

HYUNDAI MOTOR COMPANY AND ITS SUBSIDIARIES

**CONSOLIDATED FINANCIAL STATEMENTS
AS OF AND FOR THE YEARS ENDED
DECEMBER 31, 2022 AND 2021**

ATTACHMENT: INDEPENDENT AUDITORS' REPORT

HYUNDAI MOTOR COMPANY

Contents

INDEPENDENT AUDITORS' REPORT	1
CONSOLIDATED FINANCIAL STATEMENTS	
CONSOLIDATED STATEMENTS OF FINANCIAL POSITION	6
CONSOLIDATED STATEMENTS OF INCOME	8
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME	9
CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY	10
CONSOLIDATED STATEMENTS OF CASH FLOWS	12
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS	14

Independent Auditors' Report

Based on a report originally issued in Korean

To the Board of Directors and Shareholders
Hyundai Motor Company:

Opinion

We have audited the consolidated financial statements of Hyundai Motor Company and its subsidiaries ("the Group"), which comprise the consolidated statements of financial position as of December 31, 2022 and 2021, the consolidated statements of income, comprehensive income, changes in equity and cash flows for the years then ended, and notes, comprising significant accounting policies and other explanatory information.

In our opinion, the accompanying 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 Korean International Financial Reporting Standards ("K-IFRS").

Basis for Opinion

We conducted our audits in accordance with Korean Standards on Auditing (KSAs). Our responsibilities under those standards are further described in the Auditors' 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 Republic of Korea, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements as of and for the year ended December 31, 2022. 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) Valuation of warranty provisions

As described in Note 2 (20) and Note 17 to the consolidated financial statements, the Group recognized warranty provision of ₩ 10,339,527 million as of December 31, 2022.

The Group offers its customers free warranty services during the guaranteed period and free repair services in the event of recall or campaign. To estimate the expected warranty expenditures, the Group aggregates sales volume by vehicle model and uses historical data of the actual warranty costs. Warranty provisions are measured at the present value based on the expected warranty expenditures and discount rates. To measure and recognize warranty provisions, management applies assumptions to estimate expected warranty cost per unit by vehicle model and expected number of repair cases and applies discount rates to measure the present value of provisions. Management uses historical data of the actual warranty costs to estimate expected warranty cost per unit by vehicle model and expected number of repair cases. We identified the valuation of warranty provision as a key audit matter because errors in aggregation of actual warranty costs and sales volume by vehicle models or in assumptions used to estimate future warranty expenditures and discount rates would have a significant impact on the consolidated financial statements.



The primary procedures we performed to address this key audit matter included the following:

- Understanding the process to measure and recognize warranty provision and testing relevant controls.
- Testing completeness and accuracy of vehicles sold used for estimation through inspection of related documents.
- Evaluating reasonableness of assumptions applied for expected warranty cost per unit by vehicle model by comparing warranty costs incurred in the current period to the corresponding warranty costs estimated in the prior period.
- Evaluating reasonableness of assumptions applied for expected number of repair cases through historical data analysis.
- Testing accuracy of warranty provision balance by inspecting documents related to historical data of the actual warranty expenses on a sample basis and testing of recalculation.
- Testing discount rates by comparing to external sources of information.

2) Valuation of financial services receivables

As described in Note 2.(8) and Note 14 to the consolidated financial statements, as of December 31, 2022, the Group recognized financial services receivables, net and loss allowance of ₩ 92,398,410 million and ₩ 1,726,916 million, respectively.

In accordance with K-IFRS 1109 'Financial Instruments', the Group recognizes allowance for credit loss for financial services receivables using the expected credit loss (ECL) model. The ECL model requires management judgment to assess whether the receivable has undergone a significant increase in credit risk, as well as other assumptions, such as credit rating and macroeconomic variables. In addition, the Group also considers historical transaction data, such as delinquency days, bankruptcy, and collection, to determine assumptions used in the ECL model. As errors in the assumptions applied to the ECL model could have a significant impact on the consolidated financial statements, we identified the valuation of financial services receivables as a key audit matter.

The primary procedures we performed to address this key audit matter included the following:

- Assessing whether the Group's accounting policies comply with the requirements in K-IFRS 1109 '*Financial Instruments*'.
- Understanding the process over the measurement of credit loss allowance on financial services receivables and testing relevant controls.
- On a sample basis, assessing the credit rating and classification of credit quality, including the identification of significant increase credit risk, through inspection of related documents.
- On a sample basis, checking the source data for probability of default and loss given default and testing appropriateness of calculation methods used for the estimation through recalculation.

Other matter

The procedures and practices utilized in the Republic of Korea to audit such consolidated financial statements may differ from those generally accepted and applied in other countries.

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 K-IFRS, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

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

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



Auditors' 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 auditors' 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 KSAs 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 KSAs, 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 in the preparation of the consolidated financial statements 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 auditors' 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 auditors' 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 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 auditors' 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 auditors' report is Jae-Yeon Kim.

KPMG Samjong Accounting Corp.

Seoul, Korea
March 8, 2023

This report is effective as of March 8, 2023, the audit report date. Certain subsequent events or circumstances, which may occur between the audit report date and the time of reading this report, could have a material impact on the accompanying consolidated financial statements and notes thereto. Accordingly, the readers of the audit report should understand that the above audit report has not been updated to reflect the impact of such subsequent events or circumstances, if any.

HYUNDAI MOTOR COMPANY AND ITS SUBSIDIARIES

CONSOLIDATED FINANCIAL STATEMENTS AS OF AND FOR THE YEARS ENDED DECEMBER 31, 2022 AND 2021

The accompanying consolidated financial statements, including all footnote disclosures, were prepared by, and are the responsibility of, the Company.

Chang, Jae Hoon
Chief Executive Officer
HYUNDAI MOTOR COMPANY

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HYUNDAI MOTOR COMPANY AND ITS SUBSIDIARIES

CONSOLIDATED STATEMENTS OF FINANCIAL POSITION

AS OF DECEMBER 31, 2022 AND DECEMBER 31, 2021

ASSETS	NOTES	December 31, 2022	December 31, 2021
(In millions of Korean Won)			
Current assets:			
Cash and cash equivalents	20	₩ 20,864,879	₩ 12,795,554
Short-term financial instruments	20	5,774,597	6,949,333
Other financial assets	5,20	5,934,745	12,396,646
Trade notes and accounts receivable	3,20	4,279,057	3,147,296
Other receivables	4,20	4,458,689	4,220,970
Inventories	6	14,291,216	11,645,641
Current tax assets		85,867	47,346
Financial services receivables	14,20	38,037,368	35,252,606
Non-current assets classified as held for sale	8	22,302	28,121
Other assets	7,20	2,640,553	2,081,853
Total current assets		96,389,273	88,565,366
Non-current assets:			
Long-term financial instruments	20	112,557	306,410
Other financial assets	5,20	3,889,776	3,539,286
Long-term trade notes and accounts receivable	3,20	179,781	137,157
Other receivables	4,20	821,050	741,168
Property, plant and equipment	9,40	36,153,190	35,543,083
Investment property	10,40	144,450	156,656
Intangible assets	11,40	6,102,377	5,846,986
Investments in joint ventures and associates	13	25,199,437	22,429,117
Net defined benefit assets	35	837,502	219,721
Deferred tax assets	34	3,237,309	2,224,833
Financial services receivables	14,20	52,326,478	45,776,526
Investments in operating leases	15	27,681,534	26,327,996
Right-of-use assets	12	1,117,293	940,826
Other assets	7,20	1,550,455	1,191,284
Total non-current assets		159,353,189	145,381,049
Total assets		₩ 255,742,462	₩ 233,946,415

(Continued)

HYUNDAI MOTOR COMPANY AND ITS SUBSIDIARIES

CONSOLIDATED STATEMENTS OF FINANCIAL POSITION

AS OF DECEMBER 31, 2022 AND DECEMBER 31, 2021

LIABILITIES AND EQUITY	NOTES	December 31, 2022	December 31, 2021
		(In millions of Korean Won)	
Current liabilities:			
Trade notes and accounts payable	20	₩ 10,797,065	₩ 9,155,255
Other payables	20,39	8,277,891	6,335,645
Short-term borrowings	16,20,40	11,366,480	13,087,836
Current portion of long-term debt and debentures	16,20,40	25,574,131	20,578,902
Income tax payable		1,008,506	751,929
Provisions	17	8,102,596	6,664,647
Other financial liabilities	18,20	99,144	55,187
Lease liabilities	12,20	405,053	167,266
Non-current liabilities classified as held for sale	8	5,365	-
Other liabilities	19,20,27	8,600,241	7,440,120
Total current liabilities		<u>74,236,472</u>	<u>64,236,787</u>
Non-current liabilities:			
Long-term other payables	20,39	726,115	769,487
Debentures	16,20,40	62,960,060	63,458,809
Long-term debt	16,20,40	12,285,149	10,667,731
Net defined benefit liabilities	35	61,861	79,165
Provisions	17	4,327,985	4,214,137
Other financial liabilities	18,20	262,518	87,258
Deferred tax liabilities	34	5,027,741	3,689,328
Lease liabilities	12,20	705,751	783,306
Other liabilities	19,20,27	4,252,265	3,344,618
Total non-current liabilities		<u>90,609,445</u>	<u>87,093,839</u>
Total liabilities		<u>164,845,917</u>	<u>151,330,626</u>
Equity:			
Capital stock	21	1,488,993	1,488,993
Capital surplus	22	4,241,303	4,070,260
Other capital items	23	(1,713,928)	(1,968,385)
Accumulated other comprehensive loss	24	(1,620,682)	(1,772,601)
Retained earnings	25	79,953,601	73,167,855
Equity attributable to the owners of the Company		<u>82,349,287</u>	<u>74,986,122</u>
Non-controlling interests		8,547,258	7,629,667
Total equity		<u>90,896,545</u>	<u>82,615,789</u>
Total liabilities and equity		<u>₩ 255,742,462</u>	<u>₩ 233,946,415</u>

(Concluded)

See accompanying notes to the consolidated financial statements.

HYUNDAI MOTOR COMPANY AND ITS SUBSIDIARIES

CONSOLIDATED STATEMENTS OF INCOME

FOR THE YEARS ENDED DECEMBER 31, 2022 AND 2021

	NOTES	2022	2021
		(In millions of Korean Won, except per share amounts)	
Sales	27,40	₩ 142,527,535	₩ 117,610,626
Cost of sales	32	114,209,483	95,680,131
Gross profit		28,318,052	21,930,495
Selling and administrative expenses	28,32	18,498,283	15,251,546
Operating profit		9,819,769	6,678,949
Gain on investments in joint ventures and associates, net	29	1,556,583	1,303,365
Finance income	30	1,218,813	912,802
Finance expenses	30	1,054,228	548,410
Other income	31	2,257,113	1,447,261
Other expenses	31,32	2,850,107	1,834,405
Profit before income tax		10,947,943	7,959,562
Income tax expense	34	2,964,329	2,266,485
Profit for the year		₩ 7,983,614	₩ 5,693,077
Profit attributable to:			
Owners of the Company		7,364,364	4,942,356
Non-controlling interests		619,250	750,721
Earnings per share attributable to the owners of the Company:	33		
Basic earnings per share:			
Common stock		₩ 28,521	₩ 18,979
1 st preferred stock		₩ 28,207	₩ 19,002
Diluted earnings per share:			
Common stock		₩ 28,521	₩ 18,979
1 st preferred stock		₩ 28,207	₩ 19,002

See accompanying notes to the consolidated financial statements.

HYUNDAI MOTOR COMPANY AND ITS SUBSIDIARIES

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

FOR THE YEARS ENDED DECEMBER 31, 2022 AND 2021

	2022	2021
	(In millions of Korean Won)	
Profit for the year	₩ 7,983,614	₩ 5,693,077
Other comprehensive income (loss) :		
Items that will not be reclassified subsequently to profit or loss:		
Profit (loss) on financial assets measured at FVOCI, net	(223,420)	102,137
Remeasurements of defined benefit plans	391,308	175,392
Changes in retained earnings of equity-accounted investees, net	164,475	77,482
Changes in share of OCI of equity-accounted investees, net	(175,059)	21,803
	<u>157,304</u>	<u>376,814</u>
Items that may be reclassified subsequently to profit or loss:		
Loss on financial assets measured at FVOCI, net	(36,545)	(6,448)
Gain on valuation of cash flow hedge derivatives, net	218,377	5,015
Changes in share of OCI of equity-accounted investees, net	10,008	546,504
Gain on foreign operations translation, net	701,718	1,246,177
	<u>893,558</u>	<u>1,791,248</u>
Total other comprehensive income	<u>1,050,862</u>	<u>2,168,062</u>
Total comprehensive income	<u>₩ 9,034,476</u>	<u>₩ 7,861,139</u>
Comprehensive income attributable to:		
Shareholders of the Company	8,234,396	6,938,637
Non-controlling interests	800,080	922,502
Total comprehensive income	<u>₩ 9,034,476</u>	<u>₩ 7,861,139</u>

See accompanying notes to the consolidated financial statements.

HYUNDAI MOTOR COMPANY AND ITS SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

FOR THE YEARS ENDED DECEMBER 31, 2022 AND 2021

	Capital stock	Capital surplus	Other capital items	Accumulated other comprehensive income (loss)	Retained earnings	Total equity attributable to the owners of the Company	Non- controlling interests	Total equity
	(In millions of Korean Won)							
Balance at January 1, 2021	₩ 1,488,993	₩ 4,190,093	₩ (1,700,592)	₩ (3,409,661)	₩ 68,911,800	₩ 69,480,633	₩ 6,860,337	₩ 76,340,970
Comprehensive income:								
Profit for the period	-	-	-	-	4,942,356	4,942,356	750,721	5,693,077
Gain (loss) on financial assets measured at FVOCI, net	-	-	-	(21,021)	114,718	93,697	1,992	95,689
Gain (loss) on valuation of cash flow hedge derivatives, net	-	-	-	(47,902)	-	(47,902)	52,917	5,015
Changes in valuation of equity-accounted investees, net	-	-	-	544,170	77,482	621,652	24,137	645,789
Remeasurements of defined benefit plans	-	-	-	-	167,021	167,021	8,371	175,392
Gain on foreign operations translation, net	-	-	-	1,161,813	-	1,161,813	84,364	1,246,177
Total comprehensive income	-	-	-	1,637,060	5,301,577	6,938,637	922,502	7,861,139
Transactions with owners, recorded directly in equity:								
Payment of cash dividends	-	-	-	-	(1,045,775)	(1,045,775)	(140,854)	(1,186,629)
Increase in paid-in capital of subsidiaries by issuing stock	-	19,819	-	-	-	19,819	165,311	185,130
Acquisition of investment of subsidiaries	-	(164,567)	-	-	-	(164,567)	65,966	(98,601)
Disposals of investment of subsidiaries	-	-	-	-	-	-	(71,634)	(71,634)
Purchases of treasury stocks	-	-	(305,337)	-	-	(305,337)	-	(305,337)
Disposals of treasury stocks	-	24,915	37,544	-	-	62,459	-	62,459
Repayment of hybrid bonds	-	-	-	-	-	-	(150,323)	(150,323)
Others	-	-	-	-	253	253	(21,638)	(21,385)
Total transactions with owners, recorded directly in equity	-	(119,833)	(267,793)	-	(1,045,522)	(1,433,148)	(153,172)	(1,586,320)
Balance at December 31, 2021	₩ 1,488,993	₩ 4,070,260	₩ (1,968,385)	₩ (1,772,601)	₩ 73,167,855	₩ 74,986,122	₩ 7,629,667	₩ 82,615,789

(Continued)

HYUNDAI MOTOR COMPANY AND ITS SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

FOR THE YEARS ENDED DECEMBER 31, 2022 AND 2021

	Capital stock	Capital surplus	Other capital items	Accumulated other comprehensive income (loss)	Retained earnings	Total equity attributable to the owners of the Company	Non- controlling interests	Total equity
	(In millions of Korean Won)							
Balance at January 1, 2022	₩ 1,488,993	₩ 4,070,260	₩ (1,968,385)	₩ (1,772,601)	₩ 73,167,855	₩ 74,986,122	₩ 7,629,667	₩ 82,615,789
Comprehensive income:								
Profit for the period	-	-	-	-	7,364,364	7,364,364	619,250	7,983,614
Gain (loss) on financial assets measured at FVOCI, net	-	-	-	(430,012)	174,758	(255,254)	(4,711)	(259,965)
Gain on valuation of cash flow hedge derivatives, net	-	-	-	169,796	-	169,796	48,581	218,377
Changes in valuation of equity-accounted investees, net	-	-	-	(160,325)	164,475	4,150	(4,726)	(576)
Remeasurements of defined benefit plans	-	-	-	-	378,880	378,880	12,428	391,308
Gain on foreign operations translation, net	-	-	-	572,460	-	572,460	129,258	701,718
Total comprehensive income	-	-	-	151,919	8,082,477	8,234,396	800,080	9,034,476
Transactions with owners, recorded directly in equity:								
Payment of cash dividends	-	-	-	-	(1,298,212)	(1,298,212)	(56,800)	(1,355,012)
Increase in paid-in capital of subsidiaries by issuing stock	-	-	-	-	-	-	560	560
Acquisition of investment of subsidiaries	-	-	-	-	-	-	273,271	273,271
Disposals of investment of subsidiaries	-	-	-	-	-	-	(83,094)	(83,094)
Purchases of treasury stocks	-	-	(193,452)	-	-	(193,452)	-	(193,452)
Disposals of treasury stocks	-	174,346	447,909	-	-	622,255	-	622,255
Others	-	(3,303)	-	-	1,481	(1,822)	(16,426)	(18,248)
Total transactions with owners, recorded directly in equity	-	171,043	254,457	-	(1,296,731)	(871,231)	117,511	(753,720)
Balance at December 31, 2022	₩ 1,488,993	₩ 4,241,303	₩ (1,713,928)	₩ (1,620,682)	₩ 79,953,601	₩ 82,349,287	₩ 8,547,258	₩ 90,896,545

(Concluded)

See accompanying notes to the consolidated financial statements.

HYUNDAI MOTOR COMPANY AND ITS SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CASH FLOWS

FOR THE YEARS ENDED DECEMBER 31, 2022 AND 2021

	NOTES	2022	2021
		(In millions of Korean Won)	
Cash flows from operating activities:			
Cash generated from operations:	36		
Profit for the year		₩ 7,983,614	₩ 5,693,077
Adjustments		20,255,938	15,777,589
Changes in operating assets and liabilities		(13,922,657)	(20,287,776)
		14,316,895	1,182,890
Interest received		867,192	449,789
Interest paid		(2,695,029)	(1,905,945)
Dividend received		531,902	213,735
Income tax paid		(2,393,649)	(1,116,885)
Net cash provided by (used in) operating activities		10,627,311	(1,176,416)
Cash flows from investing activities:			
Changes in short-term financial instruments, net		1,082,254	1,326,872
Changes in other financial assets (current), net		5,452,691	225,974
Decrease in other financial assets (non-current)		41,521	259,202
Collection of other receivables		60,779	67,437
Disposals of long-term financial instruments		122,124	35,183
Proceeds from disposals of property, plant and equipment		136,870	113,008
Proceeds from disposals of intangible assets		7,357	20,261
Proceeds from disposals of investment in joint ventures and associates		19,115	8,873
Acquisitions of subsidiaries, net of cash acquired		(89,167)	(294,210)
Increases in other financial assets (non-current)		(276,728)	(212,964)
Increases in other receivables		(80,170)	(69,563)
Purchases of long-term financial instruments		(63,612)	(279,471)
Acquisitions of property, plant and equipment		(4,014,969)	(4,304,334)
Acquisitions of intangible assets		(1,718,733)	(1,556,993)
Acquisitions of investments in joint ventures and associates		(1,696,266)	(565,528)
Cash outflows from changes in consolidation		(197,188)	(125,611)
Others		10,627	169,285
Net cash used in investing activities		(1,203,495)	(5,182,579)

(Continued)

HYUNDAI MOTOR COMPANY AND ITS SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CASH FLOWS

FOR THE YEARS ENDED DECEMBER 31, 2022 AND 2021

	NOTES	2022	2021
		(In millions of Korean Won)	
Cash flows from financing activities:			
Proceeds from short-term borrowings	₩	3,388,510	₩ 3,769,996
Proceeds from long-term debt and debentures		30,089,495	40,688,506
Proceeds from capital contribution from non-controlling interest		341,864	165,311
Acquisitions of subsidiaries		-	(300,670)
Repayment of short-term borrowings		(6,070,109)	(4,390,047)
Repayment of long-term debt and debentures		(27,086,324)	(29,164,478)
Repayment of lease liabilities		(195,245)	(185,158)
Purchases of treasury stocks		(193,451)	(305,337)
Dividends paid		(1,354,996)	(1,186,800)
Repayment of hybrid bonds		-	(150,323)
Others		(244,243)	(148,714)
Net cash provided by (used in) financing activities		<u>(1,324,499)</u>	<u>8,792,286</u>
Effect of exchange rate changes on cash and cash equivalents		(29,992)	500,127
Net increase in cash and cash equivalents		8,069,325	2,933,418
Cash and cash equivalents, beginning of the year		<u>12,795,554</u>	<u>9,862,136</u>
Cash and cash equivalents, end of the year	₩	<u>20,864,879</u>	₩ <u>12,795,554</u>
(Concluded)			

See accompanying notes to the consolidated financial statements.

HYUNDAI MOTOR COMPANY AND ITS SUBSIDIARIES

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

FOR THE YEARS ENDED DECEMBER 31, 2022 AND 2021

1. GENERAL:

Hyundai Motor Company (the “Company” or “Parent Company”) was incorporated in December 1967, under the laws of the Republic of Korea. The Company and its subsidiaries (the “Group”) manufacture and distribute motor vehicles and parts, operate vehicle financing and credit card processing, and manufacture trains.

The shares of the Company have been listed on the Korea Exchange since June 1974, and the Global Depositary Receipts issued by the Company have been listed on the London Stock Exchange and Luxembourg Stock Exchange.

As of December 31, 2022, the major shareholders of the Company are Hyundai MOBIS (45,782,023 shares, 21.43%) and Mr. Chung, Mong Koo (11,395,859 shares, 5.33%).

(1) The Group’s consolidated subsidiaries as of December 31, 2022 are as follows.

Name of subsidiaries	Nature of business	Location	Ownership percentage	Indirect ownership
HYUNDAI CAPITAL SERVICES, INC.	Financing	Korea	59.68%	
HYUNDAI CARD CO., LTD. (*1)	"	"	36.96%	
HYUNDAI ROTEM COMPANY (*2)	Manufacturing	"	33.77%	
HYUNDAI KEFICO CORPORATION	"	"	100.00%	
HYUNDAI PARTECS	"	"	56.00%	
Hyundai NGV	Engineering	"	53.66%	
MAINtrans company	Services	"	100.00%	HYUNDAI ROTEM COMPANY 100.00%
Rotem SRS Co., Ltd.	"	"	100.00%	"
JEONBUK HYUNDAI MOTORS FC CO., LTD	Football club	"	100.00%	
AirPlug Inc.	R&D and Sales	"	99.32%	
42dot Inc. (*5)	"	"	66.08%	
Movia Inc.	Transporting	"	100.00%	42dot 100.00%
Hyundai Motor America (HMA)	Sales	USA	100.00%	
Hyundai Capital America (HCA)	Financing	"	80.00%	HMA 80.00%
Hyundai Motor Manufacturing Alabama, LLC (HMMA)	Manufacturing	"	100.00%	HMA 100.00%
Hyundai Motor Group Metaplant America, LLC (HMGMA)	"	"	60.00%	HMA 60.00%
Hyundai Translead (HT)	"	"	100.00%	
Stamped Metal American Research Technology, Inc. (SMARTI)	Holding company	"	72.45%	HMA 72.45%
SMART Alabama, LLC (SMART)	Manufacturing	"	100.00%	SMARTI 100.00%
Hyundai America Technical Center, Inc. (HATCI)	R&D	"	100.00%	
Genesis Motor America LLC	Sales	"	100.00%	HMA 100.00%
Hyundai Rotem USA Corporation	Manufacturing	"	100.00%	HYUNDAI ROTEM COMPANY 100.00%
Hyundai Motor Investment, Inc.	Investment	"	100.00%	
42 Air, Inc	R&D and Sales	"	100.00%	42dot 100.00%
HYUNDAI AUTO CANADA CORP. (HACC)	Sales	Canada	100.00%	HMA 100.00%
HYUNDAI AUTO CANADA CAPTIVE INSURANCE INC. (HACCI)	Insurance	"	100.00%	"
Hyundai Capital Canada Inc. (HCCA)	Financing	"	70.00%	HYUNDAI CAPITAL SERVICES, INC. 20.00%
Hyundai Capital Lease Inc. (HCLI)	"	"	100.00%	HCCA 100.00%
HK Lease Funding LP	"	"	100.00%	HCLI 99.99%, HCCA Funding Inc. 0.01%
HCCA Funding Inc.	"	"	100.00%	HCLI 100.00%
HCCA Funding Two Inc.	"	"	100.00%	HCCA 100.00%

Name of subsidiaries	Nature of business	Location	Ownership percentage	Indirect ownership
HK Retail Funding LP	Financing	Canada	100.00%	HCCA 99.99%, HCCA Funding Two Inc 0.01%
HYUNDAI MOTOR INDIA LIMITED (HMI)	Manufacturing	India	100.00%	
HYUNDAI MOTOR INDIA ENGINEERING PRIVATE LIMITED (HMIE)	R&D	"	100.00%	HMI 100.00%
HYUNDAI INDIA INSURANCE BROKING PRIVATE LIMITED (HIIB)	Insurance	"	100.00%	"
HYUNDAI CAPITAL INDIA PRIVATE LIMITED (HCI)	Financing	"	100.00%	HYUNDAI CAPITAL SERVICES, INC. 100.00%
Hyundai Mobility Japan Co., Ltd. (HMJ) (*3)	Sales	Japan	100.00%	
Hyundai Mobility Japan R&D Center Co., Ltd. (HMJ R&D) (*3)	R&D	"	100.00%	
Beijing Jingxian Motor Safeguard Service Co., Ltd. (BJMSS)	Sales	China	100.00%	
Beijing Jingxianronghua Motor Sale Co., Ltd.	"	"	100.00%	BJMSS 100.00%
Genesis Motor Sales (Shanghai) Co., LTD.	"	"	100.00%	
Hyundai Millennium (Beijing) Real Estate Development Co., Ltd.	Real estate development	"	99.00%	CMEs 99.00%
Rotem Equipments (Beijing) Co., Ltd.	Sales	"	100.00%	HYUNDAI ROTEM COMPANY 100.00%
KEFICO Automotive Systems(Beijing) Co., Ltd.	Manufacturing	"	100.00%	HYUNDAI KEFICO CORPORATION 100.00%
KEFICO Automotive Systems(Chongqing) Co., Ltd.	"	"	90.00%	HYUNDAI KEFICO CORPORATION 90.00%
Hyundai Truck & Bus (China) Co., Ltd. (HTBC)	"	"	100.00%	
HYUNDAI THANH CONG VIETNAM AUTO MANUFACTURING CORPORATION (HTMV)(*1)	"	Vietnam	50.00%	
HYUNDAI THANH CONG COMMERCIAL VEHICLE JOINT STOCK COMPANY (HTCV)(*1)	Sales	"	50.00%	
HYUNDAI THANH CONG VIET NAM AUTO JOINT VENTURE JOINT STOCK COMPANY (HTV)(*1)	"	"	50.00%	
HYUNDAI KEFICO VIETNAM COMPANY LIMITED	Manufacturing	"	100.00%	HYUNDAI KEFICO CORPORATION 100.00%
HYUNDAI MOTOR COMPANY AUSTRALIA PTY LIMITED (HMCA)	Sales	Australia	100.00%	
HYUNDAI MOTOR PHILIPPINES, INC. (HMPH)	"	Philippines	99.99%	
HYUNDAI MOBILITY (THAILAND) CO., LTD. (HMT)	"	Thailand	100.00%	
PT HYUNDAI MOTOR MANUFACTURING INDONESIA (HMMI)	Manufacturing	Indonesia	99.99%	
PT HYUNDAI MOTORS INDONESIA (HMID)	Sales	"	100.00%	HMMI 0.01%
PT Hyundai Solusi Mobilitas (HSM)	"	"	99.99%	HMID 99.99%
PT. HYUNDAI CAPITAL INDONESIA (HCID)	Financing	"	100.00%	HYUNDAI CAPITAL SERVICES, INC. 100.00%
Hyundai Capital Australia Pty Limited	"	Australia	100.00%	"
HR MECHANICAL SERVICES LIMITED	Services	New Zealand	100.00%	HYUNDAI ROTEM COMPANY 100.00%
Hyundai Motor Manufacturing Czech s.r.o. (HMMC)	Manufacturing	Czech	100.00%	
Hyundai Motor Czech s.r.o. (HMCZ)	Sales	"	100.00%	
Hyundai Motor Europe GmbH (HME)	Marketing and Sales	Germany	100.00%	
Hyundai Motor Deutschland GmbH (HMD)	Sales	"	100.00%	

