to the Separate Financial Statements

December 31, 2022 and 2021

31. Related Party Transactions

Details of related parties of the Company as of December 31, 2022 and 2021, are as follows:

2 2	2022							
Parent Company (including Immediate Parent Company and its associates)	Subsidiaries, joint ventures and associates of Parent Company (domestic) ¹	Subsidiaries, joint ventures and associates of Parent Company (overseas) ¹						
Immediate Parent Comp								
LG Corp.	D&O CORP. and others ^{2,3} LG Management Development Institute LG Sports Ltd.	LG Holdings Japan Co., Ltd. S&I NANJING Co., Ltd. and others ²						
Subsidiaries								
LG CNS Co., Ltd.	BIZTECH I CO., LTD ⁴ Biztech On Co.,Ltd. ⁴ Haemgbokmaru Co., Ltd. Open Source Consulting Co., Ltd. RightBrain Co., Ltd.	LG CNS China Inc. and others						
Associates and joint ver	ntures							
LG CNS Co., Ltd.	Tmoney Co., Ltd. and others Songdo U-Life LLC and others Daegu clean energy Co., Ltd. Cloudgram Co., Ltd. KoreaDRD Co., Ltd. HEMPKING Danbi Inc. bithumb META ⁵ Sejong-smartcity Co., Ltd. ⁵	T money Asia sdn bhd and others RECAUDO BOGOTA S.A.S Hellas SmarTicket Societe Anonyme						
Associates and joint ver LG Electronics Inc.	ntures of Immediate Parent Company Hi Plaza Inc. High-M Solutec Co., Ltd. HITeleservice Co., Ltd. Ace R&A Co., Ltd. LG Innotek Co., Ltd. Innowith Co., Ltd. LG Hanuri Co. Ltd. ZKW Lighting Systems Korea Co., Ltd. Hi-Caresolution Corp LG Magna e-Powertrain Co., Ltd. Fitness Candy ⁶ APPLEMANGO CO.,LTD ⁹	LG Electronics Mexico S.A.DE C.V. and others						
LG Chem Ltd.	Haemgboknuri Co., Ltd. FarmHannong LG ENERGY SOLUTION, LTD. Aremnuri. Co. Ltd. LGBCM	LG Chem America, Inc. and others						
LG Uplus Corp.	CS Leader Ain Teleservice Medialog Corp. CS ONE Partner WithU LG Hellovision Co., Ltd. LG Uplus Homeservice Co., Ltd. CV Partners Co., Ltd. CV Partners Co., Ltd. Murex wave active senior investment	Dacom America, Inc. and others						

association

Notes to the Separate Financial Statements December 31, 2022 and 2021

Parent	Comp	any	

(including Immediate

Parent Company and

its associates)

Subsidiaries, joint ventures and associates of Parent Company (domestic) ¹

Subsidiaries, joint ventures and associates of Parent Company (overseas) ¹

Beijing LG Household Chemical Co., Ltd.

LG Household & Health Care Ltd.

Coca-Cola Beverage Co. Hankook Beverage Co., Ltd.

HTB Co., Ltd.
Balkeunnuri Co., Ltd.
FMG Co., Ltd.
LG Farouk

TAI GUK PHARM Co., Ltd. Ulleungdo Choosan Water RUCIPELLO KOREA INC. MiGenstory Co., Ltd. Gowoonnuri KONJIAM YEWON⁷

ZKW Lighting Systems Korea Co., Ltd.

GIIR Corp. HS Ad Co., Ltd. L.Best

ZKW Holding GmbH ⁸ ZKW Austria Immobilien Holding GmbH ⁸

2022

and others

GIIR America, Inc. and others

ZKW Group GmbH. and others ZKW Austria Immobilien GmbH

Large Enterprise Group entities and others 10

LG Display SEETEC Co., Ltd. DACOM Crossing Robostar Co., Ltd Nanumnuri Co., Ltd.

LG Display Nanjing Co., Ltd. and others

Robostar(Shanghai) Co., Ltd.

Other related parties CRYSTAL KOREA

LIMITED

- ² Associates of subsidiaries with direct shareholding are included.
- ³ During the year ended December 31, 2022, S & I Corp., S&I CM Co.,Ltd. and S&I Atxpert Co., Ltd. have changed their names to D&O CORP., D&O CM CORP. CO.,LTD. and S&I Corp., respectively.
- ⁴ During the year ended December 31, 2022, due to the spin-off of Biztech Partners Co., Ltd., the surviving company has changed the name to BIZTECH I CO., LTD. and newly established Biztech On Co.,Ltd.
- ⁵ Newly acquired as investment in associates during the year ended December 31, 2022.
- ⁶ Newly acquired as investment in subsidiaries of LG Electronics Inc. during the year ended December 31, 2022.
- ⁷ Newly acquired as investment in subsidiaries of LG Household & Health Care Ltd. during the year ended December 31, 2022.
- ⁸ It is an associate of an Immediate Parent Company and a subsidiary of LG Electronics Inc., which is also an associate of an Immediate Parent Company. Therefore, its related party transactions are included in the transactions with LG Electronics Inc.
- ⁹ Newly acquired as investment in associates of LG Electronics Inc. during the year ended December 31, 2022.
- ¹⁰ These entities are not related parties as defined in paragraph 9 of Korean IFRS 1024. However, the entities are classified as related parties in accordance with the resolution of the Securities and

¹ Joint ventures of associates are excluded.

Notes to the Separate Financial Statements

December 31, 2022 and 2021

Futures Commission that defined the entities included in a Large Enterprise Group designated by the Fair Trade Commission are considered related parties with the substantive relationship stipulated in paragraph 10 of Korean IFRS 1024.

	2	021			
Parent Company (including Immediate Parent Company and its associates)	Subsidiaries and joint ventures and associates of Parent Company (domestic) ¹	Subsidiaries and joint ventures and associates of Parent Company (overseas) 1			
	any and its subsidiaries				
LG Corp.	S&I Corporation Co., Ltd. and 8 others ² LG Management Development Institute LG Sports Ltd.	LG Holdings Japan Co., Ltd. S&I NANJING Co., Ltd. and others ²			
Subsidiaries					
LG CNS Co., Ltd.	Biztechpartners Co., Ltd. Haemgbokmaru Co., Ltd. Open Source Consulting Co., Ltd. RightBrain Co., Ltd. ³	LG CNS China Inc. and others			
Associates and joint ver	ntures				
LG CNS Co., Ltd.	Tmoney Co., Ltd. and 2 others Songdo U-Life LLC and 2 others Daegu clean energy Co., Ltd. Cloudgram Co., Ltd. KoreaDRD Co., Ltd. HEMPKING Danbi Inc.	T money Asia sdn bhd and others RECAUDO BOGOTA S.A.S Hellas SmarTicket Societe Anonyme			
	ntures of Immediate Parent Company				
LG Electronics Inc.	Hi Plaza Inc. High-M Solutec Co., Ltd. HITeleservice Co., Ltd. Ace R&A Co., Ltd. LG Innotek Co., Ltd. Innowith Co., Ltd. LG Hanuri Co. Ltd. ZKW Lighting Systems Korea Co., Ltd. Hi-Caresolution Corp ⁴ LG Magna e-Powertrain Co., Ltd. ⁵	LG Electronics Mexico S.A.DE C.V. and others			
LG Chem Ltd.	Haemgboknuri Co., Ltd. FarmHannong LG ENERGY SOLUTION, LTD. Aremnuri. Co. Ltd. ⁶ LGBCM ⁷	LG Chem America, Inc. and others			
LG Uplus Corp.	CS Leader Ain Teleservice Medialog Corp. CS ONE Partner WithU LG Hellovision Co., Ltd. LG Uplus Homeservice Co., Ltd. CV Partners Co., Ltd. CV Partners Co., Ltd. Murex wave active senior investment association 8	Dacom America, Inc.			
LG Household & Health	Coca-Cola Beverage Co.	Beijing LG Household Chemical Co.,Ltd.			

Notes to the Separate Financial Statements December 31, 2022 and 2021

	2	021				
Parent Company (including Immediate Parent Company and its associates)	Subsidiaries and joint ventures and associates of Parent Company (domestic) ¹	Subsidiaries and joint ventures and associates of Parent Company (overseas) 1				
Care Ltd.	Hankook Beverage Co., Ltd. HTB Co., Ltd. Balkeunnuri Co., Ltd. FMG Co., Ltd. LG Farouk TAI GUK PHARM Co., Ltd. Ulleungdo Choosan Water RUCIPELLO KOREA INC. MiGenstory Co., Ltd. RoaKorea Co., Ltd. Gowoonnuri ⁹	and others				
GIIR Corp.	HS Ad Co., Ltd. L.Best	GIIR America, Inc. and others				
LG Hitachi Co., Ltd. ¹⁴ ZKW Holding GmbH ZKW Austria Immobilien Holding GmbH	ZKW Lighting Systems Korea Co., Ltd.	ZKW Group GmbH. and others ZKW Austria Immobilien GmbH				
Large Enterprise Group	entities and others 12					
LG Display SEETEC Co., Ltd. DACOM Crossing	Nanumnuri Co., Ltd.	LG Display Nanjing Co., Ltd. and others				
Robostar Co., Ltd LX Holdings Corp. 10		Robostar(Shanghai) Co., Ltd.				
LX Hausys, Ltd. ¹¹ LX Semicon Co., Ltd. ¹¹	GREENNURI CO.,LTD	LX Hausys America, Inc. and others LX Semicon U.S.A. Inc. and others				
LX International Corp. ¹¹	DANGJIN TANK TERMINAL LX Pantos Co., Ltd. ¹¹ PANTOS BUSAN NEWPORT HELISTAR AIR CO., LTD. Hanultari Co., Ltd.	LX International (America) Inc. and others				

¹ Joint ventures of associates are excluded.

