



**SHINHAN FINANCIAL GROUP CO., LTD.
AND SUBSIDIARIES**

Consolidated Financial Statements

December 31, 2022 and 2021

(With Independent Auditor's Report Thereon)

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Independent Auditor's Report

(English Translation of a Report Originally Issued in Korean)

To the Board of Directors and Shareholders of Shinhan Financial Group Co., Ltd.

Opinion

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

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

Basis for Opinion

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

Key Audit Matters

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

1. Expected Credit Losses on Loans Measured at Amortized Cost

Why it is determined to be a key audit matter:

The impairment guidance under K-IFRS 1109 *Financial Instruments* requires determination of significant increases in credit risk and measurement of expected credit losses using forward-looking information and others. Accordingly, the Group developed a new measurement model utilizing various types of information, which requires a higher level of management's interpretation and judgment.

The Group measures expected credit losses on loans measured at amortized cost based on both individual and collective assessments. Individual assessment of expected credit losses is performed based on estimates of future forecast cash flow with a relatively high degree of management's estimates and judgments, and collective assessment of expected credit losses is involved with a variety and complex variable inputs and assumptions that requires management's estimates and judgments. Due to these facts, expected credit losses of loans measured at amortized costs are determined as a key audit matter.

As described in Note 12, loans measured at amortized cost subject to individual or collective assessments amount to ₩ 415,942,374 million, with allowances for credit losses of ₩ 3,650,863 million as of December 31, 2022.

How our audit addressed the key audit matter:

(1) Assessment of expected credit losses on an individual basis

We obtained an understanding and evaluated the processes and controls relating to the assessment of expected credit losses on an individual basis. In particular, we focused our effort on the assumptions used in estimating future cash

flows. We evaluated whether management's estimation was reasonable and we assessed the key assumptions in the cash flow projection including growth rate of entities subject to individual assessment and collateral valuation. As part of these procedures, we assessed whether sales growth rate, operating income ratio, and assumptions on investment activities were consistent with historical operating performance and current market conditions. Furthermore, we assessed the appropriateness of collateral valuation by conducting our own research on recent property prices and engaged independent appraisal specialists in assessing reasonableness of appraisal reports, models and methodologies used by management.

(2) Assessment of expected credit losses on a collective basis

We obtained an understanding and evaluated the processes and controls relating to management's calculation of expected credit losses on a collective basis in accordance with impairment requirements under K-IFRS 1109 *Financial Instruments*. As explained in Note 3(8), management assesses credit ratings to recognize lifetime expected credit losses on loans with significant increase in credit risk and impaired loans. Other than these cases, management recognizes 12-months of expected credit losses. To calculate all expected credit losses, management has applied forward-looking information, possible multiple scenarios, probability of default, loss given default and other assumptions estimated through its internal procedures and controls implemented for various assumptions.

We assessed the design and operating effectiveness of controls relating to credit ratings that reasonably reflect both qualitative and quantitative information. Our testing over the accuracy and reliability of the information included agreeing qualitative and quantitative information with relevant evidence.

We reviewed the appropriateness of management policies and procedures to determine significant increases in credit risk, and tested reasonableness of expected credit loss model applied by each of the three stages (Stage 1, 2 and 3) depending on how significantly credit risk was increased.

Our audit effort involved risk specialists in verifying the reasonability and possibility of forward-looking information and multiple scenarios produced by management. Also, our audit involved risk specialists to statistically analyze the correlation between forward-looking information and probability of default or loss given default. We assessed the appropriateness of methodologies for adjusting the probability of default to reflect forward-looking information on estimation of expected credit losses. We further tested the reasonableness and mathematical accuracy of the information through recalculation and inspection of supporting data.

We reviewed the methodologies used by management to verify that probability of default and loss given default were calibrated using sufficient and reasonable historical data. We determined that the default and loss data used were appropriately gathered and applied in accordance with internal control procedures. In addition, we assessed reasonableness and accuracy of probability of default and loss given default through procedures including recalculation, and evaluated management's default and loss data by agreeing them with relevant evidence.

2. Valuation of Over-The-Counter Derivatives Classified as Level 3 Subject to Internal Valuation Models

Why it is determined to be a key audit matter :

Fair value of large portion of over-the-counter derivatives in the consolidated financial statements is calculated through the use of an internally developed valuation system. Judgment is required in estimating the fair value of these derivatives held by Shinhan Securities Co., Ltd. in determining appropriate models, assumptions and inputs. Given the complexity of estimation and the extent of judgment involved in valuing these over-the-counter derivatives, we considered this to be a key audit matter. Over-the-counter derivatives of Shinhan Securities Co., Ltd. subject to fair value measurement are financial liabilities designated as fair value through profit or loss related to derivative linked securities and financial assets at fair value through profit or loss (See Note 4(5)) that amount to ₩ 9,001,730 million as of December 31, 2022.

How our audit addressed the key audit matter :

We obtained an understanding and evaluated processes and controls in relation to fair value measurement. Our focus was particularly on the accuracy of underlying transaction data used and mathematical calculation in accordance with management's internal valuation methodologies.

We assessed design and tested operating effectiveness of controls over accuracy and completeness of key inputs such as underlying transaction data (notional amount, interest rate, maturity etc.) used in management's

determination of estimated fair value. We tested transaction data used in the valuation by examining supporting evidence including contracts and trade confirmations.

We also tested the controls over periodic verification of management's internal valuation system, verification of input data, and recalculation of output data to ensure the accuracy of over-the-counter derivative valuation. We involved our derivative valuation specialist to independently estimate fair values utilizing independent valuation models and variables to see if management's valuation is outside our ranges.

Other Matter

Auditing standards and their application in practice vary among countries. The procedures and practices used 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.

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

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

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

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

- Identify and assess the risks of material misstatement of the 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 entity's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the Group audit. We remain solely responsible for our audit opinion.

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

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

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

The engagement partner on the audit resulting in this independent auditor's report is Sungeun Jin, Certified Public Accountant.

/s/ Samil PricewaterhouseCoopers
Seoul, Korea
March 6, 2023

<p>This report is effective as of March 6, 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 there is a possibility that the above audit report may have to be revised to reflect the impact of such subsequent events or circumstances, if any.</p>
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SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Consolidated Statements of Financial Position

As of December 31, 2022 and 2021

(In millions of won)

	Note	2022	2021
Assets			
Cash and due from banks at amortized cost	4, 8, 12, 19	₩ 29,532,235	28,453,404
Financial assets at fair value through profit or loss	4, 9, 19	56,643,670	62,403,759
Derivative assets	4, 10	6,461,796	3,799,189
Securities at fair value through other comprehensive income	4, 11, 19	63,661,719	64,838,323
Securities at amortized cost	4, 11, 19	57,971,493	49,930,076
Loans at amortized cost	4, 12	412,291,511	389,137,156
Property and equipment, net	13, 18, 19	4,011,097	4,046,164
Intangible assets	14	5,807,836	5,644,782
Investments in associates	15	2,904,474	2,913,745
Current tax receivable		26,307	15,159
Deferred tax assets	41	1,052,333	134,854
Investment property	16	363,108	675,391
Net defined benefit assets	25	619,653	142,020
Other assets	4, 12, 17, 19	34,507,838	35,973,754
Assets held for sale		29,211	44,409
Total assets		₩ 675,884,281	648,152,185

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES
Consolidated Statements of Financial Position (Continued)

As of December 31, 2022 and 2021

<i>(In millions of won)</i>	<u>Note</u>	<u>2022</u>	<u>2021</u>
Liabilities			
Deposits	4, 20	₩ 383,010,745	364,896,675
Financial liabilities at fair value through profit or loss	4, 21	1,146,110	1,369,225
Financial liabilities designated at fair value through profit or loss	4, 22	8,367,368	8,023,870
Derivative liabilities	4, 10	7,704,705	3,586,564
Borrowings	4, 23	49,279,175	43,167,065
Debt securities issued	4, 24	77,288,783	80,149,363
Net defined benefit liabilities	25	14,664	51,204
Provisions	26	1,266,314	1,166,856
Current tax payable		702,143	702,660
Deferred tax liabilities	41	169,956	175,947
Liabilities under insurance contracts	27	54,315,124	54,333,498
Other liabilities	4, 28	41,488,772	40,990,836
Total liabilities		<u>624,753,859</u>	<u>598,613,763</u>
Equity			
	29		
Capital stock		2,969,641	2,969,641
Hybrid bonds		4,196,968	3,334,531
Capital surplus		12,095,043	12,095,043
Capital adjustments		(582,859)	(664,429)
Accumulated other comprehensive loss		(3,582,720)	(984,936)
Retained earnings		33,342,633	30,541,300
Total equity attributable to equity holders of Shinhan Financial Group Co., Ltd.		48,438,706	47,291,150
Non-controlling interests		2,691,716	2,247,272
Total equity		<u>51,130,422</u>	<u>49,538,422</u>
Total liabilities and equity		<u>₩ 675,884,281</u>	<u>648,152,185</u>

See accompanying notes to the consolidated financial statements.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Consolidated Statements of Comprehensive Income

For the years ended December 31, 2022 and 2021

<i>(In millions of won)</i>	Note	2022	2021
Interest income			
Financial assets at fair value through other comprehensive income and at amortized cost	₩	19,167,750	14,027,418
Financial assets at fair value through profit or loss		940,916	696,812
		<u>20,108,666</u>	<u>14,724,230</u>
Interest expense		<u>(7,644,985)</u>	<u>(3,954,905)</u>
Net interest income	31	12,463,681	10,769,325
Fees and commission income		4,110,576	4,139,885
Fees and commission expense		<u>(1,585,010)</u>	<u>(1,464,888)</u>
Net fees and commission income	32	2,525,566	2,674,997
Insurance income		6,890,905	6,484,523
Insurance expenses		<u>(7,718,138)</u>	<u>(7,259,909)</u>
Net insurance expenses	27	(827,233)	(775,386)
Dividend income	33	142,529	124,531
Net gain (loss) on financial instruments at fair value through profit or loss	34	(304,113)	1,103,631
Net gain on financial instruments at fair value through profit or loss (overlay approach)	9	313,211	43,003
Net gain (loss) on financial instruments designated at fair value through profit or loss	35	576,942	(88,301)
Net gain on foreign currency transaction		180,304	222,819
Net gain (loss) on disposal of securities at fair value through other comprehensive income	11	(127,393)	85,596
Net loss on disposal of securities at amortized cost	11	(101)	(319)
Provision for allowance for credit loss	36	(1,292,296)	(974,685)
General and administrative expenses	37	(6,013,514)	(5,743,088)
Other operating expenses, net	39	<u>(1,749,504)</u>	<u>(1,490,027)</u>
Operating income		5,888,079	5,952,096
Equity method income	15	121,697	158,600
Other non-operating income (expense), net	40	<u>339,475</u>	<u>(527,032)</u>
Profit before income taxes		<u>6,349,251</u>	<u>5,583,664</u>
Income tax expense	41	<u>1,617,088</u>	<u>1,471,036</u>
Profit for the year	₩	<u>4,732,163</u>	<u>4,112,628</u>

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES
Consolidated Statements of Comprehensive Income (Continued)

For the years ended December 31, 2022 and 2021

<i>(In millions of won, except earnings per share data)</i>	Note	2022	2021
Other comprehensive income for the year, net of income tax	29		
Items that are or may be reclassified to profit or loss:			
Loss on securities at fair value through other comprehensive income	₩	(2,447,712)	(879,671)
Loss on financial instruments at fair value through profit or loss (overlay approach)	9	(220,097)	(20,098)
Equity in other comprehensive income (loss) of associates		(15,758)	2,748
Foreign currency translation adjustments for foreign operations		14,732	252,308
Net change in unrealized fair value of cash flow hedges		(70,494)	21,700
Other comprehensive loss of separate account		(113,207)	(41,273)
		<u>(2,852,536)</u>	<u>(664,286)</u>
Items that will not be reclassified to profit or loss:			
Remeasurements of the net defined benefit liabilities/assets)		251,991	43,277
Equity in other comprehensive loss of associates		(5)	(2)
Valuation gain on securities at fair value through other comprehensive income		5,133	35,441
Gain (loss) on disposal of securities at fair value through other comprehensive income		2,134	(29,421)
Changes in own credit risk on financial liabilities designated at fair value through profit of loss		(4,749)	(2,798)
		<u>254,504</u>	<u>46,497</u>
Total other comprehensive loss, net of income tax		<u>(2,598,032)</u>	<u>(617,789)</u>
Total comprehensive income for the year	₩	<u>2,134,131</u>	<u>3,494,839</u>
Profit attributable to:			
Equity holders of Shinhan Financial Group Co., Ltd.	29, 42 ₩	4,642,292	4,019,254
Non-controlling interests		89,871	93,374
	₩	<u>4,732,163</u>	<u>4,112,628</u>
Total comprehensive income attributable to:			
Equity holders of Shinhan Financial Group Co., Ltd.	₩	2,045,190	3,402,925
Non-controlling interests		88,941	91,914
	₩	<u>2,134,131</u>	<u>3,494,839</u>
Earnings per share:	29, 42		
Basic and diluted earnings per share in won	₩	<u>8,454</u>	<u>7,308</u>

See accompanying notes to the consolidated financial statements.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Consolidated Statements of Changes in Equity

For the years ended December 31, 2021

(In millions of won)

	Equity attributable to equity holders of Shinhan Financial Group Co., Ltd.									
	Capital stock	Hybrid bonds	Capital surplus	Capital adjustments	Accumulated other comprehensive income (loss)	Retained earnings	Sub-total	Non-controlling interests	Total	
Balance at January 1, 2021	₩	2,969,641	2,179,934	12,234,939	(687,935)	(404,181)	27,777,169	44,069,567	2,287,291	46,356,858
Total comprehensive income for the year										
Profit for the year		-	-	-	-	4,019,254	4,019,254	93,374		4,112,628
Other comprehensive income (loss), net of income tax:										
Loss on valuation and disposal of securities at fair value through other comprehensive income		-	-	-	(871,104)	-	(871,104)	(2,547)		(873,651)
Loss on financial instruments at fair value through profit or loss (overlay approach)		-	-	-	(20,098)	-	(20,098)	-		(20,098)
Equity in other comprehensive income of associates		-	-	-	2,746	-	2,746	-		2,746
Foreign currency translation adjustments for foreign operations		-	-	-	251,842	-	251,842	466		252,308
Net change in unrealized fair value of cash flow hedges		-	-	-	21,700	-	21,700	-		21,700
Other comprehensive loss of separate account		-	-	-	(41,273)	-	(41,273)	-		(41,273)
Remeasurements of the net defined benefit liabilities (assets)		-	-	-	42,656	-	42,656	621		43,277
Changes in own credit risk on financial liabilities designated at fair value through profit or loss		-	-	-	(2,798)	-	(2,798)	-		(2,798)
Total other comprehensive loss		-	-	-	(616,329)	-	(616,329)	(1,460)		(617,789)
Total comprehensive income (loss)		-	-	-	(616,329)	4,019,254	3,402,925	91,914		3,494,839
Other changes in equity										
Dividends		-	-	-	-	(803,838)	(803,838)	-		(803,838)
Interim dividends		-	-	-	-	(299,082)	(299,082)	-		(299,082)
Dividends to hybrid bonds		-	-	-	-	(116,388)	(116,388)	-		(116,388)
Issuance of hybrid bonds		-	1,154,597	-	-	-	1,154,597	-		1,154,597
Acquisition of treasury stock (Note 29)		-	-	-	(79)	-	(79)	-		(79)
Disposal of treasury stock (Note 29)		-	-	-	23,589	-	23,589	-		23,589
Change in other capital adjustments		-	-	(105)	(4)	(241)	(350)	-		(350)
Change in other non-controlling interests		-	-	(139,791)	-	-	(139,791)	(131,933)		(271,724)
		-	1,154,597	(139,896)	23,506	(1,219,549)	(181,342)	(131,933)		(313,275)
Reclassification of OCI retained earnings		-	-	-	-	35,574	(35,574)	-		-
Balance at December 31, 2021	₩	2,969,641	3,334,531	12,095,043	(664,429)	(984,936)	30,541,300	47,291,150	2,247,272	49,538,422

See accompanying notes to the consolidated financial statements.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Consolidated Statements of Changes in Equity (Continued)

For the years ended December 31, 2022

(In millions of won)

	Equity attributable to equity holders of Shinhan Financial Group Co., Ltd.								Non-controlling interests	Total
	Capital stock	Hybrid bonds	Capital surplus	Capital adjustments	Accumulated other comprehensive income (loss)	Retained earnings	Sub-total			
Balance at January 1, 2022	₩	2,969,641	3,334,531	12,095,043	(664,429)	(984,936)	30,541,300	47,291,150	2,247,272	49,538,422
Total comprehensive income for the year										
Profit for the year		-	-	-	-	-	4,642,292	4,642,292	89,871	4,732,163
Other comprehensive income (loss), net of income tax:										
Loss on valuation and disposal of securities at fair value through other comprehensive income		-	-	-	-	(2,436,859)	-	(2,436,859)	(3,586)	(2,440,445)
Loss on financial instruments at fair value through profit or loss (overlay approach)		-	-	-	-	(220,097)	-	(220,097)	-	(220,097)
Equity in other comprehensive loss of associates		-	-	-	-	(15,763)	-	(15,763)	-	(15,763)
Foreign currency translation adjustments for foreign operations		-	-	-	-	12,936	-	12,936	1,796	14,732
Net change in unrealized fair value of cash flow hedges		-	-	-	-	(70,494)	-	(70,494)	-	(70,494)
Other comprehensive loss of separate account		-	-	-	-	(113,207)	-	(113,207)	-	(113,207)
Remeasurements of the net defined benefit liabilities (assets)		-	-	-	-	251,131	-	251,131	860	251,991
Changes in own credit risk on financial liabilities designated at fair value through profit or loss		-	-	-	-	(4,749)	-	(4,749)	-	(4,749)
Total other comprehensive loss		-	-	-	-	(2,597,102)	-	(2,597,102)	(930)	(2,598,032)
Total comprehensive income(loss)		-	-	-	-	(2,597,102)	4,642,292	2,045,190	88,941	2,134,131
Other changes in equity										
Dividends		-	-	-	-	-	(747,705)	(747,705)	-	(747,705)
Interim dividends		-	-	-	-	-	(637,598)	(637,598)	-	(637,598)
Dividends to hybrid bonds		-	-	-	-	-	(156,277)	(156,277)	-	(156,277)
Issuance of hybrid bonds		-	997,120	-	-	-	-	997,120	-	997,120
Repayments of hybrid bonds		-	(134,683)	-	(317)	-	-	(135,000)	-	(135,000)
Acquisition of treasury stock (Note 29)		-	-	-	(300,000)	-	-	(300,000)	-	(300,000)
Retirement of treasury stock (Note 29)		-	-	-	300,000	-	(300,061)	(61)	-	(61)
Change in other capital adjustments		-	-	-	(3,904)	-	-	(3,904)	-	(3,904)
Change in other non-controlling interests		-	-	-	85,791	-	-	85,791	355,503	441,294
		-	862,437	-	81,570	-	(1,841,641)	(897,634)	355,503	(542,131)
Reclassification of OCI retained earnings		-	-	-	-	(682)	682	-	-	-
Balance at December 31, 2022	₩	2,969,641	4,196,968	12,095,043	(582,859)	(3,582,720)	33,342,633	48,438,706	2,691,716	51,130,422

See accompanying notes to the consolidated financial statements

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Consolidated Statements of Cash Flows

For the years ended December 31, 2022 and 2021

<i>(In millions of won)</i>	<u>Note</u>	<u>2022</u>	<u>2021</u>
Cash flows from operating activities			
Profit before income taxes	₩	6,349,251	5,583,664
Adjustments for:			
Interest income	31	(20,108,666)	(14,724,230)
Interest expense	31	7,644,985	3,954,905
Dividend income	33	(142,529)	(124,531)
Net fees and commission expense	32	126,665	124,486
Net insurance loss	27	404,300	1,356,064
Net loss (gain) on financial instruments at fair value through profit or loss	34	541,832	(174,279)
Net loss on derivatives	10	719,766	64,128
Net gain on financial instruments at fair value through profit or loss (overlay approach)	9	(313,211)	(43,003)
Net loss (gain) on foreign currency translation		68,860	(21,130)
Net gain on financial instruments designated at fair value through profit or loss	35	(806,741)	(423,914)
Net loss (gain) on disposal of securities at fair value through other comprehensive income	11	127,393	(85,596)
Net loss on disposal of securities at amortized cost	11	101	319
Provision for allowance for credit loss	36	1,292,296	974,685
Employee benefit	25	194,952	221,259
Depreciation and other amortization	37	1,053,820	902,692
Other operating expense	39	427,362	457,359
Equity method income, net	15	(121,697)	(158,600)
Other non-operating expense (income)	40	(437,203)	447,138
		<u>(9,327,715)</u>	<u>(7,252,248)</u>
Changes in assets and liabilities:			
Due from banks at amortized cost		(1,059,733)	2,690,535
Securities at fair value through profit or loss		5,535,664	(2,934,113)
Due from banks at fair value through profit or loss		-	92,944
Loans at fair value through profit or loss		(721,736)	341,140
Financial instruments designated at fair value through profit or loss		1,100,240	(9,466)
Derivative instruments		726,249	14,548
Loans at amortized cost		(24,109,475)	(28,740,535)
Other assets		152,673	(6,920,943)

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES
Consolidated Statements of Cash Flows (Continued)

For the years ended December 31, 2022 and 2021

<i>(In millions of won)</i>	<u>Note</u>	<u>2022</u>	<u>2021</u>
Deposits	₩	18,309,172	36,948,828
Liabilities for defined benefit obligations		(341,740)	(261,750)
Provisions		(59,400)	(25,526)
Other liabilities		211,712	(4,489,460)
		<u>(256,374)</u>	<u>(3,293,798)</u>
Income taxes paid		(1,693,408)	(1,149,965)
Interest received		19,205,026	14,325,392
Interest paid		(6,773,240)	(4,114,027)
Dividends received		89,020	100,936
Net cash inflow from operating activities		<u>7,592,560</u>	<u>4,199,954</u>
Cash flows from investing activities			
Decrease in financial instruments at fair value through profit or loss		5,175,744	4,362,417
Increase in financial instruments at fair value through profit or loss		(5,976,774)	(5,409,361)
Proceeds from disposal of securities at fair value through other comprehensive income		21,493,133	29,991,033
Acquisition of securities at fair value through other comprehensive income		(23,515,761)	(37,575,878)
Proceeds from disposal of securities at amortized cost		5,397,628	5,203,156
Acquisition of securities at amortized cost		(13,125,363)	(7,343,501)
Proceeds from disposal of property and equipment	13, 40	93,511	20,068
Acquisition of property and equipment	13	(326,546)	(334,874)
Proceeds from disposal of intangible assets	14, 40	23,040	15,867
Acquisition of intangible assets	14	(616,581)	(555,340)
Proceeds from disposal of investments in associates	15	516,735	357,401
Acquisition of investments in associates	15	(657,836)	(588,827)
Proceeds from disposal of investment property	16, 40	259,453	276
Acquisition of investment property	16	(6,883)	(8,292)
Proceeds from disposal of assets held for sale		624,837	47,792
Change in other assets		(238,869)	(220,636)
Proceeds from settlement of hedging derivative financial instruments		12,585	61,502
Payment of settlement of hedging derivative financial instruments		(135,669)	(53,313)
Net cash flow from business combination	47	(27,840)	-
Net cash outflow from investing activities		<u>(11,031,456)</u>	<u>(12,030,510)</u>

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Consolidated Statements of Cash Flows (Continued)

For the years ended December 31, 2022 and 2021

<i>(In millions of won)</i>	<u>Note</u>	<u>2022</u>	<u>2021</u>
Cash flows from financing activities			
Issuance of hybrid bonds	₩	997,120	1,154,597
Repayments of hybrid bonds		(135,000)	-
Net increase in borrowings		6,145,271	849,212
Proceeds from debt securities issued		39,521,966	28,561,082
Repayments of debt securities issued		(41,777,940)	(24,143,252)
Increase in financial liabilities designated at fair value through profit or loss		49,993	-
Change in other liabilities		239,591	83,067
Dividends paid		(1,540,871)	(1,218,761)
Proceeds from settlement of hedging derivative financial instruments		2,391,556	1,223,033
Payment of settlement of hedging derivative financial instruments		(2,319,927)	(1,210,366)
Acquisition of treasury stock		(300,000)	(79)
Disposition and redemption of treasury stock		(60)	23,588
Increase(decrease) in non-controlling interests		382,929	(84,998)
Redemption of lease liabilities		(259,913)	(275,273)
Payment of stock issuance costs		-	(105)
Net cash inflow from financing activities		<u>3,394,715</u>	<u>4,961,745</u>
Effect of exchange rate changes on cash and cash equivalents held		<u>(57,837)</u>	<u>112,854</u>
Decrease in cash and cash equivalents		<u>(102,018)</u>	<u>(2,755,957)</u>
Cash and cash equivalents at beginning of year	44	<u>24,103,443</u>	<u>26,859,400</u>
Cash and cash equivalents at end of year	44	<u>₩ 24,001,425</u>	<u>24,103,443</u>

See accompanying notes to the consolidated financial statements.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

1. Reporting entity

Shinhan Financial Group Co., Ltd., the controlling company, and its subsidiaries included in consolidation (collectively the “Group”) are summarized as follows:

(a) Controlling company

Shinhan Financial Group Co., Ltd. (the “Shinhan Financial Group” or the “Company”), the controlling company, is incorporated on September 1, 2001 for the main purposes of controlling, managing and funding Shinhan Bank, Shinhan Securities Co., Ltd., Shinhan Capital Co., Ltd. and Shinhan BNP Asset Management Co., Ltd. by way of share transfers. The total capital stock amounted to ₩1,461,721 million. Also, Shinhan Financial Group’s shares have been listed on the Korea Exchange since September 10, 2001 and Shinhan Financial Group’s American Depositary Shares have been registered with the Securities and Exchange Commission (SEC) and listed on the New York Stock Exchange since September 16, 2003.

(b) Ownership of Shinhan Financial Group and its major consolidated subsidiaries as of December 31, 2022 and 2021 are as follows:

Investor	Investee(*1)	Location	Date of financial information	Ownership (%)	
				December 31, 2022	December 31, 2021
Shinhan Financial Group Co., Ltd.	Shinhan Bank	Korea	December 31	100.0	100.0
"	Shinhan Card Co., Ltd.	"	"	100.0	100.0
"	Shinhan Securities Co., Ltd. (*2)	"	"	100.0	100.0
"	Shinhan Life Insurance Co., Ltd.	"	"	100.0	100.0
"	Shinhan Capital Co., Ltd.	"	"	100.0	100.0
"	Jeju Bank	"	"	75.3	75.3
"	Shinhan Credit Information Co., Ltd. (*3)	"	"	-	100.0
"	Shinhan Alternative Investment Management Inc. (*4)	"	"	-	100.0
"	Shinhan Asset Management Co., Ltd. (*4)	"	"	100.0	100.0
"	SHC Management Co., Ltd.	"	"	100.0	100.0
"	Shinhan DS	"	"	100.0	100.0
"	Shinhan Savings Bank	"	"	100.0	100.0
"	Shinhan Asset Trust Co., Ltd. (*5)	"	"	100.0	60.0
"	Shinhan AITAS Co., Ltd.	"	"	99.8	99.8
"	Shinhan REITs Management Co., Ltd.	"	"	100.0	100.0
"	Shinhan AI Co., Ltd.	"	"	100.0	100.0
"	Shinhan Venture Investment Co., Ltd.	"	"	100.0	100.0
"	Shinhan EZ General Insurance, Ltd. (*6)	"	"	85.1	-
Shinhan Bank	Shinhan Bank America	USA	"	100.0	100.0
"	Shinhan Bank Europe GmbH	Germany	"	100.0	100.0
"	Shinhan Bank Cambodia	Cambodia	"	97.5	97.5
"	Shinhan Bank Kazakhstan Limited	Kazakhstan	"	100.0	100.0
"	Shinhan Bank Canada	Canada	"	100.0	100.0
"	Shinhan Bank (China) Limited	China	"	100.0	100.0
"	Shinhan Bank Japan	Japan	"	100.0	100.0
"	Shinhan Bank Vietnam Ltd.	Vietnam	"	100.0	100.0
"	Banco Shinhan de Mexico	Mexico	"	99.9	99.9
"	PT Bank Shinhan Indonesia	Indonesia	"	99.0	99.0
Shinhan Bank Japan	SBJDNX	Japan	"	100.0	100.0

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

1. Reporting entity (continued)

(b) Ownership of Shinhan Financial Group and its major consolidated subsidiaries as of December 31, 2022 and 2021 are as follows (continued):

Investor	Investee(*1)	Location	Date of financial information	Ownership (%)	
				December 31, 2022	December 31, 2021
Shinhan Card Co., Ltd.	Shinhan Credit Information Co., Ltd.(*3)	Korea	December 31	100.0	-
"	LLP MFO Shinhan Finance	Kazakhstan	"	100.0	100.0
"	PT. Shinhan Indo Finance(*7)	Indonesia	"	76.3	50.0+1 share
"	Shinhan Microfinance Co., Ltd.	Myanmar	"	100.0	100.0
"	Shinhan Vietnam Finance Co., Ltd.	Vietnam	"	100.0	100.0
Shinhan Securities Co., Ltd.	Shinhan Securities America Inc.(*8)	USA	"	100.0	100.0
"	Shinhan Securities Asia Ltd.(*9)	Hong Kong	"	100.0	100.0
"	SHINHAN SECURITIES VIETNAM CO., LTD.	Vietnam	"	100.0	100.0
"	PT. Shinhan Sekuritas Indonesia	Indonesia	"	99.0	99.0
PT Shinhan Sekuritas Indonesia	PT. Shinhan Asset Management Indonesia	Indonesia	"	75.0	75.0
Shinhan Life Insurance Co., Ltd.	Shinhan Financial Plus	Korea	"	100.0	100.0
"	Shinhan CubeOn Co., Ltd.	"	"	100.0	100.0
"	Shinhan Life Insurance Vietnam Co., Ltd.	Vietnam	"	100.0	100.0
Shinhan Asset Management Co., Ltd.	SHINHAN ASSET MGT HK, LIMITED	Hong Kong	"	100.0	100.0
Shinhan DS	SHINHAN DS VIETNAM CO., LTD.	Vietnam	"	100.0	100.0

(*1) Subsidiaries such as trust, beneficiary certificate, corporate restructuring fund and private equity fund which are not actually operating their own business are excluded.

(*2) Shinhan Investment Co., Ltd. has changed its name to Shinhan Securities Co., Ltd. on October 1, 2022.

(*3) On July 28, 2022, the Company disposed 100% of shares to Shinhan Card.

(*4) Shinhan Asset Management Co., Ltd. and Shinhan Alternative Investment Management Inc. have merged on January 5, 2022 to form a company named Shinhan Asset Management Co., Ltd.

(*5) The Group has acquired remaining shares of Asia Trust Co., Ltd. during the period, and Asia Trust Co., Ltd. became the Group's wholly-owned subsidiary. Asia Trust Co., Ltd. has changed its name to Shinhan Asset Trust Co., Ltd.

(*6) The Group has acquired additional 94.54 % of shares of BNP Paribas Cardif General Insurance, Ltd. (5.46 % of shares of Shinhan Life Insurance Co., Ltd.) during the period, and BNP Paribas Cardif General Insurance, Ltd. became the Group's wholly-owned subsidiary. BNP Paribas Cardif General insurance, Ltd. has changed its name to Shinhan EZ General Insurance, Ltd. The controlling company participated in a paid-in capital increase of ₩ 80 billion conducted by Shinhan EZ General Insurance, Ltd. and the Group's share ratio decreased from 100% to 85.1%.

(*7) The paid-in capital increase was completed during the period, and the Group's share ratio has increased from 50 % + 1 share to 76.3 %.

(*8) Shinhan Investment America Inc. has changed its name to Shinhan Securities America Inc. during the period.

(*9) Shinhan Investment Asia Ltd. has changed its name to Shinhan Securities Asia Ltd. during the period.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

1. Reporting entity (continued)

(c) Consolidated structured entities

Consolidated structured entities are as follows:

Category	Consolidated structured entities	Description
Trust	Shinhan Bank (including development trust) and 17 others	A trust is consolidated when the Group as a trustee is exposed to variable returns, if principle or interest amounts of the entrusted properties falls below guaranteed amount, the Group should compensate it, and the Group has the ability to affect those returns.
Asset-Backed Securitization	MPC Yulchon Green I and 226 others	An entity for asset backed securitization is consolidated when the Group has sole decision-making authority to dispose assets or change the conditions of the assets, and the Group is exposed to, or has rights to related variable returns by providing credit enhancement and purchases of subordinated securities.
Structured Financing	SHPE Holdings One Co., Ltd.	An entity established for structured financing relating to real estate, shipping, or mergers and acquisitions is consolidated, when the Group has the greatest credit to the entity, has sole decision-making authority of these Entities due to the entities default, and is exposed to, or has rights to related variable returns.
Investment Fund	KoFC Shinhan Frontier Champ 2010-4 PEF and 149 others	An investment fund is consolidated, when the Group manages or invests assets of the investment funds on behalf of other investors as a collective investor or a business executive, or has the ability to dismiss the manager of the investment funds, and is exposed to, or has rights to, the variable returns.

(*) The Group provides ABCP purchase agreements and others of ₩6,940,100 million for the purpose of credit enhancement of structured companies.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

2. Basis of preparation

(a) Statement of compliance

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

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

The consolidated financial statements of the Group were authorized for issue by the Board of Directors on February 8, 2023. and the consolidated financial statements will be submitted for approval to the stockholder's meeting to be held on March 23, 2023.

(b) Basis of measurement

The consolidated financial statements have been prepared on the historical cost basis, except for the following material items in the statement of financial position:

- derivative financial instruments measured at fair value
- financial instruments at fair value through profit or loss measured at fair value
- financial instruments at fair value through other comprehensive income measured at fair value
- liabilities for cash-settled share-based payment arrangements measured at fair value
- financial assets and liabilities designated as hedged items in a fair value hedge accounting of which changes in fair value attributable to the hedged risk recognized in profit or loss
- liabilities for defined benefit plans recognized at the net of the total present value of defined benefit obligations less the fair value of plan assets

(c) Functional and presentation currency

The respective financial statements of the Group entities are prepared in the functional currency of the respective economic environment in which the group entities operate. These consolidated financial statements are presented and reported in Korean won, which is the Controlling Company's functional currency and the currency of the primary economic environment in which the Group operates.

(d) Use of estimates and judgments

The preparation of the consolidated financial statements in conformity with K-IFRS requires management to make judgments, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, income and expenses. If the estimates and assumptions based on management's best judgment as of December 31, 2022 are different from the actual environment, these estimates and actual results may be different.

Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimates are revised and in any future periods affected.

Information about critical judgments in applying accounting policies that have a significant effect on the amounts recognized in the consolidated financial statements and information about assumptions and estimation uncertainties that have a significant risk of resulting in a material adjustment within the next financial year are described in Note 5.

In preparing these consolidated financial statements, the significant judgments made by management in applying the Group's accounting policies and the key sources of estimation uncertainty are the same as those that applied to the consolidated financial statements as of and for the year ended December 31, 2021.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

2. Basis of preparation (continued)

(e) Standards and amendments adopted by the Group

The Group has newly applied the following accounting policies upon preparation of the annual consolidated financial statements for the year ended December 31, 2022.

i) K-IFRS No. 1103 'Business combination' amended – Reference to the Conceptual Framework

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

ii) K-IFRS No. 1016 'Property, Plant and Equipment' amended – Proceeds before the intended use

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

iii) K-IFRS No. 1037, 'Provisions, Contingent Liabilities and Contingent Assets' amended - Onerous Contracts: Cost of Fulfilling a Contract

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

iv) Annual Improvements to K-IFRSs 2018-2020 Cycle

For Annual Improvements to K-IFRSs 2018-2020 Cycle, the amendments will take effect for annual periods beginning after January 1, 2022 and are permitted for early application. The amendments do not have a significant impact on the consolidated financial statements.

- K-IFRS No.1101, 'First-time Adoption of K-IFRS'-First-time adopter subsidiaries
- K-IFRS No.1109, 'Financial Instruments' -10% test-related fee for financial liabilities removal
- K-IFRS No.1041, 'Agriculture' - Fair value measurement

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

2. Basis of preparation (continued)

(e) Standards and amendments adopted by the Group (continued)

v) *K-IFRS No. 1007, 'Statements of Cash flows' – Cash and cash equivalents*

The Group did not classify deposits with restrictions under relevant regulations, such as reserve deposits, as cash and cash equivalents. However, in accordance with the IFRS Interpretation Committee's agenda decision in April 2022 'Demand deposits restricted on use under contracts with third parties' and the response to K-IFRS inquiry stating 'whether the reserve deposit should be classified as cash and cash equivalents', it was changed to classify reserve deposits corresponding to demand deposits as cash and cash equivalents retroactively. The impact of this change in accounting policy is as follows:

① Impact on consolidated statements of cash flows

		<u>December 31, 2022</u>	<u>December 31, 2021</u>
Decrease in cash flows from operating activities	₩	(877,724)	(6,880,161)
Effect of exchange rate changes on cash and cash equivalents denominated in foreign currencies		(1,575)	3,301
Increase in cash and cash equivalents at the beginning of the period		11,019,558	17,896,418
Increase in cash and cash equivalents at the end of the period	₩	10,140,259	11,019,558

② Impact on notes to the consolidated statements of cash flows

		<u>December 31, 2022</u>	<u>December 31, 2021</u>
Decrease in restricted deposits – excluded cash and cash equivalents	₩	10,140,259	11,019,558

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

3. Significant accounting policies

Significant accounting policies applied by the Group upon the preparation of consolidated financial statements under K-IFRS are described below, and consolidated financial statements for the year ended December 31, 2022 and comparative periods were prepared using the same accounting policy, except for changes in accounting policy described in the Note 2.

(a) Operating segments

The Group has divided the segments based on internal reports reviewed periodically by the top sales decision maker to make decisions about the resources allocated to the segments and evaluate their performance. There are six reporting segments as described in Note 7. The reporting segments are operated separately according to the nature of the goods and services provided and the organizational structure of the Group.

The segment reported to the Chief Executive Officer (“CEO”) includes items directly attributable to a segment as well as those that can be allocated on a reasonable basis.

It is the CEO’s responsibility to evaluate the resources to be distributed to the business and the performance of the business, and to make strategic decisions.

(b) Basis of consolidation

i) Subsidiaries

Subsidiaries are investees controlled by the Group. The Group controls an investee when it is exposed to, or has rights to, variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee. The financial statements of subsidiaries are included in the consolidated financial statements from the date that control commences until the date that control ceases.

If a member of the Group uses accounting policies other than those adopted in the consolidated financial statements for the same transactions and events in similar circumstances, appropriate adjustments are made to its financial statements in preparing the consolidated financial statements.

ii) Structured entity

The Group establishes or invests in various structured entities. It does not own shares directly or indirectly for these companies. Considering the terms and conditions of the arrangement in which the structured entity was established, the Group gains and losses from the operations of the structured entity. It is included in the consolidated entities if it is determined that it has the ability to direct the activities of a consolidated structured entity that can most significantly affect these gains and losses. The Group does not recognize any non-controlling interests as equity in relation to structured entities in the consolidated statements of financial position since the non-controlling interests in these entities are recognized as liabilities of the Group.

iii) Intra-group transactions eliminated on consolidation

Intra-group balances, transactions, and any unrealized income and expenses arising from intra-group transactions are eliminated in preparing the consolidated financial statements. Unrealized intra-group losses are recognized as expense if intra-group losses indicate an impairment that requires recognition in the consolidated financial statements.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

3. Significant accounting policies (continued)

(b) Basis of consolidation (continued)

iv) Non-controlling interests

Non-controlling interests in a subsidiary are accounted for separately from the parent's ownership interests in a subsidiary. Each component of net profit or loss and other comprehensive income is attributed to the owners of the parent and non-controlling interest holders, even when the non-controlling interests balance is reduced to below zero.

(c) Business combinations

i) Business combinations

A business combination is accounted for by applying the acquisition method, unless it is a combination involving entities or businesses under common control.

Each identifiable asset or liability is measured at its acquisition-date fair value except for below:

- Leases are required to be classified based on the contractual terms and other factors
- Only those contingent liabilities assumed in a business combination that are a present obligation and can be measured reliably are recognized
- Deferred tax assets or liabilities are recognized and measured in accordance with K-IFRS No.1012, 'Income Taxes'
- Employee benefit arrangements are recognized and measured in accordance with K-IFRS No.1019, 'Employee Benefits'
- Compensation assets are recognized and measured on the same basis as the items subject to compensation
- Reacquired rights are measured in accordance with special provisions
- Liabilities or equity instruments related to share-based payment transactions are measured in accordance with the method in K-IFRS No.1102, 'Share-based Payment'
- Non-current assets held for sale are measured at fair value less costs to sell in accordance with K-IFRS No.1105, 'Non-current Assets Held for Sale and Discontinued Operations'

As of the acquisition date, non-controlling interests in the acquired are measured as the non-controlling interests' proportionate share of the acquirer's identifiable net assets.

The transfer consideration 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 acquirer, the liabilities incurred by the acquirer to former owners of the acquired and the equity interests issued by the acquirer. However, any portion of the acquirer's share-based payment awards exchanged for awards held by the acquired employee that is included in transfer consideration in the business combination shall be measured in accordance with the method described above rather than at fair value.

Acquisition-related costs are costs the acquirer incurs to effect a business combination. Those costs include broker's fees; advisory, legal, accounting, valuation and other professional or consulting fees; general administrative costs, including the costs of maintaining an internal acquisitions department; and costs of registering and issuing debt and equity securities. Acquisition-related costs, other than those associated with the issue of debt or equity securities, which are recognized in accordance with K-IFRS No.1032 and 1109, are expensed in the periods in which the costs are incurred and the services are received.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

3. Significant accounting policies (continued)

(d) Investments in associates and joint ventures

An associate is an entity in which the Group has significant influence, but not control, over the entity's financial and operating policies. Significant influence is presumed to exist when the Group holds between 20 and 50 percent of the voting power of another entity.

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 arrangement. Joint control is the contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities require the unanimous consent of the parties sharing control.

The investment in an associate and a joint venture is initially recognized at cost, and the carrying value is increased or decreased to recognize the Group's share of the profit or loss and changes in equity of the associate and the joint venture after the date of acquisition. Intra-group balances and transactions, and any unrealized income and expenses arising from intra-group transactions, are eliminated the Group's stake in preparing the consolidated financial statements. Unrealized losses are also being derecognized unless the transaction provides evidence of an impairment of the transferred assets.

If an associate or a joint venture uses accounting policies different from those of the Group for transactions and events in similar circumstances, appropriate adjustments are made to its financial statements in applying the equity method.

When the carrying value of that interest, including any long-term investments, is reduced to nil, the recognition of further losses is discontinued except to the extent that the Group has an obligation or has to make payments on behalf of the investee for further losses.

(e) Cash and cash equivalents

The Group classifies cash balances, call deposits and highly liquid investment assets with original maturities of three months or less from the acquisition date that are easily converted into a fixed amount of cash, and are subject to an insignificant risk of changes in their fair value as cash and cash equivalents. Equity instruments are excluded from cash equivalents unless they are, in substance, cash equivalents, like in the case of preferred shares acquired within a short period of their maturity and with a specified redemption date.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

3. Significant accounting policies (continued)

(f) Non-derivative financial assets

Financial assets are recognized in the consolidated statement of financial position when the Group becomes a party to the contract. In addition, a standardized purchase or sale (a purchase or sale of a financial asset under a contract whose terms require delivery of the asset within the time frame established generally by regulation or convention in the market concerned) is recognized on the trade date.

A financial asset is measured initially at its fair value plus, for an item not at Fair Value Through Profit or Loss (“FVTPL”), transaction costs that are directly attributable to its acquisition of the financial asset. Transaction costs on the financial assets at FVTPL that are directly attributable to the acquisition are recognized in profit or loss as incurred.

i) Financial assets designated at FVTPL

Financial assets can be irrevocably designated as measured at FVTPL despite of classification standards stated below, if doing so eliminates or significantly reduces an accounting mismatch that would otherwise arise from measuring assets or liabilities or recognizing the gains or losses on them on different bases.

ii) Equity instruments

For the equity instruments that are not held for short-term trading, at initial recognition, the Group may make an irrevocable election to present subsequent changes in fair value in other comprehensive income. Equity instruments that are not classified as financial assets at Fair Value through Other Comprehensive Income (“FVOCI”) are classified as financial assets at FVTPL.

The Group subsequently measures all equity investments at fair value. Valuation gains or losses of the equity instruments that are classified as financial assets at FVOCI previously recognized as other comprehensive income is not reclassified as profit or loss on recognition. The Group recognizes dividends in profit or loss when the Group’s right to receive payments of the dividend is established.

Valuation gains or losses due to changes in fair value of the financial assets at FVTPL are recognized in the consolidated statement of comprehensive income gains or losses on financial assets at FVTPL. Impairment loss (reversal) on equity instruments at FVOCI is not recognized separately.

iii) Debt instruments

Subsequent measurement of debt instruments depends on the Group’s business model in which the asset is managed and the contractual cash flow characteristics of the asset. Debt instruments are classified as financial assets at amortized cost, at FVOCI, or at FVTPL. Debt instruments are reclassified only when the Group’s business model changes.

① Financial assets at amortized cost

Assets that are held within a business model whose objective is to hold assets to collect contractual cash flows where those cash flows represent solely payments of principal and interest are measured at amortized cost. A gain or loss on a financial asset measured at amortized cost that is not subject to a hedging relationship is recognized in profit or loss when the financial asset is derecognized or impaired. Interest income on the effective interest method is included in the ‘Interest income’ in the consolidated statement of comprehensive income.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

3. Significant accounting policies (continued)

(f) Non-derivative financial assets (continued)

② Financial assets at FVOCI

Assets that are held within a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets and, where the assets' cash flows represent solely payments of principal and interest, are measured at FVOCI. Other than (reversal of) impairment losses, interest income, foreign exchange differences, gains or losses of the financial assets at FVOCI are recognized as other comprehensive income in equity. On removal, gains or losses accumulated in other comprehensive income are reclassified to profit or loss. The interest income on the effective interest method is included in the 'Interest income' in the consolidated statement of comprehensive income. Foreign exchange differences and impairment losses are included in the 'Net foreign currency transaction gain' and 'Provision for credit losses allowance' in the consolidated statement of comprehensive income, respectively.

③ Financial assets at FVTPL

Debt securities other than financial assets at amortized costs or FVOCI are classified at FVTPL. Unless hedge accounting is applied, gains or losses from financial assets at FVTPL are recognized as profit or loss and are included in 'Net gain(loss) on financial assets at fair value through profit or loss' in the consolidated statement of comprehensive income.

iv) Embedded derivatives

Financial assets with embedded derivatives are classified regarding the entire hybrid contract, and the embedded derivatives are not separately recognized. The entire hybrid contract is considered when it is determined whether the contractual cash flows represent solely payments of principal and interest.

v) Derecognition of financial assets

The Group derecognizes a financial asset when the contractual rights to the cash flows from the asset expire, or it transfers the rights to receive the contractual cash flows on the financial asset in a transaction in which substantially all the risks and rewards of ownership of the financial asset are transferred. If the Group does not have or transfer most of the risks and rewards of ownership of the financial asset, the entity shall remove the financial asset if it does not control the financial asset. If the Group continues to control the financial asset, it continues to recognize the transferred asset to the extent that it is continuously involved and recognizes the related liability together.

If the Group transfers the right to cash flows of a financial asset but holds most of the risks and rewards of ownership of the financial asset, the entity shall continue to recognize the asset. Also, the amount of disposal received is recognized as a liability.

vi) Offsetting

Financial assets and financial liabilities are offset and the net amount is presented in the consolidated statement of financial position only when the Group currently has a legally enforceable right to set off the recognized amounts, and intends either to settle on a net basis or to realize the asset and settle the liability simultaneously.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

3. Significant accounting policies (continued)

(g) Derivative financial instruments

Derivatives are initially recognized at fair value. Subsequent to initial recognition, derivatives are measured at fair value, and changes therein are accounted for as described below.

i) Hedge accounting

The Group holds forward exchange contracts, interest rate swaps, currency swaps and other derivative contracts to manage interest rate risk and foreign exchange risk. The Group designated derivatives as hedging instruments to hedge the risk of changes in the fair value of assets, liabilities or firm commitments (a fair value hedge) and foreign currency risk of highly probable forecasted transactions or firm commitments (a cash flow hedge).

On initial designation of the hedge, the Group formally documents the relationship between the hedging instrument(s) and hedged item(s), including the risk management objectives and strategy in undertaking the hedge transaction. In addition, this document describes the hedging instrument, hedged item, and the method of evaluating the effect of the hedging instrument offsetting changes in the fair value or cash flow of the hedged item due to the hedged risk at the initiation of the hedging relationship and in subsequent periods.

① Fair value hedge

Changes in the fair value of a derivative hedging instrument designated as a fair value hedge are recognized in profit or loss. The gain or loss from remeasuring the hedging instrument at fair value for a derivative hedging instrument and the gain or loss on the hedged item attributable to the hedged risk are recognized in profit or loss in the same line item of the separate statement of comprehensive income.

The Group discontinues fair value hedge accounting if the hedging instrument expires or is sold, terminated or exercised, or if the hedge no longer meets the criteria. Any adjustment arising from G/L on the hedged item attributable to the hedged risk is amortized to profit or loss from the date the hedge accounting is discontinued.

② Cash flow hedge

When a derivative is designated to hedge the variability in cash flows attributable to a particular risk associated with a recognized asset or liability or a highly probable forecasted transaction that could affect profit or loss, the effective portion of changes in the fair value of the derivative is recognized in other comprehensive income, net of tax, and presented in the hedging reserve in equity. Any ineffective portion of changes in the fair value of the derivative is recognized immediately in profit or loss.

If the hedging instrument no longer meets the criteria for hedge accounting, expires or is sold, terminated, exercised, or the designation is revoked, then hedge accounting is discontinued prospectively. The cumulative gain or loss on the hedging instrument that has been recognized in other comprehensive income is reclassified to profit or loss in the periods during which the forecasted transaction occurs. If the forecasted transaction is no longer expected to occur, then the balance in other comprehensive income is recognized immediately in profit or loss.

③ Net investment hedge

The portion of the change in fair value of a financial instrument designated as a hedging instrument that meets the requirements for hedge accounting for a net investment in a foreign operation is recognized in other comprehensive income and the ineffective portion of the hedge is recognized in profit or loss. The portion recognized as other comprehensive income that is effective as a hedge is recognized in the statement of comprehensive income as a result of reclassification adjustments in accordance with K-IFRS No. 1021, "Effect of Changes in Foreign Exchange Rates" at the time of disposing of its overseas operations or disposing of a portion of its overseas operations to profit or loss.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

3. Significant accounting policies (continued)

(g) Derivative financial instruments (continued)

ii) Other derivative financial instruments

All derivatives except those designated as hedging instruments and are effective in hedging are measured at fair value. Changes in the fair value of other derivative financial instrument not designated as a hedging instrument are recognized immediately in profit or loss.

iii) Gains and losses on initial recognition

Any difference between the fair value of over the counter derivatives at initial recognition and the amount that would be determined at that date using a valuation technique in a situation in which the valuation is dependent on unobservable parameters is not recognized in profit or loss but is deferred, and the deferred gains and losses on initial transaction are depreciated on a straight-line basis over the life of the instrument or the remainder is recognized in profit or loss immediately when the fair value becomes observable.

(h) Expected credit losses of financial assets

The Group recognizes allowance for credit loss (“ACL”) for debt instruments measured at amortized cost and fair value through other comprehensive income, and lease receivable, loan commitments and financial guarantee contracts using the expected credit loss impairment model. Financial assets migrate through the following three stages based on the change in credit risk since initial recognition and allowance for credit loss for the financial assets are measured at the 12-month expected credit losses (“ECL”) or the lifetime ECL, depending on the stage.

	<u>Category</u>	<u>Allowance for credit loss</u>
STAGE 1	When credit risk has not increased significantly since the initial recognition	12-months ECL: the ECL associated with the probability of default events occurring within the next 12 months
STAGE 2	When credit risk has increased significantly since the initial recognition	Lifetime ECL: a lifetime ECL associated with the probability of default events occurring over the remaining lifetime
STAGE 3	When assets are impaired	Same as above

The Group, meanwhile, only recognizes the cumulative changes in lifetime expected credit losses since the initial recognition as an allowance for credit loss for purchased or originated credit-impaired financial assets.

The total period refers to the expected life span of the financial instrument up to the contract expiration date.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

3. Significant accounting policies (continued)

(h) Expected credit losses of Financial assets (continued)

i) Reflection of forward-looking information

The Group reflects forward-looking information presented by internal experts based on a variety of information when measuring expected credit losses. Assuming that the measurement factor of expected credit losses has a certain correlation with economic fluctuations, the expected credit losses are calculated by reflecting forward-looking information through modeling between macroeconomic variables and measurement factors.

ii) Measurement of expected credit loss of financial assets at amortization cost

The expected credit loss of an amortized financial asset is measured as the difference between the present value of the cash flows expected to be received and the cash flow expected to be received. For this purpose, we calculate expected cash flows for individually significant financial assets. For non-individual significant financial assets, the financial assets collectively include expected credit losses as part of a set of financial assets with similar credit risk characteristics.

Expected credit losses are deducted using the allowance for credit loss account and are written off if the financial assets are not recoverable. The allowance for credit loss is increased when the written-off loan receivables are subsequently collected and changes in the allowance for credit loss are recognized in profit or loss.

iii) Measurement of estimated credit loss of financial assets at FVOCI

The calculation of expected credit losses is the same as for financial assets measured at amortized cost, but changes in allowance for credit loss are recognized in other comprehensive income. In the case of disposal and redemption of other comprehensive income - fair value, the allowance for credit loss is reclassified from other comprehensive income to profit or loss and recognized in profit or loss.

(i) Property and equipment

Property and equipment are initially measured at cost and after initial recognition. The cost of property and equipment includes expenditures arising directly from the construction or acquisition of the asset, any costs directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management and the initial estimate of the costs of dismantling and removing the item and restoring the site on which it is located. Certain land and buildings are measured at fair value at the date of transition to K-IFRS, which is deemed cost, in accordance with K-IFRS No.1101, 'First-time Adoption of K-IFRS'. Subsequent to initial recognition, the asset is measured at cost less accumulated depreciation and accumulated impairment losses, if any.