Name of subsidiaries	Nature of business	Location	Ownership percentage	Indirect ownership
Hyundai Motor Europe Technical Center GmbH (HMETC)	R&D	Germany	100.00%	
Hyundai Motorsport GmbH (HMSG)	Marketing	"	100.00%	HME 100.00%
Hyundai Capital Europe GmbH.	Financing	"	100.00%	HYUNDAI CAPITAL SERVICES, INC. 100.00%
HMCIS B.V.	Holding company	Netherlands	100.00%	HMMR 1.65%
Hyundai Motor Netherlands B.V. (HMNL)	Sales	"	100.00%	
Hyundai Motor Manufacturing Rus LLC (HMMR)	Manufacturing	Russia	70.00%	
Hyundai Motor CIS Limited Liability Company (HMCIS)	Sales	"	100.00%	HMCIS B.V. 100.00%
Hyundai Mobility Lab Limited Liability Company. (HML)	R&D	"	100.00%	HMCIS 99.00%, HMMR 1.00%
HYUNDAI CAPITAL SERVICES LIMITED LIABILITY COMPANY	Financing	"	100.00%	Hyundai Capital Europe 100.00%
Limited liability company Hyundai Truck & Bus Rus (HTBR)	Sales	"	100.00%	
Hyundai Assan Otomotiv Sanayi Ve Ticaret Anonim Sirketi (HAOSVT)	Manufacturing	Turkiye	97.00%	
Hyundai EURotem Demiryolu Araclari Sanayi ve Ticaret A.S	"	"	50.50%	HYUNDAI ROTEM COMPANY 50.50%
Hyundai Rotem Company – Hyundai EUROTREM Demiryolu Araclari SAN. VE TIC. A.S ORTAK GIRISIMI	Sales	"	100.00%	HYUNDAI ROTEM COMPANY 65.00%, Hyundai EURotem A.S. 35.00%
Hyundai Rotem Company - Hyundai EUROTREM Mahmutbey Projesi ORTAK GIRISIMI	"	"	100.00%	HYUNDAI ROTEM COMPANY 85.00%, Hyundai EURotem A.S. 15.00%
Rotem SRS Ukraine LLC.	Services	Ukraine	100.00%	Rotem SRS Co., Ltd. 100.00%
Rotem SRS Egypt LLC.	"	Egypt	98.00%	Rotem SRS Co., Ltd. 98.00%
HYUNDAI MOTOR UK LIMITED (HMUK)	Sales	UK	100.00%	
HYUNDAI MOTOR COMPANY ITALY S.R.L. (HMCI)	"	Italy	100.00%	
HYUNDAI MOTOR ESPANA, S.L.U. (HMES)	"	Spain	100.00%	
HYUNDAI MOTOR FRANCE (HMF)	"	France	100.00%	
Hyundai Motor Poland sp. z o.o. (HMP)	"	Poland	100.00%	
GENESIS MOTOR EUROPE GmbH (GME)	"	Germany	100.00%	
GENESIS MOTOR UK LIMITED (GMUK)	"	UK	100.00%	GME 100.00%
GENESIS MOTOR SWITZERLAND AG (GMCH)	"	Switzerland	100.00%	"
GENESIS MOTOR DEUTSCHLAND GmbH (GMD)	"	Germany	100.00%	"
Hyundai Hydrogen Mobility AG (HHM)	"	Switzerland	75.00%	
Hyundai Hydrogen Mobility Germany GmbH (HHMG)	"	Germany	100.00%	HHM 100.00%
HYUNDAI MOTOR DE MEXICO S DE RL DE CV (HMM)	"	Mexico	100.00%	HT 0.01%
Hyundai de Mexico, SA DE C.V., (HYMEX)	Manufacturing	"	99.99%	HT 99.99%
HYUNDAI KEFICO MEXICO, S. DE R.L. DE C.V.	"	"	100.00%	HYUNDAI KEFICO CORPORATION 100.00%
Hyundai Rio Vista, Inc.	Real estate development	USA	100.00%	HT 100.00%
HYUNDAI MOTOR BRASIL MONTADORA DE AUTOMOVEIS LTDA (HMB)	Manufacturing	Brazil	100.00%	
Hyundai Capital Brasil Servicos De Assistencia Financeira Ltda.	Financing	"	100.00%	HYUNDAI CAPITAL SERVICES, INC. 100.00%
Hyundai Rotem Brasil Industria E Comercio De Trens Ltda.	Manufacturing	"	100.00%	HYUNDAI ROTEM COMPANY 100.00%

Name of subsidiaries	Nature of business	Location	Ownership percentage	Indirect ownership
HMS SERVICOS DE MOBILIDADE LTDA. (*4)	Holding company	Brazil	99.99%	HMB 99.99%
China Millennium Corporations (CMEs)	"	Cayman Islands	59.60%	
China Mobility Fund, L.P.	Investment	"	72.00%	
ZER01NE Accelerator Investment Fund No.1	"	"	99.00%	
Autopia Sixty-fifth ~ Seventy-Fifth Asset Securitization Specialty Company (*1)	Financing	"	0.50%	HYUNDAI CAPITAL SERVICES, INC. 0.50%
Zavurov First Co., Ltd. (*1)	"	"	0.00%	HYUNDAI CAPITAL SERVICES, INC. 0.00%
Super Series Sixth ~ Fourteenth Securitization Specialty Co., Ltd. (*1)	"	"	0.50%	HYUNDAI CARD CO., LTD. 0.50%
Bluewalnut Co., Ltd.	"	"	100.00%	HYUNDAI CARD CO., LTD. 100.00%
MOCEAN Co.,Ltd	Mobility Service	"	80.00%	
Hyundai Cha Funding, LLC	Financing	USA	100.00%	HCA 100.00%
Hyundai Lease Titling Trust	"	"	100.00%	"
Hyundai HK Funding, LLC	"	"	100.00%	"
Hyundai HK Funding Two, LLC	"	"	100.00%	"
Hyundai HK Funding Three, LLC	"	"	100.00%	"
Hyundai HK Funding Four, LLC	"	"	100.00%	"
Hyundai ABS Funding, LLC	"	"	100.00%	"
HK Real Properties, LLC	"	"	100.00%	"
Hyundai Auto Lease Offering, LLC	"	"	100.00%	"
Hyundai HK Lease, LLC	"	"	100.00%	"
Extended Term Amortizing Program, LLC	"	"	100.00%	"
Hyundai Asset Backed Lease, LLC	"	"	100.00%	"
HCA Exchange, LLC	"	"	100.00%	"
Hyundai Protection Plan, Inc.	Insurance	"	100.00%	"
Hyundai Protection Plan Florida, Inc.	"	"	100.00%	"
Hyundai Capital Insurance Services, LLC	"	"	100.00%	"
Hyundai Capital Insurance Company	"	"	100.00%	"
Power Protect Extended Services, Inc.	"	"	100.00%	"
Power Protect Extended Services Florida, Inc.	"	"	100.00%	"

(*1) The Group is considered to have substantive control over the entities by virtue of an agreement or relationship with other investors, or relationship with structured entities.

(*2) Even though the shareholding ratio of ownership is less than half, the Group has de facto control over the entity due to the relative size of the voting rights held and the degree of share dispersion of other voting rights holders.

(*3) During the year ended December 31, 2022, the names of companies were changed from Hyundai Motor Japan Co., Ltd. and Hyundai Motor Japan R&D Center Inc. to Hyundai Mobility Japan Co., Ltd. and Hyundai Mobility Japan R&D Center Co., Ltd., respectively.

(*4) The name of company was changed from HMB Holding Participacoes Financeiras Ltda. to HMS SERVICOS DE MOBILIDADE LTDA.

(*5) During the year ended December 31, 2022, the Group acquired additional shares of 42dot Inc. and reclassified its shares to a subsidiary. Although the shareholding ratio of common stock is 66.08%, the shareholding ratio with voting rights is 55.90% considering the redeemable convertible preference share with voting rights issued.

- (2) Summarized financial position and results of operations of major consolidated subsidiaries as of and for the year ended December 31, 2022 are as follows.

Name of subsidiaries	Assets	Liabilities	Sales	Profit (loss) for the period
	(In millions of Korean Won)			
HYUNDAI CAPITAL SERVICES, INC. (*)	₩ 38,647,454	₩ 33,017,783	₩ 4,436,122	₩ 437,087
HYUNDAI CARD CO., LTD. (*)	25,102,360	21,256,797	3,015,376	253,957
HYUNDAI ROTEM COMPANY (*)	4,823,870	3,332,399	3,163,344	194,534
HYUNDAI KEFICO CORPORATION (*)	2,118,244	1,151,710	2,255,354	86,781
HCA (*)	65,174,141	57,784,155	12,392,502	416,542
HMA	13,534,367	8,484,603	33,684,033	2,549,423
HMMA	4,974,559	3,863,001	11,399,961	(807,997)
HMI (*)	4,932,560	2,071,012	9,230,238	710,908
HMMC	4,554,767	1,724,596	9,291,193	680,064
HME (*)	2,604,267	2,528,135	14,302,787	12,792
HACC (*)	1,811,550	1,003,562	4,146,159	102,258
HMB	1,801,019	1,195,946	3,314,994	97,250
HAOSVT	1,733,527	867,053	3,625,354	288,338
HMMR	1,242,120	406,509	965,782	(230,103)
HMCA	1,074,603	874,474	2,371,422	45,739

(*) Based on the subsidiary's consolidated financial statements

Summarized financial position and results of operations of major consolidated subsidiaries as of and for the year ended December 31, 2021 are as follows.

Name of subsidiaries	Assets	Liabilities	Sales	Profit (loss) for the period
	(In millions of Korean Won)			
HYUNDAI CAPITAL SERVICES, INC. (*)	₩ 34,917,071	₩ 29,710,340	₩ 3,485,601	₩ 432,055
HYUNDAI CARD CO., LTD. (*)	21,654,608	18,026,253	2,744,902	314,139
HYUNDAI ROTEM COMPANY (*)	4,107,183	2,838,938	2,872,512	51,412
HYUNDAI KEFICO CORPORATION (*)	2,038,940	1,187,748	2,029,003	60,512
HCA (*)	59,230,349	52,672,107	10,686,865	1,050,250
HMA	8,578,534	5,929,588	22,883,130	1,028,470
HMMA	4,522,540	2,741,306	8,088,117	236,955
HMMC	4,406,392	1,852,526	7,426,329	417,537
HMI (*)	4,310,031	1,782,415	7,339,424	437,395
HME (*)	2,107,163	2,044,181	11,846,977	11,410
HACC (*)	1,946,770	1,119,224	3,582,216	117,911
HMMR	1,931,470	959,020	3,178,717	172,149
HAOSVT	1,469,527	887,896	3,021,886	198,490
HMB	1,387,554	913,764	2,074,018	41,020
HMCA	911,712	716,694	1,938,967	28,116

(*) Based on the subsidiary's consolidated financial statements

- (3) The financial statements of all subsidiaries used in the preparation of the consolidated financial statements are prepared for the same reporting periods as the Company's.

- (4) Summarized cash flows of non-wholly owned subsidiaries that have material non-controlling interests to the Group and subsidiaries of finance segment for the year ended December 31, 2022 are as follows.

Description	HYUNDAI CAPITAL SERVICES, INC.		HYUNDAI CARD CO., LTD.		HCA		HCCA		HYUNDAI ROTEM COMPANY	
	(In millions of Korean Won)									
Provided by (used in) operating activities	₩	(1,111,074)	₩	(618,906)	₩	(254,261)	₩	(1,257,295)	₩	716,229
Provided by (used in) investing activities		(223,067)		(70,359)		28,172		(1,741)		(429,045)
Provided by (used in) financing activities		2,572,598		2,379,211		389,229		1,274,970		(97,120)
Effect of exchange rate changes on cash and cash equivalent		-		-		22,292		(542)		(3,784)
Net increase (decrease) in cash and cash equivalents		1,238,457		1,689,946		185,432		15,392		186,280
Beginning balance of cash and cash equivalents		509,170		579,444		368,191		72,402		319,728
Ending balance of cash and cash equivalents	₩	1,747,627	₩	2,269,390	₩	553,623	₩	87,794	₩	506,008

Summarized cash flows of non-wholly owned subsidiaries that had material non-controlling interests to the Group and subsidiaries of finance segment for the year ended December 31, 2021 are as follows.

	HYUNDAI CAPITAL SERVICES, INC.		HYUNDAI CARD CO., LTD.		HCA		HCCA		HYUNDAI ROTEM COMPANY	
Description	(In millions of Korean Won)									
Provided by (used in) operating activities	₩	(367,733)	₩	(1,400,073)	₩	(7,321,554)	₩	(1,558,760)	₩	(62,714)
Provided by (used in) investing activities		(40,360)		(105,567)		(955,140)		(642)		146,142
Provided by (used in) financing activities		510,859		1,310,731		8,132,339		1,549,724		(99,586)
Effect of exchange rate changes on cash and cash equivalent		339		-		37,398		6,651		(2,842)
Net increase (decrease) in cash and cash equivalents		103,105		(194,909)		(106,957)		(3,027)		(19,000)
Beginning balance of cash and cash equivalents		406,065		774,353		475,148		75,429		338,728
Ending balance of cash and cash equivalents	₩	509,170	₩	579,444	₩	368,191	₩	72,402	₩	319,728

- (5) Details of non-wholly owned subsidiaries of the Company that have material non-controlling interests as of and for the year ended December 31, 2022 are as follows.

Description	HYUNDAI CAPITAL SERVICES, INC.	HYUNDAI CARD CO., LTD.	HYUNDAI ROTEM COMPANY
(In millions of Korean Won)			
Ownership percentage of non-controlling interests	40.32%	63.04%	66.23%
Accumulated non-controlling interests	₩ 2,263,283	₩ 2,511,596	₩ 845,085
Profit attributable to non-controlling interests	171,675	160,104	127,747
Dividends paid to non-controlling interests	-	56,753	-

Details of non-wholly owned subsidiaries of the Company that had material non-controlling interests as of and for the year ended December 31, 2021 are as follows.

Description	HYUNDAI CAPITAL SERVICES, INC.	HYUNDAI CARD CO., LTD.	HYUNDAI ROTEM COMPANY
(In millions of Korean Won)			
Ownership percentage of non-controlling interests	40.32%	63.04%	66.23%
Accumulated non-controlling interests	₩ 2,097,956	₩ 2,379,871	₩ 702,366
Profit attributable to non-controlling interests	170,930	198,059	28,968
Dividends paid to non-controlling interests	37,002	92,463	-

- (6) Financial support provided to consolidated structured entities

As of December 31, 2022, HYUNDAI CARD CO., LTD. and HYUNDAI CAPITAL SERVICES, INC., subsidiaries of the Company, have agreements that provide counterparties with rights of recourse in the event of default on the derivatives relating to asset-backed securities issued by consolidated structured entities, Autopia Sixty-Eighth and Sixty-Ninth Asset Securitization Specialty Company, Super Series Sixth, Eighth, Ninth, Twelfth and Fourteenth Securitization Specialty Co., Ltd..

- (7) Nature and risks associated with interests in unconsolidated structured entities

- 1) Nature of interests in unconsolidated structured entities of the Group as of December 31, 2022 is as follows.

Description	Purpose	Nature of business	Method of funding	Total assets (*)
(In millions of Korean Won)				
Asset securitization SPC	Fund raising through asset-securitization	Fund collection	Asset Backed Securities and others	₩ 711,575
Investment fund	Investment trust and others	Fund management and operation, distribution of operating profit and others	Beneficiary (Investment) certificates	6,877,841
Structured Finance	Fund raising through project financing	Project financing for construction project and ship investment	Project financing and others	24,128,653

(*) The financial information of unconsolidated structured entity includes unaudited amounts.

Nature of interests in unconsolidated structured entities of the Group as of December 31, 2021 is as follows.

Description	Purpose	Nature of business (In millions of Korean Won)	Method of funding	Total assets (*)
Asset securitization SPC	Fund raising through asset-securitization	Fund collection	Asset Backed Securities and others	₩ 138,514
Investment fund	Investment trust and others	Fund management and operation, distribution of operating profit and others	Beneficiary (Investment) certificates	9,874,543
Structured Finance	Fund raising through project financing	Project financing for construction project and ship investment	Project financing and others	19,487,943

(*) The financial information of unconsolidated structured entity includes unaudited amounts.

2) Risks associated with interests in unconsolidated structured entities of the Group as of December 31, 2022 are as follows.

Description	Book value in the structured entity	Financial support provided to the structured entity		Maximum amount of exposure to loss of the structured entity
		Method	Purpose	
(In millions of Korean Won)				
Asset securitization SPC	₩ 70,208	Loan obligations	Loan agreement (Credit line)	₩ 77,000
Investment fund		Beneficiary certificates, Investment trust	Invest agreement	
	238,424			238,424
Structured Finance	1,585,070	Loan obligations	Loan agreement (Credit line)	2,089,900

Risks associated with interests in unconsolidated structured entities of the Group as of December 31, 2021 are as follows.

Description	Book value in the structured entity	Financial support provided to the structured entity		Maximum amount of exposure to loss of the structured entity	
		Method	Purpose		
(In millions of Korean Won)					
Asset securitization SPC	₩ 18,797	Loan obligations	Loan agreement (Credit line)	₩	24,000
Investment fund		Beneficiary certificates, Investment trust	Invest agreement		178,552
Structured Finance	826,220	Loan obligations	Loan agreement (Credit line)		1,117,599

(8) Significant restrictions on the subsidiaries

As of December 31, 2022, HYUNDAI CARD CO., LTD., a subsidiary of the Company, is subject to significant restrictions that require it to obtain consent from a nominated outside director recommended by non-controlling shareholders in the events of acquiring a company, entering into new business, providing guarantees, making investments in stocks or contracts beyond a certain amount and others.

(9) Changes in consolidated subsidiaries

Subsidiaries newly included in or excluded from consolidation during the year ended December 31, 2022 are as follows.

Changes	Name of subsidiaries	Description
Included	Autopia Seventy-Third Asset Securitization Specialty Company	Establishment
"	Autopia Seventy-Fourth Asset Securitization Specialty Company	"
"	Autopia Seventy-Fifth Asset Securitization Specialty Company	"
"	Super Series Twelfth Securitization Specialty Co., Ltd.	"
"	Super Series Thirteenth Securitization Specialty Co., Ltd.	"
"	Super Series Fourteenth Securitization Specialty Co., Ltd.	"
"	Hyundai Motor Group Metaplant America, LLC (HMGMA)	"
"	Hyundai Hydrogen Mobility Germany GmbH (HHMG)	"
"	HYUNDAI MOBILITY (THAILAND) CO., LTD. (HMT)	"
"	PT Hyundai Solusi Mobilitas (HSM)	"
"	42dot Inc.	Acquisition
"	42 Air, Inc	"
"	Movia Inc.	"
Excluded	supernal, LLC	Changed to equity method
"	Super Series Fifth Securitization Specialty Co., Ltd.	Liquidation
"	Autopia Sixty-fourth Asset Securitization Specialty Company	"
"	KyoboAXA Private Tomorrow Securities Investment Trust No.12	"
"	Shinhan BNPP Private Corporate Security Investment Trust No.34	"
"	KB Leaders Private Securities Fund1(Bond Mixed)	"
"	Samsung ETF rotation Private Investment Trust 1	"
"	MoceanLab, Inc.	"
"	HYUNDAI ROTEM MALAYSIA SDN BHD	"

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES:

(1) Basis of consolidated financial statements preparation

The consolidated financial statements have been prepared in accordance with Korean International Financial Reporting Standards (“K-IFRS”), as prescribed in the Act on External Audit of Stock Companies, Etc in the Republic of Korea.

The significant accounting policies used for the preparation of the consolidated financial statements are summarized below. These accounting policies are consistent with those applied to the consolidated financial statements as of and for the year ended December 31, 2021, except for the new or amended accounting standards and interpretations described below.

1) New and amended standards that have been applied from the year beginning on January 1, 2022 are as follows.

The Group applied *Proceeds before Intended Use*(Amendments to K-IFRS 1016 ‘*Property, Plant and Equipment*’), *Cost of Fulfilling a Contract*(Amendments to K-IFRS 1037 ‘*Provisions, Contingent Liabilities and Contingent Assets*’), *Annual Improvements to IFRS Standards 2018-2020*, *Reference to the Conceptual Framework*(Amendments to K-IFRS 1103 ‘*Business Combinations*’) and *Covid-19-Related Rent Concessions beyond 30 June 2021*(Amendments to K-IFRS 1116 ‘*Leases*’) for the first time on January 1, 2022. These standards and other new accounting standards effective from January 1, 2022 do not have a material impact on the Group's consolidated financial statements.

2) A number of new standards are effective for annual periods beginning after January 1, 2022 and earlier application is permitted; however, the Group has not early adopted them in preparing these consolidated financial statements.

The Group is currently evaluating the effect of the following new or amended standards and interpretations, if any, to the consolidated financial statements, however, those standards are not expected to have a significant impact on the Group's consolidated financial statements.

- Classification of Liabilities as Current or Non-current (K-IFRS 1001 ‘*Presentation of Financial Statements*’)
- K-IFRS 1117 ‘*Insurance Contracts*’ and its amendments
- Disclosure of Accounting policies (K-IFRS 1001 ‘*Presentation of Financial Statements*’)
- Definition of Accounting estimate (K-IFRS 1008 ‘*Accounting Policies, Changes in Accounting Estimates and Errors*’)
- Deferred Tax related to Assets and Liabilities arising from a Single Transaction (K-IFRS 1012 ‘*Income Taxes*’)
- Disclosure of Gains and Losses on Valuation of Financial Liabilities with Conditions for Adjustment of Exercise Price (K-IFRS 1001 ‘*Presentation of Financial Statements*’)

The consolidated financial statements were approved by the Board of Directors on January 26, 2023 and are expected to be submitted for the Company's annual general meeting of shareholders.

(2) Basis of measurement

The consolidated financial statements have been prepared on the historical cost basis except as otherwise stated in the accounting policies below. Historical cost is usually measured at the fair value of the consideration given to acquire the assets.

(3) Basis of consolidations

The consolidated financial statements incorporate the financial statements of the Company and entities (including structured entities) controlled by the Company (or its subsidiaries). Control is achieved when the Company:

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

The Group reassesses 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 listed above.

When the Group has less than a majority of the voting rights of an investee, it has power over the investee when the voting rights are sufficient to give it the practical ability to direct the relevant activities of the investee unilaterally. The Group

considers all relevant facts and circumstances in assessing whether or not the Group's voting rights in an investee are sufficient to give it power, including:

- the size of the Group's holding of voting rights relative to the size and dispersion of holdings of the other vote holders;
- potential voting rights held by the Group, other vote holders or other parties;
- rights arising from other contractual arrangements; and
- any additional facts and circumstances that indicate that the Group 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.

Income and expenses of subsidiaries acquired or disposed of during the period are included in the consolidated statements of comprehensive income from the effective date of acquisition and up to the effective date of disposal, as appropriate. When necessary, adjustments are made to the financial statements of subsidiaries to bring their accounting policies into line with those used by the Group. All intragroup transactions, balances, income and expenses are eliminated in full on consolidation. Non-controlling interests are presented in the consolidated statement of financial position within equity, separately from the equity of the owners of the Group. The carrying amount of non-controlling interests consists of the amount of those non-controlling interests at the initial recognition and the changes in shares of the non-controlling interests in equity since the date of the acquisition. Total comprehensive income is attributed to the owners of the Group and to the non-controlling interests even if the non-controlling interest has a deficit balance.

Changes in the Group's ownership interests in subsidiaries, without a loss of control, 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, the profit 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), liabilities of the subsidiary and any non-controlling interests. 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 as specified by applicable K-IFRS). The fair value of any investment retained in the former subsidiary at the date when control is lost is regarded as the fair value on initial recognition for subsequent accounting under K-IFRS 1109 *Financial Instruments: Recognition and Measurement* or, when applicable, the cost on initial recognition of an investment in an associate or a joint venture.

(4) Business combination

Acquisitions of businesses are accounted for using the acquisition method. The consideration transferred in a business combination is measured at fair value, which is calculated as the sum of the acquisition-date fair values of the assets transferred by the Group, liabilities incurred by the Group to the former owners of the acquiree and the equity interests issued by the Group in exchange for control of the acquiree. The consideration includes any asset or liability resulting from a contingent consideration arrangement and is measured at fair value.

Acquisition-related costs are recognized in profit or loss as incurred. When a business combination is achieved in stages, the Group's previously held equity interest in the acquiree is remeasured at its fair value at the acquisition date (i.e., the date when the Group obtains control) and the resulting gain or loss, if any, is recognized in profit or loss. Prior to the acquisition date, the amount resulting from changes in the value of its equity interest in the acquiree that have previously been recognized in other comprehensive income are reclassified to profit or loss where such treatment would be appropriate if that interest were directly disposed of.

(5) Revenue recognition

In accordance with K-IFRS 1115, all types of contracts recognize revenues by the 5-step revenue recognition model (1) identification of contract → (2) identification of performance obligations → (3) calculation of transaction price → (4) allocation of transaction price to performance obligations → (5) recognition of revenue when performance obligation is satisfied.

1) Identification of performance obligations

The Group operates businesses such as the manufacture and sale of automobiles and auto parts. In the automobile sales contracts with customers, services other than automobile sales are separately identified as performance obligations.

2) Performance obligations satisfied at a point in time

Revenue is recognized when the performance obligations under the terms of a contract with the Group's customer are satisfied, which generally occurs with the transfer of control of goods or services.