LX MMA Corp. 11

- ² Associates of subsidiaries with direct shareholding are included.
- ³ Classified as a subsidiary due to acquisition of equity in 2021.
- ⁴ Newly established from Hi-M. Solutek due to equity spin-off in 2021.
- ⁵ Newly established as a subsidiary of LG Electronics Inc. in 2021.
- ⁶ Newly established as a subsidiary of LG ENERGY SOLUTION, LTD. in 2021.
- ⁷ Newly established as a subsidiary of LG Chem Ltd. in 2021.
- ⁸ Newly established as a subsidiary of LG Uplus Corp. in 2021.
- ⁹ Newly established as a subsidiary of Coca-Cola Beverage Co. in 2021.
- ¹⁰ Newly established from LG Corp due to equity spin-off in 2021 and separated during the year ended December 31, 2022.
- ¹¹ It is an associate of LX Holdings Corp., which was newly established from LG Corp. due to equity sign-off in 2021. As of July 1, 2021, LG Hausys, Ltd., Silicon Works Inc., LG International Corp., LG MMA Corp. and Pantos Co., Ltd. have changed their names to LX HAUSYS, LTD., LX Semicon Co., Ltd., LX INTERNATIONAL CORP., LX MMA Corp. and LX Pantos Co., Ltd., respectively and have separated during the year ended December 31, 2022.

Notes to the Separate Financial Statements December 31, 2022 and 2021

Sales and purchases with related parties for the years ended December 31, 2022 and 2021, are as follows:

(in thousands of Korean won)		2022		2021					
	Sales and others ⁵	Acquisition of property, plant and equipment	Other purchases	Sales and others	Acquisition of property, plant and equipment	Other purchases			
Immediate Parent Company and its s	ubsidiaries								
LG Corp.	₩ 7,092,009	₩ -	₩ 16,681,099	₩ 4,727,192	₩ -	₩ 14,941,869			
D&O CORP. 1,2	50,617,678	100,310	36,531,598	46,729,891	172,045	32,912,879			
LG Management Development									
Institute	1,499,270	-	40,000	1,093,910	-	40,000			
LG Sports Ltd.	45,508,853		8,050,799	23,705,638		6,620,449			
	104,717,810	100,310	61,303,496	76,256,631	172,045	54,515,197			
Subsidiaries									
LG CNS China Inc.	108,409,987	-	1,227,798	81,475,218	-	4,886,465			
LG CNS Europe B.V.	86,763,745	-	86,236	40,180,931	-	77,587			
LG CNS America, Inc.	86,098,166	-	7,846,420	45,986,119	-	2,034,950			
LG CNS India Pvt, Ltd.	7,314,514	-	84,740	4,170,073	-	-			
PT. LG CNS Indonesia	3,363,070	-	181,663	3,323,887	-	80,087			
LG CNS BRASIL SERVICOS DE TI									
LTDA	206,983	-	-	108,855	-	-			
BIZTECH I CO., LTD	1,220,875	1,377,271	159,436,834	1,096,666	9,675,439	102,847,840			
LG CNS COLOMBIA SAS	1,232,042	=	-	1,026,250	-	-			
LG CNS JAPAN Co., Ltd.	1,327,882	-	20,952	4,590,919	-	36,452			
LG CNS Malaysia SDN Bhd	2,597,918	-	4,346	723,875	-	1,533,546			
LG CNS UZBEKISTAN, LLC	-	-	198,644	-	-	946,673			
Haemgbokmaru Co., Ltd.	28,425	-	2,056,993	27,860	-	1,876,740			
LG CNS Vietnam Co., Ltd.	24,947,759	-	990,726	31,870,779	-	2,469,288			
Sejong Green Power Co., Ltd. ³	-	-	-	1,200	-	339,677			
Open Source Consulting Co., Ltd.	87,001	424	4,896,887	87,503	-	2,837,851			
RightBrain Co., Ltd.	-	-	3,923,858	-	-	87,000			
Biztech On Co.,Ltd.	230,758		2,067,343						
	323,829,125	1,377,695	183,023,440	214,670,135	9,675,439	120,054,156			

¹² These entities are not related parties as defined in paragraph 9 of Korean IFRS 1024. However, the entities are classified as related parties in accordance with the resolution of the Securities and Futures Commission that defined the entities included in a Large Enterprise Group designated by the Fair Trade Commission are considered related parties with the substantive relationship stipulated in paragraph 10 of Korean IFRS 1024.

¹³ It was liquidated during the year ended December 31, 2022.

¹⁴ It was sold during the year ended December 31, 2022.

(in thousands of Korean won)		2022		2021				
	Sales and others ⁵	Acquisition of property, plant and equipment	Other purchases	Sales and others	Acquisition of property, plant and equipment	Other purchases		
Associates and joint ventures								
RECAUDO BOGOTA S.A.S	-	-	-	510,647	-	-		
Tmoney Co., Ltd.	22,736,730	-	1,113,819	21,675,327	-	1,273,462		
Hellas SmarTicket Societe Anonyme	1,518,079	-	-	9,152,587	-	-		
Cloudgram Co., Ltd.	-	-	3,729,228	-	-	2,052,027		
KoreaDRD Co., Ltd.	620,000	-	587,384	1,610,000	-	773,519		
HEMPKING	-	-	137,120	-	-	75,150		
BITSUM META CO.,LTD.	6,710,985	-	-	-	-	-		
SEJONG SMART CITY CO., LTD.	1,926,252		5					
	33,512,046		5,567,556	32,948,561		4,174,158		
Associates and joint ventures of Parent (Company							
LG Chem Ltd. ¹	737,020,261	-	20,357,429	591,168,064	1,817,300	12,062,292		
LG Household & Health Care Ltd. 1	36,613,829	4,433	3,640,840	36,049,631	-	3,389,537		
LX Hausys, Ltd. 1,4	-	-	-	9,294,555	-	-		
LG Electronics Inc. ¹	882,080,023	129,700	133,319,214	784,482,466	5,000	139,445,914		
GIIR Corp. ¹	9,696,969	7,289	1,190,608	6,849,157	-	241,555		
LX MMA Corp. ⁴	-	-	-	1,574,184	-	-		
LG Hitachi Co., Ltd.	104,420	-	507,434	114,973	-	626,173		
LG U Plus Co., Ltd. 1	488,195,769	12,104	27,429,027	383,632,388	-	22,324,412		
LX Semicon Co., Ltd. ⁴	-	-	-	1,585,098	-	-		
LX International Corp. 1,4	=			13,011,321		46,051		
	2,153,711,271	153,526	186,444,552	1,827,761,836	1,822,300	178,135,935		
Large Enterprise Group entities and othe	rs							
LG Display ¹	197,795,491	-	15,500	236,686,977	-	88,644		
LX Holdings Corp. ⁶	1,042,458	-	-	7,084,047	-	-		
LX Hausys, Ltd. 1,4,6	, ,							
LX MMA Corp. 4,6	13,548,955	-	2,770	16,596,927	-	-		
LX Semicon Co., Ltd. 4,6		-	2,770	16,596,927 3,169,173	-	-		
	13,548,955	- - -	2,770 - -		- - -	-		
LX International Corp. 1,4,6	13,548,955 2,425,097	- - -	2,770 - - 118,645	3,169,173	- - -	- - 264,504		
LX International Corp. ^{1,4,6} Robostar Co., Ltd	13,548,955 2,425,097 4,310,983	- - - -	-	3,169,173 4,246,480	- - - -	- - 264,504 		
	13,548,955 2,425,097 4,310,983 52,730,020	- - - - -	-	3,169,173 4,246,480	- - - - -	264,504 		

¹ This includes transaction details for subsidiaries.