The Group recognizes in the carrying value of an item of property and equipment the cost of replacing part of property and equipment when that cost is incurred if it is probable that future economic benefits associated with the item will flow to the Group and the cost of the item can be measured reliably. The carrying value of those parts that are replaced is derecognized. The costs of the day-to-day servicing of property and equipment are recognized in profit or loss as incurred.

Land is not depreciated. Other property and equipment are depreciated on a straight-line basis over the estimated useful lives, which most closely reflect the expected pattern of consumption of the future economic benefits embodied in the asset. The estimated useful lives for the current and comparative periods are as follows:

Descriptions	Useful lives
Buildings	40~50 years
Other properties	4~5 years

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

3. Significant accounting policies (continued)

(i) Property and equipment (continued)

Depreciation methods, useful lives and residual values are reassessed at each fiscal year-end and in case adjustments are needed, it is accounted for as a change in accounting estimate.

(j) Intangible assets

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

Amortization of intangible assets except for goodwill is calculated on a straight-line basis over the estimated useful lives of intangible assets as shown below, from the date that they are available for use. The residual value of intangible assets is zero. However, if there are no foreseeable limits to the periods over which certain intangible assets are expected to be available for use, they are determined to have indefinite useful lives and are not amortized.

Descriptions	Useful lives
Software	5 years
Capitalized development cost	5 years
Other intangible assets	5 years or contract periods

Amortization periods and the amortization methods for intangible assets with finite useful lives are reviewed at the end of each reporting period. The useful lives of intangible assets that are not being amortized are reviewed at the end of each reporting period to determine whether events and circumstances continue to support indefinite useful life assessments for those assets. Changes are accounted for as changes in accounting estimates.

Expenditures on research activities, undertaken with the prospect of gaining new technical knowledge and understanding, are recognized in profit or loss as incurred. Development expenditures are capitalized only if development costs can be measured reliably, the product or process is technically and commercially feasible, future economic benefits are probable, and the Group intends to and has sufficient resources to complete development and to use or sell the asset. Other development expenditures are recognized in profit or loss as incurred.

(k) Investment properties

Investment property is property held either to earn rental income or for capital appreciation or both. An investment property is initially recognized at cost including any directly attributable expenditure. Subsequent to initial recognition, the asset is measured at cost less accumulated depreciation and accumulated impairment losses, if any.

The depreciation method and the estimated useful lives for the current and comparative periods are as follows:

Descriptions	Useful lives	Depreciation method
Buildings	40 years	Straight-line

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

3. Significant accounting policies (continued)

(I) Leases

i) Accounting treatment as the lessee

The Group leases various tangible assets, such as real estate and vehicles, and each of the lease contract is negotiated individually and includes a variety of terms and conditions. There are no other restrictions imposed by the lease contracts, but the lease assets cannot be provided as collaterals for borrowings.

At the commencement date of the lease, the Group recognizes the right-of-use assets and the lease liabilities. Each lease payment is allocated to payment for the principal portion of the lease liability and financial costs. The Group recognizes in profit or loss the amount calculated to produce a constant periodic rate of interest on the lease liability balance for each period as financial costs. Right-of-use assets are depreciated using a straight-line method from the commencement date over the lease term.

Lease liabilities are measured at the present value of the lease payments that are not paid at the commencement date of the lease, and the lease payments included in the measurement of the liabilities consist of the following payments:

- Fixed payments (including in-substance fixed payments, less any lease incentives receivable)
- Variable lease payments depending on the index or rate (interest rate)
- Amounts expected to be paid by the lessee under the residual value guarantee
- The exercise price of a purchase option if the lessee is reasonably certain to exercise that option
- Payments of penalties for terminating the lease, if the lease term reflects the lessee exercising an option to terminate the lease

If the interest rate implicit in the lease is readily determined, the lease payments are discounted by the rate; if the rate is not readily determined, the lessee's incremental borrowing rate is used.

The cost of the right-of-use assets comprise:

- The amount of the initial measurement of the lease liability
- Any lease payments made at or before the commencement date (less any lease incentives received)
- Any initial direct costs incurred by the lessee
- An estimate of costs to be incurred by the lessee in dismantling and removing the underlying asset, restoring the site on which it is located or restoring the underlying asset to the condition required by the terms and conditions of the lease

Lease payments related to short-term leases or low-value assets are recognized as current expenses over the lease term using the straight-line method. A short-term lease is a lease that has a lease term of 12 months or less, and the low-value assets lease is a lease of which the underlying asset value is not more than ₩6 million.

Additional considerations for the Group when accounting for lessees include:

Extension and termination options are included in a number of real estate lease contracts of the Group. In determining the lease term, management considers all relevant facts and circumstances that create an economic incentive not to exercise the options. The periods covered by, a) an option to extend the lease if the lessee is reasonably certain to exercise that option, or b) an option to terminate the lease if the lessee is reasonably certain not to exercise that option, is included when determining the lease term. The Group reassesses whether the Group is reasonably certain to exercise the extension option, or not to exercise a termination option, upon the occurrence of either a significant event or a significant change in circumstances that is within the control of the lessee, and affects whether the lessee is reasonably certain to exercise an option not previously included in its determination of the lease term, or not to exercise an option previously included in its determination of the lease term.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

3. Significant accounting policies (continued)

(l) Leases (continued)

ii) Accounting treatment as the lessor

The Group leases out to lessee various tangible assets, including vehicles under operating and finance lease contracts, and each of the lease contract is negotiated individually and includes a variety of terms and conditions. The risk management method for all rights held by the Group in the underlying assets includes repurchase agreements, residual value guarantees, etc.

① Finance leases

The Group recognizes them as a receivable at an amount equal to the net investment in the lease, and the difference from the carrying value of the leasing asset as of the commencement date is recognized as profit or loss from disposal of the lease asset. In addition, interest income is recognized by applying the effective interest method for the amount of the Group's net investment in finance leases. Lease-related direct costs are included in the initial recognition of financial lease receivables and are accounted for in a way that reduces the revenue for the lease term.

② Operating leases

The Group recognizes the lease payments as income on straight-line basis, and adds the lease initial direct costs incurred during negotiation and contract phase of the operating lease to the carrying value of the underlying asset. In addition, the depreciation policy of operating lease assets is consistent with the Group's depreciation policy of other similar assets.

(m) Assets held for sale

Non-current assets, or disposal groups comprising assets and liabilities, that are expected to be recovered primarily through sale rather than through continuing use, are classified as held for sale. In order to be classified as held for sale, the asset (or disposal group) must be available for immediate sale in its present condition and its sale must be highly probable. The assets or disposal group that are classified as non-current assets held for sale are measured at the lower of their carrying value and fair value less cost to sell.

The Group recognizes an impairment loss for any initial or subsequent write-down of an asset (or disposal group) to fair value less costs to sell, and a gain for any subsequent increase in fair value less costs to sell, up to the cumulative impairment loss previously recognized.

An asset that is classified as held for sale or part of a disposal group classified as held for sale is not depreciated (or amortized).

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

3. Significant accounting policies (continued)

(n) Impairment of non-financial assets

The carrying values of the Group's non-financial assets, other than assets arising from employee benefits, deferred tax assets and non-current assets held for sale, are reviewed at the end of the reporting period to determine whether there is any indication of impairment. If any such indication exists, then the asset's recoverable amount is estimated.

Goodwill and intangible assets that have indefinite useful lives or that are not yet available for use, irrespective of whether there is any indication of impairment, are tested for impairment annually by comparing their recoverable amount to their carrying value.

The Group estimates the recoverable amount of an individual asset, and if it is impossible to measure the individual recoverable amount of an asset, then the Group estimates the recoverable amount of cash-generating unit ("CGU"). The recoverable amount of an asset or a CGU is the greater of its value in use and its fair value less costs to sell. The value in use is estimated by applying a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset or the CGU for which estimated future cash flows have not been adjusted, to the estimated future cash flows expected to be generated by the asset or the CGU.

An impairment loss is recognized if the carrying value of an asset or a CGU exceeds its recoverable amount. Impairment losses are recognized in profit or loss.

Goodwill acquired in a business combination is allocated to each CGU that is expected to benefit from the synergies arising from the goodwill acquired. Any impairment identified at the CGU level will first reduce the carrying value of goodwill and then be used to reduce the carrying value of the other assets in the CGU on a pro rata basis. Impairment losses of goodwill cannot be reversed in the subsequent period. At the end of each reporting period, the Group reviews whether there are any signs of impairment loss that has been recognized in the prior period no longer exists or has decreased, and reversal occurs only if there is a change in the estimate used to determine the recoverable amount after the recognition of the impairment loss. The asset's carrying value does not exceed the carrying value that would have been determined, net of depreciation or amortization, if no impairment loss had been recognized.

(o) Non-derivative financial liabilities

The Group recognizes financial liabilities in the consolidated statement of financial position when the Group becomes a party to the contractual provisions of the financial liability in accordance with the substance of the contractual arrangement and the definitions of financial liabilities.

Transaction costs on the financial liabilities at FVTPL are recognized in profit or loss as incurred.

i) Financial liabilities designated at FVTPL

Financial liabilities can be irrevocably designated as measured at FVTPL if doing so eliminates or significantly reduces an accounting mismatch that would otherwise arise from measuring assets or liabilities or recognizing the gains and losses on them on different bases, or a group of financial instruments is managed and its performance is evaluated on a fair value basis, in accordance with a documented risk management or investment strategy. The amount of change in the fair value of the financial liabilities designated at FVTPL that is attributable to changes in the credit risk of that liabilities shall be presented in other comprehensive income.

ii) Financial liabilities at FVTPL

Since initial recognition, financial liabilities at FVTPL is measured at fair value, and changes in the fair value are recognized as profit or loss.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

3. Significant accounting policies (continued)

(o) Non-derivative financial liabilities (continued)

iii) Other financial liabilities

Non-derivative financial liabilities other than financial liabilities at fair value through profit or loss are classified as other financial liabilities, and other financial liabilities include deposits, borrowings, debt securities and etc. At the date of initial recognition, other financial liabilities are measured at fair value minus transaction costs that are directly attributable to the acquisition. Subsequent to initial recognition, other financial liabilities are measured at amortized cost using the effective interest method.

The Group derecognizes a financial liability from the consolidated statement of financial position when it is extinguished (i.e. when the obligation specified in the contract is discharged, canceled or expires).

(p) Foreign currency

i) Foreign currency transactions

Transactions in foreign currencies are translated to the respective functional currencies of the Group at exchange rates at the dates of the transactions. Monetary assets and liabilities denominated in foreign currencies at the end of the reporting period are retranslated to the functional currency using the exchange rate at the end of the reporting period. Non-monetary foreign currency items measured at fair value are converted to the exchange rate on the date the fair value is determined, and non-monetary items measured at historical cost are converted to the exchange rate on the trading day.

All foreign currency differences arising from the conversion of monetary items are recognized in profit or loss. However, the Group excludes currency differences at the time of settlement of monetary items, conversion differences in net investments in foreign operations and conversion differences for financial liabilities designated cash flow hedges. If gains or losses arising from non-monetary items are recognized in other comprehensive income, the effect of exchange rate changes included in those gains or losses is also recognized in other comprehensive income. In addition, if recognized in profit or loss, the effect of exchange rate changes is also recognized in profit or loss.

ii) Foreign operations

If the presentation currency of the Group is different from a foreign operation's functional currency, the financial statements of the foreign operation are translated into the presentation currency using the following methods:

The assets and liabilities of foreign operations, whose functional currency is not the currency of a hyperinflationary economy, are translated to presentation currency at exchange rates at the reporting date. The income and expenses of foreign operations are translated to functional currency at exchange rates at the dates of the transactions. Foreign currency differences are recognized in other comprehensive income.

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

Upon disposal of foreign operations, the cumulative amount of the exchange differences recognized as a separate line item within the equity and other comprehensive income is reclassified from other comprehensive income to profit and loss at the time of recognition. When disposing subsidiaries, including foreign operations, proportional shares of exchange differences recognized in other comprehensive income are reverted to non-controlling shares of foreign operations, and in other cases, disposing some of the portions of foreign operations, only the proportional shares of the accumulated exchange differences recognized in other comprehensive income are classified as profit and loss.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

3. Significant accounting policies (continued)

(p) Foreign currencies (continued)

iii) Net investment in a foreign operation

If the settlement of a monetary item receivable from or payable to a foreign operation is neither planned nor likely in the foreseeable future, then foreign currency differences arising on the item form part of the net investment in the foreign operation and are recognized in other comprehensive income and reclassified from equity to profit or loss on disposal of the net investment.

(q) Equity capital

i) Capital stock

Capital stock is classified as equity. Incremental costs directly attributable to the transaction of stock are deducted from equity, net of any tax effects.

Preferred stocks are classified as equity if they do not need to be repaid or are repaid only at the option of the Group and if payment is determined by the Group's discretion, and dividends are recognized when the shareholders' meeting approves the dividends. Preferred stocks that are eligible for reimbursement of a defined or determinable amount on or after a certain date are classified as liabilities. The related dividend is recognized in profit or loss at the time of occurrence as interest expense.

ii) Hybrid bonds

The Group classifies an issued financial instrument, or its component parts, as a financial liability or an equity instrument depending on the substance of the contractual arrangement of such financial instrument. Hybrid bonds where the Group has an unconditional right to avoid delivering cash or another financial asset to settle a contractual obligation are classified as an equity instrument and presented in equity. Hybrid bonds issued by subsidiaries of the group are classified as non-controlling interests according to this classification criteria. In addition, distributions paid are treated as net income attributable to non-controlling interests in the consolidated statement of comprehensive income.

iii) Capital adjustment

The effect of changes in ownership interests in subsidiaries that do not lose control over the equity attributable to owners of the parent is included in capital adjustments.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

3. Significant accounting policies (continued)

(r) Employee benefits

i) Short-term employee benefits

Short-term employee benefits are employee benefits that are due to be settled within 12 months after the end of the period in which the employees render the related service. When an employee has rendered service to the Group during an accounting period, the Group recognizes the undiscounted amount of short-term employee benefits expected to be paid in exchange for that service.

ii) Other long-term employee benefits

The Group's net obligation in respect of other long-term employee benefits that are not expected to be settled wholly before 12 months after the end of the annual reporting period in which the employees render the related service, is the amount of future benefit that employees have earned in return for their service in the current and prior periods. That benefit is discounted to determine its present value. Remeasurements are recognized in profit or loss in the period in which they arise.

iii) Retirement benefits: defined contribution plans

The Group recognizes the contribution expense as an account of severance payments in profit or loss in the period according to the defined contribution plans, when an employee provides work services for a certain period of time, except for the case when it is included in the cost of the asset. Contributions payable are recognized as liabilities (unpaid expenses) after deducting the contributions already paid. In addition, if the contribution already paid exceeds the contribution due for services provided before the end of the reporting period, the future contribution is reduced or cash refunded due to the excess is recognized as an asset (prepaid expense).

iv) Retirement benefits: defined benefit plans

For the year ended December 31, 2022, defined benefit liabilities related to the defined benefit plan are recognized by deducting the fair value of external reserve from the present value of the defined benefit plan debt.

Defined benefit liabilities are calculated annually by independent actuaries using the predicted unit credit method. If the net present value of the defined benefit obligation less the fair value of the plan assets is an asset then the present value of the economic benefits available to the entity in the form of a refund from the plan or a reduction in future contributions to the plan.

The remeasurement component of net defined benefit liability is the change in the effect on asset ceiling except for the amount included in the net interest income of plan assets and net revenues of plan assets excluding actuarial gains and losses to the net of defined benefit liabilities. It is immediately recognized in other comprehensive income. The Group determines the net interest on the net defined benefit obligation (asset) by multiplying the net defined benefit obligation (asset) by the discount rate determined at the beginning of the annual reporting period and is the net present value of the net defined benefit obligation. It is determined by taking into consideration the fluctuations. Net interest expense and other expenses related to defined benefit plans are recognized in profit or loss.

When an amendment or reduction of the system occurs, the gain or loss resulting from the change or decrease in the benefits to the past service is immediately recognized in profit or loss. The Group recognizes gains or losses on settlement when the defined benefit plan is settled.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

3. Significant accounting policies (continued)

(r) Employee benefit (continued)

v) Termination benefits

Termination benefits are recognized as an expense when the Group is committed demonstrably, without realistic possibility of withdrawal, to a formal detailed plan to either terminate employment before the normal retirement date, or to provide termination benefits as a result of an offer made to encourage voluntary redundancy. Termination benefits for voluntary redundancies are recognized as an expense if the Group has made an offer of voluntary redundancy, it is probable that the offer will be accepted, and the number of acceptances can be estimated reliably. If benefits are payable more than 12 months after the reporting period, then they are discounted to their present value.

(s) Share-based payment transactions

In regards to the share-based payment transactions which grants an employee a stock or stock option in exchange for the goods or services provided, if the fair value of the goods or services provided or the fair value of the goods or services provided cannot be reliably measured, the Group indirectly measures the fair value of the goods or services based on the fair value of the given equity, and the amount is recognized as employee benefit expenses and capital during the vesting period. For share-based payment awards with non-vesting conditions, the grant date fair value of the share-based payment is measured to reflect such conditions and there is no true-up for differences between expected and actual outcomes.

The fair value of the amount payable to employees in respect of share appreciation rights, which are settled in cash, is recognized as an expense with a corresponding increase in liabilities, over the period that the employees unconditionally become entitled to payment. The liability is remeasured at each reporting date and at settlement date. Any changes in the fair value of the liability are recognized as personnel expense in profit or loss.

(t) Provisions

Provisions are recognized when the Group has a present legal or constructive obligation 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 risks and uncertainties that inevitably surround many events and circumstances are taken into account in reaching the best estimate of a provision. Where the effect of the time value of money is material, provisions are determined at the present value of the expected future cash flows.

Provisions are reviewed at the end of each reporting period and adjusted to reflect the current best estimate. If it is no longer probable that an outflow of resources embodying economic benefits will be required to settle the obligation, the provision is reversed.

Provisions shall be used only for expenditures for which the provisions are originally recognized.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

3. Significant accounting policies (continued)

(u) Financial guarantee contract

A financial guarantee contract is a contract that requires the Group to make specified payments to reimburse the holder for a loss it incurs because a specified debtor fails to make payment when due in accordance with the original or modified terms of a debt instrument.

Financial guarantee contracts are recognized initially at their fair value, and the initial fair value is amortized over the life of the financial guarantee contract.

After initial recognition, financial guarantee contracts are measured at the higher of:

- Loss allowance in accordance with K-IFRS No.1109, 'Financial Instruments'
- The amount initially recognized less, when appropriate, the cumulative amount of income recognized in accordance with the principles of K-IFRS No.1115, 'Revenue from Contracts with Customers'

(v) Insurance contracts

i) Investment contract liabilities, including insurance contract liabilities and discretionary dividend factors

The group establishes liability reserves in accordance with the Insurance Business Law and the related regulations. The reserves are calculated according to the insurance policy, insurance premiums and liability reserve calculation method. The main contents are as follows.

i-1) Premium reserves

This is the amount to be accumulated for insurance claim payable for the existing contracts as of the end of the reporting period, the reserves are calculated by deducting the present value of net premiums to be earned after the end of the reporting period from the present value of claims to be paid to the policyholder after the date of the statement of financial position.

i-2) Unearned premium reserves

Among premiums that are due for payment before the end of the reporting period, the prepaid premium reserves for the next period are calculated through a premium and liability reserves calculation method.

i-3) Guarantee reserves

The total amount of reserve for variable minimum guarantee (①) and reserve for general account guarantee (②) is provided as guarantee reserve.

① Variable minimum guarantee reserve

This reserve is the amount that must be accumulated to guarantee insurance premiums above a certain level for contracts maintained as of the end of the reporting period, and is measured at the higher of:

- i) the average amount of the top 30% of net loss expected in the future
- ii) the minimum required amount by insurance types, minimum guarantees, level of guarantees and limits of stock investment portion

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

3. Significant accounting policies (continued)

(v) Insurance contracts (continued)

i) Investment contract liabilities, including insurance contract liabilities and discretionary dividend factors (continued)

i-3) Guarantee reserves (continued)

② General account guarantee reserve

As of the end of the reporting period, the amount of reserve for insurance contracts that are insured under general account is required to be paid to guarantee the level of refunds, and select the largest of the following:

i) Average of the amount deducted from the appropriateness of the liability reserve calculated by excluding the guarantee option from the appropriateness evaluation of the liability reserve calculated by including the guarantee option for each interest rate scenario

ii) The amount of compensation (including annulment contract) against the guarantee received from the policy holder by the rate applied at the premium calculation in the insurance premium and liability reserve calculation method

i-4) Reserve for outstanding claims

As of the end of the reporting period, the Group has accrued the amount for which the reason for the payment of insurance claims, etc. has been incurred and the amount of the claim payment has not been paid yet due to the dispute or lawsuit related to the insurance settlement (pending in the Financial Dispute Mediation Committee). In addition, the Group recognizes unrecognized losses based on historical experience.

i-5) Reserves for participating policyholders' dividends

The reserve is provided for the purpose of contributing to the policyholder dividend according to the laws and regulations and the reserve for dividend reserve for the policyholder and the dividend reserve for the subsequent business year.

The policyholder dividend reserve is the amount that is not paid as of the end of the reporting period for the settlement amount and the reserve for dividend policy for the next fiscal year is based on the policyholder dividend calculated on the insurance contract effective as of the end of the reporting period.

① Excess crediting rate reserve

In the case of a dividend insurance contract which has been maintained for more than one year as of the end of the reporting period among contracts signed before October 1, 1997, the difference between the planned interest rate and the one-year maturity deposit rate shall be preserved.

② Mortality dividend reserve

Dividends arising from contracts that are maintained for more than one year at the end of the reporting period are used to offset the expected mortality and actual mortality rates applied to premiums.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

3. Significant accounting policies (continued)

(v) Insurance contracts (continued)

i) Investment contract liabilities, including insurance contract liabilities and discretionary dividend factors (continued)

i-5) Reserves for participating policyholders' dividends (continued)

③ Interest dividend reserve

For the contracts that have been maintained for more than one year as of the end of the reporting period, the amount calculated by applying the interest dividend reserve rate to the net written premium reserve less the unearned acquisition costs. However, the insurance sold before October 1, 1997 is applied to the amount deducted from the net premium in the event that the planned interest rate by the insurance product is less than the dividend standard.

④ Reserves for long-term special dividends

For the effective dividend policy agreement that has been maintained for 6 years or more, the amount calculated by applying the long-term special dividend rate to the amount deducted from the net premiums for the end of the year.

However, insurance sold before October 1, 1997 is applied to the deduction of unearned premiums at the end of the year when the expected interest rate by the insurance product is less than the dividend standard rate.

i-6) Reserve for interest dividends

In order to cover the policyholder dividend in the future, the total amount is set aside according to business performance according to the law or insurance contracts.

i-7) Reserve for dividend insurance loss reserve

In accordance with the regulations set by the supervisory authority, dividend insurance profit is accumulated within 30/100 of the contractor's stake. The reserve for the compensation of dividend insurance losses shall compensate for the loss of dividend insurance contracts in accordance with the provisions of the fiscal year within five years from the end of the accumulated reporting period and shall be used as the policyholder dividend source for the individual contractor.

ii) Contractor's equity adjustment

In accordance with K-IFRS No.1039, the Group classifies the gains and losses of available for sale financial assets as policyholder's equity and shareholders' equity based on the reserve ratio for dividend paying and non-dividend paying insurance for the year ended December 31, 2022, and the portion of policyholder's equity is accounted as policyholder's equity adjustment.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

3. Significant accounting policies (continued)

(v) Insurance contracts (continued)

iii) Evaluation of debt appropriateness

At the end of each reporting period, the group assesses whether the recognized insurance liability is appropriate using the current estimates of future cash flows of the policy, and if the carrying value of the insurance liability is deemed to be inappropriate in terms of the estimated future cash flows. The reserve for premiums is added to the profit or loss by the amount corresponding to the deficiency.

iv) Reinsurance assets

The group presents the recoverable amount of reinsurance assets. The group assesses at the end of each reporting period whether there is objective evidence that a reinsurance asset is impaired. If there is objective evidence that the entity will not be able to collect all amounts under the terms of the agreement as a result of an event that occurred after the initial recognition and if the event has a reliable and measurable impact on the amount to be received. If reinsurance assets are determined to be impaired, impairment loss is recognized in the profit and loss for the current period.

v) Deferred acquisition cost

The group recognizes unrealized gains and losses arising from long-term insurance contracts as assets and amortizes the premiums over the life of the insurance contracts equally. If the contribution period exceeds 7 years, the amortization period is 7 years if there is an unrecognized balance at the date of the cancelation, the entire amount of the cancelation is amortized in the fiscal year to which the cancelation date belongs. But, if the ratio of additional premiums is higher at the early stage of the insurance period for the purpose of recovering the excess of the unearned premiums and the early settlement costs, the new settlement expenses are treated as the period expense.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

3. Significant accounting policies (continued)

(w) Recognition of revenues and expenses

The Group's revenues are recognized using five-step revenue recognition model as follows:

① 'Identifying the contract' → ② 'Identifying performance obligations' → ③ 'Determining the transaction price' → ④ 'Allocating the transaction price to performance obligations' → ⑤ 'Recognizing the revenue by satisfying performance obligations'.

i) Interest income and expense

Interest income and expense are recognized in profit or loss using the effective interest method. The effective interest rate is the rate that exactly discounts the estimated future cash payments and receipts through the expected life of the financial asset or liability or, where appropriate, a shorter period to the net carrying value of the financial asset or liability.

When calculating the effective interest rate, the Group estimates cash flows considering all contractual terms of the financial instrument, but does not consider future credit losses. The calculation includes all fees and points paid or received between parties to the contract that are an integral part of the effective interest rate, and all other premiums or discounts. When it is not possible to estimate reliably the cash flows or the expected life of a financial instrument, the Group uses the contractual cash flows over the full contractual term of the financial instrument.

Once a financial asset or a group of similar financial assets has been written down as a result of an impairment loss, interest income is thereafter recognized using the rate of interest used to discount the future cash flows for the purpose of measuring the impairment loss.

ii) Fees and commission

The recognition of revenue for financial service fees depends on the purposes for which the fees are assessed and the basis of accounting for any associated financial instrument.

① Fees that are an integral part of the effective interest rate of a financial instrument

Such fees are generally treated as an adjustment to the effective interest rate. Such fees may include compensation for activities such as evaluating the borrower's financial condition, evaluating and recording guarantees, collateral and other security arrangements, preparing and processing documents, closing the transaction and the origination fees received on issuing financial liabilities. However, when the financial instrument is measured at fair value with the change in fair value recognized in profit or loss, the fees are recognized as revenue when the instrument is initially recognized.

② Fees earned as services are provided

Fees and commission income, including investment management fees, sales commission, and account servicing fees, are recognized as the related services are provided.

③ Fees that are earned on the execution of a significant act

The fees that are earned on the execution of a significant act including commission on the allotment of shares or other securities to a client, placement fee for arranging a loan between a borrower and an investor and sales commission, are recognized as revenue when the significant act has been completed.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

3. Significant accounting policies (continued)

(w) Recognition of revenues and expenses (continued)

iii) Insurance income

The Group recognizes insurance income for the insurance premium paid of which the payment date arrived by the premium payment methods of the insurance contract; and recognizes advance receipts for the insurance premium paid of which the payment date has not arrived at the end of the reporting period.

iv) Dividend income

Dividend income is recognized when the shareholder's right to receive payment is established. Usually this is the ex-dividend date for equity securities. The Group provides compensation in various forms such as payment discounts and gifts.

(x) Revenue from Contracts with Customers

The fair value of the consideration received or receivable in exchange for the initial transaction is allocated to the reward points ("points") and the remainder of the fee income. The Group provides compensation in various forms such as payment discounts and free gifts. The consideration to be allocated to the points is estimated based on the fair value of the monetary benefits to be provided in consideration of the expected recovery rate of points awarded in accordance with the customer loyalty program and the expected time of recovery. Points for distribution through the cost paid by the customer is recognized by deducting from the revenue from fees.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

3. Significant accounting policies (continued)

(y) Income tax

Income tax expense comprises current and deferred tax. Current tax and deferred tax are recognized in profit or loss except to the extent that it relates to a business combination, or items recognized directly in equity or in other comprehensive income.

Current tax is the expected tax payable or receivable on the taxable profit or loss for the year, using tax rates enacted or substantively enacted at the end of the reporting period and any adjustment to tax payable in respect of previous years. The taxable profit is different from the accounting profit for the period since the taxable profit is calculated excluding the temporary differences, which will be taxable or deductible in determining taxable profit (tax loss) of future periods, and non-taxable or non-deductible items from the accounting profit. The unpaid taxes related to the Group's current tax are calculated using the enacted or substantially established tax rate.

Deferred tax is recognized, using the asset-liability method, in respect of temporary differences between the carrying values of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes. A deferred tax liability is recognized for all taxable temporary differences. A deferred tax asset is recognized for all deductible temporary differences to the extent that it is probable that taxable profit will be available against which they can be utilized. However, deferred tax is not recognized for the following temporary differences: taxable temporary differences arising on the initial recognition of goodwill, or the initial recognition of assets or liabilities in a transaction that is not a business combination and that affects neither accounting profit or loss nor taxable income.

The Group applies a consolidated tax method based on a consolidated tax base and a domestic corporation (hereinafter referred to as the "Consolidated Entity Corporation ") that is fully controlled by the consolidated parent company and the consolidated tax base.

The Group evaluates the feasibility of temporary differences, taking into account the future taxable income of individual companies and consolidated groups, respectively. The change in deferred tax assets (liabilities) was recognized as expense (income), except for the amount associated with items directly added to the equity account.

For additional temporary differences in subsidiaries, associates, and joint venture investment interests, the Group may control the timing of the disappearance of temporary differences. All deferred tax liabilities are recognised except in cases where temporary differences are unlikely to dissipate in the foreseeable future. Deferred tax assets arising from deductible temporary differences are likely to be extinguished in the foreseeable future. In addition, it is recognised when taxable income is likely to be used for temporary differences.

The carrying value of deferred tax assets is reviewed at the end of each reporting period. The carrying value of deferred tax assets is reduced when it is no longer likely that sufficient taxable income will be generated to use benefits from deferred tax assets.

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

Deferred tax assets and liabilities are corporate taxes imposed by the same taxation authority. Deferred tax assets and liabilities are offset only if there is a legally enforceable right to offset the related current tax liabilities and assets.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

3. Significant accounting policies (continued)

(y) Income tax (continued)

Because of the tax policies taken by the Group, tax uncertainties arise from the complexity of transactions and differences in tax law analysis. Also, it arises from a tax refund suit, tax investigation, or a refund suit against the tax authorities' tax amount. The Group paid the tax amount by the tax authorities in accordance with K-IFRS No. 2123. However, it will be recognized as the corporate tax assets if there is a high possibility of a refund in the future. In addition, the amount expected to be paid as a result of the tax investigation is recognized as the tax liability.

(z) Accounting for trust accounts

The Group accounts for trust accounts separately from its bank accounts under the Financial Investment Services and Capital Markets Act No. 114 and thus the trust accounts are not included in the accompanying consolidated financial statements. In this regard, the funds lent to the trust account are counted as trust account loans and loans borrowed from the trust account as other accounting accounts (non-payment of the trust account). In accordance with the Financial Investment Business Regulations, trust remuneration is acquired in connection with the operation, management, and disposal of trust property, and it is counted as the operating profit of trust business.

(aa) Earnings per share

The Group presents basic and diluted earnings per share (EPS) data for its ordinary shares. Basic EPS is calculated by dividing the profit or loss attributable to the ordinary shareholder of the Group by the weighted average number of common shares outstanding during the period, adjusted for own shares held. Diluted EPS is determined by adjusting the profit or loss attributable to ordinary shareholders and the weighted average number of ordinary shares outstanding, adjusted for own shares held, for the effects of all dilutive potential ordinary shares, which comprise share options granted to employees.

(ab) New standards and amendments not yet adopted by the Group

The following new accounting standards and amendments have been published that are not mandatory for annual periods beginning after January 1, 2022, and have not been early adopted by the Group. The Group did not early apply the following new standards and amendments when preparing consolidated financial statements

i) K-IFRS No. 1001 'Presentation of Financial Statements' amended - Classification of Liabilities as Current or Non-current

The amendments clarify that liabilities are classified as either current or non-current, depending on the substantive rights that exist at the end of the reporting period. Classification is unaffected by the likelihood that an entity will exercise right to defer settlement of the liability or the expectations of management. Also, the settlement of liability includes the transfer of the entity's own equity instruments, however, it would be excluded if an option to settle them by the entity's own equity instruments if compound financial instruments is met the definition of equity instruments and recognized separately from the liability. The amendments should be applied for annual periods beginning on or after January 1, 2024, and earlier application is permitted. The Group expects that the amendments will not have a significant impact on the consolidated financial statements.

ii) K-IFRS No. 1001 'Presentation of Financial Statements' amended - Disclosure of Accounting Policies

The amendments require an entity to define and to disclose its material information about accounting policies. The amendments should be applied for annual periods beginning on or after January 1, 2023, and earlier application is permitted. The Group expects that the amendments will not have a significant impact on the consolidated financial statements.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

3. Significant accounting policies (continued)

(ab) New standards and amendments not yet adopted by the Group (continued)

iii) *K-IFRS No. 1008 'Accounting Policies, Changes in Accounting Estimates and Errors' amended - Definition of Accounting Estimates*

The amendments clarify the definition of accounting estimates and how distinguish it from a change in accounting policies. The amendments should be applied for annual periods beginning on or after January 1, 2023, and earlier application is permitted. The Group expects that the amendments will not have a significant impact on the consolidated financial statements.

iv) *K-IFRS No. 1012 'Income Taxes' - Deferred Tax Related to Assets and Liabilities Arising from a Single Transaction*

Under the amendments, an entity does not apply the initial recognition exemption for transactions which involve the recognition of both an asset and liability – which in turn leads to equal taxable and deductible temporary differences. The amendments should be applied for annual periods beginning on or after January 1, 2023, and earlier application is permitted. The Group expects that the amendments will not have a significant impact on the consolidated financial statements.

v) *K-IFRS No. 1001 'Presentation of Financial Statements' – Disclosure of financial liabilities valuation gains or losses with conditions for exercise price adjustment currently available as a draft, will be applicable when published by K-IFRS*

The amendments require disclosure of the carrying amount of the financial liability and its related gains or losses if, all or part of a financial instrument subject to adjustment of the exercise price according to changes in the issuer's stock price. The amendments should be applied for annual periods beginning on or after January 1, 2023, and earlier application is permitted. The Group expects that the amendments will not have a significant impact on its consolidated financial statements.

vi) *K-IFRS No.1117 'Insurance Contracts'*

① Key amendments to accounting policies

K-IFRS No. 1117 *'Insurance Contracts'* enacted on April 23, 2021 will be applied for annual periods beginning on or after January 1, 2023. The standard will replace K-IFRS No. 1104 *'Insurance Contracts'* which is the current standard.

The main features of K-IFRS No. 1117 include measurement of the current value of insurance liabilities, recognition of insurance revenue on an accrual basis, and separate presentation of investment income from insurance performance. Under K-IFRS No. 1104, insurance liability was measured using historical information (e.g., interest rates at sale, etc.). In addition, when the entity receives the premium, it recognizes the premium received as an insurance revenue on a cash basis and there is no obligation to present insurance and investment income or expense separately. On the contrary, K-IFRS No. 1117 measures insurance liability at its present value (i.e. at the reporting date) by using updated discount rates which reflect current market-based information such as assumptions and risks. An insurance revenue is recognized on an accrual basis, reflecting the services provided to the policyholder by the insurance company for each accounting periods. Moreover, insurance finance income or expenses and the investment income or expenses will be presented separately.

If the Group applies K-IFRS No. 1117 in preparation of the financial statements, significant differences with current financial statements may arise due to the following reasons. These differences do not include all of the future differences and they may be changed depending on further analysis.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

3. Significant accounting policies (continued)

(ab) New standards and amendments not yet adopted by the Group (continued)

vi) *K-IFRS No.1117 'Insurance Contracts' (continued)*

② Evaluation of insurance liabilities

Under K-IFRS No. 1117, the Group estimates all cash flows under the insurance contract, then measures insurance liability by using discount rates that reflect assumptions and risks at the reporting date.

Specifically, the Group identifies a portfolio of insurance contracts which comprises contracts subject to similar risks and managed together and disaggregates the groups of insurance contracts with similar profitability within the portfolio. Then, the Group measures the groups of insurance contracts at the total of estimates of future cash flows (reflecting cash flows related to insurance contracts and the time value of money), risk adjustment and contractual service margin. Upon the application of K-IFRS No. 1117, contractual service margin account has been newly introduced. The contractual service margin presents the unrealized profit that the Group will recognize as it provides services in the future.

Reinsurance contract is an insurance contract issued by one entity (the reinsurer) to compensate another entity for claims arising from one or more insurance contracts issued by that another entity (underlying insurance contracts). When estimating present value of future cash flows arising from reinsurance contracts, the Group would use assumptions consistent with those it uses for the underlying contracts.

The Group calculates the discount rate for measuring the current value of an insurance liability using the bottom-up approach, such as, by adding a liquidity premium to the risk-free rate of return (risk-free interest rate term structure) and the confidence level to calculate risk adjustment which reflects measurement of an uncertainty regarding the amount and timing of cash flows in a non-financial risk (insurance risk, cancellation risk, cost risk, etc.).

For insurance liability measurement models, the General Model (GM) is applied for underlying contracts, etc., but the Variable Fee Approach (VFA) is applied for insurance contracts that have direct participation features that meet certain requirements. However, Premium Allocation Approach (PAA) is applied for contracts with of one year or less coverage period.

③ Recognition and measurement of financial performance

According to K-IFRS No. 1117, insurance revenue is recognized on an accrual basis including services (insurance coverage) provided to the policyholder for each accounting period. Investment components (such as cancellation or maturity refunds) being repaid to the policyholder even if an insured event does not occur, are excluded from insurance revenue. Insurance finance income or expenses and investment income or expenses are presented separately to enable information users to understand the sources of profits or losses.

The Group includes time value of money and financial risk, and the effect of changes in the time value of money and financial risk related to the groups of insurance contracts in the insurance finance income or expenses. This requires the Group to make an accounting policy choice as to whether to disaggregate insurance finance income or expenses for the period between profit or loss and other comprehensive income.

The Group disaggregates the amounts recognized in the statements of profit or loss and other comprehensive income by portfolios. In case of applying the 'General Model (GM)', insurance finance income or expenses are recognized in other comprehensive income.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

3. Significant accounting policies (continued)

(ab) New standards and amendments not yet adopted by the Group (continued)

vi) *K-IFRS No.1117 'Insurance Contracts' (continued)*

④ Accounting policies related to transition

According to the transition of K-IFRS No. 1117, the Group shall adjust the groups of insurance contracts issued before the transition date, that is measured at cost to be measured at its current value by applying a full retrospective approach, modified retrospective approach or fair value approach (January 1, 2022, the beginning of the annual reporting period immediately preceding the date of initial application).

In principle, the Group shall identify, recognize, and measure (full retrospective approach) each group of insurance contracts as if K-IFRS No. 1117 had been applied even before the transition date. However, if this approach is impracticable, the Group may choose to apply either the modified retrospective approach or fair value approach. On the other hand, for groups of insurance contracts with direct participation features which meet certain criteria, a fair value approach may be applied even if the full retrospective approach is applicable.

The objective of the modified retrospective approach is to achieve the closest outcome to full retrospective application possible using reasonable and supportable information available without undue cost or effort. The fair value approach is an approach of assessing a group of insurance contracts using fair value assessments, etc. in accordance with K-IFRS No. 1113 'Fair Value Measurement'. To apply the fair value approach, the Group shall determine the contractual service margin or loss component of the liability for remaining coverage at the transition date as the difference between the fair value of a group of insurance contracts and the fulfilment cash flows measured at that date.

The Group applies modified retrospective approach only for underlying contracts issued within three years before the transition date, and fair value approach for other underlying contracts and reinsurance contracts held, to measure insurance liability at transition date.

⑤ Preparation for application

The Group has completed setting up actuarial assumptions and models and insurance liability settlement system. Before 2023, when the standard is first applied, the Group is planning to continue fostering and reinforcing additional professionals and will constantly promote advancement, including improvements on system stability and verification of the consistency of data output. Also, the Group is being overhauled and established an Internal Control of Financial Reporting that goes along with the dynamic accounting environment in order to prepare and disclose reliable accounting information.

The application of K-IFRS No. 1117 will not only result to a change in accounting standards, but will also affect insurance product development, sales strategies, and long-term management strategies. Therefore, with the aim of re-establishment of the overall business management system, the Group will continue to provide training to the employees and report to the management the status and implementation plan of K-IFRS No. 1117.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

3. Significant accounting policies (continued)

(ab) New standards and amendments not yet adopted by the Group (continued)

vi) *K-IFRS No.1117 'Insurance Contracts' (continued)*

⑥ Financial effects analysis

As the implementation of K-IFRS No. 1117 results to changes in the measurement of liabilities, revenue recognition, etc., the Group expects that it will lead to a volatility in financial figures of financial statements prepared for the year ended 2023.

The Group's assessment of financial impact of the initial application of K-IFRS No. 1117 using the current financial reporting system established as of December 31, 2022, for the financial statements prepared for the year ended 2022 are as follows. However, at this point, it is difficult in practice to provide reasonable estimates of the impact on future financial statements, as sufficient review and analysis of accounting policies and actuarial assumptions and methodology for the application of K-IFRS No. 1117 is still in progress. Therefore, the results on analysis are subject to change depending on additional information and economic conditions available in the future.

(i) Impact on the statement of financial position and the statement of comprehensive income

The Group classifies financial assets according to its business model by introducing *K-IFRS No.1109 'Financial Instruments'*, but it will change its classification and measurement for capital volatility management through market valuation of insurance liabilities as it allows revaluation of the business model when introducing *K-IFRS No. 1117 'Insurance Contracts'* in 2023. Accordingly, the group assessed the preliminary financial impact by applying the classification adjustments in K-IFRS No. 1117 to financial assets removed between the transition date and the initial application date to present comparative information for financial assets whose classification and measurement requirements in K-IFRS No. 1109 have been changed through business model revaluation.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

3. Significant accounting policies (continued)

(ab) New standards and amendments not yet adopted by the Group (continued)

vi) *K-IFRS No.1117 'Insurance Contracts' (continued)*

⑥ Financial effects analysis (continued)

(i) *Impact on the statement of financial position and the statement of comprehensive income (continued)*

[Shinhan Life Insurance Co., Ltd.]

<Statement of Financial Position>

The statement of financial position prepared in accordance with K-IFRS No. 1104 and K-IFRS No. 1117 as at December 31, 2022 are as follows:

Accounts	Under K-IFRS No. 1104 and 1109 (A) (*1)	Accounts	Under K-IFRS No. 1117 and 1109 (B) (*2)	(B-A)
Total Assets	66,753,920	Total Assets	56,501,131	(10,252,789)
Cash and due from banks at amortized cost	1,112,577	Cash and due from banks at amortized cost	1,653,704	
Financial assets at fair value through profit or loss	6,662,617	Financial assets at fair value through profit or loss	11,527,229	
Securities at fair value through other comprehensive income	10,946,361	Securities at fair value through other comprehensive income	32,753,803	
Securities at amortized cost	27,744,212	Securities at amortized cost	4,338,766	
Loans at amortized cost	8,612,410	Loans at amortized cost	4,219,870	
Reinsurance contract assets	295,621	Reinsurance contract assets	59,017	
Other assets	11,380,122	Other assets	1,948,742	
Total Liabilities	63,271,167	Total Liabilities	48,414,409	(14,856,758)
Insurance contract liabilities	53,369,918	Insurance contract liabilities	42,928,691	
		Reinsurance contract liabilities	62,770	
		Investment contract liabilities	2,296,401	
Other liabilities	9,901,249	Other liabilities	3,126,547	
Total equity	3,482,753	Total equity	8,086,722	4,603,969

(*1) The amounts applied under *K-IFRS No. 1109 'Financial Instruments'* and *K-IFRS No. 1104 'Insurance Contracts'* (Application of the overlay approach under K-IFRS No. 1104 to financial assets related to insurance contracts).

(*2) The amounts applied under *K-IFRS No. 1109 'Financial Instruments'* and *K-IFRS No. 1117 'Insurance Contracts'*.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

3. Significant accounting policies (continued)

(ab) New standards and amendments not yet adopted by the Group (continued)

vi) *K-IFRS No.1117 'Insurance Contracts' (continued)*

⑥ Financial effects analysis (continued)

(i) *Impact on the statement of financial position and the statement of comprehensive income (continued)*

<Statement of Comprehensive Income>

The statement of comprehensive income prepared in accordance with K-IFRS No. 1104 and K-IFRS No. 1117 for the year ended December 31, 2022 are as follows:

Accounts	Under K-IFRS No. 1104 and 1109 (A) (*1)	Accounts	Under K-IFRS No. 1117 and 1109 (B) (*2)	(B-A)
Operating income	9,412,664	Insurance service result	733,320	
		Insurance service revenue	760,665	
		Net reinsurance service expenses	(27,345)	
Operating expenses	(8,796,865)	Net financial result	(182,741)	
		Investment income	588,729	
		Insurance finance expenses	(771,470)	
Operating profit	615,799	Operating profit	550,579	(65,220)
Non-operating income or expenses	(17,562)	Non-operating income	(17,673)	
Profit before income taxes	598,237	Profit before income taxes	532,906	(65,331)
Income tax expense	(134,644)	Income tax expense	(117,331)	
Profit for the year	463,593	Profit for the year	415,575	(48,018)
Other comprehensive loss for the year	(2,122,609)	Other comprehensive loss for the year	(592,441)	
Total comprehensive loss for the year	(1,659,016)	Total comprehensive loss for the year	(176,866)	1,482,150

(*1) The amounts applied under *K-IFRS No. 1109 'Financial Instruments'* and *K-IFRS No. 1104 'Insurance Contracts'* (Application of the overlay approach under K-IFRS No. 1104 to financial assets related to insurance contracts).

(*2) The amounts applied under *K-IFRS No. 1109 'Financial Instruments'* and *K-IFRS No. 1117 'Insurance Contracts'*.

<Statement of Cash Flows>

The statement of cash flows prepared in accordance with K-IFRS No. 1104 and K-IFRS No. 1117 for the year ended December 31, 2022 are as follows:

Accounts	Under K-IFRS No. 1104 and 1109 (A) (*1)	Under K-IFRS No. 1117 and 1109 (B) (*2)	(B-A)
Cash flows from operating activities	(931,218)	(1,337,223)	(406,005)
Cash flows from investing activities	288,321	623,849	335,528
Cash flows from financing activities	(42,340)	(42,340)	-

(*1) The amounts applied under *K-IFRS No. 1109 'Financial Instruments'* and *K-IFRS No. 1104 'Insurance Contracts'* (Application of the overlay approach under K-IFRS No. 1104 to financial assets related to insurance contracts).

(*2) The amounts applied under *K-IFRS No. 1109 'Financial Instruments'* and *K-IFRS No. 1117 'Insurance Contracts'*.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

3. Significant accounting policies (continued)

(ab) New standards and amendments not yet adopted by the Group (continued)

vi) *K-IFRS No.1117 'Insurance Contracts' (continued)*

⑥ Financial effects analysis (continued)

(i) *Impact on the statement of financial position and the statement of comprehensive income (continued)*

[Shinhan EZ General Insurance, Ltd.]

<Statement of Financial Position>

The statement of financial position prepared in accordance with K-IFRS No. 1104 and K-IFRS No. 1117 as at December 31, 2022 are as follows:

Accounts	Under K-IFRS No. 1104 and 1109 (A) (*1)	Accounts	Under K-IFRS No. 1117 and 1109 (B) (*2)	(B-A)
Total Assets	241,096	Total Assets	222,971	(18,125)
Cash and due from banks at amortized cost	133,996	Cash and due from banks at amortized cost	133,996	
Securities at fair value through other comprehensive income	9,876	Securities at fair value through other comprehensive income	9,876	
Securities at amortized cost	40,016	Securities at amortized cost	40,016	
Reinsurance contract assets	35,748	Reinsurance contract assets	24,713	
Other assets	21,460	Other assets	14,370	
Total Liabilities	115,448	Total Liabilities	85,520	(29,928)
Insurance contract liabilities	93,885	Insurance contract liabilities	75,318	
		Reinsurance contract liabilities	-	
		Investment contract liabilities	-	
Other liabilities	21,563	Other liabilities	10,202	
Total equity	125,648	Total equity	137,451	11,803

(*1) The amounts applied under *K-IFRS No. 1109 'Financial Instruments'* and *K-IFRS No. 1104 'Insurance Contracts'*.

(*2) The amounts applied under *K-IFRS No. 1109 'Financial Instruments'* and *K-IFRS No. 1117 'Insurance Contracts'*.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES
Notes to the Consolidated Financial Statements
December 31, 2022 and 2021

3. Significant accounting policies (continued)

(ab) New standards and amendments not yet adopted by the Group (continued)

vi) *K-IFRS No.1117 'Insurance Contracts' (continued)*

⑥ Financial effects analysis (continued)

(i) *Impact on the statement of financial position and the statement of comprehensive income (continued)*

<Statement of Comprehensive Income>

The statement of comprehensive income prepared in accordance with K-IFRS No. 1104 and K-IFRS No. 1117 for the year ended December 31, 2022 are as follows:

Accounts	Under K-IFRS No. 1104 and 1109 (A) (*1)	Accounts	Under K-IFRS No. 1117 and 1109 (B) (*2)	(B-A)
Operating income	71,210	Insurance service result	(11,060)	
		Insurance service revenue	(7,977)	
		Net reinsurance service expenses	(3,083)	
Operating expenses	(86,452)	Net financial result	1,490	
		Investment income	2,181	
		Insurance finance expenses	(691)	
Operating profit	(15,242)	Operating profit	(9,570)	5,672
Non-operating income	212	Non-operating income	212	
Profit before income taxes	(15,030)	Profit before income taxes	(9,358)	5,672
Income tax expense	-	Income tax expense	-	
Profit for the year	(15,030)	Profit for the year	(9,358)	5,672
Other comprehensive income for the year	208	Other comprehensive income for the year	225	
Total comprehensive loss for the year	(14,822)	Total comprehensive loss for the year	(9,133)	5,689

(*1) The amounts applied under *K-IFRS No. 1109 'Financial Instruments'* and *K-IFRS No. 1104 'Insurance Contracts'*.

(*2) The amounts applied under *K-IFRS No. 1109 'Financial Instruments'* and *K-IFRS No. 1117 'Insurance Contracts'*.

<Statement of Cash Flows>

The statement of cash flows prepared in accordance with K-IFRS No. 1104 and K-IFRS No. 1117 for the year ended December 31, 2022 are as follows:

Accounts	Under K-IFRS No. 1104 and 1109 (A) (*1)	Under K-IFRS No. 1117 and 1109 (B) (*2)	(B-A)
Cash flows from operating activities	9,331	9,331	-
Cash flows from investing activities	(59,056)	(59,056)	-
Cash flows from financing activities	(79,183)	(79,183)	-

(*1) The amounts applied under *K-IFRS No. 1109 'Financial Instruments'* and *K-IFRS No. 1104 'Insurance Contracts'*.

(*2) The amounts applied under *K-IFRS No. 1109 'Financial Instruments'* and *K-IFRS No. 1117 'Insurance Contracts'*.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

3. Significant accounting policies (continued)

(ab) New standards and amendments not yet adopted by the Group (continued)

vi) K-IFRS No.1117 'Insurance Contracts' (continued)

⑥ Financial effects analysis (continued)

(ii) Financial impact of transition to K-IFRS No. 1117

As of the transition date (January 1, 2022), the measurement of liability for underlying contracts held, using different transition approaches is as follows:

[Shinhan Life Insurance Co., Ltd.]

Transition approach	Date issued - insurance contract	Insurance contract liabilities	Contractual Service Margin
Modified retrospective approach	2019 - 2021	1,437,967	2,734,701
Fair value approach	Before 2018	49,184,220	3,753,602
		<u>50,622,187</u>	<u>6,488,303</u>

As of the transition date (January 1, 2022), the amount of reinsurance contracts held calculated by applying the fair value approach is ₩ 281,763 million of reinsurance contract liabilities.

[Shinhan EZ General Insurance, Ltd.]

Transition approach	Date issued - insurance contract	Insurance contract liabilities	Contractual Service Margin
Modified retrospective approach	2019 - 2021	47,331	100

As of the transition date (January 1, 2022), the amount of reinsurance contracts held calculated by applying the fair value approach is ₩ 13,025 million of reinsurance contract liabilities.

(iii) Financial impact on insurance assets and liabilities

As of December 31, 2022, the amount of insurance contract liabilities applying K-IFRS No. 1117 is as follows:

[Shinhan Life Insurance Co., Ltd.]

Classification	Insurance contract liabilities	Contractual service margin (under liabilities)	Insurance contract assets	Contractual service margin (under assets)
Underlying contracts	42,928,691	6,924,913	-	-
Reinsurance contracts	62,770	(83,185)	59,017	94,861
	<u>42,991,461</u>	<u>6,841,728</u>	<u>59,017</u>	<u>94,861</u>

[Shinhan EZ General Insurance, Ltd.]