3) Performance obligations satisfied over time

In assessing whether the control over goods or services is transferred over time, the Group evaluates whether the customer simultaneously obtains and consumes the benefits provided by the Group's performance, whether the assets are controlled by the customer, and whether the assets created by the Group have no substitute purpose, and whether the Group is entitled to reimbursement of costs incurred to date, including a reasonable margin.

4) Allocation of transaction price

The Group allocates the transaction price to each of the performance obligations identified in a single contract in proportion to its stand-alone selling price. When the stand-alone selling price is not directly observable, the Group estimates the stand-alone selling price using the adjusted market assessment approach, or the expected cost plus a margin approach.

5) Variable consideration

The Group estimates the amount of consideration it will be entitled to receive using the method (either the expected value method or the most likely amount method) that provides the most accurate prediction.

Variable consideration is included in the transaction price only to the extent that it is highly probable that a significant reversal in the cumulative amount of revenue recognized will not occur in future periods.

6) Significant financing element

If the period between the transfer of the goods or services promised to the customer and the payment from the customer is within one year, the Group does not adjust the promised amount of consideration for the effects of a significant financing component, as a practical expedient.

7) Construction contracts

Where the outcome of a construction contract can be estimated reliably, the contract revenue and contract costs associated with the construction contract are recognized as revenue and expenses, respectively, by reference to the stage of completion of the contract activity at the end of reporting period.

The percentage of completion of a contract activity is reliably measured based on the proportion of contract costs incurred for work performed to date relative to the estimated total contract costs, by surveys of work performed or by completion of a physical proportion of the contract work. Variations in contract work, claim and incentive payments are included to the extent that the amount can be measured reliably and its receipt is considered probable. Where the outcome of a construction contract cannot be estimated reliably, contract revenue is recognized to the extent of contract costs incurred that it is probable will be recoverable. Contract costs are recognized as expenses in the period in which they are incurred. When it is probable that total contract costs will exceed total contract revenue, the expected loss is recognized as an expense immediately.

(6) Foreign currency translation

The individual financial statements of each entity in the Group are prepared and presented in the currency of the primary economic environment in which the entity operates (its functional currency).

In preparing the financial statements of the individual entities, transactions occurring in currencies other than their functional currency (foreign currencies) are recorded using the exchange rate on the dates of the transactions. At the end of each reporting period, monetary items denominated in foreign currencies are translated using the exchange rate at the reporting period. Non-monetary items that are measured in terms of historical cost in a foreign currency are translated using the exchange rate at the date of the transaction. Non-monetary items that are measured at fair value in a foreign currency are translated using the exchange rates at the date when the fair value was determined. Exchange differences resulting from settlement of assets or liabilities and translation of monetary items denominated in foreign currencies are recognized in profit or loss in the period in which they arise except for some exceptions.

Foreign exchange gains or losses are classified in finance income (expenses) or other income (expenses) by the nature of the transaction or event.

For the purpose of presenting the consolidated financial statements, assets and liabilities in the Group's foreign operations are translated into Won, using the exchange rates at the end of reporting period. Income and expense items are translated at the average exchange rate for the period, unless the exchange rate during the period has significantly fluctuated, in which case the exchange rates at the dates of the transactions are used. The exchange differences arising, if any, are recognized in equity as other comprehensive income. Upon the disposal of a foreign operation, the cumulative amount of the exchange differences relating to that foreign operation is reclassified from equity to profit or loss when the gain or loss on disposal is recognized. Any goodwill arising on the acquisition of a foreign operation and any fair value adjustments to the carrying amounts of assets and liabilities arising on the acquisition of that foreign operation are treated as assets and liabilities of the foreign operation and translated at the exchange rate at the end of reporting period.

(7) Financial Assets

The Group classifies financial assets as financial assets measured at fair value through profit or loss, financial assets measured at amortized cost or financial assets measured at fair value through other comprehensive income according to the terms and purpose of acquisition. The Group determines the classification of a financial asset at initial recognition.

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

1) Classification of financial assets

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

- The financial asset is held within a business model whose objective is to hold financial assets in order to collect contractual cash flows; 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.

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

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

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

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

- 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; and
- The Group may irrevocably designate a debt investment that meets the amortized cost or FVOCI criteria as measured at FVPL if doing so eliminates or significantly reduces an accounting mismatch

1-1) Amortization cost and effective interest rate method

The effective interest method is a method of calculating the amortized cost of a debt instrument and of allocating interest income over the relevant period. 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 amortisation using the effective interest method of any difference between that initial amount and the maturity amount, adjusted for any loss allowance. The gross carrying amount of a financial asset is the amortized cost of a financial asset before adjusting for any loss allowance. Interest income is recognized using the effective interest method for debt instruments measured subsequently at amortized cost and at FVOCI.

1-2) Debt instruments classified as at FVOCI

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

1-3) Equity instruments designated as at FVOCI

On initial recognition, the Group may make an irrevocable election (on an instrument-by-instrument basis) to designate investments in equity instruments as at FVOCI. Designation at FVOCI is not permitted if the equity investment is held for trading or if it is contingent consideration recognized by an acquirer in a business combination.

Investments in equity instruments at FVOCI 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 will not be reclassified to profit or loss on disposal of the equity investments, instead, it is transferred to retained earnings.

1-4) Financial assets measured at FVPL

Financial assets that do not meet the criteria for being measured at amortized cost or FVOCI are measured at FVPL. Gains or losses arising from changes in the fair value of FVPL, dividends and interest income from the financial assets are recognized in profit or loss.

2) Foreign exchange gain / loss

The carrying amount of a financial asset designated as a foreign currency is determined in foreign currencies and is translated at the spot exchange rate at the end of the reporting period.

(8) Impairment of financial assets

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

The Group always recognizes lifetime expected credit losses (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 and valuation of individual assets, adjusted for factors that are specific to the debtors, general economic conditions and an assessment of forecast on present and future conditions reflecting time value of money where appropriate.

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

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

1) Significant increase in credit risk

In assessing whether the credit risk on a financial instrument has increased significantly since initial recognition, the Group compares the risk of a default occurring on the financial instrument at the reporting date with the risk of a default occurring on the financial instrument at the date of initial recognition.

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

- an actual or expected significant deterioration in the financial instrument's external (if available) or internal credit rating;
- other significant increases in credit risk;

2) Definition of default

The Group believes that, based on past experience, if the debtor violates the terms of the contract, it is considered to constitute a default event for internal credit risk management purposes.

3) Credit-impaired financial assets

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

- (a) significant financial difficulty of the issuer or the borrower;
- (b) a breach of contract, such as a default or past due event as defined by the Group's internal policy;

4) Measurements and recognition of expected credit losses

The measurement of ECLs 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 assets, the ECLs are 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.

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

(9) Derecognition of financial assets

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

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

(10) Inventory

Inventory is measured at the lower of cost or net realizable value. Inventory cost, including the fixed and variable manufacturing overhead cost, is calculated, using the moving average method, except for the cost for inventory in transit, which is determined by the specific identification method.

(11) Investments in associates and joint ventures

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

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

The investment in an associate or a joint venture is initially recognized at cost and accounted for using the equity method. Under the equity method, an investment in an associate or a joint venture is initially recognized in the consolidated statement of financial position at cost and adjusted thereafter to recognize the Group's share of the profit or loss and other comprehensive income of the associate or the joint venture.

When the Group's share of losses of an associate or a joint venture exceeds the Group's interest in that associate or joint venture (which includes any long-term interests that, in substance, form part of the Group's net investment in the associate or the joint venture), the Group discontinues recognizing its share of further losses. Additional losses are recognized only to the extent that the Group has incurred legal or constructive obligations or made payments on behalf of the associate or the joint venture.

Investment in associate or joint venture is accounted for using the equity method from the date that the investee becomes the associate or joint venture. Any excess of the cost of acquisition over the Group's share of the net fair value of the identifiable assets, liabilities and contingent liabilities of an associate or a joint venture recognized at the date of acquisition is recognized as goodwill, which is included within the carrying amount of the investment.

Any excess of the Group's share of the net fair value of the identifiable assets, liabilities and contingent liabilities over the cost of acquisition, after reassessment, is recognized immediately in profit or loss.

The requirements of K-IFRS 1028 are applied to determine whether it is necessary to recognize any impairment loss with respect to the Group's investment in an associate or a joint venture. When there is any indication of impairment, the entire carrying amount of the investment (including goodwill) is tested for impairment in accordance with K-IFRS 1036 as a single asset by comparing its recoverable amount (higher of value in use and fair value less costs of disposal) with its carrying amount. Any impairment loss recognized is not allocated to any asset, including goodwill that forms part of the carrying amount of the investment. Any reversal of that impairment loss is recognized in accordance with K-IFRS 1036 to the extent that the recoverable amount of the investment subsequently increases.

Upon disposal of an associate or a joint venture that results in the Group losing significant influence over that associate or joint venture, any retained investment is measured at fair value at that date and the fair value is regarded as its fair value on initial recognition as a financial asset in accordance with K-IFRS 1109. The difference between the previous carrying amount of the associate or joint venture attributable to the retained interest and its fair value is included in the determination of the gain or loss on disposal of the associate or joint venture. In addition, the Group accounts for all amounts previously recognized in other comprehensive income in relation to that associate or joint venture on the same basis we would be required if that associate or joint venture had directly disposed of the related assets or liabilities. Therefore, if a gain or loss previously recognized in other comprehensive income by that associate or joint venture would be reclassified to profit or loss on the disposal of the related assets or liabilities, the Group reclassifies the gain or loss from equity to profit or loss (as reclassification adjustment) when it loses significant influence over that associate or joint venture. When the Group reduces its ownership interest in an associate or a joint venture, but the Group continues to use the equity method, the Group reclassifies to profit or loss the proportion of the gain or loss that had previously been recognized in other comprehensive income relating to that reduction in ownership interest if that gain or loss would be reclassified to profit or loss on the disposal of the related assets or liabilities. In addition, the Group applies K-IFRS 1105 to a portion of investment in an associate or a joint venture that meets the criteria to be classified as held for sale.

The Group continues to use the equity method when an investment in an associate becomes an investment in a joint venture or an investment in a joint venture becomes an investment in an associate. There is no remeasurement to fair value upon such changes in ownership interests.

Unrealized gains from transactions between the Group and its associates or joint ventures are eliminated up to the shares in associate (joint venture) stocks. Unrealized losses are also eliminated, unless evidence of impairment in assets transferred is produced. If the accounting policy of associates or joint ventures differs from the Group, financial statements are adjusted accordingly before applying equity method of accounting.

(12) Property, plant and equipment

Property, plant and equipment is recognized if, and only if it is probable that future economic benefits associated with the asset will flow to the Group, and the cost of the asset can be measured reliably. After the initial recognition, property, plant and equipment is stated at cost less accumulated depreciation and accumulated impairment losses. The cost includes any cost 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 and the initial estimate of the costs of dismantling and removing the item and restoring the site on which it is located. In addition, in case the recognition criteria are met, the subsequent costs will be added to the carrying amount of the asset or recognized as a separate asset, and the carrying amount of what was replaced is derecognized.

Depreciation is computed using the straight-line method based on the estimated useful lives of the assets. The representative useful lives are as follows.

	<u>Representative useful lives (years)</u>
Buildings and structures	12 – 50
Machinery and equipment	6 – 15
Vehicles	6 – 15
Dies, mold and tools	4 – 6
Office equipment	3 – 15
Other	2 – 20

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

(13) Investment properties

Investment properties are property held to earn rentals or for capital appreciation or both. Investment properties are measured initially at its cost and transaction costs are included in the initial measurement. After initial recognition, the book value of investment properties is presented at the cost less accumulated depreciation and accumulated impairment losses.

Subsequent costs are recognized as the carrying amount of the asset when, and only when it is probable that future economic benefits associated with the asset will flow to the Group, and the cost of the asset can be measured reliably, or recognized as a separate asset if appropriate. The carrying amount of what was replaced is derecognized.

Land is not depreciated, and other investment properties are depreciated using the straight-line method over the period from 20 to 50 years. The Group reviews the depreciation method, the estimated useful lives and residual values at the end of each annual reporting period. If expectations differ from previous estimates, the changes are accounted for as a change in accounting estimate.

(14) Intangible assets

1) Goodwill

Goodwill arising from a business combination is recognized as an asset at the time of obtaining control (the acquisition date). Goodwill is measured as the excess of the aggregate of the consideration transferred, the amount of any non-controlling interest in the acquiree and the acquisition-date fair value of the Group's previously held equity interest in the acquiree over the net of the acquisition-date amounts of the identifiable assets acquired and the liabilities assumed.

If, after reassessment, the net of the acquisition-date amounts of the identifiable assets acquired and the liabilities assumed exceeds the aggregate of the consideration transferred, the amount of any non-controlling interest in the acquiree, and the acquisition-date fair value of the Group's previously held equity interest in the acquiree, the excess is recognized immediately in profit or loss as a bargain purchase gain.

Goodwill is not amortized, but tested for impairment at least annually. For purposes of impairment tests, goodwill is allocated to those cash-generating units ("CGU") of the Group expected to have synergies from the business combination. CGU that goodwill has been allocated is tested for impairment every year or when an event occurs that indicates impairment.

If the recoverable amount of a CGU is less than its carrying amount, the impairment will first decrease the goodwill allocated to that CGU and the remaining impairment will be allocated among other assets relative to its carrying value. Impairment recognized for goodwill may not be reversed. When disposing a subsidiary, related goodwill will be included in gain or loss from disposal.

2) Development costs

The expenditure on research is recognized as an expense when it is incurred. The expenditure on development is recognized as an intangible asset, and amortization is computed using the straight-line method based on the estimated useful lives of the assets since the asset is available for use or sale.

Research and development activities are conducted in phases of preceding research, development approval, product development and mass production. The Group generally recognizes intangible assets as development activities after the development approval phases which product specification, release schedule, and sales plan are established. Expenditure incurred at the previous phase is recognised as an expense as it is considered as research activities when it is incurred.

3) Intangible assets acquired separately

Intangible assets are measured initially at cost, and are subsequently measured at cost less accumulated amortization and accumulated impairment losses.

Intangible assets are amortized by the straight-line method based on estimated useful lives from the date of availability. The Group reviews the estimated useful life and amortization method at the end of each annual reporting period. If expectations differ from previous estimates, the changes are accounted for as a change in accounting estimate. Intangible assets assessed as having indefinite useful life such as club membership are subjected to impairment test at least once a year without amortization.

The representative useful lives are as follows.

	<u>Representative useful lives (years)</u>
Development costs	3, 7
Industrial property rights	5 – 10
Software	3 – 7
Other	5 – 40

(15) Impairment of non-financial assets

The Group assesses at the end of each reporting period whether there is any indication that an asset may be impaired. If any such indication exists, the Group estimates the recoverable amount of the asset to determine the extent of the impairment loss. Recoverable amount is the higher of fair value less costs to sell and value in use. If the cash inflows of an individual asset are largely independent from other assets or group of assets, the recoverable amount is measured for that individual asset; otherwise, it is measured for the cash generating unit (CGU) to which the asset belongs. An impairment loss in respect of goodwill is not reversed. For other assets, impairment loss is reversed if the recoverable amount increases in subsequent years, but only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortization, if no impairment loss had been recognized.

Intangible assets with indefinite useful lives or intangible assets not yet available for use are not amortized, but tested for impairment annually.

(16) Non-current assets classified as held for sale

The Group classifies a non-current asset (or disposal group) as held for sale, if its carrying amount will be recovered principally through a sale transaction rather than through continuing use. For this to be the case, the asset (or disposal group) must be available for immediate sale in its present condition subject only to terms that are usual and customary for sales of such assets (or disposal groups) and its sale must be highly probable. The management must be committed to a plan to sell the asset (or disposal group), and the sale should be expected to qualify for recognition as a completed sale within one year from the date of classification.

Non-current assets (or disposal group) classified as held for sale are measured at the lower of their carrying amount and fair value, less costs to sell.

(17) Lease

At contract inception, the Group assesses whether a contract is or contains a lease. A contract is, or contains, a lease if the contract conveys a right to control the use of an identified asset for a period of time in exchange for consideration. When assessing whether the contract conveys a right to control the use of an identified asset, definition of a lease under K-IFRS 1116 has been applied.

1) As a lessee

At inception or effective date of change, the Group allocates the consideration in the contract to each lease on the basis of their relative stand-alone prices. However, for leases of properties in which it is a lessee, the Group has elected not to separate non-lease components and will instead account for the lease and non-lease components as a single lease component.

The Group recognizes a right-of-use asset and lease liability at the lease commencement date. The right-of-use asset is initially measured at cost, which comprises the initial amount of the lease liability adjusted for any lease payments made at or before the commencement date, plus any initial direct costs incurred and an estimate of costs to dismantle and remove the underlying asset or to restore the underlying asset or the site on which it is located, less any lease incentive received.

The right-of use asset is subsequently depreciated using the straight-line method from the commencement date to the end of the lease term, unless the lease transfers ownership of the underlying asset to the Group by the end of the lease term or the cost of the right-of-use asset reflects that the Group will exercise a purchase option. In that case the right-of-use asset will be depreciated over the useful life of the underlying asset, which is determined on the same basis as those of property and equipment. In addition, the right-of use asset is periodically reduced by impairment losses, if any, and adjusted for certain remeasurements of the lease liability.

The lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date, discounted using the interest rate implicit in the lease or, if that rate cannot be readily determined, the Group's incremental borrowing rate. Generally, the Group uses its incremental borrowing rate as the discount rate.

When the lease liability is remeasured, a corresponding adjustment is made to the carrying amount of the right-of-use asset, or is recorded in profit or loss if the carrying amount of the right-of-use asset has been reduced to zero.

The Group has elected not to recognize right-of-use assets and lease liabilities for leases of low-value assets and short-term leases. The Group recognizes the lease payments associated with these leases as an expense on a straight-line basis over the lease term.

2) As a lessor

The accounting policies applicable in the same period to the Group as a lessor are not different from those under K-IFRS 1116. When the Group acted as a lessor, it determined at lease inception whether each lease was a finance lease or an operating lease. To classify each lease, the Group made an overall assessment of whether the lease transferred substantially all of the risks and rewards incidental to ownership of the underlying asset. If this was the case, then the lease was a finance lease; if not, then it was an operating lease.

Amounts due from lessees under finance leases are recognized as receivables at the amount of the Group's net investment in the leases. Finance lease interest income is allocated to accounting periods so as to reflect an effective interest rate on the Group's net investment outstanding in respect of the leases. Rental income from operating leases is recognized on a straight-line basis over the term of the relevant lease. Initial direct costs incurred in negotiating and arranging an operating lease are added to the carrying amount of the carrying amount of investments in operating leases and recognized as expense on a straight-line basis over the lease term.

(18) Borrowing costs

Borrowing costs directly attributable to the acquisition, construction or production of qualifying assets are capitalized to the cost of those assets, until they are ready for their intended use or sale. A qualifying asset is an asset that necessarily takes a substantial period of time to get ready for its intended use or sale. Investment income earned on the temporary investment of specific borrowings pending their expenditure on qualifying assets is deducted from the borrowing costs eligible for capitalization. All other borrowing costs are recognized in profit or loss in the period in which they are incurred.

(19) Retirement benefit plans

The retirement benefit obligation recognized in the consolidated statements of financial position represents the present value of the defined benefit obligation, less the fair value of plan assets. Defined benefit obligations are calculated by an actuary using the Projected Unit Credit Method.

The present value of the defined benefit obligations is measured by discounting estimated future cash outflows by the interest rate of high-quality corporate bonds, with similar maturity as the expected post-employment benefit payment date. In countries where there is no deep market in such bonds, the market yields at the end of the reporting period on government bonds are used.

The remeasurements of the net defined benefit liabilities (assets) comprising actuarial gain or loss from changes in actuarial assumptions or differences between actuarial assumptions and actual results, the effect of the changes to the asset ceiling and return on plan assets, excluding amounts included in net interest on the net defined benefit liabilities (assets), are recognized in other comprehensive income of the consolidated statements of comprehensive income, which is immediately recognized as retained earnings. Those recognized in retained earnings will not be reclassified in profit or loss. Past service costs are recognized in profit and loss when the plan amendment occurs, and net interest is calculated by applying the discount rate determined at the beginning of the annual reporting period to the net defined benefit liabilities (assets). Defined benefit costs are composed of service cost (including current service cost, past service cost, as well as gains and losses on settlements), net interest expense (income), and remeasurements.

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

Contributions to defined contribution retirement benefit plans are recognized as expenses when employees provide services eligible for payment.

(20) Provisions

A provision is 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. A provision is measured using the present value of the cash flows estimated to settle the present obligation. The increase in provision due to passage of time is recognized as interest expense.

The Group recognizes provisions for costs expected to be incurred in the future for the repair of regular parts within the warranty period based on historical experience and compensation for accidents caused by defects in the exported products or parts of the product when such amounts are probable of payment. Also, the Group recognizes provisions for the probable losses of unused loan commitment, construction contracts, pre-contract sale or service contract due to legal or constructive obligations. In addition, the Company recognizes provisions expected to be paid in the future with regard to long-term employee benefits payable to long-term employees.

When some or all of the economic benefits 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.

(21) Taxation

Income tax expense is composed of current and deferred tax.

1) Current tax

The current tax is computed based on the taxable profit for the current year. The taxable profit differs from the profit before income tax as reported in the consolidated statements of income because it excludes items of income or expense that are taxable or deductible in other years and it further excludes items that are never taxable or deductible. The Group's current tax liability is calculated using tax rates that have been enacted or substantively enacted by the end of the reporting period. The amount of current tax payable or receivable is the best estimate of the tax amount expected to be paid or received that reflects uncertainty related to income taxes, if any.

2) Deferred tax

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

Deferred tax liabilities are recognized for taxable temporary differences associated with investments in subsidiaries and associates and interests in joint ventures, except when 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. Deferred tax assets arising from deductible temporary differences associated with such investments and interests are only recognized to the extent that taxable profit will be available against which the temporary difference can be utilized and they are expected to be reversed in the foreseeable future.

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

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

Deferred tax assets and liabilities are offset when there is a legally enforceable right to offset current tax assets against current tax liabilities and when they relate to income tax levied by the same taxation authority. Also, they are offset when different taxable entities that intend either to settle current tax liabilities and assets on a net basis, or to realize the assets and settle the liabilities simultaneously, in each future period in which significant amounts of deferred tax liabilities or assets are expected to be settled or recovered.

3) Recognition of current and deferred taxes

Current and deferred taxes are recognized in profit or loss, except when they relate to items that are recognized in other comprehensive income or directly in equity, or items arising from initial accounting treatments of a business combination. The tax effect arising from a business combination is included in the accounting for the business combination.

(22) Treasury stock

When the Group repurchases its equity instruments (treasury stock), the incremental costs and net of tax effect are deducted from equity and recognized as other capital item deducted from the total equity in the consolidated statements of financial position. In addition, profits or losses from purchase, sale or retirement of treasury stocks are directly recognized in equity and not in current profit or loss.

(23) Financial liabilities and equity instruments

Debt instruments and equity instruments issued by the Group are recognized as financial liabilities or equity depending on the contract and the definitions of financial liability and equity instrument.

1) 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.

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

2) Financial guarantee liability

A financial guarantee contract is a contract that the issuer must pay a certain amount of money to compensate for losses incurred by the holder due to the failure of a specific debtor to pay the due date on the original contract or modified terms of the debt instrument. Financial guarantee liabilities are measured initially at fair value and subsequently measured at the greater of the following, unless they are designated as at fair value through profit or loss or arising from the transfer of assets.

- Loss provision calculated in accordance with K-IFRS 1109
- The amount recognized less the accumulated profits recognized in accordance with K-IFRS 1115

3) Financial liabilities measured at FVPL

Financial liabilities are classified as at FVPL when the financial liability is (i) contingent consideration of an acquirer in a business combination, (ii) held for trading or (iii) it is designated as at FVPL as of the date of initial recognition.

However, for financial liabilities that are designated as at FVPL, 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 FVPL are recognized in profit or loss.

4) Financial liabilities measured subsequently at amortized cost

Financial liabilities that are not (i) contingent consideration of an acquirer in a business combination, (ii) held for trading, or (iii) designated as at FVPL as of the date of initial recognition, 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 of allocating interest expense over the relevant period.

5) 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.

(24) Derivatives

Derivatives are initially recognized at fair value at the date the derivative contracts are 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 such case, the timing of the recognition in profit or loss depends on the nature of the hedge relationship.

The Group designates certain derivatives as hedging instruments to hedge the risk of changes in fair value of a recognized asset or liability or an unrecognized firm commitment (fair value hedges) and the risk of changes in cash flow of a highly probable forecast transaction and the risk of changes in foreign currency exchange rates of firm commitment (cash flow hedges).

1) Fair value hedges

The Group recognizes the changes in the fair value of derivatives that are designated and qualified 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. Hedge accounting is discontinued when the Group revokes the hedging relationship, when the hedging instrument expires or is sold, terminated or exercised, or when it is no longer qualified 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) Cash flow hedges

The effective portion of changes in the fair value of derivatives that are designated and qualified 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 affects profit or loss. If the forecast transaction results in the recognition of a non-financial asset or liability, the related gain and loss recognized in other comprehensive income and accumulated in equity are transferred from equity to the initial cost of related non-financial asset or liability.

Cash flow hedge accounting is discontinued when the Group revokes the hedging relationship, when the hedging instrument expires or is sold, terminated or exercised, or it no longer qualifies for the criteria of hedging. Any gain or loss accumulated in equity at that time remains in equity, and is recognized as profit or loss when the forecast transaction occurs. When the forecast transaction is no longer expected to occur, the gain or loss accumulated in equity is recognized immediately in profit or loss.

(25) 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 if market 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 leasing transactions that are within the scope of K-IFRS 1116 *Leases*, and measurements that have some similarities to fair value, but are not fair value, such as net realisable value in K-IFRS 1002 *Inventories* or value in use in K-IFRS 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, which are described in Note 20.

(26) Accounting Treatment related to the Emission Rights Cap and Trade Scheme

The Group classifies the emission rights as intangible assets. The emission rights allowances received from the government free of charge are measured at zero, while purchased emission rights allowances are measured at cost. No emission liability is recognized if the expected quantity of emission for the performing period does not exceed the emission allowance in possession. If the expected emissions exceed the emission allowances held, the emission liability is measured and recognized based on the expected excess quantity of emissions and the market unit price of the emission rights at the end of the reporting period.

(27) Significant accounting estimates and key sources of estimation uncertainties

In the application of the Group's accounting policies, management is required to make judgments, estimates and assumptions about the carrying amounts of assets and liabilities that cannot be identified from other sources. The estimation and assumptions are based on historical experience and other factors that are considered to be relevant. Actual results may be different from those estimations. The estimates and underlying assumptions are continually evaluated. 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.

Information about assumptions and estimation uncertainties at December 31, 2022 that have a significant risk of resulting in a material adjustment to the carrying amounts of assets and liabilities in the next financial year is as follows.

1) Impairment test for goodwill and non-financial assets

Determining whether goodwill and non-financial asset is impaired requires an estimation of the value in use of the CGU to which goodwill has been allocated and value in use of non-financial assets. The value in use calculation requires the management to estimate the future cash flows expected to arise from the CGU and a suitable discount rate in order to calculate present value.