Notes to the Separate Financial Statements December 31, 2022 and 2021

Outstanding balances arising from sales/purchases of goods and services as of December 31, 2022 and 2021, are as follows:

(in thousands of Korean won)		2022			2021	
	Trade receivables and others ¹ Loans		Trade payables and others ^{2,9}	Trade receivables and others ¹	Loans	Trade payables and others ^{2,9}
Immediate Parent Company and	its subsidiaries					
LG Corp.	₩ 6,470,648	₩ -	₩ 1,814,476	₩ 5,352,781	₩ -	₩ 1,619,843
D&O CORP. 3,4	15,356,119	-	2,189,928	19,172,586	-	2,492,866
LG Sports Ltd.	96,293	-	-	145,190	-	-
LG Management Development Institute	5,338,211		291,612	8,448,610		276,491
	27,261,271		4,296,016	33,119,167		4,389,200
Subsidiaries						
LG CNS China Inc.	27,399,252	-	495,136	21,872,556	-	342,735
LG CNS Europe B.V.	27,664,004	-	110,736	17,321,185	-	19,681
LG CNS America, Inc.	39,453,916	-	952,440	21,254,823	-	143,268
LG CNS India Pvt, Ltd.	3,987,014	-	-	4,514,516	-	-
PT. LG CNS Indonesia	1,831,069	-	154,357	1,139,707	-	-
LG CNS BRASIL SERVICOS DE TI LTDA	9,869	-	-	-	-	-
BIZTECH I CO., LTD	133,437	-	22,003,986	308,894	-	15,564,090
LG CNS COLOMBIA SAS	559,435	-	-	170,105	-	-
LG CNS PHILIPPINES, INC. 5	81,026	2,799,605	-	75,796	2,618,900	-
LG CNS JAPAN Co., Ltd.	6,678	-	-	1,309,763	-	-
LG CNS Malaysia SDN Bhd	2,173,282	-	4,297	2,285,958	-	46,932
LG CNS UZBEKISTAN, LLC 5	732,070	-	55,063	684,954	-	489,093
Haemgbokmaru Co., Ltd.	89	-	27,962	107	-	22,220

² This includes transaction details for associates.

³ The transaction details were excluded from the related parties due to disposal of equity/liquidation during the year ended December 31, 2021, and the transaction details shown above are the transactions before the subsidiary was excluded from the related parties.

⁴ It is an associate of LX Holdings Corp., which was spun-off from LG Corp. in 2021. Transaction details were divided and recorded based on the time of the equity spin-off.

⁵ Other than the above transactions, the amount recognized related to contract assets and contract liabilities for LG Electronics Inc. and others is ₩ 101,393,098 thousand and contract assets of ₩ 191,940,936 thousand and contract liabilities of ₩ 128,542,171 thousand are recognized during the year ended December 31, 2022.

⁶ During the year ended December 31, 2022, it is excluded from Large Enterprise Group entities designated by the Fair Trade Commission.

LG CNS CO., LTD. Notes to the Separate Financial Statements December 31, 2022 and 2021

(in thousands of Korean won)		2022			2021	
	Trade receivables and others ¹	Loans	Trade payables and others ^{2,9}	Trade receivables and others ¹	Loans	Trade payables and others ^{2,9}
LG CNS Vietnam Co., Ltd.	5,489,255	-	-	17,499,100	-	951,064
Open Source Consulting Co., Ltd.	481	-	1,188,112	5,431	-	1,027,718
RightBrain Co., Ltd.	-	-	9,680	-	-	-
Biztech On Co.,Ltd.	21,532	<u>-</u>	373,497		<u>-</u>	<u> </u>
	109,542,409	2,799,605	25,375,266	88,442,895	2,618,900	18,606,801
Associates and joint ventures						
RECAUDO BOGOTA S.A.S ⁶	7,647,811	-	-	10,534,378	-	-
Tmoney Co., Ltd.	2,362,147	-	148,666	2,731,940	-	70,928
Hellas SmarTicket Societe Anonyme	121,112	-	-	3,028,447	-	-
Cloudgram Co., Ltd.	-	-	48,666	-	-	4,334
KoreaDRD Co., Ltd.	-	-	-	-	-	54,483
BITSUM META CO.,LTD.	-	-	-	-	-	-
SEJONG SMART CITY CO., LTD.	1,257,267	-	-	-	-	-
	11,388,337	-	197,332	16,294,765		129,745
Associates and joint ventures of l	Immediate Parent Co	ompany				
LG Chem Ltd. ³	348,319,329	-	6,088,604	229,013,993	-	4,144,301
LG Household & Health Care Ltd. ³	3,876,104	-	332,023	5,053,109	-	449,202
LG Electronics Inc. 3,7	294,482,093	-	29,819,939	285,906,708	-	31,411,638
GIIR Corp. ³	3,819,044	-	1,198,498	3,117,889	-	42,432
LG Hitachi Co., Ltd.	-	-	-	110,880	-	39,645
LG U Plus Co., Ltd. 3	131,717,034		7,963,450	80,135,287		2,968,793
	782,213,604		45,402,514	603,337,866		39,056,011
Large Enterprise Group entities a	nd others					
LG Display	77,662,946	-	17,050	143,485,417	-	97,508
LX Holdings Corp. 8	-	-	-	183,780	-	-
LX Hausys, Ltd. 3,8	-	-	-	4,621,492	=	-
LX MMA Corp. 8	-	-	-	616,136	-	-
LX Semicon Co., Ltd. 8	-	-	-	431,091	=	-
LX International Corp. 3,8	-	-	-	10,745,132	-	145,539
Robostar Co., Ltd	722					
	77,663,668		17,050	160,083,048		243,047
	₩ 1,008,069,289	₩ 2,799,605	₩ 75,288,178	₩ 901,277,741	₩ 2,618,900	₩ 62,424,804

¹ Receivables from related parties consist of trade receivables, other receivables and advance payments from sales and purchase transactions. Contract assets and contract liabilities are excluded.

Notes to the Separate Financial Statements December 31, 2022 and 2021

Fund transactions with related parties for the periods ended December 31, 2022 and 2021, are as follows:

(in thousands of Korean won)	2022										
	Con	tributions in				Loan t	trar	nsactions	_	Borrowing	transactions
		sh (capital eduction)	Disposal of interests	Ī		Loans		Collections	_	Borrowings	Repayments
Subsidiaries											
LG CNS FUND I LLC	₩	1,879,285	₩	-	₩		-	₩	-	₩ -	₩ -
Open Source Consulting Co.,											
Ltd.		6,999,975		-			-		-	-	-
RightBrain Co., Ltd.		4,370		-			-		-	-	-
Associates and joint ventures											
bithumb META ¹		3,000,000		-			-		-	-	-
Sejong-smartcity Co., Ltd. 1		14,562,000		-			-		-	-	-
	₩	26,445,630	₩	-	₩			₩	-	₩ -	₩ -

¹ Newly acquired during the year ended December 31, 2022.

(in thousands of Korean won)						:	202	1		
	Contributions in					Loan	trar	sactions	Borrowing transactions	
		sh (capital eduction)		posal of terests		Loans		Collections	Borrowings	Repayments
Subsidiary										
LG CNS FUND I LLC	₩	8,992,204	₩	-	₩		-	₩ -	₩ -	- ₩ -
RightBrain Co., Ltd.		5,949,000								
Associate										
Ulleungdo Natural Energy Co.,							_	_	_	
Ltd. 1		-		1,872						
	₩	14,941,204	₩	1,872	₩		_	₩ -	₩ -	- ₩ -

¹ Liquidated and excluded from related parties during the year ended December 31, 2021.

² Payables to related parties consist of trade payables, other payables and others from purchase transactions.

³ It includes receivables and payables and others from/to subsidiaries.

⁴ It includes receivables and payables and others from/to associates.

⁵ The Company established 100% of provision for the receivables as of December 31, 2022 and 2021.

⁶ The Company established provision for the receivables amounting to ₩ 180,259 thousand and ₩1,895,100 thousand as of December 31, 2022 and 2021, respectively.

⁷ The Company established provision for the receivables amounting to ₩ 523,180 thousand and ₩ 495,658 thousand as of December 31, 2022 and 2021, respectively.

⁸ During the year ended December 31, 2022, it is excluded from Large Enterprise Group entities designated by the Fair Trade Commission.

⁹ Other than the above transactions, right-of-use assets of \forall 35,217,367 thousand and lease liabilities of \forall 35,017,864 thousand are recognized for LG Corp. and others.

Details of payment guaranteed provided to the related parties as of December 31, 2022, are as follows:

(in USD, EUR, INR, IDR and MYR)

Related party	Guarantees	Guaranteed by	Limit of	guarantees	Guarantee period
LG CNS India Pvt, Ltd.	Credit line	Shinhan Bank	INR	130,000,000	2022.03.02~2023.03.02
PT. LG CNS Indonesia	Credit line	Woori Bank	USD	1,200,000	2022.12.01~2023.12.01
PT. LG CNS Indonesia	Credit line	Woori Bank	USD	500,000	2022.11.01~2023.11.01
PT. LG CNS Indonesia	Credit line	KEB Hana Bank	USD	700,000	2022.11.20~2023.11.20
PT. LG CNS Indonesia	Credit line	KEB Hana Bank	USD	800,000	2021.11.20~2022.11.20
PT. LG CNS Indonesia	Credit line	KEB Hana Bank	USD	500,000	2022.10.28~2023.10.28
PT. LG CNS Indonesia	Credit line	KEB Hana Bank	USD	5,000,000	2022.05.27~2023.05.27
PT. LG CNS Indonesia	Payment guarantees	KEB Hana Bank	IDR 28	8,645,755,534	2020.12.02~2025.01.15
LG CNS America, Inc.	Credit line	BOA	USD	10,000,000	2022.02.01~2023.01.31
LG CNS America, Inc.	Credit line	CHASE	USD	5,000,000	2022.02.01~2023.01.31
LG CNS America, Inc.	Payment guarantees	KEB Hana Bank	USD	4,138,394	2022.02.25~2023.03.31
LG CNS COLOMBIA SAS	Credit line	Shinhan Bank	USD	10,000,000	2022.05.20~2023.06.02
LG CNS Europe B.V.	Credit line	KEB Hana Bank	EUR	600,000	2022.11.18~2023.11.17
LG CNS MALAYSIA SDN BHD	Credit line	HSBC Bank Malaysia Berhad	MYR	7,000,000	2022.01.31~2023.01.31
LG CNS MALAYSIA SDN BHD	Payment guarantees	KEB Hana Bank	MYR	1,111,608	2021.09.13~2024.03.31
LG CNS MALAYSIA SDN BHD	Payment guarantees	KEB Hana Bank	MYR	370,207	2020.08.24~2025.06.11
LG CNS MALAYSIA SDN BHD	Payment guarantees	KEB Hana Bank	MYR	305,000	2021.04.07~2023.07.31
LG CNS MALAYSIA SDN BHD	Payment guarantees	KEB Hana Bank	MYR	2,110,000	2019.12.11~2025.05.29
LG CNS MALAYSIA SDN BHD	Payment guarantees	KEB Hana Bank	MYR	1.020,000	2022.07.22 ~2025.03.31
Hellas SmarTicket Societe Anonyme	Credit line	KEXIM Bank	EUR	28,000,000	2016.03.04~2027.03.04

