SK D&D Co., Ltd. and its subsidiaries

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

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Independent auditor's report

(English Translation of a Report Originally Issued in Korean)

The Shareholders and Board of Directors SK D&D Co., Ltd.

Opinion

We have audited the accompanying consolidated financial statements of SK D&D Co., Ltd. and its subsidiaries (collectively referred to as the "Group"), which comprise the consolidated statements of financial position as of December 31, 2022 and 2021, and the consolidated statements of profit or loss and other comprehensive income, consolidated statements of changes in equity and consolidated statements of cash flows for the years then ended, and the notes to the financial statements, including a summary of significant accounting policies.

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

Basis for opinion

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

Emphasis of matter

Without modifying our opinion, we draw attention to Note 37 to these financial statements. As discussed in Note 37, the Group reflects the change in the method of presenting operating profit or loss in the comparative consolidated financial statements for the year ended December 31, 2021. The comparative consolidated statements of comprehensive income and cash flows of the accompanying consolidated financial statements have been restated by reflecting these corrections. There are no impacts of changes in accounting policies on the comparative net profit for the year ended December 31, 2021 and financial position as at December 31, 2021.

Key audit matters

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



(1) Revenue recognition based on input method

Reason why the matter was determined to be a Key Audit Matter

As described in Note 5 (contract cost) and Note 16 (construction contract) to the consolidated financial statements, the Group recognized the contract revenue and contract cost associated with construction contracts as the revenue and cost of sales from sale of housing and the revenue and cost of sales from construction, respectively, based on the percentage of completion of contract activities at the end of reporting period. Meanwhile, the percentage of completion of the contract may be determined in various ways, but the Group measured the percentage of completion by reference to the proportion of the accumulated contract costs incurred to the estimated total contract costs to complete the contract.

The Group recognized the revenue from several projects including Think Factory located in Dangsandong in accordance with the input method. Revenue using this input method, which accounts for 55.5% of the total revenue of the Group, amounts to ₩ 312,655 million.

If the method of measuring the percentage of completion using the input method cannot reliably measure the Group's performance, there would be a risk that the revenue and cost of sales from sale of housing and the revenue and cost of sales from construction may be misstated. Therefore, we selected revenue recognition based on input method 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.

- Confirmed the appropriateness of accounting policies on revenue recognition and obtained an understanding of internal control through review of contract documents by project and standards.
- Inquired about the current progress status and significant changes in main projects at the end
 of reporting period, performed analytical procedures, analyzed the projects which have
 significant differences and obtained relevant evidence, if necessary.
- Compared and determined whether the estimated total contract cost used in calculating the
 construction percentage of completion of the project is consistent with the estimated total
 contract cost of the construction contract with the construction company.
- Identified the cause of change and reviewed the relevant documents for the project that has a significant change in the estimated cost.
- Reviewed the appropriateness of estimates by comparing the past total contract cost estimates for major construction sites with the actual total contract cost incurred.
- Confirmed that only contract cost that reflects the construction performed is included in the cumulative incurred cost and compared and verified relevant evidence of significant incurred cost
- Recalculated the percentage of completion for construction calculated by the Group.



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

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

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

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

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

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

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

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



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

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

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

The engagement partner on the audit resulting in this independent auditor's report is Tae-hwan Kim.

Ernst Joung Han Young

March 10, 2023

This audit report is effective as of March 10, 2023, the independent auditor's report date. Accordingly, certain material subsequent events or circumstances may have occurred during the period from the date of the independent auditor's report to the time this report is used. Such events and circumstances could significantly affect the accompanying consolidated financial statements and may result in modifications to this report.

SK D&D Co., Ltd. and its subsidiaries

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

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

SK D&D Co., Ltd. and its subsidiaries Consolidated statements of financial position As of December 31, 2022 and 2021

(in Korean won)	Notes	2022	2021
Assets			
Current assets			
Cash and cash equivalents	3,35	₩ 208,423,466,634	₩ 70,925,668,936
Short-term financial instruments	3,9,35	68,413,339,879	54,252,127,772
Short-term loans	3,9,25,35	11,339,922,100	20,364,431,062
Current portion of long-term loans	3,9,25,35	2,983,492,000	2,516,492,000
Trade and other receivables	3,4,15,25,35	53,435,811,113	40,575,793,039
Contract assets	16	-	18,803,612,563
Inventories	6,24	848,089,076,443	850,441,372,211
Contract cost	5	11,552,867,566	6,426,673,128
Current tax assets	31	133,600	983,399,800
Other current financial assets	3,7,35	212,192,722	597,764,820
Other current assets	8	70,450,830,809	113,068,395,890
Derivative assets	3,22,24,34,35	1,021,954,619	759,571,857
Firm contract assets Non-current assets held for sale	22,24	58,736,783	-
Non-current assets field for sale	14	3,976,630,475 1,279,958,454,743	1,179,715,303,078
Non-current accets			
Non-current assets Trade and other receivables	3,4,15,25,35	1,593,894,489	3,518,544,711
Long-term financial instruments	3,9,35	39,566,486,229	63,662,384,262
Long-term investment assets	3,9,34	74,287,780,928	67,885,495,454
Investments in joint ventures and associates	10,24,25	268,130,281,111	156,397,285,005
Long-term loans	3,9,25,35	4,636,953,204	15,730,289,745
Property, plant and equipment	11,24,28	359,855,672,307	356,566,387,249
Right-of-use assets	15,28	10,524,133,396	9,072,194,405
Investment property	12,15,24,28	98,373,862,554	83,846,044,947
Intangible assets	13,24,28	17,846,266,986	18,828,457,661
Net defined benefit assets	19	752,832,284	-
Other non-current financial assets	3,7	5,439,435,145	5,075,911,123
Other non-current assets	8	2,746,478,658	2,637,810,429
Derivative assets	3,22,24,34,35	12,298,908,795	5,669,879,953
Deferred tax assets	31	15,564,773,618	14,824,780,017
Total assets		911,617,759,704 ₩ 2,191,576,214,447	803,715,464,961 ₩ 1,983,430,768,039
Liabilities			
Current liabilities			
Trade and other payables	3,15,17,25,35	₩ 56,980,535,075	₩ 45,120,026,865
Short-term borrowings	3,18,24,35	8,000,000,000	46,000,000,000
Current portion of long-term borrowings	3,18,24,35	254,741,167,671	242,779,375,113
Current portion of debentures	3,18,24,35	74,924,581,109	75,417,364,993
Provisions	23	307,816,884	177,070,910
Contract liabilities	16	52,552,406,675	-
Income tax payable	31	8,673,177,966	27,207,949,710
Other current financial liabilities	3,20,35	8,832,953,342	2,844,978,144
Other current liabilities	21	10,896,066,190	26,047,474,222
Derivative liabilities	3,22,24,34,35	58,736,783	-
Firm contract liabilities	22,24	35,089,658	405 504 000 057
		476,002,531,353	465,594,239,957
Non-current liabilities	0.45.47.05	40 440 040 0	77.054.000.500
Trade and other payables Long-term borrowings	3,15,17,35	16,113,019,859	77,654,968,562
Debentures	3,18,24,35	631,044,007,796	518,218,040,298
Provisions	3,18,24,35 23	250,136,172,342	251,574,234,093 6,859,086,593
Net defined benefit liabilities	19	5,279,141,327	1,027,784,237
Income tax payable	31	7,247,407,840	5,062,081,076
Deferred tax liabilities	31	6,055,391,803	5,121,090,496
Derivative liabilities	3,22,24,34,35	4,548,065,641	1,674,000,000
Other non-current financial liabilities	3,20,35	98,084,217,203	11,389,194,975
		1,018,507,423,811	878,580,480,330
Total liabilities		1,494,509,955,164	1,344,174,720,287
Equity Share capital	00	24 400 404 000	24 400 404 000
Share capital Reserves	26	24,190,164,000	24,190,164,000
Other components of equity	26 26 27	290,804,582,279	290,804,582,279
Accumulated other comprehensive income	26,27 26	5,559,547,215 1,070,919,524	(3,940,549,139) 113,949,643
Retained earnings	26	375,441,046,265	328,087,900,969
Equity attributable to owners of the Parent Company	20	697,066,259,283	639,256,047,752
Total equity		697,066,259,283	639,256,047,752
Total liabilities and equity		₩ 2,191,576,214,447	₩ 1,983,430,768,039
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SK D&D Co., Ltd. and its subsidiaries

Consolidated statements of comprehensive income for the years ended December 31, 2022 and 2021

(in Korean won)	Notes		2022		2021
Operating revenue	10,28,37	₩	563,436,566,175	₩	881,836,637,140
Operating expenses	10,28,29,37		(499,090,319,390)		(671,971,124,657)
Operating profit	28,37		64,346,246,785		209,865,512,483
Non-operating income (expenses)					
Finance income	3,30		19,139,158,347		18,303,331,908
Finance costs	3,30		(37,483,515,611)		(46,243,305,490)
Other non-operating income	30,37		66,318,586,609		7,794,884,248
Other non-operating expenses	30,37		(4,521,136,675)		(3,215,529,833)
Share of net profit (loss) of associates and joint ventures	40.07		5 000 500 007		(4.040.054.000)
accounted for using the equity method	10,37		5,923,586,887		(4,910,251,666)
D (1) ()			49,376,679,557		(28,270,870,833)
Profit before income tax			113,722,926,342		181,594,641,650
Income tax expense	31		(37,509,743,524)		(47,959,968,817)
Profit for the year			76,213,182,818		133,634,672,833
Other comprehensive income (loss)					
Items that may be subsequently reclassified to profit or loss			950,056,727		11,077,826,428
Gain on valuation of derivative financial instruments	22,26		950,056,727		905,347,184
Share of other comprehensive loss of associates	10,26		· · · -		10,172,479,244
Items that will not be reclassified to profit or loss			(1,221,641,392)		(466,186,605)
Gain on revaluation of financial assets at fair value through other comprehensive income	9,26		6,913,154		-
Remeasurements of net defined benefit liability	19,26		(1,228,554,546)		(466,186,605)
Other comprehensive income (loss) for the year, net of tax			(271,584,665)		10,611,639,823
Total comprehensive income for the year		₩	75,941,598,153	₩	144,246,312,656
Profit is attributable to:					
Owners of the Parent Company			76,651,640,368		133,282,656,331
Profit attributable to owners of the Parent Company			(438,457,550)		352,016,502
			76,213,182,818		133,634,672,833
Total comprehensive income for the year is attributable to:					
Owners of the Parent Company			76,380,055,703		143,894,296,154
Non-controlling interest			(438,457,550)		352,016,502
		₩	75,941,598,153	₩	144,246,312,656
Earnings per share					
attributable to the equity holders of the Parent Company					
Ordinary shares					
Basic earnings per share	32	₩	3,084	₩	5,910
Diluted earning per share	32		3,084		5,578
Preferred shares					
Basic earnings per share	32	₩	4,106	₩	3,377
Diluted earning per share	32		4,106		3,369

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

SK D&D Co., Ltd. and its subsidiaries Consolidated statements of changes in equity for the years ended December 31, 2022 and 2021

(in Korean won)	Attributable to owners of the Parent Company												
						Other		Accumulated other					
						components	CC	omprehensive	Retained		N	on-controlling	Total
	Share cap	tal		Reserves		of equity		income	earnings	Total		interest	equity
Balance at January 1, 2021	₩ 24,190,1	4,000	₩	290,804,582,279	₩	6,389,493,981	₩	(10,963,876,785)	₩ 213,976,327,749	₩ 524,396,691,224	₩	7,075,057,217	₩ 531,471,748,441
Total comprehensive income													
Profit for the year		-		-		-		-	133,282,656,331	133,282,656,331		352,016,502	133,634,672,833
Gain on valuation of derivative financial instruments		-		-		-		905,347,184	-	905,347,184		-	905,347,184
Share of other comprehensive loss of associates		-		-		-		10,172,479,244	-	10,172,479,244		-	10,172,479,244
Remeasurements of net defined benefit liability		-		<u>-</u>				<u>-</u>	(466,186,605)	(466,186,605)		<u>-</u>	(466,186,605)
Total comprehensive income for the year		-		<u>-</u>				11,077,826,428	132,816,469,726	143,894,296,154		352,016,502	144,246,312,656
Transactions with owners recognized directly in equity													
Annual dividends		-		-		-		-	(16,708,114,400)	(16,708,114,400)		-	(16,708,114,400)
Other transactions		-		-		-		-	(1,996,782,106)	(1,996,782,106)		(7,427,073,719)	(9,423,855,825)
Share of other comprehensive loss of associates				<u>-</u>		(10,330,043,120)				(10,330,043,120)		<u>-</u>	(10,330,043,120)
Total transactions with owners recognized directly in equity		-		-		(10,330,043,120)		-	(18,704,896,506)	(29,034,939,626)		(7,427,073,719)	(36,462,013,345)
Balance at December 31, 2021	₩ 24,190,1	4,000	₩	290,804,582,279	₩	(3,940,549,139)	₩	113,949,643	₩ 328,087,900,969	₩ 639,256,047,752	₩	<u> </u>	₩ 639,256,047,752
Balance at January 1, 2022	₩ 24,190,1	4,000	₩	290,804,582,279	₩	(3,940,549,139)	₩	113,949,643	₩ 328,087,900,969	₩ 639,256,047,752	₩	-	₩ 639,256,047,752
Total comprehensive income (loss)													
Profit (loss) for the year		-		-		-		-	76,651,640,368	76,651,640,368		(438,457,550)	76,213,182,818
Gain on valuation of derivative financial instruments		-		-		-		950,056,727	-	950,056,727		-	950,056,727
Gain on valuation of financial assets at fair value through other comprehensive income		-		-		-		6,913,154	-	6,913,154		-	6,913,154
Remeasurements of net defined benefit liability		-		-		-		-	(1,228,554,546)	(1,228,554,546)		-	(1,228,554,546)
Total comprehensive income (loss) for the year			_			-		956,969,881	75,423,085,822	76,380,055,703		(438,457,550)	75,941,598,153
Transactions with owners recognized directly in equity													
Share of other comprehensive income of associates		-		-		8,528,146,357		-	-	8,528,146,357		-	8,528,146,357
Other transactions		-		-		- · · · · · -		-	1,401,488,274	1,401,488,274		438,457,550	1,839,945,824
Annual and interim dividends		-		-		-		-	(29,471,428,800)	(29,471,428,800)		-	(29,471,428,800)
Share options		-		-		971,949,997		-	-	971,949,997		-	971,949,997
Total transactions with owners recognized directly in equity				-		9,500,096,354		-	(28,069,940,526)	(18,569,844,172)		438,457,550	(18,131,386,622)
Balance at December 31, 2022	₩ 24,190,1	4,000	₩	290,804,582,279	₩	5,559,547,215	₩	1,070,919,524	₩ 375,441,046,265	₩ 697,066,259,283	₩	-	₩ 697,066,259,283

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

SK D&D Co., Ltd. and its subsidiaries

Consolidated statements of cash flows for the years ended December 31, 2022 and 2021

(in Korean won)	Notes	2022	2021
Cash flows from operating activities			
Cash generated from (used in) operations			
Profit for the year		₩ 76,213,182,818	₩ 133,634,672,833
Adjustments	33,37	20,477,812,905	34,555,562,469
Change in operating assets and liabilities	33,37	(36,807,603,807)	(181,542,643,843)
		59,883,391,916	(13,352,408,541)
Dividends received		5,180,065,306	72,117,566,407
Interest received		5,708,685,961	3,850,627,396
Interest paid		(54,346,888,877)	(37,262,476,289)
Income taxes paid		(54,704,840,414)	(45,033,697,262)
Net cash used in (provided by) operating activities		(38,279,586,108)	(19,680,388,289)
Cash flows from investing activities	37		
Proceeds from disposal of short-term financial instruments		1,717,421,456,986	1,151,656,239,053
Payments for acquisition of short-term financial instruments		(1,692,201,534,001)	(1,173,724,423,023)
Proceeds from disposal of long-term financial instruments		364,629,229,641	771,314,329,464
Payments for acquisition of long-term financial instruments		(378,044,866,183)	(776,015,353,462)
Payments for acquisition of investments in joint ventures		(26,100,040,000)	(18,487,100,000)
Payments for acquisition of investments in associates		(14,248,792,131)	(36,000,918,374)
Decrease in short-term loans		19,267,808,962	42,329,286,435
Increase in short-term loans		(3,543,300,000)	(32,013,854,217)
Decrease in current portion of long-term loans		1,204,992,000	15,326,822,125
Increase in current portion of long-term loans		(1,000,000,000)	· · · · -
Decrease in long-term loans		7,555,118,826	178,068,950
Increase in long-term loans		(3,048,333,332)	(9,420,612,540)
Proceeds from disposal of property, plant and equipment		156,607,158,154	9,198,114,329
Payments for acquisition of property, plant and equipment		(87,765,711,270)	(50,125,116,326)
Payments for acquisition of intangible assets		(286,987,221)	(331,007,343)
Proceeds from disposal of financial assets at fair value through profit or loss		5,843,607,833	10,998,229,391
Payments for acquisition of financial assets at fair value through profit or loss		(8,785,977,728)	(11,000,000,000)
Proceeds from disposal of financial assets at fair value through other comprehensive income		5,000,000	· · · · · · · · · · · · · · · · · · ·
Net cash used in (provided by) from investing activities		57,508,830,536	(106,117,295,538)
Cash flows from financing activities			
Proceeds from short-term borrowings		1,200,000,000	76,009,160,101
Repayments of short-term borrowings		1,200,000,000	(94,909,160,101)
Proceeds from current portion of long-term borrowings		74,600,000,000	9,900,000,000
Repayments of current portion of long-term borrowings		(288,295,655,558)	(271,716,501,836)
Proceeds from long-term borrowings		455,606,400,000	530,371,000,000
Repayments of long-term borrowings		(85,240,000,000)	(53,900,000,000)
Increase in short-term debentures		(00,240,000,000)	30,000,000,000
Repayments of short-term debentures		_	(90,000,000,000)
Repayments of current portion of debentures		(74,704,000,000)	(201,400,000,000)
Increase in non-current debentures		69,790,000,000	174,585,324,960
Dividends paid		(31,813,242,287)	(17,202,011,245)
Decrease in lease liabilities		(5,299,111,988)	(5,333,161,795)
Capital increase with consideration		2,400,000,000	56,000,000,001
Net cash used in (provided by) financing activities		118,244,390,167	142,404,650,085
Not increase in each and each equivalents		137 472 624 505	16 606 066 050
Net increase in cash and cash equivalents		137,473,634,595	16,606,966,258
Effects of exchange rate changes on cash and cash equivalents		24,163,103	(3,771,941,794)
Cash and cash equivalents at the beginning of the financial year Cash and cash equivalents at the end of the year		70,925,668,936 ₩ 208,423,466,634	58,090,644,472 ₩ 70,925,668,936
odon and odon equivalents at the one of the year		200,420,400,034	10,323,000,330

1. General Information

(1) Overview

SK D&D Co., Ltd. (the Parent Company) was established to mainly engage in real estate development on April 27, 2004. The head office is located in Pangyo-ro, Bundang-gu, Seongnam-si, Gyeonggi-do, Republic of Korea.

Meanwhile, the furniture business sector of the Parent Company was transferred to D&D Living Solution Co., Ltd., which is a newly established corporation, through a split-off on January 1, 2022, the split-off date. The entity name of D&D Living Solution Co., Ltd. was changed to D&D Property Solution Co., Ltd. on September 1, 2022.

After stock split and issue of new shares, the share capital of the Parent Company as at December 31, 2022, amounted to \forall 24,190 million (including share capital on preferred shares amounting to \forall 2,000 million, see Note 26), and its major shareholders (including preferred shares) are as follows:

(in shares)	Ordinary	shares	Preferre	d shares
	Number of shares	Percentage of ownership (%)	Number of shares	Percentage of ownership (%)
SK Discovery Co., Ltd. Hahn & Co. Development	7,564,389	34.09	-	-
Holdings Co., Ltd.	5,564,392	25.08	2,000,000	100.00
Do-hyun KIM	6,500	0.03	-	-
National Pension Service	1,261,503	5.68	-	-
Findvalue Asset Management	1,200,000	5.41	-	-
KB Asset Management	1,180,186	5.32	-	-
Treasury shares	640	0.00	-	-
Employee's stock ownership				
association	2,390	0.01	-	-
Others	5,410,164	24.38	-	-
-	22,190,164	100.00	2,000,000	100.00

The above information is prepared based on the shareholders' list as at December 31, 2022, and the number of shares held may differ from those as at the report submission date.

(2) Consolidated Subsidiaries (cont'd)

Details of the consolidated subsidiaries as at December 31, 2022, are as follows:

		Ownership interest held by the Group		
	Location	(%)	Closing month	Main business
D&D INVESTMENT ESSESCO ¹ KORAMCO No.117	Korea Korea	100.00	December 31 December 31	Asset management Sales of electricity
Qualified Investors Private Real Estate Investment Trust	Korea	60.00	December 31	Real estate development
DDIYS832 ² IGIS No.412 Professional	Korea	-	December 31	Real estate development
Investors' Private Placement Real Estate Investment Limited Liab. ³	Korea	21.13	December 31	Real estate development
DDIOS108 D&D Property Solution Co.,	Korea	100.00	December 31	Real estate development Furniture wholesale,
Ltd. (formerly, D&D Living Solution Co., Ltd.) ⁴	Korea	100.00	December 31	development and supply of buildings
Jindo Sanwol Solar Power. Inc. ⁵	Korea	100.00	December 31	Electricity
Uiseong wind⁵	Korea	100.00	December 31	Electricity

¹ The Parent Company does not have any interests in this entity. However, the Parent Company classifies the entity as a subsidiary since it is determined that the Parent Company has a substantial control over the entity based on the fact that the Parent Company is exposed to variable returns associated with activities of ESSESCO.

² Distribution of residual assets has been completed for the year ended December 31, 2022 and it is expected to be liquidated.

³ The percentage of ownership was changed in accordance with the capital increase with consideration subsequent to initial acquisition on June 29, 2021. Although the Parent Company owns less than 50% of ownership, the Parent Company classifies the entity as a subsidiary since it is determined that the Parent Company has a substantial control over the entity based on the fact that the Parent Company is exposed to most of the variable returns of IGIS No.412 Professional Investors' Private Placement Real Estate Investment Limited Liab.

(3) Summarized Financial Information

Summarized financial information for consolidated subsidiaries as at and for the year ended December 31, 2022, is as follows:

(in Korean won)

									Prof	fit (loss) for the
Subsidiary		Assets		Liabilities		Equity		Sales		year
D&D INVESTMENT	₩	28,013,439,343	₩	4,613,187,573	₩	23,400,251,770	₩	9,685,044,601	₩	6,153,198,032
ESSESCO		76,250,409,322		45,519,949,154		30,730,460,168		11,921,082,399		1,236,883,304
KORAMCO No.117 Qualified										
Investors Private Real Estate										
Investment Trust		43,596,924,463		21,744,608,166		21,852,316,297		916,167,742		(922,008,886)
DDIYS832		-		-		-		-		(10,012,760,565)
IGIS No.412 Professional										
Investors' Private Placement										
Real Estate Investment										
Limited Liab.		111,392,073,311		44,411,226,192		66,980,847,119		2,500,000		(1,114,463,944)
DDIOS108		37,840,568,884		33,651,895,852		4,188,673,032		-		(783,210,468)
D&D Property Solution Co.,										
Ltd. (formerly, D&D Living										
Solution Co., Ltd.)		40,586,950,040		15,208,041,957		25,378,908,083		35,103,302,237		3,327,212,371
Uiseong wind		501,173,425		4,856,000		496,317,425		-		(3,682,575)
Jindo Sanwol Solar Power. Inc.		770,488,900		5,833,900		764,655,000		-		(5,345,000)

(4) Changes in Scope for Consolidation (cont'd)

Subsidiaries newly included in the consolidation or excluded from the consolidation for the years ended December 31, 2022 and 2021:

2022					
Subsidiary	Subsidiary Changes in scope				
D&D Property Solution Co., Ltd. (formerly,	Included in the consolidation	Split-off			
D&D Living Solution Co., Ltd.)		•			
Jindo Sanwol Solar Power. Inc.	Included in the consolidation	Newly acquired			
Uiseong wind	Included in the consolidation	Newly acquired			
DDISC49	Excluded from the consolidation	Loss of control			
D&D Property Management Inc.	Excluded from the consolidation	Merged			

⁴ The Parent Company acquired 100% of interests in D&D Living Solution Co., Ltd., which is a newly established corporation, through a split-off of furniture business sector for the year ended December 31, 2022. During the current period, D&D Living Solution Co., Ltd. merged with D&D Property Management Inc. and changed the entity name to D&D Property Solution Co., Ltd (See Note 36).

⁵ The entities were newly acquired for the year ended December 31, 2022.

2021						
Subsidiary	Changes in scope	Reason				
DDIYS832	Included in the consolidation	Control obtained				
IGIS No.412 Professional Investors' Private Placement Real Estate Investment Limited Liab.	Included in the consolidation	Newly acquired				
DDIOS108	Included in the consolidation	Newly acquired				
DDI Beak-Am Logistics REIT Co., Ltd.	Excluded from the consolidation	Loss of control				
IGIS No.133 Professional Investors' Private Placement Real Estate Investment Limited Liab.	Excluded from the consolidation	Liquidated				

Net cash inflow and outflow related to subsidiaries included in the consolidation or excluded from the consolidation for the years ended December 31, 2022 and 2021, are as follows:

(in Korean won)

Name of entity	Classification	2022
D&D Property Solution	Total acquisition consideration	₩ -
Co., Ltd. (formerly, D&D Living Solution Co.,	Cash and cash equivalents held by a subsidiary at the time of acquisition	3,301,227,200
Ltd.) ¹	Net cash inflow	-
	Total proceeds from disposal	-
DDISC49 ²	Cash and cash equivalents held by a subsidiary at the time of disposal	(1,530,245,087)
	Net cash outflow	(1,530,245,087)
	Total proceeds from disposal	-
D&D Property Management Inc. ³	Cash and cash equivalents held by a subsidiary at the time of disposal	4,079,182,224
	Net cash outflow	-

¹ No net cash flows were involved as the shares were acquired with the carrying amount of the net assets transferred to the newly established corporation through a split-off.

² The Parent Company neither paid the acquisition consideration nor received the proceeds from disposal since the control was lost due to capital increase with consideration in the form of third party allocation during the year ended December 31, 2022.

³ No net cash flows were involved since the entity was merged to D&D Property Solution Co., Ltd. (formerly, D&D Living Solution Co., Ltd.) for the year ended December 31, 2022.

(in Korean won) Name of entity	Classification	2021	
	Total proceeds from disposal	₩	-
DDI Beak-Am	Cash and cash equivalents		
Logistics REIT Co., Ltd. ¹	held by a subsidiary at the time of disposal	(71	,001,520)
CO., Ltd.	Net cash outflow	•	,001,520)
DDIYS8321	Total acquisition	(,001,020)
	consideration		-
	Cash and cash equivalents		
	held by a subsidiary at the		
	time of acquisition	336	5,935,262
	Net cash inflow	336	5,935,262

¹ As the percentage of ownership held by the Parent Company was changed through unequal capital increase/reduction for the year ended December 31, 2021, the Parent Company neither paid the acquisition consideration nor received the proceeds from disposal in the process of acquisition and disposal.

(5) Significant Transactions between the Parent Company and its Subsidiaries (collectively referred to as the "Group") (cont'd)

Details of significant transactions of the Group for the years ended December 31, 2022 and 2021, are as follows:

(in Korean won)		2022		2021				
	Revenue and	Expenses and	Disposal of	Revenue and	Expenses and	Disposal of		
	others	others	assets1	others	others	assets1		
D&D Property Management Inc.	₩ 67,092,324	₩ 904,650,801	₩ -	₩ 2,031,099	₩ 1,298,460,814	₩ -		
D&D INVESTMENT	205,081,731	74,000,000	-	-	-	-		
ESSESCO	1,658,822,477	1,194,912,648	-	1,467,612,056	1,087,496,078	-		
DDI Beak-Am Logistics REIT Co.,								
Ltd.	-	-	-	176,675,690	-	-		
DDISC49	88,293,150	-	-	1,205,238,489	-	7,961,987,825		
DDIYS832	-	-	-	119,603,251	-	-		
IGIS No.412 Professional								
Investors' Private Placement								
Real Estate Investment Limited								
Liab.	220,000,000	-	-	-	-	-		
DDIOS108	1,061,550,136	-	28,367,819,580	-	-	-		
D&D Property Solution Co., Ltd. (formerly, D&D Living Solution								
Co., Ltd.)	85,027,560	457,771,302						
	₩ 3,385,867,378	₩ 2,631,334,751	₩ 28,367,819,580	₩ 2,971,160,585	₩ 2,385,956,892	₩ 7,961,987,825		

¹ It includes the amount billed for the amount recorded as advance payment, etc. by the Group in accordance with the transfer agreement.

Outstanding balance of significant receivables and payables of the Group as at December 31, 2022 and 2021, is as follows:

(in Korean won)	202	2	2021		
	Receivables	Payables	Receivables	Payables	
D0DD 1 M	NA /	14/	W 475 700 000	W 407.005.000	
D&D Property Management Inc.	₩ -	₩ -	₩ 175,700,000	₩ 127,265,828	
D&D INVESTMENT	26,650,660	200,000,000	-	-	
ESSESCO	1,945,680,287	365,183,520	1,437,048,572	141,839,082	
DDISC49	-	-	218,481,097	-	
IGIS No.412 Professional Investors' Private Placement					
Real Estate Investment Limited Liab.	11,000,000	-	-	-	
DDIOS108	226,268,493	-	-	-	
D&D Property Solution Co., Ltd. (formerly, D&D Living					
Solution Co., Ltd.)	88,323,710	572,646,265	<u> </u>		
	₩ 2,297,923,150	₩ 1,137,829,785	₩ 1,831,229,669	₩ 269,104,910	

Details of significant fund transactions and other transactions of the Group for the years ended December 31, 2022 and 2021, are as follows:

1) Fund transactions

Details of significant fund transactions of the Group for the years ended December 31, 2022 and 2021, are as follows:

(in Korean won)	2022					
	Begi	nning balance		Loans	Collections	Ending balance
DDISC49 ¹	₩	6,700,000,000	₩	1,200,000,000	₩ (7,900,000,000)	₩ -
DDIOS108		-		3,000,000,000	-	3,000,000,000

¹ If there is a change in the status of a related party due to a change in ownership during the current period, the transactions are prepared based on the time of the change.

(in Korean won)	2021						
	Beginning balance	е		Loans	Collections		Ending balance
DDISC49	₩	-	₩	6,700,000,000	₩	-	₩ 6,700,000,000

2) Other transactions

Details of other transactions of the Group for the years ended December 31, 2022 and 2021, are as follows:

(in Korean won)	202	2	2021		
	Contributions	Collections	Contributions	Collections	
D&D Property Management Inc.	₩ -	₩ -	₩ 7,500,000,000	₩ -	
IGIS No.133 Professional Investors' Private					
Placement Real Estate Investment Limited Liab.	-	-	-	32,700,000,000	
KORAMCO No.117 Qualified Investors Private Real					
Estate Investment Trust	3,600,000,000	-	-	-	
DDI Beak-Am Logistics REIT Co., Ltd.	-	-	4,500,000,000	300,000,000	
DDISC49	-	-	4,500,000,000	-	
DDIYS832	-	2,091,245,266	-	-	
IGIS No.412 Professional Investors' Private					
Placement Real Estate Investment Limited Liab.	-	-	15,000,000,000	-	
DDIOS108	4,500,000,000	-	500,000,000	-	
D&D Property Solution Co., Ltd. (formerly, D&D					
Living Solution Co., Ltd.)	15,896,030,926	-	-	-	
Uiseong wind	500,000,000	-	-	-	
Jindo Sanwol Solar Power. Inc.	770,000,000		<u>-</u>		
	₩ 25,266,030,926	₩ 2,091,245,266	₩ 32,000,000,000	₩ 33,000,000,000	

As the Group determines that it has a contractual obligation to distribute financial assets to non-controlling shareholders of ESSESCO, IGIS No.412 Professional Investors' Private Placement Real Estate Investment Limited Liab. and KORAMCO No.117 Qualified Investors Private Real Estate Investment Trust, the interests and profit or loss of the non-controlling shareholders are recognized as current portion of long-term financial liabilities and long-term financial liabilities.

2. Basis of Preparation of the Consolidated Financial Statements and Significant Accounting Policies (cont'd)

(1) Basis of Preparation

The Group prepares the consolidated financial statements in accordance with International Financial Reporting Standards as adopted by the Republic of Korea ("KIFRS). The accompanying consolidated financial statements have been translated into English from the Korean consolidated financial statements. In the event of any differences in interpreting the financial statements or the independent auditor's report thereon, Korean version, which is used for regulatory reporting purposes, shall prevail.

The principal accounting policies applied in the preparation of these consolidated financial statements are set out below. Except for the changes in accounting policies and impacts on the newly adopted standards and interpretations explained below, the accounting policies applied in preparing the accompanying consolidated financial statements have been applied consistently with the annual consolidated financial statements as at and for the year ended December 31, 2021.

(2) Changes in Accounting Policies and Disclosures

1) Changes in accounting policies

In case where it is necessary to consider unique nature of business or expenses are classified by nature, KIFRS 1001 *Presentation of Financial Statements* allows to separately present the operating profit (or operating loss), which is operating revenue less operating expenses, without being presented as operating profit, which is revenues less cost of sales less selling and administrative expenses, in the consolidated statement of comprehensive income. The Group includes gain or loss (gain or loss on valuation, gain or loss on disposal and impairment loss) arising from real estate development projects in the manner of indirect investment through acquisition of shares in operating profit or loss during the current period, and at the same` time, the method of presenting operating profit in the consolidated statement of comprehensive income has been changed to present as operating revenue less operating expenses to provide reliable and relevant information for impacts of presentation of financial statements in which characteristics of real estate development and operating business are reflected on the Group's financial position, financial results and cash flows. The Group retrospectively restated the comparative consolidated financial statements by reflecting the effects of changes in accounting policies, and the impacts of these changes on the consolidated financial statements are described in Note 37.

2) New and amended standards and interpretations (cont'd)

The Group applied for the first-time certain standards and amendments, which are effective for annual periods beginning on or after January 1, 2022.

- Amendments to KIFRS 1037 Provisions, Contingent Liabilities and Contingent Assets - Onerous Contracts: Cost of Fulfilling a Contract

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

The amendments specify that when assessing whether a contract is onerous or loss-making, an entity needs to include costs that relate directly to a contract to provide goods or services including both incremental costs (e.g., the costs of direct labour and materials) and an allocation of costs directly related to contract activities (e.g., depreciation of equipment used to fulfil the contract and costs of contract management and supervision). General and administrative costs do not relate directly to a contract and are excluded unless they are explicitly chargeable to the counterparty under the contract.

These amendments had no impact on the consolidated financial statements of the Group as there were no contingent assets, liabilities or contingent liabilities within the scope of these amendments that arose during the period.

- Amendments to KIFRS 1103 Business Combination - Reference to the Conceptual Framework

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

The amendments add an exception to the recognition principle of KIFRS 1103 *Business Combinations* to avoid the issue of potential 'day 2' gains or losses arising for liabilities and contingent liabilities that would be within the scope of KIFRS 1037 *Provisions, Contingent Liabilities and Contingent Assets* or KIFRS 2121 *Levies*, if incurred separately. The exception requires entities to apply the criteria in KIFRS 1037 or KIFRS 2121, respectively, instead of the Conceptual Framework, to determine whether a present obligation exists at the acquisition date.