2) Warranty provision

The Group recognizes provisions for the warranties of its products as described in Note 2.(20). The amounts are recognized based on the best estimate of amounts necessary to settle the present and future warranty obligation.

3) Defined benefit plans

The Group operates defined retirement benefit plans. Defined benefit obligations are determined at the end of each reporting period using an actuarial valuation method that requires management assumptions on discount rates, rates of expected future salary increases and mortality rates. The characteristic of post-employment benefit plan that serves for the long term period causes significant uncertainties when the post-employment benefit obligation is estimated.

4) Taxation

The Group recognizes current tax and deferred tax based on the best estimates of income tax effect to be charged in the future as the result of operating activities until the end of the reporting period. However, actual final income tax to be charged in the future may differ from the relevant assets and liabilities recognized at the end of the reporting period and the difference may affect income tax charged or credited, or deferred tax assets and liabilities in the period in which the final income tax determined.

5) Fair value 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. The Group makes judgements on the choice of various valuation methods and assumptions based on the condition of the principal market at the end of the reporting period.

6) Measurement and useful lives of property, plant, equipment or intangible assets

When the Group acquires property, plant, equipment or intangible assets from a business combination, it is required to estimate the fair value of the assets at the acquisition date and determine the useful lives of such assets for depreciation and amortization.

7) Credit loss allowance

The Group sets credit loss allowance upon evaluation of impairment relating to account receivables and financial services receivables as described in Note 2.(8). The precision in loss allowance is based on the estimation of expected cash flow and assumptions and variables of risk measurement model used for the estimation.

3. TRADE NOTES AND ACCOUNTS RECEIVABLE:

(1) Trade notes and accounts receivable as of December 31, 2022 and December 31, 2021 are as follows.

Description	December 31, 2022		December 31, 2021	
	Current	Non-current	Current	Non-current
	(In millions of Korean Won)			
Trade notes and accounts receivable	₩ 4,298,915	₩ 200,400	₩ 3,190,030	₩ 145,648
Loss allowance	(19,858)	(5,028)	(42,734)	(773)
Present value discount accounts	-	(15,591)	-	(7,718)
	₩ 4,279,057	₩ 179,781	₩ 3,147,296	₩ 137,157

(2) Aging analysis of trade notes and accounts receivable

As of December 31, 2022, aging analysis of total trade notes and accounts receivable that are past due, but not impaired are as follows.

Description	Not due	Overdue Within 90days	Overdue Within 180days	Overdue More than 181 days	Total amounts	Amount of impaired receivables
			More than 91days			
(In millions of Korean Won)						
Total trade note and accounts receivable	₩ 4,225,436	₩ 192,913	₩ 7,766	₩ 73,200	₩ 4,499,315	₩ 24,886

As of December 31, 2021, aging analysis of total trade notes and accounts receivable that are past due, but not impaired are as follows.

Description	Not due	Overdue Within 90days	Overdue Within 180days	Overdue More than 181 days	Total amounts	Amount of impaired receivables
			More than 91days			
(In millions of Korean Won)						
Total trade note and accounts receivable	₩ 2,998,927	₩ 249,201	₩ 5,437	₩ 82,113	₩ 3,335,678	₩ 43,507

(3) Transferred trade notes and accounts receivable that are not derecognized

As of December 31, 2022 and December 31, 2021, total trade notes and accounts receivable (including inter-company receivables within the Group) which the Group transferred to financial institutions but did not qualify for derecognition, amount to ₩2,123,379 million and ₩3,059,551 million, respectively. Cash and cash equivalents received as consideration for the transfer are recognized as short-term borrowings due to the fact that the risks and rewards were not transferred substantially.

(4) Changes in loss allowance for the years ended December 31, 2022 and December 31, 2021 are as follows

Description	2022	2021
	(In millions of Korean Won)	
Beginning of the year	₩ 43,507	₩ 55,210
Impairment loss (reversal)	(940)	2,204
Write-off	(20,769)	(14,307)
Effect of foreign exchange differences and others	3,088	400
End of the year	₩ 24,886	₩ 43,507

4. OTHER RECEIVABLES:

(1) Other receivables as of December 31, 2022 and December 31, 2021 are as follows.

Description	December 31, 2022		December 31, 2021	
	Current	Non-current	Current	Non-current
	(In millions of Korean Won)			
Accounts receivable – others (*)	₩ 3,143,232	₩ 418,541	₩ 2,785,799	₩ 373,569
Due from customers for contract work	1,413,886	-	1,421,108	-
Lease and rental deposits	17,471	323,362	24,105	310,536
Deposits	12,854	40,740	7,289	33,469
Others	5,631	38,407	3,546	23,594
Loss allowance	(134,385)	-	(20,877)	-
	₩ 4,458,689	₩ 821,050	₩ 4,220,970	₩ 741,168

(*) As of December 31, 2022 and December 31, 2021, the Group recognized the reimbursement related to the warranty provisions as a separate asset in the amount of ₩1,045,159 million and ₩1,091,859 million, respectively.

(2) Changes in other allowance for the years ended December 31, 2022 and December 31, 2021 are as follows.

Description	2022	2021
	(In millions of Korean Won)	
Beginning of the year	₩ 20,877	₩ 18,169
Impairment loss	130,650	517
Write-off	(971)	(871)
Effect of foreign exchange differences	(16,171)	3,062
End of the year	₩ 134,385	₩ 20,877

5. OTHER FINANCIAL ASSETS:

(1) Other financial assets as of December 31, 2022 are as follows.

Description	December 31, 2022	
	Current	Non-current
	(In millions of Korean Won)	
Financial assets measured at FVPL	₩ 5,366,752	₩ 343,594
Financial assets measured at FVOCI	66,044	2,773,537
Financial assets measured at amortized cost	25,404	12,494
Derivative assets that are effective hedging instruments	476,545	760,151
	₩ 5,934,745	₩ 3,889,776

Other financial assets as of December 31, 2021 are as follows.

Description	December 31, 2021	
	Current	Non-current
	(In millions of Korean Won)	
Financial assets measured at FVPL	₩ 12,249,980	₩ 222,120
Financial assets measured at FVOCI	25,150	2,886,373
Financial assets measured at amortized cost	18,466	8,729
Derivative assets that are effective hedging instruments	103,050	422,064
	₩ 12,396,646	₩ 3,539,286

(2) Financial assets measured at FVOCI as of December 31, 2022 and December 31, 2021 are as follows.

Description	December 31, 2022		December 31, 2021	
	Acquisition cost	Book value	Book value	
	(In millions of Korean Won)			
Debt instruments	₩ 532,805	₩ 499,193	₩ 450,711	
Equity instruments (*)	2,769,268	2,340,388	2,460,812	
	₩ 3,302,073	₩ 2,839,581	₩ 2,911,523	

(*) The Group makes an irrevocable election to present in other comprehensive income subsequent changes in the fair value of an investment in an equity instrument that is not held for trading at the date of initial recognition.

(3) Equity instruments classified into financial assets measured at FVOCI as of December 31, 2022 and December 31, 2021 are as follows.

Name of the company	Ownership percentage (%)	December 31, 2022		December 31, 2021	
		Acquisition cost	Book value	Book value	
		(In millions of Korean Won)			
KT Corporation (*4)	4.69	₩ 458,793	₩ 414,412	₩ 7,443	
Hyundai Steel Company (*1)	6.87	835,375	322,546	434,277	
Hyundai Glovis Co., Ltd.	4.88	210,688	299,359	314,922	
ANI Technologies Private Limited (OLA)	3.38	278,955	278,825	290,116	
Hyundai Oilbank Co., Ltd.	4.35	53,734	270,911	230,812	
Grab Holdings Limited	1.11	442,922	175,010	362,508	
HD Hyundai (*3)	2.20	9,018	99,055	94,892	
Hyundai M Partners Co., Ltd.	9.29	9,888	17,151	13,954	
NICE Information Service Co., Ltd.	2.25	3,312	16,664	24,587	
Hyundai Green Food Co., Ltd.	2.36	15,005	15,531	20,077	
NICE Holdings Co., Ltd.	1.30	3,491	6,342	7,866	
Hyundai Asan Corporation	1.40	22,500	2,117	2,117	
Korea Aerospace Industries, Ltd. (*2)	-	-	-	153,522	
Others		425,587	422,465	503,719	
		₩ 2,769,268	₩ 2,340,388	₩ 2,460,812	

(*1) The Group entered into a total return swap agreement to transfer 1,367,114 shares out of total 10,540,709 shares with a third party.

(*2) The Group entered into a total return swap agreement to transfer total shares with a third party. The Group has disposed of all of its shares during the year ended December 31, 2022.

(*3) During the year ended December 31, 2022, the name of company has been changed from Hyundai Heavy Industries Holdings Co., Ltd. to HD Hyundai.

(*4) During the year ended December 31, 2022, the Group acquired 12,011,143 shares in KT Corporation shares by exchange of treasury stocks for the purpose of strengthening its business partnership with KT Corporation, and the shares acquired by the Group are restricted from disposal for a certain period of time.

6. INVENTORIES:

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

Description	December 31, 2022		December 31, 2021	
	(In millions of Korean Won)			
Finished goods	₩	7,824,079	₩	5,987,233
Merchandise		100,075		59,518
Semifinished goods		666,083		711,155
Work in progress		578,404		692,832
Raw materials		3,460,781		2,536,671
Supplies		351,994		315,871
Materials in transit		576,321		730,970
Others (*1)		733,479		611,391
Total (*2)	₩	14,291,216	₩	11,645,641

(*1) As of December 31, 2022 and December 31, 2021, others include inventories provided by operating lease with repurchase agreement in the amount of ₩163,268 million and ₩143,641 million, respectively.

(*2) As of December 31, 2022 and December 31, 2021, the Group recognized a valuation allowance in the amount of ₩177,907 million and ₩167,888 million, respectively.

7. OTHER ASSETS:

Other assets as of December 31, 2022 and December 31, 2021 are as follows.

Description	December 31, 2022		December 31, 2021	
	Current	Non-current	Current	Non-current
	(In millions of Korean Won)			
Accrued income	₩ 460,921	₩ 531	₩ 353,643	₩ 716
Advanced payments	882,136	130,743	662,919	-
Prepaid expenses	782,749	1,332,807	558,336	1,108,621
Prepaid value-added tax and others	514,747	86,374	506,955	81,947
	₩ 2,640,553	₩ 1,550,455	₩ 2,081,853	₩ 1,191,284

8. NON-CURRENT ASSETS CLASSIFIED AS HELD FOR SALE:

Non-current assets classified as held for sale and non-current liabilities classified as held for sale as of December 31, 2022 and December 31, 2021 are as follows.

Description	December 31, 2022	December 31, 2021
	(In millions of Korean Won)	
Land	₩ 6,676	₩ -
Building and others	15,626	28,121
Total	₩ 22,302	₩ 28,121
Non-current liabilities classified as held for sale	₩ 5,365	₩ -

9. PROPERTY, PLANT AND EQUIPMENT:

(1) Property, plant and equipment (“PP&E”) as of December 31, 2022 and 2021 are as follows.

Description	December 31, 2022			December 31, 2021		
	Acquisition cost	Accumulated depreciation (*)	Book value	Acquisition cost	Accumulated depreciation (*)	Book value
	(In millions of Korean Won)					
Land	₩ 12,180,112	₩ -	₩ 12,180,112	₩ 12,130,094	₩ -	₩ 12,130,094
Buildings	11,620,590	(4,489,885)	7,130,705	10,872,099	(4,108,392)	6,763,707
Structures	1,762,100	(911,214)	850,886	1,634,658	(820,896)	813,762
Machinery and equipment	18,215,786	(11,632,625)	6,583,161	17,542,258	(10,884,908)	6,657,350
Vehicles	615,152	(252,906)	362,246	473,053	(219,202)	253,851
Dies, molds and tools	15,387,346	(11,258,981)	4,128,365	14,310,816	(9,899,714)	4,411,102
Office equipment	2,090,753	(1,601,189)	489,564	1,926,607	(1,502,058)	424,549
Others	272,101	(114,293)	157,808	309,479	(102,861)	206,618
Construction in progress	4,270,343	-	4,270,343	3,882,050	-	3,882,050
	<u>₩ 66,414,283</u>	<u>₩ (30,261,093)</u>	<u>₩ 36,153,190</u>	<u>₩ 63,081,114</u>	<u>₩ (27,538,031)</u>	<u>₩ 35,543,083</u>

(*) Accumulated impairment losses are included.

(2) The changes in PP&E for the year ended December 31, 2022 are as follows.

Description	Beginning of the year	Acquisitions	Transfers within PP&E	Disposals	Depreciation	Others (*)	End of the year
	(In millions of Korean Won)						
Land	₩ 12,130,094	₩ -	₩ 56,663	₩ (9,874)	₩ -	₩ 3,229	₩ 12,180,112
Buildings	6,763,707	6,946	703,192	(28,181)	(357,212)	42,253	7,130,705
Structures	813,762	18,900	90,828	(5,258)	(77,357)	10,011	850,886
Machinery and equipment	6,657,350	32,604	986,035	(91,333)	(1,064,339)	62,844	6,583,161
Vehicles	253,851	109,262	137,739	(59,329)	(81,904)	2,627	362,246
Dies, molds and tools	4,411,102	19,799	1,284,698	(65,801)	(1,403,168)	(118,265)	4,128,365
Office equipment	424,549	55,507	187,658	(3,303)	(173,658)	(1,189)	489,564
Others	206,618	3,577	79,172	(288)	(17,647)	(113,624)	157,808
Construction-in -progress	3,882,050	4,110,106	(3,525,985)	(1,192)	-	(194,636)	4,270,343
	₩ 35,543,083	₩ 4,356,701	₩ -	₩ (264,559)	₩ (3,175,285)	₩ (306,750)	₩ 36,153,190

(*) Others include the effect of foreign exchange differences, transfers from or to other accounts, impairment loss of ₩172,769 million for the CGU attributable to Hyundai Motor Manufacturing Rus LLC and others. The impairment test regarding CGU attributable to Hyundai Motor Manufacturing Rus LLC was conducted due to continued suspension of production, and the recoverable amount was based on its fair value less costs to sell (net fair value).

The changes in PP&E for the year ended December 31, 2021 are as follows.

Description	Beginning of the year		Acquisitions		Transfers within PP&E		Disposals		Depreciation		Others (*)		End of the year	
	(In millions of Korean Won)													
Land	₩	12,047,003	₩	68,990	₩	39,283	₩	(1,303)	₩	-	₩	(23,879)	₩	12,130,094
Buildings		6,355,852		39,130		626,269		(3,460)		(328,580)		74,496		6,763,707
Structures		762,248		27,774		103,295		(14,823)		(68,500)		3,768		813,762
Machinery and equipment		6,668,945		28,839		922,091		(31,931)		(1,010,082)		79,488		6,657,350
Vehicles		205,102		84,104		82,730		(51,161)		(61,111)		(5,813)		253,851
Dies, molds and tools		3,837,278		27,708		1,792,988		(18,308)		(1,292,982)		64,418		4,411,102
Office equipment		385,763		61,338		130,049		(1,919)		(157,611)		6,929		424,549
Others		75,623		8,451		147,235		(23,572)		(13,650)		12,531		206,618
Construction-in-progress		3,754,415		4,036,440		(3,843,940)		(451)		-		(64,414)		3,882,050
	₩	34,092,229	₩	4,382,774	₩	-	₩	(146,928)	₩	(2,932,516)	₩	147,524	₩	35,543,083

(*) Others include the effect of foreign exchange differences, transfers from or to other accounts, impairment loss of ₩44,499 million allocated from the impairment of CGU attributable to Hyundai Truck & Bus(China) Co., Ltd. and others. The recoverable amount of CGU attributable to Hyundai Truck & Bus(China) Co., Ltd. was based on its value in use or fair value less costs to disposal(net fair value), and the discount rate applied to the measurement of value in use is 8.7%.

10. INVESTMENT PROPERTY:

(1) Investment property as of December 31, 2022 and December 31, 2021 are as follows.

Description	December 31, 2022			December 31, 2021		
	Acquisition cost	Accumulated depreciation	Book value	Acquisition cost	Accumulated depreciation	Book value
	(In millions of Korean Won)					
Land	₩ 47,608	₩ -	₩ 47,608	₩ 54,284	₩ -	₩ 54,284
Buildings	310,589	(223,852)	86,737	313,777	(221,919)	91,858
Structures	18,630	(8,525)	10,105	18,630	(8,116)	10,514
	₩ 376,827	₩ (232,377)	₩ 144,450	₩ 386,691	₩ (230,035)	₩ 156,656

(2) The changes in investment property for the year ended December 31, 2022 are as follows:

Description	Beginning of the year		Transfers(*)	Depreciation	Effect of foreign exchange differences		End of the year			
	(In millions of Korean Won)									
Land	₩	54,284	₩	(6,676)	₩	-	₩	-	₩	47,608
Buildings		91,858		201		(4,994)		(328)		86,737
Structures		10,514		-		(408)		(1)		10,105
	₩	156,656	₩	(6,475)	₩	(5,402)	₩	(329)	₩	144,450

(*) Transferred amount from Construction-in-progress.

The changes in Investment properties for the year ended December 31, 2021 are as follows.

Description	Beginning of the year		Disposals	Transfers(*)	Depreciation	Effect of foreign exchange differences		End of the year				
	(In millions of Korean Won)											
Land	₩	56,046	₩	(1,762)	₩	-	₩	-	₩	54,284		
Buildings		94,000		-		1,537		(4,990)		1,311	91,858	
Structures		10,921		-		-		(408)		1	10,514	
	₩	160,967	₩	(1,762)	₩	1,537	₩	(5,398)	₩	1,312	₩	156,656

(*) Transferred amount from Construction-in-progress.

(3) The fair value of Investment properties as of December 31, 2022 and December 31, 2021 are as follows.

Description	December 31, 2022		December 31, 2021	
	(In millions of Korean Won)			
Land	₩	47,608	₩	54,284
Buildings		333,488		338,579
Structures		15,496		15,496
	₩	396,592	₩	408,359

The fair value measurement of the Investment properties was performed by an independent third party. The Group deems the change in fair value from the fair value measurement performed at the initial recognition of the Investment properties is not material.

The fair value of the Investment properties is classified as Level 3, based on the inputs used in the valuation techniques. The fair value has been determined based on the cost approach and the market approach. The cost approach measures fair value as current replacement cost considering building structures and design, supplementary installation, depreciation period.

(4) Income and expenses related to Investment properties for the years ended December 31, 2022 and 2021 are as follows.

Description	2022	2021
	(In millions of Korean Won)	
Rental income	₩ 43,967	₩ 47,710
Operating and maintenance expenses	13,201	13,265

11. INTANGIBLE ASSETS:

(1) Intangible assets as of December 31, 2022 and December 31, 2021 are as follows.

Description	December 31, 2022			December 31, 2021		
	Acquisition cost	Accumulated amortization (*)	Book value	Acquisition cost	Accumulated amortization (*)	Book value
	(In millions of Korean Won)					
Goodwill	₩ 728,644	₩ (35,927)	₩ 692,717	₩ 409,570	₩ (35,807)	₩ 373,763
Development costs	10,679,258	(7,124,833)	3,554,425	10,374,450	(6,331,957)	4,042,493
Industrial property rights	515,017	(366,666)	148,351	477,280	(338,071)	139,209
Software	1,935,307	(1,280,424)	654,883	1,567,846	(1,089,990)	477,856
Others	874,134	(216,651)	657,483	821,000	(189,077)	631,923
Construction in progress	415,983	(21,465)	394,518	197,278	(15,536)	181,742
	₩ 15,148,343	₩ (9,045,966)	₩ 6,102,377	₩ 13,847,424	₩ (8,000,438)	₩ 5,846,986

(*) Accumulated impairment losses are included.

(2) The changes in intangible assets for the year ended December 31, 2022 are as follows.

Description	Beginning of the year	Internal developments	External acquisition	Transfers within intangible assets	Disposals
	(In millions of Korean Won)				
Goodwill	₩ 373,763	₩ -	₩ -	₩ -	₩ -
Development Costs	4,042,493	1,176,423	26,653	45,890	(3,755)
Industrial property rights	139,209	93	505	33,875	(85)
Software	477,856	540	62,745	60,924	(23)
Others	631,923	-	40,277	45,521	(30,387)
Construction in progress	181,742	18,941	388,696	(186,210)	-
	₩ 5,846,986	₩ 1,195,997	₩ 518,876	₩ -	₩ (34,250)

Description	Amortization	Impairment loss /reversal (*1)	Others (*2)	End of the year
	(In millions of Korean Won)			
Goodwill	₩ -	₩ -	₩ 318,954	₩ 692,717
Development Costs	(1,596,985)	(159,009)	22,715	3,554,425
Industrial property rights	(29,057)	-	3,811	148,351
Software	(188,800)	(7,426)	249,067	654,883
Others	(52,093)	(1,841)	24,083	657,483
Construction in progress	-	(502)	(8,149)	394,518
	₩ (1,866,935)	₩ (168,778)	₩ 610,481	₩ 6,102,377

(*1) Impairment losses include impairment of development costs due to the discontinued sales and development projects and others for the year ended December 31, 2022.

(*2) Others include the effect of foreign exchange differences, transfers from or to other accounts, changes in the scope of consolidation and others.

The changes in intangible assets for the year ended December 31, 2021 are as follows.

Description	Beginning of the year	Internal developments	External acquisition	Transfers within intangible assets	Disposals
(In millions of Korean Won)					
Goodwill	₩ 341,476	₩ -	₩ -	₩ -	₩ -
Development Costs	4,277,671	1,291,676	31,287	41,147	(417)
Industrial property rights	245,400	64	951	28,076	(152)
Software	419,101	8,531	41,316	32,113	(110)
Others	251,263	-	1,150	21,771	(18,662)
Construction in progress	142,656	11,124	171,226	(123,107)	-
	₩ 5,677,567	₩ 1,311,395	₩ 245,930	₩ -	₩ (19,341)

Description	Amortization	Impairment loss /reversal (*1)	Transfer to Non-current assets classified as held for sale	Others (*2)	End of the year
(In millions of Korean Won)					
Goodwill	₩ -	₩ (76,805)	₩ -	₩ 109,092	₩ 373,763
Development Costs	(1,406,713)	(192,213)	(3,496)	3,551	4,042,493
Industrial property rights	(24,076)	(112,278)	-	1,224	139,209
Software	(158,353)	(4)	-	135,262	477,856
Others	(28,681)	6	(162)	405,238	631,923
Construction in progress	-	(12,853)	-	(7,304)	181,742
	₩ (1,617,823)	₩ (394,147)	₩ (3,658)	₩ 647,063	₩ 5,846,986

(*1) Impairment losses include impairment of development costs due to the discontinued sales and development projects, impairment loss of ₩246,707 million allocated from the impairment of CGU attributable to Hyundai Truck & Bus(China) Co., Ltd. and others.

(*2) Others include the effect of foreign exchange differences, transfers from or to other accounts, changes in the scope of consolidation and others.

(3) Development costs of intangible assets as of December 31, 2022 consist of as follows.

Description	Book value	Remaining amortization period (*)
(In millions of Korean Won)		
Automobile	Developing ₩ 944,149	-
"	Amortizing 2,163,052	30 months
Powertrain	Developing 106,894	-
"	Amortizing 153,676	24 months
Others	Developing -	-
"	Amortizing 186,654	46 months
	₩ 3,554,425	

(*) Since the remaining amortization period differs for each project, the weighted average remaining useful lives of the development costs at the end of reporting period are disclosed.

Development costs of intangible assets as of December 31, 2021 consist of as follows.

Description		Book value	Remaining amortization period (*)
		(In millions of Korean Won)	
Automobile	Developing	₩ 1,176,530	-
"	Amortizing	2,378,965	32 months
Powertrain	Developing	142,567	-
"	Amortizing	171,828	25 months
Others	Developing	54	-
"	Amortizing	172,549	46 months
		₩ 4,042,493	

(*) Since the remaining amortization period differs for each project, the weighted average remaining useful lives of the development costs at the end of reporting period are disclosed.

(4) Research and development expenditures for the years ended December 31, 2022 and 2021 are as follows.

Description	2022	2021
	(In millions of Korean Won)	
Development costs (intangible assets)	₩ 1,203,076	₩ 1,322,963
Research and development costs (*1)	2,133,497	1,774,934
Total (*2)	₩ 3,336,573	₩ 3,097,897

(*1) Presented in manufacturing costs, administrative expenses.

(*2) Amortization of development costs is not included.

(5) Impairment test of goodwill

The allocation of goodwill amongst the Group's CGUs as of December 31, 2022 and December 31, 2021 are as follows.

Segment	December 31, 2022	December 31, 2021
	(In millions of Korean Won)	
Vehicle	₩ 256,508	₩ 253,204
Finance	482	482
Others	435,727	120,077
	₩ 692,717	₩ 373,763

The recoverable amounts of the Group's CGUs are measured as their value-in-use calculated based on cash flow projections of financial budgets for the next five years approved by management. The pre-tax discount rate applied to the cash flow projections for the years ended December 31, 2022 and 2021, are 12.7% and 8.7% respectively. Cash flow projections beyond the five-year period are extrapolated by using the estimated growth rate which does not exceed the long-term average growth rate of the region and industry to which the CGU belongs. No impairment loss had been recognized for the year ended December 31, 2022. An impairment loss on goodwill of ₩76,805 million was recognized with respect to the impairment of CGU attributable to Hyundai Truck & Bus(China) Co., Ltd. for the year ended December 31, 2021.

12. LEASES (AS A LESSEE):

(1) The changes in right-of-use assets for the year ended December 31, 2022 are as follows.

Description	Beginning of the year	Acquisitions	Disposals	Depreciation	Others(*)	End of the year
(In millions of Korean Won)						
Land	₩ 83,604	₩ 175,406	₩ (392)	₩ (6,097)	₩ (623)	₩ 251,898
Buildings	754,149	330,661	(59,061)	(197,807)	(8,589)	819,353
Vehicles	2,370	34,238	(507)	(6,258)	(3,250)	26,593
Others	100,703	18,482	-	(6,323)	(93,413)	19,449
	₩ 940,826	₩ 558,787	₩ (59,960)	₩ (216,485)	₩ (105,875)	₩ 1,117,293

(*) Others include the effect of foreign exchange differences, changes in the scope of consolidation and others.

The changes in right-of-use assets for the year ended December 31, 2021 are as follows.

Description	Beginning of the year	Acquisitions	Disposals	Depreciation	Others(*)	End of the year
(In millions of Korean Won)						
Land	₩ 143,679	₩ 13,863	₩ (457)	₩ (6,686)	₩ (66,795)	₩ 83,604
Buildings	681,335	249,691	(22,786)	(184,173)	30,082	754,149
Vehicles	2,672	1,566	(78)	(1,845)	55	2,370
Others	8,638	97,885	(854)	(8,722)	3,756	100,703
	₩ 836,324	₩ 363,005	₩ (24,175)	₩ (201,426)	₩ (32,902)	₩ 940,826

(*) Others include the effect of foreign exchange differences, changes in the scope of consolidation, impairment loss of ₩46,910 million allocated from the impairment of CGU attributable to Hyundai Truck & Bus(China) Co., Ltd. and others.