Classification	Insurance contract liabilities	Contractual service margin (under liabilities)	Insurance contract assets	Contractual service margin (under assets)
Underlying contracts	75,318	-	519	(94)
Reinsurance contracts	-	-	24,713	-
	<u>75,318</u>	<u>-</u>	<u>25,232</u>	<u>(94)</u>

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

4. Financial risk management

(a) Overview

(a) Overview

Shinhan Financial Group Co., Ltd. (collectively the "Group") manages various risks that may be arisen by each business sector and the major risks to which the Group is exposed include credit risk, market risk, interest rate risk, and liquidity risk. These risks are recognized, measured, controlled and reported in accordance with risk management guidelines established at the controlling company level and at the subsidiary level.

i) Risk management principles

The risk management principles of the Group are as follows:

- All business activities take into account the balance of risks and profits within a predetermined risk trend.
- The controlling company shall present the Group Risk Management Model Standards and supervise their compliance, and have responsibility and authority for group-level monitoring.
- Operate a risk-related decision-making system that enhances management's involvement.
- Organize and operate risk management organizations independent of the business sector.
- Operate a performance management system that clearly considers risks when making business decisions.
- Aim for preemptive and practical risk management functions.
- Share a cautious view to prepare for possible deterioration of the situation.

ii) Risk management organization

The basic policies and strategies for risk management of the Group are established by the Risk Management Committee (collectively the "Group Risk Management Committee") within the controlling company's Board of Directors. The Group's Chief Risk Management Officer (CRO) assists the Group Risk Management Committee and consults the risk policies and strategies of the group and each subsidiary through the Group Risk Council, which includes the Chief Risk Management Officer of each subsidiary. The subsidiary implements the risk policies and strategies of the Group through each company's risk management committee, risk-related committee, and risk management organization, and consistently establishes and implements the detailed risk policies and strategies of the subsidiary. The risk management team of the controlling company assists the Group's chief risk management officer for risk management and supervision.

Shinhan Financial Group has a hierarchical limit system to manage the risks of the Group to an appropriate level. The Group Risk Management Committee sets the risk limits that can be assumed by the Group and its subsidiaries, while the Risk Management Committee and the Committee of each subsidiary set and manage detailed risk limits by risk, department, desk and product types.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

4. Financial risk management (continued)

(a) Overview (continued)

ii) Risk management organization (continued)

① Group Risk Management Committee

The Group established the risk management system for the Group and each of its subsidiaries, and comprehensively manages group risk-related matters such as establishing risk policies, limits, and approvals. The Committee consists of directors of the Group.

The resolution of the Committee is as follows:

- Establish risk management basic policy in line with management strategy
- Determine the level of risk that can be assumed by the Group and each subsidiary
- Approve appropriate investment limit or loss allowance limit
- Enact and amend the Group Risk Management Regulations and the Group Risk Council Regulations
- Matters concerning risk management organization structure and division of duties
- Matters concerning the operation of the risk management system
- Matters concerning the establishment of various limits and approval of limits
- Make decisions on approval of the FSS's internal rating law for non-retail and retail credit rating systems
- Matters concerning risk disclosure policy
- Analysis of crisis situation, related capital management plan and financing plan
- Matters deemed necessary by the board of directors
- Materials required by external regulations such as the Financial Services Commission and other regulations and guidelines
- Matters deemed necessary by the Chairman

The resolution of the Group Risk Management Committee is reported to the Board of Directors.

② Group Risk Management Council

In order to maintain the Group's risk policy and strategy consistently, the Group decides what is necessary to discuss the risks of the Group and to carry out the policies set by the Group Risk Management Committee. The members are chaired by the group's risk management officer and consist of the risk management officers of major subsidiaries.

iii) Group Risk Management System

① Management of the risk capital

Risk capital refers to the capital required to compensate for the potential loss (risk) if it is actually realized. Risk capital management refers to the management of the risk assets considering its risk appetite, which is a datum point on the level of risk burden compared to available capital, so as to maintain the risk capital at an appropriate level. The Group and subsidiaries establish and operate a risk planning process to reflect the risk plan in advance when establishing financial and business plans for risk capital management, and establish a risk limit management system to control risk to an appropriate level.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

4. Financial risk management (continued)

(a) Overview (continued)

iii) Group Risk Management System (continued)

② Risk Monitoring

In order to proactively manage risks by periodically identifying risk factors that can affect the group's business environment, the Group has established a multi-dimensional risk monitoring system. Each subsidiary is required to report to the Group on key issues that affect risk management at the group level. The Group prepares weekly, monthly and occasional monitoring reports to report to Group management including the CRO.

In addition, the Risk Dash Board is operated to derive abnormal symptoms through three-dimensional monitoring of major portfolios, increased risks, and external environmental changes of assets for each subsidiary. If necessary, the Group takes preemptive risk management to establish and implement countermeasures.

③ Risk Reviewing

When conducting new product-new business and major policy changes, risk factors are reviewed by using a pre-defined checklist to prevent indiscriminate promotion of business that is not easy to judge risk and to support rational decision making. The subsidiary's risk management department conducts a preliminary review and post-monitoring process on products, services, and projects to be pursued in the business division. In case of matters that are linked or jointly promoted with other subsidiaries, the risk reviews are carried out after prior-consultation with the risk management department of the Group.

④ Risk management

The Group maintains a group wide risk management system to detect the signals of any risk crisis preemptively and, in the event of a crisis actually happening, to respond on a timely, efficient and flexible basis so as to ensure the Group's survival as a going concern. Each subsidiary maintains crisis planning for three levels of contingencies, namely, 'alert', 'imminent crisis' and 'crisis' determination of which is made based on quantitative and qualitative monitoring and consequence analysis, and upon the happening of any such contingency, is required to respond according to a prescribed contingency plan. At the controlling company level, the Group maintains and installs crisis detection and response system which is applied consistently group-wide, and upon the happening of any contingency at two or more subsidiary level, the Group directly takes charge of the situation so that the Group manages it on a concerted group wide basis.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

4. Financial risk management (continued)

(b) Credit risk

Credit risk is the risk of potential economic loss that may be caused if a customer or counterparty to a financial instrument fails to meet its contractual obligations, and is the largest risk which the Group is facing. The Group's credit risk management encompasses all areas of credit that may result in potential economic loss, including not just transactions that are recorded on balance sheets, but also off-balance-sheet transactions such as guarantees, loan commitments and derivative transactions.

Shinhan Bank's basic policy on credit risk management is determined by the Risk Policy Committee. The Risk Policy Committee consists of the chairman of the CRO, the Chief Credit Officer (CCO), the head of the business group, and the head of the risk management department, and decides the credit risk management plan and the direction of the loan policy for the entire bank. Apart from the Risk Policy Committee, the Credit Review Committee is established to separate credit monitoring, such as large loans and limit approval, and is composed of chairman, the CCO, CRO and the head of the group in charge of the credit-related business group, the head of the credit planning department, and the senior examination team to enhance the credit quality of the loan and profitability of operation.

Shinhan Bank's credit risk management includes processes such as credit evaluation, credit monitoring, and credit supervision, and credit risk measurement of counterparties and limit management processes and credit risk measurements for portfolios. All loan customers of Shinhan Bank are evaluated and managed with credit ratings. Retail customers are evaluated by summing up the information of personal information the bank's internal information and external credit information, and the corporate customers are evaluated by considering financial and non-financial items such as industrial risk, operating risk, and management risk. The evaluated credit rating is used for credit approval, limit management, pricing, credit loss provisioning, etc., and is the basis for credit risk management. The credit evaluation system is divided into an evaluation system for retail customers, a SOHO evaluation system, and an evaluation system for corporate customers. It is subdivided and refined by each model to reflect the Basel III requirements. The corporate credit decision is based on a collective decision-making system, making objective and prudent decisions. In the case of a general credit of loans, the credit is approved based on the consultation between branch's RM (Relationship Manager) and loan officers of each business division's headquarters. In the case of a large or important credit, the credit is approved by the review council. In particular, the Credit Deliberation Committee, the highest decision-making body of the loan, reviews for important loans such as large loans. Credits for retail customers are monitored by an automated credit scoring systems (CSS) based on objective statistical methods and bank credit policies.

The Bank operates a regular monitoring system for the regular management of individual loans. The loan officers and RM evaluate the adequacy of the result of the loan review by automatically searching for anticipated insolvent companies among business loan partners, and if necessary, the credit rating of the corporate is requested of an adjustment. In accordance with these procedures, the corporate customers are classified as an early warning company, an observation company, and a normal company, and then are managed differently according to the management guidelines for each risk stage, thereby preventing the insolvency of the loan at an early stage. The financial analysis support system affiliated with a professional credit rating agency supports credit screening and management, and the credit planning department calculates and manages industrial grades, and analyzes and provides industry trends and company information. In order to control the credit risk for the credit portfolio to an appropriate level, credit VaR limits are set and managed for each business and business sector, and to prepare for the credit risk caused by biased exposure to specific sectors, the Group sets and manages exposure limits for each sector by the party, industry, country, etc.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

4. Financial risk management (continued)

(b) Credit risk (continued)

Shinhan Card's basic policy on credit risk is determined by the Risk Management Committee. The Risk Management Committee consists of the Risk Management Officer (CRO) as the chairperson, and is composed of the heads of each business division and supporting division, and the heads of related departments. Apart from the RMC, a credit committee in charge of monitoring corporate credits and other important credits over a certain amount has been established to separate credit policy decisions from credit monitoring.

Shinhan Card's credit rating system is divided into ASS(Application Scoring System) and BSS(Behavior Scoring System). Unless a customer fall under "rejections due to policy" (such circumstances include delinquency of other credit card companies) and his/her credit rating is above a certain rate, an application of AS is approved. There is a separate screening criterion for credit card customers, who has maintained its relationship with Shinhan Financial Group for a long-term and has a good credit history. In addition, the elements of credit ratings are used as the basis for setting limits when issuing cards. The BSS, which is recalculated monthly, predicts the delinquency probability of cardholders, and utilizes it to monitor members and monitor portfolio risk.

i) Techniques, assumptions and input variables used to measure impairment

i-1) Determining significant increases in credit risk since initial recognition

At the end of each reporting period, the Group assesses whether the credit risk on a financial instrument has increased significantly since initial recognition. When making the assessment, the Group uses the change in the risk of a default occurring over the expected life of the financial instrument instead of the change in the amount of expected credit losses.

To make the assessment, the Group compares the risk of a default occurring on the financial instrument as at the reporting date with the risk of a default occurring on the financial instrument as at the date of initial recognition and considers reasonable and supportable information, that is available without undue cost or effort, and is indicative of significant increases in credit risk since initial recognition. Information includes the default experience data held by the Group and analysis by an internal credit rating expert.

i-1-1) Measuring the risk of default

The Group assigns an internal credit risk rating to each individual exposure based on observable data and historical experiences that have been found to have a reasonable correlation with the risk of default. The internal credit risk rating is determined by considering both qualitative and quantitative factors that indicate the risk of default, which may vary depending on the nature of the exposure and the type of borrower.

i-1-2) Measuring term structure of probability of default

Internal credit risk rating is the main variable inputs to determine the duration structure for the risk of default. The Group accumulates information after analyzing the information regarding exposure to credit risk and default information by the type of product and borrower and results of internal credit risk assessment. For some portfolios, the Group uses information obtained from external credit rating agencies when performing these analyses.

The Group applies statistical techniques to estimate the probability of default for the remaining life of the exposure from the accumulated data and to estimate changes in the estimated probability of default over time.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES
Notes to the Consolidated Financial Statements
December 31, 2022 and 2021

4. Financial risk management (continued)

(b) Credit risk (continued)

i) Techniques, assumptions and input variables used to measure impairment (continued)

i-1-3) Significant increases in credit risk

The Group uses the indicators defined as per portfolio to determine the significant increase in credit risk and such indicators generally consist of changes in the risk of default estimated from changes in the internal credit risk rating, qualitative factors, days of delinquency, and others. The method used to determine whether credit risk of financial instruments has significantly increased after the initial recognitions is summarized as follows:

<u>Corporate exposures</u>	<u>Retail exposures</u>	<u>Card exposures</u>
Significant change in credit ratings Continued past due more than 30 days	Significant change in credit ratings Continued past due more than 30 days	Significant change in credit ratings Continued past due more than 7 days(personal card)
Loan classification of precautionary or below Borrower with early warning signals	Loan classification of precautionary or below Borrower with early warning signals	Loan classification of precautionary or below Specific delinquent pool segment
Negative net assets Adverse audit opinion or disclaimer of opinion	Specific pool segment Collective loans for housing for which the constructors are insolvent	
Interest coverage ratio below 1 for a consecutive period of three years or negative cash flows from operating activities for a consecutive period of two years	Loans with identified indicators for significant increases in other credit risk	
Loans with identified indicators for significant increases in other credit risk		

The Group assumes that the credit risk of the financial instrument has been increased significantly since initial recognition if a specific exposure is past due more than 30 days (except, for a specific portfolio if it is past due more than 7 days). The Group counts the number of days past due from the earliest date on which the Group fails to fully receive the contractual payments from the borrower, and does not take into account the grace period granted to the borrower.

The Group regularly reviews the criteria for determining if there have been significant increases in credit risk from the following perspective:

- A significant increase in credit risk shall be identified prior to the occurrence of default.
- The criteria established to judge the significant increase in credit risk shall have a more predictive power than the criteria for days of delinquency.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

4. Financial risk management (continued)

(b) Credit risk (continued)

i) Techniques, assumptions and input variables used to measure impairment (continued)

i-2) Modified financial assets

If the contractual cash flows on a financial asset have been modified through renegotiation and the financial asset is not derecognized, the Group assesses whether there has been a significant increase in the credit risk of the financial instrument by comparing the risk of a default occurring at initial recognition based on the original, unmodified contractual terms and the risk of a default occurring at the reporting date based on the modified contractual terms.

The Group may adjust the contractual cash flows of loans to customers who are in financial difficulties in order to manage the risk of default and enhance the collectability (hereinafter referred to as 'debt restructuring'). These adjustments generally involve extension of maturity, changes in interest payment schedule, and changes in other contractual terms.

Debt restructuring is a qualitative indicator of a significant increase in credit risk and the Group recognizes lifetime expected credit losses for the exposure expected to be the subject of such adjustments. If a borrower faithfully makes payments of contractual cash flows that are modified in accordance with the debt restructuring or if the borrower's internal credit rating has recovered to the level prior to the recognition of the lifetime expected credit losses, the Group recognizes the 12-month expected credit losses for that exposure again.

i-3) Risk of default

The Group considers a financial asset to be in default if it meets one or more of the following conditions:

- If a borrower is overdue 90 days or more from the contractual payment date,
- If the Group judges that it is not possible to recover principal and interest without enforcing the collateral on a financial asset

The Group uses the following indicators when determining whether a borrower is in default:

- Qualitative factors (e.g. breach of contractual terms),
- Quantitative factors (e.g. if the same borrower does not perform more than one payment obligations to the Group, the number of days past due per payment obligation. However, in the case of a specific portfolio, the Group uses the number of days past due for each financial instrument),
- Internal observation data and external data

The definition of default applied by the Group generally conforms to the definition of default defined for regulatory capital management purposes; however, depending on the situations, the information used to determine whether a default has occurred and the extent thereof may vary.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

4. Financial risk management (continued)

(b) Credit risk (continued)

i) Techniques, assumptions and input variables used to measure impairment (continued)

i-4) Reflection of forward-looking information

The Group reflects future forward-looking information presented by a group of internal experts based on various information when measuring expected credit losses. The Group utilizes economic forecasts disclosed by domestic and foreign research institutes, governments, and public institutions to predict forward-looking information.

The Group reflects future macroeconomic conditions anticipated from a neutral standpoint that is free from bias in measuring expected credit losses. Expected credit losses in this respect reflect conditions that are most likely to occur and are based on the same assumptions that the Group used in its business plan and management strategy.

The Group analyzed the data experienced in the past, derived correlations between major macroeconomic variables and credit risks required for predicting credit risk and credit loss for each portfolio, and then reflected future forecast information through regression estimation. To reflect the COVID-19 economic situation, the Group has reviewed the 3 scenarios of upside, central and downside to reflect the final forward-looking information. For the years ended December 31, 2022 and 2021, macroeconomic variables used by the Group are as follows for each scenario.

<December, 31, 2022>

① Upside scenario

Major variables(*1)	Correlation between credit risks	2022.4Q(*2),(*3)	2023(*2),(*3)			
			1Q	2Q	3Q	4Q
GDP growth rate(YoY %)	(-)	1.4	1.6	1.7	2.5	3.9
Private consumption index(YoY %)	(-)	3.6	4.9	2.8	2.1	3.6
Facility investment growth rate(YoY %)	(-)	6.6	1.5	2.0	(4.2)	5.3
Consumer price index growth rate(%)	(+)	5.3	5.0	4.0	3.4	3.0
Balance on current account(100 million dollars)	(-)	15.0	30.0	40.0	80.0	100.0
Government bond 3y yields(%)	-	3.9	3.7	4.0	4.0	4.0

② Central scenario

Major variables(*1)	Correlation between credit risks	2022.4Q(*2),(*3)	2023(*2),(*3)			
			1Q	2Q	3Q	4Q
GDP growth rate(YoY %)	(-)	1.4	0.4	0.5	1.2	3.7
Private consumption index(YoY %)	(-)	3.6	3.8	1.5	0.6	2.8
Facility investment growth rate(YoY %)	(-)	6.6	0.8	1.0	(5.3)	4.6
Consumer price index growth rate(%)	(+)	5.3	5.3	4.4	3.8	3.4
Balance on current account(100 million dollars)	(-)	15.0	20.0	30.0	60.0	80.0
Government bond 3y yields(%)	-	3.9	4.0	4.2	4.2	4.2

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES
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December 31, 2022 and 2021

4. Financial risk management (continued)

(b) Credit risk (continued)

i) Techniques, assumptions and input variables used to measure impairment (continued)

i-4) Reflection of forward-looking information (continued)

③ Downside scenario

Major variables(*1)	Correlation between credit risks	2022.4Q(*2),(*3)	2023(*2),(*3)			
			1Q	2Q	3Q	4Q
GDP growth rate(YoY %)	(-)	1.4	(0.4)	(0.5)	(0.1)	2.9
Private consumption index(YoY %)	(-)	3.6	2.9	0.3	(0.8)	1.9
Facility investment growth rate(YoY %)	(-)	6.6	0.2	0.3	(6.4)	3.4
Consumer price index growth rate(%)	(+)	5.3	5.7	4.8	4.4	3.8
Balance on current account(100 million dollars)	(-)	15.0	10.0	20.0	40.0	60.0
Government bond 3y yields(%)	-	3.9	4.3	4.6	4.6	4.6

④ Worst scenario

Major variables(*1)	Correlation between credit risks	Economic Crisis for 1 year(*4)
GDP growth rate(YoY %)	(-)	(5.1)
Private consumption index(YoY %)	(-)	(11.9)
Facility investment growth rate(YoY %)	(-)	(38.6)
Consumer price index growth rate(%)	(+)	7.5
Balance on current account(100 million dollars)	(-)	401.1
Government bond 3y yields(%)	-	4.4

(*1) As a result of examining the correlation between each variable, Shinhan Bank applied the GDP growth rate and private consumption index increase rate, etc. as the major variables to reflect the final forward-looking information, while, Shinhan Card applied the GDP growth rate, facility investment change rate, and current account balance, etc. as the major variables. In addition to the table above, the Group has selected unemployment rate and KOSPI forecasts.

(*2) Considering the default forecast period, the Group reflected the future economic outlook.

(*3) The macroeconomic outlook figures are estimated by the Group for the purpose of calculating expected credit losses based on information from domestic and foreign research institutes. Therefore, it could be different from other institutions' estimates.

(*4) Shinhan Bank and Jeju Bank reviewed and reflected the Worst scenario (during the foreign exchange crisis) in addition to the three scenarios of Upside, Central and Downside.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

4. Financial risk management (continued)

(b) Credit risk (continued)

i) Techniques, assumptions and input variables used to measure impairment (continued)

i-4) Reflection of forward-looking information (continued)

<December, 31, 2021>

① Upside scenario

Major variables(*1)	Correlation between credit risks	2021.4Q(*2),(*3)	2022(*2),(*3)			
			1Q	2Q	3Q	4Q
GDP growth rate(YoY %)	(-)	4.1	3.0	3.1	3.8	3.7
Private consumption index(YoY %)	(-)	6.3	5.1	2.5	3.7	3.8
Facility investment growth rate(YoY %)	(-)	4.1	0.5	1.2	5.0	5.1
Consumer price index growth rate(%)	(-)	3.6	2.6	2.4	2.0	2.0
Balance on current account(100 million dollars)	(-)	202.0	230.0	200.0	220.0	230.0
Government bond 3y yields(%)	-	1.87	1.90	1.90	2.00	2.00

② Central scenario

Major variables(*1)	Correlation between credit risks	2021.4Q(*2),(*3)	2022(*2),(*3)			
			1Q	2Q	3Q	4Q
GDP growth rate(YoY %)	(-)	4.1	2.3	2.4	3.0	3.4
Private consumption index(YoY %)	(-)	6.3	4.4	1.8	2.9	3.5
Facility investment growth rate(YoY %)	(-)	4.1	0.2	0.8	4.5	4.9
Consumer price index growth rate(%)	(-)	3.6	2.7	2.5	2.2	2.0
Balance on current account(100 million dollars)	(-)	202.0	220.0	180.0	200.0	220.0
Government bond 3y yields(%)	-	1.87	1.80	1.80	1.90	1.90

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES
Notes to the Consolidated Financial Statements
December 31, 2022 and 2021

4. Financial risk management (continued)

(b) Credit risk (continued)

i) Techniques, assumptions and input variables used to measure impairment (continued)

i-4) Reflection of forward-looking information (continued)

③ Downside scenario

Major variables(*1)	Correlation between credit risks	2021.4Q(*2),(*3)	2022(*2),(*3)			
			1Q	2Q	3Q	4Q
GDP growth rate(YoY %)	(-)	4.1	1.3	1.3	1.8	3.1
Private consumption index(YoY %)	(-)	6.3	3.4	0.7	1.8	3.1
Facility investment growth rate(YoY %)	(-)	4.1	(0.5)	0.3	4.3	4.5
Consumer price index growth rate(%)	(-)	3.6	3.2	3.0	3.0	2.8
Balance on current account(100 million dollars)	(-)	202.0	200.0	170.0	180.0	200.0
Government bond 3y yields(%)	-	1.87	2.00	2.00	2.20	2.40

(*1) Shinhan Bank applied the GDP growth rate and private consumption index as the major variables. In addition, Shinhan Card applied the GDP growth rate, facility investment growth rate, consumer price index growth rate, and balance on current account as the major variables. In addition to the table above, the Group has selected additional forecasts for the KOSPI.

(*2) Considering the default forecast period, the Group reflected the future economic outlook.

(*3) The macroeconomic outlook figures are estimated by the Group for the purpose of calculating expected credit losses based on information from domestic and foreign research institutes. Therefore, it could be different from other institutions' estimates.

The predicted correlations between the macroeconomic variables and the risk of default, used by the Group, are derived based on long-term data over the past ten years.

The recent historical default rate is an important reference when estimating the default rate in consideration of the future economic outlook. Economic indicators have worsened since 2020 due to the economic contraction caused by the COVID-19. However, the historical default rate of the Group's has remained stable because of various government support in response to the COVID-19. The Group manages the credit risk through classifying borrowers in moratorium of interest payments and moratorium of repayment that is one of the financial relief programs into Stage2 to reflect the impact of potential insolvency.

The Group has considered multiple economic scenarios in applying forward-looking information to measure the expected credit losses. Assuming a 100% weighting of Upside, Central, and Downside scenarios, the sensitivity to the Group's provision for expected credit loss is not significant.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

4. Financial risk management (continued)

(b) Credit risk (continued)

i-5) Measurement of expected credit losses

Key variables used in measuring expected credit losses are as follows:

- Probability of default (“PD”)
- Loss given default (“LGD”)
- Exposure at default (“EAD”)

These variables have been estimated from historical experience data by using the statistical techniques developed internally by the Group and have been adjusted to reflect forward-looking information.

Estimates of PD over a specified period are estimated by reflecting characteristics of counterparties and their exposure, based on a statistical model at a specific point of time. The Group uses its own information to develop a statistical credit assessment model used for the estimation, and additional information observed in the market is considered for some portfolios such as a group of large corporates. When a counterparty or exposure is concentrated in specific grades, the method of measuring PD for those grades would be adjusted, and the PD by grade is estimated by considering contract expiration of the exposure.

LGD refers to the expected loss if a borrower defaults. The Group calculates LGD based on the experience recovery rate measured from past default exposures. The model for measuring LGD is developed to reflect type of collateral, seniority of collateral, type of borrower, and cost of recovery. In particular, LGD for retail loan products uses loan to value (LTV) as a key variable. The recovery rate reflected in the LGD calculation is based on the present value of recovery amount, discounted at the effective interest rate.

EAD refers to the expected exposure at the time of default. The Group derives EAD reflecting a rate at which the current exposure is expected to be used additionally up to the point of default within the contractual limit. EAD of financial assets is equal to the total carrying value of the asset, and EAD of loan commitments or financial guarantee contracts is calculated as the sum of the amount expected to be used in the future.

In measuring expected credit losses on financial assets, the Group uses the contractual maturity as the period subject to expected credit loss measurement. The contractual maturity is computed taking into account the extension right held by the borrower.

Risk factors of PD, LGD and EAD are collectively estimated according to the following criteria:

- Type of products
- Internal credit risk rating
- Type of collateral
- Loan to value (“LTV”)
- Industry that the borrower belongs to
- Location of the borrower or collateral
- Days of delinquency

The criteria classifying groups is periodically reviewed to maintain homogeneity of the group and adjusted if necessary. The Group uses external benchmark information to supplement internal information for a particular portfolio that did not have sufficient internal data accumulated from the past experience.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

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December 31, 2022 and 2021

(In millions of won)

4. Financial risk management (continued)

(b) Credit risk (continued)

i) Techniques, assumptions and input variables used to measure impairment (continued)

i-6) Write-off of financial assets

The Group writes off a portion of or entire loan or debt security that is not expected to receive its principal and interest. In general, the Group conducts write-off when it is deemed that the borrower has no sufficient resources or income to repay the principal and interest. Such determination on write-off is carried out in accordance with the internal rules of the Group and is carried out with the approval of an external institution, if necessary. Apart from write-off, the Group may continue to exercise its right of collection under its own recovery policy even after the write-off of financial assets.

ii) Maximum exposure to credit risk

Exposure to credit risk is the exposure related to due from banks, loans, investments in debt securities, derivative transactions, off-balance sheet accounts such as loan commitment. The exposures of due from banks and loans are classified into government, bank, corporation or retail based on the exposure classification criteria of BASEL III credit risk weights, and the net carrying value, excluding provisions, is presented as the maximum amount that can be exposed by credit risk.

The Group's maximum exposure to credit risk without taking into account of any collateral held or other credit enhancements as of December 31, 2022 and 2021 is as follows:

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Due from banks and loans at amortized cost(*1),(*3):		
Banks	₩ 20,137,657	14,166,508
Retail	183,539,365	186,358,002
Government/Public sector/Central bank	15,481,390	15,251,465
Corporations	192,985,692	172,527,573
Card receivable	27,375,162	25,065,621
	<u>439,519,266</u>	<u>413,369,169</u>
Due from banks and loans at fair value through profit or loss(*3):		
Banks	135,214	34,262
Corporations	2,280,081	1,683,344
	<u>2,415,295</u>	<u>1,717,606</u>
Securities at fair value through profit or loss	51,604,186	58,310,838
Securities at fair value through other comprehensive income	62,093,908	63,806,919
Securities at amortized cost(*1)	57,971,493	49,930,076
Derivative assets	6,461,796	3,799,189
Other financial assets(*1),(*2)	21,896,490	23,238,932
Guarantee contracts	18,226,546	16,745,707
Loan commitments and other credit liabilities	205,255,277	193,853,866
	<u>₩ 865,444,257</u>	<u>824,772,302</u>

(*1) The maximum exposure amounts for due from banks, loans, securities at amortized cost and other financial assets at amortized cost are recorded as net of allowances.

(*2) Other financial assets mainly comprise of accounts receivable, accrued income, deposits, domestic exchange settlement debit and suspense payments.

(*3) Classified as similar credit risk group based on calculation of the BIS ratio under new Basel Capital Accord (Basel III).

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES
Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

(In millions of won)

4. Financial risk management (continued)

(b) Credit risk (continued)

iii) The maximum amount of exposure to credit risk by type of collateral as of December, 31, 2022 and 2021 is as follows:

Classification	December 31, 2022			
	12 months Expected credit loss	Life time expected credit loss		Total
		Not impaired	Impaired	
Guarantee	₩ 61,643,599	8,583,456	275,460	70,502,515
Deposits and Savings	2,814,723	287,890	4,348	3,106,961
Property and equipment	1,546,908	404,440	11,523	1,962,871
Real estate	136,154,296	17,439,371	317,213	153,910,880
Securities	2,325,294	243,734	159,040	2,728,068
Others	5,104,440	-	4,564	5,109,004
Total	₩ 209,589,260	26,958,891	772,148	237,320,299

Classification	December 31, 2021			
	12 months Expected credit loss	Life time expected credit loss		Total
		Not impaired	Impaired	
Guarantee	₩ 61,890,908	8,354,723	214,589	70,460,220
Deposits and Savings	2,166,075	285,965	2,446	2,454,486
Property and equipment	1,560,567	416,545	20,162	1,997,274
Real estate	127,505,563	14,318,098	256,972	142,080,633
Securities	1,906,005	128,293	7	2,034,305
Others	5,035,546	-	5,495	5,041,041
Total	₩ 200,064,664	23,503,624	499,671	224,067,959

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

(In millions of won)

4. Financial risk management (continued)

(b) Credit risk (continued)

iv) Impairment information by credit risk of financial assets

Details of impaired financial assets due to credit risk as of December 31, 2022 and 2021 are as follows:

	December 31, 2022								Mitigation of credit risk due to collateral
	12-month expected credit loss		Life time expected credit loss			Total	Allowances	Net	
	Grade 1	Grade 2	Grade 1	Grade 2	Impaired				
Due from banks and loans at amortized cost:									
Banks	₩ 15,883,274	4,166,423	111,593	177	-	20,161,467	(23,810)	20,137,657	42,418
Retail	165,886,703	6,846,625	8,544,051	2,340,393	709,935	184,327,707	(788,342)	183,539,365	129,278,429
Government/Public sector/									
Central bank	14,401,434	1,071,236	15,755	557	-	15,488,982	(7,592)	15,481,390	9,000
Corporations	116,264,866	47,287,903	12,582,994	17,780,729	880,857	194,797,349	(1,811,657)	192,985,692	104,854,134
Card receivable	20,858,888	2,727,744	1,671,259	2,662,353	493,480	28,413,724	(1,038,562)	27,375,162	12,589
	<u>333,295,165</u>	<u>62,099,931</u>	<u>22,925,652</u>	<u>22,784,209</u>	<u>2,084,272</u>	<u>443,189,229</u>	<u>(3,669,963)</u>	<u>439,519,266</u>	<u>234,196,570</u>
Securities at fair value through other comprehensive income(*)	52,920,399	9,106,311	-	67,198	-	62,093,908	-	62,093,908	-
Securities at amortized cost	56,333,659	1,643,689	-	10,516	-	57,987,864	(16,371)	57,971,493	-
	<u>₩ 442,549,223</u>	<u>72,849,931</u>	<u>22,925,652</u>	<u>22,861,923</u>	<u>2,084,272</u>	<u>563,271,001</u>	<u>(3,686,334)</u>	<u>559,584,667</u>	<u>234,196,570</u>

(*) Credit loss allowance recognized as other comprehensive income of securities at fair value through other comprehensive income amounted to ₩ 33,108 million as of December 31, 2022.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

(In millions of won)

4. Financial risk management (continued)

(b) Credit risk (continued)

iv) Impairment information by credit risk of financial assets (continued)

Details of impaired financial assets due to credit risk as of December 31, 2022 and 2021 are as follows (continued):

	December 31, 2021								Mitigation of credit risk due to collateral
	12-month expected credit loss		Life time expected credit loss			Total	Allowances	Net	
	Grade 1	Grade 2	Grade 1	Grade 2	Impaired				
Due from banks and loans at amortized cost:									
Banks	₩ 10,793,973	3,278,144	112,254	434	-	14,184,805	(18,297)	14,166,508	133,618
Retail	169,313,467	7,015,361	7,900,192	2,127,173	581,534	186,937,727	(579,725)	186,358,002	126,988,030
Government/Public sector/									
Central bank	14,531,532	710,527	17,433	257	-	15,259,749	(8,284)	15,251,465	9,000
Corporations	101,866,101	44,060,819	10,743,965	16,702,928	853,977	174,227,790	(1,700,217)	172,527,573	93,682,859
Card receivable	18,793,517	2,541,833	1,829,837	2,350,634	428,068	25,943,889	(878,268)	25,065,621	8,774
	<u>315,298,590</u>	<u>57,606,684</u>	<u>20,603,681</u>	<u>21,181,426</u>	<u>1,863,579</u>	<u>416,553,960</u>	<u>(3,184,791)</u>	<u>413,369,169</u>	<u>220,822,281</u>
Securities at fair value through other comprehensive income(*)	56,176,008	7,478,125	-	152,786	-	63,806,919	-	63,806,919	-
Securities at amortized cost	48,305,398	1,605,335	-	36,290	-	49,947,023	(16,947)	49,930,076	-
	<u>₩ 419,779,996</u>	<u>66,690,144</u>	<u>20,603,681</u>	<u>21,370,502</u>	<u>1,863,579</u>	<u>530,307,902</u>	<u>(3,201,738)</u>	<u>527,106,164</u>	<u>220,822,281</u>

(*) Credit loss allowance recognized as other comprehensive income of securities at fair value through other comprehensive income amounted to ₩ 37,486 million as of December 31, 2021.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

(In millions of won)

4. **Financial risk management (continued)**

(b) **Credit risk (continued)**

v) *Credit risk exposures per credit grade of off-balance items*

Credit risk exposures per credit grade of off-balance items as of December 31, 2022 and 2021 are as follows:

	December 31, 2022			
	Grade 1	Grade 2	Impaired	Total
Guarantee contracts:				
12-month expected credit loss	₩ 14,262,990	3,314,584	-	17,577,574
Life time expected credit loss	386,159	164,400	-	550,559
Impaired	-	-	98,413	98,413
	<u>14,649,149</u>	<u>3,478,984</u>	<u>98,413</u>	<u>18,226,546</u>
Loan commitment and other credit line				
12-month expected credit loss	178,532,138	17,418,916	-	195,951,054
Life time expected credit loss	6,287,658	3,011,715	-	9,299,373
Impaired	-	-	4,850	4,850
	<u>184,819,796</u>	<u>20,430,631</u>	<u>4,850</u>	<u>205,255,277</u>
₩	<u>199,468,945</u>	<u>23,909,615</u>	<u>103,263</u>	<u>223,481,823</u>
	December 31, 2021			
	Grade 1	Grade 2	Impaired	Total
Guarantee contracts:				
12-month expected credit loss	₩ 12,671,376	3,434,615	-	16,105,991
Life time expected credit loss	342,224	205,179	-	547,403
Impaired	-	-	92,313	92,313
	<u>13,013,600</u>	<u>3,639,794</u>	<u>92,313</u>	<u>16,745,707</u>
Loan commitment and other credit line				
12-month expected credit loss	160,307,100	23,370,613	-	183,677,713
Life time expected credit loss	7,406,324	2,759,057	-	10,165,381
Impaired	-	-	10,772	10,772
	<u>167,713,424</u>	<u>26,129,670</u>	<u>10,772</u>	<u>193,853,866</u>
₩	<u>180,727,024</u>	<u>29,769,464</u>	<u>103,085</u>	<u>210,599,573</u>

vi) *Credit qualities are classified based on the internal credit rating as follows:*

Type of Borrower	Grade 1	Grade 2
Individuals	Probability of default below 2.25% for each pool	Probability of default 2.25% or above for each pool
Government/Public agency/Central bank	OECD sovereign credit rating of 6 or above	OECD sovereign credit rating of below 6
Banks and Corporations (Including credit card bond)	Internal credit rating of BBB+ or above	Internal credit rating of below BBB+
Card receivables (Individuals)	Behavior scoring system of 7 grade or above	Behavior scoring system of below 7 grade

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

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(In millions of won)

4. Financial risk management (continued)

(b) Credit risk (continued)

vii) Credit risk exposures per credit quality of derivative assets

Credit quality of derivative assets as of December 31, 2022 and 2021 are as follows:

		<u>December 31, 2022</u>	<u>December 31, 2021</u>
Grade 1	₩	5,942,661	3,201,912
Grade 2		519,135	597,277
	₩	<u>6,461,796</u>	<u>3,799,189</u>

(*) Credit quality of derivative assets is classified based on the internal credit ratings.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

(In millions of won)

4. Financial risk management (continued)

(b) Credit risk (continued)

viii) *Concentration by geographic location*

An analysis of concentration by geographic location for financial instrument, net of allowance, as of December 31, 2022 and 2021 are as follows:

Classification(*)	December 31, 2022								
	Korea	USA	UK	Japan	Germany	Vietnam	China	Other	Total
Due from banks and loans at amortized cost									
Banks	₩ 5,956,111	2,259,951	765,128	879,022	675,370	1,793,330	3,861,678	3,947,067	20,137,657
Retail	171,780,848	403,445	8,199	4,357,325	3,716	3,183,424	2,030,305	1,772,103	183,539,365
Government/Public sector/Central bank	11,251,561	915,306	-	1,404,163	426,747	345,843	441,551	696,219	15,481,390
Corporations	170,961,934	3,687,701	451,254	5,152,628	105,205	3,228,817	2,694,661	6,703,492	192,985,692
Card receivable	27,065,988	11,017	428	2,291	286	236,095	38,416	20,641	27,375,162
	<u>387,016,442</u>	<u>7,277,420</u>	<u>1,225,009</u>	<u>11,795,429</u>	<u>1,211,324</u>	<u>8,787,509</u>	<u>9,066,611</u>	<u>13,139,522</u>	<u>439,519,266</u>
Deposits and loans at FVTPL									
Banks	109,098	26,116	-	-	-	-	-	-	135,214
Corporations	1,510,976	285,107	82,172	17,829	-	-	-	383,997	2,280,081
	<u>1,620,074</u>	<u>311,223</u>	<u>82,172</u>	<u>17,829</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>383,997</u>	<u>2,415,295</u>
Securities measured at FVTPL	48,322,318	1,602,598	252,390	58,255	23,610	31,952	16,469	1,296,594	51,604,186
Securities at FVOCI	55,849,223	3,104,384	193,598	348,240	34,065	92,940	688,085	1,783,373	62,093,908
Securities at amortized cost	54,843,005	1,020,227	-	214,653	-	726,476	110,884	1,056,248	57,971,493
	<u>547,651,062</u>	<u>13,315,852</u>	<u>1,753,169</u>	<u>12,434,406</u>	<u>1,268,999</u>	<u>9,638,877</u>	<u>9,882,049</u>	<u>17,659,734</u>	<u>613,604,148</u>
Off-balance accounts									
Guarantees	16,426,498	118,951	23,481	47,805	44,203	329,904	1,015,543	220,161	18,226,546
Loan commitments and other liabilities related to credit	194,236,727	1,312,830	317,335	550,116	42,230	1,816,773	2,548,483	4,430,783	205,255,277
	<u>₩ 210,663,225</u>	<u>1,431,781</u>	<u>340,816</u>	<u>597,921</u>	<u>86,433</u>	<u>2,146,677</u>	<u>3,564,026</u>	<u>4,650,944</u>	<u>223,481,823</u>

(*) The following accounts are the net carrying value less provision for doubtful accounts.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

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(In millions of won)

4. **Financial risk management (continued)**

(b) **Credit risk (continued)**

viii) *Concentration by geographic location (continued)*

An analysis of concentration by geographic location for financial instrument, net of allowance, as of December 31, 2022 and 2021 are as follows (continued):

Classification(*)	December 31, 2021								
	Korea	USA	UK	Japan	Germany	Vietnam	China	Other	Total
Due from banks and loans at amortized cost									
Banks	₩ 4,310,888	1,525,158	235,591	450,689	530,688	1,676,080	2,677,445	2,759,969	14,166,508
Retail	175,777,754	392,882	7,683	4,338,281	3,111	2,412,670	1,944,105	1,481,516	186,358,002
Government/Public sector/Central bank	11,807,591	796,405	-	1,279,012	217,773	248,301	462,308	440,075	15,251,465
Corporations	151,625,249	3,684,068	254,051	4,375,807	94,186	3,012,133	2,947,746	6,534,333	172,527,573
Card receivable	24,832,367	10,435	462	2,033	233	170,929	32,281	16,881	25,065,621
	<u>368,353,849</u>	<u>6,408,948</u>	<u>497,787</u>	<u>10,445,822</u>	<u>845,991</u>	<u>7,520,113</u>	<u>8,063,885</u>	<u>11,232,774</u>	<u>413,369,169</u>
Deposits and loans at FVTPL									
Banks	-	34,262	-	-	-	-	-	-	34,262
Corporations	1,113,229	282,513	-	19,274	-	-	-	268,328	1,683,344
	<u>1,113,229</u>	<u>316,775</u>	<u>-</u>	<u>19,274</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>268,328</u>	<u>1,717,606</u>
Securities measured at FVTPL	53,942,627	2,359,478	255,023	91,766	19,048	27,613	76,107	1,539,176	58,310,838
Securities at FVOCI	59,353,250	1,871,526	164,340	250,768	52,199	120,884	679,527	1,314,425	63,806,919
Securities at amortized cost	46,896,258	777,546	-	244,149	-	902,377	80,041	1,029,705	49,930,076
	<u>529,659,213</u>	<u>11,734,273</u>	<u>917,150</u>	<u>11,051,779</u>	<u>917,238</u>	<u>8,570,987</u>	<u>8,899,560</u>	<u>15,384,408</u>	<u>587,134,608</u>
Off-balance accounts									
Guarantees	15,451,432	156,225	4,690	28,725	13,374	382,307	617,574	91,380	16,745,707
Loan commitments and other liabilities related to credit	182,701,367	686,381	260,036	771,183	87,080	2,772,750	2,157,388	4,417,681	193,853,866
	<u>₩ 198,152,799</u>	<u>842,606</u>	<u>264,726</u>	<u>799,908</u>	<u>100,454</u>	<u>3,155,057</u>	<u>2,774,962</u>	<u>4,509,061</u>	<u>210,599,573</u>

(*) The following accounts are the net carrying value less provision for doubtful accounts.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

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(In millions of won)

4. **Financial risk management (continued)**

ix) *Concentration by industry sector*

An analysis of concentration by industry sector of financial instrument, net of allowance, as of and December 31, 2022 and 2021 is as follows:

Classification(*)	December 31, 2022								
	Finance and insurance	Manu-facturing	Retail and wholesale	Real estate and business	Construction service	Lodging and Restaurant	Other	Retail customers	Total
Due from banks and loans at amortized cost:									
Banks	₩ 19,486,003	-	-	-	29,979	-	621,675	-	20,137,657
Retail	-	-	-	-	-	-	-	183,539,365	183,539,365
Government/Public sector/Central bank	15,422,776	-	-	1,296	-	-	57,318	-	15,481,390
Corporations	16,579,826	57,861,407	22,984,739	45,088,702	4,470,587	6,619,476	39,380,955	-	192,985,692
Card receivable	47,835	276,473	266,220	49,060	51,113	31,333	1,084,143	25,568,985	27,375,162
	<u>51,536,440</u>	<u>58,137,880</u>	<u>23,250,959</u>	<u>45,139,058</u>	<u>4,551,679</u>	<u>6,650,809</u>	<u>41,144,091</u>	<u>209,108,350</u>	<u>439,519,266</u>
Due from banks and loans at FVTPL									
Banks	26,115	-	-	69,533	-	-	39,566	-	135,214
Corporations	1,287,647	615,693	94,393	154,329	68,460	-	59,559	-	2,280,081
	<u>1,313,762</u>	<u>615,693</u>	<u>94,393</u>	<u>223,862</u>	<u>68,460</u>	<u>-</u>	<u>99,125</u>	<u>-</u>	<u>2,415,295</u>
Securities measured at FVTPL	29,194,048	1,962,916	1,018,407	1,039,955	247,657	89,394	18,051,809	-	51,604,186
Securities at FVOCI	25,383,957	2,917,059	602,196	780,751	883,115	38,704	31,488,126	-	62,093,908
Securities at amortized cost	14,169,681	9,931	-	1,090,606	1,357,949	-	41,343,326	-	57,971,493
	<u>121,597,888</u>	<u>63,643,479</u>	<u>24,965,955</u>	<u>48,274,232</u>	<u>7,108,860</u>	<u>6,778,907</u>	<u>132,126,477</u>	<u>209,108,350</u>	<u>613,604,148</u>
Off-balance accounts									
Guarantees	2,444,168	8,998,689	3,403,653	115,912	224,439	112,755	2,576,924	350,006	18,226,546
Loan commitments and other liabilities related to credit	17,871,585	28,414,045	10,535,492	3,918,854	2,242,493	462,976	15,669,405	126,140,427	205,255,277
	<u>₩ 20,315,753</u>	<u>37,412,734</u>	<u>13,939,145</u>	<u>4,034,766</u>	<u>2,466,932</u>	<u>575,731</u>	<u>18,246,329</u>	<u>126,490,433</u>	<u>223,481,823</u>

(*) The composition details by industry are net book value less allowances.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

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(In millions of won)

4. Financial risk management (continued)

ix) Concentration by industry sector (continued)

An analysis of concentration by industry sector of financial instrument, net of allowance, as of and December 31, 2022 and 2021 is as follows:

Classification(*)	December 31, 2021								
	Finance and insurance	Manu-facturing	Retail and wholesale	Real estate and business	Construction service	Lodging and Restaurant	Other	Retail customers	Total
Due from banks and loans at amortized cost:									
Banks	₩ 13,447,829	-	-	-	-	-	718,679	-	14,166,508
Retail	-	-	-	-	-	-	-	186,358,002	186,358,002
Government/Public sector/Central bank	15,216,403	-	-	1,797	-	-	33,265	-	15,251,465
Corporations	13,384,083	53,134,572	21,167,564	41,106,836	3,727,338	6,544,166	33,463,014	-	172,527,573
Card receivable	51,123	252,973	228,900	46,896	45,568	29,713	1,899,301	22,511,147	25,065,621
	<u>42,099,438</u>	<u>53,387,545</u>	<u>21,396,464</u>	<u>41,155,529</u>	<u>3,772,906</u>	<u>6,573,879</u>	<u>36,114,259</u>	<u>208,869,149</u>	<u>413,369,169</u>
Due from banks and loans at FVTPL									
Banks	34,262	-	-	-	-	-	-	-	34,262
Corporations	986,736	492,598	15,107	78,753	22,537	2,637	84,976	-	1,683,344
	<u>1,020,998</u>	<u>492,598</u>	<u>15,107</u>	<u>78,753</u>	<u>22,537</u>	<u>2,637</u>	<u>84,976</u>	<u>-</u>	<u>1,717,606</u>
Securities measured at FVTPL	33,769,892	3,248,846	1,169,038	773,687	299,972	152,341	18,897,062	-	58,310,838
Securities at FVOCI	27,034,695	3,529,756	523,631	775,967	1,144,998	30,928	30,766,944	-	63,806,919
Securities at amortized cost	10,309,318	-	-	1,074,393	1,249,070	-	37,297,295	-	49,930,076
	<u>114,234,341</u>	<u>60,658,745</u>	<u>23,104,240</u>	<u>43,858,329</u>	<u>6,489,483</u>	<u>6,759,785</u>	<u>123,160,536</u>	<u>208,869,149</u>	<u>587,134,608</u>
Off-balance accounts									
Guarantees	2,308,627	8,124,340	3,469,001	350,591	207,691	151,653	2,132,267	1,537	16,745,707
Loan commitments and other liabilities related to credit	15,445,541	25,389,003	8,908,201	3,676,457	2,213,871	499,633	20,404,848	117,316,312	193,853,866
	<u>₩ 17,754,168</u>	<u>33,513,343</u>	<u>12,377,202</u>	<u>4,027,048</u>	<u>2,421,562</u>	<u>651,286</u>	<u>22,537,115</u>	<u>117,317,849</u>	<u>210,599,573</u>

(*) The composition details by industry are net book value less allowances.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

(In millions of won)

4. Financial risk management (continued)

(c) Market risk

i) Market risk management from trading positions

i-1) Concept of Market risk

Market risk is defined as the risk of loss of trading account position of financial institutions due to changes on market price, such as interest rates, exchange rates and stock prices, etc. and is divided into general market risks and individual risks. A general market risk refers to a loss from price variability caused by events affecting the market as a whole, such as interest rates, exchange rates and stock prices; and an individual risk refers to a loss from price variability related to individual events of securities issuer, such as bonds and stocks.

i-2) Market Risk Management Method

The basic principle of market risk management in the trading sector is to maintain the maximum possible loss due to market risk within a certain level. To this end, the Group sets and operates VaR limits, investment limits, position limits, sensitivity limits, and loss limits from the portfolio to individual desks. These limits are managed daily by the department in charge of risk management, independent from the operating department.

Trading positions refer to securities, foreign exchange positions, and derivative financial instruments held for the purpose of obtaining short-term trading gains. As a method of measuring market risk, VaR (Value at Risk) is typical, and it is a statistical measurement of the potential maximum loss that can occur due to changes in market conditions. VaR calculates the standard method market risk using the Group Market Risk Measurement System (TRMS), and Shinhan Bank and Shinhan Financial Investment use their own internal model market risk calculation system.

Stress tests are conducted to supplement risk measurement by statistical methods and to manage losses that may arise from rapid changes in the economic environment.

Shinhan Bank measures the market risk of linear products, such as stocks and bonds, as well as non-linear products, such as options by applying historical simulation method of 99% confidence level-based VaR. Trading position data is automatically interfaced into management system, and the system conducts VaR measurement and manages the limit. In addition, the Bank sets loss limit, sensitivity limit, investment limit, stress limit, etc. for Trading Department and desks, and monitors daily.

Shinhan Securities measures daily market risk by applying historical simulation VaR method of 99.9% confidence level-based VaR. Historical simulation VaR method does not require assumption on a particular distribution since the method derives scenarios directly from historical market data, and measures non-linear products, such as options, in details. In addition to the VaR limit, the Shinhan Securities sets and manages issuance and transaction limit, and stop-loss limit for each department.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

(In millions of won)

4. **Financial risk management (continued)**

(c) **Market risk (continued)**

i) *Market risk management from trading positions (continued)*

i-2) Market Risk Management Method (continued)

An analysis of the Group's requisite capital in light of the market risk for trading positions as of and for the years ended December 31, 2022 and 2021 based on the standard guidelines for risk management promulgated by the Financial Supervisory Service, is as follows:

		December 31, 2022			
		Average	Maximum	Minimum	December 31
Interest rate risk	₩	485,531	526,936	447,425	447,425
Stock price risk		217,845	242,341	196,879	242,341
Foreign exchange risk		334,543	374,984	293,437	344,415
Commodity risk		11,624	14,309	9,213	9,213
Option volatility risk		64,208	71,811	43,374	70,770
	₩	1,113,751	1,230,381	990,328	1,114,164
		December 31, 2021			
		Average	Maximum	Minimum	December 31
Interest rate risk	₩	587,482	625,298	557,622	576,515
Stock price risk		209,101	231,137	179,415	219,900
Foreign exchange risk		274,140	301,271	245,232	299,909
Commodity risk		8,544	9,571	8,043	8,043
Option volatility risk		16,404	30,244	1,269	19,032
	₩	1,095,671	1,197,521	991,581	1,123,399

i-3) Shinhan Bank

The analyses of the ten-day 99% confidence level-based VaR for managing market risk for trading positions of Shinhan Bank as of and for the years ended December 31, 2022 and 2021 are as follows:

		December 31, 2022			
		Average	Maximum	Minimum	December 31
Interest rate risk	₩	44,719	64,628	24,322	53,777
Stock price risk		20,303	24,879	13,443	21,659
Foreign exchange risk(*)		191,013	262,319	161,760	252,453
Option volatility risk		84	211	25	110
Commodity risk		13	193	-	27
Portfolio diversification effect		(33,760)	(77,335)	(10,872)	(62,957)
	₩	222,372	274,895	188,678	265,069
		December 31, 2021			
		Average	Maximum	Minimum	December 31
Interest rate risk	₩	28,749	55,773	17,537	28,030
Stock price risk		11,583	21,340	3,850	19,618
Foreign exchange risk(*)		159,165	185,514	136,936	161,978
Option volatility risk		162	368	29	60
Commodity risk		11	151	-	8
Portfolio diversification effect		(25,023)	(52,611)	(13,207)	(17,470)
	₩	174,647	210,535	145,145	192,224

(*) Both trading and non-trading accounts are included.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

(In millions of won)

4. Financial risk management (continued)

(c) Market risk (continued)

i) Market risk management from trading positions (continued)

i-4) Shinhan Card

The analyses of Shinhan Card's requisite capital in light of the market risk for trading positions as of and for the years ended December 31 2022 and 2021, based on the standard guidelines for risk management promulgated by the Financial Supervisory Service, are as follows:

		December 31, 2022			
		Average	Maximum	Minimum	December 31
Interest rate risk(*)	₩	1,784	2,401	1,650	1,801

		December 31, 2021			
		Average	Maximum	Minimum	December 31
Interest rate risk(*)	₩	1,996	2,350	1,700	1,700

(*) Foreign subsidiaries are excluded from the calculation.

i-5) Shinhan Securities

The analyses of the ten-day 99.9% confidence level-based VaR for managing market risk for trading positions of Shinhan Securities as of and for the years ended December 31, 2022 and 2021 are as follows:

		December 31, 2022			
		Average	Maximum	Minimum	December 31
Interest rate risk	₩	30,003	44,131	17,123	39,578
Stock price risk		36,100	63,956	14,507	25,762
Foreign exchange risk		31,709	63,480	13,452	63,480
Option volatility risk		70,021	103,928	40,806	43,102
Portfolio diversification effect		(64,641)	(147,826)	(9,066)	(74,885)
	₩	103,192	127,669	76,822	97,037

		December 31, 2021			
		Average	Maximum	Minimum	December 31
Interest rate risk	₩	21,079	35,503	7,724	27,207
Stock price risk		31,668	62,315	15,856	33,295
Foreign exchange risk		24,354	43,826	2,548	28,594
Option volatility risk		49,345	96,355	31,155	79,589
Portfolio diversification effect		(47,759)	(104,149)	(7,380)	(58,241)
	₩	78,687	133,850	49,903	110,444

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

(In millions of won)

4. Financial risk management (continued)

(c) Market risk (continued)

i) Market risk management from trading positions (continued)

i-6) Shinhan Life Insurance

The analyses of the ten-day 99.9% confidence level-based VaR for managing market risk for trading positions of Shinhan Life Insurance as of and for the years ended December 31, 2022 and 2021 are as follows:

		December 31, 2022			
		Average	Maximum	Minimum	December 31
Interest rate risk	₩	3,412	6,756	1,253	3,415
Stock price risk		9,441	11,034	6,206	9,505
Foreign exchange risk		13,403	30,111	818	23,286
Option volatility risk		179	493	11	494
	₩	<u>26,435</u>	<u>48,394</u>	<u>8,288</u>	<u>36,700</u>

		December 31, 2021			
		Average	Maximum	Minimum	December 31
Interest rate risk	₩	4,161	9,262	457	1,259
Stock price risk		8,938	15,009	1,909	6,303
Foreign exchange risk		7,680	13,746	481	11,404
Option volatility risk		1,252	2,828	26	47
	₩	<u>22,031</u>	<u>40,845</u>	<u>2,873</u>	<u>19,013</u>

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

(In millions of won)

4. Financial risk management (continued)

(c) Market risk (continued)

ii) Interest rate risk management from non-trading positions

ii-1) Principle

Interest rate risk refers to the possibility of a decrease in net interest income or in net asset value that occurs when interest rates fluctuate unfavorably from the Group's financial position. The Group manages changes in net interest income or net asset value that occur due to changes in interest rates by early predicting the factors of interest rate risk fluctuation related to the Group's net interest income and net asset value through the interest rate risk management.

ii-2) Managements

Shinhan Financial Group's major financial subsidiaries manage interest rate risks independently by the risk management organization and the treasury department, and have internal regulations on interest rate risk management strategies, procedures, organization, measurement, and major assumptions.