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

These amendments had no impact on the consolidated financial statements of the Group as there were no contingent assets, liabilities or contingent liabilities within the scope of these amendments that arose during the period.

- Amendments to KIFRS 1016 Property, Plant and Equipment - Proceeds before intended use

The amendment prohibits entities from deducting from the cost of an item of property, plant and equipment, any proceeds of the sale of items produced while bringing that asset to the location and condition necessary for it to be capable of operating in the manner intended by management. Instead, an entity recognizes the proceeds from selling such items, and the costs of producing those items, in profit or loss.

These amendments had no material impact on the financial condition or business performance of the Group.

- KIFRS 1101 First time Adoption of KIFRS - Subsidiaries that are first-time adopters

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

These amendments had no material impact on the financial condition or business performance of the Group.

- KIFRS 1109 Financial Instruments – Fees related to the 10% test for derecognition of financial liabilities

The amendment clarifies the fees that an entity includes when assessing whether the terms of a new or modified financial liability are substantially different from the terms of the original financial liability. These fees include only those paid or received between the borrower and the lender, including fees paid or received by either the borrower or lender on the other's behalf. There is no similar amendment proposed for KIFRS 1039 *Financial Instruments: Recognition and Measurement*.

These amendments had no material impact on the financial condition or business performance of the Group.

3) Standards issued but not yet effective

The new and amended standards and interpretations that are issued, but not yet effective, up to the date of issuance of the Group's consolidated financial statements are disclosed below.

- Amendments to KIFRS 1001 Presentation of Financial Statements - Classification of Liabilities as Current or Non-current

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

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

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

- KIFRS 1012 Income Taxes - Reduction of the Scope of the Initial Recognition Exception Requirements of Deferred Tax

The Board issued amendments to KIFRS 1012, which narrow the scope of the initial recognition exception under KIFRS 1012, so that it no longer applies to transactions that give rise to equal taxable and deductible temporary differences.

The amendments should be applied to transactions that occur on or after the beginning of the earliest comparative period presented. In addition, at the beginning of the earliest comparative period presented, a deferred tax asset (provided that sufficient taxable profit is available) and a deferred tax liability should also be recognized for all deductible and taxable temporary differences associated with leases and decommissioning obligations. The Group is currently assessing the impact of the amendments.

- KIFRS 1008 Accounting Policies, Changes in Accounting Estimates and Errors - Definition of Accounting Estimates

The amendments clarify the distinction between changes in accounting estimates and changes in accounting policies and the correction of errors. Also, they clarify how entities use measurement techniques and inputs to develop accounting estimates.

The amendments are effective for annual reporting periods beginning on or after January 1, 2023 and apply to changes in accounting policies and changes in accounting estimates that occur on or after the start of that period. Earlier application is permitted as long as this fact is disclosed.

The amendments are not expected to have a material impact on the Group's consolidated financial statements.

- KIFRS 1001 Presentation of Financial Statements - Disclosure of Accounting Policies

The amendments aim to help entities provide accounting policy disclosures that are more useful by replacing the requirement for entities to disclose their 'significant' accounting policies with a requirement to disclose their 'material' accounting policies and adding guidance on how entities apply the concept of materiality in making decisions about accounting policy disclosures.

The amendments to KIFRS 1001 are applicable for annual periods beginning on or after January 1, 2023 with earlier application permitted. The Group is currently revisiting their accounting policy information disclosures to ensure consistency with the amended requirements.

(3) Significant Accounting Policies

1) Basis of consolidation

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

- power over the investee;
- exposure, or rights, to variable returns from its involvement with the investee; and
- the ability to use its power over the investee to affect its returns.

The Group re-assesses whether or not it controls an investee if facts and circumstances indicate that there are changes to one or more of the three elements of control.

The Group with less than a majority of the voting rights has rights that are sufficient to give it power when the investor has the practical ability to direct the relevant activities unilaterally. When assessing whether the Group's voting rights are sufficient to give it power, the Group considers all facts and circumstances, including:

- the size of the investor's holding of voting rights relative to the size and dispersion of holdings of the other vote holders;
- potential voting rights held by the investor, other vote holders or other parties;
- rights arising from other contractual arrangements; and
- any additional facts and circumstances that indicate the investor has, or does not have, the current ability to direct the relevant activities at the time that decisions need to be made, including voting patterns at previous shareholders' meetings.

Gain or loss on subsidiaries acquired or disposed of during the year are included in the consolidated statement of comprehensive income from the date the Group gains control until the date when the Group ceases to control the subsidiary. When the proportion of the equity held by non-controlling interests changes, the Group adjust the carrying amounts of the controlling and non-controlling interests to reflect the changes in their relative interests in the subsidiary. The Group attributes total comprehensive income to the owners of the parent and to the non-controlling interests even if this results in the non-controlling interests having a deficit balance.

If a member of the Group uses accounting policies other than those adopted in the consolidated financial statements for like transactions and events in similar circumstances, appropriate adjustments are made to that group member's financial statements in preparing the consolidated financial statements to ensure conformity with the Group's accounting policies.

All intragroup transactions and related assets and liabilities, income and expenses are eliminated in full on consolidation.

Changes in the Group's ownership interests in subsidiaries that do not result in the Group losing control over the subsidiaries are accounted for as equity transactions. The carrying amounts of the Group's interests and the non-controlling interests are adjusted to reflect the changes in their relative interests in the subsidiaries. Any difference between the amount by which the non-controlling interests are adjusted and the fair value of the consideration paid or received is recognized directly in equity and attributed to owners of the Group.

When the Group loses control of a subsidiary, a gain or loss on disposal is calculated as the difference between (i) the aggregate of the fair value of the consideration received and the fair value of any retained interest and (ii) the previous carrying amount of the assets (including goodwill) and liabilities of the subsidiary and any non-controlling interests. When assets of the subsidiary are carried at revalued amounts or fair values and the related cumulative gain or loss has been recognized in other comprehensive income and accumulated in equity, the amounts previously recognized in other comprehensive income and accumulated in equity are accounted for as if the Group had directly disposed of the relevant assets (i.e., reclassified to profit or loss or transferred directly to retained

earnings). The fair value of any investment retained in the former subsidiary at the date when control is lost is recognized as the fair value on initial recognition for subsequent accounting under KIFRS 1109 *Financial Instruments: Recognition and Measurement*, or, when applicable, the cost on initial recognition of an investment in an associate or a joint venture.

2) Investment in associates and joint ventures

Associates are entities over which the Group has significant influence but not control or joint control. Investments in associates are accounted for using the equity method of accounting, after initially being recognized at cost. Unrealized gains on transactions between the Group and its associates are eliminated to the extent of the Group's interest in the associates. If there is an objective evidence of impairment for the investment in the associate, the Group recognizes the difference between the recoverable amount of the associate and its book amount as impairment loss.

A joint arrangement, wherein two or more parties have joint control, is classified as either a joint operation or a joint venture. A joint operator recognizes its direct right to the assets, liabilities, revenues and expenses of joint operations and its share of any jointly held or incurred assets, liabilities, revenues and expenses. Interests in joint ventures are accounted for using the equity method, after initially being recognized at cost in the consolidated statement of financial position. If there is an objective evidence of impairment for the investment in the joint venture, the Group recognizes the difference between the recoverable amount of the joint venture and its book amount as impairment loss.

Under the equity method, changes in net assets of investees are recognized in accordance with sources, and change in the Group's share of its profit or losses in investments accounted for using the equity method are adjusted to profit or loss, and any change in other comprehensive income and other components of equity of those investees is presented as part of the Group's other comprehensive income and other components of equity, respectively. In addition, if investees are able to distribute exceeding its retained earnings under the Special Act (e.g.: the legislation of the Real Estate Investment Company Act), the entire amount of dividends on preferred share is recognized and accounted for in accordance with sources. In relation to this, the Group develops an accounting policy in order to bring consistency in the accounting treatment.

When the Group invests in an indirect investment vehicle, which is a separate legal entity (REITs, REF, PFV, etc.) only for the execution of the relevant real estate development and operation project, classifies it as an investment in an associate or a joint venture, and applies the equity method, any share of profit or loss of associates and joint ventures using the equity method arising from those share investments is classified and recognized as operating profit or loss (operating revenue or operating expenses). Since the real estate development and operation projects mainly realize profits and losses in the form of share deals or asset deals, it is judged that there is no difference between direct and indirect investments, and profit or loss related to the equity method classified as operating profit or loss is not limited to the share of net profit or loss accounted for using the equity method, and the same classification standards are applied to gains and losses on disposal recognized as a result of changes in shares or disposal of shares, or liquidation dividends from the sale of underlying assets, and impairment loss (reversal) due to impairment.

3) Non-current assets held for sale

The Group classifies non-current assets (or disposal group) as held for sale if their carrying amounts will be recovered principally through a sale transaction rather than through continuing use. The criteria for held for sale classification is regarded as met only when the sale is highly probable, and the asset or disposal group is available for immediate sale in its present condition. Management must be committed to the plan to sell the asset and the sale expected to be completed within one year from the date of the classification.

When the Group is committed to a sale plan involving loss of control of a subsidiary, all of the assets and liabilities of that subsidiary are classified as held for sale when the criteria described above are met, regardless of whether the Group will retain a non-controlling interest in its former subsidiary after the sale.

When the Group is committed to a sale plan involving disposal of an investment in an associate or, a portion of an investment in an associate, the investment, or the portion of the investment in the associate that will be disposed of, is classified as held for sale when the criteria described above are met, and the Group ceases to apply the equity method in relation to the portion that is classified a held for sale. Any retained portion of an investment in an associate that has not been classified as held for sale continues to be accounted for using the equity method. Upon loss of significant influence over the associate, the Group discontinues the use of the equity method at the point of sales.

Even after the investment in an associate is sold, unless the equity method continues to be applied to the remaining holding of the investment in the associate, the Group accounts for the remaining investment held in the associate in accordance with KIFRS 1109 *Financial Instruments*.

Non-current assets (or disposal group) classified as held for sale are measured at the lower of their previous carrying amount and the fair value, less costs to sell. When non-current assets (or disposal group) are expected to be disposed of, or liquidation of joint ventures and associates is scheduled, they are excluded from assets held for sale since they do not satisfy the purpose of continuing use.

4) Revenue recognition

The Group measures revenue as the fair value of the consideration received or receivable, stated net of value-added tax, sales returns, sales rebate and sales discount. The Group recognizes revenue when the amount of revenue can be reliably measure, it is probable that future economic benefits will flow into the Group and fulfill the requirements for revenue recognition of the Group listed below.

Construction of real estate for sale

The Group constructs and sells office and residential real estate according to long-term contracts with customers. Such contracts are signed before construction of the real estate begins. According to the contract conditions, transferring the real estate to another customer is restricted and if the Group has the right to claim for enforceable payment with regard to work performed up to that point, revenue incurred from the real estate is recognized based on the percentage-of-completion method (in other words, actual cost to date as a proportion of the estimated total cost). Management has deemed the percentage-of-completion method to be an appropriate method for measuring the progress rate until performance obligations are satisfied in accordance with KIFRS 1115.

Meanwhile, if the Group does not have the right to claim for enforceable payment with regard to work performed up to that point, revenue is recognized at a time when the control for the real estate is transferred to the customer.

The Group has a right to charge customers for the construction of real estate for sale according to the achievement of milestones related to a series of works. When a specific milestone is reached, the relevant statement of work signed by a third-party evaluator is sent and an invoice regarding milestone payments is issued. Contract assets recognized for all previously performed works are reclassified as receivables at the point in which claims are made to customers. If the amount paid for each milestone exceeds the revenue recognized up to that point under the percentage-of-completion method, the Group recognizes the difference as a contract liability. Since the difference between the point of revenue recognition according to the percentage-of-completion method and the point of milestone payment is generally more than one year, it is judged that there is a significant financing component in the construction contract with the customer, and the significant financing component is separated from the transaction price.

The Group pays sales commission in relation to the sales contract of the real estate for sale. When the Group estimates that such incremental cost would be recovered, the incremental cost is capitalized and recognized as expenses at the point in which the control related to the real estate is transferred.

2 Power plant construction

The Group enters into plant construction contracts with customers including design, procurement and construction, such as wind power plants and solar power plants, and fulfills performance obligations over the contract period. The generated revenues are recognized over the period based on the percentage of completion. In these power plant constructions, manufactured main equipment required for operation is delivered from outside suppliers and installed, and there are cases where the cost of main equipment accounts for a high portion of the total projected cost. In this case, a faithful depiction of the Group's performance might be to recognize revenue at an amount equal to the cost of goods used to satisfy a performance obligation if the Group expects that all of the following conditions are met:

- -the goods are not distinct and the customer is expected to obtain control of the goods significantly before receiving services related to the goods in accordance with KIFRS 1115;
- the cost of the transferred goods is significant relative to the total expected costs to completely satisfy the performance obligation; and
- the Group procures the goods from a third party and is not significantly involved in designing and manufacturing the goods.

③ Rental income

The Group recognizes rental income from investment properties and master leases over the lease term based on monthly rental expenses. The rental income of the Group is generated by contract with a certain rental income corresponding to the leased area and rental income that fluctuates in proportion to the business performance of the lessee generated within the leased area. A certain rental income corresponding to the leased area is determined based on the lease contract, and the rental income, which fluctuates in proportion to the lessee's business performance, is determined by a monthly settlement. The Group issues monthly bills for each of the two types of rental income.

4 Sale of merchandises

The Group sells furniture including selling and installing finished furniture. In accordance with KIFRS 1115, the Group identifies distinct performance obligations in contracts with customers and determines whether the respective identified performance obligation is satisfied at a point in time or over a period of time. The Group identifies a good or service that is promised to a customer as a distinct performance obligation if the customer can benefit from the good or service either on its own or together with other resources that are readily available to the customer and the entity's promise to transfer the good or service to the customer is separately identifiable from other promises in the contract. For distinct performance obligations, the Group allocates the transaction price in proportion to those stand-alone selling prices, or if a stand-alone selling price is not directly observable, the Group estimates the stand-alone selling price at an amount that would result in the allocation of the transaction price meeting the allocation objective. Among the EPC contracts in which the Group participates in businesses such as fuel cells, sales of merchandises (supply of main equipment, etc.) that fall under 'P (Procurement)' are identified as performance obligations that are distinct from other promises in the contract, so that a customer can recognize the revenue at the selling price when the customer notifies the product acceptance.

Sale of finished goods

The Group sells electricity produced through wind and solar power generation. Revenues from electricity generation are classified into SMP revenue and REC revenue and the respective supply corresponds to a series of distinct goods or services and accordingly, is identified as a single performance obligation. Control of the finished goods is transferred when the finished goods are delivered to a customer and revenue is recognized at the same time.

6 Rendering of services

Commission income arises from services in various range provided to customers. Revenue from contracts with customer is recognized when control of the services is transferred to the customer at an amount that reflects the consideration to which the Group expects to be entitled in exchange for those services. The revenue from rendering of services is recognized over time by measuring the percentage of completion when the performance of service transactions can be reliably estimated. When the outcome of the transaction involving the rendering of services cannot be estimated reliably, revenue is recognized only to the extent of the expenses recognized that are recoverable.

5) Foreign currency translation

Items included in the financial statements of each of the Group's entities are measured using the currency of the primary economic environment in which each entity operates (the "functional currency"). The consolidated financial statements are presented in Korean won, which is the Parent Company's functional and presentation currency.

In preparing the consolidated financial statements of the Group, transactions in currencies other than the Group's functional currency (foreign currencies) are recognized at the rates of exchange prevailing at the date 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;
- Exchange differences on transactions entered into in order to hedge certain foreign currency risks; and
- Exchange differences on monetary items receivable from or payable to a foreign operation for which settlement is neither planned nor likely to occur (therefore forming part of the net investment in the foreign operation).

These exchange differences are recognized initially in other comprehensive income and reclassified from equity to profit or loss on disposal or partial disposal of the net investment.

6) Borrowing costs

Borrowing costs directly attributable to the acquisition, construction or production of an asset that necessarily takes a substantial period of time to get ready for its intended use or sale are capitalized as part of the cost of the asset.

Investment income earned on the temporary investment of specific borrowings on qualifying assets is deducted from the borrowing costs eligible for capitalization. Other borrowing costs are expensed in the period in which they are incurred.

7) Pension and other post-employment benefits

Contributions to defined contribution plans are recognized as an expense when employees have rendered service that entitles them to the contributions.

For a defined benefit plan, the defined benefit obligation is calculated annually by independent actuaries using the projected unit credit method. Remeasurements, comprising of actuarial gains and losses, the effect of the asset ceiling and the return on plan assets (excluding amounts included in net interest on the net defined benefit liability or asset), are recognized immediately in the statement of financial position with a corresponding debit or credit to retained earnings through other comprehensive income in the period in which they occur. Remeasurements recognized in the consolidated statement of comprehensive income are immediately recognized in retained earnings and are not reclassified to profit or loss in subsequent periods. Past service costs are recognized in profit or loss on the earlier of the date of the plan amendment or curtailment and the date that the Group recognizes related restructuring costs or termination benefits. The Group recognized gains and losses on the settlement of a defined benefit plan when the settlement occurs.

Net interest is calculated by applying the discount rate to the net defined benefit liability or asset. Defined benefit costs are composed of service cost (including current service cost, past service cost as well as gains and losses on curtailments and settlements), net interest expense (income) and remeasurement.

The Group presents the service cost and net interest expense (income) components in profit or loss and the remeasurement component in other comprehensive income. Curtailment gains and losses are accounted for as past service costs.

Net defined benefit assets in the consolidated statement of financial position are limited to the present value of economic benefits available in the form of any future refunds from the plan or reductions in future contributions to the plan.

8) Share-based payments

The cost of equity-settled transactions granted to employees and similar service providers is determined by the fair value at the date when the grant is made. Vesting conditions, other than market conditions, are not taken into account when estimating the fair value of equity instruments. Further details of determination on fair value of equity-settled transactions are given in Note 27.

The fair value of equity-settled share-based payment transactions determined at grant date is expensed on a straight-line basis over the vesting period based on the Group's estimates for equity instruments to be vested. The Group corrects the estimates for the quantity of equity instruments expected to be vested as a result of vesting conditions, other than market conditions, at the end of each reporting period. The effect of corrections to initial estimates is recognized in profit or loss over the remaining vesting period so that corrections are recorded in cumulative costs and reflected in other components of equity.

Equity-settled share-based payment transactions vested to counterparties other than employees are measured at fair value of goods or services provided. However, if the fair value of goods or services provided cannot be reliably estimated, it is measured based on the fair value of equity instruments vested at the date in which goods or services are provided.

Under cash-settled share-based payment plan, a liability for a consideration of goods or services provided is initially recognized at fair value. Until the liability is settled, the Group is required to remeasure the fair value of the liability at the end of each reporting period and at the date of settlement, with any changes in value recognized in profit or loss for the year.

9) Taxes

The tax expense for the period consists of current and deferred tax. Current and deferred tax is recognized in profit or loss, except to the extent that it relates to items recognized in other comprehensive income or directly in equity. In this case, the tax is also recognized in other comprehensive income or directly in equity, respectively.

The current income tax expense is measured at the amount expected to be paid to the taxation authorities, using the tax rates (and tax laws) that have been enacted or substantively enacted by the end of the reporting period.

Management periodically evaluates positions taken in tax returns with respect to situations in which applicable tax regulation is subject to interpretation. The Group recognizes the current income tax expense based on the amount expected to be paid to a taxation authority.

Deferred income tax is provided in full, using the liability method, on temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the consolidated financial statements. However, deferred income tax is not accounted for if it arises from initial recognition of an asset or liability in a transaction other than a business combination that at the time of the transaction affects neither accounting profit nor taxable profit or loss.

Deferred tax assets are recognized only if it is probable that future taxable amounts will be available to utilize those temporary differences and losses.

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

Deferred tax assets and liabilities are offset when there is a legally enforceable right to offset current tax assets and liabilities and when the deferred tax balances relate to the same taxation authority and when the Group intends to settle on a net basis, simultaneously.

10) Property, plant and equipment

Property, plant and equipment is stated at cost, net of accumulated depreciation and accumulated impairment losses, if any. The cost of an item of property, plant and equipment 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, which is an expenditure arising directly from the construction or acquisition of the item of property, plant and equipment, and the initial estimate of the costs of dismantling and removing the item and restoring the site on which it is located.

Subsequent costs are included in the asset's carrying amount or recognized as a separate asset, only when it is probable that future economic benefits associated with the item will flow to the Group and the cost of the item can be measured reliably. The carrying amount of the replaced part is derecognized. All other repairs and maintenance are included in profit or loss during the financial period in which they are incurred

Depreciation of all property, plant and equipment, except for land, is calculated using the straight-line method to allocate their cost or revalued amounts, net of their residual values, over their estimated useful lives as follows:

Useful lives

Buildings, Structures
Machinery
Tools and equipment
Supplies
Others

14 years, 15 years, 20 years, 40 years
7 years, 14 years, 15 years, 20 years
5 years
2 years, 4 years, 5 years, 8 years
5 years, 10 years, 17 years

Each part of an item of property, plant and equipment with a cost that is significant in relation to the total cost of the item is depreciated separately.

The depreciation method, residual value and the useful life of an asset are reviewed at the end of each reporting period and, if changes are considered as appropriate, such changes are treated as changes in accounting estimates.

The carrying amount of an item of property, plant and equipment is derecognized on disposal or when no future economic benefits are expected from its use or disposal. The gain or loss arising from the derecognition of an item of property, plant and equipment is determined as the difference between the net disposal proceeds, if any, and the carrying amount of the item, and included in profit or loss when the item is derecognized.

11) Leases

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

Group as a lessee

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

1)-1) Right-of-use assets

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

Useful lives

Properties	1~20 years
Vehicles	1~3 vears

Unless the Group is reasonably certain to obtain ownership of the leased asset at the end of the lease term, the recognized right-of-use assets are depreciated on a straight-line basis over the shorter of its estimated useful life and the lease term. The right-of-use assets are also subject to impairment.

1)-2) Lease liabilities

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

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

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

1)-3) Short-term leases and leases of low-value assets

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

② Group as a lessor

Leases in which the Group does not transfer substantially all the risks and rewards incidental to ownership of an asset are classified as operating leases. Rental income arising is accounted for on a straight-line basis over the lease terms and is included in operating revenue in the consolidated statement of comprehensive income due to its operating nature.

Initial direct costs incurred in negotiating and arranging an operating lease are added to the carrying amount of the leased asset and recognized over the lease term on the same basis as rental income. Contingent rents are recognized as revenue in the period in which they are earned.

When identifying the classification of the sublease as a finance lease or an operating lease, the Group, as an intermediate lessor, considers the right-of-use asset arising from the head lease in accordance with KIFRS 1116.

12) Investment properties

Investment properties are properties held to earn rentals or for capital appreciation or both. Investment properties are measured initially at cost, including transaction costs. Subsequent to initial recognition, investment properties are measured at depreciated cost (less any accumulated impairment losses).

While land is not depreciated, buildings are depreciated using the straight-line method over 32 years and 40 years as estimated useful lives. In addition, buildings accounted for as investment properties with adoption of KIFRS 1116 *Leases* are depreciated using the straight-line method over the shorter of the lease term and the estimated useful lives.

13) Intangible assets

Separately acquired intangible assets

Separately acquired intangible assets with finite useful lives are carried at cost less any accumulated amortization and accumulated impairment losses. Intangible assets with finite lives are amortized over the useful economic life. The amortization period and the amortization method for an intangible asset with a finite useful life are reviewed at the end of each reporting period. If changes are considered as appropriate, such changes are treated as changes in accounting estimates. Separately acquired intangible assets with indefinite useful lives are carried at cost less accumulated impairment losses.

② Derecognition of intangible assets

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

3 Amortization of intangible assets

Membership rights and other intangible assets with an indefinite useful life are not subject to amortization, and intangible assets other than these are amortized using the straight-line method over the estimated economic useful lives by the following individual asset:

Useful lives

Patents 5 years, 10 years
Trademarks 5 years
Software 5 years

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

The Group assessed, at the end of each reporting period, whether there is an indication that property, plant and equipment and intangible assets other than goodwill may be impaired. If any indication exists, the Group estimates the asset's recoverable amount. The Group estimated the individual asset's recoverable amount. When it is not possible to estimate the recoverable amount of an individual asset, the Group 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; 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, irrespective of whether there is any indication of impairment.

An asset's recoverable amount is the higher of an asset's or CGU's fair value less costs of disposal and its value in use. When the carrying amount of an asset or CGU exceeds its recoverable amount, the asset is considered impaired and is written down to its recoverable amount, and the reduced amount is recognized in profit or loss.

Where an impairment loss subsequently reverses, the carrying amount of the asset (or the 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.

15) Inventories

Inventories are stated at the lower of cost and net realizable value. Cost is determined using the specific identification method. Cost of inventories includes expenditures incurred in acquiring the inventories, production or conversion costs and other costs incurred in bringing them to their existing location and condition. Net realizable value represents the estimated selling price in the ordinary course of business, less all estimated costs of completion and costs necessary to make the sale.

Cost of sales is recognized as a carrying amount of the inventories in the period they are sold, and the amount of any write-down of inventories to net realizable value and all losses of inventories are recognized as expenses when occurred. In addition, the amount of any reversal of any write-down of inventories, arising from an increase in net realizable value, is recognized as a reduction in the amount of inventories recognized as an expense in the period in which the reversal occurs.

16) Provisions

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

The amount recognized as a provision is the best estimate of the consideration required to settle the present obligation at the end of the reporting period, taking into account the risks and uncertainties surrounding the obligation. When a provision is measured using the cash flows estimated to settle the present obligation, its carrying amount is the present value of those cash flows (where the effect of the time value of money is material). The discount rate used is a pretax rate that reflects current market assessments of the time value of money and the risks specific to the liability. Where discounting is used, the increase in the provision due to the passage is recognized in profit or loss within finance costs.

When some or all of the expenditure required to settle a provision are expected to be recovered from a third party, a receivable is recognized as an asset if it is virtually certain that reimbursement will be received and the amount of the receivable can be measured reliably.

At the end of each reporting period, the remaining provision balance is reviewed and assessed to determine if the current best estimate is being recognized. If the existence of an obligation to transfer economic benefit is no longer probable, the related provision is reversed during the period.

17) Financial instruments

Financial assets and financial liabilities are recognized in the consolidated statement of financial position when, and only when, the Group becomes a party to their contractual provisions. Financial assets and financial liabilities are measured at fair value at initial recognition. Transaction costs that are directly attributable to the acquisition of financial assets and issue of financial liabilities are deducted from or added to the fair value of the financial assets or financial liabilities, as appropriate, at initial recognition. Transaction costs that are directly attributable to the acquisition of financial assets at fair value through profit or loss or issue of financial liabilities at fair value through profit or loss are recognized immediately in profit or loss.

18) Financial assets

A regular way purchase or sale of financial assets is recognized and derecognized, as applicable, using trade date accounting. A regular way purchase or sale of a financial asset represents a contract whose terms require delivery of the asset within the time frame established generally by regulation or convention in the marketplace concerned.

All financial assets recognized are subsequently measured at amortized cost or fair value according to the classification of financial assets.

(1) Classification of financial assets

A debt instrument is measured at amortized cost if both of the following conditions are met:

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

A debt instrument is measured at fair value through other comprehensive income if both of the following conditions are met:

- The financial asset is held within a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets and
- The contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

All other financial assets are subsequently measured at fair value through profit or loss.

Nevertheless, the Group may make the following irrevocable choices or designations at the time of initial recognition of financial assets.

- The Group may irrevocably elect to present subsequent changes in fair value of an equity investment in other comprehensive income if certain criteria are met (see (①-3) below).

- The Group 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 (1)-4) below).

1)-1) Amortized cost and effective interest rate method

The effective interest method is a method of calculating the amortized cost of a debt instrument and 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 ECLs, 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 ECLs, 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 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 the financial asset before adjusting for 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. For financial assets that have subsequently become 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 Group 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 "finance income " line item.

①-2) A debt instrument classified as an item at fair value through other comprehensive income

The debt instruments are initially measured at fair value plus transaction costs. Subsequently, changes in the carrying amount of these debt instruments 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 debt instruments had been measured at amortized cost. All other changes in the carrying amount of these debt instruments are recognized in other comprehensive income and accumulated under the heading of investments revaluation reserve. When these debt instruments are derecognized, the cumulative gains or losses previously recognized in other comprehensive income are reclassified to profit or loss.

①-3) An equity instrument designated as an item at fair value through other comprehensive income

On initial recognition, the Group may make an irrevocable election (on an instrument-by-instrument basis) to designate investments in equity instruments 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 a contingent consideration recognized by an acquirer in a business combination.

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 Group manages together and has evidence of a recent actual pattern of short-term profit-taking; or
- it is a derivative (except for a derivative that is a financial guarantee contract or a designated and effective hedging instrument).

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 investments in equity instruments are recognized as finance income in the consolidated statement of comprehensive income when the right of payment has been established, except when the Group benefits from such proceeds as a recovery of part of the cost of the financial asset, in which case, such gains are recorded in other comprehensive income.

1-4) Financial assets at fair value through profit or loss

Financial assets that do not qualify for requirements of measurement at amortized cost or fair value through other comprehensive income are measured at fair value through profit or loss.

- Investments in equity instruments are classified as at fair value through profit or loss, unless the Group 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 (①-3) above).
- Although a debt instrument meets the requirements of items measured at amortized cost or fair value through other comprehensive income, if it is designated as an item measured at fair value through profit or loss, it may be designated as an item measured at fair value through profit or loss at initial recognition in case where the accounting mismatch is eliminated or significantly reduced (see ① above).

Financial assets at fair value through profit or loss are measured at fair value at the end of each reporting period, and gain or loss arising from changes in fair value excluding the portion designated as hedging relationship is recognized in profit or loss. Net gain or loss recognized in profit or loss includes dividends obtained from financial assets and recognized within 'finance income' (See Note 3). Interest income from financial assets at fair value through profit or loss is recognized within 'finance income' (See Note 3). Fair value is determined using the valuation method described in Note 34.

2 Gain or loss on foreign currency translation

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.

- 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 'finance income or costs' line item (see Note 3);
- 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 'finance income or costs' line item. Other exchange differences are 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 'finance income or costs'; 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.

③ Impairment of financial assets

The Group recognizes a loss allowance for ECLs 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 ECLs is updated at each reporting date to reflect changes in credit risk since initial recognition of the respective financial instrument.

The Group always recognizes lifetime ECL for trade receivables, contract assets and lease receivables. The ECLs on these financial assets are estimated using a provision matrix based on the Group'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.

For all other financial instruments, the Group recognizes lifetime ECL when there has been a significant increase in credit risk since initial recognition. However, for credit exposures for which there has not been a significant increase in credit risk since initial recognition, loss allowance is measured at a 12-month ECL.

Lifetime ECL represents the ECLs that will result from all possible default events over the expected life of a financial instrument. 12-month ECLs are the portion of ECLs that result from all default events that are possible within the 12 months after the reporting date.

3-1) Determining significant increases in credit risk

At each reporting date, the Group assesses whether the credit risk on a financial instrument has increased significantly since initial recognition. When making the assessment, the Group compares the risk of a default occurring on the financial instrument as at the reporting date with the risk of a default occurring on the financial instrument as at the date of initial recognition. To make that assessment, the Group considers reasonable and supportable quantitative/qualitative information, including the historical experiences and forward-looking information, that is available without undue cost or effort. The forward-looking information used by the Group includes various external materials in relation to current and future economic information of the Group's main business, as well as the future outlook of industry of the Group's borrowers available from reports of economic experts, financial analysts, governmental institutions, the relevant think tanks and similar institutions.

The Group considers the following matters when assessing whether the credit risk on a financial instrument has increased significantly since initial recognition.

- an actual or expected significant change in the financial instrument's internal and external credit rating(if available);
- significant changes in external market indicators of credit risk for a particular financial instrument Changes in market indicators of credit risk include, but are not limited to: (1) the credit spread,
 (2) a significant increase in the credit default swap prices for the borrower and (3) the length of time or the extent to which the fair value of a financial asset has been less than its amortized cost;

- an actual or expected significant adverse change in the borrower's business performance;
- significant increases in credit risk on other financial instruments of the same borrower; and
- an actual or expected significant adverse change in the regulatory, economic, or technological environment of the borrower that results in a significant change in the borrower's ability to meet its debt obligations.

Regardless of the assessment results, the Group assumes that the credit risk of a financial instrument has increased significantly when the contractual payments are past due for more than 90 days, and recognizes 100% impairment for these past due receivables (however, for pledged receivables, impairment is recognized only for excess of collateral).

Despite of above matters, the Group may assume 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 reporting date. The credit risk on a financial instrument is considered low, if (1) the financial instrument has a low risk of default, (2) the borrower has a strong capacity to meet its contractual cash flow obligations in the near term and (3) the borrower may have a low capacity to meet is contractual cash flow obligations in the long-term due to adverse changes in economic and business environment, but will not necessarily, reduce the ability of the borrower to fulfil its contractual cash flow obligations.

In accordance with the global practices, the Group considers that the financial assets whose external credit rating is higher than 'investment grade' or the Group's internal credit rating is 'normal' (for those not rated by the independent credit rating agencies) to have a low credit risk. 'Normal' rate indicates that the counterparty has a sound financial position and there are no past due amount.

For financial guarantee contracts, the date that the Group becomes a party to the irrevocable commitment shall be considered to be the date of initial recognition for the purposes of applying the impairment requirements. In order to assess whether the credit risk on financial guarantee contracts has increased since initial recognition, the Group considers the changes in risk of the specific borrower's failure to meet its contractual obligation.

The Group regularly reviews the effectiveness of criteria used to determine whether the credit risk on a financial instrument has increased significantly since initial recognition. In addition, the Group modifies such criteria in an appropriate way to ensure the determination of significant increases of credit risk since initial recognition before the criteria become past due.

3-2) Definition of default

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

- When there is a breach of financial covenants by the debtor

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

(3)-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 asset have occurred.

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

- significant financial difficulty of the issuer or borrower;
- a breach of contract, such as default or delinquency in interest or principal payments (see 3)-2) above);
- the Group, for economic or legal reasons relating to the borrower's financial difficulty, granting to the borrower a concession that the Group would not otherwise consider;
- it is probable that the debtor will enter bankruptcy or other financial reorganization; or
- the disappearance of an active market for the financial asset because of financial difficulties.

(3)-4) Write-off policies

The Group 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 more than three years past due, whichever occurs sooner. Financial assets written off may still be subject to enforcement activities under the Group's recovery procedures, taking into account legal advice where appropriate. Any recoveries made are recognized in profit or loss.

3-5) 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 reporting date; for financial guarantee contracts, the exposure includes the amount drawn down at the reporting date, together with any additional amounts expected to be drawn down in the future by default date determined based on historical trend, the Group's understanding of the specific future financing needs of the debtors, and other relevant forward-looking information.

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

For a financial guarantee contract, as the Group 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 Group expects to receive from the holder, the debtor or any other party.

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

The Group 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 consolidated statements of financial position.

19) Financial liabilities and equity instruments

1 Classification of financial liabilities and equity

Debt instruments and equity instruments are allocated into financial liabilities and equity in accordance with the definition of the financial asset and liability.

② 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 Group are recognized at the proceeds received, net of direct issue costs.

When the Group reacquires its own shares, those shares are deducted from equity. No gain or loss is recognized in profit or loss on the purchase, sale, issue or cancellation of an entity's own equity instruments.

3 Compound financial instruments

The convertible bonds are allocated into financial liabilities and equity in accordance with the definition of the financial asset and liability. Convertible option that can be settled by exchanging financial asset, such as fixed amount of cash for the fixed number of treasury shares, is equity instruments.