Notes to the Separate Financial Statements December 31, 2022 and 2021

The compensation and benefits for the Company's key management (registered executives, including non-permanent and non-registered executives) who have significant authority and responsibility in respect to planning, operating and controlling of the Company's business activities for the years ended December 31, 2022 and 2021, are as follows:

(in thousands of Korean won)		2021		
Short-term employee benefits	₩	24,804,436	₩	21,990,100
Post-employment benefits		2,640,189		2,612,990
Other long-term benefits		7,686		5,111
	₩	27,452,311	₩	24,608,201

During the year ended December 31, 2022, dividends paid to related parties were $\mbox{$W$}$ 80,743,158 thousand ($\mbox{$W$}$ 47,477,368 thousand to LG Corp. and $\mbox{$W$}$ 33,265,791 thousand to CRYSTAL KOREA LIMITED), and there are no unpaid dividends as of December 31, 2022.

32. Commitments and Pledging

Financing agreements as of December 31, 2022, are as follows:

(in thousands of USD and Korean won)

Category 1,2	Financial institution		credit in currency	Limit of credit in Korean won
Comprehensive import and export	Shinhan Bank and others	USD	33,000	₩ -
Overdraft	Woori Bank		-	5,000,000
Forward exchange	Kookmin Bank and others	USD	94,800	2,500,000
Loans for working capital	Shinhan Bank and others		-	300,000,000
Other payment guarantee	KEB Hana Bank and others		-	109,000,000

¹ Both blanket credit agreement and individual credit agreement are presented.

² Payment guarantees provided for the related parties are described in Note 31.

Notes to the Separate Financial Statements December 31, 2022 and 2021

Restricted financial assets as of December 31, 2022 and 2021, are as follows:

(in thousands of Korean won)	2022		2021		Restrictions on use	
Long-term financial institution deposits	₩	12,000,000	₩	12,000,000	Support fund for partners	
Long-term deposits		9,500		9,500	Deposit for overdraft	
	₩	12,009,500	₩	12,009,500		

Details of pledging and collaterals provided by the Company are as follows:

Performance guarantee

The Company provides the following performance guarantees for contracts and warrants to customers by insuring guarantee insurance as of December 31, 2022, are as follows:

(in thousands of Korean won)	Guara	nteed amount	Insurance company
Performance guarantees	₩	65,197,538	Seoul Guarantee Insurance
for contracts, warranties		464,688,760	Korea Software Financial Cooperative
and others		1,250,505	Korea Info. & Comm. Contractors Association
		4,740,902	Korea Specialty Contractor Financial Cooperative
		29,825,563	KEB Hana Bank and others
	₩	565,703,268	

Collateral

Details of collateral provided by the Company as of December 31, 2022, are as follows:

Remark¹

Korea Software Financial Cooperative	Capital stock investments amounting to $\ensuremath{\mbox{$W$}}\xspace1,341,561$ thousand are provided as collateral
Engineering Guarantee Insurance	Capital stock investments amounting to \ensuremath{W} 774,805 thousand are provided as collateral

 $^{^{1}}$ It is the amount based on the initial deposit, excluding gains and losses on valuation, and the related carrying amount is \forall 4,579,073 thousand.

There are no financial and non-financial assets pledged as collateral as of December 31, 2022.

The Company has entered into an investment agreement with LG CNS FUND I LLC, its subsidiary. According to the agreement, the Company is obligated to invest a total of USD 25,000,000 to LG CNS FUND I LLC from July 2018 to June 2023. As of December 31, 2022, the Company invested USD 23,217,484 to LG CNS FUND I LLC.

Notes to the Separate Financial Statements December 31, 2022 and 2021

33. Leases

As a Lessee

Carrying amount

Details of the right-of-use assets as of December 31, 2022 and 2021, are as follows:

(in thousands of Korean won)				202	22			
	Furniture and							
		Buildings		Vehicles		fixtures		Total
Acquisition cost	₩	84,653,060	₩	2,904,167	₩	2,031,252	₩	89,588,479
Accumulated depreciation		(26,866,208)		(1,557,761)		(473,195)		(28,897,164)
Carrying amount	₩	57,786,852	₩	1,346,406	₩	1,558,057	₩	60,691,315
(in thousands of Korean won)				202	21			
					Fu	rniture and		
		Buildings		Vehicles		fixtures		Total
Acquisition cost	₩	66,722,216	₩	2,237,988	₩	2,151,603	₩	71,111,807
Accumulated depreciation		(19,319,907)		(1,085,947)		(138,979)		(20,544,833)

47,402,309 ₩ 1,152,041 ₩

2,012,624 \ \ 50,566,974

Changes in carrying amount of the right-of-use assets for the years ended December 31, 2022 and 2021, are as follows:

(in thousands of Korean won)			2022									
	E	Buildings	١	/ehicles	1	fixtures		Total				
Beginning balance	₩	47,402,309	₩	1,152,041	₩	2,012,624	₩	50,566,974				
Additional (renewal) contracts		20,167,670		1,286,215		-		21,453,885				
Depreciation of right-of-use assets		(9,744,809)		(901,136)		(430,606)		(11,076,551)				
Termination of contracts and others		(38,319)		(190,714)		(23,960)		(252,993)				
Ending balance	₩	57,786,851	₩	1,346,406	₩	1,558,058	₩	60,691,315				

(in thousands of Korean won)			2021		
	Buildings	Vehicles	Furniture and fixtures	Others	Total
Beginning balance	₩ 52,019,431	₩ 1,513,811	₩ 345,352	₩ 7,877	₩ 53,886,471
Additional (renewal) contracts	6,017,937	745,529	2,120,856	-	8,884,322
Depreciation of right-of-use assets	(9,295,552)	(943,788)	(675,476)	(20,482)	(10,935,298)
Termination of contracts	(20,543)	(163,511)	(739,639)	(5,042)	(928,735)
Others	(1,318,964)		961,531	17,647	(339,786)
Ending balance	₩ 47,402,309	₩ 1,152,041	₩ 2,012,624	₩ -	₩ 50,566,974

Notes to the Separate Financial Statements December 31, 2022 and 2021

The Company has operating lease contracts for buildings, vehicles and others. The weighted average total lease term is 14.19 years. During the year ended December 31, 2022, about 3.19% of the leases for buildings, vehicles and others have expired. Expired contracts have been replaced by new leases with the underlying assets identified.

The amounts recognized as profit or loss for the years ended December 31, 2022 and 2021, are as follows:

(in millions of Korean won)		2022		2021		
Depreciation of right-of-use assets	₩	11,076,551	₩	10,935,298		
Interest expense relating to lease liabilities		1,134,951		985,968		
Interest expense relating to short-term leases		1,488,049		825,914		
Expense relating to leases of low-value assets		62,722		126,673		
Expense relating to variable lease payments not included in lease liabilities ¹		272,797		201,416		

¹The Company leases some of the equipment (multifunction devices, etc.), and the lease payments for the lease contract are variable lease fees that vary depending on the amount of use. The Company concludes a contract with these variable lease terms to reduce fixed costs. Variable lease payments account for about 2.20% and 1.63% of total lease payments for the years ended December 31, 2022 and 2021.

As of December 31, 2022, the remaining lease agreement amount for the short-term leases is ₩ 332,221 thousand and the total cash outflow for leases for the year ended December 31, 2022 is ₩ 12,407,312 thousand.