(2) Lease liabilities as of December 31, 2022 and December 31, 2021 are as follows.

Description	December 31, 2022	December 31, 2021
(In millions of Korean Won)		
Undiscounted lease liabilities	₩ 1,303,067	₩ 1,150,757
Discounted lease liabilities	1,110,804	950,572
Current	405,053	167,266
Non-current	705,751	783,306

(3) Expenses recognized in relation to leases for the years ended December 31, 2022 and 2021 are as follows.

Description	December 31, 2022	December 31, 2021
(In millions of Korean Won)		
Interest on lease liabilities	₩ 33,993	₩ 25,126
Expenses in relation to leases of short-term and low-value assets	20,174	20,907

13. INVESTMENTS IN JOINT VENTURES AND ASSOCIATES:

(1) Investments in joint ventures and associates as of December 31, 2022 are as follows.

Name of the company	Nature of business	Location	Ownership percentage (%)	Book value (In millions of Korean Won)
Beijing Hyundai Qiche Financing Company (BHAF) (*1,3)	Financing	China	53.00	₩ 759,766
Beijing-Hyundai Motor Company (BHMC) (*1)	Manufacturing	China	50.00	525,250
Hyundai WIA Automotive Engine (Shandong) Company (WAE)	Manufacturing	China	31.40	215,786
Motional AD LLC (*1)	R&D	USA	25.92	907,061
HMG Global LLC (*4)	New business Investment & management	USA	49.50	608,223
Boston Dynamics AI Institute, LLC	R&D	USA	47.50	266,357
supernal, LLC (*1,5)	R&D	USA	44.44	178,564
Hyundai Capital Bank Europe GmbH (HCBE)	Financing	Germany	49.00	508,110
HYUNDAI MOTOR GROUP INNOVATION CENTER IN SINGAPORE PTE. LTD.(HMGICS)	Manufacturing	Singapore	40.00	104,556
Kia Corporation	Manufacturing	Korea	33.88	13,251,475
Hyundai Engineering & Construction Co., Ltd.	Construction	Korea	20.95	3,033,945
Hyundai Transys Inc.	Manufacturing	Korea	41.13	1,157,462
Hyundai WIA Corporation	Manufacturing	Korea	25.35	759,270
Hyundai Autoever Corp.	IT service	Korea	31.59	449,994
Hyundai Commercial Inc.	Financing	Korea	37.50	374,970
Hyundai Motor Securities Co., Ltd.	Securities Brokerage	Korea	25.43	332,624
Eukor Car Carriers Inc. (*2)	Transportation	Korea	12.00	269,261
Haevichi Hotels & Resorts Co., Ltd.	Hotelkeeping	Korea	41.90	96,303
Others				1,400,460
				₩ 25,199,437

- (*1) Each of the joint arrangements in which the Group retains joint control is structured through a separate entity and there are no contractual terms stating that the parties retain rights to the assets and obligations for the liabilities relating to the joint arrangement or other relevant facts and circumstances. As a result, the Group considers that the parties that retain joint control in the arrangement have rights to the net assets and classifies the joint arrangements as joint ventures. Also, there are restrictions, which require consent from the director who is designated by the other investors, for certain transactions, such as payment of dividend.
- (*2) As the Group is considered to be able to exercise significant influence by representation on the board of directors of the investee and other reasons, although the total ownership percentage is less than 20%, the investment is accounted for using the equity method.
- (*3) The entity is categorized as a joint venture although the Group's total ownership percentage is a majority share of 53%, because the Group does not have control over the entity by virtue of an agreement with the other investors.
- (*4) During the year ended December 31, 2022, the Group completed the establishment of HMG Global LLC by Contributing cash and all of Group's interests in Boston Dynamics, Inc. to HMG Global LLC.
- (*5) During the year ended December 31, 2022, the classification of supernal, LLC was changed from a subsidiary to investment in an associate due to loss of control. In addition, during the year ended December 31, 2021, the name of company was changed from Genesis Air Mobility LLC to supernal, LLC.

Investments in joint ventures and associates as of December 31, 2021 are as follows.

Name of the company	Nature of business	Location	Ownership percentage (%)	Book value (In millions of Korean Won)
Beijing Hyundai Qiche Financing Company (BHAFF) (*1,3)	Financing	China	53.00	₩ 736,704
Beijing-Hyundai Motor Company (BHMC) (*1)	Manufacturing	China	50.00	345,950
Hyundai WIA Automotive Engine (Shandong) Company (WAE)	Manufacturing	China	31.40	245,868
Motional AD LLC (*1)	R&D	USA	25.97	1,025,263
Boston Dynamics, Inc.	R&D	USA	30.00	414,634
Hyundai Capital Bank Europe GmbH (HCBE)	Financing	Germany	49.00	498,050
Hyundai Motor Group INNOVATION CENTER IN SINGAPORE PTE. LTD.(HMGICS) (*6)	Manufacturing	Singapore	40.00	78,316
Kia Corporation (*4)	Manufacturing	Korea	33.88	11,620,132
Hyundai Engineering & Construction Co., Ltd.	Construction	Korea	20.95	2,935,786
Hyundai Transys Inc.	Manufacturing	Korea	41.13	1,085,858
Hyundai WIA Corporation	Manufacturing	Korea	25.35	729,053
Hyundai Autoever Corp. (*5)	IT service	Korea	31.59	410,935
Hyundai Commercial Inc.	Financing	Korea	37.50	339,300
Hyundai Motor Securities Co., Ltd.	Securities Brokerage	Korea	25.43	314,532
Eukor Car Carriers Inc. (*2)	Transportation	Korea	12.00	186,489
Haevichi Hotels & Resorts Co., Ltd.	Hotelkeeping	Korea	41.90	98,894
Others				1,363,353
				₩ 22,429,117

- (*1) Each of the joint arrangements in which the Group retains joint control is structured through a separate entity and there are no contractual terms stating that the parties retain rights to the assets and obligations for the liabilities relating to the joint arrangement or other relevant facts and circumstances. As a result, the Group considers that the parties that retain joint control in the arrangement have rights to the net assets and classifies the joint arrangements as joint ventures. Also, there are restrictions, which require consent from the director who is designated by the other investors, for certain transactions, such as payment of dividend.
- (*2) As the Group is considered to be able to exercise significant influence by representation on the board of directors of the investee and other reasons, although the total ownership percentage is less than 20%, the investment is accounted for using the equity method.
- (*3) The entity is categorized as a joint venture although the Group's total ownership percentage is a majority share of 53%, because the Group does not have control over the entity by virtue of an agreement with the other investors.
- (*4) During the year ended December 31, 2021, the name of the company was changed from Kia Motors Corporation to Kia Corporation.
- (*5) During the year ended December 31, 2021, as the merger with Hyundai Autron Company Ltd., the subsidiary of the Company, and HYUNDAI MNSOFT, Inc., the associate of the Company, was completed, the Group's ownership percentage was changed from 28.48% to 31.59%.
- (*6) During the year ended December 31, 2021, the name of the company was changed from HYUNDAI MOTOR SINGAPORE PTE. LTD. (HMS) to Hyundai Motor Group Innovation Center in Singapore Pte. Ltd. (HMGICS).

(2) The changes in investments in joint ventures and associates for the year ended December 31, 2022 are as follows.

Name of the company	Beginning of the year	Acquisitions (disposals)	Share of profits (losses) for the period	Dividends	Others (*)	End of the year
(In millions of Korean Won)						
BHAF	₩ 736,704	₩ -	₩ 44,478	₩ -	₩ (21,416)	₩ 759,766
BHMC	345,950	597,979	(394,495)	-	(24,184)	525,250
WAE	245,868	-	(25,336)	-	(4,746)	215,786
Motional AD LLC	1,025,263	-	(189,135)	-	70,933	907,061
HMG Global LLC	-	743,062	(5,483)	-	(129,356)	608,223
Boston Dynamics AI Institute, LLC	-	283,366	(2,308)	-	(14,701)	266,357
supernal, LLC	-	194,596	(87,946)	-	71,914	178,564
Boston Dynamics, Inc.	414,634	-	(37,483)	-	(377,151)	-
HCBE	498,050	-	15,337	-	(5,277)	508,110
HMGICS	78,316	29,528	(8,067)	-	4,779	104,556
Kia Corporation	11,620,132	-	1,906,772	(411,955)	136,526	13,251,475
Hyundai Engineering & Construction Co., Ltd.	2,935,786	-	89,636	(13,996)	22,519	3,033,945
Hyundai Transys Inc.	1,085,858	-	47,166	-	24,438	1,157,462
Hyundai WIA Corporation	729,053	-	31,439	(4,826)	3,604	759,270
Hyundai Autoever Corp.	410,935	-	39,961	(6,065)	5,163	449,994
Hyundai Commercial Inc.	339,300	-	100,212	(20,000)	(44,542)	374,970
Hyundai Motor Securities Co., Ltd.	314,532	-	22,153	(6,453)	2,392	332,624
Eukor Car Carriers Inc.	186,489	-	82,923	(7,392)	7,241	269,261
Haevichi Hotels & Resorts Co., Ltd.	98,894	-	(2,601)	-	10	96,303
Others	1,363,353	152,952	8,554	(16,349)	(108,050)	1,400,460
	<u>₩ 22,429,117</u>	<u>₩ 2,001,483</u>	<u>₩ 1,635,777</u>	<u>₩ (487,036)</u>	<u>₩ (379,904)</u>	<u>₩ 25,199,437</u>

(*) Others consist of changes in accumulated other comprehensive income (loss) and others.

The changes in investments in joint ventures and associates for the year ended December 31, 2021 are as follows.

Name of the company	Beginning of the year	Acquisitions (disposals)	Share of profits (losses) for the period	Dividends	Others (*1)	End of the year
(In millions of Korean Won)						
BHAF	₩ 627,895	₩ -	₩ 50,724	₩ (15,880)	₩ 73,965	₩ 736,704
BHMC	779,958	-	(502,344)	-	68,336	345,950
WAE	224,979	-	(3,432)	-	24,321	245,868
Motional AD LLC	1,053,282	-	(122,871)	-	94,852	1,025,263
Boston Dynamics, Inc. (*2)	-	431,882	(36,010)	-	18,762	414,634
HCBE	495,999	-	(99)	-	2,150	498,050
HMGICS	51,766	26,202	(3,300)	-	3,648	78,316
Kia Corporation	9,972,824	-	1,601,473	(137,318)	183,153	11,620,132
Hyundai Engineering & Construction Co., Ltd.	2,835,399	-	82,421	(13,996)	31,962	2,935,786
Hyundai Transys Inc.	1,017,906	-	39,223	-	28,729	1,085,858
Hyundai WIA Corporation	694,991	-	16,637	(4,826)	22,251	729,053
Hyundai Autoever Corp.	158,073	-	24,876	(4,485)	232,471	410,935
Hyundai Commercial Inc.	261,601	-	67,187	(3,750)	14,262	339,300
Hyundai Motor Securities Co., Ltd.	310,472	-	23,027	(5,444)	(13,523)	314,532
Eukor Car Carriers Inc.	150,503	-	22,457	-	13,529	186,489
Haevichi Hotels & Resorts Co., Ltd.	97,655	-	980	-	259	98,894
Others	1,191,957	182,786	17,642	(12,344)	(16,688)	1,363,353
	<u>₩ 19,925,260</u>	<u>₩ 640,870</u>	<u>₩ 1,278,591</u>	<u>₩ (198,043)</u>	<u>₩ 782,439</u>	<u>₩ 22,429,117</u>

(*1) Others consist of changes in accumulated other comprehensive income (loss) and others.

(*2) Share acquisition has been completed in the year ended December 31, 2021, and the acquisition cost is measured as the cash paid during the years ended December 31, 2022 and 2021, and the value of put option owned by other investors.

(3) Summarized financial information of the Group's major joint ventures and associates as of and for the year ended December 31, 2022 is as follows.

Name of the company	Current assets	Non-current assets	Current liabilities	Non-current liabilities
(In millions of Korean Won)				
BHAF (*)	₩ 4,044,066	₩ -	₩ 2,610,546	₩ -
BHMC	3,042,267	3,120,431	4,715,086	399,063
WAE	537,909	457,303	338,319	5,551
Motional AD LLC	646,160	3,187,411	142,518	89,824
HMG Global LLC	799,047	1,384,220	88,391	320,996
Boston Dynamics AI Institute, LLC	556,273	53,152	9,072	39,876
supernal, LLC	338,831	216,123	42,290	108,565
HCBE (*)	9,448,406	-	8,405,237	-
HMGICS	118,876	370,889	18,593	216,915
Kia Corporation	34,147,147	39,563,818	25,377,803	8,990,081
Hyundai Engineering & Construction Co., Ltd.	15,516,745	5,394,963	8,757,397	2,230,034
Hyundai Transys Inc.	4,311,914	3,209,159	3,147,190	1,499,678
Hyundai WIA Corporation	4,267,463	3,278,988	2,410,435	1,402,365
Hyundai Autoever Corp.	1,695,856	923,580	883,698	245,358
Hyundai Commercial Inc. (*)	11,170,366	-	9,774,127	-
Hyundai Motor Securities Co., Ltd. (*)	10,233,054	-	9,008,411	-
Eukor Car Carriers Inc.	1,026,513	3,312,611	609,827	1,505,122
Haevichi Hotels & Resorts Co., Ltd.	43,919	412,477	253,312	34,862

Name of the company	Sales	Profit (loss) for the period from continuing operations (In millions of Korean Won)	Other comprehensive income (loss)	Total comprehensive income (loss)
BHAF (*)	₩ 362,978	₩ 83,920	₩ -	₩ 83,920
BHMC	4,900,315	(821,204)	-	(821,204)
WAE	501,436	(71,164)	-	(71,164)
Motional AD LLC	1,207	(751,726)	(6,314)	(758,040)
HMG Global LLC	21,388	(63,993)	-	(63,993)
Boston Dynamics AI Institute, LLC	-	(4,858)	-	(4,858)
supernal, LLC	-	(195,567)	-	(195,567)
HCBE (*)	971,654	32,144	16,302	48,446
HMGICS	12,190	(20,168)	-	(20,168)
Kia Corporation	86,559,029	5,408,976	227,095	5,636,071
Hyundai Engineering & Construction Co., Ltd.	21,239,082	470,876	144,153	615,029
Hyundai Transys Inc.	10,256,254	123,483	64,705	188,188
Hyundai WIA Corporation	8,207,614	43,482	9,136	52,618
Hyundai Autoever Corp.	2,754,508	116,170	17,586	133,756
Hyundai Commercial Inc. (*)	588,167	266,640	(116,056)	150,584
Hyundai Motor Securities Co., Ltd. (*)	1,186,029	87,102	5,147	92,249
Eukor Car Carriers Inc.	2,865,427	668,062	43,489	711,551
Haevichi Hotels & Resorts Co., Ltd.	152,860	(5,485)	9	(5,476)

(*) The companies operate financial business and their total assets (liabilities) are included in current assets (liabilities) as the companies do not distinguish current and non-current portion in their separate financial statements.

Summarized financial information of the Group's major joint ventures and associates as of and for the year ended December 31, 2021 is as follows.

Name of the company	Current assets	Non-current assets	Current liabilities	Non-current liabilities
	(In millions of Korean Won)			
BHAF (*)	₩ 5,648,345	₩ -	₩ 4,258,337	₩ -
BHMC	2,877,226	3,897,225	5,047,580	984,476
WAE	648,858	530,099	185,159	255,961
Motional AD LLC	630,770	3,603,314	97,631	105,139
Boston Dynamics, Inc.	117,854	250,999	55,254	79,823
HCBE (*)	6,910,165	-	5,916,354	-
HMGICS	23,970	166,297	1,612	-
Kia Corporation	29,205,483	37,644,514	21,562,636	10,374,805
Hyundai Engineering & Construction Co., Ltd.	14,555,535	5,091,172	7,616,041	2,594,756
Hyundai Transys Inc.	3,592,986	3,043,732	2,164,191	1,786,510
Hyundai WIA Corporation	4,156,485	3,593,022	2,126,275	1,927,968
Hyundai Autoever Corp.	1,471,052	875,071	721,374	248,927
Hyundai Commercial Inc. (*)	10,001,066	-	8,699,018	-
Hyundai Motor Securities Co., Ltd. (*)	8,806,128	-	7,645,418	-
Eukor Car Carriers Inc.	534,016	3,169,325	654,912	1,467,448
Haevichi Hotels & Resorts Co., Ltd.	44,922	409,187	235,954	44,458

Name of the company	Sales	Profit (loss) for the period from continuing operations	Other comprehensive income (loss)	Total comprehensive income (loss)
(In millions of Korean Won)				
BHAF (*)	₩ 423,416	₩ 95,703	₩ -	₩ 95,703
BHMC	6,240,989	(1,012,933)	-	(1,012,933)
WAE	797,685	(4,226)	-	(4,226)
Motional AD LLC	949	(516,204)	(5,025)	(521,229)
Boston Dynamics, Inc.	66,779	(196,950)	-	(196,950)
HCBE (*)	711,616	(325)	4,241	3,916
HMGICS	-	(8,251)	-	(8,251)
Kia Corporation	69,862,366	4,760,311	664,223	5,424,534
Hyundai Engineering & Construction Co., Ltd.	18,065,534	549,501	168,103	717,604
Hyundai Transys Inc.	8,143,951	90,623	66,409	157,032
Hyundai WIA Corporation	7,527,739	56,071	131,926	187,997
Hyundai Autoever Corp.	2,070,382	71,368	13,648	85,016
Hyundai Commercial Inc. (*)	482,087	185,303	(31,808)	153,495
Hyundai Motor Securities Co., Ltd. (*)	853,770	117,749	913	118,662
Eukor Car Carriers Inc.	1,894,623	192,229	137,672	329,901
Haevichi Hotels & Resorts Co., Ltd.	116,466	2,063	16	2,079

(*) The companies operate financial business and their total assets (liabilities) are included in current assets (liabilities) as the companies do not distinguish current and non-current portion in their separate financial statements.

(4) Summarized additional financial information of the Group's major joint ventures as of and for the year ended December 31, 2022 is as follows.

Name of the company	Cash and cash equivalents	Current financial liabilities	Non-current financial liabilities	Depreciation and amortization	Interest income	Interest expenses	Income tax expense
(In millions of Korean Won)							
BHAF(*)	₩ 1,023,368	₩ 2,385,681	₩ -	₩ 13,926	₩ 341,357	₩ 128,264	₩ 32,245
BHMC	1,887,932	606,105	161,500	570,749	18,263	51,436	60,112
Motional AD LLC	71,075	16,062	62,753	87,887	5,760	-	6,027
supernal, LLC	333,184	-	-	8,305	589	5,983	-

(*) Operating finance business of which total assets (liabilities) are included in current financial liabilities as BHAF does not distinguish current and non-current portion in its separate financial statements.

Summarized additional financial information of the Group's major joint ventures as of and for the year ended December 31, 2021 is as follows.

Name of the company	Cash and cash equivalents	Current financial liabilities	Non-current financial liabilities	Depreciation and amortization	Interest income	Interest expenses	Income tax expense
(In millions of Korean Won)							
BHAF(*)	₩ 860,234	₩ 3,993,580	₩ -	₩ 8,155	₩ 419,195	₩ 175,403	₩ 32,648
BHMC	975,177	379,970	723,688	481,351	11,599	81,288	2,665
Motional AD LLC	188,571	14,407	71,982	73,807	3,642	-	(7,875)

(*) Operating finance business of which total assets (liabilities) are included in current financial liabilities as BHAF does not distinguish current and non-current portion in its separate financial statements.

(5) Reconciliation of the Group's share of net assets of the Group's major joint ventures and associates to their carrying amounts as of December 31, 2022 is as follows.

Name of the company	Group's share of net assets		Goodwill	Unrealized profit (loss) and others	Carrying amounts
			(In millions of Korean Won)		
BHAF	₩	759,766	₩	-	₩ 759,766
BHMC		551,378		(26,128)	525,250
WAE (*)		207,938	7,809	39	215,786
Motional AD LLC		922,942	-	(15,881)	907,061
HMG Global LLC		608,223	-	-	608,223
Boston Dynamics AI Institute, LLC		266,227	-	130	266,357
supernal, LLC		178,571	-	(7)	178,564
HCBE		497,892	22,341	(12,123)	508,110
HMGICS		101,702	2,854	-	104,556
Kia Corporation		13,124,472	197,089	(70,086)	13,251,475
Hyundai Engineering & Construction Co., Ltd. (*)		2,302,451	731,362	132	3,033,945
Hyundai Transys Inc.		1,142,960	-	14,502	1,157,462
Hyundai WIA Corporation		854,377	-	(95,107)	759,270
Hyundai Autoever Corp. (*)		391,073	58,822	99	449,994
Hyundai Commercial Inc.		374,970	-	-	374,970
Hyundai Motor Securities Co., Ltd.		291,823	40,052	749	332,624
Eukor Car Carriers Inc.		268,999	-	262	269,261
Haevichi Hotels & Resorts Co., Ltd. (*)		92,727	3,576	-	96,303

(*) The difference between the carrying amount and the fair value of the investee's identifiable assets and liabilities as of the acquisition date is included in the amount of net assets.

Reconciliation of the Group's share of net assets of the Group's major joint ventures and associates to their carrying amounts as of December 31, 2021 is as follows.

Name of the company	Group's share of net assets		Goodwill	Unrealized profit (loss) and others	Carrying amounts
			(In millions of Korean Won)		
BHAF	₩	736,704	₩	-	₩ 736,704
BHMC		371,198		(25,248)	345,950
WAE (*)		238,021	7,809	38	245,868
Motional AD LLC		1,047,834	-	(22,571)	1,025,263
Boston Dynamics, Inc. (*)		199,325	209,428	5,881	414,634
HCBE		474,523	22,341	1,186	498,050
HMGICS		75,462	2,854	-	78,316
Kia Corporation		11,505,153	197,089	(82,110)	11,620,132
Hyundai Engineering & Construction Co., Ltd. (*)		2,204,424	731,362	-	2,935,786
Hyundai Transys Inc.		1,070,931	-	14,927	1,085,858
Hyundai WIA Corporation		823,381	-	(94,328)	729,053
Hyundai Autoever Corp. (*)		352,013	58,822	100	410,935
Hyundai Commercial Inc.		339,300	-	-	339,300
Hyundai Motor Securities Co., Ltd.		275,563	40,052	(1,083)	314,532
Eukor Car Carriers Inc.		186,227	-	262	186,489
Haevichi Hotels & Resorts Co., Ltd. (*)		95,318	3,576	-	98,894

(*) The difference between the carrying amount and the fair value of the investee's identifiable assets and liabilities as of the acquisition date is included in the amount of net assets.

(6) The market price of major listed equity securities as of December 31, 2022 is as follows.

Name of the company	Price per share	Total number of shares	Market value
	(In millions of Korean Won, except price per share)		
Kia Corporation	₩ 59,300	137,318,251	₩ 8,142,972
Hyundai Autoever Corp.	95,500	8,664,334	827,444
Hyundai Engineering & Construction Co., Ltd.	34,900	23,327,400	814,126
Hyundai WIA Corporation	49,450	6,893,596	340,888
Hyundai Motor Securities Co., Ltd.	9,090	8,065,595	73,316

14. FINANCIAL SERVICES RECEIVABLES:

(1) Financial services receivables as of December 31, 2022 and December 31, 2021 are as follows.

Description	December 31, 2022	December 31, 2021
	(In millions of Korean Won)	
Loans	₩ 69,298,391	₩ 61,959,509
Card receivables	21,018,287	18,728,408
Financial lease receivables	2,060,971	2,123,472
Others	20,761	35,291
	92,398,410	82,846,680
Loss allowance	(1,726,916)	(1,551,987)
Loan origination fee	(261,084)	(231,762)
Present value discount accounts	(46,564)	(33,799)
	₩ 90,363,846	₩ 81,029,132

(2) Transfer of financial services receivables

As of December 31, 2022 and 2021, the Group has issued asset-backed securities with loan receivables and credit card receivables as underlying assets and related asset-backed securities have the right of recourse. As of December 31, 2022, the carrying amount of financial assets that were transferred but not derecognized (including inter-company bonds) amounted to ₩31,838,127 million and its fair value is ₩30,847,083 million. The carrying amount of related liabilities is ₩22,795,844 million and its fair value is ₩22,263,492 million. As a result, the fair value of net position is ₩8,583,591 million. As of December 31, 2021, the carrying amount of financial assets that were transferred but not derecognized (including inter-company bonds) amounted to ₩26,292,997 million and its fair value is ₩26,213,213 million. The carrying amount of related liabilities is ₩19,352,363 million and its fair value is ₩19,225,190 million. As a result, the fair value of net position is ₩6,988,023 million.

(3) The changes in loss allowance of financial services receivables for the year ended December 31, 2022 are as follows.

Description	Loan Obligations							
	12-Month expected credit losses	Lifetime expected credit losses			Total loan obligations			
		Not Impaired	Impaired					
	(In millions of Korean Won)							
Beginning of the year	₩	449,207	₩	316,425	₩	204,034	₩	969,666
Transfer to 12-Month expected credit losses		69,360		(65,956)		(3,404)		-
Transfer to lifetime expected credit losses		(54,196)		58,198		(4,002)		-
Transfer to credit-impaired financial assets		(2,434)		(7,225)		9,659		-
Impairment loss (reversal)		(139,481)		435,731		164,836		461,086
Collection (write-off)		(169)		(241,816)		(132,234)		(374,219)
Disposals and others		(2)		-		(4,794)		(4,796)
Effect of foreign exchange differences		22,750		6,062		62		28,874
End of the year	₩	345,035	₩	501,419	₩	234,157	₩	1,080,611

Description	Card receivables							
	12-Month expected credit losses		Lifetime expected credit losses			Total card receivables		
			Not Impaired		Impaired			
	(In millions of Korean Won)							
Beginning of the year	₩	195,709	₩	163,391	₩	154,600	₩	513,700
Transfer to 12-Month expected credit losses		49,247		(49,118)		(129)		-
Transfer to lifetime expected credit losses		(26,980)		27,145		(165)		-
Transfer to credit-impaired financial assets		(93,623)		(70,901)		164,524		-
Impairment loss (reversal)		65,488		149,053		217,342		431,883
Collection (write-off)		-		-		(342,013)		(342,013)
Disposals and others		-		1		(15,368)		(15,367)
Effect of foreign exchange differences		-		-		-		-
End of the year	₩	189,841	₩	219,571	₩	178,791	₩	588,203

Description	Others									
	12-Month expected credit losses		Lifetime expected credit losses			Total others		Total Allowances		
			Not Impaired	Impaired						
	(In millions of Korean Won)									
Beginning of the year	₩	14,299	₩	8,119	₩	46,203	₩	68,621	₩	1,551,987
Transfer to 12-Month expected credit losses		4,326		(1,737)		(2,590)		(1)		(1)
Transfer to lifetime expected credit losses		(1,550)		1,974		(424)		-		-
Transfer to credit-impaired financial assets		(100)		(237)		337		-		-
Impairment loss (reversal)		(3,639)		855		8,315		5,531		898,500
Collection (write-off)		-		-		(16,049)		(16,049)		(732,281)
Disposals and others		-		-		-		-		(20,163)
Effect of foreign exchange differences		-		-		-		-		28,874
End of the year	₩	13,336	₩	8,974	₩	35,792	₩	58,102	₩	1,726,916

The changes in allowance for doubtful accounts of financial services receivables for the year ended December 31, 2021 are as follows.