At the date of issue, the fair value of the liability component is estimated using the prevailing market interest rate for a similar non-convertible instrument. The amount is recognized as liability at amortized cost using effective interest method until extinguishment due to conversion or maturity of the financial instrument.

The conversion option classified as equity is determined by deducting the amount of the liability component from the fair value of the compound instrument as a whole. This is recognized and included in equity, net of income tax effects, and is not subsequently remeasured. In addition, consideration for conversion classified as equity remain in equity until the conversion option is exercised and when the consideration for conversion is exercised, the amount recognized as equity is transferred to share

premium. There is no gain or loss to be recognized as profit or loss when the convertible bonds are converted to equity instruments or extinguished.

Transaction cost in relation to issuance of convertible bond is allocated to liabilities and equity in proportion to total issuance cost. The transaction cost related to equity is directly recognized in equity, and the transaction cost related to liabilities are included in book value and amortized over remaining period of convertible bond in accordance with the effective interest method.

4 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 contingent consideration that may be paid by an acquirer as part of a business combination, or held for trading, or it is designated as at fair value through profit or loss.

A financial liability is classified as held for trading if:

- it has been acquired principally for the purpose of repurchasing in the near term;
- on initial recognition, it is part of a portfolio of identified financial instruments that the Group manages together and has a recent actual pattern of short-term profit taking; or
- 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 that may be paid by an acquirer as part of 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 Group's documented risk management or investment strategy, and information about the grouping is provided internally on that basis; or
- it forms part of a contract containing one or more embedded derivatives, and KIFRS 1109 permits the entire combined contract (asset or liability) 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 (see hedge accounting policy). The net gain or loss recognized in profit or loss incorporates any interest paid on the financial liability and is included in the 'finance costs' line item in consolidated statements of comprehensive income.

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 Group that are designated by the Group as at fair value through profit or loss are recognized in profit or loss.

(5) Financial liabilities at amortized cost

Financial liabilities measured at amortized cost Financial liabilities that are not (a) contingent consideration of an acquirer in a business combination, (b) held-for-trading, or (c) 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 a method of calculating the amortized cost of a financial liability and allocating interest expense over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash payments, 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 through the expected life of the financial liability, or (where appropriate) a shorter period, to the net carrying amount on initial recognition.

6 Financial guarantee liabilities

A financial guarantee contract requires the issuer (the Group) 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 original or modified terms of a debt instrument.

Financial guarantee contract liabilities are initially measured at their fair values and, if not designated as at fair value through profit or loss, are subsequently measured at the higher of:

- the amount of loss allowance, as determined in accordance with KIFRS 1109 (see 'Financial assets' above) or
- the amount initially recognized, less cumulative amortization recognized in accordance with KIFRS 1115.

⑦ 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 'finance income or costs' line item in consolidated statements of comprehensive income for financial liabilities that are not part of a designated hedging relationship(Note 3). For those which are designated as a hedging instrument 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.

® Derecognition of financial liabilities

The Group derecognizes financial liabilities when, and only when, the Group's obligations are discharged, cancelled or have expired. The difference between the carrying amount of the financial liability derecognized and the consideration paid and payable is recognized in profit or loss.

20) Derivative financial instruments

The Group entered into a variety of derivative financial instruments to manage its exposure to interest rate and foreign exchange rate risk, including foreign exchange forward contracts, interest and currency swaps.

Derivatives are initially recognized at fair value at the date the derivative contract is entered into and are subsequently remeasured to their fair value at the end of each reporting period. 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 case, 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 and a derivative with a negative fair value is recognized as a financial liability. 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 expected to be realized or settled within 12 months. Other derivatives are presented as current assets or current liabilities.

Embedded derivatives

Derivatives embedded in non-derivative host contracts are treated as separate derivatives when they meet the definition of a derivative, their risks and characteristics are closely related to those of the host contracts and the contracts are not measured at fair value through profit or loss.

An embedded derivative is presented as a non-current asset or a non-current liability if the remaining maturity of the hybrid instrument to which the embedded derivative relates is more than 12 months and it is not expected to be realized or settled within 12 months. Other embedded derivatives are presented as current assets or current liabilities.

② Hedge accounting

The Group designates certain hedging instruments, which include derivatives, embedded derivatives and non-derivatives in respect of foreign currency risk, as either fair value hedges, cash flow hedges,

or hedges of net investments in foreign operations. Hedges of foreign exchange risk on firm commitments are accounted for as cash flow hedges.

At the inception of the hedging relationship, the Group documents the relationship between the hedging instrument and the hedged item, along with its risk management objectives and its strategy for undertaking various hedge transactions. Furthermore, at the inception of the hedge and on an ongoing basis, the Group documents whether the hedging instrument is highly effective in offsetting changes in fair values or cash flows of the hedged item.

2)-1) Fair value hedges

Changes in the fair value of derivatives that are designated and qualify as fair value hedges are recognized in profit or loss immediately, together with any changes in the fair value of the hedged asset or liability that are attributable to the hedged risk. The change in the fair value of the hedging instrument and the change in the hedged item attributable to the hedged risk are recognized in the line of the consolidated statement of comprehensive income relating to the hedged item.

Hedge accounting is discontinued when the hedging instrument expires or is sold, terminated or exercised or when it no longer qualifies for hedge accounting. The fair value adjustment to the carrying amount of the hedged item arising from the hedged risk is amortized to profit or loss from that date.

(2)-2) Cash flow hedges

The effective portion of changes in the fair value of derivatives that are designated and qualify as cash flow hedges is recognized in other comprehensive income. The gain or loss relating to the ineffective portion is recognized immediately in profit or loss.

Amounts previously recognized in other comprehensive income and accumulated in equity are reclassified to profit or loss in the periods when the hedged item is recognized in profit or loss, in the same line of the statement of comprehensive income as the recognized hedged item. However, when the forecast transaction that is hedged results in the recognition of a non-financial asset or a non-financial liability, the gains and losses previously accumulated in equity are transferred from equity and included in the initial measurement of the cost of the non-financial asset or non-financial liability.

Hedge accounting is discontinued when the hedging instrument expires or is sold, terminated or exercised or it no longer qualifies for hedge accounting. Any gain or loss accumulated in equity at that time remains in equity and is recognized when the forecast transaction is ultimately recognized in profit or loss. When a forecast transaction is no longer expected to occur, the gain or loss accumulated in equity is recognized immediately in profit or loss.

21) Fair value

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date, regardless of whether that price is directly observable or estimated using another valuation technique. In estimating the fair value of an asset or a liability, the Group takes into account the characteristics of the asset or liability at the participants would take those characteristics into account when pricing the asset or liability at the

measurement date. Fair value for measurement and or disclosure purposes in these consolidated financial statements is determined on such a basis, except for share-based payment transactions that are within the scope of KIFRS 1102 *Share-based payment*, that leasing transactions are within the scope of KIFRS 1116 *Leases*, and measurements have some similarities to fair value but are not fair value, such as net realizable value in KIFRS 1002 *Inventories*, or value in use in KIFRS 1036 *Impairment of Assets*.

In addition, for financial reporting purposes, fair value measurements are categorized into Levels 1, 2 or 3 based on the degree to which the inputs to the fair value measurements are observable and the significance of the inputs to the fair value measurement in its entirety.

- 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).
- Unobservable inputs for the asset or liability (Level 3).

(4) Material Judgement and Key Sources of Estimation Uncertainty

In the application of the Group accounting policies, which are described in Note 2, 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.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimate is revised if the revision affects only that period or in the period of the revision and future periods if the revision affects both current and future periods.

The items below are important judgments separate from those related to estimation, which are made by management in the process of applying the Group's accounting policies, and have the most important effect on the amount recognized in the consolidated financial statements.

1) Uncertainty of estimation of total construction revenue and costs

The amount of due from customers is affected by the progress rate measured based on the actual accumulated contract cost generated, and the total construction revenue is estimated based on future estimates. Total contract revenue is measured based on contractual amount initially agreed. However, the contract revenue can be increased by additional contract work and others in the course of construction, or decreased by the penalty when the completion of contract is delayed due to the Group's fault. Therefore, total contract costs and contract revenue are affected by the uncertainty of the result of future events.

2) Significant increase in credit risk

As explained in (3)-18)-③ above, for credit exposures for which there has not been a significant increase in credit risk since initial recognition, loss allowance is measured at a 12-month ECL, and for those credit exposures for which there has been a significant increase in credit risk since initial recognition, or asset has been impaired, a loss allowance is measured at a lifetime ECL. KIFRS 1109 does not define what constitutes a significant increase in credit risk. When assessing whether the credit risk of an asset has increased significantly, the Group considers quantitative and qualitative, reasonable and supportable forward-looking information.

3) Defined benefit plan

The Group's defined benefit obligation is determined based on the actuarial valuation carried out at the end of each annual reporting period. Actuarial assumptions are the Group's best estimates of the variables in determining the cost of providing retirement benefits, such as discount rates, rates of expected future salary increases and mortality rates.

4) Useful lives of property, plant and equipment and intangible assets

Useful lives and depreciation and amortization method of property, plant and equipment and intangible assets are reviewed at the end of each reporting period. It is required to estimate whether it is appropriate to be changed. In these estimation processes, the management's judgments take an important role.

5) Fair value measurement of financial instruments

The Group uses valuation techniques that include inputs that are not based on observable market data to estimate the fair value of certain type of financial instruments. Note 34 provides detailed information about key assumptions used in the determination of the fair value of financial instruments, as well as the detailed sensitivity analysis for these assumptions. The directors believe that the chosen valuation techniques and assumptions used are appropriate in determining the fair value of financial instruments.

6) Leases – estimating the incremental borrowing rate

The Group cannot readily determine the interest rate implicit in the lease, therefore, it uses its incremental borrowing rate (IBR) to measure lease liabilities. The IBR is the rate of interest that the Group would have to pay to borrow over a similar term, and with a similar security, the funds necessary

to obtain an asset of a similar value to the right-of-use asset in a similar economic environment. The IBR therefore reflects what the Group 'would have to pay', which requires estimation when no observable rates are available (such as for subsidiaries that do not enter into financing transactions) or when they need to be adjusted to reflect the terms and conditions of the lease (for example, when leases are not in the subsidiary's functional currency). The Group estimates the IBR using observable inputs (such as market interest rates) when available and is required to make certain entity-specific estimates (such as the subsidiary's stand-alone credit rating).

7) Deferred tax

Recognition and measurement of deferred tax assets and liabilities requires significant management judgment. Especially, when determining if deferred tax assets will be realizable or not in the future, it involves significant management assumptions and judgment on the Group's future performance.

8) Uncertainties of COVID-19 Effect

Changes in uncertainties caused by COVID-19 from 2020 may affect the Group's critical accounting estimates and assumptions and the Group cannot reasonably estimates the ultimate effect on the Group's business, financial position and operation results due to COVID-19.

3. Financial Instruments

Carrying amounts of financial assets by category as at December 31, 2022 and 2021, are as follows:

(in Korean won)	2022									
	Financial assets at amortized cost	Financial assets at fair value through profit or loss	Financial assets at fair value through other comprehensive income	Derivatives designated as hedging	Derivatives not designated as hedging	Total				
Current										
Cash and cash equivalents Short-term financial	₩ 208,423,466,634		₩ -	₩ -	₩ -	₩ 208,423,466,634				
instruments	33,635,998,782	34,777,341,097	=	-	=	68,413,339,879				
Short-term loans Current portion of long-term	11,339,922,100	-	-	-	-	11,339,922,100				
loans	2,983,492,000	-	-	-	-	2,983,492,000				
Trade and other receivables ¹ Derivative financial	51,481,830,762	-	-	-	-	51,481,830,762				
instruments	-	-	-	1,021,954,619	-	1,021,954,619				
Other current financial assets	212,192,722					212,192,722				
	308,076,903,000	34,777,341,097		1,021,954,619		343,876,198,716				
Non-current										
Trade and other receivables ¹ Long-term financial	7	-	-	-	-	7				
instruments	39,566,486,229	-	=	-	-	39,566,486,229				
Long-term investment assets	-	74,283,980,928	3,800,000	-	-	74,287,780,928				
Long-term loans Derivative financial	4,636,953,204	-	-	-	-	4,636,953,204				
instruments Other non-current financial	-	-	-	7,008,991,981	5,289,916,814	12,298,908,795				
assets	5,439,435,145					5,439,435,145				
	49,642,874,585	74,283,980,928	3,800,000	7,008,991,981	5,289,916,814	136,229,564,308				
	₩ 357,719,777,585	₩ 109,061,322,025	₩ 3,800,000	₩ 8,030,946,600	₩ 5,289,916,814	₩ 480,105,763,024				

¹ Lease receivables are excluded from trade and other receivables.

(in Korean won)	2021							
	Financial assets at amortized cost	Financial assets at fair value through profit or loss	Financial assets at fair value through other comprehensive income	Derivatives designated as hedging	Derivatives not designated as hedging	Total		
Current								
Cash and cash equivalents Short-term financial	₩ 70,925,668,936	₩ -	₩ -	₩ -	₩ -	₩ 70,925,668,936		
instruments	54,252,127,772	-	-	-	-	54,252,127,772		
Short-term loans Current portion of long-term	20,364,431,062	-	-	-	-	20,364,431,062		
loans	2,516,492,000	-	-	-	-	2,516,492,000		
Trade and other receivables ¹	38,632,042,387	-	-	-	-	38,632,042,387		
Derivative assets	-	-	-	759,571,857	-	759,571,857		
Other current financial assets	597,764,820					597,764,820		
	187,288,526,977			759,571,857		188,048,098,834		
Non-current								
Trade and other receivables ¹ Long-term financial	45,670,310	-	-	-	-	45,670,310		
instruments	63,662,384,262	-	-	-	-	63,662,384,262		
Long-term investment assets	-	67,876,695,454	8,800,000	-	-	67,885,495,454		
Long-term loans	15,730,289,745	-	-	-	-	15,730,289,745		
Derivative assets Other non-current financial	-	-	-	2,692,273,018	2,977,606,935	5,669,879,953		
assets	5,075,911,123					5,075,911,123		
	84,514,255,440	67,876,695,454	8,800,000	2,692,273,018	2,977,606,935	158,069,630,847		
	₩ 271,802,782,417	₩ 67,876,695,454	₩ 8,800,000	₩ 3,451,844,875	₩ 2,977,606,935	₩ 346,117,729,681		

¹ Lease receivables are excluded from trade and other receivables.

Carrying amounts of financial liabilities by category as at December 31, 2022 and 2021, are as follows:

(in Korean won)	2022									
,	-	inancial liabilities at amortized cost		Derivatives designated as hedging		Derivatives not designated as hedging		Total		
Current										
Trade and other payables ¹	₩	52,698,594,776	₩	-	₩	<i>t</i> -	₩	52,698,594,776		
Short-term borrowings		8,000,000,000		-		-		8,000,000,000		
Current portion of long-term borrowings		254,741,167,671		-		-		254,741,167,671		
Current portion of debentures		74,924,581,109		-		-		74,924,581,109		
Derivative liabilities		-		58,736,783		-		58,736,783		
Other current financial liabilities		8,832,953,342						8,832,953,342		
		399,197,296,898		58,736,783				399,256,033,681		
Non-current										
Trade and other payables ¹		1,967,375,017		-		-		1,967,375,017		
Long-term borrowings		631,044,007,796		-		-		631,044,007,796		
Debentures		250,136,172,342		-		-		250,136,172,342		
Derivative liabilities		-		845,065,641		3,703,000,000		4,548,065,641		
Other non-current financial liabilities		98,084,217,203			. <u>-</u>			98,084,217,203		
		981,231,772,358		845,065,641		3,703,000,000		985,779,837,999		
	₩	1,380,429,069,256	₩	903,802,424	₩	3,703,000,000	₩	1,385,035,871,680		

¹ Lease liabilities are excluded from trade and other payables.

(in Korean won)	2021								
		nancial liabilities at amortized cost		Derivatives not designated as hedging		Total			
Current									
Trade and other payables ¹	₩	40,054,841,888	₩	-	₩	40,054,841,888			
Short-term borrowings Current portion of long-term		46,000,000,000		-		46,000,000,000			
borrowings		242,779,375,113		-		242,779,375,113			
Current portion of debentures		75,417,364,993		-		75,417,364,993			
Other current financial liabilities		2,844,978,144		-		2,844,978,144			
		407,096,560,138				407,096,560,138			
Non-current									
Trade and other payables ¹		62,770,816,335		-		62,770,816,335			
Long-term borrowings		518,218,040,298		-		518,218,040,298			
Debentures		251,574,234,093		-		251,574,234,093			
Derivative liabilities Other non-current financial		-		1,674,000,000		1,674,000,000			
liabilities		11,389,194,975		-		11,389,194,975			
		843,952,285,701		1,674,000,000		845,626,285,701			
	₩	1,251,048,845,839	₩	1,674,000,000	₩	1,252,722,845,839			

¹ Lease liabilities are excluded from trade and other payables.

Details of restricted financial instruments as at December 31, 2022 and 2021, are as follows:

(in Korean won)		2022		2021	Restriction
Short-term financial instruments	₩	33,635,998,782	₩	4,251,827,772	Collateral for borrowings and others
Long-term financial instruments		39,566,486,229		63,662,384,262	Collateral for borrowings and others
	₩	73,202,485,011	₩	67,914,212,034	

Cash and cash equivalents as at December 31, 2022 and 2021, consist of:

(in Korean won)		2022		2021
Ordinary deposits	₩	123,423,466,634	₩	70,925,668,936
Time deposits		85,000,000,000		
	₩	208,423,466,634	₩	70,925,668,936

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

(in Korean won)						20	22					
					F	Profit or loss						Other
		Interest		Dividends		Valuation		Disposal		Exchange differences	C	comprehensive income ¹
Financial assets Financial assets at amortized cost Derivatives designated as	₩	5,109,084,608	₩	-	₩	-	₩	-	₩	506,038,876	₩	-
hedging Derivatives not designated		-		-		421,791,675		247,998,087		-		1,265,735,154
as hedging Financial assets at fair		-		-		2,312,309,879		-		-		-
value through profit or loss		<u> </u>		1,908,158,241		3,541,728,675		1,780,601,529				<u> </u>
	₩	5,109,084,608	₩	1,908,158,241	₩	6,275,830,229	₩	2,028,599,616	₩	506,038,876	₩	1,265,735,154
Financial liabilities Financial liabilities at amortized cost Derivatives designated as	₩ (26,913,196,451)	₩	-	₩	1,707,497,250	₩	-	₩	(5,126,624,421)	₩	-
hedging Derivatives not designated		-		-		(379,501,515)		(256,103,589)		477,699,091		-
as hedging	-	<u> </u>				(2,029,000,000)		-	_			<u> </u>
	₩ (26,913,196,451)	₩		₩	(701,004,265)	₩	(256,103,589)	₩	(4,648,925,330)	₩	

¹ The amounts before applying the tax effect.

(in Korean won)	2021											
					F	Profit or loss					Other	
		Interest		Dividends		Valuation		Disposal		Exchange differences	C	omprehensive income ¹
Financial assets Financial assets at amortized cost Derivatives designated as	₩	4,342,550,677	₩	-	₩	-	₩	-	₩	189,533,372	₩	-
hedging Derivatives not designated		-		-		1,106,466,702		2,435,609,695		5,292,648,473		1,183,460,371
as hedging Financial assets at fair		-		-		2,066,606,935		-		-		-
value through profit or loss		<u>-</u>		1,904,234,667		(8,252,059,038)		5,000,000,000		<u>-</u>		
	₩	4,342,550,677	₩	1,904,234,667	₩	(5,078,985,401)	₩	7,435,609,695	₩	5,482,181,845	₩	1,183,460,371
Financial liabilities Financial liabilities at amortized cost Derivatives designated as	₩ (31,953,352,644)	₩	-	₩	682,881,470	₩	-	₩	(5,496,377,626)	₩	-
hedging Derivatives not designated as hedging		-		-		(1,577,000,000)		(643,510,032)		-		-
	₩ (31,953,352,644)	₩		₩	(894,118,530)	₩	(643,510,032)	₩	(5,496,377,626)	₩	

¹ The amounts before applying the tax effect.

4. Trade and Other Receivables

Trade and other receivables and its provisions for impairment as at December 31, 2022 and 2021, are as follows:

(in Korean won)	2022	2021				
Current						
Trade receivables	₩ 37,168,651,422	₩ 31,103,384,506				
Less: provision for impairment	(700,712,221)	(986,890,523)				
Non-trade receivables	13,348,459,273	6,368,108,794				
Less: provision for impairment	(183,509,585)	(38,584,387)				
Finance lease receivables	1,953,980,351	1,943,750,652				
Accrued income	1,848,941,873	2,186,023,997				
	53,435,811,113	40,575,793,039				
Non-current						
Non-trade receivables	7	45,670,310				
Finance lease receivables	1,593,894,482	3,472,874,401				
	1,593,894,489	3,518,544,711				
	₩ 55,029,705,602	₩ 44,094,337,750				

Movements in the loss allowance provision for trade and other receivables for the years ended December 31, 2022 and 2021, are as follows:

(in Korean won)	2022			2021
Beginning balance	₩	1,025,474,910	₩	1,180,914,202
Additions		199,755,013		396,751,521
Write-off		(40,134,387)		(399,888,628)
Reversal		(300,873,730)		(152,302,185)
Ending balance	₩	884,221,806	₩	1,025,474,910

The aging analysis of trade and other receivables as at December 31, 2022 and 2021, are as follows:

(in Korean won)		2022		2021				
	Trade receivables	Other receivables	Total	Trade receivables	Other receivables	Total		
Pledged receivables ¹ Unpledged receivables ²	₩ 114,231,250	- ∀	₩ 114,231,250	₩ 105,836,158	₩ 5,416,625,053 ₩	5,522,461,211		
Not past due	18,319,466,157	10,446,491,755	28,765,957,912	28,043,075,497	5,056,099,781	33,099,175,278		
1~30 days past due	16,894,975,888	-	16,894,975,888	1,038,608,433	23,170,506	1,061,778,939		
31~90 days past due	449,008,546	5,723,973,921	6,172,982,467	1,064,627,103	1,545,446,027	2,610,073,130		
Past due over 90 days	1,390,969,581	2,574,810,310	3,965,779,891	851,237,315	1,975,086,787	2,826,324,102		

¹ Aging analysis is omitted for pledged receivables in accordance with credit policies.

5. Contract Costs

Details of contract costs as at December 31, 2022 and 2021, are as follows:

(in Korean won)		2022		2021
Costs of obtaining a contract	₩	11,552,867,566	₩	6,426,673,128

Costs of obtaining a contract are the amounts related to sales commission paid to agent as a result of sales contract of real estate including office and others, and these costs are recognized as expenses when the Group has transferred the control related to that real estate to customers. Meanwhile, there is no impairment loss recognized related to capitalized contract costs during the year ended December 31, 2022.

² The Group performs collective credit analysis in accordance with expected credit losses and individual assessment for unpledged receivables.

6. Inventories

Details of inventories as at December 31, 2022 and 2021, are as follows:

(in Korean won)	2022	2021
Buildings	₩ 70,365,605,150	₩ 24,885,768,628
Land	196,719,943,418	190,392,517,909
Less: valuation allowances	(321,674,218)	(321,674,218)
Building lot	535,332,002,121	598,578,687,051
Completed construction	3,864,199,361	3,864,199,361
Less: valuation allowances	(939,534,664)	(939,534,664)
Work in process (construction expenses)	931,938,807	14,273,072,233
Work in process (prepaid construction costs)	27,815,654,678	14,811,283,502
Merchandises	5,906,223,286	1,049,660,827
Less: valuation allowances	(3,625,601)	(10,484,705)
Finished goods	1,899,749,153	2,107,746,578
Less: valuation allowances	-	(224,191,858)
Supplies	970,287,182	956,907,608
Less: valuation allowances	(410,645,738)	(289,975,111)
Goods-in-transit	5,958,953,508	1,307,389,070
	₩ 848,089,076,443	₩ 850,441,372,211

Loss on valuation of inventories and reversal of loss on valuation of inventories amounted to \forall 122,755 thousand (2021: \forall 258,180 thousand) and \forall 228,548 thousand (2021: \forall 422,556 thousand), respectively, during the year ended December 31, 2022. These were included in 'operating expenses' in profit or loss.

The Group capitalized borrowing costs and recognized it as acquisition costs of inventories and others. The accompanying effect to key items of consolidated statement of financial position and consolidated statement of comprehensive income is as follows:

(in Korean won)	2022	2021
Statement of financial position		
Work in process	₩ 19,113,372,609	₩ (1,259,384,639)
Prepaid construction costs	1,683,238,876	1,597,795,067
Construction-in-progress	1,244,580,820	-
Statement of comprehensive income		
Decrease in interest expenses	23,272,542,149	15,966,589,964
Increase in operating expenses	(1,231,349,844)	(15,628,179,536)
Increase in profit before income tax	22,041,192,305	338,410,428

Effective interest rates of specific borrowings and general borrowings to calculate the capitalized amount during the year ended December 31, 2022 are 4.67% and 4.57%, respectively.

7. Other Financial Assets

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

(in Korean won)		2022		2021
Other current financial assets				
Short-term deposits provided	₩	212,192,722	₩	597,764,820
Other current financial assets				
Long-term deposits provided	<u></u>	5,439,435,145		5,075,911,123
	₩	5,651,627,867	₩	5,673,675,943

8. Other Assets

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

(in Korean won)		2022	2021
Other current financial assets			
Advance payments	₩	60,773,525,555	₩ 100,634,169,495
Prepaid expenses		6,674,223,099	7,714,945,009
Prepaid construction costs		3,003,082,155	4,719,281,386
		70,450,830,809	113,068,395,890
Other current financial assets			
Deposits for provision for long-term repairment		2,746,478,658	2,637,810,429
	₩	73,197,309,467	₩ 115,706,206,319

9. Long-term and Short-term Financial Assets

Details of long-term and short-term financial assets as at December 31, 2022 and 2021, are as follows:

(in Korean won)	2022	2021
Current		
Financial assets at amortized cost	₩ 47,959,412,882	₩ 77,133,050,834
Financial assets at fair value through profit or loss	34,777,341,097	_
	82,736,753,979	77,133,050,834
Non-current		
Financial assets at amortized cost	44,203,439,433	79,392,674,007
Financial assets at fair value through profit or loss	74,283,980,928	67,876,695,454
Financial assets at fair value through other		
comprehensive income	3,800,000	8,800,000
	118,491,220,361	147,278,169,461
	₩ 201,227,974,340	₩ 224,411,220,295

Details of financial assets at amortized cost as at December 31, 2022 and 2021, are as follows:

		Interest rate				
(in Korean won)	Details	(%)		2022		2021
Current						
Short-term financial instruments	Deposits and others	0.10 ~ 3.88	₩	33,635,998,782	₩	54,252,127,772
Short-term loans	Business expenses	0 ~ 4.60		11,789,922,100		20,814,431,062
Provision for impairment	Business expenses	-		(450,000,000)		(450,000,000)
Current portion of long-term	Business expenses	0 ~ 4.60		3,678,500,000		3,211,500,000
loans	Housing fund loans	1.00		4,992,000		4,992,000
Provision for impairment	Business expenses	-		(700,000,000)		(700,000,000)
				47,959,412,882		77,133,050,834
Non-current						
Long-term financial instruments	Deposits and others	0.10 ~ 1.30		39,566,486,229		63,662,384,262
Long-term loans	Business expenses	0 ~ 4.60		4,431,211,892		15,505,431,479
	Housing fund loans	1.00		205,741,312		224,858,266
				44,203,439,433		79,392,674,007
			₩	92,162,852,315	₩	156,525,724,841

Details of financial assets at fair value through profit or loss as at December 31, 2022 and 2021, are as follows:

(in Korean won)	Percentage	202	2021	
	of ownership (%)	Acquisition cost	Book amount	Book amount
Current				
MMW(HANA short-term loan Wrap etc)¹	-	₩ 34,688,342,109	₩ 34,777,341,097	₩ -
Non-current				
Korea Construction Financial Corp.	-	1,362,079,580	1,362,079,580	980,504,580
Korea Specialty Contractor Financial Cooperative	-	901,631,327	901,631,327	850,929,809
Korea Electric Technician Association Corp.	-	6,358,000	6,358,000	6,358,000
IGIS Core Platform Professional Investors Private Placement	2.27	4,982,913,460	3,344,000,000	3,682,000,000
Real Estate Fund No.1		00 000 000 000	45 050 000 500	45 074 000 000
Uljin Wind Power Co.,Ltd. ² Hanwha ESS Private Special	-	26,000,000,000	15,652,668,586	15,671,000,000
Asset Investment Trust Security No. 1	-	4,430,996,453	4,430,996,453	5,274,604,286
Eumsung Ecopark Co.,Ltd ³	_	_	_	950,000
Cheongju Eco Park Co.,Ltd.	19.00	950,000	950,000	950,000
Daesowon Ecopark Co.,Ltd	19.00	950,000	950,000	950,000
IGIS No.222 Professional	19.00	930,000	930,000	930,000
Investors' Private Real Estate Investment Company	13.52	15,000,000,000	15,000,000,000	15,000,000,000
FASSTO ⁴	-	-	-	5,000,000,000
Semicolon Mullae REIT CO.,LTD.	8.53	20,100,800,000	22,480,000,000	20,508,000,000
Seongnam Sujeong Korean	0.00	_0,:00,000,000	,,,	_0,000,000,000
Federation of Community Credit Cooperatives	-	100,000	100,000	-
KORAMCO No.135 General Type Private Real Estate	12.18	6,175,000,000	8,041,438,126	-
Investment Trust KORAMCO No.145 General				
Type Private Real Estate Investment Trust	8.57	300,000,000	300,000,000	-
AQARA KOREA CO., LTD.	0.51	500,001,210	500,001,210	-
Murex Wave No.3 Fund	-	1,000,000,000	1,000,000,000	-
IGIS No.61 Professional				
Investors' Private Placement Real Estate Investment Limited Liab.	0.13	300,000,000	350,823,566	349,448,779
DDI Residential Parent REIT Co.,Ltd.	1.54	929,600,000	911,984,080	551,000,000
		81,991,380,030	74,283,980,928	67,876,695,454
		₩ 116,679,722,139		₩ 67,876,695,454
		-,,,	, · , , ·	- ,,,.0.

Details of financial assets at fair value through other comprehensive income as at December 31, 2022 and 2021, are as follows:

(in Korean won)	Percentage		20)22		2021	
	of ownership (%)	•		Book amount		Book amount	
FIRSTIGE REITS CO.,LTD.	16.20	₩	360,000,000	₩	-	₩	-
Hwaseong Jungnam Industrial Complex Development Co.,Ltd. ¹	-		-		-		5,000,000
Uljin Wind Power Co.,Ltd.	19.00		161,500,000		-		-
Kohan Wind Power Co., Ltd.	19.00		3,800,000		3,800,000		3,800,000
		₩	525,300,000	₩	3,800,000	₩	8,800,000

¹ It was disposed of during the year ended December 31, 2022.

Changes in long-term and short-term financial assets for the years ended December 31, 2022 and 2021, are as follows:

(in Korean won)	2022						
	Beginning balance	Acquisition	Disposal ¹	Valuation	Transfer ²	Ending balance	
Current Financial assets at amortized cost Financial assets at fair value through profit or	₩ 77,133,050,834	₩ 560,953,685,309	₩ (579,310,849,836)	₩ -	₩ (10,816,473,425)	₩ 47,959,412,882	
loss		1,139,688,342,109	(1,155,000,000,000)	88,998,988	50,000,000,000	34,777,341,097	
	77,133,050,834	1,700,642,027,418	(1,734,310,849,836)	88,998,988	39,183,526,575	82,736,753,979	
Non-current Financial assets at amortized cost Financial assets at fair value through profit or	79,392,674,007	379,094,866,183	(375,100,574,182)	-	(39,183,526,575)	44,203,439,433	
loss Financial assets at fair value through other	67,876,695,454	8,785,977,728	(5,843,607,833)	3,452,729,687	12,185,892	74,283,980,928	
comprehensive income	8,800,000		(5,000,000)			3,800,000	
	147,278,169,461	387,880,843,911	(380,949,182,015)	3,452,729,687	(39,171,340,683)	118,491,220,361	
	₩ 224,411,220,295	₩ 2,088,522,871,329	₩ (2,115,260,031,851)	₩ 3,541,728,675	₩ 12,185,892	₩ 201,227,974,340	

¹ As it has been determined that the Group directly hold the component assets of MMW (including CP and others), it was classified as financial assets at fair value through profit or loss.

² Debt securities

³ As the Group acquired joint control over the entity due to changes in percentage of ownership during the year ended December 31, 2022, it was reclassified from financial assets at fair value through profit or loss to investments in joint ventures.

⁴ Debt securities were early redeemed during the year ended December 31, 2022.

² Reclassification of assets and reclassification to current portion are included.

(in Korean won)	2021						
	Beginning balance	Acquisition	Disposal ¹	Valuation	Transfer ²	Ending balance	
Current Financial assets at amortized cost	₩ 80.702.129.207	₩ 1 20E 742 260 240	₩ (4 200 242 247 642)	₩ -	A 4	₩ 77.133.050.834	
Non-current	₩ 80,702,129,207	₩ 1,205,743,269,240	₩ (1,209,312,347,613)	vv -	√ -	₩ 77,133,050,834	
Financial assets at amortized cost Financial assets at fair value through profit or	67,834,927,480	785,429,310,002	(773,871,563,475)	-	-	79,392,674,007	
loss Financial assets at fair value through other	52,528,083,883	11,000,000,000	(5,998,229,391)	(8,252,059,038)	18,598,900,000	67,876,695,454	
comprehensive income	8,800,000				_	8,800,000	
	120,371,811,363	796,429,310,002	(779,869,792,866)	(8,252,059,038)	18,598,900,000	147,278,169,461	
	₩ 201,073,940,570	₩ 2,002,172,579,242	₩ (1,989,182,140,479)	₩ (8,252,059,038)	₩ 18,598,900,000	₩ 224,411,220,295	

¹ Deductions for loans that form part of its net investment of investments in associates are included (Note 10).

10.Investments in Joint Ventures and Associates

Details of investments in joint ventures and associates as at December 31, 2022 and 2021, are as follows:

(in Korean won)		2022			2021		
	Location	Percentage of ownership (%)		Book amount	Percentage of ownership (%)	E	Book amount
Joint ventures							
KORAMCO No.120 General Type Private Real Estate Investment Trust	Korea	50.00	₩	5,125,207,425	50.00	₩	4,655,392,105
KORAMCO Icheon Baeksa Logistics General Type Private Real Estate Investment Trust	Korea	50.00		4,826,233,525	50.00		4,365,794,555
Tiger Alternative Investment trust No.318 (formerly, IGIS No.318							
Professional Investors' Private Placement Real Estate Investment Limited Liab.)	Korea	50.00		34,719,477,476	50.00		35,353,288,982
DDI YS-40 REIT ¹	Korea	-		-	30.80		9,951,062,480
Cheongju Eco Park Co.,Ltd. ²	Korea	29.00		7,241,396,534	29.00		2,035,267,946
Hanwha Cheongjuecopark private equity 1st(Infrastructure) ²	Korea	48.60		17,769,077,248	48.60		11,961,473,815

¹ Deductions for loans that form part of its net investment of investments in associates are included (Note 10).

² Amounts reclassified from investments in associates to financial assets at fair value through profit or loss due to changes in percentage of ownership during the year ended December 31, 2022 are included.