One of the key indicators of managing interest rate risk is the Earnings at Risk (EaR) from an earning perspective and the Value at Risk (VaR) from an economic value perspective. Interest rate VaR represents the maximum anticipated loss in a net present value calculation, whereas interest rate EaR represents the maximum anticipated loss in a net interest income calculation for the immediately following one-year period, in each case, as a result of negative movements in interest rates.

The precision of risk management system differs by each subsidiary. Interest rate VaR and interest rate EaR are measured by internal method or IRRBB (Interest Rate Risk In The Banking Book), and interest rate risk limits are set and monitored based on the interest rate VaR. In accordance with the amendments in Regulations for Supervision of Financial Holding Companies, the Group measures the interest rate risk using the Basel III based IRRBB, which measures the interest rate risk more precisely than the existing BIS standard framework by segmenting maturities of interest rates, reflecting customer behavior models and diversifying interest rate shocks. The interest rate VaR scenario based IRRBB measures ① parallel up shock ② parallel down shock ③ steeper shock ④ flattener shock ⑤ short rate up shock ⑥ short rate down shock. By the parallel up shock and parallel down shock, the interest rate EaR scenario measures the scenario value with the largest loss as interest rate risk. Under the existing BIS standard framework, $\pm 200\text{bp}$ parallel shock scenario is applied to all currency. However, as the shock width is set differently by currency and period, interest rate risk is measured significantly by the IRRBB (e.g. (KRW) Parallel $\pm 300\text{bp}$, Short Term $\pm 400\text{bp}$, Long Term $\pm 200\text{bp}$, (USD) Parallel $\pm 200\text{bp}$, Short Term $\pm 300\text{bp}$, Long Term $\pm 150\text{bp}$). In the IRRBB method, the existing interest rate VaR and the interest rate EaR are expressed as Δ EVE (Economic Value of Equity) and Δ NII (Net Interest Income), respectively.

Since impacts of each subsidiary on changes of interest rates are differentiated by portfolios, the Group is preparing to respond proactively while monitoring the financial market and regulatory environment, and making efforts to hedge or reduce interest rate risk. In addition, the subsidiaries conduct the crisis analysis on changes in market interest rates and report it to management and the Group.

In particular, through its ALM (Asset and Liability Management) system, Shinhan Bank measures and manages its interest rate risk based on various analytical measures such as interest rate gap, duration gap and NPV (Net Present Value) and NII (Net Interest Income) simulations, and monitors on a monthly basis its interest rate VaR limits, interest rate EaR (Earnings at Risk) limits and interest rate gap ratio limits.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

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(In millions of won)

4. Financial risk management (continued)

(c) Market risk (continued)

ii) Interest rate risk management from non-trading positions (continued):

The details of interest rate VaR and EaR for major subsidiaries for as of December 31, 2022 and 2021 are as follows:

ii-3) Shinhan Bank

	December 31, 2022	December 31, 2021
△EVE (*1)	₩ 1,046,136	774,352
△NII (*2)	599,941	96,145

ii-4) Shinhan Card

	December 31, 2022	December 31, 2021
△EVE (*1)	₩ 1,249,597	831,361
△NII (*2)	693,911	672,303

ii-5) Shinhan Securities

	December 31, 2022	December 31, 2021
△EVE (*1)	₩ 212,135	186,587
△NII (*2)	95,076	187,548

ii-6) Shinhan Life Insurance

	December 31, 2022	December 31, 2021
△EVE (*1)	₩ 2,353,230	2,751,977
△NII (*2)	62,923	84,812

(*1) △EVE is the change in economic value of equity capital that can arise from changes in interest rates that affect the present value of assets, liabilities and off-balance sheet items by using the Basel III standard based IRRBB method.

(*2) △NII is the change in net interest income that can occur over the next year due to changes in interest rates by using the Basel III standard based IRRBB method.

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4. Financial risk management (continued)

(c) Market risk (continued)

iii) Foreign exchange risk

Exposure to foreign exchange risk can be defined as the difference (net position) between assets and liabilities presented in foreign currency, including derivative financial instruments linked to foreign exchange rate. Foreign exchange risk is a factor that causes market risk of the trading position and is managed by the Group under the market risk management system.

The management of Shinhan Bank's foreign exchange position is centralized at the S&T Center. Dealers in the S&T Center manage Shinhan Bank's overall position within the set limits through spot trading, forward contracts, currency options, futures and swaps and foreign exchange swaps. Shinhan Bank sets a limit for net open positions by currency and the limits for currencies other than the U.S. dollars (USD), Japanese yen (JPY), Euros (EUR) and Chinese yuan (CNY) are set in order to minimize exposures from the other foreign exchange trading.

Foreign currency denominated assets and liabilities as of December 31, 2022 and 2021 are as follows:

	December 31, 2022					
	USD	JPY	EUR	CNY	Other	Total
Assets:						
Cash and due from banks at amortized cost	₩ 6,905,793	2,071,000	263,746	715,471	4,848,097	14,804,107
Due from banks at FVTPL	26,116	-	-	-	-	26,116
Loans at FVTPL	291,678	-	239,520	-	-	531,198
Loan at amortized cost	29,077,790	10,608,558	1,735,218	5,021,722	10,639,672	57,082,960
Securities at FVTPL	4,569,547	4,894	718,381	425	362,497	5,655,744
Derivative assets	1,476,251	2,585	33,613	4,598	33,866	1,550,913
Securities at FVOCI	5,911,909	180,352	287,774	498,367	1,191,984	8,070,386
Securities at amortized cost	1,442,437	203,102	96,701	110,997	1,705,337	3,558,574
Other financial assets	3,471,591	597,067	563,242	344,126	1,555,264	6,531,290
	<u>₩ 53,173,112</u>	<u>13,667,558</u>	<u>3,938,195</u>	<u>6,695,706</u>	<u>20,336,717</u>	<u>97,811,288</u>
Liabilities:						
Deposits	₩ 25,719,297	11,812,723	1,633,007	5,035,481	11,769,661	55,970,169
Financial liabilities at FVTPL	10,038	-	-	-	422,006	432,044
Derivative liabilities	1,345,476	1,899	59,206	3,074	77,662	1,487,317
Borrowings	9,976,462	1,349,529	182,926	85,862	1,226,389	12,821,168
Debt securities issued	10,774,062	352,677	675,600	108,864	1,495,991	13,407,194
Financial liabilities designated at FVTPL	1,077,789	-	-	-	-	1,077,789
Other financial liabilities	4,282,674	259,683	621,770	889,138	1,520,382	7,573,647
	<u>₩ 53,185,798</u>	<u>13,776,511</u>	<u>3,172,509</u>	<u>6,122,419</u>	<u>16,512,091</u>	<u>92,769,328</u>
Net domestic and foreign currency exposure	₩ (12,686)	(108,953)	765,686	573,287	3,824,626	5,041,960
Off-balance derivative exposure	3,692,999	711,180	(466,451)	(55,705)	(1,836,929)	2,045,094
Net foreign currency exposure	<u>₩ 3,680,313</u>	<u>602,227</u>	<u>299,235</u>	<u>517,582</u>	<u>1,987,697</u>	<u>7,087,054</u>

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

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(In millions of won)

4. Financial risk management (continued)

(c) Market risk (continued)

iii) Foreign exchange risk (continued)

Foreign currency denominated assets and liabilities as of December 31, 2022 and 2021 are as follows (continued):

	December 31, 2021					
	USD	JPY	EUR	CNY	Other	Total
Assets:						
Cash and due from banks at amortized cost	₩ 4,958,621	1,878,286	479,644	700,378	3,630,253	11,647,182
Due from banks at FVTPL	34,262	-	-	-	-	34,262
Loans at FVTPL	534,098	-	-	-	-	534,098
Loan at amortized cost	24,443,325	9,901,710	975,680	5,090,928	10,093,297	50,504,940
Securities at FVTPL	5,417,837	15,557	577,157	233	553,519	6,564,303
Derivative assets	863,223	526	10,440	1,429	33,576	909,194
Securities at FVOCI	4,264,191	162,023	240,705	397,010	998,246	6,062,175
Securities at amortized cost	1,306,357	241,232	69,282	80,133	1,812,470	3,509,474
Other financial assets	4,347,761	242,919	324,886	173,906	927,110	6,016,582
	₩ 46,169,675	12,442,253	2,677,794	6,444,017	18,048,471	85,782,210
Liabilities:						
Deposits	₩ 20,060,092	10,642,720	1,376,168	4,820,793	9,766,248	46,666,021
Financial liabilities at FVTPL	7,114	-	-	-	581,458	588,572
Derivative liabilities	496,616	418	12,042	1,712	13,642	524,430
Borrowings	7,518,545	940,877	181,027	463,098	931,802	10,035,349
Debt securities issued	8,887,807	137,022	892,220	-	982,736	10,899,785
Financial liabilities designated at FVTPL	1,553,683	-	-	-	-	1,553,683
Other financial liabilities	3,806,778	116,544	195,387	551,976	1,112,455	5,783,140
	₩ 42,330,635	11,837,581	2,656,844	5,837,579	13,388,341	76,050,980
Net domestic and foreign currency exposure	₩ 3,839,040	604,672	20,950	606,438	4,660,130	9,731,230
Off-balance derivative exposure	(419,387)	(62,614)	325,000	(95,526)	(2,113,543)	(2,366,070)
Net foreign currency exposure	₩ 3,419,653	542,058	345,950	510,912	2,546,587	7,365,160

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

(In millions of won)

4. Financial risk management (continued)

(d) Liquidity risk

Liquidity risk refers to the risk of unexpected losses (such as the disposal of assets abnormal pricing, the procurement of high interest rates, etc.) or insolvency due to inconsistency in funding periods between assets and liabilities or a sudden outflow of funds.

Each subsidiary seeks to minimize liquidity risk through early detection of risk factors related to the sourcing and managing of funding that may cause volatility in liquidity and by ensuring that it maintains an appropriate level of liquidity through systematic management. At the Group level, the Group manages liquidity risk by conducting monthly stress tests that compare liquidity requirements under normal situations against those under three types of stress situations, namely, the group-specific internal crisis, crisis in the external market and a combination of internal and external crisis. Therefore, the Group is checking the liquidity side for abnormalities in preparation for the usual crisis.

In addition, in order to pre-emptively and comprehensively manage liquidity risk, the Group measures and monitors liquidity risk management using various indices, including the 'limit management index', 'early warning index' and 'monitoring index'.

Shinhan Bank applies the following basic principles for liquidity risk management:

- Raise funding in sufficient amounts, at the optimal time at reasonable costs;
- Maintain risk at appropriate levels and preemptively manage them through a prescribed risk limit system and an early warning signal detection system;
- Secure stable sources of revenue and minimize actual losses by implementing an effective asset-liability management system based on diversified sources of funding with varying maturities;
- Monitor and manage daily and intra-daily liquidity positions and risk exposures for timely payment and settlement of financial obligations due under both normal and crisis situations;
- Conduct periodic contingency analysis in anticipation of any potential liquidity crisis and establish and implement emergency plans in case of a crisis actually happening; and
- Consider liquidity-related costs, benefits of and risks in determining the pricing of the Group's products and services, employee performance evaluations and approval of launching of new products and services.

Shinhan Card sets and operates a level that can withstand a 3-month credit crunch for end-of-month liquidity. The Group defines and manages the level of caution, anxiety and risk for the real-life liquidity gap ratio, liquidity buffer ratio, and ABS weight compared to borrowings which are major indicators related to liquidity risk. A contingency plan has been established to prepare for a crisis.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

(In millions of won)

4. Financial risk management (continued)

(d) Liquidity risk (continued)

The details of the composition of non-derivative financial instruments and derivative financial instruments by remaining period are as of December 31, 2022 and 2021 are as follows:

		December 31, 2022(*1)						
		Less than 1 month	1~3 months	3~6 months	6 months ~ 1 year	1~5 years	More than 5 years	Total
Non-derivative financial instruments:								
Assets:								
Cash and due from banks at amortized cost	₩	25,149,737	974,982	529,653	1,795,509	126,607	1,087,249	29,663,737
Due from banks at fair value through profit or loss		26,116	-	-	-	-	-	26,116
Loans at fair value through profit or loss		424,585	858,019	58,705	141,706	735,426	329,636	2,548,077
Loans at amortized cost		40,117,301	50,209,078	62,027,337	95,214,850	138,145,726	85,266,419	470,980,711
Securities at fair value through profit or loss		42,441,397	124,005	452,662	436,486	2,823,913	7,941,405	54,219,868
Securities at fair value through other comprehensive income		54,294,050	1,664,172	506,614	955,692	5,508,063	748,761	63,677,352
Securities at amortized cost		518,445	2,048,707	1,331,479	5,383,089	26,724,733	36,906,942	72,913,395
Other financial assets		17,681,452	88,720	53,740	539,107	341,421	1,793,979	20,498,419
	₩	<u>180,653,083</u>	<u>55,967,683</u>	<u>64,960,190</u>	<u>104,466,439</u>	<u>174,405,889</u>	<u>134,074,391</u>	<u>714,527,675</u>
Liabilities:								
Deposits(*2)	₩	210,900,107	42,661,824	41,864,404	71,259,303	21,141,919	2,627,394	390,454,951
Financial liabilities at fair value through profit or loss		1,148,899	-	-	-	-	-	1,148,899
Borrowings		11,960,133	4,760,298	4,798,388	7,249,539	12,298,388	9,024,107	50,090,853
Debt securities issued		4,563,916	8,368,614	9,646,088	16,486,221	37,534,713	5,157,377	81,756,929
Financial liabilities designated at fair value through profit or loss		276,430	725,909	706,117	1,511,517	4,063,511	1,092,827	8,376,311
Other financial liabilities		27,579,552	233,395	133,729	287,774	1,037,741	113,667	29,385,858
	₩	<u>256,429,037</u>	<u>56,750,040</u>	<u>57,148,726</u>	<u>96,794,354</u>	<u>76,076,272</u>	<u>18,015,372</u>	<u>561,213,801</u>
Off balance(*3):								
Guarantee contracts	₩	18,226,546	-	-	-	-	-	18,226,546
Other liabilities related to loan commitments		205,255,277	-	-	-	-	-	205,255,277
	₩	<u>223,481,823</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>223,481,823</u>
Derivatives	₩	(384,134)	8,916	(7,058)	(220,528)	(1,211,454)	(24,069)	(1,838,327)

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

(In millions of won)

4. Financial risk management (continued)

(d) Liquidity risk (continued)

The details of the composition of non-derivative financial instruments and derivative financial instruments by remaining period are as of December 31, 2022 and 2021 are as follows (continued):

		December 31, 2021(*1)						
		Less than 1 month	1~3 months	3~6 months	6 months ~ 1 year	1~5 years	More than 5 years	Total
Non-derivative financial instruments:								
Assets:								
Cash and due from banks at amortized cost	₩	24,864,116	796,046	329,809	1,151,073	108,491	1,299,438	28,548,973
Due from banks at fair value through profit or loss		34,263	-	-	-	-	-	34,263
Loans at fair value through profit or loss		170,540	628,905	117,975	49,932	563,246	167,284	1,697,882
Loans at amortized cost		32,258,357	45,442,330	57,821,874	89,630,955	129,534,255	75,571,202	430,258,973
Securities at fair value through profit or loss		51,899,638	106,637	385,952	608,957	2,024,069	5,776,840	60,802,093
Securities at fair value through other comprehensive income		60,818,846	1,204,770	91,704	634,600	1,249,183	897,270	64,896,373
Securities at amortized cost		515,883	2,542,470	1,992,334	4,273,021	18,358,433	36,658,577	64,340,718
Other financial assets		21,052,012	50,602	25,096	372,536	253,373	1,800,309	23,553,928
	₩	<u>191,613,655</u>	<u>50,771,760</u>	<u>60,764,744</u>	<u>96,721,074</u>	<u>152,091,050</u>	<u>122,170,920</u>	<u>674,133,203</u>
Liabilities:								
Deposits(*2)	₩	212,378,477	36,147,003	40,879,482	59,303,450	17,046,796	2,589,696	368,344,904
Financial liabilities at fair value through profit or loss		1,371,503	-	-	-	-	-	1,371,503
Borrowings		13,159,909	3,928,317	3,643,545	5,171,542	14,168,441	3,649,507	43,721,261
Debt securities issued		4,833,061	7,033,973	7,257,291	17,537,101	41,799,782	5,334,848	83,796,056
Financial liabilities designated at fair value through profit or loss		332,597	294,931	586,682	1,298,402	4,165,201	1,346,057	8,023,870
Other financial liabilities		26,754,163	175,952	136,110	568,997	579,871	159,352	28,374,445
	₩	<u>258,829,710</u>	<u>47,580,176</u>	<u>52,503,110</u>	<u>83,879,492</u>	<u>77,760,091</u>	<u>13,079,460</u>	<u>533,632,039</u>
Off balance(*3):								
Guarantee contracts	₩	16,745,707	-	-	-	-	-	16,745,707
Other liabilities related to loan commitments		193,853,866	-	-	-	-	-	193,853,866
	₩	<u>210,599,573</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>210,599,573</u>
Derivatives	₩	380,609	23,508	11,867	23,099	(363,034)	47,464	123,513

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

(In millions of won)

4. Financial risk management (continued)

(d) Liquidity risk (continued)

(*1) These amounts include cash flows of principal and interest on financial assets and financial liabilities.

(*2) Demand deposits amounting to ₩157,446,276 million and ₩172,107,724 million as of December 31, 2022 and 2021 are included in the 'Less than 1 month' category, respectively.

(*3) Though guarantees, loan agreements, and other credit offerings provided by the Group exist, if the counterparty requests a payment, the Group should fulfill the obligation immediately.

(e) Measurement of fair value

The fair values of financial instruments being traded in an active market are determined by the published market prices of each period end. The published market prices of financial instruments being held by the Group are based on the trading agencies' notifications.

If the market for a financial instrument is not active, such as OTC (Over The Counter market) derivatives, fair value is determined either by using a valuation technique or independent third-party valuation service. The Group uses its judgment to select a variety of methods and make rational assumptions that are mainly based on market conditions existing at the end of each reporting period.

The fair value of financial instruments is determined using valuation techniques; a method of using recent transactions between independent parties with reasonable judgment and willingness to trade, a method of referring to the current fair value of other financial instruments that are substantially identical, discounted cash flow model and option pricing models. For example, the fair value of an interest rate swap is calculated as the present value of the expected future cash flows, and the fair value of foreign exchange forwarding contract is calculated by applying the public forward exchange rate at the end of the reporting period.

The Group classifies and discloses fair value of financial instruments into the following three-level hierarchy:

- Level 1: Financial instruments measured at quoted prices from active markets are classified as fair value level 1.
- Level 2: Financial instruments measured using valuation techniques where all significant inputs are observable market data are classified as level 2.
- Level 3: Financial instruments measured using valuation techniques where one or more significant inputs are not based on observable market data are classified as level 3.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

(In millions of won)

4. Financial risk management (continued)

(e) Measurement of fair value (continued)

i) Financial instruments measured at fair value

i-1) The fair value hierarchy of financial instruments presented at their fair values in the statements of financial position as of December 31, 2022 and 2021 are as follows:

	December 31, 2022			
	Level 1	Level 2	Level 3(*3)	Total
Financial assets:				
Due from banks measured at FVTPL	₩ -	26,116	-	26,116
Loans at FVTPL(*1)	-	957,543	1,431,637	2,389,180
Securities at FVTPL:				
Debt securities and other securities(*2)	5,757,167	34,154,575	11,616,475	51,528,217
Equity securities	623,094	5,044	1,996,050	2,624,188
Gold/silver deposits	75,969	-	-	75,969
	<u>6,456,230</u>	<u>34,159,619</u>	<u>13,612,525</u>	<u>54,228,374</u>
Derivative assets:				
Trading	47,550	5,586,798	529,144	6,163,492
Hedging	-	298,304	-	298,304
	<u>47,550</u>	<u>5,885,102</u>	<u>529,144</u>	<u>6,461,796</u>
Securities measured at FVOCI:				
Debt securities	24,784,510	37,309,398	-	62,093,908
Equity securities	691,257	-	876,554	1,567,811
	<u>25,475,767</u>	<u>37,309,398</u>	<u>876,554</u>	<u>63,661,719</u>
	<u>₩ 31,979,547</u>	<u>78,337,778</u>	<u>16,449,860</u>	<u>126,767,185</u>
Financial liabilities:				
Financial liabilities measured at FVTPL:				
Securities sold	₩ 724,104	-	-	724,104
Gold/silver deposits	422,006	-	-	422,006
	<u>1,146,110</u>	<u>-</u>	<u>-</u>	<u>1,146,110</u>
Financial liabilities designated at fair value through profit or loss:				
Derivatives-combined securities(*2)	-	389,132	7,930,909	8,320,041
Debt securities issued	-	47,327	-	47,327
	-	436,459	7,930,909	8,367,368
Derivative liabilities:				
Trading	248,462	5,809,597	467,522	6,525,581
Hedging	-	835,365	343,759	1,179,124
	<u>248,462</u>	<u>6,644,962</u>	<u>811,281</u>	<u>7,704,705</u>
	<u>₩ 1,394,572</u>	<u>7,081,421</u>	<u>8,742,190</u>	<u>17,218,183</u>

(*1) Of the Financial assets at FVTPL invested by the Group, P-note's valuation of amount related to Lime Asset Management is ₩ 133.8 billion. As of December 31, 2022, in this regard, international disputes are under way, the Group has estimated its fair value based on financial information within the recent audit report of underlying assets since it doesn't have fair market value observable through active trading markets. Accounting estimates and assumptions used in preparing consolidated financial statements may lead to adjustment in response to changes in uncertainty, such as information and market conditions available in the future. In addition, the ultimate impact on the business, financial condition, performance, and liquidity of the Group is unpredictable.

(*2) Financial instruments (Beneficiary certificates: ₩ 221.7 billion and derivatives-combined securities: ₩ 221.7 billion) related to GEN2 Partners asset management were delayed in repurchase for the year ended December 31, 2022. The Group estimated fair value using the net asset value based on the most recent data available for the repurchase suspension fund. Since then, it has an uncertainty in measuring fair value due to market conditions.

(*3) The valuation amount for the over-the-counter derivatives classified as Level 3 by Shinhan Securities Corp. are ₩75,925 million in financial assets at FVTPL, ₩7,930,909 million in financial liabilities designated at fair value through profit or loss, ₩526,868 million in derivative assets, and ₩468,028 million in derivative liabilities. The above level 3 over-the-counter derivatives measure fair value using the internal valuation model of Shinhan Securities Co., Ltd.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

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4. Financial risk management (continued)

(e) Measurement of fair value (continued)

i) Financial instruments measured at fair value (continued)

i-1) The fair value hierarchy of financial instruments presented at their fair values in the statements of financial position as of December 31, 2022 and 2021 are as follows (continued):

	December 31, 2021			
	Level 1	Level 2	Level 3(*3)	Total
Financial assets:				
Due from banks measured at FVTPL	₩ -	-	34,262	34,262
Loans at FVTPL(*1)	-	790,510	892,834	1,683,344
Securities at FVTPL:				
Debt securities and other securities(*2)	7,250,389	40,396,692	10,580,066	58,227,147
Equity securities	942,433	107,416	1,325,466	2,375,315
Gold/silver deposits	83,691	-	-	83,691
	<u>8,276,513</u>	<u>40,504,108</u>	<u>11,905,532</u>	<u>60,686,153</u>
Derivative assets:				
Trading	11,542	3,033,965	528,619	3,574,126
Hedging	-	225,063	-	225,063
	<u>11,542</u>	<u>3,259,028</u>	<u>528,619</u>	<u>3,799,189</u>
Securities measured at FVOCI:				
Debt securities	24,951,761	38,855,158	-	63,806,919
Equity securities	257,947	48,225	725,232	1,031,404
	<u>25,209,708</u>	<u>38,903,383</u>	<u>725,232</u>	<u>64,838,323</u>
	₩ <u>33,497,763</u>	<u>83,457,029</u>	<u>14,086,479</u>	<u>131,041,271</u>
Financial liabilities:				
Financial liabilities measured at FVTPL:				
Securities sold	₩ 787,767	-	-	787,767
Gold/silver deposits	581,458	-	-	581,458
	<u>1,369,225</u>	<u>-</u>	<u>-</u>	<u>1,369,225</u>
Financial liabilities designated at fair value through profit or loss:				
Derivatives-combined securities(*2)	-	401,345	7,622,525	8,023,870
Derivative liabilities:				
Trading	191,061	2,862,761	153,933	3,207,755
Hedging	-	196,060	182,749	378,809
	<u>191,061</u>	<u>3,058,821</u>	<u>336,682</u>	<u>3,586,564</u>
	₩ <u>1,560,286</u>	<u>3,460,166</u>	<u>7,959,207</u>	<u>12,979,659</u>

(*1) Of the Financial assets at FVTPL invested by the Group, P-note's valuation of amount related to Lime Asset Management is ₩ 157.9 billion. As of December 31, 2021, in this regard, international disputes are under way, the Group has estimated its fair value based on financial information within the recent audit report of underlying assets since it doesn't have fair market value observable through active trading markets. Accounting estimates and assumptions used in preparing consolidated financial statements may lead to adjustment in response to changes in uncertainty, such as information and market conditions available in the future. In addition, the ultimate impact on the business, financial condition, performance, and liquidity of the Group is unpredictable.

(*2) Financial instruments (Beneficiary certificates: ₩ 300.2 billion and derivatives-combined securities: ₩ 300.2 billion) related to GEN2 Partners asset management were delayed in repurchase for the year ended December 31, 2021. The Group estimated fair value using the net asset value based on the most recent data available for the repurchase suspension fund. Since then, it has an uncertainty in measuring fair value due to market conditions.

(*3) The valuation amount for the over-the-counter derivatives classified as Level 3 by Shinhan Securities Corp. are ₩72,980 million in financial assets at FVTPL, ₩7,622,526 million in financial liabilities designated at fair value through profit or loss, ₩527,726 million in derivative assets, and ₩153,084 million in derivative liabilities. The above level 3 over-the-counter derivatives measure fair value using the internal valuation model of Shinhan Securities Co., Ltd.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

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(In millions of won)

4. Financial risk management (continued)

(e) Measurement of fair value (continued)

i) Financial instruments measured at fair value (continued)

i-2) Classification of financial instruments as fair value level 3

The Group uses the evaluation value from evaluators who are qualified and external independent to determine the fair value for Group's assets at the end of each reporting period. Changes in carrying values of financial instruments classified as Level 3 for the years ended December 31, 2022 and 2021 are as follows:

	December 31, 2022				
	Financial asset at fair value through profit or loss	Securities at fair value through other comprehensive profit or loss	Financial liabilities designated at fair value through profit or loss	Derivative assets and liabilities, net	
				Held for trading	Held for hedging
Beginning balance	₩ 12,832,628	725,232	(7,622,525)	374,686	(182,749)
Recognized in total comprehensive income for the year:					
Recognized in profit (loss) for the year(*1)	21,694	-	633,415	(484,756)	(161,010)
Recognized in other comprehensive income (loss) for the year	(152,921)	(705)	(5,919)	-	-
	(131,227)	(705)	627,496	(484,756)	(161,010)
Purchase	5,878,937	162,937	-	190,380	-
Issue	-	-	(6,030,787)	-	-
Settlement	(3,479,624)	(10,910)	5,094,907	(18,763)	-
Transfer to level3(*2)	173,636	-	-	-	-
Transfer from level3(*2)	(230,188)	-	-	75	-
Ending balance	₩ 15,044,162	876,554	(7,930,909)	61,622	(343,759)

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4. Financial risk management (continued)

(e) Measurement of fair value (continued)

i) Financial instruments measured at fair value (continued)

i-2) Classification of financial instruments as fair value level 3 (continued)

The Group uses the evaluation value from evaluators who are qualified and external independent to determine the fair value for Group's assets at the end of each reporting period. Changes in carrying values of financial instruments classified as Level 3 for the years ended December 31, 2022 and 2021 are as follows: (continued):

	December 31, 2021					
	Financial asset at fair value through profit or loss	Securities at fair value through other comprehensive profit or loss	Financial liabilities designated at fair value through profit or loss	Derivative assets and liabilities, net		
				Held for trading	Held for hedging	
Beginning balance	₩ 10,925,715	717,408	(8,141,504)	321,499	(102,024)	
Recognized in total comprehensive income for the year:						
Recognized in profit (loss) for the year(*1)	271,065	448	(273,536)	348,046	(80,725)	
Recognized in other comprehensive income (loss) for the year	38,566	24,672	(1,526)	-	-	
	309,631	25,120	(275,062)	348,046	(80,725)	
Purchase	4,792,810	21,440	-	4,394	-	
Issue	-	-	(8,488,977)	-	-	
Settlement	(3,498,968)	(38,736)	9,283,018	(299,633)	-	
Reclassification(*3)	(9,641)	-	-	-	-	
Transfer to level3(*2)	507,984	-	-	446	-	
Transfer from level3(*2)	(194,903)	-	-	(66)	-	
Ending balance	₩ 12,832,628	725,232	(7,622,525)	374,686	(182,749)	

(*1) Recognized profit or loss of the changes in carrying value of financial instruments classified as Level 3 for the years ended December 31, 2022 and 2021 are included in the accounts of the statements of comprehensive income, of which the amounts and the related accounts are as follows:

	December 31, 2022	
	Amounts recognized in profit or loss	Recognized profit or loss from the financial instruments held as of December 31
Net loss on financial assets at fair value through profit or loss	₩ (463,062)	(607,708)
Net gain on financial liabilities designated at fair value through profit or loss	633,415	762,342
Net gain on securities at fair value through other comprehensive income	-	-
Net other operating expense	(161,010)	(161,010)
	₩ 9,343	(6,376)

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

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December 31, 2022 and 2021

(In millions of won)

4. Financial risk management (continued)

(e) Measurement of fair value (continued)

i) Financial instruments measured at fair value (continued)

i-2) Changes in carrying values of financial instruments classified as Level 3 for the years ended December 31, 2022 and 2021 are as follows (continued):

	December 31, 2021	
	Amounts recognized in profit or loss	Recognized profit or loss from the financial instruments held as of December 31
Net gain on financial assets at fair value through profit or loss	₩ 619,111	322,974
Net gain (loss) on financial liabilities designated at fair value through profit or loss	(273,536)	186,003
Net gain on securities at fair value through other comprehensive income	448	-
Net other operating expense	(80,725)	(83,669)
	₩ 265,298	425,308

(*2) The investment securities transferred to Level 3 as the availability of observable market data changed due to reasons such as suspension of trading, and the derivative instruments transferred to Level 3 as the availability of observable market data changed due to reasons such as changes in the valuation.

(*3) It has been replaced by investment assets in associates.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

(In millions of won)

4. **Financial risk management (continued)**

(e) **Measurement of fair value (continued)**

i) *Financial instruments measured at fair value (continued)*

i-3) Valuation techniques and significant inputs not observable in markets

i-3-1) Valuation techniques and inputs used in measuring the fair value of financial instruments classified as level 2 as of December 31, 2022 and 2021 are as follows:

Type of financial instrument	Valuation technique	December 31, 2022		Significant inputs
			Carrying value	
Assets				
Financial asset at fair value through profit or loss				
Debt securities	DCF, NAV	₩	35,138,234	Discount rate, interest rate, stock price and etc. Price of underlying assets such as stocks, bonds, etc.
Equity securities	NAV		5,044	
			<u>35,143,278</u>	
Derivative assets				
Trading	Option model, Implied forward interest rate,		5,586,798	Discount rate, foreign exchange rate, volatility, stock price and commodity index, etc.
Hedging	DCF		298,304	
			<u>5,885,102</u>	
Securities at fair value through other comprehensive income				
Debt securities	DCF		37,309,398	Interest rate, discount rate and price of underlying assets such as stock, bonds, etc.
		₩	<u>78,337,778</u>	
Liabilities				
Financial liabilities designated at fair value through profit or loss				
Debt securities issued	Option model		47,327	Discount rate, volatility Discount rate
Compound financial instruments		₩	389,132	
			<u>436,459</u>	
Derivative liabilities				
Trading	Option model, DCF		5,809,597	Discount rate, foreign exchange rate, volatility, stock price and commodity index, etc.
Hedging			835,365	
			<u>6,644,962</u>	
		₩	<u>7,081,421</u>	

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

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December 31, 2022 and 2021

(In millions of won)

4. Financial risk management (continued)

(e) Measurement of fair value (continued)

i) Financial instruments measured at fair value (continued)

i-3) Valuation techniques and significant inputs not observable in markets (continued)

i-3-1) Valuation techniques and inputs used in measuring the fair value of financial instruments classified as level 2 as of December 31, 2022 and 2021 are as follows (continued):

Type of financial instrument	Valuation technique	December 31, 2021	
		Carrying value	Significant inputs
Assets			
Financial asset at fair value through profit or loss			
Debt securities	DCF, NAV	₩ 41,187,202	Discount rate, interest rate, stock price and etc.
Equity securities	NAV	107,416	Price of underlying assets such as stocks, bonds, etc.
		<u>41,294,618</u>	
Derivative assets			
Trading	Option model, Implied forward interest rate,	3,033,965	Discount rate, foreign exchange rate, volatility, stock price and commodity index, etc.
Hedging	DCF	225,063	
		<u>3,259,028</u>	
Securities at fair value through other comprehensive income			
Debt securities	DCF	38,855,158	Interest rate, discount rate and price of underlying assets such as stock, bonds, etc.
Equity securities	NAV	48,225	
		<u>38,903,383</u>	
		<u>₩ 83,457,029</u>	
Liabilities			
Financial liabilities designated at fair value through profit or loss			
Compound financial instruments	Option model	₩ 401,345	Discount rate
Derivative liabilities			
Trading	Option model,	2,862,761	Discount rate, foreign exchange rate, volatility, stock price and commodity index, etc.
Hedging	DCF	196,060	
		<u>3,058,821</u>	
		<u>₩ 3,460,166</u>	

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

(In millions of won)

4. Financial risk management (continued)

(e) Measurement of fair value (continued)

i) Financial instruments measured at fair value (continued)

i-3) Valuation techniques and significant inputs not observable in markets (continued)

i-3-2) Valuation techniques and significant inputs, but not observable, used in measuring the fair value of financial instruments classified as level 3 as of December 31, 2022 and 2021 are as follows:

Type of financial instrument	Valuation technique	Carrying value(*2)	December 31, 2022	
			Significant unobservable inputs	Range
Financial assets				
Financial asset at fair value through profit or loss				
Debt securities	DCF, NAV, Option model(*1), Income approach	₩ 13,048,112	The volatility of the underlying asset, Discount rate, Correlations, Growth rate, and Liquidation Value	0.60%~68.10% 2.92%~38.87% 15.94%~90.00%
Equity securities	DCF, NAV, Option model(*1), Comparable company analysis, Transaction case price	1,996,050	The volatility of the underlying asset, Discount rate and Correlations	20.50%~25.30% 5.59%~15.18% 11.90%~66.00%
		15,044,162		
Derivative assets				
Equity and foreign exchange related	Option model(*1)	54,541	The volatility of the underlying asset and Correlations	4.89%~84.40% 7.30%~72.30%
Interest rates related	Option model(*1)	51,025	The volatility of the underlying asset and Correlations	0.60%~1.10% 76.60%~78.90%
Credit and commodity related	Option model(*1)	423,578	The volatility of the underlying asset, Correlations and Hazard Rate	42.20%~55.90% 99.9% 1.20%~3.60%
		529,144		
Securities at fair value through other comprehensive income				
Equity securities	DCF, NAV, Option model(*1), Comparable company analysis	876,554	The volatility of the underlying asset, Discount rate, Growth rate and Volatility	28.62% 9.08%~19.14% 0.00%~2.00% 0.56%~1.21%
		₩ 16,449,860		

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(In millions of won)

4. Financial risk management (continued)

(e) Measurement of fair value (continued)

i) Financial instruments measured at fair value (continued)

i-3) Valuation techniques and significant inputs not observable in markets (continued)

i-3-2) Valuation techniques and significant inputs, but not observable, used in measuring the fair value of financial instruments classified as level 3 as of December 31, 2022 and 2021 are as follows (continued):

Type of financial instrument	Valuation technique	Carrying value(*2)	December 31, 2022	
			Significant unobservable inputs	Range
Financial liabilities				
Financial liabilities designated at fair value through profit or loss				
Equity related	Option model(*1)	₩ 7,930,909	The volatility of the underlying asset and Correlations	0.20%~84.40% -44.20%~86.30%
Derivative liabilities				
Equity and foreign exchange related	Option model(*1)	13,841	The volatility of the underlying asset and Correlations	4.89%~84.40% -42.30%~87.60%
Interest rates related	Option model(*1)	642,123	The volatility of the underlying asset, Regression coefficient and Correlations	0.20%~1.10% 0.00%~1.46% 23.60%~90.34%
Credit and commodity related	Option model(*1)	155,317	The volatility of the underlying asset, Correlations and Hazard Rate	0.20%~45.70% 23.60%~78.90% 1.20%~2.90%
		<u>811,281</u>		
		<u>₩ 8,742,190</u>		

(*1) Option model that the Group uses in derivative valuation includes Black-Scholes model, Hull-White model, Monte Carlo simulation, etc.

(*2) There is no disclosure for valuation techniques and input variables related to items where the carrying value is recognized as a reasonable approximation of fair value and the carrying value is disclosed at fair value.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

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(In millions of won)

4. Financial risk management (continued)

(e) Measurement of fair value (continued)

i) Financial instruments measured at fair value (continued)

i-3) Valuation techniques and significant inputs not observable in markets (continued)

i-3-2) Valuation techniques and significant inputs, but not observable, used in measuring the fair value of financial instruments classified as level 3 as of December 31, 2022 and 2021 are as follows (continued):

Type of financial instrument	Valuation technique	Carrying value(*2)	December 31, 2021	
			Significant unobservable inputs	Range
Financial assets				
Financial asset at fair value through profit or loss				
Debt securities	DCF, NAV, Option model(*1)	₩ 11,507,162	The volatility of the underlying asset, Discount rate, Correlations and Growth rate	19.48%~72.69% 0.07%~27.30% 23.17%~58.47% 0.00%~1.00%
Equity securities	DCF, NAV, Option model(*1), Comparable company analysis	1,325,466	The volatility of the underlying asset, Discount rate, Correlations and Growth rate	16.00%~32.00% 5.45%~16.35% 0.00%~54.00% 1.00%
		<u>12,832,628</u>		
Derivative assets				
Equity and foreign exchange related	Option model(*1)	28,783	The volatility of the underlying asset and Correlations	2.29%~50.00% -5.00%~91.00%
Interest rates related	Option model(*1)	6,029	The volatility of the underlying asset, Correlations and Discount rate	0.70% 80.00%~82.00% 1.11%~1.83%
Credit and commodity related	Option model(*1)	493,807	The volatility of the underlying asset and Hazard Rate	0.70%~4.70% 5.17%~93.69%
		<u>528,619</u>		
Securities at fair value through other comprehensive income				
Equity securities	DCF, NAV, Option model(*1), Comparable company analysis	725,232	The volatility of the underlying asset, Discount rate and Growth rate	25.49% 9.80%~22.79% 0.00%~2.00%
		<u>₩ 14,086,479</u>		

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

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(In millions of won)

4. Financial risk management (continued)

(e) Measurement of fair value (continued)

i) Financial instruments measured at fair value (continued)

i-3) Valuation techniques and significant inputs not observable in markets (continued)

i-3-2) Valuation techniques and significant inputs, but not observable, used in measuring the fair value of financial instruments classified as level 3 as of December 31, 2022 and 2021 are as follows (continued):

Type of financial instrument	Valuation technique	Carrying value(*2)	December 31, 2021	
			Significant unobservable inputs	Range
Financial liabilities				
Financial liabilities at fair value through profit or loss				
Equity related	Option model(*1)	₩ 7,622,525	The volatility of the underlying asset, and Correlations	0.50%~94.90% -12.00%~88.00%
Derivative liabilities				
Equity and foreign exchange related	Option model(*1)	13,214	The volatility of the underlying asset, and Correlations	2.29%~42.00% -5.00%~91.00%
Interest rates related	Option model(*1)	258,364	The volatility of the underlying asset, Regression coefficient, and Correlations	0.46%~0.78% 0.00%~0.54% 0.00%~90.34%
Credit and commodity related	Option model(*1)	65,104	The volatility of the underlying asset, and Hazard Rate	1.90%~94.90% 5.17%~100.79%
		336,682		
		₩ 7,959,207		

(*1) Option model that the Group uses in derivative valuation includes Black-Scholes model, Hull-White model, Monte Carlo simulation, etc.

(*2) There is no disclosure for valuation techniques and input variables related to items where the carrying value is recognized as a reasonable approximation of fair value and the carrying value is disclosed at fair value.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

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(In millions of won)

4. Financial risk management (continued)

(e) Measurement of fair value (continued)

i) Financial instruments measured at fair value (continued)

i-4) Sensitivity for changing in unobservable inputs

For level 3 fair value measurement, changing one or more of the unobservable inputs used to reasonably possible alternative assumptions would have the following effects on profit or loss, or other comprehensive income as of December 31, 2022 and 2021.

	December 31, 2022	
	Favorable changes	Unfavorable changes
Financial assets:		
Effects on profit or loss for the period(*1),(*2):		
Financial asset at fair value through profit or loss	₩ 62,840	(59,865)
Derivative assets	12,499	(11,465)
Securities at fair value through other comprehensive income(*2)	44,097	(32,469)
	₩ <u>119,436</u>	<u>(103,799)</u>
Financial liabilities:		
Effects on profit or loss for the period(*1):		
Financial liabilities designated at fair value through profit or loss	₩ 57,121	(60,525)
Derivative liabilities	16,388	(16,908)
	₩ <u>73,509</u>	<u>(77,433)</u>
December 31, 2021		
	Favorable changes	Unfavorable changes
Financial assets:		
Effects on profit or loss for the period(*1),(*2):		
Financial asset at fair value through profit or loss	₩ 39,084	(43,072)
Derivative assets	16,893	(11,809)
Securities at fair value through other comprehensive income(*2)	38,865	(38,210)
	₩ <u>94,842</u>	<u>(93,091)</u>
Financial liabilities:		
Effects on profit or loss for the period(*1):		
Financial liabilities designated at fair value through profit or loss	₩ 45,493	(50,845)
Derivative liabilities	25,326	(23,486)
	₩ <u>70,819</u>	<u>(74,331)</u>

(*1) Fair value changes are calculated by increasing or decreasing the volatility of the underlying asset(-10~10%p) or correlations (-10~10%p), a significant unobservable input.

(*2) Fair value changes are calculated by increasing or decreasing the growth rate and discount rate, which are a significant unobservable input, from -1%p to 1%p.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

(In millions of won)

4. Financial risk management (continued)

(e) Measurement of fair value (continued)

ii) Financial instruments measured at amortized cost

ii-1) The method of measuring the fair value of financial instruments measured at amortized cost is as follows:

Type	Measurement methods of fair value
Cash and due from banks	The carrying value and the fair value for cash are identical and most of deposits are floating interest rate deposits or next day deposits of a short-term instrument. For this reason, the carrying value approximates fair value.
Loans	The fair value of the loans is measured by discounting the expected cash flow at the market interest rate and credit risk of the borrower.
Securities	An external professional evaluation agency is used to calculate the valuation amount using the market information. The agency calculates the fair value based on active market prices, and DCF model is used to calculate the fair value if there is no quoted price.
Deposits and borrowings	The carrying value and the fair value for demand deposits, cash management account deposits, call money as short-term instrument are identical. The fair value of others is measured by discounting the contractual cash flow at the market interest rate that takes into account the residual risk.
Debt securities issued	Where available, the fair value of deposits and borrowings is based on the published price quotations in an active market. In case there is no data for an active market price, it is measured by discounting the contractual cash flow at the market interest rate that takes into account the residual risk.
Other financial assets and other financial liabilities	The carrying value is measured at fair value for short-term and suspense accounts, such as spot exchange, inter-bank fund transfer, and domestic exchange of payments, and for the remaining financial instruments, the present value is calculated by discounting the contractual cash flows at a discount rate which considered residual risk at the market interest rate.

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(In millions of won)

4. Financial risk management (continued)

(e) Measurement of fair value (continued)

ii) Financial instruments measured at amortized cost (continued)

ii-2) The carrying value and the fair value of financial instruments measured at amortized cost as of December 31, 2022 and 2021 are as follows:

	December 31, 2022		December 31, 2021	
	Carrying value	Fair value	Carrying value	Fair value
Assets:				
Deposits measured at amortized cost	₩ 27,227,755	27,123,736	24,232,013	24,216,932
Loans measured at amortized cost	412,291,511	409,344,807	389,137,156	390,406,822
Securities measured at amortized cost:				
Government bonds	38,371,463	33,820,827	34,679,301	34,377,110
Financial institution bonds	6,530,386	6,294,481	3,423,536	3,477,834
Corporation bonds	13,069,644	11,428,463	11,827,239	11,750,467
	57,971,493	51,543,771	49,930,076	49,605,411
Other financial assets	21,896,490	22,129,807	23,238,932	23,389,209
	₩ 519,387,249	510,142,121	486,538,177	487,618,374
Liabilities:				
Deposit liabilities:				
Demand deposits	₩ 157,446,276	157,446,276	172,107,724	172,107,724
Time deposits	196,265,911	195,886,583	161,498,901	161,301,409
Certificate of deposit	14,921,375	14,748,736	16,576,536	16,606,894
Issued bill deposit	6,631,858	6,631,276	5,818,001	5,817,844
CMA deposits	4,634,010	4,634,010	5,246,478	5,246,478
Others	3,111,315	3,110,993	3,649,035	3,648,983
	383,010,745	382,457,874	364,896,675	364,729,332
Borrowing debts:				
Call-money	1,276,301	1,276,301	1,534,611	1,534,611
Bills sold	15,057	15,006	9,032	9,019
Bonds sold under repurchase agreements	9,544,536	9,544,536	10,709,115	10,709,115
Borrowings	38,443,281	37,602,027	30,914,307	30,803,417
	49,279,175	48,437,870	43,167,065	43,056,162
Debts:				
Borrowings in Korean won	63,927,063	62,059,253	69,288,982	69,081,140
Borrowings in foreign currency	13,361,720	13,051,576	10,860,381	11,076,757
	77,288,783	75,110,829	80,149,363	80,157,897
Other financial liabilities	32,099,649	31,790,397	29,880,879	29,872,186
	₩ 541,678,352	537,796,970	518,093,982	517,815,577

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4. **Financial risk management (continued)**

(e) **Measurement of fair value (continued)**

ii) *Financial instruments measured at amortized cost (continued)*

ii-3) The fair value hierarchy of financial assets and liabilities which are not measured at their fair values in the statements of financial position but with their fair value disclosed as of December 31, 2022 and 2021 are as follows:

		December 31, 2022			
		Level 1	Level 2	Level 3	Total
Assets:					
Deposits measured at amortized cost	₩	429,794	26,693,942	-	27,123,736
Loans measured at amortized cost		-	5,832,484	403,512,323	409,344,807
Securities measured at amortized cost:					
Government bonds		22,668,684	11,152,143	-	33,820,827
Financial institution bonds		1,898,457	4,396,024	-	6,294,481
Corporation bonds		-	11,428,463	-	11,428,463
		<u>24,567,141</u>	<u>26,976,630</u>	<u>-</u>	<u>51,543,771</u>
Other financial assets		-	12,598,487	9,531,320	22,129,807
	₩	<u>24,996,935</u>	<u>72,101,543</u>	<u>413,043,643</u>	<u>510,142,121</u>
Liabilities:					
Deposit liabilities:					
Demand deposits	₩	-	157,446,276	-	157,446,276
Time deposits		-	-	195,886,583	195,886,583
Certificate of deposit		-	-	14,748,736	14,748,736
Issued bill deposit		-	-	6,631,276	6,631,276
CMA deposits		-	4,634,010	-	4,634,010
Other		-	3,057,789	53,204	3,110,993
		<u>-</u>	<u>165,138,075</u>	<u>217,319,799</u>	<u>382,457,874</u>
Borrowing debts:					
Call-money		-	1,276,301	-	1,276,301
Bills sold		-	-	15,006	15,006
Bonds sold under repurchase agreements		-	-	9,544,536	9,544,536
Borrowings		-	19,922	37,582,105	37,602,027
		<u>-</u>	<u>1,296,223</u>	<u>47,141,647</u>	<u>48,437,870</u>
Debts:					
Borrowings in won		-	31,665,994	30,393,259	62,059,253
Borrowings in foreign currency		-	9,625,410	3,426,166	13,051,576
		<u>-</u>	<u>41,291,404</u>	<u>33,819,425</u>	<u>75,110,829</u>
Other financial liabilities		-	8,921,782	22,868,615	31,790,397
	₩	<u>-</u>	<u>216,647,484</u>	<u>321,149,486</u>	<u>537,796,970</u>

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4. **Financial risk management (continued)**

(e) **Measurement of fair value (continued)**

ii) *Financial instruments measured at amortized cost (continued)*

ii-3) The fair value hierarchy of financial assets and liabilities which are not measured at their fair values in the statements of financial position but with their fair value disclosed as of December 31, 2022 and 2021 are as follows (continued):

		December 31, 2021			
		Level 1	Level 2	Level 3	Total
Assets:					
Deposits measured at amortized cost	₩	252,474	23,964,458	-	24,216,932
Loans measured at amortized cost		-	2,387,533	388,019,289	390,406,822
Securities measured at amortized cost:					
Government bonds		23,045,322	11,331,788	-	34,377,110
Financial institution bonds		698,105	2,779,729	-	3,477,834
Corporation bonds		-	11,662,046	88,421	11,750,467
		<u>23,743,427</u>	<u>25,773,563</u>	<u>88,421</u>	<u>49,605,411</u>
Other financial assets		-	14,200,356	9,188,853	23,389,209
	₩	<u>23,995,901</u>	<u>66,325,910</u>	<u>397,296,563</u>	<u>487,618,374</u>
Liabilities:					
Deposit liabilities:					
Demand deposits	₩	-	172,107,724	-	172,107,724
Time deposits		-	-	161,301,409	161,301,409
Certificate of deposit		-	-	16,606,894	16,606,894
Issued bill deposit		-	-	5,817,844	5,817,844
CMA deposits		-	5,246,478	-	5,246,478
Other		-	3,553,942	95,041	3,648,983
		<u>-</u>	<u>180,908,144</u>	<u>183,821,188</u>	<u>364,729,332</u>
Borrowing debts:					
Call-money		-	1,534,611	-	1,534,611
Bills sold		-	-	9,019	9,019
Bonds sold under repurchase agreements		-	-	10,709,115	10,709,115
Borrowings		-	-	30,803,417	30,803,417
		<u>-</u>	<u>1,534,611</u>	<u>41,521,551</u>	<u>43,056,162</u>
Debts:					
Borrowings in won		-	38,474,804	30,606,336	69,081,140
Borrowings in foreign currency		-	7,956,414	3,120,343	11,076,757
		<u>-</u>	<u>46,431,218</u>	<u>33,726,679</u>	<u>80,157,897</u>
Other financial liabilities		-	9,413,875	20,458,311	29,872,186
	₩	<u>-</u>	<u>238,287,848</u>	<u>279,527,729</u>	<u>517,815,577</u>

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

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4. Financial risk management (continued)

(e) Measurement of fair value (continued)

ii) Financial instruments measured at amortized cost (continued)

ii-4) Valuation techniques and inputs used in the fair value measurements categorized within Level 2 and Level 3 for fair value disclosures, which are not recognized at fair value, as at December 31, 2022 and 2021, are as follows:

				December 31, 2022	
		Fair value(*)	Valuation technique	Inputs	
Financial instruments classified as level 2 :					
Assets					
Due from banks measured at amortized cost	₩	26,693,942	DCF	Discount rate	
Loans measured at amortized cost		5,832,484	DCF	Discount rate, Credit spread and Prepayment rate	
Securities measured at amortized cost		26,976,630	DCF	Discount rate	
Other financial assets		12,598,487	DCF	Discount rate	
Financial instruments classified as level 3 :					
Assets					
Loans measured at amortized cost		403,512,323	DCF	Discount rate, Credit spread and Prepayment rate	
Securities measured at amortized cost		-	DCF	Discount rate	
Other financial assets		9,531,320	DCF	Discount rate	
	₩	<u>485,145,186</u>			
Financial instruments classified as level 2 :					
Liabilities					
Deposits	₩	165,138,075	DCF	Discount rate	
Borrowings		1,296,223	DCF	Discount rate	
Debt securities issued		41,291,404	DCF	Discount rate	
Other financial liabilities		8,921,782	DCF	Discount rate	
Financial instruments classified as level 3 :					
Liabilities					
Deposits		217,319,799	DCF	Discount rate	
Borrowings		47,141,647	DCF	Discount rate	
Debt securities issued		33,819,425	DCF	Discount rate, Regression coefficient and Correlations	
Other financial liabilities		22,868,615	DCF	Discount rate	
	₩	<u>537,796,970</u>			

(*) Valuation techniques and inputs are not disclosed when the carrying value is a reasonable approximation of fair value.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

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(In millions of won)

4. **Financial risk management (continued)**

(e) **Measurement of fair value (continued)**

ii) *Financial instruments measured at amortized cost (continued)*

- For financial instruments not measured at fair value in the statement of financial position but for which the fair value is disclosed, information on valuation technique and inputs used in measuring fair value of financial instruments classified as level 2 or level 3 at December 31, 2022 and 2021 are as follows (continued) :

	December 31, 2021		
	Fair value(*)	Valuation technique	Inputs
Financial instruments classified as level 2 :			
Assets			
Due from banks measured at amortized cost	₩ 23,964,458	DCF	Discount rate
Loans measured at amortized cost	2,387,533	DCF	Discount rate, Credit spread and Prepayment rate
Securities measured at amortized cost	25,773,563	DCF	Discount rate
Other financial assets	14,200,356	DCF	Discount rate
Financial instruments classified as level 3 :			
Assets			
Loans measured at amortized cost	388,019,289	DCF	Discount rate, Credit spread and Prepayment rate
Securities measured at amortized cost	88,421	DCF	Discount rate
Other financial assets	9,188,853	DCF	Discount rate
	₩ <u>463,622,473</u>		
Financial instruments classified as level 2 :			
Liabilities			
Deposits	₩ 180,908,144	DCF	Discount rate
Borrowings	1,534,611	DCF	Discount rate
Debt securities issued	46,431,218	DCF	Discount rate
Other financial liabilities	9,413,875	DCF	Discount rate
Financial instruments classified as level 3 :			
Liabilities			
Deposits	183,821,188	DCF	Discount rate
Borrowings	41,521,551	DCF	Discount rate
Debt securities issued	33,726,679	DCF	Discount rate, Regression coefficient and Correlations
Other financial liabilities	20,458,311	DCF	Discount rate
	₩ <u>517,815,577</u>		

(*) Valuation techniques and inputs are not disclosed when the carrying value is a reasonable approximation of fair value

iii) *Changes in gains or losses on valuation at the transaction date for the years ended December 31, 2022 and 2021, are as follows:*

	December 31, 2022	December 31, 2021
Beginning balance	₩ (160,525)	(292,599)
New transactions	(88,769)	(206,897)
Recognized in profit for the year	105,335	338,971
Ending balance	₩ <u>(143,959)</u>	<u>(160,525)</u>

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

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4. **Financial risk management (continued)**

(f) **Classification by categories of financial instruments**

Financial assets and liabilities are measured at fair value or amortized cost. The financial instruments measured at fair value or amortized costs are measured in accordance with the Group's valuation methodologies, which are described in Note 4.(e) Measurement of fair value.