Notes to the Separate Financial Statements December 31, 2022 and 2021

As a Lessor

The Company has a lease agreement to lease office buildings to LG Chem Co., Ltd., and 11 other companies and the future lease payment receipt plan as of December 31, 2022 and 2021, is as follows:

(in thousands of Korean won)		2022									
	Futi	ure lease payr									
	L	ess than 1 year		Between 1-5 years		Total					
LG CHEM LTD. LG ARTS CENTER and	₩	1,235,375	₩	-	₩	1,235,375					
LG Discovery Lab		290,723		1,162,892		1,453,615					
CJ E&M Corp. and 8 others		1,464,801		1,070,948		2,535,749					
(in thousands of Korean won)				2021							
	Futi	ure lease payr									
	L	ess than		Between							
		1 year		1-5 years		Total					
LG CHEM LTD.	₩	1,205,961	₩	-	₩	1,205,961					
CJ E&M Corp. and 9 others		1,739,606		1,791,648		3,531,254					

The lease income recognized by the Company in relation to the lease agreement for the years ended December 31, 2022 and 2021, is $\mbox{$W$}$ 3,381,172 thousand and $\mbox{$W$}$ 2,974,146 thousand, respectively.

34. Pending Litigations

Pending litigation as of December 31, 2022, are as follows:

(in thousands of Korean won)	Final amount of lawsuit	Plaintiff	Defendant			
Request for cancellation of unfair sanctions	₩ 50,000	LG CNS Co., Ltd.	Public Procurement Service			
Claims for damages from the Korea Customs Service	15,170,000	Korea Customs Service	LG CNS Co., Ltd. and others			
ASAN Hospital service charge claim	10,000,000	LG CNS Co., Ltd.	ASAN Foundation			
Claims for damages from ASAN Hospital	37,933,444	ASAN Foundation	LG CNS Co., Ltd.			
Request for payment of KCTC reduction	10,847,942	LG CNS Co., Ltd.	Republic of Korea			
KCTC late compensation claim to Ssangyong	5,000,000	LG CNS Co., Ltd.	SsangYong Information and Communication Corp.			
KCTC service charge claim from Ssangyong	3,870,344	SsangYong Information and Communication Corp.	LG CNS Co., Ltd.			
Claims for damages from National Defense Network	5,000,000	Republic of Korea	LG CNS Co., Ltd. and others			
Itmate's service charge claim	1,554,285	Itmate	LG CNS Co., Ltd.			
Claims for contract deposit from Green Energy Power Co.,Ltd	6,765,000	Green Energy Power Co.,Ltd	LG CNS Co., Ltd			
Unjust enrichment claim to KOREA SOFTWARE FINANCIAL COOPERARIVE	230,270	LG CNS Co., Ltd. and others	KOREA SOFTWARE FINANCIAL COOPERARIVE			
Affirmation of the nonexistence of payables	50,000	K-SPORTS Foundation	LG CNS Co., Ltd			

The final result of the litigation and effect on the separate financial statements cannot be reasonably estimated at the end of the reporting period.

.

35. Risk Management

34.1 Capital Risk Management

The Company's objectives when managing capital are to safeguard the Company's ability to continue as a going concern, so the Company can continue to provide returns for shareholders and benefits for other stakeholders, and to maintain an optimal capital structure to reduce the cost of capital. In order to maintain or adjust the capital structure, the Company may adjust the amounts of dividends paid to shareholders, return capital to shareholders, issue new shares or sell assets to reduce debt.

The Company's capital structure consists of net liability, which is borrowings, less cash and cash equivalents, and equity. The overall capital risk management policy of the Company has been consistent from the prior period. In addition, items managed as capital by the Company as of December 31, 2022 and 2021, are as follows:

(in thousands of Korean won)		2022	2021				
Total borrowings	₩	679,599,634	₩	499,245,296			
Less: cash and cash equivalents		648,866,093		545,373,508			
Borrowings, net		30,733,541		(46,128,212)			
Total equity	₩	1,513,772,119	₩	1,372,620,528			
Debt ratio ¹		2.03%		-			

¹ As of December 31, 2021, the total borrowing capital ratio is not calculated as net borrowings was negative.

34.2 Financial Risk Management

The Company is exposed to various financial risks, such as market (foreign currency, interest rate and price) risk, credit risk and liquidity risk, related to financial instruments. The purpose of risk management of the Company is to identify the potential risks to financial performance and reduce, eliminate and evade those risks to a degree acceptable to the Company. The Company makes use of derivative financial instruments to hedge certain risks, such as foreign exchange and interest rate. Overall, financial risk management policy of the Company has been consistent from the prior period.

Notes to the Separate Financial Statements December 31, 2022 and 2021

1) Foreign exchange risk

The Company is exposed to foreign currency risk as it makes transactions denominated in foreign currencies. The carrying amount of the Company's monetary assets and liabilities denominated in foreign currencies that are not the functional currency as of December 31, 2022 and 2021, is as follows:

(in thousands of		20	22		2021						
Korean won)		Assets	L	iabilities		Assets	Assets L				
USD	₩	163,547,279	₩	13,528,997	₩	89,275,729	₩	21,978,151			
EUR		32,134,141		2,728,625		24,333,049		4,853,877			
JPY		372,555		924,460		1,809,248		42,897			
CNY		222,000		130,298		590,361		385,658			
Others		56,377,920		305,587		47,050,490		125,748			
	₩	252,653,895	₩	17,617,967	₩	163,058,877	₩	27,386,331			

The Company internally assesses the foreign currency risk from changes in exchange rates on a regular basis. The Company's sensitivity to a 10% increase and 10% decrease in the Korean won (functional currency of the Company) against the major foreign currencies as of December 31, 2022 and 2021, is as follows:

(in thousands of		20	22		2021						
Korean won)	Increase 10%			crease 10%	Inc	rease 10%	De	crease 10%			
USD	₩	11,521,404	₩	(11,521,404)	₩	5,101,156	₩	(5,101,156)			
EUR		2,258,344		(2,258,344)		1,476,521		(1,476,521)			
JPY		(42,386)		42,386		133,889		(133,889)			
CNY		7,043		(7,043)		15,517		(15,517)			
Others		4,306,355		(4,306,355)		3,556,896		(3,556,896)			
₩		18,050,760	₩	(18,050,760)	₩	10,283,979	₩	(10,283,979)			

The above sensitivity analysis is conducted for monetary assets and liabilities denominated in foreign currencies other than functional currency at the end of reporting period.

In addition, the Company entered into currency forward contracts to manage its foreign currency exchange rate risk related to its foreign currency payables and receivables and its expected sale and purchase. The evaluation of unsettled currency forward contracts as of December 31, 2022, is as follows:

(in thousands of	,	Unsettled		Valuation ga	in an	d loss	Fair value					
Korean won)	contractual amounts			Gain		Loss		Assets	Liabilities			
Currency forward	₩	337,289,046	₩	11,442,050	₩	1,345,802	₩	11,442,050	₩	1,345,802		

Notes to the Separate Financial Statements December 31, 2022 and 2021

2) Price risk

The Company is exposed to price fluctuation risk arising from equity instruments. As of December 31, 2022, marketable equity securities measured at fair value amounting to $\mbox{$W$}$ 1,596,237 thousand will have impact of increase/decrease of $\mbox{$W$}$ 122,591 thousand (in net of tax) on the equity, if the price of the equity securities increase/decrease by 10% with all other variables held constant.

3) Credit risk

Credit risk refers to the risk of financial losses to the Company when the counterparty defaults on the obligations of the contract.

The maximum amount of financial loss to be incurred by the counterparty due to non-fulfilment of obligations excluding the effect of collateral or other credit enhancement is equivalent to the carrying amount of each financial asset in the separate financial statements. The maximum amount the Company will be required to pay if it is warranted due to the financial guarantees it provides is $\forall 85,348,060$ thousand (the financial guarantee limit described in Note 31).

To minimize credit risk, the Company uses independent external credit rating agencies' information to classify exposure based on the extent of default. If the information from credit rating agencies is not available, the Company uses officially available financial information to determine the ratings of key customers and other debtors. The Company's total exposure and the counterparty's credit rating are constantly reviewed, and the total amount of these transactions is evenly distributed among the authorized accounts.

As of December 31, 2022, the exposure to credit risk by major industries, to which the Company's customers belong, is as follows:

(in thousands of		Financial		Public		
Korean won)	Manufacturing	service	Other service	institutions	Others	Total
Financial assets at fair value through profit or loss	₩ -	₩ 11,442,050	₩ -	₩ - ₩		35,976,277
Financial assets at fair value through other comprehensive income	-	-	-	-	2,352,237	2,352,237
Financial assets at amortized cost	731,507,120	207,107,509	415,856,963	20,240,343	36,790,503	1,411,502,438
Limit of payment guarantee			85,348,060		<u> </u>	85,348,060
	₩ 731,507,120	₩ 218,549,559	₩ 501,205,023	₩ 20,240,343 ₩	<i>†</i> 63,676,967 ₩	1,535,179,012

The carrying amount of financial assets at fair value through profit or loss is the best indication of the maximum exposure to credit risk. The Company has not provided any collateral for its financial assets other than those stated in Note 32.

Notes to the Separate Financial Statements December 31, 2022 and 2021

4) Liquidity risk

The Company manages liquidity risk by establishing short-, medium- and long-term funding plan and continuously monitoring actual cash outflow and its budget to match the maturity profiles of financial assets and liabilities. Management of the Company believes that financial liability may be redeemed by cash flows arising from operating activities and financial assets.