(in Korean won)	von) 2022		2022	2021			
`	Location	Percentage of ownership (%)	Book amount	Percentage of ownership (%)	Book amount		
Eumsung Ecopark Co.,Ltd. ^{2,3}	Korea	29.00	3,589,364,706	-	-		
Hanwha Eumseongecopark private equity 1st(Infrastructure) ^{2,4}	Korea	49.00	12,937,842,297	-	-		
HHR Real Estate Private Fund No.5 ^{2,4}	Korea	49.59	19,275,452,574	-	-		
Metheus Ilsan Complex Logistics Center PFV Co., Ltd ^{2,4}	Korea	45.00	2,257,207,894	-	-		
PungBaek Wind Farm Corporation ^{2,4}	Korea	37.00	6,733,319,769	-	-		
			114,474,579,448		68,322,279,883		
Associates							
KintexMall Co.,Ltd	Korea	40.00	16,263,924	40.00	16,474,921		
Daegusolar	Korea	26.00	2,553,947,326	26.00	2,099,866,159		
Monaissance	Korea	24.36	940,474,749	22.11	853,422,481		
IGIS No.135 Professional Investors' Private Placement Real Estate Investment Limited Liab.	Korea	35.00	13,151,478,276	35.00	14,122,217,450		
IGIS No.178 Professional Investors' Private Placement Real Estate Investment Limited Liab. ⁵	Korea	-	-	45.00	365,638,112		
DDISY-230 Residential REIT Co.,LTD	Korea	20.00	14,142,275,218	18.87	96,197,525		
DDISS-280 RETAIL REIT CO.,LTD ⁶	Korea	28.62	-	29.06	-		
DDISC-1338 Residential REIT Co.,Ltd	Korea	20.00	9,099,785,386	20.00	9,869,270,828		
DDISC-1339 Residential REIT Co.,Ltd	Korea	20.00	10,097,016,836	17.81	515,944,096		
DDISC-57 Residential REIT Co.,ltd	Korea	20.00	9,042,938,789	12.37	-		
DDI Residential No.1 Subsidiary REIT Co.,Ltd ⁷	Korea	15.10	2,834,530,491	15.10	3,871,428,888		
Hyundai Private Real Estate Investment Trust No. 20	Korea	49.06	4,570,600,550	49.06	12,493,093,974		
Gunpo Mixed Use Development PFV Company ⁸	Korea	29.80	-	29.80	-		
Daehoji Solar Park, Inc.	Korea	28.99	193,395,554	28.99	246,102,630		
FASSTO ⁷	Korea	14.90	13,766,627,003	15.20	6,256,566,818		
Howbuild ⁷	Korea	5.90	3,000,334,860	6.19	2,679,251,501		
D&D Platform REIT Co., Ltd. ⁷	Korea	9.32	28,680,192,938	9.32	29,116,300,938		
Chilgok Ecopark ^{7,9}	Korea	19.00	-	19.00	-		
Gulup Wind Power Development Corp. ⁷	Korea	10.00	2,944,909,986	10.00	3,000,000,000		
DDIVC-1 REIT Co., Ltd.4	Korea	49.00	28,979,805,915	-	-		
DDISC49 ¹⁰	Korea	20.00	499,617,508	-	-		
DDI YS-40 REIT ¹	Korea	20.00	5,608,149,094	-	-		
Korea Space Data ^{4,7}	Korea	5.88	2,007,720,780	-	-		
DDI SSHQ Retail Co., Ltd. ¹¹	Korea	-	-	27.59	2,473,228,801		
DDI LVC Master Real Estate Investment Trust Co., Ltd. 4,12,13	Korea	1.67	703,530,185	-	-		
DDI VC Master Real Estate Investment Trust Co., Ltd. ^{4,12,13}	Korea	2.00	822,106,295	-	-		
			153,655,701,663		88,075,005,122		
			₩ 268,130,281,111		₩ 156,397,285,005		

- ¹ As the Group lost joint control over the entity due to changes in percentage of ownership during the year ended December 31, 2022, it was reclassified from investments in joint ventures to investments in associates.
- ² Although the Group owns less than half of its shares, it was classified as investments in joint ventures as the Group holds equal voting rights for major activities of the entity.
- ³ As the Group acquired joint control over the entity due to changes in percentage of ownership during the year ended December 31, 2022, it was reclassified from financial assets at fair value through profit or loss to investments in joint ventures.
- ⁴ The entity was newly acquired during the year ended December 31, 2022.
- ⁵ The trust contract was cancelled due to termination of trust contract period determined in the contract during the year ended December 31, 2022.
- ⁶ As at December 31, 2022, as the carrying amount became less than zero, the application of the equity method is discontinued. In relation to this, unrecognized changes in equity amount to ₩ 7,090,676,054.
- ⁷ The Group has a right to appoint the member of the Board of Directors.
- ⁸ As at December 31, 2022, as the carrying amount became less than zero, the application of the equity method is discontinued. In relation to this, unrecognized changes in equity amount to ₩ 2,914,559,047, which were deducted from relevant loans that form part of net investment (Note 25).
- ⁹ As at December 31, 2022, as the carrying amount became less than zero, the application of the equity method is discontinued. In relation to this, unrecognized changes in equity amount to ₩ 48,167,227.
- ¹⁰ As the Group lost control over the entity due to changes in percentage of ownership during the year ended December 31, 2022, it was reclassified from investments in subsidiaries to investments in associates.
- ¹¹ The Group had owned the entity through D&D INVESTMENT, a subsidiary of the Group, however, the entity was liquidated during the year ended December 31, 2022.
- ¹² The Group owns the entire shares of the entity through D&D INVESTMENT, a subsidiary of the Group.
- ¹³ The entity was classified as investments in associates as it is determined that the Group has significant influence based on the ability to participate in decision making and others.

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

(in Korean won)	2022								
	Beginning balance	Acquisition	Share of profit (loss)	Share of other comprehensive income	Dividend income	Profit or loss related to equity method (operating) ¹	Others ²	Disposal	Ending balance
Joint ventures KORAMCO No.120 General Type Private Real Estate Investment Trust KORAMCO Icheon Baeksa	₩ 4,655,392,105	₩ - t	~ - ¹	₩ -	₩ -	₩ 469,815,320	₩ - ₩	- +	∜ 5,125,207,425
Logistics General Type Private Real Estate Investment Trust Tiger Alternative Investment trust No.318 (formerly, IGIS No.318 Professional Investors' Private Placement	4,365,794,555	-	-	-	-	460,438,970	-	-	4,826,233,525
Real Estate Investment Limited Liab.)	35,353,288,982	-	-	-	-	(633,811,506)	-	-	34,719,477,476
DDI YS-40 REIT	9,951,062,480	-	-	234,672,263	-	3,828,437,431	(8,464,185,394)	(5,549,986,780)	-
Cheongju Eco Park Co.,Ltd.	2,035,267,946	-	5,206,128,588	-	-	-	-	-	7,241,396,534
Hanwha Cheongjuecopark private equity 1st(Infrastructure)	11,961,473,815	-	5,957,243,434	-	(149,640,001)	-	-	-	17,769,077,248
Eumsung Ecopark Co.,Ltd	-	5,740,180,000	(2,121,815,930)	(29,949,364)	-	-	950,000	-	3,589,364,706
Hanwha Eumseongecopark private equity 1st(Infrastructure)	-	12,474,420,000	551,575,475	-	(88,153,178)	-	_	-	12,937,842,297
HHR Real Estate Private Fund No.5 Metheus Ilsan Complex	-	18,000,000,000	-	-	-	1,275,452,574	-	-	19,275,452,574
Logistics Center PFV Co., Ltd	-	2,700,000,000	-	-	-	(442,792,106)	-	-	2,257,207,894

(in Korean won)					2022				
	Beginning balance	Acquisition	Share of profit (loss)	Share of other comprehensive income	Dividend income	Profit or loss related to equity method (operating)¹	Others ²	Disposal	Ending balance
PungBaek Wind Farm Corporation		7,885,440,000	(1,145,466,891)	(6,653,340)		<u>-</u> _	<u>-</u> _		6,733,319,769
	68,322,279,883	46,800,040,000	8,447,664,676	198,069,559	(237,793,179)	4,957,540,683	(8,463,235,394)	(5,549,986,780)	114,474,579,448
Associates									
KintexMall Co.Ltd	16,474,921	-	(210,997)	-	-	-	-	-	16,263,924
Daegusolar	2,099,866,159	_	694,404,367	-	(240,323,200)	-	-	-	2,553,947,326
Monaissance	853,422,481	-	87,052,268	_	-	-	-	-	940,474,749
IGIS No.135 Professional Investors' Private Placement Real Estate Investment Limited Liab. IGIS No.178 Professional Investors' Private Placement	14,122,217,450	-	-	-		(970,739,174)	-	-	13,151,478,276
Real Estate Investment Limited Liab. DDISY-230 Residential REIT	365,638,112	-	-	23,549,885	-	(106,858,741)	-	(282,329,256)	-
Co.,LTD DDISS-280 RETAIL REIT	96,197,525	15,405,000,000	-	3,735,588,082	-	9,405,489,611	-	(14,500,000,000)	14,142,275,218
CO.,LTD DDISC-1338 Residential	-	-	-	-	-	-	-	-	-
REIT Co.,Ltd DDISC-1339 Residential	9,869,270,828	-	-	-	-	(769,485,442)	-	-	9,099,785,386
REIT Co.,Ltd DDISC-57 Residential REIT	515,944,096	10,670,000,000	-	2,862,723,610	-	5,172,349,130	-	(9,124,000,000)	10,097,016,836
Co.,ltd DDI Residential No.1	-	9,254,662,500	-	2,986,670,197	-	5,131,606,092	-	(8,330,000,000)	9,042,938,789
Subsidiary REIT Co.,Ltd Hyundai Private Real Estate	3,871,428,888	-	-	(60,480,923)	(982,281,778)	5,864,304	-	-	2,834,530,491
Investment Trust No. 20	12,493,093,974	-	-	-	-	(7,922,493,424)	-	-	4,570,600,550
Gunpo Mixed Use	-	-	-	78,421,053	-	(2,992,980,100)	2,914,559,047	-	-

(in Korean won)	2022								
	Beginning balance	Acquisition	Share of profit (loss)	Share of other comprehensive income	Dividend income	Profit or loss related to equity method (operating) ¹	Others ²	Disposal	Ending balance
Development PFV Company									
Daehoji Solar Park, Inc.	246,102,630	-	(52,707,076)	-	-	-	-	-	193,395,554
FASSTO	6,256,566,818	10,661,179,000	(4,173,949,731)	(69,960,154)	-	-	1,092,791,070	-	13,766,627,003
Howbuild	2,679,251,501	-	322,843,334	(1,759,975)	-	-	-	-	3,000,334,860
D&D Platform REIT Co., Ltd.	29,116,300,938	-	704,296,050	671,104,858	(1,811,508,908)	-	-	-	28,680,192,938
Chilgok Ecopark	-	-	-	-	-	-	-	-	-
DDI SSHQ Retail Co., Ltd.	2,473,228,801	-	-	583,826,035	-	5,133,293,969	(1,352,197,055)	(6,838,151,750)	-
Gulup Wind Power Development Corp.	3,000,000,000	-	(55,090,014)	_	-	-	-	-	2,944,909,986
DDIVC-1 REIT Co., Ltd.	-	37,926,000,000	_	(2,506,448)	-	(8,943,687,637)	-	-	28,979,805,915
DDISC49	-	-	-	-	-	(4,500,382,492)	5,000,000,000	-	499,617,508
DDI YS-40 REIT	-	-	-	-	-	(2,856,036,300)	8,464,185,394	-	5,608,149,094
Korea Space Data	-	2,000,213,131	9,739,765	(2,232,116)	-	-	-	-	2,007,720,780
DDI LVC Master Real Estate Investment Trust Co., Ltd. DDI VC No.1 Master Real Estate Investment Trust Co.,	-	736,100,000	(31,262,050)	(1,307,765)	-	-	-	-	703,530,185
Ltd.		851,300,000	(29,193,705)						822,106,295
	88,075,005,122	87,504,454,631	(2,524,077,789)	10,803,636,339	(3,034,113,886)	(4,214,060,204)	16,119,338,456	(39,074,481,006)	153,655,701,663
	₩ 156,397,285,005	₩ 134,304,494,631	₩ 5,923,586,887	₩ 11,001,705,898	₩ (3,271,907,065)	₩ 743,480,479	₩ 7,656,103,062	₩ (44,624,467,786)	₩ 268,130,281,111

¹ It includes share of profit or loss which was classified from other non-operating income (expenses) to operating revenue (expenses) due to changes in policies during the year ended 2022 (Notes 28, 29 and 37).

² It includes acquisition and disposal in accordance with changes in percentage of ownership, and additional recognition of share of loss for loans of investments in associates (Note 10).

(in Korean won)	2021								
	Beginning balance	Acquisition	Share of profit (loss)	Share of other comprehensive income	Dividend income	Profit or loss related to equity method (operating)¹	Others ²	Disposal	Ending balance
Joint ventures KORAMCO No.120 General Type Private Real Estate									
Investment Trust KORAMCO Icheon Baeksa Logistics General Type Private Real Estate	₩ 4,879,491,723	₩ - ₩	√ -	₩ -	₩ -	₩ (224,099,618) ₩	- W		- ₩ 4,655,392,105
Investment Trust IGIS No.318 Professional Investors' Private Placement Real Estate Investment	4,530,736,661	-	-	-	-	(164,942,106)	-		- 4,365,794,555
Limited Liab.	35,663,120,764	-	-	-	-	(309,831,782)	-		- 35,353,288,982
DDI YS-40 REIT	-	11,000,000,000	-	(152,411,320)	-	(1,011,153,611)	114,627,411		- 9,951,062,480
Cheongju Eco Park Co.,Ltd. Hanwha Cheongjuecopark private equity	-	5,856,100,000	(3,736,148,494)	(86,583,560)	-	-	1,900,000		- 2,035,267,946
1st(Infrastructure)		12,631,000,000	(413,466,185)	(228,140,000)	(27,920,000)	<u> </u>	<u> </u>		- 11,961,473,815
	45,073,349,148	29,487,100,000	(4,149,614,679)	(467,134,880)	(27,920,000)	(1,710,027,117)	116,527,411		- 68,322,279,883

(in Korean won) 2021 Profit or loss Share of other related to equity Share of profit method comprehensive Beginning balance Acquisition (loss) income Dividend income (operating)1 Others² Disposal Ending balance Associates KintexMall Co.Ltd 16,487,395 (12,474)16,474,921 Daegusolar 432,417,613 (185,203,200)1,852,651,746 2,099,866,159 Monaissance 865,237,838 (11,815,357)853,422,481 IGIS No.135 Professional Investors' Private Placement Real Estate Investment Limited Liab. 14,811,933,486 (689,716,036) 14,122,217,450 IGIS No.178 Professional Investors' Private Placement Real Estate Investment Limited Liab. 22.405.828.465 1,847,427,963 (69,040,273,828) 75,086,963,412 (29,934,307,900) 365,638,112 DDISY-230 Residential REIT Co.,LTD 2,130,954,961 (1,243,076,923) (791,680,513) 96,197,525 DDISS-280 RETAIL REIT CO.,LTD DDISC-1338 Residential REIT Co..Ltd 1,855,501,088 10,200,000,000 2,180,569,575 6,154,200,165 (10,521,000,000) 9,869,270,828 DDISC-1339 Residential REIT Co.,Ltd 2,292,144,933 (1,070,588,235)(705,612,602) 515,944,096 DDISC-57 Residential REIT Co.,ltd 1,536,689,977 (1,062,028,779)(474,661,198) DDI Residential No.1 Subsidiary REIT Co.,Ltd 4,768,904,579 (715,913,173) (187,426,821) 5,864,303 3,871,428,888 Hyundai Private Real Estate Investment Trust No. 20 14,623,523,610 (2,130,429,636) 12,493,093,974 Gunpo Mixed Use **Development PFV Company** 29,638,595 (2,410,467,656) 2,380,829,061 DDI YS-40 REIT 114,627,411 (114,627,411) DDIYS832 11,658,000,000 (157,387,041) (658,003,800) (10,842,609,159)

(in Korean won)	2021								
	Beginning balance	Acquisition	Share of profit (loss)	Share of other comprehensive income	Dividend income	Profit or loss related to equity method (operating) ¹	Others ²	Disposal	Ending balance
Semicolon Mullae REIT									
CO.,LTD.	4,211,361,699	-	-	(556,739,726)	(282,301,370)	8,395,784,635	(11,768,105,238)	-	-
Daehoji Solar Park, Inc.	310,965,791	-	(64,863,161)	-	-	-	-	-	246,102,630
FASSTO	7,517,380,708	-	(1,334,561,241)	73,747,351	-	-	-	-	6,256,566,818
Howbuild	-	2,999,968,374	(320,716,873)	-	-	-	-	-	2,679,251,501
D&D Platform REIT Co., Ltd.	-	30,000,000,000	539,864,506	(933,357,047)	(490,206,521)	-	-	-	29,116,300,938
Chilgok Ecopark	-	950,000	(950,000)	-	-	-	-	-	-
Gulup Wind Power									
Development Corp.	-	3,000,000,000	-	-	-	-	-	-	3,000,000,000
DDI SSHQ Retail Co., Ltd.	3,950,382,618	<u>-</u> .	<u>-</u>	(680,635,246)	(11,767,958)	(784,750,613)			2,473,228,801
	83,294,214,900	57,858,918,374	(760,636,987)	(2,317,981,281)	(70,197,179,698)	80,997,490,461	(20,344,512,747)	(40,455,307,900)	88,075,005,122
	₩ 128,367,564,048	₩ 87,346,018,374	₩ (4,910,251,666)	₩ (2,785,116,161)	₩ (70,225,099,698)	₩ 79,287,463,344	₩ (20,227,985,336)	₩ (40,455,307,900)	₩ 156,397,285,005

¹ It includes share of profit or loss which was classified from other non-operating income (expenses) to operating revenue (expenses) due to changes in policies during the year ended 2022 (Notes 28, 29 and 37).

² It includes acquisition and disposal in accordance with changes in percentage of ownership, and additional recognition of share of loss for loans of investments in associates (Note 10).

Summarized financial information of associates and joint ventures as at and for the years ended December 31, 2022 and 2021, is as follows:

(in Korean won)	2022						
	Total assets	Total liabilities	Sales	Profit (loss) for the			
	Total assets	Total habilities	Sales	year			
Joint ventures							
KORAMCO No.120 General Type							
Private Real Estate Investment Trust	₩ 48,427,267,496	5 ₩ 37,873,537,908	₩ -	₩ 908,161,060			
KORAMCO Icheon Baeksa Logistics General Type Private Real Estate							
Investment Trust	45,424,338,156	35,766,753,236	-	706,692,129			
Tiger Alternative Investment trust				, ,			
No.318 (formerly, IGIS No.318							
Professional Investors' Private Placement Real Estate Investment							
Limited Liab.)	310,237,559,066	240,623,150,751	-	(1,267,623,012)			
Cheongju Eco Park Co.,Ltd.	152,138,715,192		66,259,729,923	17,318,706,369			
Hanwha Cheongjuecopark private	.02,.00,0,.02		00,200,. 20,020	,٥.٥,. ٥٥,٥٥٥			
equity 1st(Infrastructure)	32,376,771,695	5 10,872,184	-	7,074,833,272			
Eumsung Ecopark Co.,Ltd	144,817,155,352	123,496,777,871	10,526,485,373	1,694,052,639			
Hanwha Eumseongecopark private	00.070.050.04	10.050.440		000 700 000			
equity 1st(Infrastructure) HHR Real Estate Private Fund No.5	26,076,352,314			969,702,202			
Metheus Ilsan Complex Logistics	38,876,120,175	3,957,484	-	2,572,162,691			
Center PFV Co., Ltd	43,909,994,161	38,716,273,972	-	(806,279,811)			
PungBaek Wind Farm Corporation	46,956,932,778			(3,095,856,462)			
Associates				,			
KintexMall Co.Ltd	40,659,809		-	(527,492)			
Daegusolar	13,254,245,466		4,755,482,100	2,914,060,716			
Monaissance	3,948,419,860			43,279,973			
IGIS No.135 Professional Investors'							
Private Placement Real Estate	407 000 000 000		0 -00 4 00-	(2 222 274 222)			
Investment Limited Liab.	137,392,206,387			(2,806,271,296)			
DDISY-230 Residential REIT Co.,LTD	220,619,089,827		7,081,369,800	(6,277,296,669)			
DDISS-280 RETAIL REIT CO.,LTD	76,823,859,463			811,156,070			
DDISC-1338 Residential REIT Co.,Ltd	199,825,065,010	169,134,210,711	7,654,290,788	(3,847,427,209)			
DDISC-1339 Residential REIT Co.,Ltd	184,982,293,493	3 146,272,274,014	6,731,732,018	(2,863,980,818)			
DDISC-57 Residential REIT Co.,ltd	121,548,754,040	93,472,866,691	4,662,543,357	(1,058,618,555)			
DDI Residential No.1 Subsidiary REIT Co.,Ltd	115,868,045,566	6 76,484,455,564	7,182,575,067	1,831,619,077			
Hyundai Private Real Estate	110,000,040,000	70,404,400,004	7,102,070,007	1,001,010,011			
Investment Trust No. 20	25,762,037,683	3,050,702,065	68,448,733	(2,777,079,705)			
Gunpo Mixed Use Development PFV	000 044 000 00		0.000.010.001	(0.450.000.400)			
Company	220,844,202,324		2,990,810,694	(9,153,389,498)			
Daehoji Solar Park, Inc.	2,142,038,252			(181,790,103)			
FASSTO	86,433,894,071			(30,363,516,903)			
Howbuild	2,133,557,115			(6,598,269,978)			
D&D Platform REIT Co., Ltd.	865,257,234,322			7,559,658,127			
Chilgok Ecopark	4,004,231,797	4,008,618,137	-	(5,611,429)			
Gulup Wind Power Development Corp.	20,786,333,477	8,162,250	-	(550,900,138)			
DDIVC-1 REIT Co., Ltd.	119,851,596,149	43,232,654,451	-	(722,631,862)			

(in Korean won)	2022						
				Profit (loss) for the			
	Total assets	Total liabilities	Sales	year			
DDI YS-40 REIT	93,981,981,500	69,225,708,834	-	(1,187,671,772)			
Korea Space Data	3,909,961,479	657,561,978	8,271,826,476	(2,026,016,713)			
DDISC49	61,586,484,752	37,614,201,896	-	(609,812,002)			
DDI LVC Master Real Estate	- ,, - , -	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		(===,==,==,,==,,			
Investment Trust Co., Ltd.	42,256,333,404	44,522,390	-	(1,875,723,066)			
DDI VC Master Real Estate Investment Trust Co., Ltd.	41,825,768,984	720,454,291	-	(1,459,685,307)			
(in Korean won)		202	1				
,				Profit (loss) for			
	Total assets	Total liabilities	Sales	the year			
Joint ventures							
KORAMCO No.120 General Type							
Private Real Estate Investment Trust KORAMCO Icheon Baeksa Logistics General Type Private Real Estate	₩ 17,528,591,322	₩ 8,154,492,373	₩ -	₩ (384,884,498)			
General Type Private Real Estate Investment Trust	15,386,321,372	6,649,614,391	-	(324,766,341)			
IGIS No.318 Professional Investors'	.,,.	-,,- ,		(= , ==,= ,			
Private Placement Real Estate	000 404 000 077	407 500 570 750		(0.40,000,505)			
Investment Limited Liab. DDI YS-40 REIT	268,464,602,077	197,582,570,750	-	(619,663,565)			
	80,152,810,107	60,117,121,054	-	(491,358,961)			
Cheongju Eco Park Co.,Ltd. Hanwha Cheongjuecopark private	138,657,367,953	120,484,884,431	6,454,416,271	(1,707,992,189)			
equity 1st(Infrastructure)	25,420,405,877	10,872,062	-	(413,466,185)			
Associates							
KintexMall Co.Ltd	41,187,301	-	-	(581,186)			
Daegusolar	13,046,491,876	4,970,083,701	3,519,308,632	1,621,051,319			
Monaissance	3,800,360,884	981,684,484	2,326,113,540	(11,951,450)			
IGIS No.135 Professional Investors'							
Private Placement Real Estate Investment Limited Liab.	139,753,816,388	99,404,623,674	2,295,661,932	(1,970,617,247)			
IGIS No.178 Professional Investors'	109,700,010,000	39,404,023,074	2,293,001,932	(1,970,017,247)			
Private Placement Real Estate							
Investment Limited Liab.	864,685,242	52,156,105	442,000,000,000	154,189,339,292			
DDISY-230 Residential REIT Co.,LTD	204,259,124,659	170,646,178,513	-	(752,442,990)			
DDISS-280 RETAIL REIT CO.,LTD	76,033,003,621	50,120,926,208	3,111,924,020	(2,121,833,827)			
DDISC-1338 Residential REIT Co.,Ltd	203,074,872,246	168,536,590,738	599,671,632	(4,362,505,616)			
DDISC-1339 Residential REIT Co.,Ltd	169,389,903,483	139,671,058,422	-	(647,034,590)			
DDISC-57 Residential REIT Co.,ltd	115,820,658,537	83,703,597,693	-	(473,199,814)			
DDI Residential No.1 Subsidiary REIT	440 054 450 070	70 507 004 475	0.007.000.000	4 470 070 404			
Co.,Ltd Hyundai Private Real Estate	116,954,156,878	76,527,804,175	6,807,966,620	1,178,873,481			
Investment Trust No. 20	27,481,841,982	2,016,913,377	680,132,398	(4,342,498,239)			
Gunpo Mixed Use Development PFV							
Company	186,025,071,576	191,887,223,904	-	(7,295,191,197)			
Daehoji Solar Park, Inc.	2,263,119,729	1,414,295,896	-	(223,717,222)			
FASSTO (formerly, FSS CO,.LTD.)	18,940,714,138	16,435,665,507	12,918,553,535	(9,404,027,470)			
Howbuild	5,410,930,772	1,629,533,516	2,292,903,973	(5,405,576,484)			

(in Korean won)	2021								
	Total assets	Total liabilities	Sales	Profit (loss) for the year					
D&D Platform REIT Co., Ltd.	757,741,371,107	431,831,593,413	25,957,472,282	4,648,808,587					
Chilgok Ecopark	3,521,768,778	3,520,543,689	-	(3,671,217)					
Gulup Wind Power Development Corp.	21,329,071,365	-	-	(13,940,864)					
DDI SSHQ Retail Co., Ltd.	40,315,967,683	26,751,224,343	484,053,701	(784,750,606)					

Fair value of investments in associates and joint ventures that has a quoted market price as at December 31, 2022 and 2021, is as follows:

(in Korean won) 2022 2021

Associates

D&D Platform REIT Co., Ltd.

₩ 20,430,000,000 ₩ 32,400,000,000

Meanwhile, the Group performed impairment test on equity-method investments of which the fair value of quoted market price is less than the book amount, and there is no impairment loss recognized during the year ended December 31, 2022.

11. Property, Plant and Equipment

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

(in Korean won)	2022			2021				
		Accumulated			Accumulated			
	Acquisition cost	depreciation	Book amount	Acquisition cost	depreciation	Book amount		
Land	₩ 43,967,945,094	₩ -	₩ 43,967,945,094	₩ 4,572,965,515	₩ -	₩ 4,572,965,515		
Buildings	21,627,186,136	(5,413,990,093)	16,213,196,043	20,000,181,907	(4,286,968,213)	15,713,213,694		
Structures	3,427,760,000	(757,200,548)	2,670,559,452	3,427,760,000	(528,683,214)	2,899,076,786		
Machinery	352,421,876,817	(102,471,615,679)	249,950,261,138	352,176,369,817	(80,338,203,075)	271,838,166,742		
Tools and equipment	24,669,000	(22,682,000)	1,987,000	24,669,000	(21,802,000)	2,867,000		
Supplies	4,046,869,564	(2,126,545,229)	1,920,324,335	3,450,552,823	(1,647,082,601)	1,803,470,222		
Other property, plant and								
equipment	13,949,673,342	(9,238,320,601)	4,711,352,741	13,785,153,795	(7,161,522,594)	6,623,631,201		
Construction-in-progress	40,420,046,504		40,420,046,504	53,112,996,089		53,112,996,089		
	₩ 479,886,026,457	₩ (120,030,354,150)	₩ 359,855,672,307	₩ 450,550,648,946	₩ (93,984,261,697)	₩ 356,566,387,249		

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

(in Korean won)						2022				
	Beginnin balance	-	Acquisition		Transfer ¹	Disposal		Others ²	Depreciation	Ending balance
Land	₩ 4,572,96	5,515	₩ 471,874,828	₩	38,923,104,751	₩ -	₩	-	₩ -	₩ 43,967,945,094
Buildings	15,713,21	3,694	-		1,770,601,687	-		-	(1,270,619,338)	16,213,196,043
Structures	2,899,07	6,786	-		-	-		-	(228,517,334)	2,670,559,452
Machinery	271,838,16	6,742	390,707,000		-	(1,000)		-	(22,278,611,604)	249,950,261,138
Tools and equipment	2,86	7,000	-		-	-		-	(880,000)	1,987,000
Supplies	1,803,47	0,222	222,267,106		529,546,088	(9,377,700)		-	(625,581,381)	1,920,324,335
Other property, plant and					<i>(-,-,-</i>					
equipment Construction-in-	6,623,63	1,201	600,282,365		(84,747,295)	(4,440,000)		-	(2,423,373,530)	4,711,352,741
progress	53,112,99	6,089	94,656,806,874		(62,785,916,323)			(44,563,840,136)		40,420,046,504
	₩ 356,566,38	7,249	₩ 96,341,938,173	₩	(21,647,411,092)	₩ (13,818,700)	₩	(44,563,840,136)	₩ (26,827,583,187)	₩ 359,855,672,307

¹ Amounts transferred to investment properties, intangible assets and non-current assets held for sale are included.

 $^{^{2}}$ Amounts from changes in scope of consolidation during the year ended December 31, 2022 are included.

(in Korean won)			202	2021					
	Beginning balance	e Acquisition	Transfer	Disposal	Depreciation	Ending balance			
Land	₩ 4,844,701,443	3 ₩ 305,213,025	₩ - ₩	₩ (576,948,953)	₩ -	₩ 4,572,965,515			
Buildings	16,857,298,867	7 -	-	-	(1,144,085,173)	15,713,213,694			
Structures	3,127,594,120	-	-	-	(228,517,334)	2,899,076,786			
Machinery	291,388,604,51	1 707,250,000	4,000,000	-	(20,261,687,769)	271,838,166,742			
Tools and equipment	3,747,000		-	-	(880,000)	2,867,000			
Supplies Other property, plant and	2,665,818,219	9 190,741,030	108,017,000	(638,274,704)	(522,831,323)	1,803,470,222			
equipment	7,824,673,258	890,180,868	808,580,000	(355,382,640)	(2,544,420,285)	6,623,631,201			
Construction-in-progress	1,699,749,61	55,552,697,635	(4,139,451,163)	<u> </u>		53,112,996,089			
	₩ 328,412,187,035	<u>₩</u> 57,646,082,558	₩ (3,218,854,163) ₩	₩ (1,570,606,297)	₩ (24,702,421,884)	₩ 356,566,387,249			

12. Investment Properties

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

(in Korean won)	2022							
				Accumulated		Accumulated		_
	Α	cquisition cost		depreciation		impairment		Book amount
Land	₩	74,573,245,678	₩	-	₩	-	₩	74,573,245,678
Buildings		22,608,667,482		(1,883,308,784)		(2,237,534,111)		18,487,824,587
Right-of-use assets		10,338,933,590		(5,026,141,301)		_		5,312,792,289
	₩	107,520,846,750	₩	(6,909,450,085)	₩	(2,237,534,111)	₩	98,373,862,554
(in Korean won)		2021						
	A	Acquisition cost		Accumulated Accumulated depreciation impairment			Book amount	
Land	₩	59,302,195,628	₩	-	₩	_	₩	59,302,195,628
Buildings		21,101,726,387		(1,379,336,154)		(2,237,534,111)		17,484,856,122
Right-of-use assets								
g or doo dood.o		12,189,738,384		(5,130,745,187)		-		7,058,993,197

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

(in Korean won)	2022								
	Beginning balance	Transfer	Effect of re-estimation and others	Disposal and others ¹	Depreciation	Ending balance			
Land	₩ 59,302,195,628	₩ 15,271,050,050	₩ -	₩ -	₩ -	₩ 74,573,245,678			
Buildings	17,484,856,122	1,506,941,095	-	-	(503,972,630)	18,487,824,587			
Right-of-use assets	7,058,993,197		(65,592,316)	(85,932,463)	(1,594,676,129)	5,312,792,289			
	₩ 83,846,044,947	₩ 16,777,991,145	₩ (65,592,316)	₩ (85,932,463)	₩ (2,098,648,759)	₩ 98,373,862,554			

¹ Changes due to new subleases are included.

(in Korean won)	2021									
	Beginning balance	Effect of re-estimation and others	Disposal and others ¹	Depreciation	Ending balance					
Land	₩ 59,302,195,628	₩ -	₩ -	₩ -	₩ 59,302,195,628					
Buildings	18,041,261,284	(77,820,000)	-	(478,585,162)	17,484,856,122					
Right-of-use assets	12,293,195,016	2,614,523,105	(5,495,931,320)	(2,352,793,604)	7,058,993,197					
	₩ 89,636,651,928	₩ 2,536,703,105	₩ (5,495,931,320)	₩ (2,831,378,766)	₩ 83,846,044,947					

¹ Changes due to new subleases are included.

Profit or loss recognized in relation to investment properties for the years ended December 31, 2022 and 2021, is as follows:

(in Korean won)		2022		2021
Rental income from investment properties	₩	2,926,590,527	₩	3,724,839,447
Rental expenses from investment properties		1,984,304,795		1,321,435,177

Fair value of land and buildings recognized as investment properties as at December 31, 2022, is \forall 112,843 million.

13. Intangible Assets

Intangible assets as at December 31, 2022 and 2021, consist of:

(in Korean won)		2022					2021					
				Accumulated			Accumulated					
	Ac	quisition cost		amortization	Book amount		Acquisition cost		amortization		Book amount	
Goodwill	₩	320,657,825	₩	-	₩	320,657,825	₩	324,413,825	₩	-	₩	324,413,825
Patents		30,392,272		(14,613,255)		15,779,017		23,889,000		(16,047,925)		7,841,075
Trademarks		408,883,360		(283,598,439)		125,284,921		407,927,000		(218,782,526)		189,144,474
Membership rights		2,417,391,538		-		2,417,391,538		2,417,391,538		-		2,417,391,538
Software		18,449,342,682		(6,276,667,668)		12,172,675,014		17,504,626,716		(4,409,438,638)		13,095,188,078
Other intangible assets		2,794,478,671				2,794,478,671	_	2,794,478,671				2,794,478,671
	₩	24,421,146,348	₩	(6,574,879,362)	₩	17,846,266,986	₩	23,472,726,750	₩	(4,644,269,089)	₩	18,828,457,661

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

(in Korean won)	2022								
	Beginning balance	Acquisition	Transfer	Disposal	Others ¹	Amortization	Ending balance		
Goodwill	₩ 324,413,825	- +	₩ -	₩ - ₩	∀ (3,756,000)	₩ -	₩ 320,657,825		
Patents	7,841,075	980,364	9,418,908	-	-	(2,461,330)	15,779,017		
Trademarks	189,144,474	956,360	-	-	-	(64,815,913)	125,284,921		
Membership rights	2,417,391,538	-	-	-	=	-	2,417,391,538		
Software Other intangible	13,095,188,078	803,483,344	878,670,000	(47,510,002)	-	(2,557,156,406)	12,172,675,014		
assets	2,794,478,67	<u> </u>	<u> </u>		-		2,794,478,671		
	₩ 18,828,457,66	₩ 805,420,068	₩ 888,088,908	₩ (47,510,002)	∀ (3,756,000)	₩ (2,624,433,649)	₩ 17,846,266,986		

¹ Amounts from changes in scope of consolidation during the year ended December 31, 2022 are included.