The carrying values of each category of financial assets and financial liabilities as of December 31, 2022 and 2021 is as follows:

		December 31, 2022				
		FVTPL	FVOCI	Amortized cost	Derivatives held for hedging	Total
Assets:						
Cash and due from banks at amortized cost	₩	-	-	29,532,235	-	29,532,235
Due from banks at fair value through profit or loss		26,116	-	-	-	26,116
Securities at fair value through profit or loss		54,228,374	-	-	-	54,228,374
Derivatives assets		6,163,492	-	-	298,304	6,461,796
Loans at fair value through profit or loss		2,389,180	-	-	-	2,389,180
Loans at amortized cost		-	-	412,291,511	-	412,291,511
Securities at fair value through other comprehensive income		-	63,661,719	-	-	63,661,719
Securities at amortized cost		-	-	57,971,493	-	57,971,493
Others		-	-	21,896,490	-	21,896,490
	₩	<u>62,807,162</u>	<u>63,661,719</u>	<u>521,691,729</u>	<u>298,304</u>	<u>648,458,914</u>
December 31, 2022						
		FVTPL	FVTPL liabilities designated	Financial liabilities measured at amortized cost	Derivatives held for hedging	Total
Liabilities:						
Deposits	₩	-	-	383,010,745	-	383,010,745
Financial liabilities at fair value through profit or loss		1,146,110	-	-	-	1,146,110
Financial liabilities designated at FVTPL		-	8,367,368	-	-	8,367,368
Derivatives liabilities		6,525,581	-	-	1,179,124	7,704,705
Borrowings		-	-	49,279,175	-	49,279,175
Debt securities issued		-	-	77,288,783	-	77,288,783
Others		-	-	32,099,649	-	32,099,649
	₩	<u>7,671,691</u>	<u>8,367,368</u>	<u>541,678,352</u>	<u>1,179,124</u>	<u>558,896,535</u>

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

(In millions of won)

4. **Financial risk management (continued)**

(f) **Classification by categories of financial instruments (continued)**

The carrying values of each category of financial assets and financial liabilities as of December 31, 2022 and 2021 is as follows (continued):

		December 31, 2021				
		FVTPL	FVOCI	Amortized cost	Derivatives held for hedging	Total
Assets:						
Cash and due from banks at amortized cost	₩	-	-	28,453,404	-	28,453,404
Due from banks at fair value through profit or loss		34,262	-	-	-	34,262
Securities at fair value through profit or loss		60,686,153	-	-	-	60,686,153
Derivatives assets		3,574,126	-	-	225,063	3,799,189
Loans at fair value through profit or loss		1,683,344	-	-	-	1,683,344
Loans at amortized cost		-	-	389,137,156	-	389,137,156
Securities at fair value through other comprehensive income		-	64,838,323	-	-	64,838,323
Securities at amortized cost		-	-	49,930,076	-	49,930,076
Others		-	-	23,238,932	-	23,238,932
	₩	<u>65,977,885</u>	<u>64,838,323</u>	<u>490,759,568</u>	<u>225,063</u>	<u>621,800,839</u>
December 31, 2021						
		FVTPL	FVTPL liabilities designated	Financial liabilities measured at amortized cost	Derivatives held for hedging	Total
Liabilities:						
Deposits	₩	-	-	364,896,675	-	364,896,675
Financial liabilities at fair value through profit or loss		1,369,225	-	-	-	1,369,225
Financial liabilities designated at FVTPL		-	8,023,870	-	-	8,023,870
Derivatives liabilities		3,207,755	-	-	378,809	3,586,564
Borrowings		-	-	43,167,065	-	43,167,065
Debt securities issued		-	-	80,149,363	-	80,149,363
Others		-	-	29,880,879	-	29,880,879
	₩	<u>4,576,980</u>	<u>8,023,870</u>	<u>518,093,982</u>	<u>378,809</u>	<u>531,073,641</u>

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

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4. Financial risk management (continued)

(g) Transfer of financial instruments

i) Transfers that do not qualify for derecognition

① Sale of repurchase bonds

Among the Group's sale of repurchase bonds, followings are the details of financial instruments that do not qualify for derecognition because the Group sold under repurchase agreement at a fixed price as of December 31, 2022 and 2021:

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Transferred asset:		
Securities at FVTPL	₩ 7,461,978	9,883,335
Securities at FVOCI	1,325,157	647,541
Securities at amortized cost	269,724	210,490
	<u>₩ 9,056,859</u>	<u>10,741,366</u>
Associated liabilities:		
Bonds sold under repurchase agreements	₩ 9,544,536	10,709,115

② Securities loaned

If the securities owned by the Group are loaned, the ownership of the securities is transferred, but is required to be returned at the end of the loan period. Therefore, the Group continues to recognize the entire securities loaned as it holds most of the risks and compensation of the securities.

Securities loaned as of December 31, 2022 and 2021 are as follows:

	<u>December 31, 2022</u>	<u>December 31, 2021</u>	<u>Borrowers</u>
Government bonds	₩ 13,282,971	9,044,914	Korea Securities Finance Corp., Korea Securities Depository, etc
Financial institutions bonds	425,179	209,594	Korea Securities Finance Corp., Korea Securities Depository, etc
Corporation bonds	222,857	-	BNP Paribas Securities Corp.
Equity securities	44,622	8,109	CITIGROUP GLOBAL MARKETS Ltd., etc
	<u>₩ 13,975,629</u>	<u>9,262,617</u>	

③ Securitization of financial assets

The Group uses the securitization of financial assets as a means of financing and to transfer risk. Generally, these securitization transactions result in the transfer of contractual cash flows to the debt securities holders issued from the financial asset portfolio. The Group recognizes debt securities issued without derecognition of assets under individual agreements, partially recognizes assets to the extent of the Group's level of involvement in assets, or recognizes rights and obligations arising from the derecognition and transfer of assets as separate assets and liabilities. The Group derecognizes the entire asset only if it transfers contractual rights to the cash flows of financial assets or if it holds contractual rights but bears contractual obligations to pay cash flows to the other party without significant delays or reinvestment and transfers most of the risks and benefits of ownership (e.g., credit risk, interest rate risk, prepayment risk, etc.). For the years ended December 31, 2022 and 2021, the carrying value of financial assets related to securitization transactions that have neither been transferred nor derecognized are ₩ 11,429,250 million and ₩ 11,529,634 million, respectively; the carrying values of related liabilities are ₩ 6,366,124 million and ₩ 8,284,109 million, respectively.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

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(In millions of won)

4. Financial risk management (continued)

(g) Transfer of financial instruments (continued)

ii) Financial instruments qualified for derecognition and continued involvement

There are no financial instruments which qualify for derecognition and in which the Group has continuing involvements as of December 31, 2022, and 2021.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

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(In millions of won)

4. Financial risk management (continued)

(h) Offsetting financial assets and financial liabilities

Financial assets and liabilities subject to offsetting, enforceable master netting arrangements and similar agreements as of December 31, 2022 and 2021 are as follows:

		December 31, 2022					
		Gross amounts of recognized financial assets/ liabilities set off in the statement of financial position	Net amounts of financial assets/ liabilities presented in the statement of financial position	Related amounts not set off in the statement of financial position			
		Gross amounts of recognized financial assets/ liabilities		Financial instruments	Cash collateral received	Net amount	
Assets:							
Derivatives(*1)	₩	6,523,848	-	6,523,848	10,950,859	473,252	2,535,392
Other financial instruments(*1)		7,435,655	-	7,435,655			
Securities repurchased under repurchase agreements and bonds purchased under repurchase agreements(*2)		12,991,705	-	12,991,705	12,839,843	-	151,862
Securities loaned(*2)		4,673,143	-	4,673,143	4,660,603	-	12,540
Domestic exchange settlement debit(*3)		45,282,683	39,247,867	6,034,816	-	-	6,034,816
Receivables from disposal of securities(*4)		4,933,264	2,405,878	2,527,386	1,767,831	-	759,555
Insurance receivables		145,747	-	145,747	121,315	-	24,432
	₩	<u>81,986,045</u>	<u>41,653,745</u>	<u>40,332,300</u>	<u>30,340,451</u>	<u>473,252</u>	<u>9,518,597</u>
Liabilities:							
Derivatives(*1),(*5)	₩	15,797,823	-	15,797,823	11,222,110	1,000	10,773,043
Other financial instruments(*1)		6,198,330	-	6,198,330			
Bonds sold under repurchase agreements(*2)		9,544,536	-	9,544,536	8,931,247	-	613,289
Securities borrowed(*2)		724,104	-	724,104	724,104	-	-
Domestic exchange settlement pending(*3)		41,556,442	39,247,867	2,308,575	2,231,508	-	77,067
Payable from purchase of securities(*4)		4,854,358	2,405,878	2,448,480	1,768,821	-	679,659
Insurance payables		122,083	-	122,083	121,315	-	768
	₩	<u>78,797,676</u>	<u>41,653,745</u>	<u>37,143,931</u>	<u>24,999,105</u>	<u>1,000</u>	<u>12,143,826</u>

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

(In millions of won)

4. Financial risk management (continued)

(h) Offsetting financial assets and financial liabilities (continued)

Financial assets and liabilities subject to offsetting, enforceable master netting arrangements and similar agreements as of December 31, 2022 and 2021 are as follows (continued):

(*1) The Group has certain derivative transactions subject to the ISDA (International Derivatives Swaps and Dealers Association) agreement. According to the ISDA agreement, when credit events (e.g. default) of counterparties occur, all derivative agreements are terminated and set off. At the time of termination, the parties to the transaction will offset the amount of payment or payment to each other, and one party will pay the other party a single amount will be paid to the other party.

(*2) Resale and repurchase agreement, securities borrowing and lending agreement are also similar to ISDA agreement with respect to enforceable netting agreements.

(*3) The Group has legally enforceable right to set off and settles financial assets and liabilities on a net basis under normal business terms. Therefore, domestic exchanges settlement receivables (payables) are recorded on a net basis in the consolidated statements of financial position.

(*4) It is an account that deals with bonds and liabilities based on the settlement of listed stocks traded in the market. The Group currently has a legally enforceable right to set off the recognized amounts and intends to settle on a net basis. Therefore, the net amount is presented in the consolidated statement of financial position. The offset amount of related bonds and liabilities based on the settlement of over-the-counter derivatives in-house payment by Central Clearing System is included.

(*5) As of December 31, 2022, the total amount of financial liabilities includes ₩ 8,320,041 million of ELS (equity-linked securities) products and of DLS (derivative linked securities) products. In the course of this transaction, the Group has provided collateral for some transactions. The financial instruments provided as collateral of ₩ 432,228 million are included in the related instruments not offset in the statement of financial position. The total amount of financial liabilities recognized as of December 31, 2022 is ₩ 1,934,547 million for transactions with the other party with collective offset contracts or similar arrangements.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

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4. Financial risk management (continued)

(h) Offsetting financial assets and financial liabilities (continued)

Financial assets and liabilities subject to offsetting, enforceable master netting arrangements and similar agreements as of December 31, 2022 and 2021 are as follows: (continued)

		December 31, 2021					
		Gross amounts of recognized financial assets/ liabilities set off in the statement of financial position	Net amounts of financial assets/ liabilities presented in the statement of financial position	Related amounts not set off in the statement of financial position			
		Gross amounts of recognized financial assets/ liabilities		Financial instruments	Cash collateral received	Net amount	
Assets:							
Derivatives(*1)	₩	3,821,253	-	3,821,253	9,509,183	409,487	1,775,888
Other financial instruments(*1)		7,873,305	-	7,873,305			
Securities repurchased under repurchase agreements and bonds purchased under repurchase agreements(*2)		12,749,800	-	12,749,800	12,618,359	-	131,441
Securities loaned(*2)		2,648,248	-	2,648,248	2,648,248	-	-
Domestic exchange settlement debit(*3)		44,872,022	38,171,649	6,700,373	-	-	6,700,373
Receivables from disposal of securities(*4)		7,082,779	3,477,874	3,604,905	2,668,065	-	936,840
Insurance receivables		70,087	-	70,087	45,849	-	24,238
	₩	<u>79,117,494</u>	<u>41,649,523</u>	<u>37,467,971</u>	<u>27,489,704</u>	<u>409,487</u>	<u>9,568,780</u>
Liabilities:							
Derivatives(*1),(*5)	₩	11,434,081	-	11,434,081	10,093,812	1,000	8,120,313
Other financial instruments(*1)		6,781,044	-	6,781,044			
Bonds sold under repurchase agreements(*2)		10,709,115	-	10,709,115	10,492,779	-	216,336
Securities borrowed(*2)		787,767	-	787,767	787,767	-	-
Domestic exchange settlement pending(*3)		40,062,057	38,171,649	1,890,408	1,809,727	-	80,681
Payable from purchase of securities(*4)		7,036,630	3,477,874	3,558,756	2,668,767	-	889,989
Insurance payables		45,940	-	45,940	45,849	-	91
	₩	<u>76,856,634</u>	<u>41,649,523</u>	<u>35,207,111</u>	<u>25,898,701</u>	<u>1,000</u>	<u>9,307,410</u>

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

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4. Financial risk management (continued)

(h) Offsetting financial assets and financial liabilities (continued)

Financial assets and liabilities subject to offsetting, enforceable master netting arrangements and similar agreements as of December 31, 2022 and 2021 are as follows (continued):

(*1) The Group has certain derivative transactions subject to the ISDA (International Derivatives Swaps and Dealers Association) agreement. According to the ISDA agreement, when credit events (e.g. default) of counterparties occur, all derivative agreements are terminated and set off. At the time of termination, the parties to the transaction will offset the amount of payment or payment to each other, and one party will pay the other party a single amount will be paid to the other party.

(*2) Resale and repurchase agreement, securities borrowing and lending agreement are also similar to ISDA agreement with respect to enforceable netting agreements.

(*3) The Group has legally enforceable right to set off and settles financial assets and liabilities on a net basis under normal business terms. Therefore, domestic exchanges settlement receivables (payables) are recorded on a net basis in the consolidated statements of financial position.

(*4) It is an account that deals with bonds and liabilities based on the settlement of listed stocks traded in the market. The Group currently has a legally enforceable right to set off the recognized amounts and intends to settle on a net basis. Therefore, the net amount is presented in the consolidated statement of financial position. The offset amount of related bonds and liabilities based on the settlement of over-the-counter derivatives in-house payment by Central Clearing System is included.

(*5) As of December 31, 2021, the total amount of financial liabilities includes ₩ 8,023,870 million of ELS (equity-linked securities) products and of DLS (derivative linked securities) products. In the course of this transaction, the Group has provided collateral for some transactions. The financial instruments provided as collateral of ₩ 717,841 million are included in the related instruments not offset in the statement of financial position. The total amount of financial liabilities recognized as of December 31, 2021 is ₩ 445,128 million for transactions with the other party with collective offset contracts or similar arrangements.

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4. Financial risk management (continued)

(i) Capital risk management

The criteria for capital adequacy to be complied with by the Group are 8.0%. In addition, the minimum regulatory BIS capital ratio, which should be maintained additionally to increase the ability to absorb losses, has been raised to up to 14% as the capital regulation based on the Basel III standard is enforced from 2016. This is based on the addition of capital conservation capital (2.5%p) and domestic system-critical banks (D-SIB) capital (1.0%p) and economic response capital (2.5%p) to the existing lowest common equity capital ratio, and economic response capital can be charged up to 2.5%p during credit expansion period. As of December 31, 2022, the minimum regulatory BIS capital ratio to be observed is 11.5%, which is the standard for applying capital conservation capital (2.5%p), D-SIB capital (1.0%p), and economic response capital (0%p).

Basel III capital ratio is the concept of 'International Agreement on the Measurement and Standards of Equity Capital' of the Basel Bank Supervisory Commission of BIS (International Settlement Bank). It is calculated as '(common stock capital (after deduction of deductions) + other basic capital + supplementary capital) ÷ risk weighted assets'.

The capital of common stock can be the first to make up for the loss of the financial holding company. The capital of common stock consists of capital stock, capital reserve, retained earnings and other, which will not be redeemed until the liquidation and will be redeemed at the last during the liquidation. Other basic capital consists of capital securities that meet certain requirements as capital of permanent nature. Complementary capital is capital that can compensate for losses of financial holding companies during liquidation, and consists of capital securities, etc. that meet certain requirements. The deduction items are those held by the Group as assets or capital items, but do not contribute to the ability to absorb losses. Unless otherwise noted, it will be deducted from common stock capital.

The capital ratio of the Group based on Basel III is as of December 31, 2022 and 2021 are as follows:

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Capital :		
Tier I common equity capital	₩ 37,287,768	35,469,554
Additional tier 1 capital	6,018,792	4,965,931
Tier I capital	43,306,560	40,435,485
Tier II capital	3,714,400	3,427,951
Total capital (A)	₩ 47,020,960	43,863,436
Total risk-weighted assets (B)	₩ 291,542,598	270,692,183
Capital adequacy ratio (A/B)	16.13%	16.20%
Tier I capital adequacy ratio	14.85%	14.94%
Common stock ratio	12.79%	13.10%

(*) As of December 31, 2022, the Group has maintained an appropriate consolidated equity capital ratio according to the BIS equity capital regulation.

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5. Significant estimates and judgments

The preparation of financial statements requires the Group to make estimates and assumptions concerning the future. Management also needs to exercise judgment in applying the Group's accounting policies. Estimates and assumptions are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances. As the resulting accounting estimates will, by definition, seldom equal the related actual results, it can contain a significant risk of causing a material adjustment. The estimates and assumptions that have a significant risk of causing a material adjustment to the carrying values of assets and liabilities within the next financial year are discussed below.

(a) Estimation of impairment of goodwill

The Group reviews the goodwill annually in accordance with the accounting policy in Note 3. The recoverable amount of the cash-generating unit (group) is determined based on the value-in-use calculation. These calculations are based on estimates.

(b) Income taxes

The Group is subject to tax laws from various countries. In the normal course of business, there are various types of transactions and different accounting methods that may add uncertainties to the decision of the final income taxes. The Group has recognized current and deferred taxes that reflect tax consequences based on the best estimates in which the Group expects, at the end of the reporting period, to recover or settle the carrying value of its assets and liabilities. However, actual income taxes in the future may not be identical to the recognized deferred tax assets and liabilities, and this difference can affect current and deferred tax at the period when the final tax effect is determined.

(c) Fair value of financial instruments

The fair values of financial instruments (e.g. over-the-counter derivatives) which are not actively traded in the market are determined by using valuation techniques. The Group determines valuation techniques and assumptions based on significant market conditions at the end of each reporting period. Diverse valuation techniques are used to determine the fair value of financial instruments, from generic valuation techniques to internally developed valuation models that incorporate various types of assumptions and variables.

(d) Allowance for credit loss, guarantees and unused loan commitments

The Group determines and recognizes allowances for losses on debt securities, loans and other receivables measured at amortized cost or FVOCI, and recognizes provisions for guarantees and unused loan commitments through impairment testing. The accuracy of allowances and provisions for credit losses are determined by the estimation of expected cash flows for individually assessed allowances, and methodology and assumptions used for collectively assessed allowances and provisions for groups of loans, guarantees and unused loan commitments.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

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(In millions of won)

6. Investment in subsidiaries

(a) The summarized financial information of the controlling company and the Group's major subsidiaries as of December 31, 2022 and 2021 is as follows:

Investees(*1)(*2)	December 31, 2022			December 31, 2021		
	Asset balance	Liability balance	Equity balance	Asset balance	Liability balance	Equity balance
Shinhan Financial Group(separate)	₩ 37,456,314	10,779,765	26,676,549	36,815,893	10,410,517	26,405,376
Shinhan Bank	491,981,392	460,814,132	31,167,260	467,435,213	438,199,575	29,235,638
Shinhan Card Co., Ltd.	43,050,321	35,591,567	7,458,754	38,472,228	31,737,225	6,735,003
Shinhan Securities Co., Ltd.(*3)	43,821,577	38,479,027	5,342,550	44,446,803	39,421,314	5,025,489
Shinhan Life Insurance Co., Ltd.	66,753,920	63,271,167	3,482,753	70,535,556	65,382,992	5,152,564
Shinhan Capital Co., Ltd.	13,035,892	11,048,996	1,986,896	10,921,698	9,189,041	1,732,657
Jeju Bank	7,320,304	6,798,450	521,854	6,944,214	6,428,269	515,945
Shinhan Credit Information Co., Ltd.(*4)	-	-	-	31,377	12,334	19,043
Shinhan Alternative Investment Management Inc.(*5)	-	-	-	114,973	70,449	44,524
Shinhan Asset Management Co., Ltd.(*5)	319,511	88,519	230,992	242,760	40,181	202,579
SHC Management Co., Ltd.	9,746	-	9,746	9,636	-	9,636
Shinhan DS	107,366	59,833	47,533	92,591	52,804	39,787
Shinhan Savings Bank	3,043,506	2,723,713	319,793	2,644,942	2,413,176	231,766
Shinhan Asset Trust Co., Ltd. (*6)	435,815	110,981	324,834	373,488	122,890	250,598
Shinhan AITAS Co., Ltd.	94,725	10,147	84,578	90,116	9,786	80,330
Shinhan REITs Management Co., Ltd.	58,610	5,559	53,051	63,026	10,584	52,442
Shinhan AI Co., Ltd.	41,431	2,264	39,167	44,031	2,563	41,468
Shinhan Venture Investment Co., Ltd.	140,310	63,309	77,001	98,914	23,331	75,583
Shinhan EZ General Insurance, Ltd.	241,096	115,448	125,648	-	-	-

(*1) The consolidated financial statements of the consolidated subsidiaries are based on consolidated financial statements, if applicable.

(*2) Trusts, beneficiary certificates, securitization special limited liability companies, associates and private equity investment specialists that are not actually operating their own business are excluded.

(*3) Shinhan Investment Co., Ltd. has changed its name to Shinhan Securities Co., Ltd. on October 1, 2022.

(*4) On July 28, 2022, the Company disposed 100% of shares to Shinhan Card.

(*5) Shinhan Asset Management Co., Ltd. and Shinhan Alternative Investment Management Inc. have merged on January 5, 2022 to form a holding company named Shinhan Asset Management Co., Ltd.

(*6) The Group has acquired remaining shares of Asia Trust Co., Ltd. during the period, and Asia Trust Co., Ltd. became the Group's wholly-owned subsidiary. Asia Trust Co., Ltd. has changed its name to Shinhan Asset Trust Co., Ltd.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

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(In millions of won)

6. Investment in subsidiaries (continued)

(b) The summarized income information of the controlling company and the Group's major subsidiaries for the years ended December 31, 2022 and 2021 is as follows:

Investees(*1),(*2)	December 31, 2022			December 31, 2021		
	Operating Revenue	Net Income(*3)	Comprehensive Income(*3)	Operating Revenue	Net Income(*3)	Comprehensive Income(*3)
Shinhan Financial Group(separate)	₩ 1,806,604	1,249,251	1,251,294	1,875,675	1,413,956	1,413,675
Shinhan Bank	35,514,461	3,045,732	2,394,238	23,540,347	2,494,894	2,396,829
Shinhan Card Co., Ltd.	4,761,181	644,555	671,113	4,359,627	676,297	710,090
Shinhan Securities Co., Ltd.(*4)	10,548,842	412,339	427,451	7,592,350	320,662	366,000
Shinhan Life Insurance Co., Ltd.	9,412,664	463,593	(1,659,016)	7,079,569	174,811	(162,161)
Orange Life Insurance Co., Ltd.(*5)	-	-	-	2,112,353	216,826	(96,157)
Shinhan Capital Co., Ltd.	922,592	303,276	307,988	783,890	274,855	275,760
Jeju Bank	275,582	22,820	11,658	204,543	18,446	11,739
Shinhan Credit Information Co., Ltd.(*6)	20,705	1,029	1,450	42,417	1,936	2,079
Shinhan Alternative Investment Management Inc.(*7)	-	-	-	28,010	9,163	9,163
Shinhan Asset Management Co., Ltd.(*7)	174,242	37,064	36,892	107,598	32,152	32,066
SHC Management Co., Ltd.	-	110	110	-	(7)	(7)
Shinhan DS	279,453	6,835	7,739	244,445	4,100	5,653
Shinhan Savings Bank	241,013	38,384	37,884	163,643	30,310	30,037
Shinhan Asset Trust Co., Ltd. (*8)	152,563	73,654	74,236	144,971	75,823	75,972
Shinhan AITAS Co., Ltd.	55,270	9,500	9,500	53,005	9,816	9,816
Shinhan REITs Management Co., Ltd.	11,433	540	609	16,440	8,481	8,469
Shinhan AI Co., Ltd.	10,668	(2,217)	(2,301)	12,106	478	455
Shinhan Venture Investment Co., Ltd.	19,839	1,526	1,418	32,134	15,929	15,750
Shinhan EZ General Insurance, Ltd.(*9)	42,827	(10,497)	(10,129)	-	-	-

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

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6. Investment in subsidiaries (continued)

(b) The summarized income information of the controlling company and the Group's major subsidiaries for the years ended December 31, 2022 and 2021 is as follows (continued):

(*1) The consolidated financial statements of the consolidated subsidiaries are based on consolidated financial statements, if applicable.

(*2) Trusts, beneficiary certificates, securitization special limited liability companies, associates and private equity investment specialists that are not actually operating their own business are excluded.

(*3) This amount includes non-controlling interests.

(*4) Shinhan Investment Co., Ltd. has changed its name to Shinhan Securities Co., Ltd. on October 1, 2022.

(*5) The amount as of December 31, 2021 is revenue, net income (loss) and total comprehensive income for the six months prior to the merger with Shinhan Life Insurance Co., Ltd.

(*6) On July 28, 2022, the Company disposed 100% of shares to Shinhan Card Co., Ltd. The amount as of December 31, 2022 is revenue, net income (loss) and total comprehensive income for the six month period ended before the disposal of Shinhan Card Co., Ltd.

(*7) Shinhan Asset Management Co., Ltd. and Shinhan Alternative Investment Management Inc. merged on January 5, 2022. The company name after the merger is Shinhan Asset Management Co., Ltd.

(*8) The Group has acquired remaining shares of Asia Trust Co., Ltd. during the period, and Asia Trust Co., Ltd. became the Group's wholly-owned subsidiary. Asia Trust Co., Ltd. has changed its name to Shinhan Asset Trust Co., Ltd.

(*9) For the acquired company, the amount is from the consolidated statements of comprehensive income for the period after the acquisition point.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

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(In millions of won)

6. Investment in subsidiaries (continued)

(c) Change in the scope of consolidation

i) Change in consolidated subsidiaries for the year ended December 31, 2022 are as follows:

	<u>Company</u>	<u>Description</u>
Included	Shinhan EZ General Insurance, Ltd.	Newly acquired subsidiary
Excluded	Shinhan Alternative Investment Management Inc.	Extinguished due to merger with Shinhan Asset Management Co., Ltd.

(*) Subsidiaries such as trust, beneficiary certificate, corporate restructuring fund and private equity fund which are not actually operating their own business are excluded.

ii) Change in consolidated subsidiaries for the year ended December 31, 2021 are as follows:

	<u>Company</u>	<u>Description</u>
Included	Shinhan Life Insurance Vietnam Co., Ltd.	Newly acquired subsidiary
Included	Shinhan CubeOn Co., Ltd.	Newly acquired subsidiary
Excluded	Orange Life Insurance Co., Ltd.	Extinguished due to merger with Shinhan Life Insurance Co., Ltd.

(*) Subsidiaries such as trust, beneficiary certificate, corporate restructuring fund and private equity fund which are not actually operating their own business are excluded.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

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(In millions of won)

7. Operating segments

(a) Segment information

The general descriptions by operating segments as of December 31, 2022 are as follows:

<u>Segment</u>	<u>Description</u>
Banking	Credit to customers, lending to and receiving deposits from customers, and its accompanying work
Credit card	Sales of credit cards, cash services, card loan services, installment financing, lease and its accompanying work
Securities	Securities trading, consignment trading, underwriting and its accompanying work
Life insurance	Life insurance business and its accompanying work
Credit	Facility rental, new technology business financing, others and its accompanying work
Others	Business segments that do not belong to the above segments, such as real estate trust, investment advisory services, venture business investment and other remaining business

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

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7. Operating segments (continued)

(b) The following tables provide information of income and expense for each operating segment for the years ended December 31, 2022 and 2021:

	December 31, 2022							Consolidation adjustment	Total
	Banking	Credit card	Securities	Life insurance	Credit	Others			
Net interest income	₩ 8,358,526	1,798,005	428,420	1,648,339	260,011	154,722	(184,342)	12,463,681	
Net fees and commission income	801,109	702,392	484,632	107,385	30,587	394,319	5,142	2,525,566	
Reversal of (provision for) allowance for credit loss	(621,690)	(560,264)	546	(16,942)	(19,803)	(72,859)	(1,284)	(1,292,296)	
General and administrative expenses	(3,761,767)	(777,496)	(690,539)	(499,228)	(80,320)	(401,604)	197,440	(6,013,514)	
Other income (expense), net	(715,837)	(283,011)	(102,084)	(625,653)	158,560	87,985	(315,318)	(1,795,358)	
Operating income	4,060,341	879,626	120,975	613,901	349,035	162,563	(298,362)	5,888,079	
Equity method income (loss)	22,301	7,115	70,270	4,222	54,937	(735)	(36,413)	121,697	
Income tax expense	1,030,445	227,769	145,301	134,644	98,468	35,006	(54,545)	1,617,088	
Profit for the year	₩ 2,974,716	738,391	412,339	463,593	303,275	132,375	(292,526)	4,732,163	
Controlling interest	₩ 2,973,996	735,204	412,496	463,593	303,275	132,375	(378,647)	4,642,292	
Non-controlling interests	720	3,187	(157)	-	-	-	86,121	89,871	

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

(In millions of won)

7. Operating segments (continued)

(b) The following tables provide information of income and expense for each operating segment for the years ended December 31, 2022 and 2021 (continued):

	December 31, 2021							Consolidation adjustment	Total
	Banking	Credit card	Securities	Life insurance	Credit	Others			
Net interest income	₩ 6,738,165	1,799,153	517,296	1,620,266	231,679	68,991	(206,225)	10,769,325	
Net fees and commission income	818,426	634,716	601,793	170,781	28,812	415,212	5,257	2,674,997	
Reversal of (provision for) allowance for credit loss	(364,291)	(442,668)	(80,134)	(21,760)	(34,064)	(35,421)	3,653	(974,685)	
General and administrative expenses	(3,409,144)	(790,733)	(696,278)	(557,292)	(80,056)	(366,149)	156,564	(5,743,088)	
Other income (expense), net	(305,508)	(179,695)	234,209	(660,416)	194,564	177,912	(235,519)	(774,453)	
Operating income	3,477,648	1,020,773	576,886	551,579	340,935	260,545	(276,270)	5,952,096	
Equity method income (loss)	25,401	(1,109)	65,341	(739)	29,644	16,201	23,861	158,600	
Income tax expense	821,201	266,798	94,864	139,106	94,329	71,120	(16,382)	1,471,036	
Profit for the year	₩ 2,417,880	771,757	320,662	391,637	274,855	205,880	(270,043)	4,112,628	
Controlling interest	₩ 2,417,361	770,457	320,783	391,637	274,855	205,880	(361,719)	4,019,254	
Non-controlling interests	519	1,300	(121)	-	-	-	91,676	93,374	

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

(In millions of won)

7. Operating segments (continued)

(c) Interest gains and losses from segment external customers and cross-sector interest gains and losses for the years ended December 31, 2022 and 2021 are as follows:

		December 31, 2022							
		Banking	Credit card	Securities	Life insurance	Credit	Others	Consolidation adjustment(*)	Total
Net interest income from:									
External customers (*)	₩	8,366,892	1,857,351	442,554	1,644,953	269,230	73,068	(190,367)	12,463,681
Internal transactions		(8,366)	(59,346)	(14,134)	3,386	(9,219)	81,654	6,025	-
	₩	<u>8,358,526</u>	<u>1,798,005</u>	<u>428,420</u>	<u>1,648,339</u>	<u>260,011</u>	<u>154,722</u>	<u>(184,342)</u>	<u>12,463,681</u>

(*) Consolidated adjustment to net interest income from external customers is from the securities and others which were measured in fair values as a part of business combination accounting.

		December 31, 2021							
		Banking	Credit card	Securities	Life insurance	Credit	Others	Consolidation adjustment(*)	Total
Net interest income from:									
External customers (*)	₩	6,741,279	1,849,209	534,969	1,617,186	241,035	781	(215,134)	10,769,325
Internal transactions		(3,114)	(50,056)	(17,673)	3,080	(9,356)	68,210	8,909	-
	₩	<u>6,738,165</u>	<u>1,799,153</u>	<u>517,296</u>	<u>1,620,266</u>	<u>231,679</u>	<u>68,991</u>	<u>(206,225)</u>	<u>10,769,325</u>

(*) Consolidated adjustment to net interest income from external customers is from the securities and others which were measured in fair values as a part of business combination accounting.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

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7. Operating segments (continued)

(d) The following tables provide information of net fees and commission income (expense) of each operating segment for the years ended December 31, 2022 and 2021.

		December 31, 2022							
		Banking	Credit card	Securities	Life insurance	Credit	Others	Consolidation adjustment	Total
Net fees and commission income from:									
External customers	₩	844,888	734,900	496,097	121,229	26,737	301,715	-	2,525,566
Internal transactions		(43,779)	(32,508)	(11,465)	(13,844)	3,850	92,604	5,142	-
	₩	<u>801,109</u>	<u>702,392</u>	<u>484,632</u>	<u>107,385</u>	<u>30,587</u>	<u>394,319</u>	<u>5,142</u>	<u>2,525,566</u>
		December 31, 2021							
		Banking	Credit card	Securities	Life insurance	Credit	Others	Consolidation adjustment	Total
Net fees and commission income from:									
External customers	₩	863,879	681,129	615,414	181,345	27,351	305,879	-	2,674,997
Internal transactions		(45,453)	(46,413)	(13,621)	(10,564)	1,461	109,333	5,257	-
	₩	<u>818,426</u>	<u>634,716</u>	<u>601,793</u>	<u>170,781</u>	<u>28,812</u>	<u>415,212</u>	<u>5,257</u>	<u>2,674,997</u>

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Notes to the Consolidated Financial Statements

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7. Operating segments (continued)

(e) Financial information of geographical area

The following table provides information of income from external consumers by geographical area for the years ended December 31, 2022 and 2021.

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Domestic	₩ 5,047,406	5,404,278
Overseas	840,673	547,818
	<u>₩ 5,888,079</u>	<u>5,952,096</u>

The following table provides information of non-current assets by geographical area as of December 31, 2022 and 2021.

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Domestic	₩ 9,825,529	10,029,650
Overseas	356,512	336,687
	<u>₩ 10,182,041</u>	<u>10,366,337</u>

(*) Non-current assets comprise property and equipment, intangible assets and investment properties.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

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8. Cash and due from banks at amortized cost

(a) Cash and due from banks at amortized cost as of December 31, 2022 and 2021 are as follows:

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Cash and cash equivalents:		
Cash	₩ 2,304,480	4,194,831
Cash equivalents	-	26,560
	<u>2,304,480</u>	<u>4,221,391</u>
Deposits denominated in Korean won:		
Reserve deposits	8,647,429	9,851,064
Time deposits	2,205,832	892,053
Other	2,571,005	2,701,873
	<u>13,424,266</u>	<u>13,444,990</u>
Deposits denominated in foreign currency:		
Deposits	8,516,315	6,731,190
Time deposits	3,153,208	2,148,955
Other	2,153,066	1,924,601
	<u>13,822,589</u>	<u>10,804,746</u>
Allowance for credit losses	(19,100)	(17,723)
	<u>₩ 29,532,235</u>	<u>28,453,404</u>

(b) Restricted due from banks in accordance with Related Regulation or Acts as of December 31, 2022 and 2021 are as follows:

	<u>December 31, 2022</u>	<u>December 31, 2021</u>	<u>Related Regulations or Acts</u>
Deposits denominated in Korean won:			
Reserve deposits	₩ 8,647,429	9,851,064	Article 55 of the Bank of Korea Act Article 74 of the Capital Markets and Financial Investment Business Act, etc.
Other	2,192,566	1,174,670	
	<u>10,839,995</u>	<u>11,025,734</u>	
Deposits denominated in foreign currency	2,963,995	2,870,908	Articles of the Bank of Korea Act, New York State Banking Act, derivatives related, etc.
	<u>₩ 13,803,990</u>	<u>13,896,642</u>	

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

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9. Financial assets at fair value through profit or loss

(a) Financial assets at fair value through profit or loss as of December 31, 2022 and 2021 are as follows:

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Debt instruments:		
Governments	₩ 4,304,950	3,961,045
Financial institutions	11,616,813	13,449,550
Corporations	7,632,222	9,618,302
Stocks with put option	353,569	627,275
Equity investment with put option	3,185,222	2,625,297
Beneficiary certificates	12,169,688	13,386,212
Commercial papers	4,939,927	7,042,045
CMA	3,850,613	3,591,822
Others(*)	3,475,213	3,925,599
	<u>51,528,217</u>	<u>58,227,147</u>
Equity instruments:		
Stocks	2,410,017	2,182,829
Equity investment	38,515	12,962
Others	175,656	179,524
	<u>2,624,188</u>	<u>2,375,315</u>
	₩ <u>54,152,405</u>	<u>60,602,462</u>
Other:		
Loans at FVTPL	₩ 2,389,180	1,683,344
Due from banks at fair value	26,116	34,262
Gold/silver deposits	75,969	83,691
	₩ <u>56,643,670</u>	<u>62,403,759</u>

(*) As of December 31, 2022 and 2021, restricted reserve for claims of customers' deposits (trusts) are ₩ 1,705,724 million and ₩ 2,080,626 million, respectively.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

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9. Financial assets at fair value through profit or loss (continued)

(b) Financial assets to which overlay approach are applied in accordance with K-IFRS No. 1109 'Financial Instruments' and K-IFRS No. 1104 'Insurance Contracts' as of December 31, 2022 and 2021 are as follows:

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Due from banks at fair value through profit or loss	₩ 26,116	34,262
Securities at fair value through profit or loss	4,631,973	4,903,275
	<u>₩ 4,658,089</u>	<u>4,937,537</u>

A financial asset is eligible for designation for the overlay approach, if it is measured at fair value through profit or loss applying K-IFRS No. 1109 but would not have been measured at fair value through profit or loss in its entirety applying K-IFRS No. 1039; and it is not held in respect of an activity that is not associated with contracts within the scope of K-IFRS No. 1104.

The reclassified amounts between profit or loss and other comprehensive income due to the overlay approach as of and for the years ended December 31, 2022 and 2021 are as follows:

	<u>December 31, 2022</u>			
	<u>Profit or loss</u>		<u>Other comprehensive income(*)</u>	
	<u>By K-IFRS No. 1109</u>	<u>By K-IFRS No. 1039</u>	<u>Amount</u>	<u>Tax effect</u>
Net gain (loss) on valuation of financial assets at fair value through profit or loss	₩ (187,706)	33,508	(221,214)	58,622
Net gain (loss) on disposal of financial assets at fair value through profit or loss	39,547	131,544	(91,997)	24,379
	<u>₩ (148,159)</u>	<u>165,052</u>	<u>(313,211)</u>	<u>83,001</u>

(*) The amount of the policyholders equity adjustment for the reclassification of other comprehensive income is ₩ 13,277 million for the year ended December 31, 2022.

	<u>December 31, 2021</u>			
	<u>Profit or loss</u>		<u>Other comprehensive income(*)</u>	
	<u>By K-IFRS No. 1109</u>	<u>By K-IFRS No. 1039</u>	<u>Amount</u>	<u>Tax effect</u>
Net gain (loss) on valuation of financial assets at fair value through profit or loss	₩ 130,170	83,288	46,882	(12,893)
Net gain (loss) on disposal of financial assets at fair value through profit or loss	(2,668)	87,217	(89,885)	24,719
	<u>₩ 127,502</u>	<u>170,505</u>	<u>(43,003)</u>	<u>11,826</u>

(*) The amount of the policyholders equity adjustment for the reclassification of other comprehensive income is ₩ 11,079 million for the year ended December 31, 2021.

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10. Derivatives

(a) The notional amounts of derivatives outstanding as of December 31, 2022 and 2021 are as follows:

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Foreign currency related:		
Over the counter:		
Currency forwards	₩ 129,544,881	145,786,842
Currency swaps	40,557,913	36,532,622
Currency options	1,327,752	2,270,594
	<u>171,430,546</u>	<u>184,590,058</u>
Exchange traded:		
Currency futures	719,618	641,104
	<u>172,150,164</u>	<u>185,231,162</u>
Interest rates related:		
Over the counter:		
Interest rate forwards and swaps	37,170,647	35,518,719
Interest rate options	226,924	258,460
	<u>37,397,571</u>	<u>35,777,179</u>
Exchange traded:		
Interest rate futures	2,783,937	3,293,821
Interest rate options	-	54,890
Interest rate swaps(*)	94,803,271	72,898,275
	<u>97,587,208</u>	<u>76,246,986</u>
	<u>134,984,779</u>	<u>112,024,165</u>
Credit related:		
Over the counter:		
Credit swaps	5,155,334	4,737,329
Equity related:		
Over the counter:		
Equity swaps and forwards	4,008,263	2,073,995
Equity options	878,122	677,824
	<u>4,886,385</u>	<u>2,751,819</u>
Exchange traded:		
Equity futures	2,443,194	1,678,070
Equity options	1,444,098	3,298,673
	<u>3,887,292</u>	<u>4,976,743</u>
	<u>8,773,677</u>	<u>7,728,562</u>
Commodity related:		
Over the counter:		
Commodity swaps and forwards	898,332	789,930
Commodity options	8,000	11,500
	<u>906,332</u>	<u>801,430</u>
Exchange traded:		
Commodity futures and options	69,373	158,550
	<u>975,705</u>	<u>959,980</u>
Hedge:		
Currency forwards	1,249,589	1,279,598
Currency swaps	4,647,279	3,726,939
Interest rate forwards and swaps	16,475,525	8,695,960
	<u>22,372,393</u>	<u>13,702,497</u>
	<u>₩ 344,412,052</u>	<u>324,383,695</u>

(*) The notional amounts of derivatives outstanding that will be settled in the 'Central Counter Party (CCP)' system.

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10. Derivatives (continued)

(b) Fair values of derivative instruments as of December 31, 2022 and 2021 are as follows:

	December 31, 2022		December 31, 2021	
	Assets	Liabilities	Assets	Liabilities
Foreign currency related:				
Over the counter:				
Currency forwards	₩ 3,089,759	2,838,793	2,183,315	1,797,419
Currency swaps	1,626,567	1,807,229	651,292	748,302
Currency options	14,776	13,603	12,218	11,591
	<u>4,731,102</u>	<u>4,659,625</u>	<u>2,846,825</u>	<u>2,557,312</u>
Exchange traded:				
Currency futures	17	928	12	210
	<u>4,731,119</u>	<u>4,660,553</u>	<u>2,846,837</u>	<u>2,557,522</u>
Interest rates related:				
Over the counter:				
Interest rate forwards and swaps	772,513	1,062,772	166,855	303,227
Interest rate options	5,169	1,983	3,748	611
	<u>777,682</u>	<u>1,064,755</u>	<u>170,603</u>	<u>303,838</u>
Exchange traded:				
Interest rate futures	2,555	972	1,701	1,828
Interest rate options	-	-	83	-
	<u>2,555</u>	<u>972</u>	<u>1,784</u>	<u>1,828</u>
	<u>780,237</u>	<u>1,065,727</u>	<u>172,387</u>	<u>305,666</u>
Credit related:				
Over the counter:				
Credit swaps	423,966	19,235	493,829	65,103
Equity related:				
Over the counter:				
Equity swap and forwards	169,504	393,810	28,803	69,880
Equity options	2,704	1,139	3,884	8,671
	<u>172,208</u>	<u>394,949</u>	<u>32,687</u>	<u>78,551</u>
Exchange traded:				
Equity futures	31,035	100,490	817	19,903
Equity options	11,414	145,895	6,324	167,237
	<u>42,449</u>	<u>246,385</u>	<u>7,141</u>	<u>187,140</u>
	<u>214,657</u>	<u>641,334</u>	<u>39,828</u>	<u>265,691</u>
Commodity related:				
Over the counter:				
Commodity swaps and forwards	10,983	136,701	18,557	3,149
Commodity options	-	1,517	-	8,406
	<u>10,983</u>	<u>138,218</u>	<u>18,557</u>	<u>11,555</u>
Exchange traded:				
Commodity futures and options	2,530	514	2,688	2,218
	<u>13,513</u>	<u>138,732</u>	<u>21,245</u>	<u>13,773</u>
Hedge:				
Currency forwards	23,143	37,757	106	46,139
Currency swaps	158,297	72,367	63,560	79,407
Interest rate forwards and swaps	116,864	1,069,000	161,397	253,263
	<u>298,304</u>	<u>1,179,124</u>	<u>225,063</u>	<u>378,809</u>
₩	<u>6,461,796</u>	<u>7,704,705</u>	<u>3,799,189</u>	<u>3,586,564</u>

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10. Derivatives (continued)

(c) Gain or loss on valuation of derivatives for the years ended December 31, 2022 and 2021 are as follows:

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Foreign currency related:		
Over the counter:		
Currency forwards	₩ 44,245	268,310
Currency swaps	(143,586)	(201,500)
Currency options	4,247	2,007
	<u>(95,094)</u>	<u>68,817</u>
Exchange traded:		
Currency futures	(48)	(199)
	<u>(95,142)</u>	<u>68,618</u>
Interest rates related:		
Over the counter:		
Interest rate forwards and swaps	(173,277)	(142,703)
Interest rate options	285	792
	<u>(172,992)</u>	<u>(141,911)</u>
Exchange traded:		
Interest rate futures and others	1,582	(4)
	<u>(171,410)</u>	<u>(141,915)</u>
Credit related:		
Over the counter:		
Credit swaps	(25,562)	192,729
Equity related:		
Over the counter:		
Equity swap and forwards	(192,888)	(176,430)
Equity options	3,360	3,307
	<u>(189,528)</u>	<u>(173,123)</u>
Exchange traded:		
Equity futures	(69,455)	(19,408)
Equity options	(27,932)	32,555
	<u>(97,387)</u>	<u>13,147</u>
	<u>(286,915)</u>	<u>(159,976)</u>
Commodity related:		
Over the counter:		
Commodity swaps and forwards	(148,591)	(19,097)
Commodity options	5,840	(4,956)
	<u>(142,751)</u>	<u>(24,053)</u>
Exchange traded:		
Commodity futures and options	2,014	469
	<u>(140,737)</u>	<u>(23,584)</u>
Hedge	<u>(741,873)</u>	<u>(203,563)</u>
	<u>₩ (1,461,639)</u>	<u>(267,691)</u>

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10. Derivatives (continued)

(d) Impact of hedge accounting on the consolidated financial statements

i) Gains(losses) on fair value hedged items and hedging instruments attributable to the hedged ineffectiveness for the years ended December 31, 2022 and 2021 are as follows:

		December 31, 2022		
		Gains on fair value hedges (hedged items)	Losses on fair value hedges (hedging instruments)	Hedge ineffectiveness recognized in profit or loss (*2)
Fair value hedges:				
Interest rate risk(*1)	₩	697,330	(728,397)	(31,067)
Foreign exchange risk(*1)		20,748	(22,056)	(1,308)
Stock price volatility risk		(4,762)	3,411	(1,351)
	₩	<u>713,316</u>	<u>(747,042)</u>	<u>(33,726)</u>
		December 31, 2021		
		Gains on fair value hedges (hedged items)	Losses on fair value hedges (hedging instruments)	Hedge ineffectiveness recognized in profit or loss (*2)
Fair value hedges:				
Interest rate risk(*1)	₩	273,219	(281,649)	(8,430)
Foreign exchange risk(*1)		26,547	(32,829)	(6,282)
	₩	<u>299,766</u>	<u>(314,478)</u>	<u>(14,712)</u>

(*1) The related account categories are presented as interest rate swap assets / liabilities and currency swap assets.

(*2) Ineffective portion of hedge: the difference between hedging instruments and hedged items.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

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(In millions of won)

10. Derivatives (continued)

(d) Impact of hedge accounting on the consolidated financial statements (continued)

ii) Due to the ineffectiveness of hedge of cash flow risk and hedge of net investment in foreign operations during the year, the amounts recognized in the income statement and other comprehensive income are as follows:

		December 31, 2022		
		Gains (losses) on hedges recognized in other comprehensive income	Hedge ineffectiveness recognized in profit or loss(*2)	From cash flow hedge reserve to profit or loss reclassified amount
Cash flow hedges:				
Interest rate risk(*1)	₩	(132,203)	(47,854)	(65)
Foreign exchange risk(*1)		32,159	(54,969)	124,214
Discontinuation of cash flow hedges		-	-	9,270
Hedge of net investments:				
Foreign exchange risk(*1)		(25,793)	(4,096)	-
	₩	<u>(125,837)</u>	<u>(106,919)</u>	<u>133,419</u>
		December 31, 2021		
		Gains (losses) on hedges recognized in other comprehensive income	Hedge ineffectiveness recognized in profit or loss(*2)	From cash flow hedge reserve to profit or loss reclassified amount
Cash flow hedges:				
Interest rate risk(*1)	₩	15,492	(49,882)	-
Foreign exchange risk(*1)		14,439	(14,955)	24,464
Discontinuation of cash flow hedges		-	-	8,799
Hedge of net investments:				
Foreign exchange risk(*1)		(74,525)	(2,094)	-
	₩	<u>(44,594)</u>	<u>(66,931)</u>	<u>33,263</u>

(*1) The related account categories are presented as interest rate swap assets / liabilities and currency swap assets / liabilities, currency forwards assets / liabilities and borrowings.

(*2) Ineffective portion of hedge: The difference between hedging instruments and hedged items.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

(In millions of won)

10. Derivatives (continued)

(e) Effect of hedge accounting on financial statement, statement of comprehensive income, statement of changes in equity

i) Purpose and strategy of risk avoidance

The Group transacts with derivative financial instruments to hedge its interest rate risk and currency risk arising from the assets and liabilities of the Group. The Group applies the fair value hedge accounting for the changes in the market interest rates of the Korean won structured notes, foreign currency generated financial debentures, structured deposits in foreign currencies and foreign currency investment receivables; and cash flow hedge accounting for interest rate swaps and currency swaps to hedge cash flow risk due to interest rates and foreign exchange rates of the Korean won debt, the Korean won bonds, foreign currency bonds, etc. In addition, in order to hedge the exchange rate risk of the net investment in overseas business, the Group applies the net investment hedge accounting for foreign operations using currency forward and non-derivative financial instruments.

ii) Nominal amounts and average hedge ratios for hedging instruments as of December 31, 2022 and 2021 are as follows:

		December 31, 2022						
		Less than 1 year	1~2 years	2~3 years	3~4 years	4~5 years	More than 5 years	Total
Interest risk:								
Nominal values:	₩	5,338,313	3,023,185	612,113	2,114,152	819,140	4,568,622	16,475,525
Average price condition(*1)		0.72%	0.82%	2.53%	1.52%	1.48%	0.68%	0.94%
Average hedge ratio:		100%	100%	100%	100%	100%	100%	100%
Exchange risk:(*2)								
Nominal values:		2,620,663	610,676	1,108,785	1,900,980	942,804	-	7,183,908
Average hedge ratio:		100%	100%	100%	100%	100%	-	100%

(*1) Interest rate swaps consist of 3M CD, 3M USD Libor, 3M Euribor, and 3M AUD Bond.

(*2) The average exchange rates of net investment hedge instruments are USD/KRW 1,198.11, JPY/KRW 10.13, EUR/KRW 1,336.97, GBP/KRW 1,484.00, AUD/KRW 812.44, CAD/KRW 948.79, SGD/KRW 859.87, CNY/KRW 190.96, SEK/KRW 125.49.