Maturity analysis of non-derivative financial liabilities according to their remaining maturity as of December 31, 2022 and 2021, is as follows:

(in thousands of Korean won)	2022											
	Within 1 year			Between and 5 years		Over 5 years		Total				
Trade and other payables	₩	922,535,954	₩	1,835,004	₩		₩	924,370,958				
Borrowings		551,166,116		158,262,750		-		709,428,866				
Limit of payment guarantee ¹		85,348,060		-		-		85,348,060				
Lease liabilities		12,709,633		42,427,462		8,058,974		63,196,069				
	₩	1,571,759,763	₩	202,525,216	₩	8,058,974	₩	1,782,343,953				

¹ It includes the payment guarantees for foreign subsidiaries (USD 33,700,000, EUR 28,600,000, MYR 7,000,000 and INR 130,000,000) in Note 30. Based on the expectation as of December 31, 2022, the Company believes that possibility of payment on guaranteed amount is not higher. However, the expectation could be changed because warrantees may request payment to the Company according to the credit loss on the financial assets held by the warrantees.

(in thousands of Korean won)	2021										
	Within 1 year			Between and 5 years		Over 5 years		Total			
Trade and other payables	₩	648,365,918	₩	1,364,150	₩	-	₩	649,730,068			
Borrowings		99,461,400		322,881,000		100,993,000		523,335,400			
Limit of payment guarantee ¹		95,884,244		-		-		95,884,244			
Lease liabilities		10,020,211		29,079,012		14,021,820		53,121,043			
	₩	853,731,773	₩	353,324,162	₩	115,014,820	₩	1,322,070,755			

¹ It includes the payment guarantees for foreign subsidiaries (USD 40,838,394, EUR 29,200,000, JPY 6,000,000, MYR 13,249,335, INR 130,000,000 and IDR 28,645,755,534) in Note 31. Based on the expectation as of December 31, 2021, the Company believes that possibility of payment on guaranteed amount is not higher. However, the expectation could be changed because warrantees may request payment to the Company according to the credit loss on the financial assets held by the warrantees.

The above maturity analysis is based on the earliest maturity date that the Company is required to pay on the basis of undiscounted cash flows and includes the cash flows of principal and interest.

Notes to the Separate Financial Statements December 31, 2022 and 2021

The Company manages liquidity through cash inflows from financial assets and financing arrangements with financial institutions. The financial assets' maturity structures as of December 31, 2022 and 2021, are as follows:

(in thousands of Korean won)	2022											
			I	Between		Over						
	W	ithin 1 year	1 a	nd 5 years		5 years		Total				
Financial institution deposits	₩	100,000,000	₩	12,000,000	₩	-	₩	112,000,000				
Trade and other receivables	1	1,282,687,606		13,284,152		3,530,679		1,299,502,437				
Investment in equity and debt instruments		-				26,886,464		26,886,464				
	₩ 1	1,382,687,606	₩	25,284,152	₩	30,417,143	₩	1,438,388,901				
(in thousands of Korean won)	2021											
				Between		Over						
	V	Vithin 1 year		1 and 5 years	•	5 years		Total				
Financial institution deposits	₩	100,000,00	0 +	[₩] 12,000,00	00	₩ -	₩	112,000,000				
Trade and other receivables		1,020,297,01	8	7,449,72	24	5,046,925		1,032,793,667				
Investment in equity and debt instruments			<u>-</u> _		<u>-</u> _	24,050,484		24,050,484				
	₩	1,120,297,01	8 +	[₩] 19,449,72	24	₩ 29,097,409	₩	1,168,844,151				

Meanwhile, the maturity analysis of derivative financial assets (liabilities) according to their remaining maturity as of December 31, 2022 and 2021, is as follows:

(in thousands of K	(orean won)	von) 2022							2021						
		Between 1 and 5 Within 1 year years					Total	١	Within 1 year		Between 1 and 5 years		Total		
Derivative instruments for trading:															
Interest rate derivationstruments	ative	₩	(464,301)	₩	-	₩	(464,301)	₩	-	₩	-	₩	-		
Foreign currency derivative	Inflows	₩	336,611,064	₩	-	₩	336,611,064	₩	219,354,066	₩	-	₩	219,354,066		
instruments ¹	Outflows		(326,514,817)		-		(326,514,817)		(220,296,956)		-		(220,296,956)		
	Total	₩	10,096,247	₩	-	₩	10,096,247	₩	(942,890)	₩	-	₩	(942,890)		

¹ As all foreign currency derivative instruments contracts are subject to total settlement, cash flows outflows and inflows are recorded separately.

Notes to the Separate Financial Statements December 31, 2022 and 2021

5) Interest rate risk

The Company's main interest rate risk arises from borrowings with variable rates, which expose the Company to cash flow interest rate risk. There are no assets that are exposed to interest rate risk as of December 31, 2022 and 2021. The carrying amounts of liabilities exposed to interest rate risk as of December 31, 2022 and 2021, are as follows:

(in thousands of Korean won)		2022	:	2021	
Short-term borrowings	₩	170,000,000	₩		-

The Company uses floating-to-fixed interest rate swaps to maintain most of its borrowings with variable rates at a fixed rate, and the fixed interest rates of the swaps range between 6.4% and 6.8%. As of December 31, 2022 and 2021, if interest rates had been fluctuated by 1% with all other variables held constant, there is no significant effect of changes in interest rates to the post-tax profit.

34.3 Estimation of Fair Value

The fair values of financial instruments (i.e., financial assets at fair value through profit or loss and financial assets at fair value through other comprehensive income) traded in active markets are determined with reference to quoted market prices. The Company uses the current bid price as the quoted market price for its financial assets.

The fair values of financial instruments not traded on an active market (i.e., over-the-counter derivatives) are determined using a valuation technique. The Company uses various valuation techniques using assumptions based on current market conditions. The fair values of long-term liabilities and financial liabilities available for settlement are determined using prices from observable current market transactions and dealer quotes for similar instruments. When such prices are not available, a discounted cash flow ("DCF") analysis or other valuation technique is performed to measure their fair values.

The fair values of trade and other receivables are approximated as their carrying amount, less impairment loss. The Company estimates the fair values of financial liabilities as the present value of future contractual cash flows, discounted based on current market rates applied to similar financial instruments.

Financial instruments that are measured subsequent to initial recognition at fair value are grouped into Level 1 to Level 3, based on the degree to which the fair value is observable, as described below.

- Quoted prices (unadjusted) in active markets for identical assets or liabilities (Level 1).
- All inputs other than quoted prices included in level 1 that are observable (either directly that is, prices, or indirectly that is, derived from prices) for the asset or liability (Level 2).

Notes to the Separate Financial Statements December 31, 2022 and 2021

- Inputs for the asset or liability and are not based on observable market data (unobservable inputs) (Level 3).
- 1) Financial instruments that are measured subsequently at fair value as of December 31, 2022 and 2021, are as follows:

(in thousands of Korean won)						2022					
	Carrying			Fair value							
		amount		Level 1		Level 2		Level 3		Total	
Financial assets											
Financial assets at fair value through profit or loss											
Derivative financial assets for trading	₩	11,442,050	₩	-	₩	11,442,050	₩	-	₩	11,442,050	
Investment and others		24,534,227		-		-		24,534,227		24,534,227	
		35,976,277		-		11,442,050		24,534,227		35,976,277	
Financial assets at fair value through other comprehensive income											
Marketable equity securities Non-marketable equity		1,596,237		1,596,237		-				1,596,237	
securities		756,000		-		-		756,000		756,000	
		2,352,237		1,596,237		-		756,000		2,352,237	
	₩	38,328,514	₩	1,596,237	₩	11,442,050	₩	25,290,227	₩	38,328,514	
Financial liabilities Financial liabilities at fair value											
through profit or loss											
Derivative financial liabilities for trading	₩	1,810,103	₩	_	₩	1,810,103	₩	_	₩	1,810,103	
ior adding		1,810,103				1,810,103				1,810,103	
	₩	1,810,103	₩		₩	1,810,103	₩		₩	1,810,103	
	V V	1,010,103	۷ ۷		۷۷	1,010,103	V V	_	۷ ۷	1,010,103	

Notes to the Separate Financial Statements December 31, 2022 and 2021

(in thousands of Korean won)						2021				
		Carrying				Fair	valu	е		
		amount		Level 1 Level 2		Level 2	Level 3			Total
Financial assets										
Financial assets at fair value through profit or loss										
Derivative financial assets for trading	₩	1,621,136	₩		- ₩	1,621,136	₩	-	₩	1,621,136
Investment and others		23,281,345				-		23,281,345		23,281,345
		24,902,481			_	1,621,136		23,281,345		24,902,481
Financial assets at fair value through other comprehensive income										
Non-marketable equity securities		769,139			_	_		769,139		769,139
Scounics	-	769,139						769,139		769,139
	₩	25,671,620	₩		- ₩	1,621,136	₩	24,050,484	₩	25,671,620
Financial liabilities										
Financial liabilities at fair value through profit or loss										
Derivative financial liabilities for trading	₩	2,564,026	₩		- ₩	2,564,026	₩		₩	2,564,026
ioi trauling		2,564,026				2,564,026		<u>-</u>		2,564,026
	₩	2,564,026	₩		<u>-</u> ₩	2,564,026	₩		₩	2,564,026
		2,304,020				2,304,020				2,304,020

There were no significant transfers between level 1 and 2 during the years ended December 31, 2022 and 2021.