(in Korean won)		021				
	Beginning balance	Acquisition	Acquisition Transfer Disposal		Amortization	Ending balance
Goodwill	₩ 324,413,82	5 ₩ -	₩ -	₩ -	₩ -	₩ 324,413,825
Patents	12,413,409	-	-	(1,295,167)	(3,277,167)	7,841,075
Trademarks	255,462,09	2,116,960	-	-	(68,434,576)	189,144,474
Membership rights	2,417,391,538	-	-	-	-	2,417,391,538
Software	11,482,823,110	316,422,000	3,218,854,163	-	(1,922,911,201)	13,095,188,078
Other intangible assets	2,794,478,67	<u> </u>	<u> </u>	-		2,794,478,671
	₩ 17,286,982,649	₩ 318,538,960	₩ 3,218,854,163	₩ (1,295,167)	₩ (1,994,622,944)	₩ 18,828,457,661

The Group performed impairment test on intangible assets with indefinite useful lives and there is no impairment loss recognized during the year ended December 31, 2022.

14. Non-current Assets Held for Sale

Details of non-current assets held for sale as at December 31, 2022, are as follows:

(in Korean won)		2022
Land	₩	3,117,921,993
Buildings		858,708,482
	₩	3,976,630,475

15. Right-of-use Assets and Lease Liabilities

Right-of-use assets as at December 31, 2022 and 2021, consist of:

(in Korean won)		2022		2021					
	Acquisition cost	Accumulated depreciation	Book amount	Acquisition cost	Accumulated depreciation	Book amount			
Land	₩ 6,451,029,356	₩ (1,290,205,872)	₩ 5,160,823,484	₩ 6,451,029,356	₩ (860,137,248) ₩	5,590,892,108			
Buildings	8,201,985,590	(3,356,450,196)	4,845,535,394	6,282,423,525	(3,233,055,548)	3,049,367,977			
Vehicles	1,045,489,076	(527,714,558)	517,774,518	845,032,545	(413,098,225)	431,934,320			
	₩ 15,698,504,022	₩ (5,174,370,626)	₩ 10,524,133,396	₩ 13,578,485,426	₩ (4,506,291,021)	9,072,194,405			

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

(in Korean won)							2022					
						Right-of	-use asset					
									Investment			
		Land		Buildings		Vehicles	Subtotal		properties		Total	Lease liabilities
Beginning balance Effect of	₩	5,590,892,108	₩	3,049,367,977	₩	431,934,320	₩ 9,072,194,405	₩	7,058,993,197	₩	16,131,187,602	₩ 19,949,337,204
re-estimation		-		667,178,835		5,461,624	672,640,459		(65,592,316)		607,048,143	571,417,511
Others		-		(1,125,022,091)		-	(1,125,022,091)		-		(1,125,022,091)	(1,010,556,070)
Acquisition/Increase		-		4,213,822,109		397,359,690	4,611,181,799		-		4,611,181,799	4,216,498,484
Disposal/Redemption		-		-		-	-		(85,932,463)		(85,932,463)	-
Depreciation		(430,068,624)		(1,959,811,436)		(316,981,116)	(2,706,861,176)		(1,594,676,129)		(4,301,537,305)	-
Interest expenses		-		-		-	-		-		-	898,932,176
Lease payment		-		_		-		_	-		_	(6,198,044,164)
Ending balance	₩	5,160,823,484	₩	4,845,535,394	₩	517,774,518	₩ 10,524,133,396	₩	5,312,792,289	₩	15,836,925,685	₩ 18,427,585,141
(in Korean won)	_						2021					
						Right-of	-use asset					
									Investment			
		Land		Buildings		Vehicles	Subtotal		properties		Total	Lease liabilities
Beginning balance Effect of	₩	6,020,960,732	₩	4,396,807,195	₩	411,148,188	₩ 10,828,916,115	₩	12,293,195,016	₩	23,122,111,131	₩ 23,312,613,803
remeasurement		-		32,371,149		(112,002,416)	(79,631,267)		2,614,523,105		2,534,891,838	1,318,113,871
Acquisition/Increase		-		223,717,013		436,242,660	659,959,673		-		659,959,673	652,691,540
Disposal/Redemption		-		-		-	-		(5,495,931,320)		(5,495,931,320)	-
Depreciation		(430,068,624)		(1,603,527,380)		(303,454,112)	(2,337,050,116)		(2,352,793,604)		(4,689,843,720)	-
Interest expenses		-		-		-	-		-		-	979,207,220
Lease payment	_									_		(6,313,289,230)
Ending balance	₩	5,590,892,108	₩	3,049,367,977	₩	431,934,320	₩ 9,072,194,405	₩	7,058,993,197	₩	16,131,187,602	₩ 19,949,337,204

Details of undiscounted contractual redemption plan of lease liabilities related to right-of-use assets of the Group are as follows:

(in Korean won)	Within one year		Between 1 to 4 years		Later than 4 years			Total		
Land	₩	600,000,000	₩	1,800,000,000	₩	4,800,000,000	₩	7,200,000,000		
Buildings		2,348,375,200		2,302,828,400		267,560,000		4,918,763,600		
Vehicles		319,464,700		244,882,742		-		564,347,442		
Investment properties		2,846,556,384		3,529,962,687		1,996,265,336		8,372,784,407		
	₩	6,114,396,284	₩	7,877,673,829	₩	7,063,825,336	₩	21,055,895,449		

The consolidated statement of other comprehensive income shows the following amounts relating to right-of-use assets and lease liabilities:

(in Korean won)		2022		2021		
Revenue						
Interest income of finance lease receivables	₩	165,277,229	₩	178,557,593		
Expenses						
Depreciation of right-of-use assets		4,301,537,305		2,337,050,116		
Interest expenses of lease liabilities		898,932,176		979,207,220		
Lease payments - short-term leases and leases of low-value assets		1,127,321,006		501,932,486		
Net expenses recognized in the consolidated statement of other comprehensive income	₩	6,162,513,258	₩	3,639,632,229		

Details of finance lease receivables as at December 31, 2022 and 2021, are as follows:

(in Korean won)		2022				2021			
		Current	ı	Non-current		Current	ı	Non-current	
Finance lease receivables	₩	1,953,980,351 +	₩	1,593,894,482 ₩	∀	1,943,750,652 ¥	∀	3,472,874,401	

Details of undiscounted contractual maturity analysis of finance lease receivables as at December 31, 2022, are as follows:

(in Korean won)	2022									
	w	ithin one year	В	etween 1 to 5 years		Later than 5 years		Total		
Investment properties	₩	1,953,980,351	₩	1,586,534,521	₩	7,359,961	₩	3,547,874,833		

The future minimum lease payments expected to be received in relation to the non-cancellable operating lease agreement as at December 31, 2022 and 2021, are as follows:

(in Korean won)		2022	2021		
Within one year	₩	438,740,000	₩	491,660,000	
Between 1 and 5 years		7,000,000		109,000,000	
	₩	445,740,000	₩	600,660,000	

16. Construction Contracts

Details of contract assets and liabilities as at December 31, 2022 and 2021, are as follows:

(in Korean won)	2022	2021		
Accumulated costs	₩ 45,860,097,680	₩ 131,173,442,129		
Add: Accumulated profit	15,895,098,393	62,945,361,042		
Accumulated contract revenue	61,755,196,073	194,118,803,171		
Less: progress billings	(114,307,602,748)	(175,315,190,608)		
	(52,552,406,675)	18,803,612,563		
Contract assets and due from customers	₩ -	₩ 18,803,612,563		
Contract liabilities and due to customers	₩ (52,552,406,675)	₩ -		

Regarding contracts in progress as at December 31, 2021 that recognized revenue under stage of completion using the cost-based input method, there are no changes in estimates of total contract revenue and estimated total contract costs and no provision for construction loss during the year ended December 31, 2022.

Contracts those recognizes revenue under stage of completion using the cost-based input method, that contract amount for the year ended December 31, 2022 is more than 5% of previous revenues, are as follows:

(in Korean won)					ts and due from omers		Trade receivables (receivables from construction contracts)		
	Contract date	Contractual completion date	Progress (%)	Total amount	Accumulated impairment loss		Provision for impairment		
Saeng-gag gongjang Dangsan	2020.03.09	2022.07.31	100.00	₩	- ₩	- ₩ 11,280,792,286	₩ -		
Saeng-gag gongjang Guro	2022.04.22	2025.05.22	4.01		-		-		
PungBaek Wind Farm Corporation EPC	2022.06.24	2025.06.25	14.11		-		-		

17. Trade and Other Payables

Details of trade and other payables as at December 31, 2022 and 2021, are as follows:

(in Korean won)		2022		2021		
Current						
Trade payables	₩	6,851,388,823	₩	18,805,909,083		
Non-trade payables		32,203,632,850		15,082,058,052		
Current lease liabilities		4,281,940,299		5,065,184,977		
Accrued expenses		13,643,573,103		6,166,874,753		
		56,980,535,075		45,120,026,865		
Non-current						
Long-term non-trade payables		1,967,375,017		62,770,816,335		
Non-current lease liabilities		14,145,644,842		14,884,152,227		
		16,113,019,859		77,654,968,562		
	₩	73,093,554,934	₩	122,774,995,427		

18. Debentures and Borrowings

Details of debentures and borrowings as at December 31, 2022 and 2021, are as follows:

(in Korean won)	20	22	2021			
	Current	Non-current	Current	Non-current		
Short-term borrowings	₩ 8,000,000,000	₩ -	₩ 46,000,000,000	₩ -		
Long-term borrowings	254,741,167,671	631,044,007,796	242,779,375,113	518,218,040,298		
Debentures	74,924,581,109	250,136,172,342	75,417,364,993	251,574,234,093		
	₩ 337,665,748,780	₩ 881,180,180,138	₩ 364,196,740,106	₩ 769,792,274,391		

Details of short-term borrowings as at December 31, 2022 and 2021, are as follows:

(in Korean won) Creditor	Category	Interest rate (%)		2022		2021
Korea Development Bank and others	General borrowings	3.82	₩	8,000,000,000	₩	46,000,000,000

Details of long-term borrowings as at December 31, 2022 and 2021, are as follows:

(in Korean won) Creditor	Category	Interest rate (%)		2022		2021
Hana Bank and others	General borrowings and others	3.60 ~ 7.70	₩	817,578,382,748	₩	700,214,038,306
Hana Bank ¹	Specific borrowings	3M CD+2.01		27,000,000,000		27,000,000,000
Hana Bank ²	General borrowings	LIBOR 3M+3.41		7,223,610,000		6,757,350,000
Hana Bank ²	General borrowings	SOFR 3M+3.02		38,019,000,000		-
ESSESCO	-	-		-		31,437,540,303
				889,820,992,748		765,408,928,609
Less: discount on borrow	vings			(4,035,817,281)		(4,411,513,198)
Less: current portion				(254,847,916,669)		(243,033,655,558)
Less: current portion of c	discount on borrowings	3		106,748,998		254,280,445
			₩	631,044,007,796	₩	518,218,040,298

¹ The Group has entered into an interest rate swap contract to fix the variable interest rate risk related to Seoungsu Episode PF loans (Notes 22 and 24).

² The Group has entered into a currency swap contract to fix the exchange rate fluctuation risk of borrowings in foreign currency (Notes 22 and 24).

Less: current portion of discount on borrowings

Details of debentures as at December 31, 2022 and 2021, are as follows:

(in Korean won) Issuance **Redemption Stated interest** Category date rate (%) 2022 2021 date 40,000,000,000 2020.08.21 2022.08.21 4.60 ₩ - ₩ Debentures 2020.08.21 2023.08.21 4.90 30,000,000,000 30,000,000,000 2020.10.27 2023.10.27 4.90 45,000,000,000 45,000,000,000 4.50 130,000,000,000 2021.03.12 2024.03.12 130,000,000,000 2025.03.17 2022.03.17 5.00 40,000,000,000 2022.03.28 2025.03.28 5.00 10,000,000,000 2022.07.27 2024.07.26 6.00 20,000,000,000 Less: discount on borrowings (389, 383, 611)(542,728,346)(75,000,000,000)(40,000,000,000) Less: current portion Less: current portion of discount on borrowings 76,759,889 75,418,891 199,686,035,280 204,534,031,543 Debentures in foreign **LIBOR** 35,565,000,000 2019.06.24 2022.06.24 3M+0.95 (USD 30,000,000) currency1 LIBOR 25,346,000,000 23,710,000,000 2021.04.23 2024.04.23 3M+1.00 (USD 20,000,000) (USD 20,000,000) **LIBOR** 25,346,000,000 23,710,000,000 2021.07.29 2024.07.29 3M+0.90 (USD 20,000,000) (USD 20,000,000) Less: discount on borrowings (241,862,938)(450,672,568)Less: current portion (35,565,000,000)

70,875,118

47,040,202,550

251,574,234,093

50,450,137,062

250,136,172,342

¹ The Group has entered into a currency swap contract to fix the interest and exchange rate fluctuation risk exposed in payment of principal and interests of debentures in foreign currency with floating rate (Notes 22 and 24).

19. Post-employment Benefits

The Group operates defined benefit pension plans and also has a defined contribution pension plan for certain employees. The defined benefit obligation is calculated annually by competent and independent actuary using the projected unit credit method.

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

(in Korean won)		2022		2021
Present value of defined benefit obligations	₩	12,547,044,989	₩	11,318,927,145
Fair value of plan assets		(13,299,877,273)		(10,291,142,908)
Net defined benefit liabilities	₩	(752,832,284)	₩	1,027,784,237

Line items including post-employment benefits in the statements of comprehensive income for the years ended December 31, 2022 and 2021, are as follows:

(in Korean won)		2022		2021
Cost of sales	₩	268,431,072	₩	126,745,510
Selling and administrative expenses		2,428,634,620		2,045,782,648
	₩	2,697,065,692	₩	2,172,528,158

Movements in the net defined benefit liabilities (assets) for the years ended December 31, 2022 and 2021, are as follows:

(in Korean won)	2022									
		resent value of defined benefit obligations		Plan assets	Net defined benefit liabilities					
Beginning balance	₩	11,318,927,145	₩	(10,291,142,908)	₩	1,027,784,237				
Profit or loss										
Current service cost		2,838,747,415		-		2,838,747,415				
Interest expense (income)		218,788,531		(360,470,254)		(141,681,723)				
		3,057,535,946		(360,470,254)		2,697,065,692				
Remeasurements recognized as other comprehensive income										
Loss from plan assets		-		178,975,146		178,975,146				
Change in financial assumptions		(1,139,105,906)		-		(1,139,105,906)				
Experience adjustments		2,709,760,669		_		2,709,760,669				
		1,570,654,763		178,975,146		1,749,629,909				
Contributions paid		-		(4,063,401,946)		(4,063,401,946)				
Benefit payments		(3,865,254,274)		1,695,867,491		(2,169,386,783)				
Transfer from (to) affiliates		465,181,409		(459,704,802)		5,476,607				
Ending balance	₩	12,547,044,989	₩	(13,299,877,273)	₩	(752,832,284)				

(in Korean won)	2021									
		resent value of defined benefit obligations		Plan assets	Ne	Net defined benefit liabilities				
Beginning balance	₩	9,788,019,916	₩	(10,077,481,703)	₩	(289,461,787)				
Profit or loss										
Current service cost		2,302,313,956		-		2,302,313,956				
Interest expense (income)		208,201,543		(337,987,341)		(129,785,798)				
		2,510,515,499		(337,987,341)		2,172,528,158				
Remeasurements recognized as other comprehensive income										
Loss from plan assets		-		282,321,898		282,321,898				
Change in financial assumptions		(329,524,809)		-		(329,524,809)				
Experience adjustments		655,008,213				655,008,213				
		325,483,404		282,321,898		607,805,302				
Contributions paid		-		(2,208,388,179)		(2,208,388,179)				
Benefit payments		(1,071,389,778)		1,816,690,521		745,300,743				
Transfer from (to) affiliates		(233,701,896)		233,701,896		<u> </u>				
Ending balance	₩	11,318,927,145	₩	(10,291,142,908)	₩	1,027,784,237				

Plan assets as at December 31, 2022 and 2021, consist of:

(in Korean won) 2022 2021

Ordinary deposits and others ₩ 13,299,877,273 ₩ 10,291,142,908

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

(in percentage)	2022	2021
Discount rate	6.09%	3.66%
Salary growth rate (Base-up)	4.50%	4.50%

While holding all other assumptions constant as at December 31, 2022, and in the case where significant actuarial assumptions are within the reasonable and possible changes, the fluctuation of the defined benefit obligations is as follows:

(in Korean won)		2022											
		Discou	ınt r	ate		Salary growth rate							
		1% increase		1% decrease		1% increase		1% decrease					
Defined benefit obligations	₩	(494,960,637)	₩	560,649,907	₩	561,964,367	₩	(504,867,040)					

(in Korean won)		2021											
		Discou	rate		Salary growth rate								
		1% increase		1% decrease		1% increase		1% decrease					
Defined benefit obligations	₩	(772,431,653)	₩	904,738,493	₩	894,649,281	₩	(772,831,048)					

The expense recognized in the current period in relation to defined contribution plan was \forall 7,646 thousand (2021: \forall 7,555 thousand).

20. Other Financial Liabilities

Details of other financial liabilities as at December 31, 2022 and 2021, are as follows:

(in Korean won)	2022 2021					
Other current financial liabilities						
Deposits withheld	₩ 440,000	₩ 149,452,651				
Leasehold deposits received	4,979,174,145	2,695,525,493				
Financial guarantee liabilities	8,135,110	-				
Current portion of long-term financial liabilities ¹	3,845,204,087					
	8,832,953,342	2,844,978,144				
Other current financial liabilities						
Leasehold deposits received	3,980,194,413	6,246,394,565				
Financial guarantee liabilities	4,141,479,450	5,142,800,410				
Long-term financial liabilities ¹	89,962,543,340					
	98,084,217,203	11,389,194,975				
	₩ 106,917,170,545	₩ 14,234,173,119				

¹ As it is determined that the Group has a contractual obligation to distribute the financial assets to non-interest shareholders of ESSESCO, KORAMCO No.117 Qualified Investors Private Real Estate Investment Trust and IGIS No.412 Professional Investors' Private Placement Real Estate Investment Limited Liab., the shares and profit or loss of those non-controlling shareholders are included.

As at December 31, 2022, the management evaluated the historical overdue experience of debt instruments subject to financial guarantee contracts, debt status of the debtor, as well as the outlook of the industry to which the debtor belongs, and as a result, the management determined that the credit risk has not increased significantly after initial recognition of financial guarantee liabilities. There is no change in estimation techniques or material assumptions applied when evaluating financial guarantee liabilities during the year ended December 31, 2022.

21. Other Current Liabilities

Details of other current liabilities as at December 31, 2022 and 2021, are as follows:

(in Korean won)		2022		2021			
Withholdings	₩	3,902,400,283	₩	11,004,292,459			
Advance receipts ¹		5,990,421,344		14,168,332,668			
Unearned revenues		1,003,244,563		874,849,095			
	₩	10,896,066,190	₩	26,047,474,222			

¹ Amounts with nature of contract liabilities received from customers in advance are included.

22. Derivative Financial Instruments

Details of derivative assets and liabilities as at December 31, 2022 and 2021, are as follows:

2022										
	Derivativ	e a	ssets	Derivative liabilities						
	Current		Non-current		Current		Non-current			
₩	35,089,658	₩	-	₩	58,736,783	₩	-			
	915,949,686		7,008,991,981		-		845,065,641			
	70,915,275		-		-		-			
<u>-</u> _			5,289,916,814				3,703,000,000			
₩	1,021,954,619	₩	12,298,908,795	₩	58,736,783	₩	4,548,065,641			
2021										
	Derivativ	e a	ssets	Derivative	ative liabilities					
	Current		Non-current		Current		Non-current			
₩	759,571,857	₩	2,660,355,676	₩	-	₩	-			
	-		31,917,342		-		-			
			2,977,606,935		_		1,674,000,000			
₩	759,571,857	₩	5,669,879,953	₩	-	₩	1,674,000,000			
	₩	Current	Current	Derivative assets Current Non-current ₩ 35,089,658 ₩ - 915,949,686 7,008,991,981 - 70,915,275 - - - 5,289,916,814 ₩ 12,298,908,795 20 Derivative assets Current Non-current ₩ 759,571,857 ₩ 2,660,355,676 - 31,917,342 - 2,977,606,935	Derivative assets Current Non-current ₩ 35,089,658 ₩ - ₩ 915,949,686 7,008,991,981 - - - 70,915,275 - - 5,289,916,814 - - 2021 W 1,021,954,619 ₩ 12,298,908,795 ₩ Derivative assets Current Non-current ₩ 759,571,857 ₩ 2,660,355,676 ₩ - 31,917,342 - 2,977,606,935	Derivative assets Derivative assets Current Non-current Current ₩ 35,089,658 ₩ - ₩ 58,736,783 915,949,686 7,008,991,981	Derivative assets Derivative lia Current Non-current Current ₩ 35,089,658 ₩ - ₩ 58,736,783 ₩ 915,949,686 7,008,991,981 - 70,915,275 5,289,916,814 - Ψ 1,021,954,619 ₩ 12,298,908,795 ₩ 58,736,783 ₩ - 5,289,916,814 - Ψ 58,736,783 ₩ ₩ 1,021,954,619 ₩ 12,298,908,795			

Meanwhile, the Group evaluates derivatives at its fair value at the time of initial recognition and at the end of each reporting period, and in case of long-term forward derivative contracts with a maturity of one year or longer, the amount considering the time value is reflected in adjusted gains and losses.

Details of derivative assets and liabilities related to currency swap as at December 31, 2022 and 2021, are as follows:

(in Kor	(in Korean won and in USD)			2022							2021			
Purchase Sell			Derivati	assets		Derivative liabilities	Derivative assets							
Amount		Amount		Current			Non-current		Non-current		Current		Non-current	
USD	30,000,000	KRW	34,704,000,000	₩	-	₩	-	₩	-	₩	759,571,857	₩	-	
USD	5,700,000	KRW	6,452,700,000		915,949,686		-		-		-		360,801,025	
USD	20,000,000	KRW	22,382,000,000		-		3,628,034,118		-		-		1,295,185,200	
USD	20,000,000	KRW	23,000,000,000		-		3,380,957,863		-		-		1,004,369,451	
USD	30,000,000	KRW	39,045,000,000		-				845,065,641				<u> </u>	
				₩	915,949,686	₩	7,008,991,981	₩	845,065,641	₩	759,571,857	₩	2,660,355,676	

The Group applies cash flow hedge accounting, which uses interest rate swaps as a hedging instrument to hedge risks arising from changes in interest rates on borrowings with floating rate. Details of derivative assets related to interest rate swaps as at December 31, 2022, are as follows:

(in Korean won) Contractua		I interest rate		2022		2021	
Contractor	Contract period	Payment	Receipt		urrent)		cive assets current)
Hana Bank	2020.02.07 ~ 2023.02.07	3.50%	KRW CD 3M + 2.01%	₩	70,915,275	₩	31,917,342

The Group applies fair value hedge accounting, which uses currency forwards as a hedging instrument to fix exchange rate fluctuation risks exposed in payments of imports of raw materials and furniture. Details of derivatives assets and liabilities related to currency forwards as at December 31, 2022, are as follows:

(in Korean won and in EUR)

Pui	rchase	Sell	2022		2021	
An	nount	Amount	Derivative assets (current)	Derivative liabilities (current)	Derivative liabilities (non-current)	
FUR	2.785.656	KRW 3.790.739.131	₩ 35.089.658	₩ 58.736.783	₩ -	

As at December 31, 2022, the Group has five OTC derivative contracts (see Note 24 for the details). The Group measures the fair value of OTC derivatives by applying the option pricing model (binomial model) based on the fair value measurement of the underlying assets and the evaluated underlying assets. Details of gain or loss on valuation of derivatives recognized due to OTC derivative contracts for the years ended December 31, 2022 and 2021, are as follows:

(in Korean won)		2022			2021	
	Derivative assets (non-current)	Derivative liabilities (non-current)	Gain (loss) on valuation of derivatives	Derivative assets (non-current)	Derivative liabilities (non-current)	Gain (loss) on valuation of derivatives
Beneficiary securities of Hyundai Private Real Estate Investment Trust No. 20 Beneficiary securities of preferred shares (investment	₩ -	₩ 3,703,000,000	₩ (2,029,000,000)	₩ -	₩ 1,674,000,000	₩ (1,577,000,000)
trust) of Seongsu commercial facility Type 2 beneficiary securities put option of IGIS No.412 Professional Investors' Private Placement Real Estate Investment Limited Liab. 1	4,429,000,000	-	1,806,000,000	2,623,000,000	-	1,712,000,000
Ordinary shares put option and call option of Semicolon Mullae REIT CO.,LTD. Beneficiary securities put and call option of DDI LVC Master Real Estate Investment Trust Co., Ltd.1	- 860,916,814 -	-	506,309,879	354,606,935 -	-	354,606,935 -
	₩ 5,289,916,814	₩ 3,703,000,000	₩ 283,309,879	₩ 2,977,606,935	₩ 1,674,000,000	₩ 489,606,935

¹ Although these are OTC derivatives, there is no gain or loss on valuation for the year ended December 31, 2022.

23. Provisions

Details of provisions as at December 31, 2022 and 2021, are as follows:

(in Korean won)			2022				2021	
		Current	Non-current	Total		Current	Non-current	Total
Provision for								
warranty	₩	307,816,884	₩ 1,565,881,491	₩ 1,873,698,375	₩	177,070,910	₩ 1,632,191,121	₩ 1,809,262,031
Provision for loss compensation Provision for long-		-	929,504,277	929,504,277		-	2,500,000,000	2,500,000,000
term maintenance		-	2,745,905,764	2,745,905,764		-	2,726,895,472	2,726,895,472
Provision for								
restoration		-	37,849,795	37,849,795				
	₩	307,816,884	₩ 5,279,141,327	₩ 5,586,958,211	₩	177,070,910	₩ 6,859,086,593	₩ 7,036,157,503

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

(in Korean won)							20	22					
			Begi bala	nni anc	•	Å	Addit	ions	,	Used	amount	E	nding balance
Provision for warra Provision for loss	anty	₩	1,80	9,2	62,031	₩	409	,913,679	₩	(34	15,477,335)	₩	1,873,698,375
compensation Provision for long-	term	1	2,50	0,0	00,000			-		(1,57	70,495,723)		929,504,277
maintenance			2,72	26,8	95,472		19	,010,292			-		2,745,905,764
Provision for resto	ratio	n					37	,849,795					37,849,795
		₩	7,03	6,1	57,503	₩	466	,773,766	₩	(1,91	15,973,058)	₩	5,586,958,211
(in Korean won)		Beginnir balance	-		Additio	ons		2021 Jsed amou	nt		Reversal		Ending balance
Provision for warranty Provision for loss compensation	₩	1,881,07 2,882,52	•	₩	984,2	:59,093 -	₩	(500,426	,765 <u>)</u>) ₩	(555,640,98 (382,529,12	,	₩ 1,809,262,031 2,500,000,000
Provision for long- term maintenance		2,226,86	3,835		500,0	31,637				<u> </u>		<u>-</u> -	2,726,895,472
	₩	6,990,46	3,643	₩	1,484,2	90,730	₩	(500,426	,765)	₩	(938,170,10	5)	₩ 7,036,157,503

24. Contingencies and Commitments

Major commitments for financial transactions of the Group as at December 31, 2022, are as follows:

(in Korean won, in USD and EUR)	Details		Limit
KEB Hana Bank and others	Collateralized loans on electronic trade receivables	₩	3,000,000,000
	Currency derivatives		USD 75,700,000 ¹
			EUR 10,700,000 ²
		₩	675,000,000 ³
	General loans		113,683,000,0004
			USD 14,000,000
	Overdrafts	₩	4,000,000,000
	Corporate card		1,500,000,000
	Agreements for discounting of		
	commercial paper		10,000,000,000

¹ A currency swap contract to fix the interest and exchange rate fluctuation risk exposed in payment of principal and interests of debentures in foreign currency with floating rate is included.

Details of the trust contract the Group entered into as at December 31, 2022, are as follows:

(in Korean won)

Trust property	Trust company	Beneficiary	Α	mount	Trust type
Wind Power Plant, San 35-1, Gasi-ri, Pyoseon-myeon, Seogwipo-si, Jeju-do	KEB Hana Bank	First-tier joint: KEB Hana Bank	¥	24,000	General Property Trust
		First-tier joint: Hana Life Insurance Co.,Ltd.		6,000	
		First-tier joint: Hana Insurance Co., Ltd.		6,000	
		First-tier joint: NongHyup Bank (Trustee of KTB Renewable Energy Private equity investment trust No. 45)		60,000	
280-6, Seongsu-dong 2-ga, Seongdong-gu, Seoul, etc.	KOREA trust Co., Ltd.	First-tier joint: Korea Federation Of		26,000	Management Land Trust of

² Limit for currency forward contracts to fix exchange rate fluctuation risk exposed in payment for imports of raw materials and furniture.

³ Limit for interest rate swap entered into to fix the interest rate fluctuation risk related to PF loans of the Episode Seongsu.

⁴ Loans of ₩ 99.7 billion from ESSESCO are included.

		Community Credit Cooperatives		Knowledge Industry Center Development
		First-tier joint: Shinhan Bank and Shinhan Capital Co., Ltd.	39,000	
		Second-tier: MADW Seongsu W Center Co.,Ltd.	65,000	
280, Seongsu-dong 2-ga, Seongdong-gu, Seoul, etc.	MUGUNGHW A TRUST CO.,LTD	First-tier joint: Shinhan Bank	32,500	Management Land Trust of Knowledge Industry Center Development
		First-tier joint: Daugu Bank	19,500	
		First-tier joint: Shinhan Capital Co., Ltd.	15,600	
		First-tier joint: KB CAPITAL Co.,Ltd.	13,000	
		First-tier joint: ABLE VIEW TOWER Co., Ltd.	1,300	
		Second-tier: ABLE VIEW TOWER Co., Ltd.	35,100	
		Third-tier: SK ecoplant Co., Ltd.	90,039	
12-1, 12, Dangsan-dong 1-ga, Yeongdeungpo-gu, Seoul	KOREA trust Co., Ltd.	First-tier joint: Shinhan Bank	24,000	Management Land Trust
		First-tier joint: Kyobo Life Insurance Co., Ltd.	42,000	
		First-tier joint: National Agricultural Cooperative Federation	42,000	
		First-tier joint: Fisheries Cooperative Federation	18,000	
		First-tier joint: Korean Reinsurance Company	18,000	
		First-tier joint: JB Woori Capital Co., Ltd.	12,000	
		First-tier joint: NH Capital Co., Ltd.	12,000	
		First-tier joint: KDB CAPITAL CORPORATION	6,000	
		First-tier joint: Shinhan Card Co., Ltd.	6,000	
		First-tier joint: NongHyup Bank (Trustee of SHBNPP Private Real Estate Loan Fund No. 1)	6,000	
		Second-tier: TAEYOUNG ENGINEERING & CONSTRUCTION	149,880	
636-89, Guro-dong, Guro-gu, Seoul, etc.	KOREA trust Co., Ltd.	First-tier joint: Shinhan Bank	12,000	Management Land Trust ¹
		First-tier joint: Korea Securities Finance Corporation	84,000	

		First-tier joint: Industrial Bank Of Korea	96,000	
		First-tier joint: National Credit Union Federation Of Korea	36,000	
		First-tier joint: Ganaan Credit Association	6,000	
		First-tier joint: Songpa East Credit Union	3,600	
		First-tier joint: Jecheon North Credit Union	1,200	
		First-tier joint: CHEONANJEILSINYON G COOPERATIVE CREDIT UNION	4,200	
		First-tier joint: DAECHEONG CREDIT UNION	960	
		First-tier joint: SEONRINSINYONG COOPERATIVE CREDIT UNION	1,800	
		First-tier joint: Nambu Credit Association	1,560	
		First-tier joint: Juseong Credit Cooperative	4,680	
		First-tier joint: Shinhan Card Co., Ltd.	36,000	
		First-tier joint: IBK Capital Corporation	12,000	
		Second-tier: TAEYOUNG ENGINEERING & CONSTRUCTION	264,792	
5-3, Namdaemun 2-ga, Junggu, Seoul, etc.	MUGUNGHW A TRUST CO.,LTD	First-tier joint: Fubon Hyundai Life Insurance Co.,Ltd	60,000	Management Land Trust
		First-tier joint: DGB Life Insurance Co., Ltd.	18,000	
		First-tier joint: IBK Capital Corporation	24,000	
		First-tier joint: KB CAPITAL Co.,Ltd.	6,000	
		First-tier joint: KDB CAPITAL CORPORATION	12,000	
		Second-tier joint: IBK Capital Corporation	12,000	
		Second-tier joint: KB CAPITAL Co.,Ltd.	18,000	
		Second-tier joint: Hana Capital, Co, Ltd	12,000	
		Third-tier: TAEYOUNG ENGINEERING & CONSTRUCTION	34,680	
23-6, Yongdu-dong, Dongdaemun-gu, Seoul, etc.	Kyobo Asset Trust Co.,Ltd.	First-tier joint: LEETAEWON 1-DONG SAEMAEUL FINANCE	3,250	Real estate collateral trust

		FIRM		
		First-tier joint: Eunpyeong New Town Community Credit Cooperatives	2,600	
		First-tier joint: Gusandong Saemaeul Finance Firm	3,250	
		First-tier joint: GUNPO COMMUNITY CREDIT COOPERATIVE	5,850	
		First-tier joint: PAJU SAEMAEUL FINANCE FIRM	1,300	
		First-tier joint: Myeongdong Community Credit Cooperatives	2,990	
		First-tier joint: ANSAN CENTER SAEVILLAGE SAFE	5,200	
		First-tier joint: ICHON COMMUNITY CREDIT COOPERATIVE	3,900	
		First-tier joint: SEOBINGGODONG SAE VILLAGE SAFE	2,600	
		First-tier joint: SEONGAM SAEMAEUL FINANCE FIRM	2,600	
		First-tier joint: Yongin Center Community Credit Cooperative	3,900	
		Second-tier: IBK Capital Corporation	6,500	
23-22, Yongdu-dong, Dongdaemun-gu, Seoul, etc.	Kyobo Asset Trust Co.,Ltd.	First-tier joint: GUNPO COMMUNITY CREDIT COOPERATIVE	600	Real estate collateral trust
		First-tier joint: ICHON COMMUNITY CREDIT COOPERATIVE	720	
		First-tier joint: SEONGAM SAEMAEUL FINANCE FIRM	600	
		First-tier joint: DONGSOMUN SAEMAEUL FINANCE FIRM	840	
		First-tier joint: SINDANG HWANGHAK KOREAN FEDERATION OF COMMUNITY CREDIT COOPERATIVE	1,080	
		First-tier joint: Samcheok Dowon Korean Federation Of Community Credit Cooperatives	720	
		First-tier joint: Seongnam Jungbu Community	6,000	