		December 31, 2021						
		Less than 1 year	1~2 years	2~3 years	3~4 years	4~5 years	More than 5 years	Total
Interest risk:								
Nominal values:	₩	693,057	1,256,392	641,413	158,833	1,589,729	4,356,536	8,695,960
Average price condition(*1)		0.88%	1.21%	1.30%	1.00%	1.00%	0.66%	0.87%
Average hedge ratio:		100%	100%	100%	100%	100%	100%	100%
Exchange risk:(*2)								
Nominal values:		2,328,042	2,164,591	568,991	699,433	480,878	22,525	6,264,460
Average hedge ratio:		100%	100%	100%	100%	100%	100%	100%

(*1) Interest rate swaps consist of 3M CD, 3M USD Libor, 3M Euribor, and 3M AUD Bond.

(*2) The average exchange rates of net investment hedge instruments are USD/KRW 1,143.95, JPY/KRW 10.53, EUR/KRW 1,288.52, GBP/KRW 1,484.00, AUD/KRW 817.06, CAD/KRW 868.95, SGD/KRW 859.87, CNY/KRW 174.40, SEK/KRW 124.85.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

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10. Derivatives (continued)

(e) Effect of hedge accounting on financial statement, statement of comprehensive income, statement of changes in equity (continued)

iii) *Effect of derivatives on statement financial position, statement of comprehensive income, statement of changes in equity*

		December 31, 2022			
		Nominal amount	Carrying value of asset(*)	Carrying value of liabilities(*)	Changes in fair value in the period
Fair value hedges					
Interest rate forward and swap	₩	13,530,243	77,757	895,005	(740,190)
Currency forward		113,126	4,038	635	1,780
Cash flow hedges					
Interest rate swap		2,945,282	39,107	173,995	(126,075)
Currency swap		4,647,281	158,297	72,367	119,277
Currency forward		883,003	15,708	35,976	(3,136)
Hedge of net investments in foreign operations					
Currency forward		253,460	3,397	1,146	(773)
Borrowings		1,287,039	-	1,282,361	(29,116)

(*) The related account categories are presented as interest rate swap assets / liabilities and currency forward assets and liabilities.

		December 31, 2021			
		Nominal amount	Carrying value of asset(*)	Carrying value of liabilities(*)	Changes in fair value in the period
Fair value hedges					
Interest rate swap	₩	7,079,468	156,710	236,758	(277,450)
Currency forward		176,369	-	4,995	(8,835)
Cash flow hedges					
Interest rate swap		1,616,492	4,687	16,505	23,257
Currency swap		3,726,939	63,560	79,407	156,271
Currency forward		866,129	106	31,486	(63,659)
Hedge of net investments in foreign operations					
Currency forward		237,100	-	9,658	(14,948)
Borrowings		1,257,923	-	1,256,241	(61,672)

(*) The related account categories are presented as interest rate swap assets / liabilities and currency forward assets and liabilities.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

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10. Derivatives (continued)

(e) Effect of hedge accounting on financial statement, statement of comprehensive income, statement of changes in equity (continued)

iv) Effect of hedging items on statement financial position, statement of comprehensive income, statement of changes in equity

		December 31, 2022						
		Carrying value of asset(*)	Carrying value of liabilities(*)	Assets of Cumulative fair value hedge adjustment	Liabilities of Cumulative fair value hedge adjustment	Changes if fair value in the year	Cash flow hedge reserve	Foreign currency conversion reserves
Fair value hedges								
Interest rate risk								
Borrowings and others	₩	505,668	12,711,595	69,687	(861,128)	708,439	-	-
Foreign exchange risk								
Securities in foreign currency		205,470	-	-	-	(4,002)	-	-
Cash flow hedges								
Interest rate risk								
Debentures in won and debentures in foreign currency		475,027	1,689,360	-	-	31,830	(58,956)	-
Foreign exchange risk								
Debentures in foreign currency and loans in foreign currency		2,778,511	2,843,059	-	-	52,361	(1,468)	-
Hedge of net investments in foreign operations								
Foreign exchange risk								
Net assets in foreign operation		-	-	-	-	25,793	-	(40,834)

(*) The related account categories are presented as interest rate swap assets / liabilities and currency forwards.

		December 31, 2021						
		Carrying value of asset(*)	Carrying value of liabilities(*)	Assets of Cumulative fair value hedge adjustment	Liabilities of Cumulative fair value hedge adjustment	Changes if fair value in the year	Cash flow hedge reserve	Foreign currency conversion reserves
Fair value hedges								
Interest rate risk								
Borrowings and others	₩	704,942	6,370,330	6,207	(85,441)	274,005	-	-
Foreign exchange risk								
Securities in foreign currency		415,693	-	-	-	23,109	-	-
Cash flow hedges								
Interest rate risk								
Debentures in won and debentures in foreign currency		607,062	1,714,303	-	-	22,432	67,553	-
Foreign exchange risk								
Debentures in foreign currency and loans in foreign currency		2,848,303	2,782,574	-	-	336,281	(19,296)	-
Hedge of net investments in foreign operations								
Foreign exchange risk								
Net assets in foreign operation		-	-	-	-	74,525	-	(66,626)

(*) The related account categories are presented as interest rate swap assets / liabilities and currency forwards.

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10. Derivatives (continued)

(f) Hedge relationships affected by an interest rate index

The revised Standard requires exceptions to the analysis of future information in relation to the application of hedge accounting, while uncertainty exists due to movements of the interest rate indicator reform. The exception assumes that when assessing whether the expected cash flows that comply with existing interest rate indicators are highly probable, whether there is an economic relationship between the hedged item and the hedging instrument, and whether there is a high hedge effectiveness between the hedged item and the hedging instrument, the interest rate indicators that are based on the hedged item do not change due to the effect of the interest rate index reform. The carrying value of the hedged item and the nominal amount of the hedging instrument related to the interest rate index exposed to the hedging relationship due to the Group's reform of the interest rate index as of December 31, 2022 and 2021, are as follows:

		December 31, 2022		
Interest rate index		Carrying value of hedged item, Assets	Carrying value of hedged item, Liabilities	Nominal amount of hedging instrument
KRW 3M CD (*1)	₩	-	9,247,047	9,390,000
USD 1M LIBOR (*2)		-	258,393	258,529
USD 3M LIBOR(*1),(*2)		283,014	3,785,641	4,196,714
EURIBOR 1M		-	-	-
EURIBOR 3M		3,236	269,826	274,294
	₩	<u>286,250</u>	<u>13,560,907</u>	<u>14,119,537</u>

(*1) Include nominal amount of the hedging instrument related to the CMS(Constant Maturity Swap) calculated based on the CD and LIBOR rate.

(*2) Exclude the nominal amount that will mature before the end of June 30, 2023, when LIBOR interest rate calculation is discontinued.

		December 31, 2021		
Interest rate index		Carrying value of hedged item, Assets	Carrying value of hedged item, Liabilities	Nominal amount of hedging instrument
KRW 3M CD (*1)	₩	-	2,509,045	2,580,000
USD 1M LIBOR (*2)		-	241,192	241,842
USD 3M LIBOR(*1),(*2)		539,197	3,589,452	4,187,018
EURIBOR 1M		-	220,992	221,050
EURIBOR 3M		25,094	267,830	293,972
	₩	<u>564,291</u>	<u>6,828,511</u>	<u>7,523,882</u>

(*1) Include nominal amount of the hedging instrument related to the CMS(Constant Maturity Swap) calculated based on the CD and LIBOR rate.

(*2) Exclude the nominal amount that will mature before the end of June 30, 2023, when LIBOR interest rate calculation is discontinued.

The USD LIBOR interest rate will be replaced by a SOFR (Secured Overnight Financing Rate) based on actual transactions. In Korea, the "Korea Overnight Financing Repo Rate (KOFRR)" was finally selected as the risk-free index interest rate. The Group has assumed that in this hedging relationship, the spread changed on the basis of SOFR, KOFRR would be similar to the spread included in the interest rate swap and forward used as the hedging instrument after LIBOR rate is suspended. The Group does not assume any changes in other conditions.

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11. Securities at fair value through other comprehensive income and securities at amortized cost

(a) Details of securities at FVOCI and securities at amortized cost as of December 31, 2022 and 2021 are as follows:

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Securities at FVOCI:		
Debt securities:		
Government bonds	₩ 27,197,987	25,687,070
Financial institutions bonds	19,030,714	19,702,292
Corporate bonds and others	15,865,207	18,417,557
	<u>62,093,908</u>	<u>63,806,919</u>
Equity securities(*):		
Stocks	1,475,153	922,579
Equity investments	3,833	4,118
Others	88,825	104,707
	<u>1,567,811</u>	<u>1,031,404</u>
	<u>63,661,719</u>	<u>64,838,323</u>
Securities at amortized cost:		
Debt securities:		
Government bonds	38,371,463	34,679,301
Financial institutions bonds	6,530,386	3,423,536
Corporate bonds and others	13,069,644	11,827,239
	<u>57,971,493</u>	<u>49,930,076</u>
	<u>₩ 121,633,212</u>	<u>114,768,399</u>

(*) Equity securities in the table above are classified as other comprehensive income - equity securities designated as fair value items, and other comprehensive income and fair value options are exercised for the purpose of holding as required by the policy.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

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11. Securities at fair value through other comprehensive income and securities at amortized cost (continued)

(b) Changes in carrying value of debt securities at fair value through other comprehensive income and securities at amortized cost for the years ended December 31, 2022 and 2021 are as follows:

		December 31, 2022					
		Debt securities at fair value through other comprehensive income			Debt securities at amortized cost		
		12-month expected credit loss	Life time expected credit loss	Total	12-month expected credit loss	Life time expected credit loss	Total
Beginning balance	₩	63,654,133	152,786	63,806,919	49,910,733	36,290	49,947,023
Transfer (from)to 12-month expected credit loss		61,740	(61,740)	-	18,544	(18,544)	-
Transfer (from)to life time expected credit loss		(23,619)	23,619	-	-	-	-
Net increase and decrease(*)		(1,690,349)	(47,467)	(1,737,816)	8,048,071	(7,230)	8,040,841
Business combination (Note 47)		24,805	-	24,805	-	-	-
Ending balance	₩	<u>62,026,710</u>	<u>67,198</u>	<u>62,093,908</u>	<u>57,977,348</u>	<u>10,516</u>	<u>57,987,864</u>

(*) Included the effects from changes in purchase, disposal, repayment, valuation, changes in foreign exchange rate and amortization of fair value adjustments recognized through business combination accountings and the others.

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11. Securities at fair value through other comprehensive income and securities at amortized cost (continued)

(b) Changes in carrying value of debt securities at fair value through other comprehensive income and securities at amortized cost for the years ended December 31, 2022 and 2021 are as follows (continued):

		December 31, 2021					
		Debt securities at fair value through other comprehensive income			Debt at amortized cost		
		12-month expected credit loss	Life time expected credit loss	Total	12-month expected credit loss	Life time expected credit loss	Total
Beginning balance	₩	57,142,298	267,135	57,409,433	47,293,109	-	47,293,109
Transfer (from)to 12-month expected credit loss		51,055	(51,055)	-	-	-	-
Transfer (from)to life time expected credit loss		(35,665)	35,665	-	(35,505)	35,505	-
Net increase and decrease(*)		6,496,445	(98,959)	6,397,486	2,653,129	785	2,653,914
Ending balance	₩	63,654,133	152,786	63,806,919	49,910,733	36,290	49,947,023

(*) Included the effects from changes in purchase, disposal, repayment, valuation, changes in foreign exchange rate and amortization of fair value adjustments recognized through business combination accountings and the others.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

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December 31, 2022 and 2021

(In millions of won)

11. Securities at fair value through other comprehensive income and securities at amortized cost (continued)

(c) Changes in allowance for credit loss of debt securities at fair value through other comprehensive income and securities at amortized cost for the years ended December 31, 2022 and 2021 are as follows:

	December 31, 2022					
	Debt securities at fair value through other comprehensive income			Debt securities at amortized cost		
	12 months expected credit loss	Life time expected credit loss	Total	12 months expected credit loss	Life time expected credit loss	Total
Beginning balance	₩ 36,883	603	37,486	16,484	463	16,947
Transfer (from)to 12-month expected credit loss	166	(166)	-	203	(203)	-
Transfer (from)to life time expected credit loss	(20)	20	-	-	-	-
Provision (Reversal)	(3,393)	(355)	(3,748)	(197)	(94)	(291)
Disposal and others(*)	(641)	11	(630)	(276)	(9)	(285)
Ending balance	₩ 32,995	113	33,108	16,214	157	16,371

(*) Included the effects from changes in debt restructuring, investment conversion, foreign exchange rate and the others.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

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December 31, 2022 and 2021

(In millions of won)

11. Securities at fair value through other comprehensive income and securities at amortized cost (continued)

(c) Changes in allowance for credit loss of debt securities at fair value through other comprehensive income and securities at amortized cost for the years ended December 31, 2022 and 2021 are as follows (continued):

	December 31, 2021					
	Debt securities at fair value through other comprehensive income			Debt securities at amortized cost		
	12 months expected credit loss	Life time expected credit loss	Total	12 months expected credit loss	Life time expected credit loss	Total
Beginning balance	₩ 22,493	678	23,171	10,486	-	10,486
Transfer (from)to 12-month expected credit loss	33	(33)	-	-	-	-
Transfer (from)to life time expected credit loss	(63)	63	-	(216)	216	-
Provision (Reversal)	19,722	(25)	19,697	5,065	240	5,305
Disposal and others(*)	(5,302)	(80)	(5,382)	1,149	7	1,156
Ending balance	₩ 36,883	603	37,486	16,484	463	16,947

(*) Included the effects from changes in debt restructuring, investment conversion, foreign exchange rate and the others.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

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December 31, 2022 and 2021

(In millions of won)

11. Securities at fair value through other comprehensive income and securities at amortized cost (continued)

(d) Gain or loss on disposal of securities at fair value through other comprehensive income and securities at amortized cost for the years ended December 31, 2022 and 2021 are as follows:

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Gain on disposal of securities at FVOCI	₩ 26,357	131,189
Loss on disposal of securities at FVOCI	(153,750)	(45,593)
Gain on disposal of securities at amortized cost(*)	4	24
Loss on disposal of securities at amortized cost(*)	(105)	(343)
	<u>₩ (127,494)</u>	<u>85,277</u>

(*) The issuers of those securities have exercised the early redemption options and the others.

(e) Income or loss on equity securities at fair value through other comprehensive income

i) The Group recognizes dividends, amounting to ₩26,996 million and ₩24,216 million, related to equity securities at fair value through other comprehensive income for the years ended December 31, 2022 and 2021, respectively.

ii) The details of disposal of equity securities designated at fair value through other comprehensive income for the years ended December 31, 2022 and 2021 are as follows:

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
	Stocks acquired by investment conversion	
Fair value at the date of disposal	₩ 48,525	84,624
Cumulative net gain (loss) at the time of disposal	2,943	(42,058)

(*) The reason for the disposal is the disposal of stocks acquired by investment conversion.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

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December 31, 2022 and 2021

(In millions of won)

12. Loans at amortized cost, etc.

(a) Loans at amortized cost for configuration by customer as of December 31, 2022 and 2021 are as follows:

	December 31, 2022	December 31, 2021
Retail loans	₩ 160,416,509	159,006,999
Corporate loans(*)	215,344,233	199,465,807
Public and other loans	3,788,040	3,468,917
Loans between banks	7,428,874	3,849,565
Credit card receivables	28,459,691	25,999,576
	<u>415,437,347</u>	<u>391,790,864</u>
Discount	(21,879)	(30,001)
Deferred loan origination costs	526,906	543,361
	<u>415,942,374</u>	<u>392,304,224</u>
Less: Allowance for credit loss	(3,650,863)	(3,167,068)
	<u>₩ 412,291,511</u>	<u>389,137,156</u>

(*) Included loans for solo proprietor business, etc.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

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December 31, 2022 and 2021

(In millions of won)

12. Loans at amortized cost, etc. (continued)

(b) Changes in carrying value of loans at amortized cost, etc. as of December 31, 2022 and 2021 are as follows:

i) Loans at amortized cost

	December 31, 2022												Total
	Retail			Corporate			Credit card			Others			
	12 months expected credit loss	Life time expected credit loss	Impaired financial asset	12 months expected credit loss	Life time expected credit loss	Impaired financial asset	12 months expected credit loss	Life time expected credit loss	Impaired financial asset	12 months expected credit loss	Life time expected credit loss	Impaired financial asset	
Beginning balance	₩ 150,861,783	8,149,050	457,616	169,874,897	28,830,466	930,757	21,346,418	4,166,803	457,582	6,542,444	668,657	17,751	392,304,224
Transfer (from) to 12 months expected credit losses	3,402,319	(3,390,943)	(11,376)	7,620,541	(7,612,945)	(7,596)	431,252	(430,915)	(337)	55,766	(55,766)	-	-
Transfer (from) to lifetime expected credit losses	(4,240,767)	4,275,492	(34,725)	(11,480,879)	11,491,902	(11,023)	(764,938)	765,279	(341)	(52,028)	52,030	(2)	-
Transfer (from) to credit-impaired financial assets	(255,175)	(154,510)	409,685	(222,960)	(489,488)	712,448	(115,976)	(160,843)	276,819	(18)	(12)	30	-
Net increase and decrease(*1)	2,019,166	(385,941)	127,162	16,796,397	(164,011)	(267,984)	2,689,877	(6,713)	352,143	3,821,009	767	181	24,982,053
Charge off(*2)	-	-	(263,962)	-	-	(249,453)	-	-	(592,386)	-	-	(1,121)	(1,106,922)
Disposal	-	(1,151)	(78,428)	(17,000)	(1,333)	(136,419)	-	-	-	-	-	(2,748)	(237,079)
Business combination (Note 47)	-	-	-	-	-	-	-	-	-	98	-	-	98
Ending balance	₩ 151,787,326	8,491,997	605,972	182,570,996	32,054,591	970,730	23,586,633	4,333,611	493,480	10,367,271	665,676	14,091	415,942,374

(*1) The amount is due to execution, collection, debt restructuring, investment conversion, exchange rate fluctuation, etc.

(*2) The amount of uncollected loans currently in recovery (principal and interest) is ₩ 9,739,237 million, which is written off as of December 31, 2022.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

(In millions of won)

12. Loans at amortized cost, etc. (continued)

(b) Changes in carrying value of loans at amortized cost, etc. as of December 31, 2022 and 2021 are as follows (continued):

ii) Due from banks at amortized cost and other financial assets

	December 31, 2022			
	12 month expected credit loss	Life time expected credit loss	Impaired financial asset	Total
Beginning balance	₩ 47,549,159	104,650	79,094	47,732,903
Transfer (from) to 12 month expected credit losses	16,401	(16,309)	(92)	-
Transfer (from) to lifetime expected credit losses	(23,870)	23,985	(115)	-
Transfer (from) to credit- impaired financial assets	(10,008)	(3,654)	13,662	-
Net increase and decrease(*)	1,630,953	57,051	21,722	1,709,726
Charge off	-	-	(25,636)	(25,636)
Disposal	-	-	(1,123)	(1,123)
Business combination (Note 47)	89,648	-	-	89,648
Ending balance	₩ 49,252,283	165,723	87,512	49,505,518

(*) The amount is due to execution, collection, debt restructuring, investment conversion, exchange rate fluctuation, etc.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

(In millions of won)

12. Loans at amortized cost, etc. (continued)

(b) Changes in carrying value of loans at amortized cost, etc. as of December 31, 2022 and 2021 are as follows (continued):

i) Loans at amortized cost (continued)

	December 31, 2021												Total
	Retail			Corporate			Credit card			Others			
	12 months expected credit loss	Life time expected credit loss	Impaired financial asset	12 months expected credit loss	Life time expected credit loss	Impaired financial asset	12 months expected credit loss	Life time expected credit loss	Impaired financial asset	12 months expected credit loss	Life time expected credit loss	Impaired financial asset	
Beginning balance	₩ 138,516,630	8,215,137	466,427	152,338,024	26,210,417	1,057,932	18,969,258	3,951,689	468,377	8,405,173	665,196	18,225	359,282,485
Transfer (from) to 12 months expected credit losses	3,200,712	(3,192,315)	(8,397)	6,566,663	(6,494,160)	(72,503)	390,658	(390,593)	(65)	43,343	(43,343)	-	-
Transfer (from) to lifetime expected credit losses	(3,482,541)	3,516,278	(33,737)	(9,636,590)	9,659,114	(22,524)	(674,961)	675,063	(102)	(94,270)	94,272	(2)	-
Transfer (from) to credit-impaired financial assets	(194,192)	(134,008)	328,200	(230,972)	(322,361)	553,333	(110,704)	(158,036)	268,740	(896)	(2)	898	-
Net increase and decrease(*1)	12,821,174	(255,318)	38,153	20,922,205	(222,364)	(146,801)	2,772,167	88,680	287,576	(1,810,906)	(47,466)	(108)	34,446,992
Charge off(*2)	-	-	(279,789)	-	-	(299,661)	-	-	(566,944)	-	-	(1,218)	(1,147,612)
Disposal	-	(724)	(53,241)	(84,433)	(180)	(139,019)	-	-	-	-	-	(44)	(277,641)
Ending balance	₩ 150,861,783	8,149,050	457,616	169,874,897	28,830,466	930,757	21,346,418	4,166,803	457,582	6,542,444	668,657	17,751	392,304,224

(*1) The amount is due to execution, collection, debt restructuring, investment conversion, exchange rate fluctuation, etc.

(*2) The amount of uncollected loans currently in recovery (principal and interest) is ₩ 10,613,730 million, which is written off as of December 31, 2021.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

(In millions of won)

12. Loans at amortized cost, etc. (continued)

(b) Changes in carrying value of loans at amortized cost, etc. as of December 31, 2022 and 2021 are as follows (continued):

ii) Due from banks at amortized cost and other financial assets (continued)

	December 31, 2021			
	12 month expected credit loss	Life time expected credit loss	Impaired financial asset	Total
Beginning balance	₩ 51,881,798	99,899	57,658	52,039,355
Transfer (from) to 12 month expected credit losses	13,111	(13,079)	(32)	-
Transfer (from) to lifetime expected credit losses	(29,026)	29,048	(22)	-
Transfer (from) to credit- impaired financial assets	(1,049)	(11,797)	12,846	-
Net increase and decrease(*)	(4,315,675)	580	37,428	(4,277,667)
Charge off	-	-	(27,929)	(27,929)
Disposal	-	(1)	(855)	(856)
Ending balance	₩ 47,549,159	104,650	79,094	47,732,903

(*) The amount is due to execution, collection, debt restructuring, investment conversion, exchange rate fluctuation, etc.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

(In millions of won)

12. Loans at amortized cost, etc. (continued)

(c) Changes in allowance for credit loss of loans at amortized cost and other financial assets as of December 31, 2022 and 2021 are as follows:

i) Loans at amortized cost

		December 31, 2022												
		Retail			Corporate			Credit cards			Others			
		12 month expected credit loss	Life time expected credit loss	Impaired financial asset	12 month expected credit loss	Life time expected credit loss	Impaired financial asset	12 month expected credit loss	Life time expected credit loss	Impaired financial asset	12 month expected credit loss	Life time expected credit loss	Impaired financial asset	Total
Beginning balance	₩	174,005	90,412	189,806	530,300	742,252	520,326	204,711	401,077	289,232	10,195	9,258	5,494	3,167,068
Transfer (from) to 12 months expected credit losses		17,317	(16,023)	(1,294)	92,620	(90,661)	(1,959)	24,579	(24,471)	(108)	403	(403)	-	-
Transfer (from) to lifetime expected credit losses		(9,449)	26,014	(16,565)	(62,583)	64,821	(2,238)	(14,752)	14,892	(140)	(122)	122	-	-
Transfer (from) to credit-impaired financial assets		(4,702)	(9,103)	13,805	(1,461)	(66,033)	67,494	(1,094)	(2,041)	3,135	(1)	(5)	6	-
Provision (reversal)		95,929	84,402	244,633	(14,887)	159,287	103,935	101,644	254,090	209,353	3,405	246	2,387	1,244,424
Charge off		-	-	(263,962)	-	-	(249,453)	-	-	(592,386)	-	-	(1,121)	(1,106,922)
Amortization of discount		-	-	(5,923)	-	-	(13,189)	-	-	7,307	-	-	-	(11,805)
Disposal		-	(28)	(22,676)	-	(5)	(10,723)	-	-	-	-	-	(217)	(33,649)
Collection		-	-	108,666	-	-	55,441	-	-	217,407	-	-	145	381,659
Others(*)		(8,264)	(10,584)	19,121	15,187	30,896	17,605	(103,976)	(172,074)	222,175	2	-	-	10,088
Ending balance	₩	264,836	165,090	265,611	559,176	840,557	487,239	211,112	471,473	355,975	13,882	9,218	6,694	3,650,863

(*) Other changes are due to debt restructuring, investment conversion and changes in foreign exchange rate, etc.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

(In millions of won)

12. Loans at amortized cost, etc. (continued)

(c) Changes in allowance for credit loss of loans at amortized cost and other financial assets as of December 31, 2022 and 2021 are as follows (continued):

ii) Due from banks at amortized cost and other financial assets

	December 31, 2022			
	12 months expected credit loss	Life time expected credit loss	Impaired financial asset	Total
Beginning balance	₩ 183,908	8,008	70,043	261,959
Transfer (from) to 12 months expected credit losses	315	(274)	(41)	-
Transfer (from) to lifetime expected credit losses	(740)	765	(25)	-
Transfer (from) to credit- impaired financial assets	(75)	(1,267)	1,342	-
Provision	2,275	3,278	27,226	32,779
Charge off	-	-	(25,636)	(25,636)
Disposal	-	-	(61)	(61)
Collection	-	-	2,502	2,502
Others (*)	110,514	(70)	(729)	109,715
Business combination (Note 47)	16	-	-	16
Ending balance	₩ 296,213	10,440	74,621	381,274

(*) Other changes are due to debt restructuring, investment conversion and changes in foreign exchange rate, etc.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

(In millions of won)

12. Loans at amortized cost, etc. (continued)

(c) Changes in allowance for credit loss of loans at amortized cost and other financial assets as of December 31, 2022 and 2021 are as follows (continued):

i) Loans at amortized cost

		December 31, 2021												
		Retail			Corporate			Credit cards			Others			
		12 month expected credit loss	Life time expected credit loss	Impaired financial asset	12 month expected credit loss	Life time expected credit loss	Impaired financial asset	12 month expected credit loss	Life time expected credit loss	Impaired financial asset	12 month expected credit loss	Life time expected credit loss	Impaired financial asset	Total
Beginning balance	₩	149,034	86,048	198,440	568,614	665,083	481,244	203,908	374,453	306,690	11,434	9,601	6,417	3,060,966
Transfer (from) to 12 months expected credit losses		20,528	(19,794)	(734)	85,187	(79,571)	(5,616)	26,178	(26,149)	(29)	200	(200)	-	-
Transfer (from) to lifetime expected credit losses		(9,078)	21,383	(12,305)	(55,055)	63,834	(8,779)	(14,471)	14,548	(77)	(359)	359	-	-
Transfer (from) to credit- impaired financial assets		(3,203)	(7,112)	10,315	(1,830)	(48,468)	50,298	(1,003)	(1,503)	2,506	(7)	-	7	-
Provision (reversal)		10,812	(1,321)	154,260	(68,403)	135,401	263,327	75,981	202,000	137,456	(1,342)	(503)	(598)	907,070
Charge off		-	-	(279,789)	-	-	(299,661)	-	-	(566,944)	-	-	(1,218)	(1,147,612)
Amortization of discount		-	-	(4,651)	-	-	(12,894)	-	-	7,973	-	-	-	(9,572)
Disposal		-	(1)	(13,617)	(6)	-	(14,528)	-	-	-	-	-	(1)	(28,153)
Collection		-	-	103,316	-	-	76,245	-	-	207,631	-	-	887	388,079
Others (*)		5,912	11,209	34,571	1,793	5,973	(9,310)	(85,882)	(162,272)	194,026	269	1	-	(3,710)
Ending balance	₩	174,005	90,412	189,806	530,300	742,252	520,326	204,711	401,077	289,232	10,195	9,258	5,494	3,167,068

(*) Other changes are due to debt restructuring, investment conversion and changes in foreign exchange rate, etc.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

(In millions of won)

12. Loans at amortized cost, etc. (continued)

(c) Changes in allowance for credit loss of loans at amortized cost and other financial assets as of December 31, 2022 and 2021 are as follows (continued):

ii) Due from banks at amortized cost and other financial assets

	December 31, 2021			
	12 months expected credit loss	Life time expected credit loss	Impaired financial asset	Total
Beginning balance	₩ 35,691	8,281	48,930	92,902
Transfer (from) to 12 months expected credit losses	241	(230)	(11)	-
Transfer (from) to lifetime expected credit losses	(284)	288	(4)	-
Transfer (from) to credit- impaired financial assets	(290)	(2,012)	2,302	-
Provision	8,555	1,426	42,181	52,162
Charge off	-	-	(27,929)	(27,929)
Disposal	-	-	(40)	(40)
Collection	-	-	2,357	2,357
Others (*)	139,995	255	2,257	142,507
Ending balance	₩ 183,908	8,008	70,043	261,959

(*) Other changes are due to debt restructuring, investment conversion and changes in foreign exchange rate, etc.

(d) Changes in deferred loan origination costs for the years ended December 31, 2022 and 2021 are as follows:

	December 31, 2022	December 31, 2021
Beginning balance	₩ 543,361	516,815
Loan origination	209,347	255,482
Amortization, etc.	(225,802)	(228,936)
Ending balance	₩ 526,906	543,361

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

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December 31, 2022 and 2021

(In millions of won)

13. Property and equipment

(a) Details of property and equipment as of December 31, 2022 and 2021 are as follows:

December 31, 2022				
	Acquisition cost	Accumulated depreciation	Accumulated Impairment	Carrying value
Land	₩ 2,101,176	-	-	2,101,176
Buildings	1,165,468	(455,617)	(7,594)	702,257
Other assets	2,424,987	(1,836,533)	-	588,454
Right-of-use assets	1,208,728	(589,518)	-	619,210
	₩ 6,900,359	(2,881,668)	(7,594)	4,011,097

December 31, 2021				
	Acquisition cost	Accumulated depreciation	Accumulated Impairment	Carrying value
Land	₩ 2,173,134	-	-	2,173,134
Buildings	1,210,401	(446,321)	(7,594)	756,486
Other assets	2,294,740	(1,786,323)	-	508,417
Right-of-use assets	1,229,169	(621,042)	-	608,127
	₩ 6,907,444	(2,853,686)	(7,594)	4,046,164

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

December 31, 2022					
	Land	Buildings	Others	Right-of-use assets	Total
Beginning balance	₩ 2,173,134	756,486	508,417	608,127	4,046,164
Acquisition(*1)	631	49,220	257,662	369,153	676,666
Disposal	(13,173)	(1,124)	(4,212)	(75,563)	(94,072)
Depreciation(*2)	-	(49,935)	(186,307)	(287,886)	(524,128)
Amounts transferred from(to) investment property	2,892	(12,446)	-	-	(9,554)
Amounts transferred from(to) intangible assets	-	-	6,916	-	6,916
Amounts transferred from(to) non-current assets held for sale(*3)	(62,288)	(39,469)	-	-	(101,757)
Amounts transferred from(to) operating lease assets	-	-	214	-	214
Effects of foreign currency adjustments	(20)	(475)	4,877	4,328	8,710
Business combination (Note 47)	-	-	887	1,051	1,938
Ending balance	₩ 2,101,176	702,257	588,454	619,210	4,011,097

(*1) ₩ 33,983 million transferred from assets-under-construction is included.

(*2) Included in general administrative expense and other operating income(loss) of the consolidated statements of comprehensive income.

(*3) Includes buildings, land, etc.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

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December 31, 2022 and 2021

(In millions of won)

13. Property and equipment (continued)

(b) Changes in property and equipment for the years ended December 31, 2022 and 2021 are as follows (continued):

	December 31, 2021				
	Land	Buildings	Others	Right-of-use assets	Total
Beginning balance	₩ 2,219,227	810,761	369,292	590,417	3,989,697
Acquisition(*1)	513	32,777	289,614	316,925	639,829
Disposal	(709)	(1,378)	(5,086)	(26,930)	(34,103)
Depreciation(*2)	-	(49,646)	(154,104)	(289,585)	(493,335)
Impairment	-	(7,594)	-	-	(7,594)
Amounts transferred from(to) investment property	(46,046)	(27,727)	-	-	(73,773)
Amounts transferred from(to) intangible assets	-	-	3,676	-	3,676
Amounts transferred from(to) non- current assets held for sale(*3)	(169)	(853)	-	-	(1,022)
Effects of foreign currency adjustments	318	146	5,025	17,300	22,789
Ending balance	₩ <u>2,173,134</u>	<u>756,486</u>	<u>508,417</u>	<u>608,127</u>	<u>4,046,164</u>

(*1) ₩ 18,748 million transferred from assets-under-construction is included.

(*2) Included in general administrative expense and other operating income(loss) of the consolidated statements of comprehensive income.

(*3) Includes buildings, land, etc.

(c) Insured assets and liability insurance as of December 31, 2022 are as follows:

Type of insurance	December 31, 2022		
	Insured assets and objects	Amount covered	Insurance company
Comprehensive insurance for financial institutions	Cash(including ATM)	25,500	Samsung Fire & Marine Insurance Co., Ltd., etc.
Comprehensive Property insurance	Property Total Risk, Machine Risk, General Liability Collateral	1,667,825	Samsung Fire & Marine Insurance Co., Ltd., etc.
Fire insurance	Business property and real estate	35,062	Meritz Fire & Marine Insurance Co., Ltd., etc.
Compensation liability insurance for officers	Officer liability of executives	50,000	Meritz Fire & Marine Insurance Co., Ltd., etc.
Compensation liability insurance for employee accident	Employee	82,029	Meritz Fire & Marine Insurance Co., Ltd., etc.
Burglary insurance	Cash and securities	60,480	Samsung Fire & Marine Insurance Co., Ltd., etc.
Others	Personal information liability insurance, etc.	56,862	Samsung Fire & Marine Insurance Co., Ltd., etc.

(*) Aside from the insurance mentioned above, the Group has entered into car insurance, medical insurance, property insurance, and employee accident insurance.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

(In millions of won)

14. Intangible assets

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

		<u>December 31, 2022</u>	<u>December 31, 2021</u>
Goodwill	₩	4,683,902	4,670,134
Software		263,341	192,582
Development cost		454,284	229,148
Others		406,309	552,918
	₩	<u>5,807,836</u>	<u>5,644,782</u>

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

		<u>December 31, 2022</u>				<u>Total</u>
		<u>Goodwill</u>	<u>Software</u>	<u>Development cost</u>	<u>Others</u>	
Beginning balance	₩	4,670,134	192,582	229,148	552,918	5,644,782
Acquisition		-	143,766	332,826	211,511	688,103
Business combination (Note 47)		-	1,472	2,638	315	4,425
Disposal and write-off		-	(253)	(434)	(236,881)	(237,568)
Amounts transferred from(to) property and equipment		-	-	(6,337)	(579)	(6,916)
Impairment(*1)		(2,258)	-	(702)	198	(2,762)
Amortization(*2)		-	(74,916)	(102,849)	(120,844)	(298,609)
Effects of changes in foreign exchange rate		16,026	690	(6)	(329)	16,381
Ending balance	₩	<u>4,683,902</u>	<u>263,341</u>	<u>454,284</u>	<u>406,309</u>	<u>5,807,836</u>

(*1) Goodwill impairment incurred from the cash-generating unit of security sector at PT Shinhan Sekuritas Indonesia. As a result of the impairment test for goodwill of PT Shinhan Sekuritas Indonesia's cash-generating unit, the Group's interests of the carrying amount exceeding the recoverable amount of the cash-generating unit was recognized as an impairment loss for ₩ 2,258 million. This is attributable to the continued high prices caused by the prolonged crisis in Ukraine in 2022, the local and global economic downturn, and the increase in the discount rate due to the global high interest rate economic phenomenon, and recoverable amount decreased by ₩ 1,569 million compared to the previous year. The amount of impairment loss recognized is included in the non-operating expenses, the line item of the consolidated statement of comprehensive income.

(*2) Included in general administrative expense and other operating income(expense) of the consolidated statements of comprehensive income.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

(In millions of won)

14. Intangible assets

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

	December 31, 2021				
	Goodwill	Software	Development cost	Others	Total
Beginning balance	₩ 4,689,792	144,535	183,592	462,700	5,480,619
Acquisition	-	103,929	127,993	225,228	457,150
Business combination	13,851	-	-	-	13,851
Disposal and write-off	-	(2,341)	(719)	(5,349)	(8,409)
Amounts transferred from(to) property and equipment	-	-	(3,676)	-	(3,676)
Impairment(*1)	(33,509)	-	(270)	(765)	(34,544)
Amortization(*2)	-	(55,531)	(77,734)	(129,615)	(262,880)
Effects of changes in foreign exchange rate	-	1,990	(38)	719	2,671
Ending balance	₩ 4,670,134	192,582	229,148	552,918	5,644,782

(*1) Goodwill impairment has occurred at Shinhan Bank Indonesia within the banking sector and PT Shinhan Sekuritas Indonesia within the securities sector among the cash-generating units. After the impairment test for goodwill of Shinhan Bank Indonesia, among the carrying value exceeding recoverable amount of cash-generating unit, which is ₩ 32,396 million, the Group has recognized ₩ 32,072 million as an impairment of goodwill which is 99% of the Group's total stake. After the impairment test for goodwill of PT Shinhan Sekuritas Indonesia, among the carrying value exceeding recoverable amount of cash-generating unit, which is ₩ 2,595 million, the Group has recognized ₩ 2,569 million as an impairment of goodwill which is 99% of the Group's total stake. This has occurred as a result of the persistent low-interest rate in Indonesia, the impact of COVID-19, and the decrease in the recoverable amount due to increased provisions of corporate borrowers. For the year ended December 31, 2021, the decrease in the asset's recoverable amount in comparison to the previous year is ₩ 56,587 million and ₩ 8,715 million, respectively. The amount of goodwill impairment recognized is included in the non-operating expenses of the consolidated statement of comprehensive income.

(*2) Included in general administrative expense and other operating income(expense) of the consolidated statements of comprehensive income.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

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December 31, 2022 and 2021

(In millions of won)

14. Intangible asset (continued)

(c) Goodwill

i) Goodwill allocated in the Group's CGUs as of December 31, 2022 and 2021 is as follows:

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Banking	₩ 768,766	764,883
Credit card	2,892,610	2,880,383
Securities	2,993	5,335
Life insurance	853,798	853,798
Others	165,735	165,735
	<u>₩ 4,683,902</u>	<u>4,670,134</u>

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

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Beginning balance	₩ 4,670,134	4,689,792
Additional recognition(*1)	-	13,851
Impairment losses	(2,258)	(33,509)
Others (*2)	16,026	-
Ending balance	<u>₩ 4,683,902</u>	<u>4,670,134</u>

(*1) It is the goodwill recognized by Shinhan Financial Plus, a subsidiary acquired in the previous year, from a business transfer for the GF division and IMGA division of Leaders Financial Marketing.

(*2) Other changes are due to effects of changes in foreign exchange rate.

iii) Goodwill impairment test

The recoverable amounts of each CGU are evaluated based on their respective value in use.

- Explanation on evaluation method

The discounted cash flow method (DCF) is applied when evaluating the recoverable amounts based on value in use, considering the characteristics of each unit or group of CGU. However, the CGU of life insurance applied an actuarial enterprise valuation methodology based on probabilistically expected cash flows in consideration of the characteristics of the insurance business.

- Projection period

When evaluating the value in use, 5.5 years of cash flow estimates are used in projection and the value thereafter is reflected as terminal value. However, 99 years of cash flow estimates for Shinhan Life Insurance Co., Ltd. is applied and the present value of the future cash flows thereafter is not applied as it is not significant.

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Notes to the Consolidated Financial Statements

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(In millions of won)

14. Intangible assets, net (continued)

- Discount rates and terminal growth rates

The required rates of return expected by shareholders are applied to the discount rates. It is calculated in consideration of which comprises a risk-free interest rate, a market risk premium and systemic risk (beta factor). In addition, terminal growth rate is estimated based on inflation rate. However, since the life insurance cash-generating unit reflects the cost of risk in future cash flows, the discount rate based on the risk-free government bond interest rate term structure reflecting only the time value of money was applied.

Discount rates and terminal growth rates applied to each CGU are as follows:

	<u>Discount rate(%)</u>	<u>Terminal growth rate(%)</u>
Banking	7.1 ~ 14.2	0.0 ~ 2.0
Credit card	8.7 ~ 13.9	1.0 ~ 2.0
Securities	13.6 ~ 13.9	2.0
Others	8.9 ~ 10.9	1.0

In case of the life insurance CGU, a term structure discount rate of 2.37% to 4.95% was applied for each future period corresponding to future cash flows for 99 years.

iv) Key assumptions

Key assumptions used in the discounted cash flow calculations of CGUs (other than life insurance components) are as follows:

	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>
CPI growth(%)	5.50	2.80	0.80	1.00	1.20	1.20
Private consumption growth(%)	3.40	2.20	2.30	2.60	2.80	2.80
Real GDP growth(%)	2.70	2.30	2.60	2.80	2.70	2.70

Key assumptions used in the discounted cash flow calculations of life insurance (Shinhan life insurance) components are as follows:

	<u>Key assumptions</u>
Consumer price index growth rate(Bank of Korea)(%)	2.00
Risk-based confidence level(%)	99.50

v) Total recoverable amount and total carrying value of CGUs to which goodwill has been allocated, are as follows:

	<u>Amount</u>
Total recoverable amount	₩ 55,081,110
Total carrying value(*)	₩ 46,383,778
	<u>₩ 8,697,332</u>

(*) It is the carrying value after reflecting the impairment loss in the securities sector.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

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(In millions of won)

15. Investments in associates

(a) Investments in associates as of December 31, 2022 and 2021 are as follows:

Investees	Country	Reporting date	Ownership (%)	
			December 31, 2022	December 31, 2021
BNP Paribas Cardif Life Insurance (*1),(*2)	Korea	September 30	14.99	14.99
Songrim Partners (*7)	Korea	-	-	35.34
Partners 4th Growth Investment Fund (*4)	Korea	November 30	25.00	25.00
KTB Newlake Global Healthcare PEF	Korea	December 31	20.57	30.00
Shinhan-Neoplux Energy Newbiz Fund (*1),(*5)	Korea	December 31	31.66	31.66
Shinhan-Albatross tech investment Fund (*4),(*5)	Korea	November 30	50.00	50.00
Meritz AI-SingA330-A Investment Type Private Placement Special Asset Fund	Korea	December 31	23.89	23.89
Meritz AI-SingA330-B Investment Type Private Placement Special Asset Fund	Korea	December 31	20.16	20.16
VOGO Debt Strategy Qualified IV Private	Korea	December 31	20.00	20.00
Shinhan-Midas Donga Secondary Fund (*6)	Korea	December 31	50.00	50.00
ShinHan – Soo Young Entrepreneur Investment Fund No.1	Korea	December 31	24.00	24.00
Shinhan Praxis K-Growth Global Private Equity Fund (*9)	Korea	December 31	14.15	18.87
Kiwoom Milestone Professional Private Real Estate Trust 19	Korea	December 31	50.00	50.00
AIP EURO Green Private Real Estate Trust No.3 (*7)	Korea	-	-	21.28
Shinhan Global Healthcare Fund I (*9)	Korea	December 31	4.41	4.41
KB NA Hickory Private Special Asset Fund	Korea	December 31	37.50	37.50
Koramco Europe Core Private Placement Real Estate Fund No.2-2	Korea	December 31	44.02	44.02
Shinhan EZ General Insurance, Ltd. (*12)	Korea	-	85.10	5.46
Hermes Private Investment Equity Fund	Korea	December 31	29.17	29.17
KDBC-Midas Dong-A Global contents Fund	Korea	December 31	23.26	23.26
Shinhan-Nvestor Liquidity Solution Fund	Korea	December 31	24.92	24.92
Shinhan AIM FoF Fund 1-A	Korea	December 31	25.00	25.00
IGIS Global Credit Fund 150-1	Korea	December 31	25.00	25.00
Partner One Value up I Private Equity Fund	Korea	December 31	27.91	27.91
Genesis No.1 Private Equity Fund	Korea	December 31	22.80	22.80
Korea Omega Project Fund III	Korea	December 31	23.53	23.53
Soo Delivery Platform Growth Fund (*7)	Korea	-	-	30.00
Genesis North America Power Company No.1 PEF	Korea	December 31	39.11	40.03
SH MAIN Professional Investment Type Private Mixed Asset Investment Trust No.3	Korea	December 31	23.33	23.33
MIEL CO.,LTD.(*3),(*4)	Korea	December 31	28.77	28.77
AIP Transportation Specialized Privately Placed Fund Trust #1	Korea	December 31	35.73	35.73
E&Healthcare Investment Fund No.6	Korea	December 31	21.05	21.05
One Shinhan Global Fund 1 (*5)	Korea	December 31	20.52	20.56
Kiwoom-Shinhan Innovation Fund I (*6)	Korea	December 31	50.00	50.00

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

(In millions of won)

15. Investments in associates (continued)

(a) Investments in associates as of December 31, 2022 and 2021 are as follows (continued):

Investees	Country	Reporting date	Ownership (%)	
			December 31, 2022	December 31, 2021
Daishin-K&T New Technology Investment Fund (*7)	Korea	-	-	31.25
Midas Asset Global CRE Debt Private Fund No.6	Korea	December 31	41.16	41.16
Samchully Midstream Private Placement Special Asset Fund 5-4	Korea	December 31	42.92	42.92
SH Senior Loan Professional Investment Type Private Mixed Asset Investment Trust No.3 (*1)	Korea	September 30	20.00	20.00
NH-Amundi Global Infrastructure Trust 14	Korea	December 31	30.00	30.00
Jarvis Memorial Private Investment Trust 1 (*6)	Korea	December 31	99.01	99.01
Vestas Qualified Investors Private Real Estate Fund Investment Trust No.37 (*8)	Korea	December 31	60.00	60.00
Milestone Private Real Estate Fund 3	Korea	December 31	32.06	32.06
Nomura-Rifa Private Real Estate Investment Trust 31	Korea	December 31	31.31	31.31
SH Senior Loan Professional Investment Type Private Mixed Asset Investment Trust No.2 (*1)	Korea	September 30	21.27	21.27
T&F 2019 bearing Private Equity Fund Specializing in Start-up and Venture Business	Korea	December 31	28.25	28.25
Cape IT Fund No.3 (*7)	Korea	-	-	32.89
FuturePlay-Shinhan TechInnovation Fund 1 (*6)	Korea	December 31	50.00	50.00
Stonebridge Corporate 1st Fund	Korea	December 31	44.12	44.12
Vogo Realty Partners Private Real Estate Fund V	Korea	December 31	21.64	21.64
Korea Credit Bureau (*1),(9)	Korea	September 30	9.00	9.00
Goduck Gangil1 PFV Co., Ltd. (*1),(9)	Korea	September 30	1.04	1.04
SBC PFV Co., Ltd. (*1),(10)	Korea	September 30	25.00	25.00
NH-amundi global infra private fund 16	Korea	December 31	50.00	50.00
IMM Global Private Equity Fund	Korea	December 31	33.00	33.00
HANA Alternative Estate Professional Private122 (*7)	Korea	-	-	74.02
SH Corporate Professional Investment Type Private Security Investment Trust No.7 (*7)	Korea	-	-	45.96
SH BNCT Professional Investment Type Private Special Asset Investment Trust (*11)	Korea	December 31	72.50	72.50
Deutsche Global Professional Investment Type Private Real Estate Investment Trust No. 24 (*8)	Korea	December 31	52.28	52.28
Sparklabs-Shinhan Opportunity Fund 1	Korea	December 31	49.50	49.50
BNW Tech-Innovation Private Equity Fund	Korea	December 31	29.85	29.85
IGIS Real-estate Private Investment Trust No.33	Korea	December 31	40.86	40.86
WWG Global Real Estate Investment Trust no.4	Korea	December 31	29.55	29.55
Goduck Gangil10 PFV Co., Ltd. (*1),(9)	Korea	September 30	19.90	19.90
Fidelis Global Private Real Estate Trust No.2 (*8)	Korea	December 31	79.70	78.26

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15. Investments in associates (continued)

(a) Investments in associates as of December 31, 2022 and 2021 are as follows (continued):

Investees	Country	Reporting date	Ownership (%)	
			December 31, 2022	December 31, 2021
AIP EURO PRIVATE REAL ESTATE TRUST No. 12	Korea	December 31	28.70	28.70
Shinhan Healthcare Fund 2(*9)	Korea	December 31	13.68	13.68
Pebblestone CGV Private Real Estate Trust No.1 (*7)	Korea	-	-	48.53
SH Corporate Professional Investment Type Private Security Investment Trust No.45 (*7)	Korea	-	-	43.65
Shinhan AIM Real Estate Fund No.2 (*1)	Korea	September 30	30.00	30.00
Shinhan AIM Real Estate Fund No.1 (*1)	Korea	September 30	21.01	21.01
SH Daegu Green Power Cogeneration System Professional Investment Type Private Special Asset Investment Trust	Korea	December 31	22.02	22.02
SH Sangju YC Expressway Professional Investment Type Private Special Asset Investment Trust (*1)	Korea	September 30	29.19	29.19
SH Global Infrastructure Professional Investment Type Private Special Asset Investment Trust No.7-2 (*1),(*8)	Korea	September 30	71.43	71.43
Korea Omega-Shinhan Project Fund I (*6)	Korea	December 31	50.00	50.00
ST-Bonanja Food tech	Korea	December 31	38.83	38.83
Samsung SRA Real Estate Professional Private 45	Korea	December 31	25.00	25.00
IBK Global New Renewable Energy Special Asset Professional Private2	Korea	December 31	28.98	28.98
VS Cornerstone Fund	Korea	December 31	41.18	41.18
Aone Mezzanine Opportunity Professional Private (*8)	Korea	December 31	64.41	66.09
NH-Amundi US Infrastructure Private Fund2	Korea	December 31	25.91	25.91
KB Distribution Private Real Estate1 (*7)	Korea	-	-	62.00
SH Japan Photovoltaic Private Special Asset Investment Trust No.2 (*1)	Korea	September 30	30.00	30.00
Kakao-Shinhan 1st TNYT Fund	Korea	December 31	48.62	48.62
IMM Special Situation 1-2 PRIVATE EQUITY FUND	Korea	December 31	20.00	20.00
Pacific Private Placement Real Estate Fund No.40	Korea	December 31	24.73	24.73
Mastern Private Real Estate Loan Fund No.2	Korea	December 31	33.57	33.57
LB Scotland Amazon Fulfillment Center Fund 29(*8)	Korea	December 31	70.14	70.14
JR AMC Hungary Budapest Office Fund 16	Korea	December 31	32.57	32.57
EDNCENTRAL Co.,Ltd.(*9)	Korea	December 31	13.47	19.87
Future-Creation Neoplux Venture Capital Fund (*1),(*5)	Korea	September 30	16.25	16.25
Gyeonggi-Neoplux Superman Fund (*1),(*5)	Korea	September 30	21.76	21.76
NewWave 6th Fund (*5)	Korea	December 31	30.00	30.00
KTC-NP Growth Champ 2011-2 Private Equity Fund (*1),(*5)	Korea	September 30	5.56	5.56

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15. Investments in associates (continued)

(a) Investments in associates as of December 31, 2022 and 2021 are as follows (continued):

Investees	Country	Reporting date	Ownership (%)	
			December 31, 2022	December 31, 2021
Neoplux No.3 Private Equity Fund (*1),(*5)	Korea	September 30	10.00	10.00
PCC Amberstone Private Equity Fund I	Korea	December 31	21.67	21.67
KIAMCO POWERLOAN TRUST 4TH	Korea	December 31	47.37	47.37
Mastern Opportunity Seeking Real Estate Fund II	Korea	December 31	20.00	20.00
AION ELFIS PROFESSIONAL PRIVATE 1	Korea	December 31	20.00	20.00
T&F 2020 SS Private Equity Fund Specializing in Start-up and Venture Business	Korea	December 31	29.68	29.68
Neoplux Market-Frontier Secondary Fund (*5)	Korea	December 31	19.74	19.74
Harvest Private Equity Fund II	Korea	December 31	22.06	22.06
Synergy Green New Deal 1st New Technology Business Investment Fund	Korea	December 31	28.17	28.17
KAIM Real-estate Private Investment Trust 20	Korea	December 31	38.46	38.46
KIAMCO Vietnam Solar Special Asset Private Investment Trust (*6)	Korea	December 31	50.00	50.00
Daishin New Technology Investment Fund 5th	Korea	December 31	23.44	23.44
CSQUARE SNIPER PROFESSIONAL PRIVATE 10 (*7)	Korea	-	-	62.50
Acurus Hyundai Investment Partners New Technology (*7)	Korea	-	-	26.79
IGIS GLIP Professional Investment Private Real Estate Investment Trust No. 1-1 (*7)	Korea	-	-	97.10
IGIS GLIP Professional Investment Private Real Estate Investment Trust No. 1-2 (*7)	Korea	-	-	97.10
Pacific Sunny Professional Investors Private Placement Real Estate Investment Company No.45 (*7)	Korea	-	-	25.00
SHINHAN-NEO Core Industrial Technology Fund (*5)	Korea	December 31	49.75	49.75
SHBNPP Green New Deal Energy Professional Investment Type Private Special Asset Investment Trust No.2 (*1)	Korea	September 30	30.00	30.00
SIMONE Mezzanine Fund No.3	Korea	December 31	28.97	29.38
Eum Private Equity Fund No.7	Korea	December 31	21.00	21.00
Kiwoom Private Equity Ant-Man Startup Venture Specialized Private Equity Fund (*7)	Korea	-	-	25.00
Kiwoom Hero No.4 Private Equity Fund	Korea	December 31	21.05	21.05
Vogo Canister Professional Trust Private Fund I	Korea	December 31	36.27	36.53
SW-S Fund	Korea	December 31	30.30	30.30
CL Buyout 1st PEF	Korea	December 31	21.43	21.43
Timefolio The Venture-V second	Korea	December 31	20.73	20.73
Newlake Growth Capital Partners2 PEF (*4)	Korea	November 30	29.91	29.91
Shinhan Smilegate Global PEF I (*9)	Korea	December 31	14.21	14.21
Fount Professional Investors Private Investment Trust No.3 (*7)	Korea	-	-	49.98
Genesis Eco No.1 PEF	Korea	December 31	29.00	29.01
SHINHAN-NEO Market-Frontier 2nd Fund (*5)	Korea	December 31	42.70	42.70
NH-Synergy Core Industrial New Technology Fund	Korea	December 31	36.93	36.93
J& Moorim Jade Investment Fund	Korea	December 31	24.89	24.89
Helios-KDBC Digital Contents 1st	Korea	December 31	23.26	23.26
Ulmus SHC innovation investment fund	Korea	December 31	24.04	24.04
Mirae Asset Partners X Private Equity Fund	Korea	December 31	35.71	35.71
T Core Industrial Technology 1st Venture PEF	Korea	December 31	31.47	31.47
Curious Finale Corporate Recovery Private Equity Fund	Korea	December 31	27.78	27.78
TI First Property Private Investment Trust 1	Korea	December 31	40.00	40.00
MPLUS Professional Private Real Estate Fund 25	Korea	December 31	41.67	41.67
IBKC Global Contents Investment Fund	Korea	December 31	24.39	24.39

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(In millions of won)

15. Investments in associates (continued)

(a) Investments in associates as of December 31, 2022 and 2021 are as follows (continued):

Investees	Country	Reporting date	Ownership (%)	
			December 31, 2022	December 31, 2021
Nautic Smart No.6 Private Equity Fund	Korea	December 31	37.74	37.74
Premier Luminous Private Equity Fund	Korea	December 31	25.12	27.78
Hanyang-Meritz 1 Fund	Korea	December 31	22.58	22.58
KNT 2ND PRIVATE EQUITY FUND	Korea	December 31	21.74	21.74
Kiwoom-Shinhan Innovation Fund 2	Korea	December 31	42.86	42.86
Maple Mobility Fund	Korea	December 31	20.18	20.18
SJ ESG Innovative Growth Fund	Korea	December 31	28.57	28.57
AVES 1st Corporate Recovery Private Equity Fund (*6)	Korea	December 31	76.19	76.19
JS Shinhan Private Equity Fund (*5)	Korea	December 31	3.85	3.85
NH Kyobo AI Solution Investment Fund	Korea	December 31	26.09	26.09
Daishin Newgen New Technology Investment Fund 1 st (*8)	Korea	December 31	50.60	50.60
META ESG Private Equity Fund I	Korea	December 31	27.40	27.40
SWFV FUND-1	Korea	December 31	40.25	40.25
PHAROS DK FUND	Korea	December 31	24.14	24.24
Shinhan VC tomorrow venture fund 1 (*5)	Korea	December 31	39.62	39.62
Highland 2021-8 Fund	Korea	December 31	32.67	32.67
H-IOTA Fund	Korea	December 31	24.81	24.81
Stonebridge-Shinhan Unicorn Secondary Fund (*5)	Korea	December 31	17.57	19.92
Tres-Yujin Trust (*6)	Korea	December 31	50.00	50.00
Shinhan-Time mezzanine blind Fund (*6)	Korea	December 31	50.00	50.00
Capstone REITs No.26 (*6)	Korea	December 31	50.00	50.00
JB Incheon-Bucheon REITs No.54	Korea	December 31	39.31	39.31
Hankook Smart Real Asset Investment Trust No.3	Korea	December 31	33.33	33.33
JB Hwaseong-Hadong REITs No.53	Korea	December 31	31.03	31.03
KB Oaktree Trust No.3	Korea	December 31	33.33	33.33
Daehan No.36 Office Asset Management Company	Korea	December 31	48.05	48.05
Rhinos Premier Mezzanine Private Investment Fund No.1	Korea	December 31	27.93	27.93
SH Real Estate Loan Investment Type Private Real Estate Investment Trust No.2	Korea	December 31	29.73	29.73
Shinhan JigaeNamsan Road Private Special Asset Investment Trust (*1)	Korea	September 30	24.85	24.85
SKS-Yozma Fund No.1	Korea	December 31	29.85	29.85
IBKC-METIS Global Contents Investment Fund	Korea	December 31	36.36	36.36
Keystone Unicorn Private Equity Fund	Korea	December 31	28.00	28.00
KB Distribution Private Real Estate 3-1	Korea	December 31	37.50	-
Pacific Private Investment Trust No.49-1 (*8)	Korea	December 31	79.28	-
KIWOOM Real estate private placement fund for normal investors No. 31 (*8)	Korea	December 31	60.00	-
RIFA Real estate private placement fund for normal investoes No. 51	Korea	December 31	40.00	-
Fivetree general private equity fund No.15	Korea	December 31	49.98	-
Shinhan-Kunicorn first Fund	Korea	December 31	38.31	-
Harvest Fund No.3	Korea	December 31	44.67	-
Shinhan Simone Fund I	Korea	December 31	38.46	-
Korea Investment develop seed Trust No.1	Korea	December 31	40.00	-
Tiger Green alph Trust No.29 (*6)	Korea	December 31	95.24	-
STIC ALT Global II Private Equity Fund	Korea	December 31	21.74	-
NH-Brain EV Fund	Korea	December 31	25.00	-
DDI LVC Master Real Estate Investment Trust Co., Ltd. (*1),(*9)	Korea	September 30	15.00	-
Find-Green New Deal 2nd Equity Fund	Korea	December 31	22.57	-
ShinhanFitrin 1st Technology Business Investment Association (*5)	Korea	December 31	16.17	-
PARATUS No.3 Private Equity Fund	Korea	December 31	25.64	-
Golden Route 2nd Startup Venture Specialized Private Equity Fund	Korea	December 31	22.73	-
Koramco Private Real Estate Fund 143	Korea	December 31	30.30	-
Korea Investment Top Mezzanine Private Real Estate Trust No.1	Korea	December 31	22.22	-
LB YoungNam Logistics Private Trust No.40	Korea	December 31	25.00	-
Shinhan-Cognitive Start-up Fund L.P.	Korea	December 31	32.74	-
IGEN2022 No.1 private Equity Fund	Korea	December 31	27.95	-
Cornerstone J&M Fund I	Korea	December 31	26.67	-

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15. Investments in associates (continued)

(a) Investments in associates as of December 31, 2022 and 2021 are as follows (continued):

Investees	Country	Reporting date	Ownership (%)	
			December 31, 2022	December 31, 2021
Logisvalley Shinhan REIT Co.,Ltd. (*1)	Korea	September 30	20.27	-
KDB Investment Global Healthcare Private Equity Fund I	Korea	December 31	24.14	-
Korea Investment Green Newdeal Infra Trust No.1	Korea	December 31	27.97	-
BTS 2nd Private Equity Fund (*1)	Korea	September 30	26.00	-
Shinhan Global Active REIT Co.Ltd	Korea	December 31	20.37	-
NH-J&-IBKC Label Technology Fund	Korea	December 31	27.81	-
IMM Global Venture Opportunity, LP	Korea	December 31	35.50	-
Capstone Develop Frontier Trust	Korea	December 31	21.43	-
Nextrade Co., Ltd. (*9)	Korea	December 31	8.00	-
SH Sustainable Management ESG Short term Bond Security Feeder Investment Trust No.1	Korea	December 31	26.90	-
SH 1.5years Maturity Investment Type Security Investment Trust No.2	Korea	December 31	29.00	-
Eventus-IBKC LIB Fund	Korea	December 31	21.88	-
NH-Daishin-Kyobo healthcare 1 Fund	Korea	December 31	25.00	-
IBKC-Behigh Fund 1st	Korea	December 31	29.73	-
Nautic Green Innovation ESG Co-investment No.1 Private Equity Fund	Korea	December 31	24.10	-
ON No.1 Private Equity Fund	Korea	December 31	28.57	-
Digital New Deal Kappa Private Equity Fund	Korea	December 31	30.12	-

(*1) The financial statements of September 30, 2022 are used for the equity method since the financial statements as of December 31, 2022 are not available. Significant trades and events occurred within the period are properly reflected.