Description	Loan Obligations					Total loan obligations		
	12-Month expected credit losses	Lifetime expected credit losses						
		Not Impaired	Impaired					
	(In millions of Korean Won)							
Beginning of the year	₩	441,192	₩	300,082	₩	315,136	₩	1,056,410
Transfer to 12-Month expected credit losses		71,703		(67,049)		(4,654)		-
Transfer to lifetime expected credit losses		(57,656)		61,633		(3,977)		-
Transfer to credit-impaired financial assets		(2,773)		(5,866)		8,639		-
Impairment loss (reversal)		(27,338)		128,769		135,156		236,587
Collection (write-off)		50		(114,436)		(246,714)		(361,100)
Disposals and others		-		-		234		234
Effect of foreign exchange differences		24,029		13,292		214		37,535
End of the year	₩	449,207	₩	316,425	₩	204,034	₩	969,666

Description	Card receivables					Total card receivables		
	12-Month expected credit losses	Lifetime expected credit losses						
		Not Impaired	Impaired					
	(In millions of Korean Won)							
Beginning of the year	₩	186,440	₩	142,390	₩	225,298	₩	554,128
Transfer to 12-Month expected credit losses		49,439		(49,287)		(152)		-
Transfer to lifetime expected credit losses		(14,871)		15,045		(174)		-
Transfer to credit-impaired financial assets		(117,994)		(56,471)		174,465		-
Impairment loss (reversal)		120,496		111,716		99,160		331,372
Collection (write-off)		-		-		(332,434)		(332,434)
Disposals and others		(27,801)		(2)		(11,563)		(39,366)
Effect of foreign exchange differences		-		-		-		-
End of the year	₩	195,709	₩	163,391	₩	154,600	₩	513,700

Description	Others					Total others	Total Allowances			
	12-Month expected credit losses	Lifetime expected credit losses								
		Not Impaired	Impaired							
	(In millions of Korean Won)									
Beginning of the year	₩	18,032	₩	6,368	₩	50,291	₩	74,691	₩	1,685,229
Transfer to 12-Month expected credit losses		3,649		(1,461)		(2,188)		-		-
Transfer to lifetime expected credit losses		(1,879)		2,388		(509)		-		-
Transfer to credit-impaired financial assets		(144)		(233)		377		-		-
Impairment loss (reversal)		(5,359)		1,057		(1,449)		(5,751)		562,208
Collection (write-off)		-		-		(319)		(319)		(693,853)
Disposals and others		-		-		-		-		(39,132)
Effect of foreign exchange differences		-		-		-		-		37,535
End of the year	₩	14,299	₩	8,119	₩	46,203	₩	68,621	₩	1,551,987

- (4) Gross investments in financial leases and their present value of minimum lease receipts as of December 31, 2022 and December 31, 2021 are as follows.

Description	December 31, 2022		December 31, 2021	
	Gross investments in financial leases	Present value of minimum lease payment receivable	Gross investments in financial leases	Present value of minimum lease payment receivable
	(In millions of Korean Won)			
Not later than one year	₩ 868,890	₩ 758,724	₩ 888,358	₩ 788,739
Later than one year and not later than five years	1,423,828	1,293,495	1,421,468	1,324,645
Later than five years	5,215	4,988	6,475	6,236
	₩ 2,297,933	₩ 2,057,207	₩ 2,316,301	₩ 2,119,620

- (5) Unearned interest income of financial leases as of December 31, 2022 and December 31, 2021 are as follows.

Description	December 31, 2022	December 31, 2021
	(In millions of Korean Won)	
Gross investments in financial lease	₩ 2,297,933	₩ 2,316,301
Net lease investments:		
Present value of minimum lease payment receivable	2,057,207	2,119,620
Present value of unguaranteed residual value	3,764	3,852
	2,060,971	2,123,472
Unearned interest income	₩ 236,962	₩ 192,829

15. INVESTMENTS IN OPERATING LEASES (AS A LESSOR):

- (1) Investments in operating leases as of December 31, 2022 and December 31, 2021 are as follows.

Description	December 31, 2022	December 31, 2021
	(In millions of Korean Won)	
Acquisition cost	₩ 32,090,728	₩ 29,980,884
Accumulated depreciation	(4,262,026)	(3,477,632)
Accumulated impairment loss	(147,168)	(175,256)
	₩ 27,681,534	₩ 26,327,996

- (2) Future minimum lease payment receivable related to investments in operating leases as of December 31, 2022 and December 31, 2021 is as follows.

Description	December 31, 2022	December 31, 2021
	(In millions of Korean Won)	
Not later than one year	₩ 5,001,104	₩ 5,323,499
Later than one year and not later than five years	5,906,720	5,744,918
Later than five years	111	77
	₩ 10,907,935	₩ 11,068,494

16. **BORROWINGS AND DEBENTURES:**

(1) Short-term borrowings as of December 31, 2022 and December 31, 2021 are as follows.

Description	Lender	Annual interest rate (%)	December 31, 2022 (In millions of Korean Won)	December 31, 2021 (In millions of Korean Won)
Overdrafts	Citi Bank and others	1.75~3.98	₩ 62,101	₩ 456,044
General borrowings	Korea Development Bank and others	1.93~14.60	5,277,609	3,994,073
Borrowings collateralized by trade receivables	Hana Bank and others	0.00001~12.54	2,123,379	3,059,551
Banker's Usance	Hana Bank and others	0.15~9.20	705,155	786,755
Commercial paper	Shinhan Bank and others	3.10~7.10	2,898,236	4,791,413
Credit facilities	Korea Development Bank	2.54	300,000	-
			₩ 11,366,480	₩ 13,087,836

(2) Long-term debt as of December 31, 2022 and December 31, 2021 are as follows.

Description	Lender	Annual interest rate (%)	December 31, 2022 (In millions of Korean Won)	December 31, 2021 (In millions of Korean Won)
General borrowings	Mizuho Bank and others	0.12~16.80	₩ 8,909,156	₩ 9,738,949
Credit facilities	NH Bank and others	5.85~9.13	40,200	540,600
Commercial paper	BNK Investment & Securities and others	1.19~4.74	2,900,000	1,650,000
Asset-backed securities	HSBC and others	1.65~5.20	6,377,616	4,136,643
Others(*)	NH Investment & Securities and others		68,903	392,032
			18,295,875	16,458,224
Less: present value discounts			(77,686)	(88,059)
Less: current maturities			(5,933,040)	(5,702,434)
			₩ 12,285,149	₩ 10,667,731

(*) The Group transferred a portion of its voting shares to a third party with the total revenue swap agreement. However, the Group still recognizes it as the financial asset because the Group still owns the majority of the risks and rewards of ownership of the transferred shares. Also, the Group recognized the amount received from disposal as borrowings.

(3) Debentures as of December 31, 2022 and December 31, 2021 are as follows.

Description	Latest maturity date	Annual interest rate (%)	December 31, 2022 (In millions of Korean Won)	December 31, 2021 (In millions of Korean Won)
Non-guaranteed public debentures	March 29, 2032	0.96~6.63	₩ 33,979,495	₩ 31,533,051
Non-guaranteed private debentures	April 8, 2030	0.80~6.38	25,971,468	27,604,469
Asset-backed securities	October 16, 2028	0.19~5.52	22,801,451	19,359,999
			82,752,414	78,497,519
Less: discount on debentures			(151,263)	(162,242)
Less: current maturities			(19,641,091)	(14,876,468)
			₩ 62,960,060	₩ 63,458,809

17. PROVISIONS:

(1) Provisions as of December 31, 2022 and December 31, 2021 are as follows.

Description	December 31, 2022	December 31, 2021
	(In millions of Korean Won)	
Warranty	₩ 10,399,527	₩ 9,048,185
Other long-term employee benefits	598,637	676,432
Others	1,432,417	1,154,167
	₩ 12,430,581	₩ 10,878,784

(2) The changes in provisions for the year ended December 31, 2022 are as follows.

Description	Warranty (*)	Other long-term employee benefits	Others
	(In millions of Korean Won)		
Beginning of the year	₩ 9,048,185	₩ 676,432	₩ 1,154,167
Charged	4,347,523	3,900	953,430
Utilized	(3,133,544)	(83,682)	(645,750)
Effect of foreign exchange differences and others	137,363	1,987	(29,430)
End of the year	₩ 10,399,527	₩ 598,637	₩ 1,432,417

(*) During the year ended December 31, 2022, the Group updated the measurement of warranty provisions related to the recall of theta 2 and other engines to reflect of new information and a longer period of historical claim data.

The changes in provisions for the year ended December 31, 2021 are as follows.

Description	Warranty	Other long-term employee benefits	Others
	(In millions of Korean Won)		
Beginning of the year	₩ 8,514,173	₩ 729,996	₩ 1,126,719
Charged	2,900,638	42,595	680,707
Utilized	(2,551,716)	(96,713)	(631,469)
Effect of foreign exchange differences and others	185,090	554	(21,790)
End of the year	₩ 9,048,185	₩ 676,432	₩ 1,154,167

18. OTHER FINANCIAL LIABILITIES:

(1) Other financial liabilities as of December 31, 2022 are as follows.

Description	December 31, 2022	
	Current	Non-current
	(In millions of Korean Won)	
Financial liabilities measured at FVPL	₩ 10,053	₩ 174,386
Derivative liabilities that are effective hedging instruments	88,832	86,464
Financial Liabilities measured at amortized cost	259	1,668
	₩ 99,144	₩ 262,518

(2) Other financial liabilities as of December 31, 2021 are as follows.

Description	December 31, 2021	
	Current	Non-current
	(In millions of Korean Won)	
Financial liabilities measured at FVPL	₩ 674	₩ 53,427
Derivative liabilities that are effective hedging instruments	54,365	32,705
Financial Liabilities measured at amortized cost	148	1,126
	₩ 55,187	₩ 87,258

19. OTHER LIABILITIES:

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

Description	December 31, 2022		December 31, 2021	
	Current	Non-current	Current	Non-current
	(In millions of Korean Won)			
Advances received	₩ 1,464,339	₩ 67,776	₩ 1,235,937	₩ 42,482
Withholdings	1,056,483	223,568	968,318	197,714
Accrued expenses	3,351,822	-	2,851,174	-
Unearned income	1,090,242	3,150,126	864,536	2,356,667
Due to customers for contract work	1,217,052	-	902,124	-
Others	420,303	810,795	618,031	747,755
	₩ 8,600,241	₩ 4,252,265	₩ 7,440,120	₩ 3,344,618

20. FINANCIAL INSTRUMENTS:

(1) Financial assets by categories as of December 31, 2022 are as follows.

Description	Financial assets measured at FVPL	Financial assets measured at amortized cost	Financial assets measured at FVOCI	Derivative assets that are effective hedging instruments	Book value	Fair value
	(In millions of Korean Won)					
Cash and cash equivalents	₩ -	₩ 20,864,879	₩ -	₩ -	₩ 20,864,879	₩ 20,864,879
Short-term and long-term financial instruments	-	5,887,154	-	-	5,887,154	5,887,154
Trade notes and accounts receivable	-	4,458,838	-	-	4,458,838	4,458,838
Other receivables	-	2,378,968	-	-	2,378,968	2,378,968
Other financial assets	5,710,346	37,898	2,839,581	1,236,696	9,824,521	9,824,521
Other assets	27,960	434,829	-	-	462,789	462,789
Financial services receivables	-	90,363,846	-	-	90,363,846	86,705,579
	₩ 5,738,306	₩ 124,426,412	₩ 2,839,581	₩ 1,236,696	₩ 134,240,995	₩ 130,582,728

Financial assets by categories as of December 31, 2021 are as follows.

Description	Financial assets measured at FVPL	Financial assets measured at amortized cost	Financial assets measured at FVOCI	Derivative assets that are effective hedging instruments	Book value	Fair value
(In millions of Korean Won)						
Cash and cash equivalents	₩ -	₩ 12,795,554	₩ -	₩ -	₩ 12,795,554	₩ 12,795,554
Short-term and long-term financial instruments	-	7,255,743	-	-	7,255,743	7,255,743
Trade notes and accounts receivable	-	3,284,453	-	-	3,284,453	3,284,453
Other receivables	-	2,076,803	-	-	2,076,803	2,076,803
Other financial assets	12,472,100	27,195	2,911,523	525,114	15,935,932	15,935,932
Other assets	23,568	331,353	-	-	354,921	354,921
Financial services receivables	-	81,029,132	-	-	81,029,132	81,059,639
	<u>₩ 12,495,668</u>	<u>₩ 106,800,233</u>	<u>₩ 2,911,523</u>	<u>₩ 525,114</u>	<u>₩ 122,732,538</u>	<u>₩ 122,763,045</u>

(2) Financial liabilities by categories as of December 31, 2022 are as follows.

Description	Financial liabilities measured at FVPL	Financial liabilities measured at amortized cost	Derivative liabilities that are effective hedging instruments	Book value	Fair value
(In millions of Korean Won)					
Trade notes and accounts payable	₩ -	₩ 10,797,065	₩ -	₩ 10,797,065	₩ 10,797,065
Other payables	-	7,292,508	-	7,292,508	7,292,508
Borrowings and debentures	27,239	112,158,581	-	112,185,820	108,603,134
Other financial liabilities	184,439	1,927	175,296	361,662	361,662
Lease liabilities	-	1,110,804	-	1,110,804	1,110,804
Other liabilities	-	2,960,053	-	2,960,053	2,960,053
	<u>₩ 211,678</u>	<u>₩ 134,320,938</u>	<u>₩ 175,296</u>	<u>₩ 134,707,912</u>	<u>₩ 131,125,226</u>

Financial liabilities by categories as of December 31, 2021 are as follows.

Description	Financial liabilities measured at FVPL	Financial liabilities measured at amortized cost	Derivative liabilities that are effective hedging instruments	Book value	Fair value
(In millions of Korean Won)					
Trade notes and accounts payable	₩ -	₩ 9,155,255	₩ -	₩ 9,155,255	₩ 9,155,255
Other payables	-	5,422,320	-	5,422,320	5,422,320
Borrowings and debentures	-	107,793,278	-	107,793,278	108,112,411
Other financial liabilities	54,101	1,274	87,070	142,445	142,445
Lease liabilities	-	950,572	-	950,572	950,572
Other liabilities	-	2,415,891	-	2,415,891	2,415,891
	<u>₩ 54,101</u>	<u>₩ 125,738,590</u>	<u>₩ 87,070</u>	<u>₩ 125,879,761</u>	<u>₩ 126,198,894</u>

(3) Fair value estimation

The Group categorizes the assets and liabilities measured at fair value into the following three-level fair value hierarchy in accordance with the inputs used for fair value measurement.

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

Fair value measurements of financial instruments by fair value hierarchy levels as of December 31, 2022 are as follows.

Description	December 31, 2022			
	Level 1	Level 2	Level 3	Total
(In millions of Korean Won)				
Financial assets:				
Financial assets measured at FVPL	₩ 57,556	₩ 5,412,130	₩ 268,620	₩ 5,738,306
Derivative assets that are effective hedging instruments	-	1,236,696	-	1,236,696
Financial assets measured at FVOCI	1,493,627	451,990	893,964	2,839,581
	<u>₩ 1,551,183</u>	<u>₩ 7,100,816</u>	<u>₩ 1,162,584</u>	<u>₩ 9,814,583</u>
Financial liabilities:				
Financial liabilities measured at FVPL	₩ -	₩ 11,451	₩ 200,227	₩ 211,678
Derivative liabilities that are effective hedging instruments	-	173,361	1,935	175,296
	<u>₩ -</u>	<u>₩ 184,812</u>	<u>₩ 202,162</u>	<u>₩ 386,974</u>

Fair value measurements of financial instruments by fair value hierarchy levels as of December 31, 2021 are as follows.

Description	December 31, 2021			
	Level 1	Level 2	Level 3	Total
(In millions of Korean Won)				
Financial assets:				
Financial assets measured at FVPL	₩ 107,290	₩ 12,226,048	₩ 162,330	₩ 12,495,668
Derivative assets that are effective hedging instruments	-	525,114	-	525,114
Financial assets measured at FVOCI	1,561,959	435,797	913,767	2,911,523
	<u>₩ 1,669,249</u>	<u>₩ 13,186,959</u>	<u>₩ 1,076,097</u>	<u>₩ 15,932,305</u>
Financial liabilities:				
Financial liabilities measured at FVPL	₩ -	₩ 962	₩ 53,139	₩ 54,101
Derivative liabilities that are effective hedging instruments	-	87,070	-	87,070
	<u>₩ -</u>	<u>₩ 88,032</u>	<u>₩ 53,139</u>	<u>₩ 141,171</u>

The changes in financial instruments classified as Level 3 for the year ended December 31, 2022 are as follows.

Description	Beginning of the period	Purchases	Disposals	Valuation	Others	End of the period
(In millions of Korean Won)						
Financial assets measured at FVPL	₩ 162,330	₩ 92,328	₩ (6,107)	₩ 8,529	₩ 11,540	₩ 268,620
Financial assets measured at FVOCI	913,767	12,373	(874)	79,143	(110,445)	893,964
Financial liabilities measured at FVPL	53,139	29,884	-	2,169	115,035	200,227
Derivative liabilities that are effective hedging instruments	-	1,935	-	-	-	1,935

The changes in financial instruments classified as Level 3 for the year ended December 31, 2021 are as follows.

Description	Beginning of the period	Purchases	Disposals	Valuation	Others	End of the period
(In millions of Korean Won)						
Financial assets measured at FVPL	₩ 515,020	₩ 38,076	₩ (411,334)	₩ 20,568	₩ -	₩ 162,330
Financial assets measured at FVOCI	739,669	66,580	(2,579)	73,805	36,292	913,767
Financial liabilities measured at FVPL	-	52,323	-	816	-	53,139

(4) Financial assets and liabilities subject to offsetting, and financial instruments subject to an enforceable master netting arrangement or similar agreement as of December 31, 2022 are as follows.

Description	Gross amounts of recognized financial assets and liabilities set off in the consolidated statement of financial position	Gross amounts of recognized financial assets and liabilities set off in the consolidated statement of financial position	Net amounts of financial assets and liabilities presented in the consolidated statement of financial position	Related amounts not set off in the consolidated statement of financial position - financial instruments	Related amounts not set off in the statement of financial position - collateral received (pledged)	Net amounts
(In millions of Korean Won)						
Financial assets:						
Trade notes and accounts receivable	₩ 4,731,300	₩ 272,462	₩ 4,458,838	₩ -	₩ -	₩ 4,458,838
Other receivables	3,005,009	626,041	2,378,968	-	-	2,378,968
Financial assets measured at FVPL	47,256	-	47,256	-	-	47,256
Derivative assets that are effective hedging instruments (*)	1,236,696	-	1,236,696	93,233	-	1,143,463
	<u>₩ 9,020,261</u>	<u>₩ 898,503</u>	<u>₩ 8,121,758</u>	<u>₩ 93,233</u>	<u>₩ -</u>	<u>₩ 8,028,525</u>
Financial liabilities:						
Trade notes and accounts payable	₩ 11,418,549	₩ 621,484	₩ 10,797,065	₩ -	₩ -	₩ 10,797,065
Other payables	7,569,527	277,019	7,292,508	-	-	7,292,508
Financial liabilities measured at FVPL	211,678	-	211,678	-	-	211,678
Derivative liabilities that are effective hedging instruments (*)	175,296	-	175,296	93,233	-	82,063
	<u>₩ 19,375,050</u>	<u>₩ 898,503</u>	<u>₩ 18,476,547</u>	<u>₩ 93,233</u>	<u>₩ -</u>	<u>₩ 18,383,314</u>

(*) These are derivative assets and liabilities that the Group may have the right to offset in the event of default, insolvency or bankruptcy of the counterparty although these do not meet the criteria of offsetting under K-IFRS 1032.

Financial assets and liabilities, subject to offsetting, and financial instruments subject to an enforceable master netting arrangement or similar agreement as of December 31, 2021 are as follows.

Description	Gross amounts of recognized financial assets and liabilities	Gross amounts of recognized financial assets and liabilities set off in the consolidated statement of financial position	Net amounts of financial assets and liabilities presented in the consolidated statement of financial position	Related amounts not set off in the consolidated statement of financial position - financial instruments	Related amounts not set off in the statement of financial position - collateral received (pledged)	Net amounts
						(In millions of Korean Won)
Financial assets:						
Trade notes and accounts receivable	₩ 3,519,284	₩ 234,831	₩ 3,284,453	₩ -	₩ -	₩ 3,284,453
Other receivables	2,573,976	497,173	2,076,803	-	-	2,076,803
Financial assets measured at FVPL	14,534	-	14,534	21	-	14,513
Derivative assets that are effective hedging instruments (*)	525,114	-	525,114	18,204	-	506,910
	<u>₩ 6,632,908</u>	<u>₩ 732,004</u>	<u>₩ 5,900,904</u>	<u>₩ 18,225</u>	<u>₩ -</u>	<u>₩ 5,882,679</u>
Financial liabilities:						
Trade notes and accounts payable	₩ 9,640,133	₩ 484,878	₩ 9,155,255	₩ -	₩ -	₩ 9,155,255
Other payables	5,669,446	247,126	5,422,320	-	-	5,422,320
Financial liabilities measured at FVPL	54,101	-	54,101	21	-	54,080
Derivative liabilities that are effective hedging instruments (*)	87,070	-	87,070	18,204	-	68,866
	<u>₩ 15,450,750</u>	<u>₩ 732,004</u>	<u>₩ 14,718,746</u>	<u>₩ 18,225</u>	<u>₩ -</u>	<u>₩ 14,700,521</u>

(*) These are derivative assets and liabilities that the Group may have the right to offset in the event of default, insolvency or bankruptcy of the counterparty although these do not meet the criteria of offsetting under K-IFRS 1032.

(5) Interest income, dividend income and interest expenses by categories of financial instruments for the year ended December 31, 2022 are as follows.

Description	2022		
	Interest income	Dividend income	Interest expenses
	(In millions of Korean Won)		
Non-financial services:			
Financial assets measured at amortized cost	₩ 489,133	₩ -	₩ -
Financial assets measured at FVPL	150,084	-	-
Financial assets measured at FVOCI	-	44,533	-
Financial liabilities measured at amortized cost	-	-	434,059
	<u>₩ 639,217</u>	<u>₩ 44,533</u>	<u>₩ 434,059</u>
Financial services:			
Financial assets measured at amortized cost	₩ 3,466,000	₩ -	₩ -
Financial assets measured at FVPL	5,825	1,300	-
Financial assets measured at FVOCI	899	-	-
Financial liabilities measured at amortized cost	-	-	2,277,906
	<u>₩ 3,472,724</u>	<u>₩ 1,300</u>	<u>₩ 2,277,906</u>

Interest income, dividend income and interest expenses by categories of financial instruments for the year ended

December 31, 2021 are as follows.

Description	2021		
	Interest income	Dividend income	Interest expenses
(In millions of Korean Won)			
Non-financial services:			
Financial assets measured at amortized cost	₩ 248,198	₩ -	₩ -
Financial assets measured at FVPL	100,415	-	-
Financial assets measured at FVOCI	-	28,419	-
Financial liabilities measured at amortized cost	-	-	267,648
	<u>₩ 348,613</u>	<u>₩ 28,419</u>	<u>₩ 267,648</u>
Financial services:			
Financial assets measured at amortized cost	₩ 4,138,039	₩ -	₩ -
Financial assets measured at FVPL	4,040	1,721	-
Financial assets measured at FVOCI	203	-	-
Financial liabilities measured at amortized cost	-	-	1,730,903
	<u>₩ 4,142,282</u>	<u>₩ 1,721</u>	<u>₩ 1,730,903</u>

- (6) The commission income (financial services revenue) arising from financial assets or liabilities other than financial assets or liabilities measured at FVPL for the years ended December 31, 2022 and 2021 are ₩1,011,152 million and ₩923,656 million, respectively. In addition, the fee expenses (cost of sales from financial services) related to financial assets or liabilities other than financial assets or liabilities measured at FVPL for the years ended December 31, 2022 and 2021 are ₩427,606 million and ₩374,229 million, respectively.
- (7) The Group recognizes transfers between levels of the fair value hierarchy at the date of the event or change in circumstances that caused the transfer. There are no significant transfers between Level 1 and Level 2 for the year ended December 31, 2022.
- (8) Descriptions of the valuation techniques and the inputs used in the fair value measurements categorized within Level 2 and Level 3 of the fair value hierarchy are as follows.

- Currency forwards, options and swap

Fair value of currency forwards, options and swap is measured based on forward exchange rate quoted in the current market at the end of the reporting period, which has the same remaining period of derivatives to be measured. If the forward exchange rate, which has the same remaining period of currency forwards, options and swap, is not quoted in the current market, fair value is measured using estimates of similar period of forward exchange rate by applying interpolation method with quoted forward exchange rates.

As the inputs used to measure fair value of currency forwards, options and swap are supported by observable market data, such as forward exchange rates, the Group classifies the estimates of fair value measurements of the currency forwards, options and swap as Level 2 of the fair value hierarchy.

- Interest rate swap

The discount rate and forward interest rate used to measure the fair value of interest rate swap are determined based on an applicable yield curve derived from interest quoted in the current market at the end of the reporting period. The fair value of interest rate swap was measured as a discount on the estimated future cash flows of interest rate swap based on forward interest rates derived from the above method at an appropriate discount rate.

As the inputs used to measure fair value of interest rate swap are supported by observable market data, such as yield curves, the Group classifies the estimates of fair value measurements of the interest rate swap as Level 2 of the fair value hierarchy.

- Debt instruments including corporate bonds

Fair value of debt instruments including corporate bonds is measured applying discounted cash flow method. The rate used to discount cash flows is determined based on swap rate and credit spreads of debt instruments, which have the similar credit rating and period quoted in the current market with those of debt instruments including corporate bonds that should be measured. The Group classifies fair value measurements of debt instruments including corporate bonds as Level 2 of the fair-value hierarchy since the rate, which has significant effects on fair value of debt instruments including corporate bonds, is based on observable market data.

- Unlisted equity securities

Fair value of unlisted equity securities is measured using discounted cash flow projection and market approach, and as for discounted cash flow projections, certain assumptions not based on observable market prices or rate, such as sales growth rate, pre-tax operating income ratio and discount rate based on business plan and circumstance of industry are used to estimate the future cash flow. The discount rate used to discount the future cash flows, is calculated by applying the Capital Asset Pricing Model, using the data of similar listed companies. The Group determines that the effect of estimation and assumptions referred above affecting fair value of unlisted equity securities is significant and classifies fair value measurements of unlisted securities as Level 3 of the fair value hierarchy.

- Redeemable convertible preference share

The fair value of redeemable convertible preference share is measured based on the fair value, exercise price, maturity, and the stock price volatility up to the maturity of the underlying asset, using the binomial option pricing model. The discount rate used in the binomial option pricing model is applied by converting the rate of return on corporate bonds with equivalent credit rating corresponding to the remaining maturity into a continuous compounding discount rate, and the stock price volatility up to maturity uses historical volatility of proxy companies in similar industries in response to the remaining maturity. The fair value of the underlying asset is assumed to be maintained until the end of the current period after estimating the underlying asset value on the contracted date by inverting the underlying asset value inherent in the terms of the transaction on the premise that the acquisition transaction of related shares in the current period is an orderly transaction and traded at fair value. The group classifies the fair value measurement of redeemable convertible preference share as Level 3 in the fair value hierarchy based on the assumption that the effect of the above assumptions and estimates on the fair value of redeemable convertible preference share classified.