		Credit		
		First-tier joint: Seongnam Jeil Community Credit Cooperatives	3,600	
		First-tier joint: NAMHANSANSEONG SAEMAEUL SAFE	1,200	
		First-tier joint: YANGPYEONGSAE VILLAGE SAFE CHANBER OF COMMERCE AND INDUSTRY	720	
		First-tier joint: NOWON KOREAN FEDERATION OF CUMMUNITY CREDIT COOPERATIVES	1,200	
1-1, Yangpyeong-dong 4-ga, Yeongdeungpo-gu, Seoul, etc.	MUGUNGHW A TRUST CO.,LTD	First-tier joint: Dong Seoul Agricultural Cooperative Association Jangan-dong Branch	1,200	Real estate collateral trust
		First-tier joint: Gyeongsan Agricultural Cooperative	4,800	
		First-tier joint: Hongseong Agricultural Cooperative Ogwan Branch	3,600	
		First-tier joint: ANJUNG AGRICULTURAL COOPERATIVE Poseung Branch	6,000	
		First-tier joint: UIJEONGBU AGRICULTURAL COOPERATIVE Songyang Branch	4,800	
		First-tier joint: Joam Agricultural Cooperative	3,600	
		First-tier joint: Jeongeup Agriculture Cooperative	4,800	
		First-tier joint: Bukdaejeon Agricultural Cooperative	3,600	
		First-tier joint: DAECHEON NONGHYUP HANARO MART Myeongcheon Branch	3,600	
		First-tier joint: CHEONGDO NATIONAL AGRICULTURAL COOPERATIVE FEDERATION	3,600	
		First-tier joint: Donggok Agricultural Cooperative	3,000	

		Association		
		First-tier joint: Onyang Agricultural Cooperative	4,800	
		First-tier joint: GWANGJUBIA FARMING COOPERATIVE	3,600	
		First-tier joint: SINDO NATIONAL AGRICULTURAL COOPERATIVE FEDERATION	4,800	
		First-tier joint: Jejusi National Agricultural cooperative federation	4,200	
		First-tier joint: Woori Bank	54,000	
		Second-tier joint: LOTTE CARD Co.,ltd.	24,000	
		Second-tier joint: NH Capital Co.,Ltd	9,600	
		Second-tier joint: WOORI FINANCIAL CAPITAL CO.,LTD	13,200	
		Second-tier joint: KB CAPITAL Co.,Ltd.	19,200	
532-11, Sinsa-dong, Gangnam-gu, Seoul, etc.	KEB Hana Bank	First-tier joint: KEB Hana Bank Jongro Financial Center Branch	20,400	Real estate collateral trust
		First-tier joint: POHANG AGRICULTURAL COOPERATIVE	6,000	
		First-tier joint: Busan Bank	12,000	
		Second-tier: KEB Hana Bank Jongno Financial Center Branch	12,000	
61-1, Yeonpyeong-ri, Jinjeop- eup, Namyangju-si, Gyeonggi-do, etc.	Shinhan Asset Trust	First-tier joint: IBK Capital Corporation	26,200	Real estate collateral trust
		First-tier joint: Daishin Savings Bank Co.,Ltd.	13,100	
		First-tier joint: YUANTA SAVINGS BANK KOREA	3,930	
		First-tier joint: Jeonbuk Bank Gwanghwamun Comprehensive Financial Center	2,620	
		First-tier joint: Daegu Bank	13,100	
		First-tier joint: Shinhan Capital Co., Ltd.	6,550	
		First-tier joint: JT Chinae Savings Bank	3,930	
8-14, Mullae-dong 3-ga, Yeongdeungpo-gu, Seoul,	Shinhan Asset Trust	First-tier: Seongnamsujeong	12,000	Real estate collateral trust

etc.		Community Credit Cooperatives		
8-6, Mullae-dong 3-ga, Yeongdeungpo-gu, Seoul	Shinhan Asset Trust	First-tier: Wangsip-Ri Center Sae Village Safe	2,760	Real estate collateral trust
8-8, Mullae-dong 3-ga, Yeongdeungpo-gu, Seoul	Shinhan Asset Trust	First-tier: Wangsip-Ri Center Sae Village Safe	1,440	Real estate collateral trust
8-1, Mullae-dong 3-ga, Yeongdeungpo-gu, Seoul, etc.	Shinhan Asset Trust	First-tier joint: LEETAEWON 1-DONG SAEMAEUL FINANCE FIRM	600	Real estate collateral trust
		First-tier joint: Namdaemun Chungmuro Korean Federation of Community Credit Cooperatives	2,400	
		First-tier joint: DEURIMSAE VILLAGE SAFE CO.	2,760	
		First-tier joint: Bansong Community Credit Cooperatives	3,000	
		First-tier joint: Baetel Community Credit Cooperatives	600	
		First-tier joint: BYEOLNAE SAEMAEUL FINANCE FIRM	2,400	
		First-tier joint: SeJong Community Credit Cooperatives	1,200	
		First-tier joint: SINDANG HWANGHAK KOREAN FEDERATION OF COMMUNITY CREDIT COOPERATIVE	1,200	
		First-tier joint: ANYANG JEIL SAEMAEUL SAFE CO.	1,200	
		First-tier joint: YEOLRIN KOREAN FEDERATION OF COMMUNITY CREDIT COOPERATIVE	1,200	
		First-tier joint: Uijeongbu Center Community Credit Cooperatives	2,400	
		First-tier joint: JEONTAEK SAEMAEUL FINANCE FIRM	840	
		First-tier joint: Jegidong Community Credit Cooperatives	1,200	
		First-tier joint: Pocheon Community Credit Cooperatives	2,400	
		First-tier joint: HANGANG 2- DONG SAEMAEUL FINANCE FIRM	600	
14-3, Mullae-dong 3-ga, Yeongdeungpo-gu, Seoul,	Shinhan Asset Trust	First-tier: Jungwon Community Credit	8,640	

etc.		Cooperative		
108-104, Oryu-dong, Guro-gu, Seoul, etc.	Shinhan Asset Trust	First-tier joint: KB CAPITAL Co.,Ltd.	18,000	Real estate collateral trust
		First-tier joint: WOORI FINANCIAL CAPITAL CO.,LTD	13,200	
		Second-tier: Shinhan Capital Co., Ltd.	4,800	

¹ The Group has entered into a land trust contract for above PF in June 2022 after the termination of the collateral trust (KOREA trust Co., Ltd.) for the bridge loan related to Saeng-gag gongjang Guro.

Details of guarantees provided to the Group as at December 31, 2022, are as follows:

(in millions of Korean won)

Guarantor	Details		ranteed nount
Seoul Guarantee Insurance	Approval guarantee insurance and others	₩	42,064
Construction Guarantee Cooperative	Subcontracting payment surety and others		76,692
Korea Specialty Contractor Financial Cooperative	Construction warranty performance guarantee and others		50,884
Korea Housing & Urban Guarantee Corporation	Construction warranty performance guarantee and others		50
Uljin Windpower Co., Ltd.	Collateral for land of Uljin Windpower Co., Ltd.		315

Details of the joint guarantees the Group entered into in relation to intermediate payment of consumer in relation to real estate development as at December 31, 2022, are as follows:

(in millions of Korean won)	Financial institutions	Guaranteed amount	Guarantee limit	Guarantee period
Saeng-gag gongjang Dangsan	Kookmin Bank, Shinhan Bank, KEB Hana Bank and Hana Capital, Co, Ltd	₩ 9,578	₩ 268,280	From the initial execution date of the interim payment to January 31, 2023

Details of the insurance coverage of the Group as at December 31, 2022, are as follows:

(in millions of Korean won)

Insured by	Details	Insure	d amount
Meritz Fire & Marine Insurance CO., Ltd	Comprehensive Machinery Insurance and others	₩	228,706
Hana Insurance Co., Ltd	Commercial General Liability Insurance		3,000
Hyundai Marine & Fire Insurance Co., Ltd.	Package Insurance and others		219,896
Samsung Marine & Fire Insurance Co., Ltd.	Package Insurance and others		9,260
Hanwha General Insurance Co., Ltd.	Package Insurance and others		63,297
DB INSURANCE CO.,LTD	Package Insurance and others		77,483
Lotte Insurance Co., Ltd.	Package Insurance and others		7,637
KB Insurance Co., Ltd	Group personal accident insurance and others		3,932
Heungkuk Fire & Marine Insurance Co., Ltd.	Package Insurance		8,457

The Parent Company is a construction company for the wind power generation project implemented by Uljin Windpower Co., Ltd. and is an interest party according to the acquisition contract of convertible notes between Uljin Windpower Co., Ltd. and the financial investor (contract date: December 15, 2016). Details related to early redemption of financial investors, Uljin Windpower Co., Ltd., and related parties are as follows.

	Right holder	Counterparty	Requirements
Put Option	Financial investors	Uljin Windpower Co., Ltd.	If the utilization rate of the facility after about 3 years from the date of commencement of operation does not reach a certain rate
Call Option	Uljin Windpower Co., Ltd.	Financial investors	It can be exercised from about 5 years after the date of commencement of operation, and a related party (Parent Company) may request the exercise

If there is a deficiency in the financial resources for redemption of Uljin Windpower Co., Ltd. at the time of early redemption of the right holder, the Parent Company, as a interest party, has an obligation to raise additional funds (limit: ₩ 28 billion) to Uljin Windpower Co., Ltd. through a loan with subordinated conditions.

Details of major litigations pending in which the Group is involved as a defendant as at December 31, 2022, are as follows. The outcome of the lawsuits cannot be predicted as at December 31, 2022.

(in millions of Korean won)	Amo	ount	Plaintiff	Defendant	Remark
Compensation for damages	₩	500	DIG Airgas Co., Ltd.	The Group	First trial in progress
Claim for warranty		501	Gasan SK V1 Center Representative Steering Committee	The Group and others	First trial in progress
Claim for service payment		1,915	NAMMUN DEVELOPMENT CO.	The Group and DDIVC-1 REIT CO.,LTD.	First trial in progress
Compensation for damages		714	Y.H LOGISTICS CO.,LTD. and others	The Group and others	First trial in progress

Details of assets provided as collateral as at December 31, 2022, are as follows:

(in Korean won) Provided by	s	ecured amount	Secured assets	Carrying amount
KIAMCO Uljin Wind Power Private equity investment trust	₩	216,060,000,000	Shares of an investee (Uljin Windpower Co., Ltd.)	₩ -
HANWHA LIFE INSURANCE CO., LTD., NongHyup Bank, Kookmin Bank		99,683,000,000	Property, plant and equipment, and intangible assets	78,303,029,011
KEB Hana Bank		32,400,000,000	Land and buildings of Episode Seongsu 121 (26-3, Seongsu- dong 1-ga, Seongdong-gu, Seoul)	31,725,558,274
EAST SEOUL AGRICULTURAL COOPERATIVE		6,000,000,000	Land located at 25-13, Samseong-dong	8,628,077,705
MetLife Insurance Co. of Korea, Ltd.		25,800,000,000	Land located at 384-32, Shingal-dong and 9 others and buildings	39,564,004,066
Standard Chartered Bank Korea Limited, Daegu Bank		98,400,000,000	Land and buildings of 43, Chungmuro 3-ga	102,111,343,737

The Parent Company has entered into a joint agreement with ESSESCO to jointly provide power saving services to customers. The details are as follows.

Details

Power saving service Provides a service to reduce electricity bills through the Energy Storage

System to customers and receives some of the savings from customers

at a contracted rate.

Collateral ESS is owned by the Parent Company and ESSESCO based on the

investment ratio, and the entire facility is provided as collateral to the large

shareholders of ESSESCO.

Fund supplement

agreement

If an customer does not pay usage fees within the deadline, the Parent Company shall supplement the joint income account with the amount corresponding to the overdue amount of the usage fee at the request of

ESSESCO.

Operation of Energy Storage System (ESS) The Parent Company is responsible for operating the ESS, and can receive additional fees if the sales plan is exceeded, and is obliged to compensate for operating losses due to insufficient discharge capacity.

Business size and contract

period Put option 500 MWh, August 2018 to December 2033

Exerciser ESSESCO

Obligator The Parent Company
Underlying assets Energy Storage System

Exercise price Amount after depreciation at a fixed rate of 5%

(every 3 months), up to ₩ 35 billion

Exercise period January 2020 to December 2032

The Parent Company has determined that it has control over the business for the provision of power saving services (Note 1-(2)) and judged ESSESCO as a consolidated subsidiary.

Details of the OTC derivatives contracts held by the Group as at December 31, 2022, are as follows:

i) Beneficiary Certificates of Hyundai Private Real Estate Investment Trust No. 20

Details

Counterparty SKSH CO.,LTD.

Contract date November 5, 2019

Maturity date The earlier of the day on which proceeds from the sale of the underlying

assets are fully paid or November 7, 2022 (However, if the underlying assets are not sold, the maturity date is automatically extended until

November 7, 2024)

Contract amount ₩ 20 billion

Underlying assets 19 billion units of Type 1 Beneficiary Certificates of Hyundai Private Real

Estate Investment Trust No. 20

Settlement method The Group pays transaction costs for OTC derivatives according to the

contract, and if the disposal price of the underlying assets is higher than the contract amount at the time of settlement, the counterparty pays the

difference to the Group.

ii) Beneficiary securities of preferred shares (investment trust) of Seongsu commercial facility

Details

Counterparty SSK 1st Co.,Ltd. SSK 2nd Co.,Ltd.

Contract date March 19, 2020

Maturity date The earlier of the day on which the counterparty sells all of the

underlying assets, or the day on which all proceeds from the sale of the real estate owned by the REITs in which the underlying asset is invested are fully paid, or the day when the preferred share of the REIT is sold, or the day on which the REITs decides to reduce the relevant preferred share for consideration is paid, or March 24, 2023 (however, if the real estate is not sold, the earlier of the day on which the preferred share of the REITs is sold or the capital

reduction is paid, or October 31, 2024).

Nominal amount - Transaction date ~ July 21, - Transaction date ~ July 21, 2020: ₩ 2,925 million - Transaction date ~ July 21, 2020: ₩ 2,925 million

- July 22, 2020 ~ maturity date: - July 22, 2020 ~ maturity date:

 $\forall 5,850 \text{ million}$ $\forall 5,850 \text{ million}$

W 3,630 Hillion

Underlying assets

Korea Investment SeongsuRichmond Private Real Estate

dong Retail Professional

Fund No. 91 Investment Type Private Parent
Real Estate Investment Trust

Settlement method The Group pays transaction costs for OTC derivatives according to

the contract, and if the settlement price is higher than the transaction price at the time of settlement, the counterparty pays the difference to the Group, and if the settlement price is lower than the transaction price, the Group pays the difference to the

counterparty.

iii) Type 2 beneficiary securities put option of IGIS No.412 Professional Investors' Private Placement Real Estate Investment Limited Liab.

Details

Exerciser Shinhan Capital Co.,Ltd. and IBK Capital Corporation¹

Obligator The Parent Company

Exercise assets ₩ 15 billion of Type 2 Beneficiary Certificates

Exercise price The sum of the principal amount of the investment trust of type 2

beneficiary certificates (₩ 15,000,000,000) and the undistributed amount

of dividends on preferred share of type 2 beneficiary certificates

Exercise period 1) One month prior to the maturity date of the trust contract or 2) A period

of one month from the earlier of the closing date of transaction following

the sale of the real estate of the investment trust

¹ It is the transferee of the beneficiary certificates held by Chungmu Cloud Co., Ltd., a non-controlling shareholder of IGIS No.412 Professional Investors' Private Placement Real Estate Investment Limited Liab., a subsidiary.

iv) Ordinary shares put option and call option of Semicolon Mullae REIT CO.,LTD

Details

Exercise rightPut optionCall optionExerciserS-1 CORPORATION¹D&D INVESTMENTObligatorD&D INVESTMENTS-1 CORPORATION¹

Exercise assets 800,000 shares of ordinary share

Exercise price $\forall 5,000 \text{ per share } (\forall 4,000,000,000 \text{ in total})$

Exercise period Within 3 months from the date of termination of a PM/FM contract

v) Put and call options of Beneficiary Certificates of DDI LVC Master Real Estate Investment Trust Co., Ltd.

Details

investment assets of the last investment organization

Exercise right	Put option	Call option		
Exerciser	DDI LVC Master Real Estate Investment Trust Co., Ltd.	Parent Company		
Obligator	Parent Company	DDI LVC Master Real Estate Investment Trust Co., Ltd.		
Exercise assets	All issued shares or beneficiary certificates of the last investment organization among the investment organizations established under the memorandum of understanding on joint investment with DDILVC Co., Ltd.			
Requirements	When the actual distribution to DDILVC Co., Ltd. is smaller than the distribution in portfolio ¹	When the actual distribution to DDILVC Co., Ltd. is greater than the distribution in portfolio ¹		
Exercise price	The amount expected to be paid to DDILVC Co., Ltd. according to the estimated amount of disposal of the investment asset in relation to the last investment organization + (distribution in portfolio - actual distribution)	The amount expected to be paid to DDILVC Co., Ltd. according to the estimated amount of disposal of the investment asset in relation to the last investment organization - (distribution in portfolio - actual distribution)		
Exercise period	•	5 business days to the day before pected date of disposal of the		

¹ Distribution in portfolio: DDILVC Co., Ltd.'s cumulative expected return amount for all investment organization established under the memorandum of understanding on joint investment.

Meanwhile, the Group measures the fair value of OTC derivatives by performing fair value measurement on the underlying assets and applying an option pricing model (binomial model) based on the underlying assets. Gain (loss) on valuation of derivatives recognized for the above OTC derivative contracts for the year ended December 31, 2022, are described in Note 22.

¹ Non-controlling shareholder of Semicolon Mullae REIT CO.,LTD.

25. Related Party Transactions

Details of related parties as at December 31, 2022, are as follows:

Type

Name of entity

Entities with joint control over the Group Joint ventures SK Discovery Co.,Ltd., Hahn & Co. Development Holdings Co., Ltd.

KORAMCO No.120 General Type Private Real Estate
Investment Trust, KORAMCO Icheon Baeksa Logistics General
Type Private Real Estate Investment Trust, Tiger Alternative
Investment trust No.318 (formely, IGIS No.318 Professional
Investors' Private Placement Real Estate Investment Limited
Liab.), Cheongju Eco Park Co.,Ltd., Hanwha Cheongjuecopark
private equity 1st(Infrastructure), Eumsung Ecopark Co.,Ltd¹,
Hanwha Eumseongecopark private equity 1st(Infrastructure)²,
HHR Real Estate Private Fund No.², Metheus Icheon Complex
Logistics Center PFV Co., Ltd², PungBaek Wind Farm
Corporation²

Associates

KintexMall Co.Ltd. Daegusolar. Monaissance. IGIS No.135 Professional Investors' Private Placement Real Estate Investment Limited Liab., IGIS No.178 Professional Investors' Private Placement Real Estate Investment Limited Liab.3, DDISY-230 Residential REIT Co., LTD, DDISS-280 Retail REIT Co.,Ltd, DDISC-1338 Residential REIT Co.,Ltd, DDISC-1339 Residential REIT Co., Ltd, DDISC-57 Residential REIT Co., ltd, DDI Residential No.1 Subsidiary REIT Co., Ltd, Hyundai Private Real Estate Investment Trust No. 20, Gunpo Mixed Use Development PFV Company, Daehoji Solar Park, Inc., FASSTO, Howbuild, D&D Platform REIT Co., Ltd., Chilgok Ecopark, Gulup Wind Power Development Corp., DDI SSHQ Retail Co., Ltd.4, DDIVC-1 REIT Co., Ltd.², DDISC49⁵, DDI YS-40 REIT⁶, DDI LVC Master Real Estate Investment Trust Co., Ltd.^{2,7}, DDI VC Master Real Estate Investment Trust Co., Ltd.^{2,7}, Korea Space Data²

Other related parties such as large-scale business group affiliated company 8

SK Inc., SK ecoplant Co., Ltd., SK networks Co. Ltd., SK shieldus Co., Ltd, SKC LTD, SK Chemicals Co., Ltd., SK Innovation Co., Ltd., SK RENT A CAR CO., LTD, SK M&SERVICE CO., LTD., SK PICGLOBAL CO., LTD., SK BROADBAND CO., LTD., HAPPYNARAE Co., Ltd., DDI Beak-Am Logistics REIT Co., Ltd., DDI Baek-Am Logistics No.2 REIT Co., Ltd., Semicolon Mullae REIT CO., LTD., SK BIOSCIENCE CO., LTD, SK GAS LTD, HUVIS CORPORATION, Korea Space Service 10, Ssgddak Co. Ltd., SK microworks Co., Ltd., Other related parties

¹ During the year ended December 31, 2022, the Group obtained joint control due to the change in the ownership and was reclassified from financial assets at fair value through profit or loss to investments in joint venture.

² During the year ended December 31, 2022, the entity was newly acquired.

³ During the year ended December 31, 2022, the trust contract was terminated as the contract period specified in the trust contract expired.

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

(in Korean won)			2022				
Туре	Name of entity	Sales and others	Disposal of assets ¹	Purchases and others	Acquisition of assets		
Entities with joint control over the Group	SK DISCOVERY CO.,LTD.	₩ 648,000	₩ -	₩ -	₩ -		
Joint ventures	KORAMCO No.120 General Type Private Real Estate Investment Trust	240,000,000	-	-	-		
	DDI YS-40 REIT ²	667,914,288	-	-	-		
	Cheongju Eco Park Co.,Ltd.	21,515,625	-	-	-		
	Eumsung Ecopark Co.,Ltd	97,165,937,957	-	21,109,500	-		
	PungBaek Wind Farm Corporation	4,782,746	-	-	-		
Associates	DDISY-230 Residential REIT Co.,LTD	3,799,670,423	-	14,003,106	-		
	DDISS-280 Retail REIT Co.,Ltd	223,586,840	-	-	-		
	DDISC-1338 Residential REIT Co.,Ltd	1,771,799,407	-	13,938,678	-		
	DDISC-1339	1,547,044,213	-	11,990,718	-		

⁴ The Group has the entire shares (27.59%) of the entity through D&D INVESTMENT, a subsidiary, but was liquidated during the current year.

⁵ During the year ended December 31, 2022, it was reclassified from investment in subsidiaries to investment in associates due to the loss of control resulting from a change in the ownership.

⁶ During the year ended December 31, 2022, it was reclassified from investment in joint ventures to investment in associates due to the loss of joint control resulting from a change in the ownership.

⁷ The Group has the shares of the entity through D&D INVESTMENT, a subsidiary.

⁸ The entity is not a related party as defined in paragraph 9 of KIFRS 1024. However, the entity is classified as related party in accordance with the resolution of Securities and Futures Commission that defined a large-scale business group affiliated company designated by the Fair Trade Commission is considered a related party with substantive relationship prescribed in paragraph 10 of KIFRS 1024 or paragraph 12 of KIFRS 1024.

⁹ The entity is classified as a related party as it is an investment in subsidiary of D&D Platform REIT Co., Ltd., an associate.

¹⁰ The entity is classified as a related party as it is an investment in subsidiary of Korea Space Data, an associate.

	Residential REIT Co.,Ltd				
	DDISC-57 Residential REIT Co.,ltd	1,364,294,646	-	5,134,262	-
	DDI Residential No.1 Subsidiary REIT Co.,Ltd	1,092,022,865	-	-	-
	Hyundai Private Real Estate Investment Trust No. 20	47,272,877	-	-	-
	Gunpo Mixed Use Development PFV Company	1,694,580,119	-	-	-
	Daehoji Solar Park, Inc.	41,400,000	-	-	-
	FASSTO	74,356,164	-	-	-
	Howbuild	-	-	-	1,635,000
	D&D Platform REIT Co., Ltd.	40,290	-	-	-
	Chilgok Ecopark	158,358,215	-	-	-
	DDI SSHQ Retail Co., Ltd.	820,624,872	-	147,030,412	47,397,800,000
	DDIVC-1 REIT Co., Ltd.	2,578,683,241	62,546,192,458	-	-
	DDISC49 ²	3,476,441,845	-	-	-
	DDI YS-40 REIT ²	896,284,920	-	-	-
	Korea Space Data	-	-	2,035,000	-
Others	SK INC.	-	-	2,926,641,509	835,923,429
	SK ECOPLANT CO., LTD.	2,038,414,544	-	189,417,240	-
	SK NETWORKS CO. LTD.	-	-	129,653,350	-
	SK shieldus Co.,Ltd	33,600,606	-	419,457,872	-
	SKC LTD	1,188,067,490	-	-	-
	SK CHEMICALS CO., LTD.	58,526,320	-	1,981,069	-
	SK INNOVATION CO., LTD.	-	-	398,143,066	-
	SK RENT A CAR CO.,LTD	-	-	57,355,900	-
	SK M&SERVICE CO.,LTD.	-	-	232,928,855	-
	SK PICGLOBAL CO.,LTD.	1,146,800,450	-	37,633,381	-
	SK BROADBAND CO., LTD.	107,400	-	92,721,432	-
	HAPPYNARAE Co., Ltd.	-	-	84,188,045	1,230,000

DDI Beak-Am Logistics REIT Co.,Ltd	195,895,046	-	-	-
DDI Baek-Am Logistics No.2 REIT Co.,Ltd	3,585,331,491	-	-	-
Semicolon Mullae REIT CO.,LTD.	866,419,532	-	74,478,302	-
SK BIOSCIENCE CO.,LTD	2,268,000	-	-	-
SK GAS LTD	58,548,155	-	1,877,961,592	-
HUVIS CORPORATION	1,800,592,290	-	-	-
SK microworks Co.,Ltd	292,633,300		36,508,552	
	₩ 128,954,464,177	₩ 62,546,192,458	₩ 6,774,311,841	₩ 48,236,588,429

¹ It includes the amount billed for the amount recorded as advance payment, etc. by the Group in accordance with the transfer agreement.

² If there is a change in the status of a related party due to a change in ownership during the current period, the transactions are prepared based on the time of the change.

(in Korean won)		2021		
Туре	Name of entity	Sales	Purchases	Acquisition of assets
Entities with joint control over the Group	SK GAS LTD ¹	₩ 38,868,299	₩ 1,461,857,186	₩ -
Parent Company of entities with joint control over the Group	SK DISCOVERY CO.,LTD. ¹	54,000	198,739,405	-
Joint ventures	SK DISCOVERY CO.,LTD. ¹	188,129	803,517,609	-
	KORAMCO No.120 General Type Private Real Estate Investment Trust	48,433,422	-	-
	KORAMCO Icheon Baeksa Logistics General Type Private Real Estate Investment Trust	1,851,239	-	-
	DDI YS-40 REIT ¹	3,022,057,405	-	-
	Cheongju Eco Park Co.,Ltd.	105,175,022,358	4,943,758,980	-
Associates	IGIS No.178 Professional Investors' Private Placement Real Estate Investment	2,209,232,400	-	-

	Limited Liab.			
	DDISY-230			
	Residential REIT	1,128,000,000	-	-
	Co.,LTD			
	DDISS-280 Retail REIT Co.,Ltd	222,793,015	-	-
	DDISC-1338			
	Residential REIT	979,670,000	-	-
	Co.,Ltd			
	DDISC-1339			
	Residential REIT Co.,Ltd	1,056,252,000	-	-
	DDISC-57 Residential	720 100 000		
	REIT Co.,ltd	739,100,000	-	-
	DDI YS-40 REIT ¹	547,027,617	-	-
	DDI Residential No.1			
	Subsidiary REIT Co.,Ltd	280,538,592	-	-
	DDIYS832 ¹	408,570,707	-	-
	Hyundai Private Real			
	Estate Investment Trust No. 20	6,427,397	-	-
	Gunpo Mixed Use			
	Development PFV Company	719,452,221	-	-
	Daehoji Solar Park,	44 200 000		
	Inc.	41,399,999	-	-
	Semicolon Mullae REIT CO.,LTD. ¹	358,436,573	-	-
	Howbuild	-	51,000,000	30,215,000
	Chilgok Ecopark	93,068,693	-	-
	DDI SSHQ Retail Co.,	118,706,724	38,196,600	_
	Ltd.	,,.		
Others	SK INC.	-	2,429,426,406	87,880,000
	SK ECOPLANT CO., LTD. (formerly, SK			
	Engineering &	4,762,153,309	162,423,976	-
	Construction co., ltd) SK NETWORKS CO.			
	LTD.	-	129,008,255	90,050,000,000
	SK shieldus Co.,Ltd	40.005.400	450.054.000	
	(formerly, SK infosec Co.,Ltd)	16,695,428	152,254,868	23,000,000
	ADT CAPS CO.LTD	_	3,568,209	_
	SKC LTD	1,453,256,600	40,363,155	
	SKCHEMICALS CO., LTD.	55,834,387		- -
	SK INNOVATION CO.,	33,334,307	-	-
	LTD.	-	433,259,333	-
	SK RENT A CAR	_	62,204,859	_
	CO.,LTD	_		_
	SK M&SERVICE	-	127,223,708	-

CO.,LTD. SK PICGLOBAL CO.,LTD.	1,067,974,280	-	-
SK BROADBAND CO., LTD.	-	84,851,452	-
HAPPYNARAE Co., Ltd.	-	32,168,130	-
DDI Beak-Am Logistics REIT Co.,Ltd ¹	657,705,045	-	-
Semicolon Mullae REIT CO.,LTD. ¹	962,528,413	-	-
SK BIOSCIENCE CO.,LTD	847,452	-	-
SK GAS LTD ¹	5,446,330	131,668,000	-
HUVIS CORPORATION	1,777,255,080	-	-
Gridwiz Co., Ltd	1,882,790,873	959,790,870	440,000,000
	₩ 129,837,637,987	₩ 12,245,281,001	₩ 90,631,095,000

¹ If there is a change in the status of a related party due to a change in ownership during the current period, the transactions are prepared based on the time of the change.

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

(in Korean won)		2022			
Туре	Name of entity	Receivables	Payables		
Entities with joint					
control over the Group	SK DISCOVERY CO.,LTD.	₩ 340,457	₩ 117,869,340		
Joint ventures	Eumsung Ecopark Co.,Ltd	4,857,732,000	-		
	PungBaek Wind Farm Corporation	1,888,200,000	9,858,500,000		
Associates	DDISY-230 Residential REIT Co.,LTD	2,614,773,437	467,542,222		
	DDISS-280 Retail REIT Co.,Ltd	61,486,567	-		
	DDISC-1338 Residential REIT Co.,Ltd	588,697,027	474,064,984		
	DDISC-1339 Residential REIT Co.,Ltd	78,953,973	214,166,206		
	DDISC-57 Residential REIT Co.,ltd	230,777,236	236,568,346		
	DDI Residential No.1 Subsidiary REIT Co.,Ltd	78,768,013	2,434,778		
	Hyundai Private Real Estate Investment Trust No. 20	53,700,274	-		
	Gunpo Mixed Use Development PFV Company	65,842,912	101,086,957		
	Daehoji Solar Park, Inc.	102,297,396	-		
	Chilgok Ecopark	251,426,908	-		
	DDIVC-1 REIT Co., Ltd.	964,894,930	-		
	DDISC49	92,823,500	-		
	DDI YS-40 REIT	117,590,000	-		
	Korea Space Data	-	48,303,430		
Others	SK INC.	-	1,038,580,872		
	SK ECOPLANT CO., LTD.	550,682,000	-		
	SK쉴더스㈜	280,000	229,355,421		
	SKC LTD	153,046,641	-		
	SK CHEMICALS CO., LTD.	14,054,777	-		
	SK INNOVATION CO., LTD.	-	41,705,869		
	SK RENT A CAR CO.,LTD	-	51,962,848		
	SK M&SERVICE CO.,LTD.	-	19,656,495		
	SK PICGLOBAL CO.,LTD.	280,990,310	-		
	SK BROADBAND CO., LTD.	2,655,604	3,138,464		
	HAPPYNARAE Co., Ltd.	-	25,819,789		
	DDI Beak-Am Logistics REIT Co.,Ltd	54,231,280	-		
	DDI Baek-Am Logistics No.2 REIT Co.,Ltd	118,500,000	-		

Semicolon Mullae REIT CO.,LTD.	240,223,717		-
SK BIOSCIENCE CO.,LTD	1,191,601		-
SK GAS LTD	997,958,880		1,702,322,518
HUVIS CORPORATION	363,033,350		-
SK microworks Co.,Ltd	307,406,790		-
	₩ 15,132,559,580	₩	14,633,078,539

(in Korean won)		2021			
Туре	Name of entity	Receivables	Payables		
Entities with joint					
control over the Group	SK DISCOVERY CO.,LTD.	₩ 304,724	₩ 216,915,899		
Joint ventures	DDI YS-40 REIT	582,923,982	-		
	Cheongju Eco Park Co.,Ltd.	8,391,448,928	-		
Associates	Hyundai Private Real Estate Investment Trust No. 20	6,427,397	-		
	DDISY-230 Residential REIT Co.,LTD	145,200,000	-		
	DDISS-280 Retail REIT Co.,Ltd	61,433,931	-		
	DDISC-1338 Residential REIT Co.,Ltd	178,129,234	-		
	DDISC-1339 Residential REIT Co.,Ltd	125,469,300	-		
	DDISC-57 Residential REIT Co.,ltd	87,752,500	-		
	DDI Residential No.1 Subsidiary REIT Co.,Ltd	78,314,175	-		
	Gunpo Mixed Use Development PFV Company	64,780,930	128,043,478		
	Daehoji Solar Park, Inc.	60,897,396	-		
	FASSTO(formerly, FSS)	5,000,000,000	-		
	Howbuild	102,842,000	-		
	Chilgok Ecopark	93,068,693	-		
	DDI SSHQ Retail Co., Ltd.	985,894,349	279,566,558		
Others	SK INC. SK ECOPLANT CO.,	-	62,535,050		
	LTD.(formerly, SK Engineering & Construction co., ltd)	7,286,216,124	4,215,615,941		
	SK shieldus Co.,Ltd (formerly, SK infosec Co.,Ltd)	280,000	57,245,767		
	SKC LTD	379,794,393	-		
	SK CHEMICALS CO., LTD.	9,403,431	-		
	SK INNOVATION CO., LTD. SK RENT A CAR CO.,LTD	-	54,461,227 5,236,000		

SK M&SERVICE CO.,LTD. SK PICGLOBAL CO.,LTD.	-		7,096,437
HAPPYNARAE Co., Ltd.	232,339,855		17,586,063
DDI Beak-Am Logistics REIT Co.,Ltd	53,465,136		-
Semicolon Mullae REIT CO.,LTD (formerly, YoungCity REIT Co.,Ltd.)	240,223,717		-
SK BIOSCIENCE CO.,LTD	1,066,533		-
SK GAS LTD	722,300,510		2,018,104,310
HUVIS CORPORATION	421,401,272		
	₩ 25,311,378,510	₩	7,062,406,730

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

(in Korean won)			2022			
Туре	Name of entity	Details	Beginning balance	Increase	Decrease	Ending balance
Joint ventures	DDI YS-40 REIT ¹	Long-term loans	₩ 7,150,000,000	₩ -	₩ (7,150,000,000)	₩ -
	Cheongju Eco Park Co.,Ltd.	Short-term loans	5,581,548,320	-	(5,581,548,320)	-
	Eumsung Ecopark Co.,Ltd ¹	Short-term loans	-	5,602,927,042	(5,602,927,042)	-
	PungBaek Wind Farm Corporation	Short-term loans	183,333,600	-	(183,333,600)	-
Associates	DDISY-230 Residential REIT Co.,LTD	Short-term loans	-	1,100,000,000	-	1,100,000,000
	Hyundai Private Real Estate Investment Trust No. 20	Long-term loans	300,000,000	1,000,000,000	-	1,300,000,000
	Gunpo Mixed Use Development PFV Company ²	Long-term loans	6,045,770,939	-	(2,914,559,047)	3,131,211,892
	Daehoji Solar Park, Inc.	Current portion of long-term loans	900,000,000	-	-	900,000,000
	Chilgok Ecopark	Short-term loans	3,427,200,000	330,000,000		3,757,200,000
			₩ 23,587,852,859	₩ 8,032,927,042	₩ (21,432,368,009)	₩ 10,188,411,892

¹ If there is a change in the status of a related party due to a change in ownership during the current period, the transactions are prepared based on the time of the change.