(*2) The Group applies the equity method accounting as the Group has a significant influence on the investees through important business transactions.

(*3) In the course of the rehabilitation process, the shares were acquired through investment conversion. Although voting rights cannot be exercised during the rehabilitation process, normal voting rights are exercised because the rehabilitation process was completed before December 31, 2022. Also, it has been reclassified into the investments in associates.

(*4) The latest financial statements are used for the equity method since the financial statements as of December 31, 2022 are not available. Significant trades and events occurred within the period are properly reflected.

(*5) As a managing partner, the Group has a significant influence over the investees.

(*6) As a limited partner, the Group does not have an ability to participate in policy-making processes to obtain economic benefit from the investees that would allow the Group to control the entity.

(*7) Excluded from the investments in associates due to full or partial disposal of shares, or loss of significant influence.

(*8) Although the ownership percentages are more than 50%, the Group applies the equity method accounting as the Group does not have an ability to participate in the financial and operating policy-making process.

(*9) Although the ownership percentages are less than 20%, the Group applies the equity method accounting since it participates in policy-making processes and therefore can exercise significant influence on investees.

(*10) The rate of Group's voting rights is 4.65%.

(*11) Although the Group has a significant influence with ownership percentage more than 50%, the contribution was classified as investments in associates as the Group is not exposed to variable returns due to the payment guarantee for the entire investment amount.

(*12) For the year ended December 31, 2022, it is incorporated into the consolidation target as the Group held control due to increased equity ratio and BNP Paribas Cardif General Insurance, Ltd. has changed its name to Shinhan EZ General Insurance, Ltd.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

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(In millions of won)

15. Investments in associates (continued)

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

Investees	December 31, 2022					
	Beginning balance	Investment and dividend	Equity method income (loss)	Change in other comprehensive income	Impairment loss	Ending balance
BNP Paribas Cardif Life Insurance	₩ 44,022	-	(1,774)	(12,079)	-	30,169
Songrim Partners	-	-	-	-	-	-
Partners 4th Growth Investment Fund	13,033	(1,714)	6,917	(4,694)	-	13,542
KTB Newlake Global Healthcare PEF	9,412	(5,832)	729	-	-	4,309
Shinhan-Neoplux Energy Newbiz Fund	16,032	(391)	5,196	-	-	20,837
Shinhan-Albatross tech investment Fund	10,389	(1,800)	3,792	(128)	-	12,253
Meritz AI-SingA330-A Investment Type Private Placement Special Asset Fund	-	676	34	-	3,522	4,232
Meritz AI-SingA330-B Investment Type Private Placement Special Asset Fund	-	1,471	-	-	255	1,726
VOGO Debt Strategy Qualified IV Private	7,179	(1,433)	339	-	-	6,085
Shinhan -Midas Dong-A Secondary Fund	3,951	(1,025)	1,505	-	-	4,431
ShinHan – Soo Young Entrepreneur Investment Fund No.1	4,226	-	188	-	-	4,414
Shinhan Praxis K-Growth Global Private Equity Fund	7,761	(8,512)	4,442	-	-	3,691
Kiwoom Milestone Professional Private Real Estate Trust 19	5,253	-	(150)	-	(1,142)	3,961
AIP EURO Green Private Real Estate Trust No.3	29,703	(29,008)	(695)	-	-	-
Shinhan Global Healthcare Fund 1 (*1)	-	-	-	-	-	-
KB NA Hickory Private Special Asset Fund	34,376	(1,545)	1,508	-	-	34,339
Koramco Europe Core Private Placement Real Estate Fund No.2-2	19,492	(464)	208	-	-	19,236
Shinhan EZ General Insurance, Ltd. (*2)	3,354	(3,181)	(182)	9	-	-
Hermes Private Investment Equity Fund	9,782	-	(4,220)	-	-	5,562
KDBC-Midas Dong-A Global contents Fund	2,955	-	1,322	-	-	4,277
Shinhan-Nvestor Liquidity Solution Fund	5,338	700	400	-	-	6,438
Shinhan AIM FoF Fund 1-A	9,156	51	903	-	-	10,110
IGIS Global Credit Fund 150-1	5,402	(1,267)	557	-	-	4,692
Partner One Value up I Private Equity Fund	7,891	-	(2,747)	-	-	5,144
Genesis No.1 Private Equity Fund	55,533	408	3,983	-	-	59,924
Korea Omega Project Fund III	4,290	-	(616)	-	-	3,674
Soo Delivery Platform Growth Fund	5,873	(6,093)	220	-	-	-
Genesis North America Power Company No.1 PEF	13,736	(12,629)	7,011	-	-	8,118
SHBNPP MAIN Professional Investment Type Private Mixed Asset Investment Trust No.3	41,549	12,056	(10,361)	-	-	43,244
MIEL CO.,LTD. (*1)	-	-	-	-	-	-
AIP Transportation Specialized Privately Placed Fund Trust #1	34,688	5,527	4,606	-	-	44,821
E&Healthcare Investment Fund No.6	6,866	(3,190)	(3,079)	-	-	597
One Shinhan Global Fund 1	3,773	-	(1,183)	-	(642)	1,948

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15. Investments in associates (continued)

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

Investees	December 31, 2022					
	Beginning balance	Investment and dividend	Equity method income (loss)	Change in other comprehensive income	Impairment loss	Ending balance
Kiwoom-Shinhan Innovation Fund I	₩ 11,731	(1,500)	(790)	-	-	9,441
Daishin-K&T New Technology Investment Fund	7,991	(7,430)	(561)	-	-	-
Midas Asset Global CRE Debt Private Fund No.6	48,305	5,873	2,851	-	-	57,029
Samchully Midstream Private Placement Special Asset Fund 5-4	27,471	5,033	(1,880)	-	-	30,624
SHBNPP Senior Loan Professional Investment Type Private Mixed Asset Investment Trust No.3	25,204	(912)	200	-	-	24,492
NH-Amundi Global Infrastructure Trust 14	18,301	1,714	960	-	-	20,975
Jarvis Memorial Private Investment Trust 1	10,109	(700)	377	-	-	9,786
Vestas Qualified Investors Private Real Estate Fund Investment Trust No.37	33,153	(22)	226	-	-	33,357
Milestone Private Real Estate Fund 3 (Derivative Type)	18,544	(201)	728	-	-	19,071
RIFA Real estate private placement fund for normal investors No. 31	7,902	(607)	69	-	-	7,364
SHBNPP Senior Loan Professional Investment Type Private Mixed Asset Investment Trust No.2	10,236	(5,292)	(1,975)	-	-	2,969
T&F 2019 bearing Private Equity Fund Specializing in Start-up and Venture Business	2,864	-	367	-	-	3,231
Cape IT Fund No.3	10,065	(10,580)	515	-	-	-
FuturePlay-Shinhan TechInnovation Fund 1	7,149	-	(233)	-	-	6,916
Stonebridge Corporate 1st Fund	2,964	-	658	-	-	3,622
Vogo Realty Partners Private Real Estate Fund V	10,766	(638)	787	-	-	10,915
Korea Credit Bureau	7,695	-	(2,656)	-	-	5,039
Goduck Gangil1 PFV Co., Ltd.	-	-	60	-	-	60
SBC PFV Co., Ltd.	29,586	-	(1,118)	-	-	28,468
NH-amundi global infra private fund 16	52,008	(15,362)	19,565	-	-	56,211
IMM Global Private Equity Fund	118,615	19,045	9,724	-	-	147,384
HANA Alternative Easate Professional Private122	29,489	(28,570)	(918)	-	-	1
SHBNPP Corporate Professional Investment Type Private Security Investment Trust No.7	49,899	(50,540)	641	-	-	-
SHBNPP BNCT Professional Investment Type Private Special Asset Investment Trust	282,199	(24,838)	5,691	-	-	263,052
Deutsche Global Professional Investment Type Private Real Estate Investment Trust No. 24	28,312	(6,937)	1,308	-	-	22,683
Sparklabs-Shinhan Opportunity Fund 1	4,640	(826)	817	-	-	4,631
BNW Tech-Innovation Private Equity Fund	5,881	-	(48)	-	-	5,833
IGIS Real-estate Private Investment Trust No.33	13,884	(715)	1,383	-	-	14,552
WWG Global Real Estate Investment Trust no.4	10,644	(659)	346	-	-	10,331
Goduck Gangil10 PFV Co., Ltd.	-	-	3,236	-	-	3,236

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15. Investments in associates (continued)

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

Investees	December 31, 2022					
	Beginning balance	Investment and dividend	Equity method income (loss)	Change in other comprehensive income	Impairment loss	Ending balance
Fidelis Global Private Real Estate Trust No.2	₩ 19,773	2,183	(11)	-	-	21,945
AIP EURO PRIVATE REAL ESTATE TRUST No. 12	49,217	(5,640)	4,850	-	-	48,427
Shinhan Global Healthcare Fund 2 (*1)	-	-	-	-	-	-
Pebblestone CGV Private Real Estate Trust No.1	13,710	(13,971)	261	-	-	-
SH Corporate Professional Investment Type Private Security Investment Trust No.45	173,955	(173,955)	-	-	-	-
Shinhan AIM Real Estate Fund No.2	23,275	3,346	(1,378)	-	-	25,243
Shinhan AIM Real Estate Fund No.1	44,312	(2,176)	2,506	-	-	44,642
SHBNPP Daegu Green Power Cogeneration System Professional Investment Type Private Special Asset Investment Trust	32,948	(915)	594	-	-	32,627
SHBNPP Sangju YC Expressway Professional Investment Type Private Special Asset Investment Trust	20,550	6	(1,260)	-	-	19,296
SHBNPP Global Infrastructure Professional Investment Type Private Special Asset Investment Trust No.7-2	18,855	5,114	629	-	-	24,598
Korea Omega-Shinhan Project Fund I	7,244	2,000	778	-	-	10,022
ST-Bonanja Food tech	3,359	(621)	(107)	-	-	2,631
Samsung SRA Real Estate Professional Private 45[FoFs]	12,880	5,279	3,491	-	-	21,650
IBK Global New Renewable Energy Special Asset Professional Private2	31,887	(2,516)	4,041	-	-	33,412
VS Cornerstone Fund	3,410	-	(75)	-	-	3,335
Aone Mezzanine Opportunity Professional Private	9,540	(5,084)	553	-	-	5,009
NH-Amundi US Infrastructure Private Fund2	27,024	2,446	2,471	-	-	31,941
KB Distribution Private Real Estate1	30,694	(30,694)	-	-	-	-
SHBNPP Japan Photovoltaic Private Special Asset Investment Trust No.2	13,016	(7,291)	607	-	-	6,332
Kakao-Shinhan 1st TNYT Fund	14,497	-	6,833	-	-	21,330
IMM Special Situation 1-2 PRIVATE EQUITY FUND	11,593	(8,690)	(300)	-	-	2,603
Pacific Private Placement Real Estate Fund No.40	11,598	(748)	772	-	-	11,622
Masterm Private Real Estate Loan Fund No.2	7,491	(1,359)	255	-	-	6,387
LB Scotland Amazon Fulfillment Center Fund 29	31,268	(2,189)	558	-	-	29,637
JR AMC Hungary Budapest Office Fund 16	12,140	(821)	1,138	-	-	12,457
EDNCENTRAL Co.,Ltd. (*1)	-	-	-	-	-	-
Future-Creation Neoplux Venture Capital Fund	3,017	-	1,234	-	-	4,251
Gyeonggi-Neoplux Superman Fund	7,878	(1,195)	(1,216)	-	-	5,467
NewWave 6th Fund	14,455	-	(915)	-	-	13,540
KTC-NP Growth Champ 2011-2 Private Equity Fund	3,990	(2,490)	(293)	-	-	1,207

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15. Investments in associates (continued)

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

Investees	December 31, 2022					
	Beginning balance	Investment and dividend	Equity method income (loss)	Change in other comprehensive income	Impairment loss	Ending balance
Neoplux No.3 Private Equity Fund	₩ 22,601	(2)	(2,145)	-	-	20,454
PCC Amberstone Private Equity Fund I	22,790	(2,509)	(1,496)	-	-	18,785
KIAMCO POWERLOAN TRUST 4TH	45,301	(2,305)	528	-	-	43,524
Masterm Opportunity Seeking Real Estate Fund II	21,317	(6,457)	(150)	-	-	14,710
AION ELFIS PROFESSIONAL PRIVATE 1	4,422	232	(1,088)	-	-	3,566
T&F 2020 SS Private Equity Fund Specializing in Start-up and Venture Business	4,360	(1,732)	3,081	-	-	5,709
Neoplux Market-Frontier Secondary Fund	11,313	(653)	3,300	-	-	13,960
Harvest Private Equity Fund II	3,481	(159)	(183)	-	-	3,139
Synergy Green New Deal 1st New Technology Business Investment Fund	9,684	(146)	1,094	-	-	10,632
KAIM Real-estate Private Investment Trust 20	5,048	(4,176)	315	-	-	1,187
KIAMCO Vietnam Solar Special Asset Private Investment Trust	7,527	(2,019)	1,219	-	-	6,727
Daishin New Technology Investment Fund 5th	4,439	(844)	(1,165)	-	-	2,430
CSQUARE SNIPER PROFESSIONAL PRIVATE 10	3,247	(3,806)	559	-	-	-
Acurus Hyundai Investment Partners New Technology	4,714	(3,979)	(735)	-	-	-
IGIS GLIP Professional Investment Private Real Estate Investment Trust No. 1-1	63,944	(60,279)	-	(3,665)	-	-
IGIS GLIP Professional Investment Private Real Estate Investment Trust No. 1-2	63,944	(60,279)	-	(3,665)	-	-
Pacific Sunny Professional Investors Private Placement Real Estate Investment Company No.45	14,778	(14,778)	-	-	-	-
SHINHAN-NEO Core Industrial Technology Fund	5,691	3,960	(242)	-	-	9,409
SHBNPP Green New Deal Energy Professional Investment Type Private Special Asset Investment Trust No.2	27,243	(2,559)	340	-	-	25,024
SIMONE Mezzanine Fund No.3	3,054	4	(41)	-	-	3,017
Eum Private Equity Fund No.7	7,873	(86)	1,383	-	-	9,170
Kiwoom Private Equity Ant-Man Startup Venture Specialized Private Equity Fund	7,594	(4,870)	(2,724)	-	-	-
Kiwoom Hero No.4 Private Equity Fund	4,305	-	(788)	-	-	3,517
Vogo Canister Professional Trust Private Fund I	41,072	2,103	3,154	-	-	46,329
SW-S Fund	6,724	-	524	-	-	7,248
CL Buyout 1st PEF	13,791	273	(1,222)	-	-	12,842
Timefolio The Venture-V second	4,572	-	(476)	-	-	4,096

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15. Investments in associates (continued)

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

Investees	December 31, 2022					
	Beginning balance	Investment and dividend	Equity method income (loss)	Change in other comprehensive income	Impairment loss	Ending balance
Newlake Growth Capital Partners2 PEF	₩ 12,921	(177)	(248)	-	-	12,496
Shinhan Smilegate Global PEF I	3,336	(1,828)	2,263	-	-	3,771
Fount Professional Investors Private Investment Trust No.3	5,197	(5,197)	-	-	-	-
Genesis Eco No.1 PEF	11,130	195	93	-	-	11,418
SHINHAN-NEO Market-Frontier 2nd Fund	24,606	8,540	1,274	-	-	34,420
NH-Synergy Core Industrial New Technology Fund	6,437	-	(60)	-	-	6,377
J& Moorim Jade Investment Fund	5,540	(385)	279	-	-	5,434
Helios-KDBC Digital Contents 1st	1,695	1,720	(59)	-	-	3,356
Ulmus SHC innovation investment fund	5,192	-	(306)	-	-	4,886
Mirae Asset Partners X Private Equity Fund	7,858	-	(66)	-	-	7,792
T Core Industrial Technology 1st Venture PEF	4,535	-	(6)	-	-	4,529
Curious Finale Corporate Recovery Private Equity Fund	3,690	(245)	146	-	-	3,591
TI First Property Private Investment Trust 1	3,055	(101)	173	-	-	3,127
MPLUS Professional Private Real Estate Fund 25	3,290	655	286	-	-	4,231
IBKC Global Contents Investment Fund	4,943	-	(391)	-	-	4,552
Nautic Smart No.6 Private Equity Fund	3,974	(3,752)	956	-	-	1,178
Premier Luminous Private Equity Fund	6,991	(2,314)	4,289	-	-	8,966
Hanyang-Meritz 1 Fund	3,483	-	(17)	-	-	3,466
KNT 2ND PRIVATE EQUITY FUND	4,157	(3,000)	(207)	-	-	950
Kiwoom-Shinhan Innovation Fund 2	2,677	9,000	(406)	-	-	11,271
Maple Mobility Fund	8,683	91	8,085	-	-	16,859
SJ ESG Innovative Growth Fund	2,998	-	1,199	-	-	4,197
AVES 1st Corporate Recovery Private Equity Fund	4,736	-	321	-	-	5,057
JS Shinhan Private Equity Fund	5,037	-	(84)	-	-	4,953
NH Kyobo AI Solution Investment Fund	2,973	-	315	-	-	3,288
Daishin Newgen New Technology Investment Fund 1st	12,169	(2,277)	(4,188)	-	-	5,704
META ESG Private Equity Fund I	5,677	-	180	-	-	5,857
SWFV FUND-1	9,646	-	(518)	-	-	9,128
PHAROS DK FUND	3,949	-	(114)	-	-	3,835

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15. Investments in associates (continued)

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

Investees	December 31, 2022					
	Beginning balance	Investment and dividend	Equity method income (loss)	Change in other comprehensive income	Impairment loss	Ending balance
Shinhan VC tomorrow venture fund I	₩ 9,042	18,226	(342)	-	-	26,926
Highland 2021-8 Fund	4,899	-	(73)	-	-	4,826
H-IOTA Fund	9,728	(88)	(17)	-	-	9,623
Stonebridge-Shinhan Unicorn Secondary Fund	2,074	4,160	(152)	-	-	6,082
Tres-Yujin Trust	9,995	(546)	555	-	-	10,004
Shinhan-Time mezzanine blind Fund	14,942	-	(1,630)	-	-	13,312
Capstone REITs No.26	4,395	(300)	(243)	-	-	3,852
JB Incheon-Bucheon REITS No.54	4,999	-	(10)	-	-	4,989
Hankook Smart Real Asset Investment Trust No.3	4,342	2,195	456	-	-	6,993
JB Hwaseong-Hadong REITs No.53	4,999	-	(8)	-	-	4,991
KB Oaktree Trust No.3	3,159	5,376	70	-	-	8,605
Daehan No.36 Office Asset Management Company	21,500	(635)	1,193	-	-	22,058
Rhinos Premier Mezzanine Private Investment Fund No.1	3,005	-	(132)	-	-	2,873
SH Real Estate Loan Investment Type Private Real Estate Investment Trust No.2	19,903	35,762	1,669	-	-	57,334
Shinhan JigaeNamsan Road Private Special Asset Investment Trust	40,105	(795)	1,261	-	-	40,571
SKS-Yozma Fund No.1	5,945	-	654	-	-	6,599
IBKC-METIS Global Contents Investment Fund	4,000	-	550	-	-	4,550
Keystone Unicorn Private Equity Fund	6,300	-	(51)	-	-	6,249
KB Distribution Private Real Estate 3-1	-	24,000	2,651	-	-	26,651
Pacific Private Investment Trust No.49-1	-	28,000	641	-	-	28,641
KIWOOM Real estate private placement fund for normal investors No. 31	-	8,474	84	-	-	8,558
RIFA Real estate private placement fund for normal investoes No. 51	-	5,650	76	-	-	5,726
Fivetree general private equity fund No.15	-	11,995	286	-	-	12,281
Shinhan-Kunicorn first Fund	-	10,000	(169)	-	-	9,831
Harvest Fund No.3	-	13,000	2,854	-	-	15,854
Shinhan Simone Fund I	-	5,000	(204)	-	-	4,796
Korea Investment develop seed Trust No.1	-	9,562	680	-	-	10,242
Tiger Green alpah Trust No.29	-	26,180	626	-	-	26,806
STIC ALT Global II Private Equity Fund	-	10,000	(141)	-	-	9,859
NH-Brain EV Fund	-	13,000	(1,408)	-	-	11,592
DDI LVC Master Real Estate Investment Trust Co., Ltd.	-	6,625	(220)	-	-	6,405
Find-Green New Deal 2nd Equity Fund	-	4,549	(41)	-	-	4,508
ShinhanFitrin 1st Technology Business Investment Association	-	4,850	(413)	-	-	4,437
PARATUS No.3 Private Equity Fund	-	5,000	(64)	-	-	4,936

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15. Investments in associates (continued)

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

Investees	December 31, 2022					
	Beginning balance	Investment and dividend	Equity method income (loss)	Change in other comprehensive income	Impairment loss	Ending balance
Golden Route 2nd Startup Venture Specialized Private Equity Fund	₩ -	3,000	3	-	-	3,003
Koramco Private Real Estate Fund 143	-	3,030	-	-	-	3,030
Korea Investment Top Mezzanine Private Real Estate Trust No.1	-	8,884	1,001	-	-	9,885
LB YoungNam Logistics Private Trust No.40	-	9,706	42	-	-	9,748
Shinhan-Cognitive Start-up Fund L.P.	-	9,200	753	-	-	9,953
IGEN2022 No.1 private Equity Fund	-	8,280	765	-	-	9,045
Cornerstone J&M Fund I	-	3,600	(39)	-	-	3,561
Logisvalley Shinhan REIT Co.,Ltd.	-	3,880	(60)	(16)	-	3,804
KDB Investment Global Healthcare Private Equity Fund I	-	35,000	(532)	-	-	34,468
Korea Investment Green Newdeal Infra Trust No.1	-	5,734	(20)	-	-	5,714
BTS 2nd Private Equity Fund	-	3,934	(162)	-	-	3,772
Shinhan Global Active REIT Co.Ltd.	-	19,900	(678)	-	-	19,222
NH-J&-IBKC Label Technology Fund	-	9,976	(110)	-	-	9,866
IMM Global Venture Opportunity, LP	-	3,115	-	-	-	3,115
Capstone Develop Frontier Trust	-	6,857	-	-	-	6,857
Nextrade Co., Ltd.	-	9,700	-	-	-	9,700
SH Sustainable Management ESG Short term Bond Security Feeder Investment Trust No.1	-	3,000	11	-	-	3,011
SH 1.5years Maturity Investment Type Security Investment Trust No.2	-	4,600	1	-	-	4,601
Eventus-IBKC LIB Fund	-	7,000	(965)	-	-	6,035
NH-Daishin-Kyobo healthcare 1 Fund	-	4,000	(52)	-	-	3,948
IBKC-Behigh Fund 1st	-	3,300	(32)	-	-	3,268
Nautic Green Innovation ESG Co-investment No.1 Private Equity Fund	-	4,000	(44)	-	-	3,956
ON No.1 Private Equity Fund	-	6,000	(638)	-	-	5,362
Digital New Deal Kappa Private Equity Fund	-	5,000	(54)	-	-	4,946
Others	170,811	50,920	12,089	-	(3,598)	230,222
	₩ 2,913,745	(105,125)	121,697	(24,238)	(1,605)	2,904,474

(*1) The Group has stopped recognizing its equity method income or loss due to the carrying value of '0' resulting from the investees' cumulative loss.

(*2) For the year ended December 31, 2022, it is incorporated into the consolidation target as the Group held control due to increased equity ratio and BNP Paribas Cardif General Insurance, Ltd. has changed its name to Shinhan EZ General Insurance, Ltd.

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15. Investments in associates (continued)

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

Investees	December 31, 2021					
	Beginning balance	Investment and dividend	Equity method income (loss)	Change in other comprehensive income	Impairment loss	Ending balance
BNP Paribas Cardif Life Insurance	₩ 50,600	-	(660)	(5,918)	-	44,022
Songrim Partners(*1)	-	-	-	-	-	-
Partners 4th Growth Investment Fund	11,958	(16,144)	12,525	4,694	-	13,033
KTB Newlake Global Healthcare PEF	9,404	-	8	-	-	9,412
Daekwang Semiconductor Co., Ltd.	3,631	(3,742)	113	(2)	-	-
Shinhan-Neoplux Energy Newbiz Fund	14,470	475	1,087	-	-	16,032
Shinhan-Albatross tech investment Fund	13,322	(9,000)	6,067	-	-	10,389
VOGO Debt Strategy Qualified IV Private	8,702	(1,733)	210	-	-	7,179
Shinhan-Midas Donga Secondary Fund	4,752	(500)	(301)	-	-	3,951
ShinHan – Soo Young Entrepreneur Investment Fund No.1	9,968	(7,879)	2,137	-	-	4,226
Shinhan Praxis K-Growth Global Private Equity Fund	9,945	(2,310)	126	-	-	7,761
Credian Healthcare Private Equity Fund II	5,835	(5,835)	-	-	-	-
Kiwoom Milestone Professional Private Real Estate Trust 19	9,918	(66)	(361)	-	(4,238)	5,253
AIP EURO Green Private Real Estate Trust No.3	21,021	(1,335)	10,017	-	-	29,703
Shinhan Global Healthcare Fund I(*1)	-	-	-	-	-	-
JB Power TL Investment Type Private Placement Special Asset Fund 7	16,186	(15,947)	(239)	-	-	-
KB NA Hickory Private Special Asset Fund	34,938	(2,266)	1,704	-	-	34,376
Koramco Europe Core Private Placement Real Estate Fund No.2-2	18,618	(1,204)	2,078	-	-	19,492
BNP Paribas Cardif General Insurance	3,895	176	(708)	(9)	-	3,354
Hermes Private Investment Equity Fund	6,099	(3,167)	6,850	-	-	9,782
Shinhan-Nvestor Liquidity Solution Fund	4,493	331	514	-	-	5,338
Shinhan AIM FoF Fund 1-A	8,760	(79)	475	-	-	9,156
IGIS Global Credit Fund 150-1	7,282	(3,246)	1,366	-	-	5,402
Partner One Value up I Private Equity Fund	11,779	(6,933)	3,045	-	-	7,891
Genesis No.1 Private Equity Fund	80,113	388	(24,968)	-	-	55,533
Korea Omega Project Fund III	3,563	-	727	-	-	4,290
Soo Delivery Platform Growth Fund	4,068	-	1,805	-	-	5,873
Genesis North America Power Company No.1 PEF	16,983	(5,229)	1,982	-	-	13,736
Hyungje art printing(*2)	-	-	-	-	-	-
SH MAIN Professional Investment Type Private Mixed Asset Investment Trust No.3	10,582	24,500	6,467	-	-	41,549
Korea Finance Security	3,055	-	(61)	-	-	2,994
Multimedia Tech Co.Ltd.(*2)	-	-	-	-	-	-
MIEL CO.,LTD.(*1)	-	-	-	-	-	-

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15. Investments in associates (continued)

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

Investees	December 31, 2021					
	Beginning balance	Investment and dividend	Equity method income (loss)	Change in other comprehensive income	Impairment loss	Ending balance
AIP Transportation Specialized Privately Placed Fund Trust #1 ₩	32,993	347	1,348	-	-	34,688
DB Epic Convertiblebond Private Trust No.2	5,785	(5,538)	(247)	-	-	-
E&Healthcare Investment Fund No.6	15,163	(3,431)	(4,866)	-	-	6,866
One Shinhan Global Fund 1	4,029	(519)	263	-	-	3,773
Kiwoom-Shinhan Innovation Fund I	15,969	(5,150)	912	-	-	11,731
Daishin-K&T New Technology Investment Fund	7,000	-	991	-	-	7,991
Midas Asset Global CRE Debt Private Fund No.6	47,389	(2,701)	3,617	-	-	48,305
Richmond Private Investment Trust No.82	15,049	(19,411)	4,362	-	-	-
Tiger Alternative Real Estate Professional Private5	18,499	(20,848)	2,349	-	-	-
Samchully Midstream Private Placement Special Asset Fund 5-4	28,818	(843)	(504)	-	-	27,471
SH Senior Loan Professional Investment Type Private Mixed Asset Investment Trust No.3	65,616	(41,622)	1,210	-	-	25,204
NH-Amundi Global Infrastructure Trust 14	18,819	(1,609)	1,091	-	-	18,301
Jarvis Memorial Private Investment Trust 1	10,043	(700)	766	-	-	10,109
Mastern Private Private Investment Trust 68	10,010	(10,332)	322	-	-	-
Vestas Qualified Investors Private Real Estate Fund Investment Trust No.37	35,641	(4,981)	2,493	-	-	33,153
Milestone Private Real Estate Fund 3	18,528	(472)	488	-	-	18,544
IGIS Private Real Estate Investment Trust 286	8,844	(9,176)	332	-	-	-
Nomura-Rifa Private Real Estate Investment Trust 31	8,407	(705)	200	-	-	7,902
SH Senior Loan Professional Investment Type Private Mixed Asset Investment Trust No.2	13,323	(3,511)	424	-	-	10,236
Hana Semiconductor New Technology Fund	24,131	(26,129)	1,998	-	-	-
J&Magnet Startup Venture Specialized Private Equity Fund	5,935	(7,247)	1,312	-	-	-
Cape IT Fund No.3	10,649	(580)	(4)	-	-	10,065
FuturePlay-Shinhan TechInnovation Fund 1	4,295	3,025	(171)	-	-	7,149
Stonebridge Corporate 1st Fund	3,239	-	(275)	-	-	2,964
Vogo Realty Partners Private Real Estate Fund V	10,827	(681)	620	-	-	10,766
Korea Credit Bureau	6,976	(90)	809	-	-	7,695
Goduck Gangill PFV Co., Ltd.(*1)	-	-	-	-	-	-
SBC PFV Co., Ltd.	18,208	12,499	(1,121)	-	-	29,586
NH-amundi global infra private fund 16	43,839	346	7,823	-	-	52,008
IMM Global Private Equity Fund	120,855	(10,462)	8,222	-	-	118,615

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15. Investments in associates (continued)

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

Investees	December 31, 2021					
	Beginning balance	Investment and dividend	Equity method income (loss)	Change in other comprehensive income	Impairment loss	Ending balance
HANA Alternative Estate Professional Private122	₩ 29,631	(1,001)	859	-	-	29,489
Hanwha-Incus Plus New Technology Fund No.1	11,026	(8,284)	(2,742)	-	-	-
SH Corporate Professional Investment Type Private Security Investment Trust No.7	51,210	(1,518)	207	-	-	49,899
SH BNCT Professional Investment Type Private Special Asset Investment Trust	286,531	(15,191)	10,859	-	-	282,199
PSA EMP Private Equity Fund	9,814	(9,755)	(59)	-	-	-
Deutsche Global Professional Investment Type Private Real Estate Investment Trust No. 24	29,401	(2,630)	1,541	-	-	28,312
BRAIN DO PROFESSIONALE PRIVATE No. 27	3,441	(3,048)	583	-	-	976
UI Venture Fund 7th	3,279	(3,269)	(10)	-	-	-
Sparklabs-Shinhan Opportunity Fund 1	4,832	-	(192)	-	-	4,640
BNW Tech-Innovation Private Equity Fund	5,942	-	(61)	-	-	5,881
IGIS Real-estate Private Investment Trust No.33	14,099	(714)	499	-	-	13,884
Findvalue PreIPO 6th Professional Investment Type Private Investment Trust	3,002	(3,301)	299	-	-	-
WWG Global Real Estate Investment Trust no.4	17,752	(7,855)	747	-	-	10,644
Goduck Gangil10 PFV Co., Ltd(*1)	32	-	(32)	-	-	-
Fidelis Global Private Real Estate Trust No.2	19,485	(911)	1,199	-	-	19,773
IGIS PRIVATE REAL ESTATE TRUST NO.331	3,765	(3,765)	-	-	-	-
AIP EURO PRIVATE REAL ESTATE TRUST No. 12	48,344	(5,436)	6,309	-	-	49,217
Shinhan Healthcare Fund 2(*1)	986	-	(75)	-	(911)	-
Pebblestone CGV Private Real Estate Trust No.1	13,346	(748)	1,112	-	-	13,710
SH Corporate Professional Investment Type Private Security Investment Trust No.45	-	174,154	(199)	-	-	173,955
Shinhan AIM Real Estate Fund No.2	22,464	1,911	(1,100)	-	-	23,275
Shinhan AIM Real Estate Fund No.1	46,945	(4,412)	1,779	-	-	44,312
SH Daegu Green Power Cogeneration System Professional Investment Type Private Special Asset Investment Trust	32,944	(911)	915	-	-	32,948
SH Sangju YC Expressway Professional Investment Type Private Special Asset Investment Trust	20,902	7	(359)	-	-	20,550
SH Global Infrastructure Professional Investment Type Private Special Asset Investment Trust No.7-2	6,692	13,667	(1,504)	-	-	18,855
SH Japan Photovoltaic Private Special Asset Investment Trust No.1	4,845	(4,845)	-	-	-	-
Korea Omega-Shinhan Project Fund I	5,931	2,000	(687)	-	-	7,244
ST-Bonanja Food tech	1,993	-	1,366	-	-	3,359
New Green Shinhan Mezzanine Fund	4,916	(5,622)	706	-	-	-
KORAMKO-Daum Professional Private Investment Trust No.12	7,528	(7,756)	228	-	-	-

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15. Investments in associates (continued)

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

Investees	December 31, 2021					
	Beginning balance	Investment and dividend	Equity method income (loss)	Change in other comprehensive income	Impairment loss	Ending balance
Samsung SRA Real Estate Professional Private 45	₩ 10,666	2,656	(442)	-	-	12,880
IBK Global New Renewable Energy Special Asset Professional Private2	32,349	(1,988)	1,526	-	-	31,887
VS Cornerstone Fund	3,464	-	(54)	-	-	3,410
Aone Mezzanine Opportunity Professional Private	9,580	(28)	(12)	-	-	9,540
Kiwoom Unicorn3 New Technology Business Investment Fund	4,283	(3,633)	(650)	-	-	-
Multi Asset The United States Thortons Professional Private1	41,440	(41,607)	167	-	-	-
Kiwoom Milestone US Real Estate Professional Private20	51,512	(51,512)	-	-	-	-
NH-Amundi US Infrastructure Private Fund2	25,430	207	1,387	-	-	27,024
KB Distribution Private Real Estate1	30,698	(1,423)	1,419	-	-	30,694
SH Jigae Namsan BTO professional Investment Type Private Special Asset Investment Trust	20,712	(22,293)	1,581	-	-	-
SH Japan Photovoltaic Private Special Asset Investment Trust No.2	29,149	(16,798)	665	-	-	13,016
Kakao-Shinhan 1st TNYT Fund	5,681	9,000	(184)	-	-	14,497
IMM Special Situation 1-2 PRIVATE EQUITY FUND	10,870	(160)	883	-	-	11,593
Pacific Private Placement Real Estate Fund No.40	11,647	(747)	698	-	-	11,598
Mastern Private Real Estate Loan Fund No.2	5,692	1,429	370	-	-	7,491
LB Scotland Amazon Fulfillment Center Fund 29	31,182	(1,734)	1,820	-	-	31,268
JR AMC Hungary Budapest Office Fund 16	12,204	(821)	757	-	-	12,140
IGIS 372 Real Estate Professional Private	56,835	(56,835)	-	-	-	-
EDNCENTRAL Co.,Ltd.(*1)	1,040	-	(1,040)	-	-	-
KoFC-Neoplux R&D-Biz Creation 2013-1 Venture Capital Fund	3,830	(8,388)	4,558	-	-	-
Future-Creation Neoplux Venture Capital Fund	3,796	(995)	216	-	-	3,017
Gyeonggi-Neoplux Superman Fund	6,399	(2,257)	3,736	-	-	7,878
NewWave 6th Fund	6,150	7,575	730	-	-	14,455
KTC-NP Growth Champ 2011-2 Private Equity Fund	2,853	-	1,137	-	-	3,990
Neoplux No.3 Private Equity Fund	10,295	10,182	2,124	-	-	22,601
PCC Amberstone Private Equity Fund I	22,480	(2,356)	2,666	-	-	22,790
KIAMCO POWERLOAN TRUST 4TH	43,955	(164)	1,510	-	-	45,301

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

Investees	December 31, 2021					
	Beginning balance	Investment and dividend	Equity method income (loss)	Change in other comprehensive income	Impairment loss	Ending balance
Mastern Opportunity Seeking Real Estate Fund II	₩ 19,799	(737)	2,255	-	-	21,317
AION ELFIS PROFESSIONAL PRIVATE 1	5,528	(1,350)	244	-	-	4,422
T&F 2020 SS Private Equity Fund Specializing in Start-up and Venture Business	4,453	-	(93)	-	-	4,360
Neoplux Market-Frontier Secondary Fund	11,545	(614)	382	-	-	11,313
Harvest Private Equity Fund II	2,982	-	499	-	-	3,481
Synergy Green New Deal 1st New Technology Business Investment Fund	10,008	(247)	(77)	-	-	9,684
KAIM Real-estate Private Investment Trust 20	5,098	(350)	300	-	-	5,048
KIAMCO Vietnam Solar Special Asset Private Investment Trust	7,948	(1,112)	691	-	-	7,527
Daishin New Technology Investment Fund 5th	2,850	-	1,589	-	-	4,439
CSQUARE SNIPER PROFESSIONAL PRIVATE 10	3,125	-	122	-	-	3,247
Acurus Hyundai Investment Partners New Technology	2,927	-	1,787	-	-	4,714
IGIS GLIP Professional Investment Private Real Estate Investment Trust No. 1-1	44,594	4,103	11,371	3,876	-	63,944
IGIS GLIP Professional Investment Private Real Estate Investment Trust No. 1-2	44,594	4,103	11,371	3,876	-	63,944
Pacific Sunny Professional Investors Private Placement Real Estate Investment Company No.45	15,855	-	(1,077)	-	-	14,778
IGIS Professional Investors Private Investment Real Estate Investment LLC No.395	29,644	(29,644)	-	-	-	-
SHINHAN-NEO Core Industrial Technology Fund	1,979	3,960	(248)	-	-	5,691
SHBNPP Green New Deal Energy Professional Investment Type Private Special Asset Investment Trust No.2	21,142	5,271	830	-	-	27,243
SIMONE Mezzanine Fund No.3	2,980	-	74	-	-	3,054
Eum Private Equity Fund No.7	7,872	121	(120)	-	-	7,873
Kiwoom Private Equity Ant-Man Startup Venture Specialized Private Equity Fund	5,034	-	2,560	-	-	7,594
Kiwoom Hero No.4 Private Equity Fund	4,707	-	(402)	-	-	4,305
Vogo Canister Professional Trust Private Fund I	43,975	(4,712)	1,809	-	-	41,072
SW-S Fund	-	7,000	(276)	-	-	6,724
CL Buyout 1st PEF	-	13,875	(84)	-	-	13,791
Timefolio The Venture-V second	-	4,000	572	-	-	4,572
Newlake Growth Capital Partners2 PEF	-	13,000	(79)	-	-	12,921
Shinhan Smilegate Global PEF I	-	3,376	(40)	-	-	3,336
Fount Professional Investors Private Investment Trust No.3	-	5,000	197	-	-	5,197
Genesis Eco No.1 PEF	-	11,292	(162)	-	-	11,130

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15. Investments in associates (continued)

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

Investees	December 31, 2021					
	Beginning balance	Investment and dividend	Equity method income (loss)	Change in other comprehensive income	Impairment loss	Ending balance
SHINHAN-NEO Market-Frontier 2nd Fund(*3)	₩ -	25,620	(1,014)	-	-	24,606
NH-Synergy Core Industrial New Technology Fund	-	6,500	(63)	-	-	6,437
J& Moorim Jade Investment Fund	-	5,500	40	-	-	5,540
Ulmus SHC innovation investment fund	-	5,000	192	-	-	5,192
Mirae Asset Partners X Private Equity Fund	-	8,000	(142)	-	-	7,858
T Core Industrial Technology 1st Venture PEF	-	4,500	35	-	-	4,535
Curious Finale Corporate Recovery Private Equity Fund	-	3,377	313	-	-	3,690
TI First Property Private Investment Trust 1	-	2,879	176	-	-	3,055
MPLUS Professional Private Real Estate Fund 25	-	3,010	280	-	-	3,290
IBKC Global Contents Investment Fund	-	5,000	(57)	-	-	4,943
Nautic Smart No.6 Private Equity Fund	-	4,000	(26)	-	-	3,974
Premier Luminous Private Equity Fund	-	7,095	(104)	-	-	6,991
Hanyang-Meritz 1 Fund	-	3,500	(17)	-	-	3,483
KNT 2ND PRIVATE EQUITY FUND	-	3,000	1,157	-	-	4,157
Maple Mobility Fund	-	9,274	(591)	-	-	8,683
AVES 1st Corporate Recovery Private Equity Fund	-	4,800	(64)	-	-	4,736
JS Shinhan Private Equity Fund	-	5,076	(39)	-	-	5,037
Daishin Newgen New Technology Investment Fund 1 st	-	8,000	4,169	-	-	12,169
META ESG Private Equity Fund I	-	5,726	(49)	-	-	5,677
SWFV FUND-1	-	9,700	(54)	-	-	9,646
PHAROS DK FUND	-	4,000	(51)	-	-	3,949
Shinhan VC tomorrow venture fund 1	-	9,113	(71)	-	-	9,042
Highland 2021-8 Fund	-	4,900	(1)	-	-	4,899
Medicii 2021-3 Fund	-	9,752	(24)	-	-	9,728
Tres-Yujin Trust	-	10,000	(5)	-	-	9,995
Shinhan-Time mezzanine blind Fund	-	15,000	(58)	-	-	14,942
Capstone REITs No.26	-	4,849	(454)	-	-	4,395

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15. Investments in associates (continued)

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

Investees	December 31, 2021					
	Beginning balance	Investment and dividend	Equity method income (loss)	Change in other comprehensive income	Impairment loss	Ending balance
JB Incheon-Bucheon REITS No.54	₩ -	5,000	(1)	-	-	4,999
Hankook Smart Real Asset Investment Trust No.3	-	4,173	169	-	-	4,342
JB Hwaseong-Hadong REITs No.53	-	5,000	(1)	-	-	4,999
KB Oaktree Trust No.3	-	3,141	18	-	-	3,159
Daehan No.36 Office Asset Management Company	-	21,500	-	-	-	21,500
Rhinos Premier Mezzanine Private Investment Fund No.1	-	3,000	5	-	-	3,005
SH Real Estate Loan Investment Type Private Real Estate Investment Trust No.2	-	19,426	477	-	-	19,903
Shinhan JigaeNamsan Road Private Special Asset Investment Trust	-	39,996	109	-	-	40,105
SKS-Yozma Fund No.1	-	6,000	(55)	-	-	5,945
IBKC-METIS Global Contents Investment Fund	-	4,000	-	-	-	4,000
Keystone Unicorn Private Equity Fund	-	6,300	-	-	-	6,300
Others	121,040	63,729	5,881	(3)	(5,570)	185,077
	₩ 2,657,768	101,582	158,600	6,514	(10,719)	2,913,745

(*1) The Group has stopped recognizing its equity method income or loss due to the carrying value of '0' resulting from the investees' cumulative loss.

(*2) For the year ended December 31, 2021, the Group has stopped recognizing its equity method income or loss to accumulated deficits and the shares are retired for the year ended December 31, 2021.