- (9) The quantitative information about significant unobservable inputs used in the fair value measurements categorized within Level 3 of the fair value hierarchy and the description of relationships of significant unobservable inputs to the fair value are as follows:

Description	Fair value at December 31, 2022		Valuation techniques	Unobservable inputs	Range	Description of relationship
	Financial assets	Financial liabilities				
	(In millions of Korean Won)					
Unlisted equity securities, redeemable convertible preference share and others	₩ 1,162,584	₩ 202,162	Discounted cash flow and others	Sales growth rate Pre-tax operating profit margin ratio Discount rate Stock price volatility	-8.8% ~ -2.6% 2.0% ~ 7.6% 8.3% 59.2% ~ 60.1%	If the sales growth rate, the pre-tax operating profit margin ratio and stock price volatility increases or the discount rate declines, the fair value increases.

The Group does not expect changes in significant unobservable inputs would have a significant impact on the fair value, taking into account reasonable alternative assumptions.

21. CAPITAL STOCK:

The Company's number of shares authorized is 600,000,000 shares. Common stock and preferred stock as of December 31, 2022 and December 31, 2021 are as follows.

(1) Common stock

Description	December 31, 2022		December 31, 2021	
	(In millions of Korean Won, except par value)			
Issued		213,668,187 shares		213,668,187 shares
Par value	₩	5,000	₩	5,000
Capital stock		1,157,982		1,157,982

The Company completed stock retirement of 10,000,000 common shares, 1,320,000 common shares and 6,608,292 common shares as of March 5, 2001, May 4, 2004 and July 27, 2018 respectively. Due to these stock retirements, the total face value of outstanding stock differs from the capital stock amount.

(2) Preferred stock

Description	Par value	Issued	Korean Won (In millions of Korean Won)	Dividend rate
1 st preferred stock	₩ 5,000	24,356,685 shares	₩ 125,550	Dividend rate of common stock + 1%
2 nd preferred stock	"	36,485,451 shares	193,069	The lowest stimulated dividend rate: 2%
3 rd preferred stock	"	2,428,735 shares	12,392	The lowest stimulated dividend rate: 1%
		63,270,871 shares	₩ 331,011	

As of March 5, 2001, the Company retired 1,000,000 second preferred shares and as of July 27, 2018, the Company retired 753,297 first preferred shares, 1,128,414 second preferred shares and 49,564 third preferred shares. Due to the stock retirement, the total face value of outstanding stock differs from the capital stock amount.

22. CAPITAL SURPLUS:

Capital surplus as of December 31, 2022 and December 31, 2021 are as follows.

Description	December 31, 2022	December 31, 2021
	(In millions of Korean Won)	
Paid-in capital in excess of par value	₩ 3,321,334	₩ 3,321,334
Others(*)	919,969	748,926
	₩ 4,241,303	₩ 4,070,260

(*) During the year ended December 31, 2022, the Group disposed of 2,216,983 shares of treasury stocks through treasury stock exchange with KT Corporation, and recognized gain on disposal of treasury stocks in the amount of ₩118,686 million.

23. OTHER CAPITAL ITEMS:

Other capital items consist of treasury stocks purchased for the stabilization of stock price. Number of treasury stocks as of December 31, 2022 and December 31, 2021 are as follows.

Description	December 31, 2022	December 31, 2021
	(Number of shares)	
Common stock	11,408,711	14,048,242
1 st preferred stock	2,430,559	2,333,133
2 nd preferred stock	1,718,424	1,572,482
3 rd preferred stock	72,861	63,146

24. ACCUMULATED OTHER COMPREHENSIVE LOSS:

(1) Accumulated other comprehensive loss as of December 31, 2022 is as follows.

Description	December 31, 2022
	(In millions of Korean Won)
Gain on valuation of financial assets measured at FVOCI	₩ 418,986
Loss on valuation of financial assets measured at FVOCI	(768,117)
Gain on valuation of cash flow hedge derivatives	276,938
Loss on valuation of cash flow hedge derivatives	(93,162)
Gain on share of the other comprehensive income of equity-accounted investees	195,912
Loss on share of the other comprehensive income of equity-accounted investees	(715,558)
Loss on foreign operations translation, net	(935,681)
	₩ (1,620,682)

(2) Accumulated other comprehensive loss as of December 31, 2021 is as follows.

Description	December 31, 2021	
	(In millions of Korean Won)	
Gain on valuation of financial assets measured at FVOCI	₩	451,693
Loss on valuation of financial assets measured at FVOCI		(370,812)
Gain on valuation of cash flow hedge derivatives		56,048
Loss on valuation of cash flow hedge derivatives		(42,068)
Gain on share of the other comprehensive income of equity-accounted investees		228,299
Loss on share of the other comprehensive income of equity-accounted investees		(587,620)
Loss on foreign operations translation, net		(1,508,141)
	₩	(1,772,601)

25. RETAINED EARNINGS:

(1) Retained earnings as of December 31, 2022 and December 31, 2021 are as follows.

Description	December 31, 2022		December 31, 2021	
	(In millions of Korean Won)			
Legal reserve (*)	₩	744,836	₩	744,836
Discretionary reserve		47,307,996		47,701,296
Unappropriated		31,900,769		24,721,723
	₩	79,953,601	₩	73,167,855

(*) The Commercial Code of the Republic of Korea requires the Company to appropriate as a legal reserve, a minimum of 10% of annual cash dividends declared, until such reserve equals 50% of its capital stock issued. The reserve is not available for the payment of cash dividends, but may be transferred to capital stock or used to reduce accumulated deficit, if any.

Appraisal gains, amounting to ₩1,852,871 million, derived from asset revaluation pursuant to the Asset Revaluation Law of Korea are included in retained earnings. It may be only transferred to capital stock or used to reduce accumulated deficit, if any.

(2) The computation of the interim dividends for the year ended December 31, 2022 is as follows.

Description	Common stock	1 st Preferred stock	2 nd Preferred stock	3 rd Preferred stock
	(In millions of Korean Won, except per share amounts)			
Par value per share	₩ 5,000	₩ 5,000	₩ 5,000	₩ 5,000
Shares, net of treasury stocks	198,765,273	21,926,126	34,767,027	2,355,874
Dividends per share	₩ 1,000	₩ 1,000	₩ 1,000	₩ 1,000
Dividend rate	20%	20%	20%	20%
Dividends declared	198,764	21,926	34,767	2,356

The computation of the interim dividends for the year ended December 31, 2021 is as follows.

Description	Common stock	1 st Preferred stock	2 nd Preferred stock	3 rd Preferred stock
	(In millions of Korean Won, except per share amounts)			
Par value per share	₩ 5,000	₩ 5,000	₩ 5,000	₩ 5,000
Shares, net of treasury stocks	200,576,769	22,169,692	35,131,881	2,380,161
Dividends per share	₩ 1,000	₩ 1,000	₩ 1,000	₩ 1,000
Dividend rate	20%	20%	20%	20%
Dividends declared	200.577	22.170	35.132	2.380

(3) The computation of the proposed dividends for the year ended December 31, 2022 is as follows.

Description	Common stock	1 st Preferred stock	2 nd Preferred stock	3 rd Preferred stock
(In millions of Korean Won, except per share amounts)				
Par value per share	₩ 5,000	₩ 5,000	₩ 5,000	₩ 5,000
Shares, net of treasury stocks	202,259,476	21,926,126	34,767,027	2,355,874
Dividends per share	₩ 6,000	₩ 6,050	₩ 6,100	₩ 6,050
Dividend rate	120%	121%	122%	121%
Dividends declared	1,213,557	132,653	212,079	14,253

The computation of the dividends for the year ended December 31, 2021 is as follows.

Description	Common stock	1 st Preferred stock	2 nd Preferred stock	3 rd Preferred stock
(In millions of Korean Won, except per share amounts)				
Par value per share	₩ 5,000	₩ 5,000	₩ 5,000	₩ 5,000
Shares, net of treasury stocks	199,619,945	22,023,552	34,912,969	2,365,589
Dividends per share	₩ 4,000	₩ 4,050	₩ 4,100	₩ 4,050
Dividend rate	80%	81%	82%	81%
Dividends declared	798,480	89,195	143,143	9,581

26. **HYBRID BOND:**

(1) HYUNDAI CARD CO., LTD., a subsidiary of the Company, issued hybrid bond and the Group classified it as equity (non-controlling interests). As of December 31, 2022, hybrid bond is as follows.

Description	Issue date	Maturity date	Annual interest rate (%)	December 31, 2022 (In millions of Korean Won)
The 731st Hybrid Tier 1 (Private)	July 5, 2018	July 5, 2048	4.70	₩ 300,000
Issue cost				(760)
				₩ 299,240

(2) As of December 31, 2022, the conditions of hybrid bond that HYUNDAI CARD CO., LTD., a subsidiary of the Company issued are as follows.

Description	Description
Maturity	Thirty years (Maturity extension is possible according to the issuer's decision upon maturity)
Interest rate	Issue date ~ July 5, 2023 : An annual fixed interest rate 4.7% Increase of 2% after five years which is limited to one time only in accordance with Step-up clause
Interest payment condition	Three months, optional postponement of payment
Others	Repayment before maturity by issuer is available after five years from issue date

27. SALES:

(1) Sales for the years ended December 31, 2022 and 2021 are as follows.

Description	2022	2021
	(In millions of Korean Won)	
Sales of goods	₩ 121,128,808	₩ 99,722,885
Rendering of services	3,577,155	2,624,047
Royalties	252,904	276,564
Financial services revenue	13,764,122	11,536,970
Revenue related to construction contracts	3,099,326	2,814,036
Others	705,220	636,124
	₩ 142,527,535	₩ 117,610,626

(2) As of December 31, 2022, the aggregate transaction price allocated to the unsatisfied (or partially unsatisfied) performance obligation that is expected to be recognized as revenue in future periods is as follows.

Description	Within a year	After a year
	(In millions of Korean Won)	
Deferred revenue and others	₩ 2,016,748	₩ 3,079,984

28. SELLING AND ADMINISTRATIVE EXPENSES:

Selling and administrative expenses for the years ended December 31, 2022 and 2021 are as follows.

Description	2022	2021
	(In millions of Korean Won)	
Selling expenses:		
Export expenses	₩ 78,842	₩ 46,057
Overseas market expenses	443,923	412,476
Advertisements and sales promotion	3,102,616	2,609,784
Sales commissions	909,093	983,949
Expenses for warranties	4,346,694	2,947,290
Transportation expenses	101,995	116,035
	8,983,163	7,115,591
Administrative expenses:		
Payroll	3,265,946	2,882,164
Post-employment benefits	173,367	177,845
Welfare expenses	550,396	496,461
Service charges	1,682,831	1,529,151
Research	1,762,749	1,534,993
Others	2,079,831	1,515,341
	9,515,120	8,135,955
	₩ 18,498,283	₩ 15,251,546

29. GAIN(LOSS) ON INVESTMENTS IN JOINT VENTURES AND ASSOCIATES:

Gain(loss) on investments in joint ventures and associates for the years ended December 31, 2022 and 2021 is as follows.

Description	2022	2021
	(In millions of Korean Won)	
Gain on share of earnings of equity-accounted investees, net	₩ 1,635,777	₩ 1,278,591
Gain on disposals of investments in associates	63,992	38,106
Impairment loss on investments in associates	(143,186)	(13,332)
	₩ 1,556,583	₩ 1,303,365

30. FINANCE INCOME AND EXPENSES:

(1) Finance income for the years ended December 31, 2022 and 2021 are as follows.

Description	2022	2021
	(In millions of Korean Won)	
Interest income	₩ 639,217	₩ 348,613
Gain on foreign exchange transactions	146,066	62,003
Gain on foreign currency translation	333,849	162,811
Dividend income	44,533	28,419
Gain on derivatives	18,689	89,522
Others	36,459	221,434
	₩ 1,218,813	₩ 912,802

(2) Finance expenses for the years ended December 31, 2022 and 2021 are as follows.

Description	2022	2021
	(In millions of Korean Won)	
Interest expenses	₩ 536,086	₩ 304,542
Loss on foreign exchange transactions	77,799	54,622
Loss on foreign currency translation	416,846	182,233
Loss on derivatives and others	23,497	7,013
	₩ 1,054,228	₩ 548,410

31. OTHER INCOME AND EXPENSES:

(1) Other income for the years ended December 31, 2022 and 2021 are as follows.

Description	2022	2021
	(In millions of Korean Won)	
Gain on foreign exchange transactions	₩ 827,960	₩ 624,884
Gain on foreign currency translation	688,119	220,468
Gain on disposals of PP&E	49,442	23,978
Commission income	18,335	22,716
Rental income	97,905	94,528
Others	575,352	460,687
	₩ 2,257,113	₩ 1,447,261

(2) Other expenses for the years ended December 31, 2022 and 2021 are as follows.

Description	2022	2021
	(In millions of Korean Won)	
Loss on foreign exchange transactions	₩ 738,469	₩ 527,878
Loss on foreign currency translation	814,458	231,859
Loss on disposals of PP&E	177,132	57,899
Donations	89,984	66,249
Others	1,030,064	950,520
	₩ 2,850,107	₩ 1,834,405

32. EXPENSES BY NATURE:

Expenses by nature for the years ended December 31, 2022 and 2021 are as follows.

Description	2022	2021
	(In millions of Korean Won)	
Changes in inventories	₩ (1,677,346)	₩ 434,257
Raw materials and merchandise used	80,774,363	67,579,441
Employee benefits	10,667,028	9,613,599
Depreciation	3,180,687	2,937,914
Amortization	1,866,935	1,617,823
Others	40,746,206	30,583,048
Total (*)	₩ 135,557,873	₩ 112,766,082

(*) Sum of cost of sales, selling and administrative expenses and other expenses in the consolidated statements of income.

33. EARNINGS PER COMMON STOCK AND PREFERRED STOCK:

Basic earnings per common stock and preferred stock are computed by dividing profit available to common stock and preferred stock by the weighted-average number of common stock and preferred stock outstanding during the year. The Group does not compute diluted earnings per common stock for the years ended December 31, 2022 and 2021, since there are no dilutive items during the years.

Basic earnings per common stock and preferred stock for the years ended December 31, 2022 and 2021 are computed as follows.

Description	For the year ended December 31, 2022			For the year ended December 31, 2021		
	Profit attributable to share	Weighted-average number of shares outstanding (*1)	Basic earnings per share	Profit attributable to share	Weighted-average number of shares outstanding (*1)	Basic earnings per share
	(In millions of Korean Won, except per share amounts)					
Common stock	₩ 5,696,576	199,735,258	₩ 28,521	₩ 3,806,754	200,578,742	₩ 18,979
1 st Preferred stock (*2)	618,639	21,932,141	28,207	421,090	22,160,384	19,002
2 nd Preferred stock	982,679	34,775,916	28,257	669,282	35,117,788	19,058
3 rd Preferred stock	66,470	2,356,491	28,207	45,230	2,379,240	19,010

(*1) Weighted-average number of shares outstanding includes the effects of treasury stock transactions.

(*2) 1st preferred stock meets the definition of 'ordinary shares' as defined in K-IFRS 1033 'Earnings per Share'.

34. INCOME TAX EXPENSE:

(1) The components of income tax expense for the years ended December 31, 2022 and 2021 are as follows.

Description	2022	2021
	(In millions of Korean Won)	
Current tax expense	₩ 2,705,459	₩ 1,816,699
Adjustments recognized in the current year in relation to the prior years	66,052	(274,525)
Changes in deferred taxes relating to		
Temporary differences	(623,348)	1,718,022
Tax losses and tax credits	949,285	(683,646)
Items that are charged or credited directly to equity	(186,176)	(104,461)
Effect of foreign exchange differences and others	53,057	(205,604)
Income tax expense	₩ 2,964,329	₩ 2,266,485

- (2) The reconciliation from profit before income tax to income tax expense for the years ended December 31, 2022 and 2021 are as follows.

Description	2022		2021	
	(In millions of Korean Won)			
Profit before income tax	₩	10,947,943	₩	7,959,562
Income tax expense calculated at the applicable tax rates of 27.2% in 2022 and 21.4% in 2021		2,973,667		1,699,706
Adjustments:				
Non-taxable income		(91,601)		(100,314)
Non-deductible expenses		399,296		261,172
Tax credits		(528,986)		(429,012)
Others		211,953		834,933
		(9,338)		566,779
Income tax expense	₩	2,964,329	₩	2,266,485
Effective tax rate		27.1%		28.5%

- (3) The changes in deferred tax assets (liabilities) for the year ended December 31, 2022 are as follows.

Description	Beginning of the year		Changes		End of the year	
			(In millions of Korean Won)			
Provisions	₩	2,824,209	₩	451,449	₩	3,275,658
Financial assets measured at FVPL		1,231		308		1,539
Financial assets measured at FVOCI		(121,184)		113,194		(7,990)
Investment of subsidiaries, associates and joint ventures		(1,578,133)		(418,369)		(1,996,502)
Derivatives		(1,516)		(93,536)		(95,052)
PP&E		(5,861,743)		60,309		(5,801,434)
Accrued income		(15,840)		(2,927)		(18,767)
Gain (loss) on foreign currency translation, net		(136)		(197)		(333)
Others		(42,945)		513,117		470,172
		(4,796,057)		623,348		(4,172,709)
Carryforward of tax losses and tax credits		3,331,562		(949,285)		2,382,277
	₩	(1,464,495)	₩	(325,937)	₩	(1,790,432)

The changes in deferred tax assets (liabilities) for the year ended December 31, 2021 are as follows.

Description	Beginning of the year		Changes		End of the year	
			(In millions of Korean Won)			
Provisions	₩	2,713,730	₩	110,479	₩	2,824,209
Financial assets measured at FVPL		1,795		(564)		1,231
Financial assets measured at FVOCI		(137,271)		16,087		(121,184)
Investment of subsidiaries, associates and joint ventures		(1,516,729)		(61,404)		(1,578,133)
Derivatives		(45,697)		44,181		(1,516)
PP&E		(5,058,726)		(803,017)		(5,861,743)
Accrued income		61,186		(77,026)		(15,840)
Gain (loss) on foreign currency translation, net		431		(567)		(136)
Others		903,246		(946,191)		(42,945)
		(3,078,035)		(1,718,022)		(4,796,057)
Carryforward of tax losses and tax credits		2,647,916		683,646		3,331,562
	₩	(430,119)	₩	(1,034,376)	₩	(1,464,495)

- (4) Income taxes relating to items that are charged or credited directly to equity for the years ended December 31, 2022 and 2021 are as follows.

Description	2022	2021
	(In millions of Korean Won)	
Gain on disposal of treasury stocks	₩ (66,131)	₩ (9,451)
Loss (gain) on financial assets measured at FVOCI, net	97,671	(32,147)
Loss (gain) on valuation of cash flow hedge derivatives, net	(78,505)	5,848
Remeasurements of defined benefit plans	(152,166)	(64,906)
Changes in retained earnings of equity-accounted investees, net	12,955	(3,805)
	₩ (186,176)	₩ (104,461)

- (5) The amount of temporary differences associated with investments in subsidiaries, joint ventures and associates, for which deferred tax liabilities are not recognized, are ₩ 8,948,716 million and ₩ 5,644,375 million as of December 31, 2022 and 2021, respectively.

35. RETIREMENT BENEFIT PLAN:

- (1) Expenses recognized in relation to defined contribution plans for the years ended December 31, 2022 and 2021 are as follows.

Description	2022	2021
	(In millions of Korean Won)	
Paid-in cash	₩ 14,377	₩ 11,650
Recognized liability	4,754	3,320
	₩ 19,131	₩ 14,970

- (2) The significant actuarial assumptions used by the Group as of December 31, 2022 and December 31, 2021 are as follows.

Description	December 31, 2022	December 31, 2021
Discount rate (*)	5.29%	3.84%
Rate of expected future salary increase	4.05%	4.51%

- (*) The Group applied the market yields of high-quality corporate bonds (AA+) and others as the discount rate at December 31, 2022, to discount the defined benefit obligation to the present value, and the same discount rate was applied as the expected return rate when calculating interest income on plan assets.

Employee turnover and mortality assumptions used for actuarial valuation are based on the economic conditions and statistical data of each country where entities within the Group are located.

- (3) The amounts recognized in the consolidated statements of financial position related to defined benefit plans as of December 31, 2022 and December 31, 2021 are as follows.

Description	December 31, 2022	December 31, 2021
	(In millions of Korean Won)	
Present value of defined benefit obligations	₩ 6,033,698	₩ 6,580,593
Fair value of plan assets	(6,809,339)	(6,721,149)
	₩ (775,641)	₩ (140,556)
Net defined benefit liabilities	61,861	79,165
Net defined benefit assets	(837,502)	(219,721)

(4) Changes in net defined benefit assets and liabilities for the year ended December 31, 2022 are as follows.

Description	Present value of defined benefit obligations		Fair value of plan assets		Net defined benefit liabilities	
	(In millions of Korean Won)					
Beginning of the year	₩	6,580,593	₩	(6,721,149)	₩	(140,556)
Current service cost		575,608		-		575,608
Interest expenses (income)		173,934		(185,313)		(11,379)
Past service cost		(33)		-		(33)
		<u>7,330,102</u>		<u>(6,906,462)</u>		<u>423,640</u>
Remeasurements:						
Return on plan assets		-		168,474		168,474
Actuarial gains and losses arising from changes in demographic assumptions		255,197		-		255,197
Actuarial gains and losses arising from changes in financial assumptions		(1,002,183)		-		(1,002,183)
Actuarial gains and losses arising from experience adjustments and others		35,038		-		35,038
		<u>(711,948)</u>		<u>168,474</u>		<u>(543,474)</u>
Contributions		-		(584,701)		(584,701)
Benefits paid		(583,748)		483,747		(100,001)
Transfers in (out)		1,946		(1,454)		492
Effect of foreign exchange differences and others		(2,654)		31,057		28,403
End of the year	₩	<u>6,033,698</u>	₩	<u>(6,809,339)</u>	₩	<u>(775,641)</u>

Changes in net defined benefit assets and liabilities for the year ended December 31, 2021 are as follows.

Description	Present value of defined benefit obligations		Fair value of plan assets		Net defined benefit liabilities	
	(In millions of Korean Won)					
Beginning of the year	₩	6,490,583	₩	(6,253,299)	₩	237,284
Current service cost		598,231		-		598,231
Interest expenses (income)		140,222		(139,588)		634
Past service cost		221		-		221
		<u>7,229,257</u>		<u>(6,392,887)</u>		<u>836,370</u>
Remeasurements:						
Return on plan assets		-		(1,247)		(1,247)
Actuarial gains and losses arising from changes in demographic assumptions		2,573		-		2,573
Actuarial gains and losses arising from changes in financial assumptions		(259,343)		-		(259,343)
Actuarial gains and losses arising from experience adjustments and others		17,719		-		17,719
		<u>(239,051)</u>		<u>(1,247)</u>		<u>(240,298)</u>
Contributions		-		(689,687)		(689,687)
Benefits paid		(447,857)		367,927		(79,930)
Transfers in (out)		2,721		(1,605)		1,116
Effect of foreign exchange differences and others		35,523		(3,650)		31,873
End of the year	₩	6,580,593	₩	(6,721,149)	₩	(140,556)

- (5) The sensitivity analysis based on reasonably possible changes of the significant assumptions as of December 31, 2022 and December 31, 2021, while all the other assumptions are retained, are as follows.

Description	Effect on the net defined benefit liabilities			
	December 31, 2022		December 31, 2021	
	Increase by 1%	Decrease by 1%	Increase by 1%	Decrease by 1%
	(In millions of Korean Won)		(In millions of Korean Won)	
Discount rate	₩ (367,700)	₩ 419,353	₩ (486,472)	₩ 542,497
Rate of expected future salary increase	400,804	(360,074)	492,651	(457,048)

- (6) The fair value of the plan assets as of December 31, 2022 and December 31, 2021 is as follows.

Description	December 31, 2022		December 31, 2021	
	(In millions of Korean Won)		(In millions of Korean Won)	
Insurance instruments	₩	6,806,690	₩	6,717,877
Others		2,649		3,272
	₩	6,809,339	₩	6,721,149

- (7) The Group expects to pay contribution of approximately ₩ 546,548 million to the plan in 2023 and the weighted average duration of the defined benefit obligation as of December 31, 2022 is 7.8 years.

36. CASH GENERATED FROM OPERATIONS:

(1) Cash generated from operations for the years ended December 31, 2022 and 2021 are as follows.

Description	2022	2021
	(In millions of Korean Won)	
Profit for the year	₩ 7,983,614	₩ 5,693,077
Adjustments:		
Retirement benefit costs	568,950	602,406
Depreciation	3,180,687	2,937,914
Amortization of intangible assets	1,866,935	1,617,823
Provision for warranties	4,007,458	2,678,950
Income tax expense	2,964,329	2,266,485
Loss on foreign currency translation, net	249,758	30,813
Loss on disposals of PP&E, net	127,690	33,921
Interest income, net	(103,131)	(44,071)
Gain on share of earnings of equity-accounted investees, net	(1,635,777)	(1,278,591)
Cost of sales from financial services, net	7,439,938	6,229,723
Impairment loss on investments in associates	143,186	13,332
Others	1,445,915	688,884
	<u>20,255,938</u>	<u>15,777,589</u>
Changes in operating assets and liabilities:		
Decrease (increase) in trade notes and accounts receivable	(1,325,728)	280,750
Increase in other receivables	622,992	(161,098)
Decrease (increase) in other financial assets	1,423,023	237,835
Decrease (increase) in inventories	(2,721,100)	177,234
Increase in other assets	(83,879)	(381,923)
Increase in trade notes and accounts payable	1,146,082	555,739
Increase in other payables	2,186,971	13,702
Increase in other liabilities	2,086,192	1,057,959
Decrease in other financial liabilities	(1,597)	(11,583)
Decrease in net defined benefit liabilities	(573,780)	(678,416)
Payment of severance benefits	(100,001)	(79,930)
Decrease in provisions	(3,796,018)	(3,261,759)
Changes in financial services receivables	(8,457,539)	(9,551,305)
Investment in operating leases	(4,689,798)	(7,649,654)
Others	361,523	(835,327)
	<u>(13,922,657)</u>	<u>(20,287,776)</u>
Cash generated from operations	<u>₩ 14,316,895</u>	<u>₩ 1,182,890</u>

(2) Major non-cash transactions not stated on the consolidated statements of cash flows from investing and financing activities for the years ended December 31, 2022 and 2021 are as follows.

Description	2022	2021
	(In millions of Korean Won)	
Reclassification of the current portion of long-term debt and debentures	₩ 24,891,478	₩ 21,149,425
Reclassification of construction-in-progress to PP&E	3,525,985	3,843,940
Reclassification of construction-in-progress to intangible assets	186,210	123,107

(3) Changes in liabilities arising from financial activities for the year ended December 31, 2022 are as follows.