² Share of loss of associates and joint ventures was additionally recognized for the loan of Gunpo Mixed Use Development PFV Company.

(in Korean won)			2021			
Туре	Name of entity	Details	Beginning balance	Increase	Decrease	Ending balance
Joint ventures	KORAMCO No.120 General Type Private Real Estate Investment Trust	Short-term loans	₩ 820,000,000	₩ -	₩ (820,000,000)	₩ -
	KORAMCO Icheon Baeksa Logistics General Type Private Real Estate Investment Trust	Short-term loans	180,000,000	-	(180,000,000)	-
	DDI YS-40 REIT ¹	Short-term loans	10,000,000,000	1,000,000,000	(3,850,000,000)	7,150,000,000
	Cheongju Eco Park Co.,Ltd.	Short-term loans	8,540,548,320	13,770,286,435	(16,729,286,435)	5,581,548,320
	Cheongju Eco Park Co.,Ltd.	Current portion of long-term loans	26,822,125	-	(26,822,125)	-
Associates	DDIYS832 ¹	Current portion of long-term loans	13,500,000,000	-	(13,500,000,000)	-
	Hyundai Private Real Estate Investment Trust No. 20	Long-term loans	-	300,000,000	-	300,000,000
	Gunpo Mixed Use Development PFV Company ²	Long-term loans	8,426,600,000	-	(2,380,829,061)	6,045,770,939
	Daehoji Solar Park, Inc.	Current portion of long-term loans	900,000,000	-	-	900,000,000
	Chilgok Ecopark	Short-term loans	-	3,427,200,000	-	3,427,200,000
Others	DDI Beak-Am Logistics REIT Co.,Ltd1	Short-term loans	-	13,600,000,000	(13,600,000,000)	-
	,		₩ 42,393,970,445	₩ 32,097,486,435	₩ (51,086,937,621)	₩ 23,404,519,259

¹ If there is a change in the status of a related party due to a change in ownership during the current period, the transactions are prepared based on the time of the change.

² Share of loss of associates and joint ventures was additionally recognized for the loan of Gunpo Mixed Use Development PFV Company.

Details of equity transactions with related parties for the years ended December 31, 2022 and 2021, are as follows:

(in Korean won) Type	Name of entity	Details	2022	2021
Entities with joint control over the Group	SK GAS LTD	Dividend paid	₩ -	₩ 5,382,633,400
	SK DISCOVERY CO.,LTD.	Dividend paid	9,077,266,800	-
	Hahn & Co. Development Holdings Co., Ltd.	Dividend paid	9,521,270,400	5,382,635,200
Joint ventures	DDI YS-40 REIT ¹	Investments	-	11,000,000,000
	DDI YS-40 REIT ¹	Capital reduction	1,163,323,105	-
	Cheongju Eco Park Co.,Ltd.	Investments	-	5,856,100,000
	Hanwha Cheongjuecopark private equity 1st(Infrastructure)	Investments	-	12,631,000,000
	Hanwha Cheongjuecopark private equity 1st(Infrastructure)	Dividend received	149,640,001	27,920,000
	Eumsung Ecopark Co.,Ltd	Investments	5,740,180,000	-
	Hanwha Eumseongecopark private equity 1st(Infrastructure)	Investments	12,474,420,000	-
	Hanwha Eumseongecopark private equity 1st(Infrastructure)	Dividend received	88,153,178	-
	HHR Real Estate Private Fund No.5	Investments	18,000,000,000	-
	Metheus Icheon Complex Logistics Center PFV Co., Ltd	Investments	2,700,000,000	-
	PungBaek Wind Farm Corporation	Investments	7,885,440,000	-
Associates	Daegusolar	Dividend received	240,323,200	185,203,200
	IGIS No.178 Professional Investors' Private Placement Real Estate Investment Limited Liab.	Dividend received	-	69,040,273,828
	IGIS No.178 Professional Investors' Private Placement Real Estate Investment Limited Liab.	Disposal	282,329,256	29,934,307,901

	DDISY-230 Residential REIT Co.,LTD	Disposal	14,500,000,000	-
	DDISY-230 Residential REIT Co.,LTD	Investments	15,405,000,000	-
	DDISC-1338 Residential REIT Co.,Ltd	Disposal	-	10,521,000,000
	DDISC-1338 Residential REIT Co.,Ltd	Investments	-	10,200,000,000
	DDISC-1339 Residential REIT Co.,Ltd	Disposal	9,124,000,000	-
	DDISC-1339 Residential REIT Co.,Ltd	Investments	10,670,000,000	-
	DDISC-57 Residential REIT Co.,ltd	Disposal	8,330,000,000	-
	DDISC-57 Residential REIT Co.,ltd	Investments	9,254,662,500	-
	DDI Residential No.1 Subsidiary REIT Co.,Ltd	Dividend received	1,163,955,325	187,426,821
	DDIYS832	Investments	-	11,658,000,000
	Semicolon Mullae REIT CO.,LTD.	Dividend received	771,726,029	221,808,219
	FASSTO	Investments	10,661,179,000	-
	Howbuild	Investments	-	2,999,968,374
	D&D Platform REIT Co., Ltd.	Investments	-	30,000,000,000
	D&D Platform REIT Co., Ltd.	Dividend received	1,811,508,908	490,206,521
	Chilgok Ecopark	Investments	-	950,000
	Gulup Wind Power Development Corp.	Investments	-	3,000,000,000
	DDI SSHQ Retail Co., Ltd.	Dividend received	-	11,767,958
	DDI SSHQ Retail Co., Ltd.	Disposal	6,838,151,750	-
	DDIVC-1 REIT Co., Ltd.	Investments	37,926,000,000	-
	DDI LVC Master Real Estate Investment Trust Co., Ltd.	Investments	736,100,000	-
	DDI VC Master Real Estate Investment Trust Co., Ltd.	Investments	851,300,000	-
	Korea Space Data	Investments	2,000,213,131	_
Others	DDI Beak-Am Logistics REIT Co.,Ltd	Capital reduction	-,000,-10,10	4,500,000,000
	Semicolon Mullae REIT CO.,LTD.(formerly, YoungCity REIT Co.,Ltd.)	Investments	-	6,000,000,000
	Semicolon Mullae REIT CO.,LTD.(formerly, YoungCity REIT Co.,Ltd)	Dividend received	-	120,000,000
	<u>G.:</u> / _J		₩ 197,366,142,583	₩ 219,351,201,422

The compensation paid or payable to key management for employee services for the years ended December 31, 2022 and 2021, consists of:

(in Korean won)	2022	2021
Salaries	₩ 6,788,401,573	₩ 6,398,955,087
Post-employment benefits	1,687,477,566	1,163,302,221
Share-based payment expenses	971,949,997	
	₩ 9,447,829,136	₩ 7,562,257,308

Details of payment guarantees provided by the Group for related parties as at December 31, 2022, are as follows:

(in millions of Korean won)	Secured amount	Details	Provided by
Tiger Alternative Investment trust No.318	₩ 4,000	Confirmation of additional investment for loans from Gangnam Station Office development project	Woori Bank (Trustee of Tiger Alternative Investment trust No.318)

¹ If there is a change in the status of a related party due to a change in ownership during the current period, the transactions are prepared based on the time of the change.

Details of assets provided as collateral for related parties by the Parent Company as at December 31, 2022, are as follows:

(in Korean won)	Provided by	Secured amount	Secured assets	Carrying amount
Daegusolar	Korea Development Bank	₩ 15,106,000,000	Shares of investment in associates (Daegusolar)	₩ 2,553,947,326
DDIOS108	KB CAPITAL CO,. LTD, WOORI FINANCIAL CAPITAL CO.,LTD, Shinhan Capital Co., Ltd.	36,000,000,000	Shares of investment in subsidiaries (DDIOS108)	-
DDI Residential No.1 Subsidiary REIT Co.,Ltd	Industrial Bank Of Korea, National Credit Union Federation Of Korea, Eunpyeong Credit Union	84,000,000,000	Shares of investment in associates (DDI Residential No.1 Subsidiary REIT Co.,Ltd)	2,834,530,491
Cheongju Eco Park Co.,Ltd.	Kyobo Life Insurance Co., Ltd., NongHyup Life Insurance Co.,Ltd, NongHyup Bank, KEB Hana Bank (Trustee of Hanwha Cheongjuecopark private equity 1st(Infrastructure)) Kyobo Life Insurance	137,355,600,000	Shares of investment in joint ventures (Cheongju Eco Park Co.,Ltd.)	7,241,396,534
Eumsung Ecopark Co.,Ltd	Co., Ltd. (separate account), Kyobo Life Insurance Co., Ltd. (general account), NongHyup Life Insurance Co.,Ltd, KB SECURITIES CO.,LTD (Trustee of Hanwha Eumseongecopark private equity 1st(Infrastructure))	134,484,000,000	Shares of investment in joint ventures (Eumsung Ecopark Co.,Ltd)	3,589,364,706
PungBaek Wind Farm Corporation	HANWHA LIFE INSURANCE CO., LTD., NongHyup Bank (Trustee of Hanwha Wind-Solar Private Fund No.1)	149,500,000,000	Shares of investment in joint ventures (PungBaek Wind Farm Corporation)	6,733,319,769

When the Parent Company fails to fulfill start and completion of work in relation to the ongoing Gunpo Complex Development Project, the Parent Company is responsible for the cumulative debt acquisition of \forall 47,520 million according to the percentage of construction for the borrowings of Gunpo Complex Development PFV Co., Ltd., respectively.

The Parent Company has entered into a contract with Cheongju Eco Park Co.,Ltd. for the payment of excess compensation for performance guarantee of the fuel cell power generation business. The payment obligation is up to a total of \forall 12 billion for 20 years for the compensation exceeding the performance guarantee compensation liability guaranteed by the supplier under the long-term service contract for the fuel cell power generation business.

The Parent Company has an obligation to replenish funds for the loan interest and delayed interest payment obligations to be paid to lenders according to the loan agreement with Myeongdong Chungwhi Building as collateral by IGIS No.135 Professional Investors' Private Placement Real Estate Investment Limited Liab., an associate. The loan of IGIS No.135 Professional Investors' Private Placement Real Estate Investment Limited Liab. is \forall 96 billion, and the interest period is every 3 months, and a fixed interest rate of 3.60% per annum is paid at the end of each interest period. The maturity date of the loan is 36 months from the date of withdrawal, and the obligation to replenish funds falls within the month in which 36 months elapse from the date following the date of withdrawal belonging to the month in which 24 months elapse from the date of withdrawal of the loan. It is limited to approximately \forall 1.21 billion, which is 35% of the interest equivalent for the period up to the date (i.e., interest for 12 months).

In relation to the ongoing construction of the fuel cell power generation project of Eumsung Ecopark Co.,Ltd, the Parent Company has a commitment to complete and deliver the project by the scheduled date of completion, with the total amount of the contract (\forall 106,870 million) as the fixed amount specified in the construction contract.

The Parent Company has entered into a contract with Eumsung Ecopark Co.,Ltd for the payment of excess compensation for performance guarantee of the fuel cell power generation business. The payment obligation is up to a total of \forall 12 billion for 20 years for the compensation exceeding the performance guarantee compensation liability guaranteed by the supplier under the long-term service contract for the fuel cell power generation business.

At the Board of Directors on September 23, 2022, the Parent Company has resolved to provide a debt guarantees confirming that the Parent Company may replenish the funds by lending based on the construction share of the Group when Gunpo Mixed Use Development PFV Company does not repay the loan by the maturity date in relation to the loan agreement on construction of the Gunpo Complex Development Project which is in progress. The guaranteed amount is \forall 99 billion (\forall 300 billion, which is 120% of the loan commitment of \forall 250 billion, and the amount reflected the 33% in construction share of the Group), and the guarantee period is until the maturity date of the loan (August 23, 2025).

The Parent Company has an obligation to replenish funds if the financial resources for redemption of principal and interest are insufficient until maturity in accordance with the loan agreement by KORAMCO Icheon Baeksa Logistics General Type Private Real Estate Investment Trust and KORAMCO No.120 General Type Private Real Estate Investment Trust. The guaranteed amount is \forall 35.7 billion and \forall 37.8 billion, respectively, and the guarantee period is until the loan maturity date (October 24, 2023).

26. Equity

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

(in Korean won								
in number of shares)		202	22			20	21	
	Ordi	nary shares	Pref	erred shares ¹	Ordi	nary shares	Pref	erred shares ^{1,2}
Total number of authorized								
shares		60,000,000		40,000,000		60,000,000		40,000,000
A par value	₩	1,000	₩	1,000	₩	1,000	₩	1,000
Total number of issued shares		22,190,164		2,000,000		22,190,164		2,000,000
Share capital	₩ 2	2,190,164,000	₩	2,000,000,000	₩ 2	2,190,164,000	₩	2,000,000,000

¹ The Parent Company issued convertible preferred shares of ₩ 132,860 million in 2020, and investors may request a conversion of all or part of the preferred shares into registered ordinary shares of the Parent Company from 1 year after the issue date of the preferred shares to 5 years. The issuance price and conversion price of the convertible preferred shares are ₩ 25,550, and the conversion ratio is 1 to 1. The convertible preferred share is a cumulative, non-participating convertible preferred share with non-voting rights and pays investors a profit dividend of 4.0% per annum based on the issuance price. The preferred shares have the priority on allocation of residual assets over ordinary shares, if the allocation of residual assets for ordinary share exceeds the ratio for preferred share, the Group has the same rights as ordinary share for the excess.

Details of reserves as at December 31, 2022 and 2021, are as follows:

(in Korean won)	2022	2021
Share premium ¹	₩ 283,809,830,429	₩ 283,809,830,429
Other reserves	6,994,751,850	6,994,751,850
	₩ 290,804,582,279	₩ 290,804,582,279

¹The Parent Company issued convertible preferred shares in 2020 and recognized net amount after deducting the capital of preferred shares and direct issue costs from the total amount of convertible preferred shares issued as share premium.

² During the year ended December 31, 2021, 1,200,000 convertible preferred shares owned by Findvalue Asset Management and 2,000,000 convertible preferred shares owned by SK Gas Co., Ltd. were converted into ordinary shares upon the request of conversion.

Details of other components of equity as at December 31, 2022 and 2021, are as follows:

(in Korean won)		2022	2021
Share options	₩	8,621,241,997	₩ 7,649,292,000
Treasury shares		(17,664,000)	(17,664,000)
Share of other comprehensive income of associates		2,866,909	56,416,724
Share of other comprehensive loss of associates		(1,804,763,672)	(10,386,459,844)
Others		(1,242,134,019)	(1,242,134,019)
	₩	5,559,547,215	₩ (3,940,549,139)

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

(in Korean won)		2022		2021
Gain on valuation of financial assets at fair value through other comprehensive income	₩	401,479,264	₩	405,722,110
Loss on valuation of financial assets at fair value through other comprehensive income		(1,055,636,500)		(1,066,792,500)
Gain on valuation of derivative financial instruments		1,725,076,760		775,020,033
	₩	1,070,919,524	₩	113,949,643

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

(in Korean won)	2022	2021
Earned profit reserves	₩ 10,148,026,850	₩ 7,200,883,970
Retained earnings before appropriation	365,293,019,415	320,887,016,999
	₩ 375,441,046,265	₩ 328,087,900,969

Details of dividend paid (or payable) for the years ended December 31, 2022 and 2021, are as follows:

i) Interim dividends (dividend date: June 30, 2022)

(in Korean won)		2022
Ordinary shares (₩ 400 per share) Preferred share (₩ 400 per share)	₩	8,875,809,600 800,000,000
Treferred share (W 400 per share)	₩	9,675,809,600

ii) Annual dividends				
(in Korean won)		2022		2021
Ordinary shares (2022: ₩ 400 per share, 2021: ₩ 800 per share) Preferred share (2022: ₩ 622 per share,	₩	8,875,809,600	₩	17,751,619,200
2021: ₩ 1,022 per share)		1,244,000,000		2,044,000,000
	₩	10,119,809,600	₩	19,795,619,200

A dividend in respect of the year ended December 31, 2021, is the same as those of the dividends proposed for approval of the general shareholders' meeting.

27. Share Options

The Group has granted share options to executives and employees. Details are as follows:

(in Korean won, in number of shares)

Grant date	Number of shares to be issued	Exercise period		ercise orice		value at ant date
2016.03.18 ¹	120,000	2018.03.18 ~ 2025.03.17	₩	38,450	₩	29,025
2017.03.241	120,000	2019.03.24 ~ 2026.03.23		25,900		7,671
2018.03.271	120,000	2020.03.27 ~ 2025.03.26		28,500		8,707
2022.03.23 ²	271,700	2025.03.23 ~ 2029.03.22		30,200	8,8	28 ~ 10,814

¹ It is a re-measured fair value due to the adjustment of the exercise price following the capital increase without consideration on April 10, 2017 and capital increase with consideration on May 23, 2020, and the actual valuation amount is the fair value at the initial grant date.

² For the share options granted on March 23, 2022, the fair value at the grant date was calculated differently depending on the vesting period, even under the same conditions.

The fair value of share options was calculated according to the binomial option pricing model, and the variables applied to the model are as follows:

(in Korean won, in percentage (%))		ted on 18, 2016		Granted on Granted of March 24, 2017 March 27, 2				nted on n 23, 2022 ¹
Share price at grant date	₩	61,700	₩	38,500	₩	27,200	₩	31,250
Exercise price		38,450		25,900		28,500		30,200
Expected volatility		73.60		30.50		29.87	36	6.70 ~ 40.42
Risk-free interest rate		1.77		2.12		2.57		2.50 ~ 2.60

¹ For the share options granted on March 23, 2022, variables were applied differently depending on the vesting period even under the same conditions.

The Group has newly granted share options and details of changes in share options for the year ended December 31, 2022, are as follows:

(in Korean won, in number of shares)	Number of shar	es to be issued	Valuation					
	Beginning balance	Ending balance	Beginning balance	Increase		Increase		Ending balance
2016.03.18 ¹	120,000	120,000	₩ 5,223,600,000	₩	-	₩ 5,223,600,000		
2017.03.24 ¹	120,000	120,000	1,380,852,000		-	1,380,852,000		
2018.03.271	120,000	120,000	1,044,840,000		-	1,044,840,000		
2022.03.23	<u> </u>	271,700			971,949,997	971,949,997		
	360,000	631,700	₩ 7,649,292,000	₩	971,949,997	₩ 8,621,241,997		

¹ Cumulative share-based payment expenses due to grant of share options is fully recognized.

28. Operating Segment

The Group has four reportable segments, as described below, which are the Group's strategic business units. The strategic business units offer different products and services, and are managed separately because they require different technology and marketing strategies.

The Group is engaged in real estate development/operation and energy business, and the main products and services of each sector are as follows.

Real estate Development and operation of offices/knowledge industry centers/commercial

 ${\it development/operation} \qquad {\it facilities/officetels/rental\ housing,\ etc.}$

Renewable energy business Wind/solar/fuel cell power plant EPC and facility installation, operation, business

development and sale of business right

ESS business Installation, operation, provision for power saving service of ESS facility

Furniture business Sales and installation of imported/domestic furniture, etc.

The financial performances of the reportable segments for the years ended December 31, 2022 and 2021, are as follows:

(in Korean won)				2022							
	Real estate	Real estate Inter-company									
	development/		transactions and								
	operation	Renewable energy	ESS	Furniture others		Unallocated	Total				
Operating profit (loss)	₩ 69,114,795,927	₩ 17,073,418,899	₩ 11,124,787,409	₩ 5,527,491,767	₩ (998,583,783)	₩ (37,495,663,434) ₩	64,346,246,785				
Depreciation and											
amortization ¹	4,772,048,197	4,858,734,976	20,676,100,704	853,004,760	(676,236,066)	3,773,874,200	34,257,526,771				

¹ Sum of depreciation of property, plant and equipment, depreciation of investment property, depreciation of right-of-use assets and amortization of intangible assets.

(in Korean won)	·	2021							
	Real estate				Inter-company				
	development/		transactions and						
	operation	Renewable energy	ESS	Furniture	others	Unallocated	Total		
Operating profit (loss) Depreciation and	₩ 222,041,226,834	₩ 12,372,861,297	₩ 11,180,367,321	₩ 4,050,432,077	₩ (7,165,313,504)	₩ (32,614,061,542)	₩ 209,865,512,483		
amortization ¹	4,855,709,969	4,894,598,810	18,371,556,602	911,812,856	(366,914,517)	3,198,709,990	31,865,473,710		

¹ Sum of depreciation of property, plant and equipment, depreciation of investment property, depreciation of right-of-use assets and amortization of intangible assets.

Transfers or transactions between segments are made under conditions applicable to third parties and have been eliminated in the process of preparing the consolidated financial statements. Selling and administrative expenses and finance income and costs, which are managed on the Group level, are not allocated to segments.

The financial position of each reportable segment as at December 31, 2022 and 2021, is as follows:

(in Korean won)	2022						
	Real estate development/ operation	Renewable energy	ESS	Furniture	Unallocated	Total	
Total assets	₩ 1,475,393,950,975	₩ 211,186,402,720	₩ 256,955,596,923	₩ 25,501,728,201	₩ 222,538,535,628	₩ 2,191,576,214,447	
Non-current assets ¹	191,329,786,994	54,604,457,463	224,301,803,537	3,762,499,521	12,601,387,728	486,599,935,243	
Total liabilities	874,250,521,953	103,402,900,918	80,652,831,889	7,272,129,641	428,931,570,763	1,494,509,955,164	

¹ Property, plant and equipment, investment property, right-of-use assets and intangible assets are included.

(in Korean won)			20:	21		
	Real estate development/ operation	Renewable energy	ESS	Furniture	Unallocated	Total
Total assets	₩ 1,410,612,335,447	₩ 164,067,768,484	₩ 283,954,183,307	₩ 20,931,622,183	₩ 103,864,858,618	₩ 1,983,430,768,039
Non-current assets ¹	148,551,963,948	58,952,987,379	244,499,882,159	3,235,724,164	13,072,526,612	468,313,084,262
Total liabilities	761,721,946,060	85,851,219,417	85,891,738,776	5,460,669,911	405,249,146,123	1,344,174,720,287

¹ Property, plant and equipment, investment property, right-of-use assets and intangible assets are included.

Revenue from contracts with customers of the Group is classified as follows, and all sales were generated in domestic for the years ended December 31, 2022 and 2021, are as follows:

(in Korean won)			20)22		
	Real estate development/ operation	Renewable energy	ESS	Furniture	Inter-company transactions and others	Total
1. Revenue from con	tracts with customers					
At a point in time						
Merchandises	₩ 7,346,493	₩ 97,154,640,000	₩ -	₩ 1,510,950,002	₩ -	₩ 98,672,936,495
Products	-	17,343,703,180	1,663,939,100	-	-	19,007,642,280
Services	37,043,985,468	-	41,568,131,847	1,433,271,500	(4,767,638,871)	75,277,749,944
Housing	8,486,574,174	-	-	-	-	8,486,574,174
Operation	688,826,972					688,826,972
	46,226,733,107	114,498,343,180	43,232,070,947	2,944,221,502	(4,767,638,871)	202,133,729,865
Over time						
Merchandises	-	-	-	29,381,183,127	-	29,381,183,127
Services	11,637,943,814	2,239,902,319	-	-	(1,556,695,078)	12,321,151,055
Rental	5,438,416,278	-	-	-	(277,880,291)	5,160,535,987
Construction	-	13,906,905,967	-	-	-	13,906,905,967
Housing	269,366,979,952					269,366,979,952
	286,443,340,044	16,146,808,286		29,381,183,127	(1,834,575,369)	330,136,756,088
2. Revenue from oth	er sources					
Profit related to						
equity method ¹	31,166,080,222					31,166,080,222
	₩ 363,836,153,373	₩ 130,645,151,466	₩ 43,232,070,947	₩ 32,325,404,629	₩ (6,602,214,240)	₩ 563,436,566,175

¹ Gain on valuation of \forall 17,852,663,622 and gain on disposal of \forall 13,313,416,600 from equity method investment held for operating purposes during the year ended December 31, 2022, are included (Notes 10 and 37).

(in Korean won)			20	21		
	Real estate development/ operation	Renewable energy	ESS	Furniture	Inter-company transactions and others	Total
1. Revenue from cont	racts with customers					
At a point in time						
Merchandises	₩ 3,566,959	₩ 104,068,800,000	₩ -	₩ 2,612,541,102	₩ -	₩ 106,684,908,061
Products	-	10,865,270,358	-	-	-	10,865,270,358
Services	3,886,456,792	888,330,697	41,062,347,181	359,308,500	(2,555,108,134)	43,641,335,036
Housing	412,760,000,000	-	-	-	-	412,760,000,000
Operation	75,490,923	<u> </u>				75,490,923
	416,725,514,674	115,822,401,055	41,062,347,181	2,971,849,602	(2,555,108,134)	574,027,004,378
Over time						
Merchandises	-	-	-	40,914,863,860	-	40,914,863,860
Services	15,346,284,370	2,370,088,218	-	-	(3,236,315,804)	14,480,056,784
Rental	8,696,561,447	-	-	-	-	8,696,561,447
Housing	152,837,952,104					152,837,952,104
	176,880,797,921	2,370,088,218		40,914,863,860	(3,236,315,804)	216,929,434,195
2. Revenue from other	er sources					
Profit related to						
equity method ¹	90,880,198,567	<u> </u>				90,880,198,567
	₩ 684,486,511,162	₩ 118,192,489,273	₩ 41,062,347,181	₩ 43,886,713,462	₩ (5,791,423,938)	₩ 881,836,637,140

¹ Gain on valuation of \forall 73,277,741,789 and gain on disposal of \forall 17,602,456,778 from equity method investment held for operating purposes during the year ended December 31, 2021, are included (Notes 10 and 37).

The transaction amount for major customers, who contribute more than 10% of the Group's revenue, and the ratio of the total operating income for the years ended December 31, 2022 and 2021, are as follows:

(in Korean won)	2022					
	Reportable segment		Amount	Percentage		
Customer A	Renewable energy	₩	97,154,640,000	17.24%		
(in Korean won)	2021					
	Reportable segment		Amount	Percentage		
Customer B	Real estate development/ operation	₩ 2	40,000,000,000	27.22%		
Customer C	Real estate development/ operation	1	72,760,000,000	19.59%		
Customer D	Renewable energy	1	04,068,800,000	11.80%		

29. Operating Expenses

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

(in Korean won)	2022	2021
Changes in inventories (including land)	₩ 199,512,818,712	₩ 480,555,071,043
Raw materials used	86,988,140	27,163,496
Employee benefits expenses	39,629,879,694	42,089,809,157
Depreciation (including depreciation of investment property)	27,331,555,817	25,181,007,046
Depreciation of right-of-use assets	4,301,537,305	4,689,843,720
Amortization	2,624,433,649	1,994,622,944
Outsourcing expenses	111,261,426,606	51,646,841,780
Commission expenses	51,453,083,496	36,363,351,166
Taxes and dues	15,428,726,460	4,192,688,320
Rental expenses	1,360,470,675	665,199,664
Advertising expense	1,337,592,264	754,525,068
Loss related to equity method 1,2	30,139,266,922	10,382,609,952
Other	14,622,539,650	13,428,391,301
	₩ 499,090,319,390	₩ 671,971,124,657

¹ Loss on valuation of ₩ 23,544,136,332, loss on disposal of ₩ 23,549,885, and impairment loss of ₩ 6,571,580,705 from equity method investment held for operating purposes during the year ended December 31, 2022, are included (Notes 10 and 37).

30. Non-Operating Income and Expenses

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

(in Korean won)		2022		2021
Other non-operating income				
Rental revenues	₩	98,819,662	₩	65,153,949
Gain on disposal of investment in associates		1,092,791,070		-
Gain on disposal of property, plant and				
equipment		150,146,231		24,751,047
Gain on disposal of right-of-use assets		151,550,029		2,361,515,469
Other income on real estate		60,608,308,795		-
Miscellaneous gains		4,216,970,822		5,343,463,783
	₩	66,318,586,609	₩	7,794,884,248
Other non-operating expenses		_		
Loss on disposal of property, plant and				
equipment	₩	13,800,700	₩	355,730,840
Loss on disposal of intangible assets		47,510,002		1,295,167
Loss on disposal of right-of-use assets		46,528,231		988,365,806
Loss on inventory obsolescence		-		107,120
Donation		685,900,863		641,854,404
Compensation expenses		1,615,000,000		129,000,000
Miscellaneous losses		2,112,396,879		1,099,176,496
	₩	4,521,136,675	₩	3,215,529,833

 $^{^2}$ Loss on valuation of \forall 10,355,349,171 and loss on disposal of \forall 27,260,781 from equity method investment held for operating purposes during the year ended December 31, 2021, are included (Notes 10 and 37).

Details of finance income and costs for the years ended December 31, 2022 and 2021, are as follows:

(in Korean won)		2022		2021
Finance income				
Interest income	₩	5,109,084,608	₩	4,342,550,677
Gain on foreign currency transaction		894,680,552		79,278,510
Gain on foreign currency translation		512,151,083		256,322,723
Dividend income		1,908,158,241		1,904,234,667
Gain on derivative transactions		247,998,087		2,435,609,695
Gain on valuation of derivatives		2,734,101,554		3,173,073,637
Gain on valuation of firm commitments		58,736,783		4,256,000
Gain on transaction of firm commitments		256,103,589		-
Reversal of financial guarantee liabilities		1,707,497,250		682,881,470
Gain on valuation of financial assets at fair value through profit or loss Gain on disposal of financial assets at fair value		3,930,045,071		425,124,529
through profit or loss		1,780,601,529		5,000,000,000
	₩	19,139,158,347	₩	18,303,331,908
Finance costs				
Interest expenses	₩	26,913,196,451	₩	31,953,352,644
Loss on foreign currency transaction		5,537,799,302		98,099,272
Loss on foreign currency translation		11,918,787		251,697,742
Loss on derivative transactions		576,868,321		643,510,032
Loss on valuation of derivatives		2,087,736,783		1,577,000,000
Loss on valuation of firm commitments		35,089,658		2,359,580,763
Loss on transaction of firm commitments		225,092,663		-
Financial guarantee expenses		1,707,497,250		682,881,470
Loss on valuation of financial assets at fair		000 040 000		0.077.400.507
value through profit or loss	\A/	388,316,396	14/	8,677,183,567
	₩	37,483,515,611	₩	46,243,305,490

31. Tax Expense

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

(in Korean won)	2022	2021
Current income taxes	₩ 39,674,603,448	₩ 57,860,624,771
Additional payment of income taxes (refunds)	(577,884,977)	(488,783,488)
Changes in deferred tax due to temporary	404.007.700	(0.000 555 000)
differences	194,307,706	(9,666,555,603)
Income tax expense charged directly to equity	(1,781,282,653)	254,683,137
Income tax expense	₩ 37,509,743,524	₩ 47,959,968,817

Income tax expense charged directly to the equity for the years eneded December 31, 2022 and 2021, is as follows:

(in Korean won)	20)22		2021
Gain on valuation of financial assets at fair value through other comprehensive income	₩	6,913,154	₩	-
Loss on valuation of derivatives	(31	5,678,427)		(278,113,187)
Share of other comprehensive income of associates	(1,92	8,071,382)		391,177,627
Actuarial gains and losses	4	55,554,002		141,618,697
	₩ (1,78	1,282,653)	₩	254,683,137

Reconciliation between profit before income tax and income tax expense for the years ended December 31, 2022 and 2021, is as follows:

(in Korean won)	2022	2021
Profit before income tax	₩ 113,722,926,342	₩ 181,594,641,650
Income tax based on statutory tax rate	27,006,994,039	43,559,562,421
Adjustments:		
Non-deductible expense (2022: ₩ 3,888,693,429, 2021: ₩ 1,164,443,115)	920.111.174	311,509,165
Effect of unrecognized deferred tax among temporary differences	(2,473,126,721)	(127,342,211)
Additional payment of income taxes	(577,884,978)	(488,783,488)
Effect of recirculation of corporate income	2,509,109,834	5,062,081,076
Non-deductible dividend income	(15,002,723)	(25,902,819)
Others (difference in tax rate, etc.)	10,139,542,899	(331,155,327)
Income tax expense	₩ 37,509,743,524	₩ 47,959,968,817
Effective tax rate	32.98%	26.41%

The movements in deferred tax assets and liabilities for the years ended December 31, 2022 and 2021, are as follows:

(in Korean won)		20)22	
	Beginning balance	Profit or loss	Charged (credited) directly to the equity	Ending balance
Investment in				
subsidiaries and				
associates	₩ 11,979,745,864	₩ 5,053,565,393	₩ (1,928,071,382)	₩ 15,105,239,875
Defined benefit	2 640 422 594	160.064.533		2 000 107 107
obligations Loss on valuation of	2,640,122,584	169,064,523	-	2,809,187,107
inventories	70,450,786	18,852,830	_	89,303,616
Depreciation	193,664,672	(513,883,564)	_	(320,218,892)
Gain on foreign currency	,	(= :=,===,== :)		(,,
translation	689,972,511	531,285,595	-	1,221,258,106
Gain on valuation of				
securities	2,821,994,432	279,739,635	6,913,154	3,108,647,221
Unpaid annual leave	164,089,265	57,319,981	-	221,409,246
Long-term employee		00 ==0 000		040 -04
benefits	36,695,202	20,553,329	-	57,248,531
Provision for warranty	425,176,577	33,765,968	-	458,942,545
Provision for loss compensation	587,500,000	(361,630,461)		225,869,539
Finance costs on	307,300,000	(301,030,401)	-	223,009,339
advance receipts	658,131,477	(321,579,257)	-	336,552,220
Accrued income	(563,415,043)	93,467,162	-	(469,947,881)
Plan assets	(2,406,976,821)	(366,759,366)	-	(2,773,736,187)
Interest on construction	, , , , ,	,		,
funds	(3,497,994,380)	(4,763,630,203)	-	(8,261,624,583)
Amortization (goodwill)	(656,702,488)	69,861,967	-	(586,840,521)
Valuation of derivatives	(1,112,212,072)	(1,008,380,314)	(315,678,427)	(2,436,270,813)
Provision for long-term				
maintenance	640,820,436	26,434,665	-	667,255,101
Conversion of journal	404 700 070	(400.070.000)		(7.004.044)
entry (lease) Allowance for valuation	181,788,379	(189,070,023)	-	(7,281,644)
loss of REC	52,685,087	(52,685,087)	_	_
Provision for impairment	322,118,270	16,899,657	-	339,017,927
Asset impairment	482,015,648	61,705,141	_	543,720,789
Actuarial gains and	.02,0.0,0.0	0.,.00,		0.0,.20,.00
losses	-	(455,554,002)	455,554,002	-
Long-term borrowings				
(present value				
discounts)	(1,036,705,605)	101,591,085	-	(935,114,520)
Allowance for valuation				
loss of completed projects	220,790,646	7,516,277	_	228,306,923
Allowance for valuation		1,010,211		
loss of land	75,593,441	2,573,394	-	78,166,835

	Roginnin	g halance	Di	ofit or loss		rged (credited)	En	ding balance
(in Korean won)				20	21			
	₩ 9,7	03,689,521	₩	1,586,974,947	₩	(1,781,282,653)	₩	9,509,381,815
Others	(3,26	65,659,347)		975,701,622				(2,289,957,725)
Bonuses		-		2,021,031,000		-		2,021,031,000
Loss on impairment of investment assets		-		79,218,000		-		79,218,000

(in Korean won)	2021							
					Char	ged (credited)		
	Begi	nning balance	Р	rofit or loss	direct	ly to the equity	En	ding balance
Investment in								
subsidiaries and associates Defined benefit	₩	2,129,048,890	₩	9,713,226,493	₩	137,470,481	₩	11,979,745,864
obligations Loss on valuation of		2,208,640,820		425,441,992		6,039,772		2,640,122,584
inventories		63,442,554		7,008,232		-		70,450,786
Depreciation Gain (loss) on foreign		173,599,248		20,065,424		-		193,664,672
currency translation Gain on valuation of		(36,853,562)		726,826,073		-		689,972,511
securities		884,138,689		1,937,855,743		-		2,821,994,432
Unpaid annual leave Long-term employee		136,561,140		27,528,125		-		164,089,265
benefits		34,738,886		1,956,316		-		36,695,202
Provision for warranty		442,051,611		(16,875,034)		-		425,176,577
Bad debts Provision for loss		29,335,735		(29,335,735)		-		-
compensation Finance costs on		677,394,344		(89,894,344)		-		587,500,000
advance receipts		403,013,168		255,118,309		-		658,131,477
Accrued income		(425,561,322)		(137,853,721)		-		(563,415,043)
Plan assets Interest on construction		(2,184,545,937)		(222,430,884)		-		(2,406,976,821)
funds		(3,619,711,337)		121,716,957		-		(3,497,994,380)
Amortization (goodwill)		(656,702,488)		-		-		(656,702,488)
Valuation of derivatives		(929,334,433)		95,235,548		(278,113,187)		(1,112,212,072)
Firm commitment assets Provision for long-term		1,484,447,983		(1,484,447,983)		-		-
maintenance Conversion of journal		523,313,001		117,507,435		-		640,820,436
entry (lease) Allowance for valuation		411,728,334		(229,939,955)		-		181,788,379
loss of REC		122,514,501		(69,829,414)		-		52,685,087
Provision for impairment		337,631,049		(15,512,779)		-		322,118,270
Asset impairment Actuarial gains and		482,015,648				-		482,015,648
losses Long-term borrowings				(135,578,925)		135,578,925		
(present value discounts)		(638,875,059)		(397,830,546)		-		(1,036,705,605)

Allowance for valuation loss of completed								
projects		220,790,646		-		-		220,790,646
Allowance for valuation								
loss of land		75,593,441		-		-		75,593,441
Others		38,536,886		(40,452,796)		-		(1,915,910)
Property, plant and								
equipment (transfer)		1,116,070,976		-		-		1,116,070,976
Gain on disposal of								
intangible assets		8,279,007		-		-		8,279,007
Difference in								
depreciation method		(3,474,168,501)		(1,197,155,963)		-		(4,671,324,464)
Property, plant and								
equipment								
(construction-in-								
progress)		<u>-</u>		283,231,044				283,231,044
	₩	37,133,918	₩	9,665,579,612	₩	975,991	₩	9,703,689,521

Details of unrecognized temporary differences related to investment assets as deferred tax assets (liabilities) as at December 31, 2022 and 2021, are as follows:

(in Korean won)	2022		2021
Investment in subsidiaries ¹	₩ (15,447,724,278)	₩	(4,565,866,128)
Investment in joint ventures and associates	60,000,000		60,000,000
	₩ (15,387,724,278)	₩	(4,505,866,128)

¹ Among the deductible (taxable) temporary differences in subsidiaries in which the Parent Company holds 100% of the shares, deductible temporary differences consist of temporary differences with respect to subsidiaries for which it is probable that the temporary difference will not reverse in the foreseeable future and taxable profits will not be available and taxable temporary differences consist of temporary differences with respect to subsidiaries with a 100% non-inclusion rate of dividend income, although temporary differences are expected to be reversed only through dividends, not disposals.