2) Valuation method and input variables of financial instruments, which are included in Level 2 of the financial instruments that are measured at fair value in the separate statements of financial position, are as follows:

(in thousands of Korean won)	Fair value		Valuation technique	Inputs	
Financial assets Derivative financial assets for trading	₩	11,442,050	Forward pricing model	Forward exchange rate	
Financial liabilities Derivative financial liabilities for trading		1,810,103	Forward pricing model and others	Forward exchange rate, interest rate	

LG CNS CO., LTD. Notes to the Separate Financial Statements December 31, 2022 and 2021

3) The levels of fair value measurements of the financial instruments that are not measured subsequently at fair value as of December 31, 2022 and 2021, are as follows:

(in thousands of Korean won)						2022				
		Carrying	Fai	Fair value						
		amount	Level	1		Level 2		Level 3		Total
Financial assets										
Cash and cash equivalents	₩	648,866,093	₩	-	₩	-	₩	648,866,093	₩	648,866,093
Financial institution deposits		112,000,000		-		-		112,000,000		112,000,000
Trade receivables ¹		1,264,854,778		-		-		1,264,854,778		1,264,854,778
Loans ¹		10,836,214		-		-		10,836,214		10,836,214
Non-trade receivables ¹		10,258,654		-		-		10,258,654		10,258,654
Accrued income ¹		1,761,290		-		-		1,761,290		1,761,290
Deposits ¹		11,791,501		-		-		11,791,501		11,791,501
	₩	2,060,368,530	₩	_	₩	-	₩	2,060,368,530	₩	2,060,368,530
Financial liabilities										
Trade payables ¹	₩	703,746,373	₩	-	₩	-	₩	703,746,373	₩	703,746,373
Non-trade payables ^{1,2}		46,161,138		-		-		46,161,138		46,161,138
Accrued expenses 1,2		8,246,207		-		-		8,246,207		8,246,207
Dividends payable 1		6,126		-		-		6,126		6,126
Deposits received		1,835,004		-		1,835,004		-		1,835,004
Borrowings		679,599,634				384,796,224		270,000,000		654,796,224
	₩	1,439,594,482	₩		₩	386,631,228	₩	1,028,159,844	₩	1,414,791,072

¹ Short-term receivables and payables that have been shown as Level 3 are measured at the original amount since the effect of discounting is immaterial.

²Other payables and accrued expenses that are not related financial liabilities are excluded.

LG CNS CO., LTD. Notes to the Separate Financial Statements December 31, 2022 and 2021

(in thousands of Korean won)	2021									
	Carrying	Fair value								
	amount	Level 1	Level 2	Level 3	Total					
Financial assets										
Cash and cash equivalents	₩ 545,373,508	₩	- ₩ -	₩ 545,373,508	₩ 545,373,508					
Financial institution deposits	112,000,000			112,000,000	112,000,000					
Trade receivables ¹	1,002,969,791			1,002,969,791	1,002,969,791					
Loans ¹	8,117,329			8,117,329	8,117,329					
Non-trade receivables ¹	12,056,714			12,056,714	12,056,714					
Accrued income ¹	822,289			822,289	822,289					
Deposits ¹	8,827,544		<u>-</u>	8,827,544	8,827,544					
	₩ 1,690,167,175	₩	- ₩ -	₩ 1,690,167,175	₩ 1,690,167,175					
Financial liabilities										
Trade payables ¹	₩ 602,820,782	₩	- ₩ -	₩ 602,820,782	₩ 602,820,782					
Non-trade payables 1,2	38,329,514			38,329,514	38,329,514					
Accrued expenses 1,2	7,211,201			7,211,201	7,211,201					
Dividends payable 1	4,422			4,422	4,422					
Deposits received	1,364,150		- 1,364,150	-	1,364,150					
Borrowings	499,245,297		- 495,725,611		495,725,611					
	₩ 1,148,975,366	₩	- ₩ 497,089,761	₩ 648,365,919	₩ 1,145,455,680					

¹ Short-term receivables and payables that have been shown as Level 3 are measured at the original amount since the effect of discounting is immaterial.

²Other payables and accrued expenses that are not related financial liabilities are excluded.

Notes to the Separate Financial Statements December 31, 2022 and 2021

4) Changes in level 3 for recurring fair value measurements for the years ended December 31, 2022 and 2021, are as follows:

(in thousands of Korean won)				2022			
	Beginning balance	Profit or loss	Other comprehensive income	Purchases	Sales	Transfer	Ending balance
Financial assets							
Investment and others	₩ 23,281,345	₩ 265,372	₩ -	₩ 2,594,460	₩ -	(1,606,950)	₩ 24,534,227
Non-marketable equity securities	769,139		(13,139)		<u> </u>	-	756,000
	₩ 24,050,484	₩ 265,372	₩ (13,139)	₩ 2,594,460	₩ - ₩	(1,606,950)	₩ 25,290,227
(in thousands of Korean won)				2021			
		Total compr	ehensive income				
	Beginning balance	Profit or loss	Other comprehensive income	Purchases	Sales	Transfer	Ending balance
Financial assets							
Investment and others	₩ 17,057,497	₩ 34,979	₩ -	₩ 6,623,720	₩ (434,851)	-	₩ 23,281,345
Non-marketable equity securities	781,443	_	(4,608)	_	(7,696)	-	769,139
	₩ 17,838,940	₩ 34,979	₩ (4,608)	₩ 6,623,720	₩ (442,547)	₩ -	₩ 24,050,484

Total gains and losses recognized in other comprehensive income relate to equity securities held as of December 31, 2022 and are recognized as changes in gain (loss) on valuation of financial assets at fair value through other comprehensive income (see Note 22).

Notes to the Separate Financial Statements December 31, 2022 and 2021

5) A description of the valuation techniques and the inputs used in the fair value measurement of financial instruments categorized within Level 2 and Level 3 is as follows:

- Currency forward and Interest rate swaps

In principle, the fair value of currency forward was measured based on forward currency rates whose period is coincident with the residual period of the currency forward and that are advertised in the market at the end of the reporting period. If forward currency rates whose period is coincident with the residual period are not advertised in the market, the fair value of currency forward was measured by estimating the forward currency rates whose period is similar to the residual period of the currency forward. The estimation of the forward currency was performed using interpolation to advertised periodical forward currency rates. Discount rates used to measure the fair value of currency forward were determined based on yield curve from yields advertised in the market.

Discount rates and forward rates used to measure the fair value of interest rate swap were determined based on applicable yield curve from yields advertised in the market. The fair value of interest rate swap is measured as the amount of future cash flows of interest rate estimated based on the forward rate, discounted by using appropriate discount rate.

As the input variables that are used to measure the fair value of currency forward and interest rate swaps for the end of the reporting period are derived via the forward exchange rate and the yield curve in the market, the fair values of currency forward and interest rate swap were classified as Level 2 fair value measurement.

- Corporate bonds

The fair value of corporate bonds was measured using DCF. The discount rates used in DCF were determined based on advertised-in-market swap rates and credit spreads of the bonds, whose credit rating and period were similar to those corporate bonds. The discount rates that influence the fair value of corporate bonds and cumulative redeemable preference stocks significantly were classified as Level 2 fair value measurement because they resulted in observable information in the market.

- Unlisted securities and unlisted securities-linked convertible securities

The fair value of unlisted shares and unlisted securities-linked convertible securities are measured using the DCF model which is partially based on assumptions with unobservable market prices or rates, such as sales growth rate, pretax operating profit margin rate and the weighted-average cost of capital, to estimate the future cash flows. Capital asset pricing model ("CAPM") was used to calculate the weighted-average cost of capital. The key assumptions of estimation listed above are determined to have a significant impact on the fair value of non-listed shares, and the Company has classified the fair value hierarchy system as Level 3 of the fair value measurement for non-listed shares.

Notes to the Separate Financial Statements December 31, 2022 and 2021

- 6) There are no changes in the valuation techniques used in the fair value measurement of financial instruments categorized within level 2 and level 3 for the year ended December 31, 2022.
- 7) A description of the valuation processes in the fair value measurement for Level 2 and Level 3 that the Company is carrying out is as follows:

Unobservable inputs that are used to estimate Level 3 fair value measurement are derived in a manner that is described below.

- Stock volatilities and stock correlation used in measurement of the financial instruments linked to stocks (e.g., investments in convertible bonds, equity-linked securities and consideration for conversion rights) were measured based on change in stock price during certain period before the reporting period.
- Pre-tax profit margin and sales growth rate, which are used to measure the fair value of non-listed shares, are estimated based on the average value of pre-tax operating margin and sales growth rate of comparable listed companies.
- Weighted-average cost of capital discount rate that is used to measure the fair value of non-listed shares and the fair value of the contingent consideration is estimated by the weighted-average, and outside capital cost; capital cost estimates of the share value beta reflected for the purpose of the issuer of the shares; and capital structure based on the equity beta of comparable public companies derived based on the CAPM.

On the other hand, when it was difficult to use objective financial indicators necessary for measuring the fair value of unlisted stocks, market observable transaction price was used for fair value evaluation.