Description	Beginning of the year	Cash flows from financing activities	Changes from non-cash transactions				End of the year
			Reclassified to current portion	Effect of exchange rate changes	Present value discounts	Others(*)	
			(In millions of Korean Won)				
Short-term borrowings (including current portion)	₩ 33,666,738	₩ (22,985,947)	₩ 24,891,478	₩ 684,515	₩ 56,738	₩ 627,089	₩ 36,940,611
Long-term debts	10,667,731	6,925,739	(5,432,473)	115,999	7,656	497	12,285,149
Debentures	63,458,809	16,381,780	(19,459,005)	2,524,323	18,593	35,560	62,960,060

(*) Others include transfers from or to other accounts and others.

Changes in liabilities arising from financial activities for the year ended December 31, 2021 are as follows.

Description	Beginning of the year	Cash flows from financing activities	Changes from non-cash transactions				End of the year
			Reclassified to current portion	Effect of exchange rate changes	Present value discounts	Others(*)	
			(In millions of Korean Won)				
Short-term borrowings (including current portion)	₩ 29,884,675	₩ (19,812,277)	₩ 21,149,425	₩ 1,649,562	₩ 18,765	₩ 776,588	₩ 33,666,738
Long-term debts	12,726,724	3,853,657	(6,285,807)	338,631	10,831	23,695	10,667,731
Debentures	48,795,361	26,862,597	(14,863,618)	2,536,702	23,103	104,664	63,458,809

(*) Others include transfers from or to other accounts and others.

37. **RISK MANAGEMENT:**

(1) Capital risk management

The Group manages its capital to maintain an optimal capital structure for maximizing profit of its shareholder and reducing the cost of capital. Debt to equity ratio calculated as total liabilities divided by total equity is used as an index to manage the Group's capital. The overall capital risk management policy is consistent with that of the prior period. Debt to equity ratios as of December 31, 2022 and December 31, 2021 are as follows.

Description	December 31, 2022		December 31, 2021	
	(In millions of Korean Won)			
Total liabilities	₩	164,845,917	₩	151,330,626
Total equity		90,896,545		82,615,789
Debt-to-equity ratio		181.4%		183.2%

(2) Financial risk management

The Group is exposed to various financial risks such as market risk (foreign exchange risk, interest rate risk and price risk), credit risk and liquidity risk related to its financial instruments. The purpose of risk management of the Group is to identify potential risks related to financial performance and reduce, eliminate and evade those risks to an acceptable level of risks to the Group. Overall, the Group's financial risk management policy is consistent with the prior period policy.

1) Market risk

The Group is mainly exposed to financial risks arising from changes in foreign exchange rates and interest rates. Accordingly, the Group uses financial derivative contracts to hedge and to manage its interest rate risk and foreign currency risk.

a) Foreign exchange risk management

The Group is exposed to various foreign exchange risks by making transactions in foreign currencies. The Group is mainly exposed to foreign exchange risk in USD, EUR, JPY and others.

The Group manages foreign exchange risk by matching the inflow and the outflow of foreign currencies according to each currency and maturity, and by adjusting the foreign currency settlement date based on its exchange rate forecast. The Group uses foreign exchange derivatives, such as currency forward, currency swap, and currency option; as hedging instruments. However, speculative foreign exchange trade on derivative financial instruments is prohibited.

Sensitivity analysis for a 5% change in exchange rate of the functional currency against each foreign currency on profit before income tax as of December 31, 2022 is as follows.

Foreign Currency	Foreign Exchange Rate Sensitivity	
	Increase by 5%	Decrease by 5%
	(In millions of Korean Won)	
USD	₩ 111,585	₩ (111,585)
EUR	20,435	(20,435)
JPY	(3,585)	3,585

b) Interest rate risk management

The Group has borrowings with fixed or variable interest rates. Also, the Group is exposed to interest rate risk arising from financial instruments with variable interest rates. To manage the interest rate risk, the Group maintains an appropriate balance between borrowings with fixed and variable interest rates for short-term borrowings and has a policy to borrow funds with fixed interest rates to avoid the future cash flow fluctuation risk for long-term debt if possible. The Group manages its interest rate risk through regular assessments of the change in market conditions and the adjustments in nature of its interest rates.

Sensitivity analysis for a 1% change in interest rates on profit before income tax as of December 31, 2022 is as follows.

Accounts	Interest Rate Sensitivity	
	Increase by 1%	Decrease by 1%
	(In millions of Korean Won)	
Cash and cash equivalents	₩ 35,897	₩ (35,897)
Financial assets measured at FVPL	1,644	(1,644)
Short-term and long-term financial instruments	15,584	(15,584)
Borrowings and debentures	(99,610)	99,610

The Company's subsidiaries, HYUNDAI CARD CO., LTD. and HYUNDAI CAPITAL SERVICES, INC., that are operating financial business, are managing interest rate risk by utilizing value at risk (VaR). VaR is defined as a threshold value which is a statistical estimate of the maximum potential loss based on normal distribution. As of December 31, 2022 and December 31, 2021, the amounts of interest rate risk measured at VaR are ₩135,241 million and ₩182,864 million, respectively.

c) Price risk

The Group is exposed to market price fluctuation risk arising from equity instruments. As of December 31, 2022, the amounts of financial assets measured at FVPL and financial assets measured at FVOCI are ₩57,556 million and ₩2,340,388 million, respectively.

2) Credit risk

The Group is exposed to credit risk when a counterparty defaults on its contractual obligation resulting in a financial loss for the Group. The Group operates a policy to transact with counterparties who only meet a certain level of credit rating which was evaluated based on the counterparty's financial conditions, default history, and other factors. The credit risk in the liquid funds and derivative financial instruments is limited as the Group transacts only with financial institutions with high credit-ratings assigned by international credit-rating agencies. Except for the guarantee of indebtedness discussed in Note 39, the book value of financial assets in the consolidated financial statements represents the maximum amounts of exposure to credit risk. In addition, the Company's subsidiaries, HYUNDAI CARD CO., LTD. and HYUNDAI CAPITAL SERVICES, INC., that are operating financial business, assesses their credit stability according to their internal credit ratings and manage credit risk concentrations by debtor. As of December 31, 2022, credit risk concentrations are 87% for households and 13% for companies.

3) Liquidity risk

The Group manages liquidity risk based on maturity profile of its funding. The Group analyses and reviews actual cash outflow and its budget to match the maturity of its financial liabilities to that of its financial assets.

The Group retains an appropriate level of deposit to cope with uncertainty caused by the inherent nature of the industry which is sensitive to economic fluctuation and to invest in R&D constantly.

In addition, the Group has agreements with financial institutions related to trade financing and overdraft to mitigate any significant unexpected market deterioration. Also, the Group continues to strengthen its credit rates to secure a stable financing capability.

The Group's maturity analysis of its non-derivative liabilities according to their remaining contract period before expiration as of December 31, 2022 is as follows.

Description	Remaining contract period				Total
	Not later than one year	Later than one year and not later than five years	Later than five years		
(In millions of Korean Won)					
Non-interest-bearing liabilities	₩ 20,918,523	₩ 57,047	₩ -	₩	20,975,570
Interest-bearing liabilities	40,215,791	72,730,956	7,184,077		120,130,824
Financial guarantee	270,448	62,968	88,284		421,700

The maturity analysis is based on the non-discounted cash flows and the earliest maturity date at which payments, i.e. both principal and interest, should be made.

(3) Derivative instruments

The Group enters into derivative instrument contracts such as currency forwards, currency options, currency swaps and interest swaps to hedge its exposure to changes in foreign exchange rate or interest rate.

As of December 31, 2022 and December 31, 2021, the Group recognized an accumulative net profit of ₩183,776 million and net profit of ₩13,980 million, respectively, in accumulated other comprehensive profit or loss, for effective cash flow hedging instruments.

The longest period in which the forecasted transactions are expected to occur is within 111 months as of December 31, 2022.

For the years ended December 31, 2022 and 2021, the Group recognized a net profit of ₩391,801 million and net loss of ₩675,508 million in profit or loss (before tax), respectively, which resulted from the ineffective portion of its cash flow hedging instruments and changes in the valuation of its other non-hedging derivative instruments and others.

In addition, the Company's subsidiaries, HYUNDAI CARD CO., LTD. and HYUNDAI CAPITAL SERVICES, INC., that are engaged in financial services business, use interest rate swaps and currency swaps to hedge the risks of future cash flows, which related to borrowings, debentures and others, due to market interest rate fluctuations and exchange rate fluctuations. As of December 31, 2022, the average hedge ratio is 100%.

38. RELATED-PARTY AND OTHER TRANSACTIONS:

The transactions and balances of receivables and payables within the Group are wholly eliminated in the preparation of consolidated financial statements of the Group.

- (1) For the year ended December 31, 2022, significant transactions arising from operations between the Group and related parties or affiliates by the Monopoly Regulation and Fair Trade Act of the Republic of Korea ("the Act") are as follows.

Description		Sales/proceeds		Purchases/expenses	
		Sales	Others	Purchases	Others
(In millions of Korean Won)					
Entity with significant influence over the Company and its subsidiaries	Hyundai MOBIS Co., Ltd.	₩ 617,886	₩ 15,569	₩ 12,246,389	₩ 74,457
	Mobis Alabama, LLC	175,677	152	1,952,641	6,392
	Mobis Automotive Czech s.r.o.	88	745	2,441,059	24,371
	Mobis India, Ltd.	15,783	3,237	1,310,317	3,340
	Mobis Parts America, LLC	173,649	4,140	1,528,014	825
	Mobis Module CIS, LLC.	67	376	88,339	2,791
	Mobis Parts Europe N.V.	18,037	1,993	622,583	1,064
	Others	68,863	1,480	1,499,679	9,582
Joint ventures and associates	Kia Corporation	1,344,334	781,710	576,677	749,322
	Kia Russia & CIS, LLC	236,563	7	29	-
	Kia Slovakia s.r.o..	106,675	338	706,944	1,751
	Kia Georgia, Inc.	850,880	1,017	42	-
	BHMC	243,336	-	28,184	-
	HMGC	27,747	1,773	44,864	52,023
	Hyundai WIA Corporation	119,339	913	1,039,973	10,837
	Others	838,127	65,143	5,922,155	2,079,207
Other related parties		21,567	3,755	2,531	7
Affiliates by the Act		838,319	121,880	10,962,515	1,152,633

For the year ended December 31, 2021, significant transactions arising from operations between the Group and related parties or affiliates by the Act are as follows.

Description		Sales/proceeds		Purchases/expenses	
		Sales	Others	Purchases	Others
(In millions of Korean Won)					
Entity with significant influence over the Company and its subsidiaries	Hyundai MOBIS Co., Ltd.	₩ 546,326	₩ 141,828	₩ 9,189,407	₩ 80,346
	Mobis Alabama, LLC	200,423	58	1,296,680	47,303
	Mobis Automotive Czech s.r.o.	11	501	1,948,940	12,268
	Mobis India, Ltd.	12,150	2,664	1,060,774	2,263
	Mobis Parts America, LLC	111,115	3,564	1,067,076	1,140
	Mobis Module CIS, LLC	31	315	419,772	31
	Mobis Parts Europe N.V.	16,986	1,450	473,989	746
	Others	62,109	1,788	1,120,565	8,564
Joint ventures and associates	Kia Corporation	1,167,895	726,215	732,297	786,682
	Kia Russia & CIS, LLC	994,790	112	-	-
	Kia Slovakia s.r.o.	97,731	281	671,653	4
	Kia Georgia, Inc.	617,122	1,518	292	-
	BHMC	321,700	-	115,309	18,080
	HMGC	37,287	1,299	103,139	63,877
	Hyundai WIA Corporation	135,431	1,605	1,280,719	14,515
	Others	728,094	64,383	4,505,972	1,816,502
Other related parties		16,780	14,627	3,927	6
Affiliates by the Act		769,822	118,065	8,566,617	922,130

(2) As of December 31, 2022, significant balances related to the transactions between the Group and related parties or affiliates by the Act are as follows.

Description		Receivables (*1,2)		Payables	
		Trade notes and accounts receivable	Other receivables and others	Trade notes and accounts payable	Other payables and others
(In millions of Korean Won)					
Entity with significant influence over the Company and its subsidiaries	Hyundai MOBIS Co., Ltd.	₩ 112,072	₩ 186,427	₩ 2,631,460	₩ 453,605
	Mobis Alabama, LLC	22,829	-	148,988	411
	Mobis Automotive Czech s.r.o.	-	9,924	240,666	-
	Mobis India, Ltd.	-	1,462	176,609	22
	Mobis Parts America, LLC	19,635	95	113,577	-
	Mobis Module CIS, LLC	-	71	804	-
	Mobis Parts Europe N.V.	359	1,328	49,254	-
	Others	21,772	949	115,791	6,847
Joint ventures and associates	Kia Corporation	483,663	383,401	103,109	111,663
	Kia Russia & CIS, LLC	4	24	-	-
	Kia Slovakia s.r.o.	6,018	163	55,100	319
	Kia Georgia, Inc.	59,925	33,682	-	30,404
	Kia America, Inc.	-	10,568	-	19,943
	BHMC	272,134	14,411	-	57
	HMGC	7,738	23,734	5,133	23,306
	Hyundai WIA Corporation	33,157	7,449	171,098	28,850
	Others	169,169	125,220	699,974	1,058,827
Other related parties		1,742	44	13	344
Affiliates by the Act		181,415	68,799	1,242,171	423,944

(*1) The Group has recognized the loss allowance for the related parties' receivables in the amount of ₩958 million as of December 31, 2022 and the impairment loss is recognized in the amount of ₩749 million for the year ended December 31, 2022.

(*2) As of December 31, 2022, outstanding payment of ₩23,592 million of corporate purchase card agreement provided by HYUNDAI CARD CO., LTD. is included. For the year ended December 31, 2022, amount used and repayment of agreement are ₩426,510 million and ₩425,013 million, respectively.

As of December 31, 2021, significant balances related to the transactions between the Group and related parties or affiliates by the Act are as follows.

Description		Receivables (*1,2)		Payables	
		Trade notes and accounts receivable	Other receivables and others	Trade notes and accounts payable	Other payables and others
(In millions of Korean Won)					
Entity with significant influence over the Company and its subsidiaries	Hyundai MOBIS Co., Ltd.	₩ 92,116	₩ 301,436	₩ 1,687,603	₩ 466,862
	Mobis Alabama, LLC	14,344	-	108,355	-
	Mobis Automotive Czech s.r.o.	-	901	194,217	-
	Mobis India, Ltd.	1,370	18	123,770	5
	Mobis Parts America, LLC	31,309	62	101,750	-
	Mobis Module CIS, LLC	15	37	50,666	-
	Mobis Parts Europe N.V.	550	118	47,095	18
	Others	11,339	491	101,671	6,947
Joint ventures and associates	Kia Corporation	328,668	335,571	84,505	121,814
	Kia Russia & CIS, LLC	134,733	48	-	-
	Kia Slovakia s.r.o.	6,832	279	46,186	205
	Kia Georgia, Inc.	91,109	64,378	11,120	96,639
	Kia America, Inc.	-	149,910	9	-
	BHMC	199,426	13,626	12,344	414
	HMGC	6,019	21,752	4,479	37,996
	Hyundai WIA Corporation	31,147	920	185,022	28,048
	Others	209,556	69,666	679,046	920,138
Other related parties		80	710	52	-
Affiliates by the Act		154,455	61,484	905,856	351,422

(*1) The Group has recognized the loss allowance for the related parties' receivables in the amount of ₩209 million as of December 31, 2021 and the reversal of impairment loss is recognized in the amount of ₩56 million for the year ended December 31, 2021.

(*2) As of December 31, 2021, outstanding payment of ₩22,096 million of corporate purchase card agreement provided by HYUNDAI CARD CO., LTD. is included. For the year ended December 31, 2021, amount used and repayment of agreement are ₩383,299 million and ₩406,133 million, respectively.

(3) Significant fund transactions and equity contribution transactions for the year ended December 31, 2022, between the Group and related parties are as follows.

Description	Loans		Borrowings		Equity contribution
	Lending	Collection	Borrowing	Repayment	
	(In thousands of USD Dollar and Chinese Yuan, In millions of Korean won)				
Joint ventures and associates	¥ 15,000	-	\$ 612,000	\$ 600,000	₩ 2,002,648
			₩ 520	₩ 4,252	

Significant fund transactions and equity contribution transactions for the year ended December 31, 2021, between the Group and related parties are as follows.

Description	Loans		Borrowings		Equity contribution
	Lending	Collection	Borrowing	Repayment	
(In millions of Korean won)					
Joint ventures and associates	-	-	₩	7,600	₩ 313,720

For the years ended December 31, 2022 and 2021, the Group received dividends of ₩503,634 million and ₩209,957 million from related parties and affiliates by the Act, respectively and paid dividends of ₩349,958 million and ₩322,421 million to related parties, respectively. During 2022, the Group traded in other financial assets and others of ₩1,710,000 million with HYUNDAI MOTOR SECURITIES Co., Ltd., an associate of the Group. The Group has other financial assets of ₩315,000 million in the consolidated statement of financial position as of December 31, 2022.

For the year ended December 31, 2021, HYUNDAI MOTOR SECURITIES CO., Ltd., an associate of the Group, acquired bonds issued by the consolidated entities, HYUNDAI CAPITAL SERVICES, INC. and HYUNDAI CARD CO., LTD. in amount of ₩10,000 million and ₩20,000 million respectively, and there are no acquired bonds for the year ended December 31, 2022.

- (4) Compensation of registered and unregistered directors, who are considered to be the key management personnel for the years ended December 31, 2022 and 2021 are as follows.

Description	2022	2021
	(In millions of Korean Won)	
Short-term employee salaries	₩ 348,368	₩ 296,733
Retirement benefit costs	53,146	48,906
Other long-term benefits	1,289	1,209
	₩ 402,803	₩ 346,848

- (5) For the year ended December 31, 2022, the Group offer payment guarantee to related parties and affiliates by the Act.

39. **COMMITMENTS AND CONTINGENCIES:**

- (1) As of December 31, 2022, the debt guarantees provided by the Group, excluding the ones provided to the Company's subsidiaries are as follows.

Description	Domestic	Overseas (*)
	(In millions of Korean Won)	
To associates	₩ 28,910	₩ 211,491
To others	3,558	209,224
	₩ 32,468	₩ 420,715

- (*) The guarantee amounts in foreign currencies are translated into Korean Won using the Base Rate announced by Seoul Money Brokerage Services, Ltd. as of December 31, 2022.

- (2) As of December 31, 2022, the Group is involved in domestic and foreign lawsuits as a defendant. In addition, the Group is involved in lawsuits for product liabilities and others. The Group obtains insurance for potential losses which may result from product liabilities and other lawsuits. In addition, as of December 31, 2022, the Group is under investigation by related authorities in relation to the theta 2 engine recall and others, and its results and impacts are unpredictable. The Group is unable to estimate the outcome of the lawsuits and the amount and timing of outflows of resources are uncertain. The Group does not expect the impact on the consolidated financial statements to be significant.
- (3) As of December 31, 2022, a substantial portion of the Group's PP&E is pledged as collateral for various loans and leasehold deposits up to ₩782,803 million. In addition, the Group pledged certain bank deposits, checks and promissory notes, including 213,466 shares of Kia Corporation, as collateral to financial institutions and others. Certain receivables held by the Company's foreign subsidiaries, such as financial services receivables are pledged as collateral for their borrowings.
- (4) As of December 31, 2022, the Group has overdrafts, general loans, and trade-financing agreements with numerous financial institutions including Kookmin Bank, with a combined limit of up to USD 30,000 million, and ₩5,985,200 million.
- (5) As of December 31, 2022, HYUNDAI CAPITAL SERVICES, INC. and HYUNDAI CARD CO., LTD. have entered into agreements for certain borrowings including trigger clauses for the purpose of credit enhancement. If the credit rating of HYUNDAI CAPITAL SERVICES, INC. and HYUNDAI CARD CO., LTD. falls below a certain level, this may result in early repayment of the borrowings or termination of the contracts.
- (6) As of December 31, 2022, the Company has a shareholder agreement with investors of third parties regarding shares of HYUNDAI CARD CO., LTD. and Hyundai Commercial Inc. This includes the call options that allow the Company to buy shares from the investors and the put options that allow the investors to dispose of the shares to the Company.

(7) In December 2019, the Company entered into an agreement to invest ₩1,408,220 million in the construction of new Global Business Centre (GBC). As of December 31, 2022, the Company has recognized relevant liability in the amount of ₩921,278 million in accordance with the agreement with the Seoul government to implement public contributions relating to the new construction project.

(8) Financial instruments with restricted use for the years ended December 31, 2022 and 2021 are as follows.

Description	December 31, 2022		December 31, 2021	
	(In millions of Korean Won)			
Short-term and long-term financial instruments	₩	1,464,888	₩	1,694,904
Cash and cash equivalents		631,954		225,731
Other financial assets		2		2
	₩	2,096,844	₩	1,920,637

40. SEGMENT INFORMATION:

(1) The Group operating segments include vehicle segment, finance segment and others segment. The vehicle segment is engaged in the manufacturing and sale of motor vehicles. The finance segment operates vehicle financing, credit card processing and other financing activities. Others segment includes the R&D, train manufacturing and other activities.

(2) Sales and operating profit by operating segments for the years ended December 31, 2022 and 2021 are as follows.

For the year ended December 31, 2022				
	Vehicle (*1)	Finance	Others	Total
	(In millions of Korean Won)			
Net sales (*2)	₩ 113,718,058	₩ 20,037,912	₩ 8,771,565	₩ 142,527,535
Operating profit	7,393,480	1,844,571	581,718	9,819,769
Inter-company sales	(67,688,701)	(268,245)	(1,666,746)	(69,623,692)

(*1) Operating profit of the vehicle segment include internal transaction adjustments.

(*2) Net sales represent sales from external customers.

For the year ended December 31, 2021				
	Vehicle (*1)	Finance	Others	Total
	(In millions of Korean Won)			
Net sales (*2)	₩ 94,143,019	₩ 16,782,412	₩ 6,685,195	₩ 117,610,626
Operating profit	4,155,765	2,195,377	327,807	6,678,949
Inter-company sales	(52,033,375)	(318,479)	(1,352,273)	(53,704,127)

(*1) Operating profit of the vehicle segment include internal transaction adjustments.

(*2) Net sales represent sales from external customers.

(3) Assets and liabilities by operating segments as of December 31, 2022 are as follows.

December 31, 2022					
	Vehicle	Finance	Others	Consolidation adjustments	Total
	(In millions of Korean Won)				
Total assets	₩ 133,885,205	₩ 135,124,336	₩ 9,793,550	₩ (23,060,629)	₩ 255,742,462
Total liabilities	58,838,578	117,649,362	5,910,506	(17,552,529)	164,845,917
Borrowings and debentures	9,983,190	107,328,133	2,225,394	(7,350,897)	112,185,820

Assets and liabilities by operating segments as of December 31, 2021 are as follows.

	December 31, 2021				
	Vehicle	Finance	Others	Consolidation adjustments	Total
	(In millions of Korean Won)				
Total assets	₩ 121,826,011	₩ 120,951,619	₩ 8,836,191	₩ (17,667,406)	₩ 233,946,415
Total liabilities	54,135,289	104,597,059	5,199,761	(12,601,483)	151,330,626
Borrowings and debentures	12,568,592	96,734,509	2,569,958	(4,079,781)	107,793,278

- (4) Sales by region based on where the Group's entities are located for the years ended December 31, 2022 and 2021 are as follows.

	For the year ended December 31, 2022					
	Korea	North America	Asia	Europe	Others	Total
	(In millions of Korean Won)					
Net sales	₩ 44,725,966	₩ 55,941,024	₩ 15,594,336	₩ 22,117,832	₩ 4,148,377	₩ 142,527,535

	For the year ended December 31, 2021					
	Korea	North America	Asia	Europe	Others	Total
	(In millions of Korean Won)					
Net sales	₩ 41,332,243	₩ 40,750,484	₩ 11,390,768	₩ 21,508,735	₩ 2,628,396	₩ 117,610,626

- (5) Non-current assets by region where the Group's entities are located in as of December 31, 2022 and December 31, 2021 are as follows.

Description	December 31, 2022	December 31, 2021
	(In millions of Korean Won)	
Korea	₩ 33,935,698	₩ 33,323,986
North America	3,211,607	2,967,662
Asia	2,835,528	2,781,728
Europe	2,012,856	2,254,395
Others	623,992	520,729
	42,619,681	41,848,500
Consolidation adjustments	(219,664)	(301,775)
Total (*)	₩ 42,400,017	₩ 41,546,725

- (*) Total amount is the same as summation of PP&E, intangible assets and investment properties.

- (6) There is no single external customer who represents 10% or more of the Group's revenue for the years ended December 31, 2022 and 2021.

41. CONSTRUCTION CONTRACTS:

- (1) Cost, income and loss and claimed construction from construction in progress as of December 31, 2022 and December 31, 2021 are as follows.

Description	December 31, 2022	December 31, 2021
	(In millions of Korean Won)	
Accumulated cost	₩ 14,866,771	₩ 12,658,465
Accumulated income	336,083	146,975
Accumulated construction in process	15,202,854	12,805,440
Progress billing	15,006,020	12,286,456
Due from customers	1,413,886	1,421,108
Due to customers	1,217,052	902,124
Reserve (*)	77,915	79,161

(*) Reserve is recognized as long-term trade notes and accounts receivable in the consolidated financial statements.

- (2) Effects on profit or loss of current and future periods, due from customers related to changes in accounting estimates of total contract revenue and total contract costs of ongoing contracts of Hyundai Rotem, a subsidiary of the Company, as of December 31, 2022 are as follows.

Description	December 31, 2022
	(In millions of Korean Won)
Changes in accounting estimates of total contract revenue	₩ 493,798
Changes in accounting estimates of total contract costs	513,064
Effects on profit or loss of current period	(14,707)
Effects on profit or loss of future periods	(4,559)
Changes in due from customers	(7,202)
Provision for construction loss	38,417

Effects on profit or loss of current and future periods were calculated with estimated total contract costs and estimated total contract revenue based on factors that are considered to be relevant from commencement of the contract to December 31, 2022. Total contract revenue and costs may change in future periods.

- (3) There is no contract as of December 31, 2022, in which contract revenue is recognized using the percentage of completion method based on the input method, that accounted for more than 5% of the Group's revenue in the prior period.

42. BUSINESS COMBINATIONS:

The Group acquired 46.97% of shares in 42dot, Inc. during the year ended December 31, 2022.

The accounting for the business combination at the acquisition date is as follows.

Description	Amount	
	(In millions of Korean Won)	
Total considerations transferred	₩	180,380
Non-controlling interests		(68,033)
Assets and liabilities acquired:		
Current assets		41,468
Non-current assets		145,159
Current liabilities		5,180
Non-current liabilities		384,648
Fair value of identifiable net assets		(203,201)
Goodwill		315,548

The amounts of sales and net loss of the acquiree since the acquisition date included in the consolidated statement of income for the year ended December 31, 2022 are ₩1,226 million and ₩15,855 million, respectively.

43. SUBSEQUENT EVENT:

The Group completed stock retirement of its treasury shares on February 3, 2023 as follows.

Description	Total number of shares	December 31, 2022	
		(In millions of Korean Won)	
Common stock	2,136,681	₩	273,893
Preferred stock	632,707		41,518