32. Earnings per Share

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

(a) Basic earnings per ordinary share

(in Korean won, in shares)		2022		2021
Profit attributable to ordinary shares ¹ Weighted average number of ordinary shares	₩	68,439,212,542	₩	120,388,076,208
outstanding		22,189,524		20,371,442
Basic earnings per share	₩	3,084	₩	5,910

¹ Preferred shares are deducted from profit attributable to the ordinary equity holders of the Parent Company.

(b) Diluted earnings per ordinary share

(in Korean won, in shares)		2022 ¹		2021
Profit attributable to ordinary shares ¹ Weighted average number of ordinary shares	₩	68,439,212,542	₩	135,326,656,331
outstanding		22,189,524		24,259,315
Diluted earnings per share	₩	3,084	₩	5,578

¹ As at December 31, 2022, share options granted by the Group are out-of-money and have no dilutive effect, so basic earnings per ordinary share is identical to diluted earnings per ordinary share.

The Group issued convertible preferred shares in 2020, and calculation details of basic and diluted earnings per preferred share for the years ended December 31, 2022 and 2021, are as follows:

(a) Basic earnings per preferred share

(in Korean won, in shares)		2022		2021
Profit attributable to preferred shares ¹ Weighted average number of preferred shares	₩	8,212,427,826	₩	12,894,580,123
outstanding		2,000,000		3,818,082
Basic earnings per share	₩	4,106	₩	3,377

¹ It is the amount corresponding to the percentage of preferred share among the amount after deducting the dividend on preferred share from the annual 4% dividend and profit attributable to the ordinary equity holders of the Parent Company.

(b) Diluted earnings per preferred share

(in Korean won, in shares)		2022 ¹		2021
Profit attributable to preferred shares ¹ Weighted average number of preferred shares	₩	8,212,427,826	₩	12,863,365,259
outstanding		2,000,000		3,818,082
Diluted earnings per share	₩	4,106	₩	3,369

¹ The Group did not issue any dilutive potential preferred shares. Therefore, basic earnings per preferred shares is identical to diluted earnings per preferred shares.

Weighted average number of ordinary shares outstanding and the weighted average number of preferred shares outstanding for calculation of basic and diluted earnings per share are calculated as follows.

(a) Basic earnings per ordinary share

(in shares)	Period	Changes in details	Number of shares	Number of days	Weighted average number of shares
2022	1/1~12/31	Beginning balance	22,189,524	365/365	22,189,524
2021	1/1~12/31	Beginning balance	18,989,524	365/365	18,989,524
	6/23~12/31	Exercise of conversion right	1,200,000	192/365	631,233
	8/17~12/31	Exercise of conversion right	2,000,000	137/365	750,685
					20,371,442

(b) Diluted earnings per ordinary share

(in shares)	Period	Changes in details	Number of shares	Number of days	Weighted average number of shares
2022	Weighted average number of shares outstanding	1	-	-	22,189,524
	-				22,189,524
2021	Weighted average number of shares outstanding				20,371,442
	1/1~12/31	Share option ²	69,791	365/365	69,791
	1/1~12/31		5,200,000	365/365	5,200,000
	6/23~12/31	Convertible preferred share ³	(1,200,000)	192/365	(631,233)
	8/17~12/31	profession of diffe	(2,000,000)	137/365	(750,685)
					24,259,315

(c) Basic and Diluted earnings per preferred share

(in shares)	Period	Changes in details	Number of shares ¹	Number of days	Weighted average number of shares
2022	1/1~12/31	Convertible preferred share ¹	2,000,000	365/365	2,000,000
					2,000,000
2021	1/1~12/31		5,200,000	365/365	5,200,000
	6/23~12/31	Convertible preferred share ¹	(1,200,000)	192/365	(631,233)
	8/17~12/31	professor chare	(2,000,000)	137/365	(750,685)
					3,818,082

¹ There is no dilutive potential preferred share when calculating diluted earnings per share for the years ended December 31, 2022 and 2021.

¹There are no dilutive potential ordinary shares in 2022.

² The effects of share options granted on March 18, 2016, March 24, 2017, and March 27, 2018 were reflected when calculating diluted earnings per share in 2021.

³ In calculating diluted earnings per share in 2021, the effect of the assumption of the exercise of the conversion right of the convertible preferred shares issued in the previous year was reflected.

33. Cash Flows

Adjustments to cash generated from operations for the years ended December 31, 2022 and 2021, are as follows:

(in Korean won)	2022	2021
Loss related to equity method (operating)	₩ 30,139,266,922	₩ 10,382,609,952
Depreciation	26,827,583,187	24,702,421,884
Depreciation of investment property	503,972,630	478,585,162
Depreciation of right-of-use assets	4,301,537,307	4,689,843,720
Amortization	2,624,433,649	1,994,622,944
Impairment loss	13,565,238	244,449,336
Loss on disposal of right-of-use assets	46,528,231	988,365,806
Loss on disposal of property, plant and equipment	13,800,700	355,730,840
Loss on disposal of intangible assets	47,510,002	1,295,167
Share-based payment expenses	971,949,997	-
Post-employment benefits	2,809,711,902	2,956,017,435
Interest expenses	26,913,196,451	31,953,352,644
Loss on foreign currency translation	11,918,787	251,697,742
Contribution to provision for long-term maintenance	19,010,292	500,031,637
Contribution to provision for warranty	409,913,679	984,259,093
Loss on derivative transactions	576,868,321	643,510,032
Loss on valuation of derivatives	2,087,736,783	1,577,000,000
Loss on valuation of firm commitments	35,089,658	2,359,580,763
Loss on transaction of firm commitments Loss on valuation of financial assets at fair value	225,092,663	- 0.077.400.507
through profit or loss	388,316,396	8,677,183,567
Financial guarantee expenses	1,707,497,250	682,881,470
Loss on valuation of inventories	122,754,762	258,180,154
Share of loss of associates and joint ventures	7,609,696,394	5,882,533,785
Loss on inventory obsolescence	27 500 742 524	107,120
Income tax expense	37,509,743,524	47,959,968,817 (90,880,198,567)
Profit related to equity method (operating) Interest income	(31,166,080,222) (5,109,084,608)	,
Dividend income	,	,
	(1,908,158,241)	,
Gain on foreign currency translation	(512,151,083)	(256,322,723)
Gain on disposal of property, plant and equipment	(150,146,231)	,
Gain on disposal of right-of-use assets	(151,550,029) (114,683,955)	(2,361,515,469)
Reversal of provision for impairment Gain on derivative transactions	,	(2.425.600.605)
Gain on derivative transactions	(247,998,087)	(2,435,609,695)

Gain on valuation of derivatives		(2,734,101,554)		(3,173,073,637)
Gain on valuation of firm commitments		(58,736,783)		(4,256,000)
Gain on transaction of firm commitments		(256,103,589)		-
Gain on valuation of financial assets at fair value through profit or loss Gain on disposal of financial assets at fair value		(3,930,045,071)		(5,000,000,000)
through profit or loss		(1,780,601,529)		(425,124,529)
Reversal of provision for loss compensation		-		(382,529,122)
Reversal of financial guarantee liabilities		(1,707,497,250)		(682,881,470)
Reversal of loss on valuation of inventories		(228,547,791)		(422,555,784)
Reversal of provision for warranty		-		(555,640,983)
Share of profit of associates and joint ventures		(13,533,283,281)		(972,282,119)
Gain on disposal of investment in associates		(1,092,791,070)		-
Miscellaneous gains (effect of re-estimating the lease)		(149,012,651)		(145,140,112)
Other income on real estate		(60,608,308,795)		<u>-</u>
	₩	20,477,812,905	₩	34,555,562,469

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

(in Korean won)		2022	2021
Disposal of investment in associates (operating) Acquisition of investment in associates	₩	32,236,329,256	₩ 40,455,307,901
(operating)		(73,255,662,500)	(21,858,000,000)
Disposal of investment in joint ventures		F F 40 000 700	
(operating) Acquisition of investment in joint ventures		5,549,986,780	-
(operating)		(20,700,000,000)	(11,000,000,000)
Trade and other receivables		(9,491,920,312)	(11,872,575,966)
Inventories		(21,465,712,205)	(86,470,241,542)
Contract assets		18,803,612,563	114,660,000,000
Contract costs		(5,126,194,438)	3,287,712,205
Other current assets		(5,097,401,427)	(130,194,730,570)
Other non-current assets		(702,972,143)	(1,696,390,386)
Trade and other payables		9,095,989,494	(24,476,189,898)
Contract liabilities		50,088,344,054	(45,006,521,145)
Other current liabilities		(12,182,714,105)	(3,470,729,901)
Other non-current liabilities		3,081,098,586	(3,361,010,260)
Lease receivables		2,036,160,684	1,161,306,178
Transfer from (to) associates		2,458,780	-
Benefit payments		(2,169,386,783)	745,300,743
Provisions		(1,915,973,058)	(500,426,765)

Contribution to plan assets		(4,063,401,946)		(2,208,388,179)
Net change in cash due to change in scope of		(1 520 245 097)		262 022 742
consolidation (operating)		(1,530,245,087)		262,933,742
	₩	(36,807,603,807)	₩	(181,542,643,843)

The statements of cash flows of the Group are prepared using the indirect method. Significant transactions not affecting cash flows for the years ended December 31, 2022 and 2021, are as follows:

(in Korean won)	2022			2021
Transfer of long-term borrowings to current portion	₩	231,298,667,643	₩	243,033,655,558
Transfer of long-term loans to current portion		3,667,000,000		-
Transfer of advance payments to property, plant and equipment, and intangible assets		771,743,103		8,184,852,449
Transfer of construction-in-progress to property, plant and equipment		33,960,222,983		920,597,000
Transfer of construction-in-progress to intangible assets		888,088,908		3,218,854,163
Non-trade payables related to the acquisition of property, plant and equipment, and intangible assets		145,915,582		754,174,600
Transfer of leasehold deposits received to current portion		2,696,666,670		1,940,000,000
Transfer of non-current lease liabilities to current portion		5,163,402,447		6,081,339,496
Transfer of debentures to current portion		74,888,048,855		72,640,000,000
Change in scope of consolidation		4,716,667,279		16,530,692,315
Transfer of investment in joint ventures to investment in associates		8,464,185,394		-
Transfer from investment in associates to financial asset at fair value through profit or loss		-		11,079,200,000

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

(in Korean won)			2022		
		Financing cash			
	Beginning balance	flows	Transfer	Others ¹	Ending balance
Short-term borrowings	₩ 46,000,000,000	₩ 1,200,000,000	₩ -	₩ (39,200,000,000)	₩ 8,000,000,000
Current portion of					
long-term borrowings	242,779,375,113	(213,695,655,558)	231,298,667,643	(5,641,219,527)	254,741,167,671
Current portion of					
debentures	75,417,364,993	(74,704,000,000)	74,888,048,855	(676,832,739)	74,924,581,109
Dividend payable	-	(31,813,242,287)	-	31,813,242,287	-
Long-term borrowings	518,218,040,298	370,366,400,000	(231,298,667,643)	(26,241,764,859)	631,044,007,796
Non-current			,	,	
debentures	251,574,234,093	69,790,000,000	(74,888,048,855)	3,659,987,104	250,136,172,342
Current lease liabilities	5,065,184,977	(5,299,111,988)	5,163,402,447	(647,535,137)	4,281,940,299
Non-current lease					
liabilities	14,884,152,227		(5,163,402,447)	4,424,895,062	14,145,644,842
	₩ 1,153,938,351,701	₩ 115,844,390,167	₩ -	₩ (32,509,227,809)	₩ 1,237,273,514,059

¹ Effects on foreign currency translation of liabilities, etc. are included.

(in Korean won)			2021		
		Financing cash			
	Beginning balance	flows	Transfer	Others ¹	Ending balance
Short-term borrowings	₩ 27,000,000,000	₩ (18,900,000,000)	₩ -	₩ 37,900,000,000	₩ 46,000,000,000
Current portion of					
long-term borrowings	261,816,501,836	(261,816,501,836)	243,033,655,558	(254,280,445)	242,779,375,113
Short-term debentures	60,000,000,000	(60,000,000,000)	-	-	-
Current portion of					
debentures	201,662,669,323	(201,400,000,000)	72,640,000,000	2,514,695,670	75,417,364,993
Dividend payable	-	(17,202,011,245)	-	17,202,011,245	-
Long-term borrowings	280,376,259,271	476,471,000,000	(243,033,655,558)	4,404,436,585	518,218,040,298
Non-current					
debentures	146,960,368,652	174,585,324,960	(72,640,000,000)	2,668,540,481	251,574,234,093
Current lease liabilities	5,213,782,966	(5,333,161,795)	6,081,339,496	(896,775,690)	5,065,184,977
Non-current lease					
liabilities	18,098,830,837	. <u> </u>	(6,081,339,496)	2,866,660,886	14,884,152,227
	₩ 1,001,128,412,885	₩ 86,404,650,084	₩ -	₩ 66,405,288,732	₩ 1,153,938,351,701

¹ Effects on foreign currency translation of liabilities, etc. are included.

34. Fair Value

The Group has classified fair value measurements in accordance with the fair value hierarchy which reflects the significance of the inputs used in fair value measurement. The levels of the fair value hierarchy are as follows.

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

Fair value hierarchy classifications of the financial instruments that are measured at fair value as at December 31, 2022 and 2021, are as follows:

(in Korean won)	2022									
		Level 1			Level 2	Level 3	Total			
Financial assets Financial assets at fair value through profit or loss Financial assets at fair value	₩		-	₩	34,777,341,097	₩ 74,283,980,928	₩ 109,061,322,025			
through other comprehensive income			_		_	3,800,000	3,800,000			
Derivatives designated as hedging Derivatives not designated as			-		8,030,946,600	-	8,030,946,600			
hedging Financial liabilities			-		-	5,289,916,814	5,289,916,814			
Derivatives designated as hedging Derivatives not designated as			-		903,802,424	-	903,802,424			
hedging			-		-	3,703,000,000	3,703,000,000			
(in Korean won)					202	21				
· ·		Level 1			Level 2	Level 3	Total			
Financial assets Financial assets at fair value										
through profit or loss Financial assets at fair value through other comprehensive	₩		-	₩	-	₩ 67,876,695,454	₩ 67,876,695,454			
income			-		-	8,800,000	8,800,000			
Derivatives designated as hedging Derivatives not designated as			-		3,451,844,875	-	3,451,844,875			
hedging			-		-	2,977,606,935	2,977,606,935			
Financial liabilities Derivatives not designated as hedging			-		-	1,674,000,000	1,674,000,000			

The fair value of cash and cash equivalents, trade receivables, other receivables, other financial assets, long- and short-term financial assets, trade payables, other payables, long- and short-term borrowings, and other financial liabilities is excluded from the fair value disclosure because the effect of the discount is not significant, as it is similar to the carrying amount.

Valuation techniques used in the fair value measurements categorized within d Level 3 of the fair value hierarchy as at December 31, 2022 and 2021, are as follows:

(in Korean won)	2022						
		Fair value	Valuation techniques	Unobservable inputs	Application rate	Relationship between unobservable inputs and fair value measurements	
Beneficiary certificates	₩	16,467,258,145	Income approach: The discounted cash flow method is used to estimate the present value of future economic benefits (considering cash outflows	Long-term growth rate	0%	Fair value increases (decreases) as growth rate increases (decreases)	
			from management fees for the purchase of beneficiary certificates) that are expected to be derived from the ownership of an investee.	Weighted average cost of capital	5.51% ~ 6.39%	Fair value decreases (increases) as the discount rate increases (decreases)	
Unlisted investment		42,167,854,197	Income approach: The discounted cash flow method is used to estimate the present value of future economic	Long-term growth rate	0%	Fair value increases (decreases) as growth rate increases (decreases)	
			benefits that are expected to be derived from the ownership of an investee.	Weighted average cost of capital	11.88%	Fair value decreases (increases) as the discount rate increases (decreases)	
Investment convertible notes, etc.		15,652,668,586	Discounted cash flow and option pricing models: The fair value of investment convertible notes is measured by adding the fair value of general bonds that do not include conversion rights and the fair value of conversion rights, which are embedded derivatives (call options). The fair value of general bonds without conversion rights is measured by discounting the future cash flows of the bonds by applying the market interest rate applied to entities with similar creditworthiness to those of the issuer of conversion rights is measured using an option pricing model. Price volatility, which is a significant input used to measure the fair value of conversion rights, is estimated based on past stock price changes of the alternative companies.	Weighted average cost of capital	12.81%	Fair value increases (decreases) as price volatility increases (decreases)	
Derivative assets		5,289,916,814	Binomial option pricing model and discounted cash flow model: For contracts that include options, the option value is calculated through the binomial model for the payoff, and the discounted cash flow model is used to	Weighted average cost of capital	3.47% ~ 14.28% 9.00% ~	Fair value of the option increases (decreases) as the underlying asset	
Derivative liabilities		3,703,000,000	estimate the present value of future economic benefits of the underlying assets.	underlying assets	35.00%	increases (decreases)	

(in Korean won)	2021							
	Fair value	Valuation techniques	Unobservable inputs	Application rate	Relationship between unobservable inputs and fair value measurements			
Beneficiary certificates	₩ 9,306,053,06	the present value of future economic benefits (considering cash outflows	Long-term growth rate	0%	Fair value increases (decreases) as growth rate increases (decreases)			
		from management fees for the purchase of beneficiary certificates) that are expected to be derived from the ownership of an investee.	Weighted average cost of capital	5.64% ~ 6.42%	Fair value decreases (increases) as the discount rate increases (decreases)			
Unlisted investment	37,908,442,38	Income approach: The discounted cash flow method is used to estimate the present value of future economic	Long-term growth rate	0%	Fair value increases (decreases) as growth rate increases (decreases)			
		benefits that are expected to be derived from the ownership of an investee.	Weighted average cost of capital	9.06%	Fair value decreases (increases) as the discount rate increases (decreases)			
Investment convertible notes, etc.	20,671,000,00	Discounted cash flow and option pricing models: The fair value of investment convertible notes is measured by adding the fair value of general bonds that do not include conversion rights and the fair value of conversion rights, which are embedded derivatives (call options).	Weighted average cost of capital	12.91%				
		The fair value of general bonds without conversion rights is measured by discounting the future cash flows of the bonds by applying the market interest rate applied to entities with similar creditworthiness to those of the issuer of convertible notes, and the fair value of conversion rights is measured using an option pricing model. Price volatility, which is a significant input used to measure the fair value of conversion rights, is estimated based on past stock price changes of the alternative companies.	Price volatility	-	Fair value increases (decreases) as price volatility increases (decreases)			
Derivative assets	2,977,606,93	Binomial option pricing model and discounted cash flow model: For contracts that include options, the option value is calculated through the binomial model for the payoff, and the	Weighted average cost of capital	0.98% ~ 8.59%	Fair value of the option increases (decreases)			
Derivative liabilities	1,674,000,00	discounted cash flow model is used to	Volatility of the underlying assets	9.00% ~ 35.00%	as the underlying asset increases (decreases)			

35. Purpose and Policy of Financial Risk Management

The Group's principal financial liabilities comprise trade and other payables, borrowings and debentures. These financial liabilities arise from Group's operations activity. Also the Group has financial assets, including trade and other receivables, cash and cash equivalents and loans that are directly derived from its operations.

The Group is exposed to market risk, credit risk and liquidity risk and the Group's key management oversees the management of these risks. It is the Group's policy that no trading in derivatives for speculative purposes shall be undertaken.

(a) Market risk

Market risk is the risk that the fair value of future cash flows of a financial instrument will fluctuate because of changes in market prices. Market risks comprise three types of risk: interest rate risk, foreign currency risk and other price risk.

A. Interest rate risk

Interest rate risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market interest rates. The Group internally measures its interest rate risk based on 1%, which reflects the management's assessment of reasonable level of interest rate risk.

As at December 31, 2022, long-term borrowings with variable interest rate are \forall 325,103 million (2021: \forall 117,795 million).

B. Foreign currency risk

Foreign currency risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in foreign exchange rates. The book amount of the Group's monetary assets and liabilities denominated in foreign currencies as at December 31, 2022 and 2021, are as follows:

(in Korean won) 202			22		21	:1		
		Assets		Liabilities ¹	Assets		Liabilities ¹	
USD	₩	1,142,669	₩	-	₩ 2,007,138,158	₩	5,571,850	
EUR		1,584,772,472		17,921,772	1,019,617,715		13,479,443	

¹ The Group has applied hedge on foreign currency denominated, and the hedge was determined to be effective for foreign currency risk, so the amount was excluded (Note 22).

The table below summarizes the impact of weakened/strengthened functional currency on the Group's profit (loss) for the year. The analysis is based on the assumption that functional currency has weakened/strengthened by 5% with all other variables held constant. The Group internally assesses the currency risk against changes in exchange rate fluctuations regularly. The impact on profit or loss is limited as the Group effectively manages foreign exchange risk through currency futures trading.

(in Korean won) 2022					2021			
	In	crease 5%	D	ecrease 5%	In	crease 5%		Decrease 5%
USD	₩	57,133	₩	(57,133)	₩	100,078,315	₩	(100,078,315)
EUR		78,342,535		(78,342,535)		50,306,914		(50,306,914)

The Group has entered into a loss limit agreement for derivatives transactions to conduct transactions without providing separate evidence collateral for foreign exchange transactions with a bank.

(b) Credit risk

Credit risk is the risk that counterparty will not meet its obligations, leading to a financial loss of the Group.

A. Trade and other receivables

The Group deals with customers who have robust credit quality for those who want credit transaction with the Group, which the credit quality is assessed by the Group's credit investigation procedure. The Group regularly monitors balances of trade and other receivables and reassesses customer credit rating to maintain exposure level of impairment loss risk to unimportant level.

At the end of the reporting period, the Group individually recognizes whether major customer receivables are impaired or not, and additionally, in the case of a large number of small receivables, it is included in a group of financial assets with similar credit risk characteristics and expected credit losses of the group are calculated collectively. The maximum exposure to credit risk at the end of the reporting period is the carrying amount of financial assets described in Note 3.

B. Other assets

Credit risks associated with the Group's other assets which consist of cash, short-term deposits and short-term and long-term loans arise from the default by the counterparties. Maximum exposure to credit risks will be the book value of the related assets. The Group deposits its surplus funds in Woori Bank and other financial institutions whose credit ratings are high, therefore credit risk related to financial institutions is considered limited.

As at December 31, 2022, financial assets exposed to credit risk are as follows. The carrying amount indicates the maximum of exposure to credit risk.

(in Korean won)		2022		2021
Financial assets at fair value through profit or loss	₩	109,061,322,025	₩	67,876,695,454
Financial assets at amortized cost		357,719,777,585		271,802,482,417
Derivatives designated as hedging		8,030,946,600		3,451,844,875
Derivatives not designated as hedging		5,289,916,814		2,977,606,935
Financial assets at fair value through other comprehensive income		3,800,000		8,800,000
	₩	480,105,763,024	₩	346,117,429,681

In addition to the above financial assets, the maximum exposure of credit risk relating payment guarantees provided by the Group which will be paid upon request of warrantee as mentioned in Note 25.

(c) Liquidity risk

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

The Group manages its risk to a shortage of funds using a recurring liquidity planning tool. The Group matches the financial liabilities with the financial assets taking into account the maturity dates and cash flow from operating activities of those financial assets.

The table below summarizes the maturity profile of the Group's financial liabilities based on contractual undiscounted payments:

(in Korean won)						2022				
		Less than		Between		Between				_
		3 months	3 1	months to 1 year		1 and 4 years	•	Over 4 years		Total
Trade and other	147		147		147		147			
payables ¹	₩	52,698,594,776	₩	-	₩	-	₩	-	₩	52,698,594,776
Short-term borrowings		75,353,425		8,002,511,781		-		-		8,077,865,206
Current portion of										
long-term borrowings		32,858,426,881		226,379,658,125		-		-		259,238,085,006
Current portion of										
debentures		906,164,384		76,844,547,945		-		-		77,750,712,329
Long-term trade and										
other payables ¹		-		-		875,821,896		1,091,553,121		1,967,375,017
Debentures		2,714,777,162		8,295,152,438		256,271,413,870		-		267,281,343,470
Long-term borrowings		8,457,828,041		25,843,363,459		622,586,820,629		59,008,382,592		715,896,394,721
	₩	97,711,144,669	₩	345,365,233,748	₩	879,734,056,395	₩	60,099,935,713	₩	1,382,910,370,525

¹ Excluding lease liabilities.

(in Korean won)						2021				
		Less than		Between		Between				
		3 months	3 r	months to 1 year		1 and 4 years		Over 4 years		Total
Trade and other										
payables ¹	₩	37,880,563,523	₩	-	₩	-	₩	-	₩	37,880,563,523
Short-term borrowings		38,241,175,342		8,013,032,603		-		-		46,254,207,945
Current portion of										
long-term borrowings		8,629,171,559		239,478,332,125		-		-		248,107,503,684
Current portion of										
debentures		672,934,932		76,492,933,219		-		-		77,165,868,151
Long-term trade and other payables ¹		-		-		981,884,667		1,291,553,121		2,273,437,788
Debentures		2,685,377,096		8,205,318,904		264,194,393,674		-		275,085,089,674
Long-term borrowings		4,678,565,158		14,295,615,760		426,519,812,555		135,340,595,309		580,834,588,782
	₩	92,787,787,610	₩	346,485,232,611	₩	691,696,090,896	₩	136,632,148,430	₩	1,267,601,259,547

¹ Excluding lease liabilities.

The amounts of financial liabilities by remaining maturity included in above represent undiscounted contractual principal, which differ from the carrying amount of financial liabilities recognized in the consolidated statements of financial position, and includes interest on financial liabilities to be paid in the future. In addition to the above financial liabilities, the maximum exposure of credit risk relating payment guarantees provided by the Group which will be paid upon request of warrantee as mentioned in Note 25.

(d) Capital management

The primary objective of the Group's capital management is to ensure that it maintains a strong credit rating and healthy capital ratios in order to support its business and maximize shareholder value. The Group manages its capital structure and makes adjustments to it in light of changes in economic conditions. To maintain sound capital structure, the Group may adjust the dividend payment to shareholders, reduce issued capital, or issue new shares. No changes were made in the objectives, policies or processes for managing capital during the year ended December 31, 2022.

The Group uses the debt ratio divided by total liabilities by equity capital. The total liabilities, equity capital and debt ratio as at December 31, 2022 and 2021, are as follows:

(in Korean won)	2022	2021
Total liabilities	₩ 1,494,509,955,164	1,344,174,720,287
Equity capital	₩ 697,066,259,283	639,256,047,752
Debt ratio	214.40%	210.27%

36. Business Combinations

(a) General information

In accordance with the resolution of the Board of Directors on July 13, 2022, D&D Property Solution Co., Ltd. (formerly, D&D Living Solution Co., Ltd.) merged with D&D Property Management Inc. on September 1, 2022 to utilize mutual business competency, thereby making it possible to enhance their competitiveness and be agile to changes in the market while enhancing corporate values via maximization of business efficiency arising from the merger. The transaction is subject to a merger between subsidiaries under common control.

(b) Consideration transferred

The Parent Company owns 100% of the shares of the surviving company, D&D Property Solution Co., Ltd. (formerly, D&D Living Solution Co., Ltd.) and D&D Property Management Inc. At the merger, the surviving company did not issue new shares for the shares of the merged company (merger ratio 1:0). As a result, there is no change in shares such as issuance of new shares and major shareholders.

(c) Accounting for business combination

This merge is a business combination of the entities under common control, in which the assets and liabilities of D&D Property Solution Co., Ltd. (formerly D&D Living Solution Co., Ltd.) acquired by D&D Property Management Inc. as at the merge date are recognized as the carrying amount of financial statements as at September 1, 2022.

37. Changes in Accounting Policies

As explained in note 2, the Group has included the gains and losses arising from the real estate development project in the form of indirect investment through the acquisition of shares in the operating revenue and expenses, previously included in non-operating income and expenses, starting from the current year. The Group has retrospectively applied the changes in accounting policies and restated the comparative consolidated statements of comprehensive income and consolidated statements of cash flows, and the details of changes in the consolidated statements of comprehensive income and consolidated statements of cash flows for the previous year are as follows. The change in accounting policy had no impact on net profit of 2021 and financial position at the end of the previous year.

(a) Consolidated statements of comprehensive income

(in Korean won)

Before cha	anges	<u> </u>	After changes					
Revenue Cost of sales	₩		Operating revenue Operating expenses	₩	881,836,637,140 (671,971,124,657)			
Gross profit Selling and administrative expenses		209,288,937,765 (79,921,013,897)	operating expenses		(6.1,6.1,12,,66.)			
Operating profit Non-operating income and expenses		129,367,923,868	Operating profit Non-operating income and expenses		209,865,512,483			
Other non-operating income Gain on disposal of investment in subsidiaries Gain on disposal of		206,689,937	Other non-operating income Gain on disposal of investment in subsidiaries Gain on disposal of		-			
investment in associates Other non-operating expenses Loss on disposal of		17,673,772,626	investment in associates Other non-operating expenses Loss on disposal of		-			
investment in subsidiaries Loss on disposal of		(27,260,781)	investment in subsidiaries Loss on disposal of		-			
investment in associates Share of profit (loss) of associates and joint		(278,005,785)	investment in associates Share of profit (loss) of associates and joint		-			
ventures		58,012,140,952	ventures		(4,910,251,666)			

Meanwhile, Note 10, Note 28, Note 29 and Note 30 related to the restatement of the consolidated statement of comprehensive income for prior year have been restated.

(b) Consolidated statements of cash flows

(in Korean won)

Before cha	nges		After changes				
Cash flows from operating activities Cash generated from (used in) operations			Cash flows from operating activities Cash generated from (used in) operations				
Adjustments			Adjustments				
Loss related to equity method (operating) Share of loss of	₩	-	Loss related to equity method (operating) Share of loss of	₩	10,382,609,952		
associates and joint ventures		15,920,683,229	associates and joint ventures		5,882,533,785		
Loss on disposal of		13,920,003,229	Loss on disposal of		3,002,333,703		
investment in			investment in				
subsidiaries		27,260,781	subsidiaries		_		
Loss on disposal of			Loss on disposal of				
investment in associates		278,005,785	investment in associates		_		
Profit related to equity			Profit related to equity				
method (operating)		-	method (operating)		(90,880,198,567)		
Share of profit of			Share of profit of				
associates and joint			associates and joint				
ventures		(73,932,824,181)	ventures		(972,282,119)		
Gain on disposal of			Gain on disposal of				
investment in associates		(17,673,772,626)	investment in associates		-		
Gain on disposal of			Gain on disposal of				
investment in			investment in				
subsidiaries		(206,689,937)	subsidiaries		-		
Change in operating assets			Change in operating assets				
and liabilities			and liabilities				
Disposal of investment in			Disposal of investment in				
associates (operating)		-	associates (operating)		40,455,307,901		
Acquisition of investment			Acquisition of investment				
in associates (operating)		-	in associates (operating)		(21,858,000,000)		
Acquisition of investment			Acquisition of investment				
in joint ventures			in joint ventures				
(operating)		-	(operating)		(11,000,000,000)		
Disposal of investment in			Disposal of investment in				
subsidiaries (operating)		-	subsidiaries (operating)		-		
Acquisition of investment			Acquisition of investment				
in subsidiaries			in subsidiaries				
(operating)		-	(operating)		-		
Cash flows from investing			Cash flows from investing				
activities			activities				
Proceeds from disposal of			Proceeds from disposal of				
investments in		40.455.007.004	investments in				
associates		40,455,307,901	associates		-		
Payments for acquisition			Payments for acquisition				
of investments in		(E7 0E0 040 074)	of investments in		(26,000,040,074)		
associates		(57,858,918,374)	associates		(36,000,918,374)		

Payments for acquisition of investments in joint ventures

(29,487,100,000)

Payments for acquisition of investments in joint ventures

(18,487,100,000)

Meanwhile, Note 33 related to the restatement of the consolidated statement of cash flows for the prior year has been restated.

38. Events After the Reporting Period

39. Approval of Issuance of the Financial Statements

The consolidated financial statements 2022 were approved for issue by the Board of Directors on February 6, 2023 and are subject to change with the approval of by the Board of Directors on March 7, 2023, and will be approved at the shareholders at their Annual General Meeting on March 27, 2023.