- 8) The Company believes that changing one or more of the unobservable inputs for reasonably possible alternative assumptions would not result in a significant change in the fair value measurement.
- 9) There is no significant change in business and economic environment affecting the fair value of the financial assets and liabilities during the year ended December 31, 2022.

Notes to the Separate Financial Statements December 31, 2022 and 2021

36. Cash Flows

(in thousands of Korean won)	2022	2021
Profit for the year	₩ 235,792,430	₩ 213,942,404
Adjustments for:		
Depreciation	61,712,411	59,283,762
Amortization	18,838,797	13,697,565
Impairment loss on intangible assets	10,370,237	2,673,417
Loss on disposal of property, plant and equipment and		
intangible assets	(74,939)	(211,417)
Loss on disposal of right-of-use assets	(58,977)	(65,081)
Provisions	39,013,749	15,641,194
Reversal of loss on valuation of inventories	(626)	(17,306)
Salaries	2,403,030	7,370,483
Retirement benefits	5,283,349	3,727,711
Interest expense	1,259,307	6,491,662
Loss on transaction / valuation of derivatives	7,319,202	8,290,239
Gain on valuation / disposal of financial assets at fair value through profit or loss	(265,372)	(578)
Bad debt expense (reversal)	(3,936,330)	1,864,394
Exchange rate difference	6,336,133	(933,788)
Impairment loss on investments in subsidiaries	2,146,046	4,654,288
Loss on disposal of investments in subsidiaries	2,110,010	16,760
Impairment loss on investments in associates	7,400,000	4,094,500
Impairment loss on investments in associates	1,100,000	
(reversal)	-	(1,872)
Income tax expense	84,459,640	63,585,143
Dividend income	(29,133,597)	(22,338,388)
Others	544,552	(376,928)
Change in operating assets and liabilities:	213,616,612	167,445,760
Trade receivables	(266,004,222)	(224 404 246)
Other receivables	(266,004,322)	(231,484,346)
Net defined benefit assets	2,074,654	(4,191,462)
	(542,319)	(32,761)
Other current assets	(119,755,222)	(177,008,977)
Inventories	(4,264,060)	(16,509,211)
Long-term trade receivables	1,660,717	(12,109)
Other non-current assets	(67,510)	(57,374)
Trade payables	107,407,145	148,548,806
Other payables	24,409,656	47,451,263
Other current liabilities	46,066,428	72,337,103
Current provisions	(25,319,879)	(16,995,022)
Net defined benefit liabilities	(2,067,050)	(2,626,854)
Other non-current liabilities	(1,750,025)	(1,503,750)

Notes to the Separate Financial Statements December 31, 2022 and 2021

Decrease in other operating asset (liabilities)		(158,173)		(22,985)
		(238,309,960)		(182,107,679)
Cash generated from operations	₩	211,099,082	₩	199,280,485

Significant non-cash investing and financing activities for the years ended December 31, 2022 and 2021, are as follows:

(in thousands of Korean won)		2022	2021		
Reclassification of construction in progress	₩	52,663,877	₩	21,091,108	
Increase (decrease) in other payables related to acquisition of property, plant and equipment and intangible assets		(4,765,217)		3,960,862	
Increase (decrease) in advance payments related to acquisition of property, plant and equipment and intangible assets		(2,476,831)		-	
Reclassification between property, plant and equipment and investment properties		5,745,483		5,533,298	
Recognition of right-of-use assets		17,926,940		7,550,720	
Recognition of lease liabilities		18,108,206		7,096,763	
Reclassification of current lease liabilities		9,535,328		7,969,907	
Reclassification of current borrowings		259,765,167		89,937,197	

Changes in liabilities arising from financial activities for the years ended December 31, 2022 and 2021, are as follows:

(in thousands of						
Korean won)			Non-ca	sh changes		
	Beginning balance	Cash flows	Others	Reclassification to current	Others	Ending balance
Short-term borrowings Current portion of long-	₩	- ₩ 270,000,000	₩ -	₩ -	₩ -	₩ 270,000,000
term borrowings	89,982,76	0 (90,000,000)	-	259,765,167	170,227	259,918,154
Long-term borrowings	409,262,53	6 -	-	(259,765,167)	184,111	149,681,480
Current lease liabilities	9,854,90	3 (10,583,744)	3,457,150	9,535,328	230,939	12,494,576
Lease liabilities	39,705,65	3 -	14,626,511	(9,535,328)	904,012	45,700,858
	₩ 548,805,85	2 ₩ 169,416,256	₩ 18,083,661	₩ -	₩ 1,489,289	₩ 737,795,058

LG CNS CO., LTD. Notes to the Separate Financial Statements December 31, 2022 and 2021

(in thousands of	2021												
Korean won)	Non-cash changes												
	- 1	Beginning					Reclassification					Ending	
		balance		Cash flows		Others		to current		Others		balance	
Current portion of long- term borrowings	₩	89,972,432	₩	(90,000,000)	₩	:	₩	89.937.197	₩	73.131	₩	89,982,760	
9	**	, ,	* *	, , , ,	٧٧	-	* *	,, -	٧٧	-, -	**		
Long-term borrowings		498,810,231		34,024		-		(89,937,197)		355,478		409,262,536	
Current lease liabilities		11,004,547		(11,237,209)		1,930,612		7,969,907		187,046		9,854,903	
Lease liabilities		41,710,487		-		5,166,151		(7,969,907)		798,922		39,705,653	
	₩	641,497,697	₩	(101,203,185)	₩	7,096,763	₩	-	₩	1,414,577	₩	548,805,852	

37. Approval of Issuance of the Financial Statements

The separate financial statements 2022 were approved for issue by the Board of Directors on February 8, 2023, which will be submitted for approval of the shareholders at their Annual General Meeting to be held on March 28, 2023.

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

(English Translation of a Report Originally Issued in Korean)

To the Chief Executive Officer of LG CNS CO., LTD.

We have reviewed the accompanying management's report on the effectiveness of Internal Control over Financial Reporting ("ICFR") of LG CNS CO., LTD. (the "Company") as of December 31, 2022. The Company's management is responsible for designing and operating ICFR and for its assessment of the effectiveness of ICFR. Our responsibility is to review the management's report on the effectiveness of ICFR and issue a report based on our review. The management's report on the effectiveness of ICFR of the Company states that "Based on the assessment results, Chief Executive Officer and ICFR Officer believe that the Company's ICFR, as of December 31, 2022, is designed and operating effectively, in all material respects, in accordance with Conceptual Framework for Designing and Operating Internal Control over Financial.

Our review was conducted in accordance with ICFR review standards established by the Korean Institute of Certified Public Accountants. Those standards require that we plan and perform, in all material respects, the review of management's report on the effectiveness of ICFR to obtain a lower level of assurance than an audit. A review is to obtain an understanding of a Company's ICFR and consists principally of inquiries of management and, when deemed necessary, a limited inspection of underlying documents, which is substantially less in scope than an audit.

A Company's ICFR is a system to monitor and operate those policies and procedures designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with International Financial Reporting Standards as adopted by the Republic of Korea. Because of its inherent limitations, ICFR may not prevent or detect a material misstatement of the financial statements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Based on our review, nothing has come to our attention that causes us to believe that management's report on the effectiveness of ICFR, referred to above, is not presented fairly, in all material respects, in accordance with the Guidelines for Internal Control over Financial Reporting.

Our review is based on the Company's ICFR as of December 31, 2022, and we did not review management's assessment of its ICFR subsequent to December 31, 2022. This report has been prepared pursuant to the Acts on External Audit for Stock Companies, etc. in Korea and may not be appropriate for other purposes or for other users.

Samil PricewaterhouseCoopers Seoul, Korea March 17, 2023

This report is effective as at March 17, 2023, the review report date. Certain subsequent events or circumstances, which may occur between the review report date and the time of reading this report, could have a material impact on the Company's Internal Control over Financial Reporting. Accordingly, the readers of the audit report should understand that there is a possibility that the above review report may have to be revised to reflect the impact of such subsequent events or circumstances, if any.

Management's Report on the Effectiveness of the Internal Control over Financial Reporting

(English Translation of a Report Originally Issued in Korean)

To the Shareholders, Board of Directors and Internal Auditor of LG CNS CO., LTD.

We, as the Chief Executive Officer ("CEO") and the Internal Control over Financial Reporting("ICFR") Officer of LG CNS CO., LTD.("the Company"), assessed the effectiveness of the design and operation of the Company's Internal Control over Financial Reporting ("ICFR") for the year ended December 31, 2022.

The Company's management, including ourselves, is responsible for designing and operating ICFR. We assessed the design and operating effectiveness of ICFR in the prevention and detection of an error or fraud which may cause material misstatements in the preparation and disclosure of reliable financial statements. We followed the 'Best Practice Guideline' which is established by the Operating Committee of Internal Control over Financial Reporting in Korea (the "ICFR Committee") to evaluate the effectiveness of the ICFR design and operation.

Based on the assessment results, we believe that the Company's ICFR, as at December 31, 2022, is designed and operating effectively, in all material respects, in accordance with *Conceptual Framework for Designing and Operating Internal Control over Financial*.

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

February 8, 2023

Young Shub Kim Chief Executive Officer

Ji-hwan Park Internal Control over Financial Reporting Officer