(*3) Classified as investments in associates without cash transactions.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

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15. Investments in associates (continued)

(c) The statement of financial information as of and for the years ended December 31, 2022 and 2021 are as follows:

Investees	December 31, 2022						
	Asset	Liability	Operating revenue	Net profit (loss)	Other comprehensive income (loss)	Total comprehensive income (loss)	
BNP Paribas Cardif Life Insurance	₩ 2,528,558	2,327,352	47,631	(11,901)	(80,527)	(92,428)	
Partners 4th Growth Investment Fund	54,661	496	14,432	27,663	(18,774)	8,889	
KTB Newlake Global Healthcare PEF	21,000	55	3,091	2,996	-	2,996	
Shinhan-Neoplux Energy Newbiz Fund	66,792	978	3,371	21,618	-	21,618	
Shinhan-Albatross tech investment Fund	24,870	363	1,469	10,429	(383)	10,046	
Meritz AI-SingA330-A Investment Type Private Placement Special Asset Fund	17,718	2	14,888	14,888	-	14,888	
Meritz AI-SingA330-B Investment Type Private Placement Special Asset Fund	8,569	6	1,267	1,265	-	1,265	
VOGO Debt Strategy Qualified IV Private	30,440	20	3,963	1,691	-	1,691	
Shinhan -Midas Dong-A Secondary Fund	8,863	-	3,749	3,011	-	3,011	
ShinHan – Soo Young Entrepreneur Investment Fund No.1	18,660	269	1,056	784	-	784	
Shinhan Praxis K-Growth Global Private Equity Fund	26,086	4	32,477	31,394	-	31,394	
Kiwoom Milestone Professional Private Real Estate Trust 19	46,585	38,663	2,605	(2,584)	-	(2,584)	
Shinhan Global Healthcare Fund 1	40	4,558	-	(1,406)	-	(1,406)	
KB NA Hickory Private Special Asset Fund	91,617	45	17,394	8,543	-	8,543	
Koramco Europe Core Private Placement Real Estate Fund No.2-2	45,492	1,798	7,431	574	-	574	
Hermes Private Investment Equity Fund	19,078	7	-	(14,465)	-	(14,465)	
KDBC-Midas Dong-A Global contents Fund	18,412	19	7,110	5,689	-	5,689	
Shinhan-Nvestor Liquidity Solution Fund	26,085	249	2,297	1,607	-	1,607	
Shinhan AIM FoF Fund 1-A	40,471	27	16,497	3,617	-	3,617	
IGIS Global Credit Fund 150-1	18,779	14	5,436	2,223	-	2,223	
Partner One Value up I Private Equity Fund	18,496	68	1,281	(9,798)	-	(9,798)	
Genesis No.1 Private Equity Fund	262,825	2	19,226	17,898	-	17,898	
Korea Omega Project Fund III	15,610	-	-	(2,624)	-	(2,624)	
Genesis North America Power Company No.1 PEF	20,898	138	20,864	20,155	-	20,155	
SHBNPP MAIN Professional Investment Type Private Mixed Asset Investment Trust No.3	185,777	444	-	(44,452)	-	(44,452)	
MIEL CO.,LTD.	422	565	36	(1)	-	(1)	
AIP Transportation Specialized Privately Placed Fund Trust #1	125,545	86	7,398	(3,978)	-	(3,978)	
E&Healthcare Investment Fund No.6	2,839	-	3,243	(14,623)	-	(14,623)	

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15. Investments in associates (continued)

(c) The statement of financial information as of and for the years ended December 31, 2022 and 2021 are as follows(continued):

Investees	December 31, 2022						
	Asset	Liability	Operating revenue	Net profit (loss)	Other comprehensive income (loss)	Total comprehensive income (loss)	
One Shinhan Global Fund 1	₩ 9,575	80	-	(6,263)	-	(6,263)	
Kiwoom-Shinhan Innovation Fund I	19,130	249	1,545	(1,581)	-	(1,581)	
Midas Asset Global CRE Debt Private Fund No.6	139,200	662	10,515	6,925	-	6,925	
Samchully Midstream Private Placement Special Asset Fund 5-4	71,399	47	16,238	(4,512)	-	(4,512)	
SHBNPP Senior Loan Professional Investment Type Private Mixed Asset Investment Trust No.3	122,479	23	4,534	1,007	-	1,007	
NH-Amundi Global Infrastructure Trust 14	69,933	14	14,823	3,201	-	3,201	
Jarvis Memorial Private Investment Trust 1	9,887	4	384	380	-	380	
Vestas Qualified Investors Private Real Estate Fund Investment Trust No.37	55,618	20	15,784	379	-	379	
Milestone Private Real Estate Fund 3 (Derivative Type)	59,697	212	1,865	(4,045)	-	(4,045)	
RIFA Real estate private placement fund for normal investors No. 31	95,314	71,795	13,708	108	-	108	
SHBNPP Senior Loan Professional Investment Type Private Mixed Asset Investment Trust No.2	13,967	6	2,226	(9,585)	-	(9,585)	
T&F 2019 bearing Private Equity Fund Specializing in Start-up and Venture Business	11,446	6	1,527	1,333	-	1,333	
FuturePlay-Shinhan TechInnovation Fund 1	13,832	-	2	(465)	-	(465)	
Stonebridge Corporate 1st Fund	8,211	-	1,575	1,493	-	1,493	
Vogo Realty Partners Private Real Estate Fund V	50,529	83	3,851	3,637	-	3,637	
Korea Credit Bureau	144,765	88,766	141,445	(29,498)	-	(29,498)	
Goduck Gangil1 PFV Co., Ltd.	212,608	206,893	187,295	21,478	-	21,478	
SBC PFV Co., Ltd.	424,242	290,391	-	(4,471)	-	(4,471)	
NH-amundi global infra private fund 16	112,489	66	32,982	22,026	-	22,026	
IMM Global Private Equity Fund	451,407	4,821	25,234	(48,679)	-	(48,679)	
SHBNPP BNCT Professional Investment Type Private Special Asset Investment Trust	362,896	66	10,788	(18,077)	-	(18,077)	
Deutsche Global Professional Investment Type Private Real Estate Investment Trust No. 24	43,941	552	25,185	2,665	-	2,665	
Sparklabs-Shinhan Opportunity Fund 1	9,356	-	1,951	1,652	-	1,652	
BNW Tech-Innovation Private Equity Fund	20,303	763	92	(161)	-	(161)	
IGIS Real-estate Private Investment Trust No.33	89,582	53,964	5,202	3,387	-	3,387	
WWG Global Real Estate Investment Trust no.4	34,970	11	4,402	1,169	-	1,169	
Goduck Gangil10 PFV Co., Ltd.	179,923	163,660	210,961	24,625	-	24,625	
Fidelis Global Private Real Estate Trust No.2	30,217	32	-	(821)	-	(821)	
AIP EURO PRIVATE REAL ESTATE TRUST No. 12	169,704	969	17,932	13,514	-	13,514	
Shinhan Global Healthcare Fund 2	32	192	1	(75)	-	(75)	

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15. Investments in associates (continued)

(c) The statement of financial information as of and for the years ended December 31, 2022 and 2021 are as follows(continued):

Investees	December 31, 2022						
	Asset	Liability	Operating revenue	Net profit (loss)	Other comprehensive income (loss)	Total comprehensive income (loss)	
Shinhan AIM Real Estate Fund No.2 ₩	84,946	806	10,262	(4,595)	-	(4,595)	
Shinhan AIM Real Estate Fund No.1	239,734	27,259	15,006	11,925	-	11,925	
SHBNPP Daegu Green Power Cogeneration System Professional Investment Type Private Special Asset Investment Trust	148,236	75	4,456	2,688	-	2,688	
SHBNPP Sangju YC Expressway Professional Investment Type Private Special Asset Investment Trust	66,408	301	655	(4,315)	-	(4,315)	
SHBNPP Global Infrastructure Professional Investment Type Private Special Asset Investment Trust No.7-2	34,479	42	4,149	2,310	-	2,310	
Korea Omega-Shinhan Project Fund I	20,043	-	1,776	1,555	-	1,555	
ST-Bonanja Food tech	6,775	-	202	(275)	-	(275)	
Samsung SRA Real Estate Professional Private 45[FoFs]	93,284	7,161	5,721	(7,106)	-	(7,106)	
IBK Global New Renewable Energy Special Asset Professional Private2	115,311	41	8,791	8,504	-	8,504	
VS Cornerstone Fund	8,098	-	1	(131)	-	(131)	
Aone Mezzanine Opportunity Professional Private	8,006	229	992	729	-	729	
NH-Amundi US Infrastructure Private Fund2	123,363	72	32,302	9,571	-	9,571	
SHBNPP Japan Photovoltaic Private Special Asset Investment Trust No.2	21,202	99	6,709	2,901	-	2,901	
Kakao-Shinhan 1st TNYT Fund	44,003	134	14,778	14,054	-	14,054	
IMM Special Situation 1-2 PRIVATE EQUITY FUND	13,058	39	6,499	(1,494)	-	(1,494)	
Pacific Private Placement Real Estate Fund No.40	145,569	98,572	4,155	3,122	-	3,122	
Mastern Private Real Estate Loan Fund No.2	19,200	175	919	759	-	759	
LB Scotland Amazon Fulfillment Center Fund 29	42,291	39	2,226	795	-	795	
JR AMC Hungary Budapest Office Fund 16	38,247	-	3,493	3,493	-	3,493	
EDNCENTRAL Co.,Ltd.	114,856	138,293	1,193	(9,338)	-	(9,338)	
Future-Creation Neoplux Venture Capital Fund	30,109	3,949	13,584	7,591	-	7,591	
Gyeonggi-Neoplux Superman Fund	25,739	623	12,768	(5,587)	-	(5,587)	
NewWave 6th Fund	45,981	849	2,167	(3,053)	-	(3,053)	
KTC-NP Growth Champ 2011-2 Private Equity Fund	27,070	5,349	463	(5,288)	-	(5,288)	
Neoplux No.3 Private Equity Fund	207,723	3,194	10,686	(21,454)	-	(21,454)	
PCC Amberstone Private Equity Fund I	89,577	2,892	9,177	(10,097)	-	(10,097)	
KIAMCO POWERLOAN TRUST 4TH	91,908	24	5,024	1,117	-	1,117	
Mastern Opportunity Seeking Real Estate Fund II	73,584	40	13,201	(2,950)	-	(2,950)	
AION ELFIS PROFESSIONAL PRIVATE I	17,833	2	395	(4,280)	-	(4,280)	

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15. Investments in associates (continued)

(c) The statement of financial information as of and for the years ended December 31, 2022 and 2021 are as follows(continued):

Investees	December 31, 2022						
	Asset	Liability	Operating revenue	Net profit (loss)	Other comprehensive income (loss)	Total comprehensive income (loss)	
T&F 2020 SS Private Equity Fund Specializing in Start-up and Venture Business	₩ 19,257	22	10,655	10,381	-	10,381	
Neoplux Market-Frontier Secondary Fund	71,633	904	29,131	16,720	-	16,720	
Harvest Private Equity Fund II	14,387	157	119	(831)	-	(831)	
Synergy Green New Deal 1st New Technology Business Investment Fund	37,743	-	4,283	3,883	-	3,883	
KAIM Real-estate Private Investment Trust 20	3,089	-	820	820	-	820	
KIAMCO Vietnam Solar Special Asset Private Investment Trust	13,473	18	5,271	2,438	-	2,438	
Daishin New Technology Investment Fund 5th	10,384	15	227	107	-	107	
SHINHAN-NEO Core Industrial Technology Fund	19,037	124	136	(486)	-	(486)	
SHBNPP Green New Deal Energy Professional Investment Type Private Special Asset Investment Trust No.2	83,453	36	3,580	1,158	-	1,158	
SIMONE Mezzanine Fund No.3	10,427	8	120	(129)	-	(129)	
Eum Private Equity Fund No.7	43,679	6	7,116	6,587	-	6,587	
Kiwoom Hero No.4 Private Equity Fund	16,731	26	399	191	(3,936)	(3,745)	
Vogo Canister Professional Trust Private Fund I	127,808	61	22,709	8,743	-	8,743	
SW-S Fund	23,919	-	1,978	1,728	-	1,728	
CL Buyout 1st PEF	60,144	214	1	(5,704)	-	(5,704)	
Timefolio The Venture-V second	19,764	-	-	(2,296)	-	(2,296)	
Newlake Growth Capital Partners2 PEF	42,358	592	-	(829)	-	(829)	
Shinhan Smilegate Global PEF I	28,792	-	6,610	6,118	-	6,118	
Genesis Eco No.1 PEF	39,363	4	657	1,400	-	1,400	
SHINHAN-NEO Market-Frontier 2nd Fund	81,123	513	8,166	2,985	-	2,985	
NH-Synergy Core Industrial New Technology Fund	17,269	-	-	100	-	100	
J& Moorim Jade Investment Fund	21,837	1	1,134	969	-	969	
Helios-KDBC Digital Contents 1st	14,518	87	3,529	3,272	-	3,272	
Ulmus SHC innovation investment fund	20,326	-	1	(1,275)	-	(1,275)	

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15. Investments in associates (continued)

(c) The statement of financial information as of and for the years ended December 31, 2022 and 2021 are as follows(continued):

Investees	December 31, 2022					
	Asset	Liability	Operating revenue	Net profit (loss)	Other comprehensive income (loss)	Total comprehensive income (loss)
Mirae Asset Partners X Private Equity Fund	₩ 21,850	33	2	(185)	-	(185)
T Core Industrial Technology 1st Venture PEF	14,405	12	208	(20)	-	(20)
Curious Finale Corporate Recovery Private Equity Fund	12,986	61	946	522	-	522
TI First Property Private Investment Trust 1	7,817	-	432	432	-	432
MPLUS Professional Private Real Estate Fund 25	12,395	2,242	686	686	-	686
IBKC Global Contents Investment Fund	18,739	78	-	(1,603)	-	(1,603)
Nautic Smart No.6 Private Equity Fund	3,212	91	2,718	2,531	-	2,531
Premier Luminous Private Equity Fund	35,763	63	10,762	10,534	-	10,534
Hanyang-Meritz 1 Fund	15,348	-	41	(74)	-	(74)
KNT 2ND PRIVATE EQUITY FUND	5,182	5	6,186	5,983	-	5,983
Kiwoom-Shinhan Innovation Fund 2	26,475	176	16	(947)	-	(947)
Maple Mobility Fund	83,540	1	40,442	40,066	-	40,066
SJ ESG Innovative Growth Fund	14,689	-	4,319	4,195	-	4,195
AVES 1st Corporate Recovery Private Equity Fund	6,641	3	431	422	-	422
JS Shinhan Private Equity Fund	128,728	1	12	(2,098)	-	(2,098)
NH Kyobo AI Solution Investment Fund	12,601	-	2,182	2,002	-	2,002
Daishin Newgen New Technology Investment Fund 1st	11,298	25	184	38	(8,314)	(8,276)
META ESG Private Equity Fund I	21,380	-	2	(341)	-	(341)
SWFV FUND-1	22,678	-	-	(1,287)	-	(1,287)
PHAROS DK FUND	15,918	32	-	(403)	-	(403)
Shinhan VC tomorrow venture fund 1	68,808	850	2,775	(645)	-	(645)
Highland 2021-8 Fund	14,924	154	-	(228)	-	(228)
H-IOTA Fund	38,933	149	356	(64)	-	(64)
Stonebridge-Shinhan Unicorn Secondary Fund	34,621	-	3	(866)	-	(866)

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15. Investments in associates (continued)

(c) The statement of financial information as of and for the years ended December 31, 2022 and 2021 are as follows(continued):

Investees	December 31, 2022						
	Asset	Liability	Operating revenue	Net profit (loss)	Other comprehensive income (loss)	Total comprehensive income (loss)	
Tres-Yujin Trust	₩ 20,010	3	1,114	1,111	-	1,111	
Shinhan-Time mezzanine blind Fund	26,625	-	42	(3,260)	-	(3,260)	
Capstone REITs No.26	16,709	9,006	-	(486)	-	(486)	
JB Incheon-Bucheon REITS No.54	12,695	5	2	(26)	-	(26)	
Hankook Smart Real Asset Investment Trust No.3	21,085	105	1,408	1,368	-	1,368	
JB Hwaseong-Hadong REITs No.53	16,090	6	2	(27)	-	(27)	
KB Oaktree Trust No.3	25,822	8	3,266	210	-	210	
Daehan No.36 Office Asset Management Company	141,037	96,073	5,231	2,047	-	2,047	
Rhinos Premier Mezzanine Private Investment Fund No.1	2,880	7	1,137	1,073	-	1,073	
SH Real Estate Loan Investment Type Private Real Estate Investment Trust No.2	192,904	53	11,005	5,638	-	5,638	
Shinhan JigaeNamsan Road Private Special Asset Investment Trust	163,349	82	5,679	5,076	-	5,076	
SKS-Yozma Fund No.1	22,110	-	2,505	2,196	-	2,196	
IBKC-METIS Global Contents Investment Fund	12,513	-	1	1,513	-	1,513	
Keystone Unicorn Private Equity Fund	22,318	-	-	(176)	-	(176)	
KB Distribution Private Real Estate 3-1	71,093	24	85	14	-	14	
Pacific Private Investment Trust No.49-1	36,126	-	-	(23)	-	(23)	
KIWOOM Real estate private placement fund for normal investors No. 31	14,278	14	435	260	-	260	
RIFA Real estate private placement fund for normal investoes No. 51	14,343	28	218	170	-	170	
Fivetree general private equity fund No.15	24,606	33	2,003	1,920	-	1,920	
Shinhan-Kunicorn first Fund	25,658	-	10	(442)	-	(442)	
Harvest Fund No.3	35,577	89	6,855	6,388	-	6,388	
Shinhan Simone Fund I	12,468	-	24	(532)	-	(532)	
Korea Investment develop seed Trust No.1	26,334	730	1,806	1,702	-	1,702	
Tiger Green alph Trust No.29	28,200	54	1,431	658	-	658	
STIC ALT Global II Private Equity Fund	45,480	130	2	(649)	-	(649)	
NH-Brain EV Fund	46,369	-	2	(5,631)	-	(5,631)	
DDI LVC Master Real Estate Investment Trust Co., Ltd.	42,665	43	-	(1,466)	-	(1,466)	
Find-Green New Deal 2nd Equity Fund	19,969	-	26	(181)	-	(181)	

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(c) The statement of financial information as of and for the years ended December 31, 2022 and 2021 are as follows(continued):

Investees	December 31, 2022					
	Asset	Liability	Operating revenue	Net profit (loss)	Other comprehensive income (loss)	Total comprehensive income (loss)
ShinhanFitrin 1st Technology Business Investment Association	₩ 27,520	76	1	(2,556)	-	(2,556)
PARATUS No.3 Private Equity Fund	19,372	123	-	(250)	-	(250)
Golden Route 2nd Startup Venture Specialized Private Equity Fund	13,272	58	73	14	-	14
Koramco Private Real Estate Fund 143	10,006	6	4	-	-	-
Korea Investment Top Mezzanine Private Real Estate Trust No.1	45,126	649	4,554	4,499	-	4,499
LB YoungNam Logistics Private Trust No.40	39,001	9	191	169	-	169
Shinhan-Cognitive Start-up Fund L.P.	30,744	386	899	384	-	384
IGEN2022 No.1 private Equity Fund	32,483	122	3,166	2,737	-	2,737
Cornerstone J&M Fund I	13,355	2	1	(147)	-	(147)
Logisvalley Shinhan REIT Co.,Ltd.	79,248	55,619	1,000	(296)	-	(296)
KDB Investment Global Healthcare Private Equity Fund I	143,070	276	-	(2,206)	-	(2,206)
Korea Investment Green Newdeal Infra Trust No.1	20,438	7	-	(70)	-	(70)
BTS 2nd Private Equity Fund	15,018	513	1	(625)	-	(625)
Shinhan Global Active REIT Co.Ltd.	192,742	98,372	-	(1,703)	-	(1,703)
NH-J&-IBKC Label Technology Fund	35,481	4	2	(123)	-	(123)
IMM Global Venture Opportunity, LP	8,775	-	-	-	-	-
Capstone Develop Frontier Trust	32,000	-	-	-	-	-
Nextrade Co., Ltd.	141,561	140	-	(2,323)	-	(2,323)
SH Sustainable Management ESG Short term Bond Security Feeder Investment Trust No.1	11,196	2	72	49	-	49
SH 1.5years Maturity Investment Type Security Investment Trust No.2	15,865	-	4	4	-	4
Eventus-IBKC LIB Fund	27,617	27	6	(4,409)	-	(4,409)
NH-Daishin-Kyobo healthcare 1 Fund	15,792	-	17	(208)	-	(208)
IBKC-Behigh Fund 1st	10,992	-	1	(108)	-	(108)
Nautic Green Innovation ESG Co-investment No.1 Private Equity Fund	16,569	150	1	(181)	-	(181)
ON No.1 Private Equity Fund	18,767	-	-	(2,233)	-	(2,233)
Digital New Deal Kappa Private Equity Fund	16,569	149	1	(180)	-	(180)

(*) Excluded the financial information of associates that are not subject to equity method due to disposal or of which the financial information is not available as of end of the year.

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(c) The statement of financial information as of and for the years ended December 31, 2022 and 2021 are as follows(continued):

Investees	December 31, 2021						
	Asset	Liability	Operating revenue	Net profit (loss)	Other comprehensive income (loss)	Total comprehensive income (loss)	
BNP Paribas Cardif Life Insurance ₩	3,268,153	2,974,519	48,207	(4,499)	(39,454)	(43,953)	
Songrim Partners	1,003	1,065	548	-	-	-	
Partners 4th Growth Investment Fund	60,073	7,939	52,019	50,100	18,774	68,874	
KTB Newlake Global Healthcare PEF	30,969	161	552	27	-	27	
Shinhan-Neoplux Energy Newbiz Fund	66,213	1,002	20,575	18,016	-	18,016	
Shinhan-Albatross tech investment Fund	20,677	464	12,058	10,912	-	10,912	
VOGO Debt Strategy Qualified IV Private	35,919	23	5,393	1,138	-	1,138	
Shinhan-Midas Donga Secondary Fund	7,902	-	72	(602)	-	(602)	
ShinHan – Soo Young Entrepreneur Investment Fund No.1	17,960	352	27,318	8,906	-	8,906	
Shinhan Praxis K-Growth Global Private Equity Fund	41,193	60	1,217	669	-	669	
Kiwoom Milestone Professional Private Real Estate Trust 19	49,101	38,596	2,505	(9,199)	-	(9,199)	
AIP EURO Green Private Real Estate Trust No.3	219,110	79,534	52,789	47,070	-	47,070	
Shinhan Global Healthcare Fund 1	43	3,507	-	(1,414)	-	(1,414)	
KB NA Hickory Private Special Asset Fund	91,752	84	15,540	4,502	-	4,502	
Koramco Europe Core Private Placement Real Estate Fund No.2-2	46,169	1,894	7,743	4,719	-	4,719	
BNP Paribas Cardif General Insurance	140,179	78,748	61,951	(6,872)	(28)	(6,900)	
Hermes Private Investment Equity Fund	33,545	8	23,536	23,486	-	23,486	
Shinhan-Nvestor Liquidity Solution Fund	21,420	-	2,169	2,064	-	2,064	
Shinhan AIM FoF Fund 1-A	36,651	28	4,527	(1,466)	-	(1,466)	
IGIS Global Credit Fund 150-1	21,625	16	3,138	1,763	-	1,763	
Partner One Value up I Private Equity Fund	28,273	-	304	10,910	-	10,910	
Genesis No.1 Private Equity Fund	243,534	-	-	(109,494)	-	(109,494)	
Korea Omega Project Fund III	18,234	-	3,154	3,093	-	3,093	
Soo Delivery Platform Growth Fund	19,578	-	6,243	6,018	-	6,018	
Genesis North America Power Company No.1 PEF	34,626	316	11,654	4,951	-	4,951	
SH MAIN Professional Investment Type Private Mixed Asset Investment Trust No.3	178,427	358	28,997	27,719	-	27,719	
Korea Finance Security	35,044	14,966	63,693	(412)	-	(412)	
MIEL CO.,LTD.	491	632	36	(56)	-	(56)	

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15. Investments in associates (continued)

(c) The statement of financial information as of and for the years ended December 31, 2022 and 2021 are as follows(continued):

Investees	December 31, 2021						
	Asset	Liability	Operating revenue	Net profit (loss)	Other comprehensive income (loss)	Total comprehensive income (loss)	
AIP Transportation Specialized Privately Placed Fund Trust #1	₩ 104,512	7,415	16,239	3,773	-	3,773	
E&Healthcare Investment Fund No.6	32,615	-	17,133	(23,116)	-	(23,116)	
One Shinhan Global Fund 1	15,799	41	8,276	(1,280)	-	(1,280)	
Kiwoom-Shinhan Innovation Fund I	23,613	151	4,803	1,823	-	1,823	
Daishin-K&T New Technology Investment Fund	25,637	66	8,639	3,171	-	3,171	
Midas Asset Global CRE Debt Private Fund No.6	117,396	49	2,817	1,451	-	1,451	
Samchully Midstream Private Placement Special Asset Fund 5-4	65,966	35	11,141	(4,113)	-	(4,113)	
SH Senior Loan Professional Investment Type Private Mixed Asset Investment Trust No.3	126,043	23	6,544	6,048	-	6,048	
NH-Amundi Global Infrastructure Trust 14	61,005	1	4,134	4	-	4	
Jarvis Memorial Private Investment Trust 1	10,214	4	39	35	-	35	
Vestas Qualified Investors Private Real Estate Fund Investment Trust No.37	55,273	19	6,500	23	-	23	
Milestone Private Real Estate Fund 3	57,956	114	1,880	1,522	-	1,522	
Nomura-Rifa Private Real Estate Investment Trust 31	97,211	72,103	7,364	639	-	639	
SH Senior Loan Professional Investment Type Private Mixed Asset Investment Trust No.2	48,157	33	2,106	1,991	-	1,991	
Cape IT Fund No.3	30,651	52	2,100	(11)	-	(11)	
FuturePlay-Shinhan TechInnovation Fund 1	14,297	-	3	(342)	-	(342)	
Stonebridge Corporate 1st Fund	6,718	-	1	(622)	-	(622)	
Vogo Realty Partners Private Real Estate Fund V	49,842	82	2,110	(2,066)	-	(2,066)	
Korea Credit Bureau	129,478	43,981	121,982	8,988	-	8,988	
Goduck Gangil PFV Co., Ltd	301,513	317,276	88,085	(1,835)	-	(1,835)	
SBC PFV Co., Ltd.	334,262	175,976	-	(4,462)	-	(4,462)	
NH-amundi global infra private fund 16	297,837	193,821	25,560	14,770	-	14,770	
IMM Global Private Equity Fund	362,514	3,099	50,060	24,933	-	24,933	
HANA Alternative Estate Professional Private122	39,878	38	2,608	1,160	-	1,160	
SH Corporate Professional Investment Type Private Security Investment Trust No.7	268,037	167,939	3,231	415	-	415	
SH BNCT Professional Investment Type Private Special Asset Investment Trust	389,240	-	14,978	14,978	-	14,978	
Deutsche Global Professional Investment Type Private Real Estate Investment Trust No. 24	54,914	756	23,920	2,948	-	2,948	
BRAIN DO PROFESSIONALE PRIVATE No. 27	3,351	-	2,002	2,002	-	2,002	
Sparklabs-Shinhan Opportunity Fund 1	9,372	-	-	(388)	-	(388)	
BNW Tech-Innovation Private Equity Fund	20,215	513	95	(204)	-	(204)	

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15. Investments in associates (continued)

(c) The statement of financial information as of and for the years ended December 31, 2022 and 2021 are as follows(continued):

Investees	December 31, 2021					
	Asset	Liability	Operating revenue	Net profit (loss)	Other comprehensive income (loss)	Total comprehensive income (loss)
IGIS Real-estate Private Investment Trust No.33	₩ 87,790	53,808	1,123	440	-	440
WWG Global Real Estate Investment Trust no.4	36,030	11	2,538	293	-	293
Goduck Gangil10 PFV Co., Ltd	253,607	261,969	-	(8,526)	-	(8,526)
Fidelis Global Private Real Estate Trust No.2	25,271	6	1,575	1,532	-	1,532
AIP EURO PRIVATE REAL ESTATE TRUST No. 12	172,398	909	23,567	21,983	-	21,983
Shinhan Healthcare Fund 2	35	138	340	(7,310)	-	(7,310)
Pebblestone CGV Private Real Estate Trust No.1	64,667	36,415	7,147	2,350	-	2,350
Shinhan AIM Real Estate Fund No.2	79,162	1,580	9,672	(3,666)	-	(3,666)
Shinhan AIM Real Estate Fund No.1	226,809	15,901	20,209	8,467	-	8,467
SH Daegu Green Power Cogeneration System Professional Investment Type Private Special Asset Investment Trust	149,702	75	4,451	4,152	-	4,152
SH Sangju YC Expressway Professional Investment Type Private Special Asset Investment Trust	70,637	236	-	(1,231)	-	(1,231)
SH Global Infrastructure Professional Investment Type Private Special Asset Investment Trust No.7-2	26,429	33	2,310	(2,105)	-	(2,105)
Korea Omega-Shinhan Project Fund I	14,488	-	-	(1,373)	-	(1,373)
ST-Bonanja Food tech	8,650	-	3,666	3,519	-	3,519
Samsung SRA Real Estate Professional Private 45	56,083	4,564	3,833	(1,769)	-	(1,769)
IBK Global New Renewable Energy Special Asset Professional Private2	114,645	4,633	5,520	5,265	-	5,265
VS Cornerstone Fund	8,281	-	2	(132)	-	(132)
Aone Mezzanine Opportunity Professional Private	15,247	800	1,409	(18)	-	(18)
NH-Amundi US Infrastructure Private Fund2	104,374	61	6,769	5,351	-	5,351
KB Distribution Private Real Estate1	50,014	508	2,335	2,289	-	2,289
SH Japan Photovoltaic Private Special Asset Investment Trust No.2	43,540	155	7,216	2,216	-	2,216
Kakao-Shinhan 1st TNYT Fund	29,948	133	8	(379)	-	(379)
IMM Special Situation 1-2 PRIVATE EQUITY FUND	57,965	3	4,610	4,418	-	4,418
Pacific Private Placement Real Estate Fund No.40	46,898	-	398	398	-	398
Mastern Private Real Estate Loan Fund No.2	22,453	139	549	410	-	410
LB Scotland Amazon Fulfillment Center Fund 29	44,614	37	5,177	3,345	-	3,345
JR AMC Hungary Budapest Office Fund 16	38,545	1,271	-	-	-	-
EDNCENTRAL Co.,Ltd.	94,405	96,892	1,381	(5,093)	-	(5,093)
Future-Creation Neoplux Venture Capital Fund	22,488	3,919	10,294	1,332	-	1,332

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15. Investments in associates (continued)

(c) The statement of financial information as of and for the years ended December 31, 2022 and 2021 are as follows(continued):

Investees	December 31, 2021						
	Asset	Liability	Operating revenue	Net profit (loss)	Other comprehensive income (loss)	Total comprehensive income (loss)	
Gyeonggi-Neoplux Superman Fund ₩	36,815	620	21,349	17,163	-	17,163	
NewWave 6th Fund	48,185	-	4,009	2,434	-	2,434	
KTC-NP Growth Champ 2011-2 Private Equity Fund	80,853	9,024	20,479	20,472	-	20,472	
Neoplux No.3 Private Equity Fund	226,970	962	38,467	21,233	-	21,233	
PCC Amberstone Private Equity Fund I	105,169	-	12,174	12,302	-	12,302	
KIAMCO POWERLOAN TRUST 4TH	95,658	24	3,282	3,188	-	3,188	
Mastern Opportunity Seeking Real Estate Fund II	111,276	4,692	11,332	11,274	-	11,274	
AION ELFIS PROFESSIONAL PRIVATE 1	22,143	31	4,212	1,219	-	1,219	
T&F 2020 SS Private Equity Fund Specializing in Start-up and Venture Business	15,062	374	-	(312)	-	(312)	
Neoplux Market-Frontier Secondary Fund	58,273	954	7,913	1,932	-	1,932	
Harvest Private Equity Fund II	15,877	97	2,496	2,262	-	2,262	
Synergy Green New Deal 1st New Technology Business Investment Fund	34,379	-	977	(272)	-	(272)	
KAIM Real-estate Private Investment Trust 20	13,125	-	125	125	-	125	
KIAMCO Vietnam Solar Special Asset Private Investment Trust	15,065	12	-	-	-	-	
Daishin New Technology Investment Fund 5th	18,970	30	6,903	6,778	-	6,778	
CSQUARE SNIPER PROFESSIONAL PRIVATE 10	5,269	75	425	195	-	195	
Acurus Hyundai Investment Partners New Technology	17,642	42	6,881	6,679	-	6,679	
IGIS GLIP Professional Investment Private Real Estate Investment Trust No. 1-1	60,740	59	6,767	6,637	2,339	8,976	
IGIS GLIP Professional Investment Private Real Estate Investment Trust No. 1-2	60,740	59	6,767	6,637	2,339	8,976	
Pacific Sunny Professional Investors Private Placement Real Estate Investment Company No.45	134,667	94,282	6	(8,090)	-	(8,090)	
SHINHAN-NEO Core Industrial Technology Fund	11,439	-	5	(499)	-	(499)	
SHBNPP Green New Deal Energy Professional Investment Type Private Special Asset Investment Trust No.2	90,848	38	3,650	2,767	-	2,767	
SIMONE Mezzanine Fund No.3	10,404	9	345	253	-	253	
Eum Private Equity Fund No.7	37,495	-	-	(573)	-	(573)	

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15. Investments in associates (continued)

(c) The statement of financial information as of and for the years ended December 31, 2022 and 2021 are as follows(continued):

Investees	December 31, 2021					
	Asset	Liability	Operating revenue	Net profit (loss)	Other comprehensive income (loss)	Total comprehensive income (loss)
Kiwoom Private Equity Ant-Man Startup Venture Specialized Private Equity Fund	₩ 30,434	59	10,475	10,241	-	10,241
Kiwoom Hero No.4 Private Equity Fund	20,478	29	1	(1,908)	-	(1,908)
Vogo Canister Professional Trust Private Fund I	112,505	72	16,029	4,949	-	4,949
SW-S Fund	22,191	-	-	(909)	-	(909)
CL Buyout 1st PEF	64,518	159	1	(390)	-	(390)
Timefolio The Venture-V second	22,829	769	3,361	2,941	-	2,941
Newlake Growth Capital Partners2 PEF	43,187	-	290	(263)	-	(263)
Shinhan Smilegate Global PEF I	23,469	-	-	(281)	-	(281)
Fount Professional Investors Private Investment Trust No.3	10,416	17	411	394	-	394
Genesis Eco No.1 PEF	38,369	4	308	(377)	-	(377)
SHINHAN-NEO Market-Frontier 2nd Fund	58,138	513	1,466	(2,375)	-	(2,375)
NH-Synergy Core Industrial New Technology Fund	17,430	-	-	(170)	-	(170)
J& Moorim Jade Investment Fund	22,265	6	356	160	-	160
Ulmus SHC innovation investment fund	21,601	-	956	801	-	801
Mirae Asset Partners X Private Equity Fund	22,035	33	1	(398)	-	(398)
T Core Industrial Technology 1st Venture PEF	14,418	5	197	113	-	113
Curious Finale Corporate Recovery Private Equity Fund	13,346	61	1,275	1,126	-	1,126
TI First Property Private Investment Trust 1	7,654	17	156	139	-	139
MPLUS Professional Private Real Estate Fund 25	8,186	290	451	396	-	396
IBKC Global Contents Investment Fund	20,265	-	-	(235)	-	(235)
Nautic Smart No.6 Private Equity Fund	10,565	32	50	(68)	-	(68)
Premier Luminous Private Equity Fund	25,170	3	-	(375)	-	(375)
Hanyang-Meritz 1 Fund	15,423	-	-	(77)	-	(77)
KNT 2ND PRIVATE EQUITY FUND	19,133	9	5,402	5,324	-	5,324

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15. Investments in associates (continued)

(c) The statement of financial information as of and for the years ended December 31, 2022 and 2021 are as follows(continued):

Investees	December 31, 2021						
	Asset	Liability	Operating revenue	Net profit (loss)	Other comprehensive income (loss)	Total comprehensive income (loss)	
Maple Mobility Fund	₩ 43,024	1	-	(2,930)	-	(2,930)	
AVES 1st Corporate Recovery Private Equity Fund	6,215	-	-	(85)	-	(85)	
JS Shinhan Private Equity Fund	130,967	1	7	(1,036)	-	(1,036)	
Daishin Newgen New Technology Investment Fund 1 st	24,050	2	1	8,238	-	8,238	
META ESG Private Equity Fund I	21,722	-	1	(178)	-	(178)	
SWFV FUND-1	24,055	90	-	(135)	-	(135)	
PHAROS DK FUND	16,349	60	-	(210)	-	(210)	
Shinhan VC tomorrow venture fund 1	22,603	-	23	(397)	-	(397)	
Highland 2021-8 Fund	15,000	2	-	(2)	-	(2)	
Medicii 2021-3 Fund	39,217	15	-	(98)	-	(98)	
Tres-Yujin Trust	20,000	11	-	(11)	-	(11)	
Shinhan-Time mezzanine blind Fund	29,885	-	-	(115)	-	(115)	
Capstone REITs No.26	12,223	3,433	-	-	-	-	
JB Incheon-Bucheon REITs No.54	12,718	2	-	(2)	-	(2)	
Hankook Smart Real Asset Investment Trust No.3	13,146	120	532	506	-	506	
JB Hwaseong-Hadong REITs No.53	16,113	2	-	(2)	-	(2)	
KB Oaktree Trust No.3	9,552	77	130	52	-	52	
Daehan No.36 Office Asset Management Company	133,884	95,993	1,000	111	-	111	
Rhinos Premier Mezzanine Private Investment Fund No.1	10,759	-	19	17	-	17	
SH Real Estate Loan Investment Type Private Real Estate Investment Trust No.2	66,959	12	1,617	1,605	-	1,605	
Shinhan JigaeNamsan Road Private Special Asset Investment Trust	161,417	27	467	440	-	440	
SKS-Yozma Fund No.1	19,915	-	1	(185)	-	(185)	

(*) Excluded the financial information of associates that are not subject to equity method due to disposal or of which the financial information is not available as of end of the year.

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15. Investments in associates (continued)

(d) Reconciliation of the financial information to the carrying value of its interests in the associates as of December 31, 2022 and 2021 are as follows:

Investees	December 31, 2022					Carrying value
	Net assets (a)	Ownership (%) (b)	Interests in the net assets (a)*(b)	Intra-group transactions	Other	
BNP Paribas Cardif Life Insurance	₩ 201,205	14.99	30,161	8	-	30,169
Partners 4th Growth Investment Fund	54,165	25.00	13,542	-	-	13,542
KTB Newlake Global Healthcare PEF	20,945	20.57	4,309	-	-	4,309
Shinhan-Neoplux Energy Newbiz Fund	65,814	31.66	20,837	-	-	20,837
Shinhan-Albatross tech investment Fund	24,507	50.00	12,253	-	-	12,253
Meritz AI-SingA330-A Investment Type Private Placement Special Asset Fund	17,716	23.89	4,232	-	-	4,232
Meritz AI-SingA330-B Investment Type Private Placement Special Asset Fund	8,563	20.16	1,726	-	-	1,726
VOGO Debt Strategy Qualified IV Private	30,420	20.00	6,085	-	-	6,085
Shinhan -Midas Dong-A Secondary Fund	8,863	50.00	4,431	-	-	4,431
ShinHan – Soo Young Entrepreneur Investment Fund No.1	18,391	24.00	4,414	-	-	4,414
Shinhan Praxis K-Growth Global Private Equity Fund	26,082	14.15	3,691	-	-	3,691
Kiwoom Milestone Professional Private Real Estate Trust 19	7,922	50.00	3,961	-	-	3,961
Shinhan Global Healthcare Fund 1 (*2)	(4,518)	4.41	(199)	-	199	-
KB NA Hickory Private Special Asset Fund	91,572	37.50	34,339	-	-	34,339
Koramco Europe Core Private Placement Real Estate Fund No.2-2	43,694	44.02	19,236	-	-	19,236
Hermes Private Investment Equity Fund	19,071	29.17	5,562	-	-	5,562
KDBC-Midas Dong-A Global contents Fund	18,393	23.26	4,277	-	-	4,277
Shinhan-Nvestor Liquidity Solution Fund	25,836	24.92	6,438	-	-	6,438
Shinhan AIM FoF Fund 1-A	40,444	25.00	10,110	-	-	10,110
IGIS Global Credit Fund 150-1	18,765	25.00	4,692	-	-	4,692
Partner One Value up I Private Equity Fund	18,428	27.91	5,144	-	-	5,144
Genesis No.1 Private Equity Fund	262,823	22.80	59,924	-	-	59,924
Korea Omega Project Fund III	15,610	23.53	3,674	-	-	3,674
Genesis North America Power Company No.1 PEF	20,760	39.11	8,118	-	-	8,118
SHBNPP MAIN Professional Investment Type Private Mixed Asset Investment Trust No.3	185,333	23.33	43,244	-	-	43,244
MIEL CO.,LTD. (*2)	(143)	28.77	(41)	-	41	-
AIP Transportation Specialized Privately Placed Fund Trust #1	125,459	35.73	44,821	-	-	44,821
E&Healthcare Investment Fund No.6	2,839	21.05	597	-	-	597

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15. Investments in associates (continued)

(d) Reconciliation of the financial information to the carrying value of its interests in the associates as of December 31, 2022 and 2021 are as follows (continued):

Investees	December 31, 2022					
	Net assets (a)	Ownership (%)(b)	Interests in the net assets (a)*(b)	Intra-group transactions	Other	Carrying value
One Shinhan Global Fund 1	₩ 9,495	20.52	1,948	-	-	1,948
Kiwoom-Shinhan Innovation Fund I	18,881	50.00	9,441	-	-	9,441
Midas Asset Global CRE Debt Private Fund No.6	138,538	41.16	57,029	-	-	57,029
Samchully Midstream Private Placement Special Asset Fund 5-4	71,352	42.92	30,624	-	-	30,624
SHBNPP Senior Loan Professional Investment Type Private Mixed Asset Investment Trust No.3	122,456	20.00	24,492	-	-	24,492
NH-Amundi Global Infrastructure Trust 14	69,919	30.00	20,975	-	-	20,975
Jarvis Memorial Private Investment Trust 1	9,883	99.01	9,786	-	-	9,786
Vestas Qualified Investors Private Real Estate Fund Investment Trust No.37	55,598	60.00	33,357	-	-	33,357
Milestone Private Real Estate Fund 3 (Derivative Type)	59,485	32.06	19,071	-	-	19,071
RIFA Real estate private placement fund for normal investors No. 31	23,519	31.31	7,364	-	-	7,364
SHBNPP Senior Loan Professional Investment Type Private Mixed Asset Investment Trust No.2	13,961	21.27	2,969	-	-	2,969
T&F 2019 bearing Private Equity Fund Specializing in Start-up and Venture Business	11,440	28.25	3,231	-	-	3,231
FuturePlay-Shinhan TechInnovation Fund 1	13,832	50.00	6,916	-	-	6,916
Stonebridge Corporate 1st Fund	8,211	44.12	3,622	-	-	3,622
Vogo Realty Partners Private Real Estate Fund V	50,446	21.64	10,915	-	-	10,915
Korea Credit Bureau	55,999	9.00	5,039	-	-	5,039
Goduck Gangil1 PFV Co., Ltd.	5,715	1.04	60	-	-	60
SBC PFV Co., Ltd. (*3)	133,851	25.00	33,463	-	(4,995)	28,468
NH-amundi global infra private fund 16	112,423	50.00	56,211	-	-	56,211
IMM Global Private Equity Fund	446,586	33.00	147,384	-	-	147,384
SHBNPP BNCT Professional Investment Type Private Special Asset Investment Trust	362,830	72.50	263,052	-	-	263,052
Deutsche Global Professional Investment Type Private Real Estate Investment Trust No. 24	43,389	52.28	22,683	-	-	22,683
Sparklabs-Shinhan Opportunity Fund 1	9,356	49.50	4,631	-	-	4,631
BNW Tech-Innovation Private Equity Fund	19,540	29.85	5,833	-	-	5,833
IGIS Real-estate Private Investment Trust No.33	35,618	40.86	14,552	-	-	14,552
WWG Global Real Estate Investment Trust no.4	34,959	29.55	10,331	-	-	10,331
Goduck Gangil10 PFV Co., Ltd.	16,263	19.90	3,236	-	-	3,236
Fidelis Global Private Real Estate Trust No.2 (*1)	30,185	79.70	24,055	-	(2,110)	21,945
AIP EURO PRIVATE REAL ESTATE TRUST No. 12	168,735	28.70	48,427	-	-	48,427
Shinhan Global Healthcare Fund 2 (*2)	(160)	13.68	(22)	-	22	-

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15. Investments in associates (continued)

(d) Reconciliation of the financial information to the carrying value of its interests in the associates as of December 31, 2022 and 2021 are as follows (continued):

Investees	December 31, 2022					Carrying value
	Net assets (a)	Ownership (%) (b)	Interests in the net assets (a)*(b)	Intra-group transactions	Other	
Shinhan AIM Real Estate Fund No.2 ₩	84,140	30.00	25,243	-	-	25,243
Shinhan AIM Real Estate Fund No.1	212,475	21.01	44,642	-	-	44,642
SHBNPP Daegu Green Power Cogeneration System Professional Investment Type Private Special Asset Investment Trust	148,161	22.02	32,627	-	-	32,627
SHBNPP Sangju YC Expressway Professional Investment Type Private Special Asset Investment Trust	66,107	29.19	19,296	-	-	19,296
SHBNPP Global Infrastructure Professional Investment Type Private Special Asset Investment Trust No.7-2	34,437	71.43	24,598	-	-	24,598
Korea Omega-Shinhan Project Fund I	20,043	50.00	10,022	-	-	10,022
ST-Bonanja Food tech	6,775	38.83	2,631	-	-	2,631
Samsung SRA Real Estate Professional Private 45[FoFs] (*1)	86,123	25.00	21,531	-	119	21,650
IBK Global New Renewable Energy Special Asset Professional Private2	115,270	28.98	33,412	-	-	33,412
VS Cornerstone Fund	8,098	41.18	3,335	-	-	3,335
Aone Mezzanine Opportunity Professional Private	7,777	64.41	5,009	-	-	5,009
NH-Amundi US Infrastructure Private Fund2	123,291	25.91	31,941	-	-	31,941
SHBNPP Japan Photovoltaic Private Special Asset Investment Trust No.2	21,103	30.00	6,332	-	-	6,332
Kakao-Shinhan 1st TNYT Fund	43,869	48.62	21,330	-	-	21,330
IMM Special Situation 1-2 PRIVATE EQUITY FUND	13,019	20.00	2,603	-	-	2,603
Pacific Private Placement Real Estate Fund No.40	46,997	24.73	11,622	-	-	11,622
Mastern Private Real Estate Loan Fund No.2	19,025	33.57	6,387	-	-	6,387
LB Scotland Amazon Fulfillment Center Fund 29	42,252	70.14	29,637	-	-	29,637
JR AMC Hungary Budapest Office Fund 16	38,247	32.57	12,457	-	-	12,457
EDNCENTRAL Co.,Ltd. (*2)	(23,437)	13.47	(3,156)	-	3,156	-
Future-Creation Neoplux Venture Capital Fund	26,160	16.25	4,251	-	-	4,251
Gyeonggi-Neoplux Superman Fund	25,116	21.76	5,467	-	-	5,467
NewWave 6th Fund	45,132	30.00	13,540	-	-	13,540
KTC-NP Growth Champ 2011-2 Private Equity Fund	21,721	5.56	1,207	-	-	1,207
Neoplux No.3 Private Equity Fund	204,529	10.00	20,454	-	-	20,454
PCC Amberstone Private Equity Fund I	86,685	21.67	18,785	-	-	18,785
KIAMCO POWERLOAN TRUST 4TH	91,884	47.37	43,524	-	-	43,524
Mastern Opportunity Seeking Real Estate Fund II	73,544	20.00	14,710	-	-	14,710
AION ELFIS PROFESSIONAL PRIVATE 1	17,831	20.00	3,566	-	-	3,566
T&F 2020 SS Private Equity Fund Specializing in Start-up and Venture Business	19,235	29.68	5,709	-	-	5,709

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15. Investments in associates (continued)

(d) Reconciliation of the financial information to the carrying value of its interests in the associates as of December 31, 2022 and 2021 are as follows (continued):

Investees	December 31, 2022					
	Net assets (a)	Ownership (%)(b)	Interests in the net assets (a)*(b)	Intra-group transactions	Other	Carrying value
Neoplux Market-Frontier Secondary Fund ₩	70,729	19.74	13,960	-	-	13,960
Harvest Private Equity Fund II	14,230	22.06	3,139	-	-	3,139
Synergy Green New Deal 1st New Technology Business Investment Fund	37,743	28.17	10,632	-	-	10,632
KAIM Real-estate Private Investment Trust 20	3,089	38.46	1,187	-	-	1,187
KIAMCO Vietnam Solar Special Asset Private Investment Trust	13,455	50.00	6,727	-	-	6,727
Daishin New Technology Investment Fund 5 th	10,369	23.44	2,430	-	-	2,430
SHINHAN-NEO Core Industrial Technology Fund	18,913	49.75	9,409	-	-	9,409
SHBNPP Green New Deal Energy Professional Investment Type Private Special Asset Investment Trust No.2	83,417	30.00	25,024	-	-	25,024
SIMONE Mezzanine Fund No.3	10,419	28.97	3,017	-	-	3,017
Eum Private Equity Fund No.7	43,673	21.00	9,170	-	-	9,170
Kiwoom Hero No.4 Private Equity Fund	16,705	21.05	3,517	-	-	3,517
Vogo Canister Professional Trust Private Fund I	127,747	36.27	46,329	-	-	46,329
SW-S Fund	23,919	30.30	7,248	-	-	7,248
CL Buyout 1st PEF	59,930	21.43	12,842	-	-	12,842
Timefolio The Venture-V second	19,764	20.73	4,096	-	-	4,096
Newlake Growth Capital Partners2 PEF	41,766	29.91	12,496	-	-	12,496
Shinhan Smilegate Global PEF I (*1)	28,792	14.21	4,091	-	(320)	3,771
Genesis Eco No.1 PEF	39,359	29.01	11,418	-	-	11,418
SHINHAN-NEO Market-Frontier 2nd Fund	80,610	42.70	34,420	-	-	34,420
NH-Synergy Core Industrial New Technology Fund	17,269	36.93	6,377	-	-	6,377
J& Moorim Jade Investment Fund	21,836	24.89	5,434	-	-	5,434
Helios-KDBC Digital Contents 1 st	14,431	23.26	3,356	-	-	3,356
Ulmus SHC innovation investment fund	20,326	24.04	4,886	-	-	4,886
Mirae Asset Partners X Private Equity Fund	21,817	35.71	7,792	-	-	7,792
T Core Industrial Technology 1st Venture PEF	14,393	31.47	4,529	-	-	4,529
Curious Finale Corporate Recovery Private Equity Fund	12,925	27.78	3,591	-	-	3,591
TI First Property Private Investment Trust 1	7,817	40.00	3,127	-	-	3,127
MPLUS Professional Private Real Estate Fund 25	10,153	41.67	4,231	-	-	4,231
IBKC Global Contents Investment Fund	18,661	24.39	4,552	-	-	4,552
Nautic Smart No.6 Private Equity Fund	3,121	37.74	1,178	-	-	1,178

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15. Investments in associates (continued)

(d) Reconciliation of the financial information to the carrying values of its interests in the associates as of December 31, 2022 and 2021 are as follows (continued):

Investees	December 31, 2022					
	Net assets (a)	Ownership (%)(b)	Interests in the net assets (a)*(b)	Intra-group transactions	Other	Carrying value
Premier Luminous Private Equity Fund	₩ 35,700	25.12	8,966	-	-	8,966
Hanyang-Meritz 1 Fund	15,348	22.58	3,466	-	-	3,466
KNT 2ND PRIVATE EQUITY FUND (*1)	5,177	21.74	1,124	-	(174)	950
Kiwoom-Shinhan Innovation Fund 2	26,299	42.86	11,271	-	-	11,271
Maple Mobility Fund	83,539	20.18	16,859	-	-	16,859
SJ ESG Innovative Growth Fund	14,689	28.57	4,197	-	-	4,197
AVES 1st Corporate Recovery Private Equity Fund	6,638	76.19	5,057	-	-	5,057
JS Shinhan Private Equity Fund	128,727	3.85	4,953	-	-	4,953
NH Kyobo AI Solution Investment Fund	12,601	26.09	3,288	-	-	3,288
Daishin Newgen New Technology Investment Fund 1st	11,273	50.60	5,704	-	-	5,704
META ESG Private Equity Fund I	21,380	27.40	5,857	-	-	5,857
SWFV FUND-1	22,678	40.25	9,128	-	-	9,128
PHAROS DK FUND	15,886	24.14	3,835	-	-	3,835
Shinhan VC tomorrow venture fund 1	67,958	39.62	26,926	-	-	26,926
Highland 2021-8 Fund	14,770	32.67	4,826	-	-	4,826
H-IOTA Fund	38,784	24.81	9,623	-	-	9,623
Stonebridge-Shinhan Unicorn Secondary Fund	34,621	17.57	6,082	-	-	6,082
Tres-Yujin Trust	20,007	50.00	10,004	-	-	10,004
Shinhan-Time mezzanine blind Fund	26,625	50.00	13,312	-	-	13,312
Capstone REITs No.26	7,703	50.00	3,852	-	-	3,852
JB Incheon-Bucheon REITs No.54	12,690	39.31	4,989	-	-	4,989
Hankook Smart Real Asset Investment Trust No.3	20,980	33.33	6,993	-	-	6,993
JB Hwaseong-Hadong REITs No.53	16,084	31.03	4,991	-	-	4,991
KB Oaktree Trust No.3	25,814	33.33	8,605	-	-	8,605
Daehan No.36 Office Asset Management Company (*1)	44,964	48.05	21,604	-	454	22,058
Rhinos Premier Mezzanine Private Investment Fund No.1 (*1)	2,873	27.93	802	-	2,071	2,873
SH Real Estate Loan Investment Type Private Real Estate Investment Trust No.2	192,851	29.73	57,334	-	-	57,334
Shinhan JigaeNamsan Road Private Special Asset Investment Trust	163,267	24.85	40,571	-	-	40,571
SKS-Yozma Fund No.1	22,110	29.85	6,599	-	-	6,599
IBKC-METIS Global Contents Investment Fund	12,513	36.36	4,550	-	-	4,550
Keystone Unicorn Private Equity Fund	22,318	28.00	6,249	-	-	6,249
KB Distribution Private Real Estate 3-1	71,069	37.50	26,651	-	-	26,651
Pacific Private Investment Trust No.49-1	36,126	79.28	28,641	-	-	28,641
KIWOOM Real estate private placement fund for normal investors No. 31	14,264	60.00	8,558	-	-	8,558
RIFA Real estate private placement fund for normal investoes No. 51	14,315	40.00	5,726	-	-	5,726
Fivetree general private equity fund No.15	24,573	49.98	12,281	-	-	12,281
Shinhan-Kunicorn first Fund	25,658	38.31	9,831	-	-	9,831
Harvest Fund No.3	35,488	44.67	15,854	-	-	15,854
Shinhan Simone Fund I	12,468	38.46	4,796	-	-	4,796
Korea Investment develop seed Trust No.1	25,604	40.00	10,242	-	-	10,242

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15. Investments in associates (continued)

(d) Reconciliation of the financial information to the carrying values of its interests in the associates as of December 31, 2022 and 2021 are as follows (continued):

Investees	December 31, 2022					
	Net assets (a)	Ownership (%)(b)	Interests in the net assets (a)*(b)	Intra-group transactions	Other	Carrying value
Tiger Green alph Trust No.29	₩ 28,146	95.24	26,806	-	-	26,806
STIC ALT Global II Private Equity Fund	45,350	21.74	9,859	-	-	9,859
NH-Brain EV Fund	46,369	25.00	11,592	-	-	11,592
DDI LVC Master Real Estate Investment Trust Co., Ltd. (*1)	42,622	15.00	6,393	-	12	6,405
Find-Green New Deal 2nd Equity Fund	19,969	22.57	4,508	-	-	4,508
ShinhanFitrin 1st Technology Business Investment Association	27,444	16.17	4,437	-	-	4,437
PARATUS No.3 Private Equity Fund	19,249	25.64	4,936	-	-	4,936
Golden Route 2nd Startup Venture Specialized Private Equity Fund	13,214	22.73	3,003	-	-	3,003
Koramco Private Real Estate Fund 143	10,000	30.30	3,030	-	-	3,030
Korea Investment Top Mezzanine Private Real Estate Trust No.1	44,477	22.22	9,885	-	-	9,885
LB YoungNam Logistics Private Trust No.40	38,992	25.00	9,748	-	-	9,748
Shinhan-Cognitive Start-up Fund L.P. (*1)	30,358	32.74	9,939	-	14	9,953
IGEN2022 No.1 private Equity Fund	32,361	27.95	9,045	-	-	9,045
Cornerstone J&M Fund I	13,353	26.67	3,561	-	-	3,561
Logisvalley Shinhan REIT Co.,Ltd. (*1)	23,629	20.27	4,790	-	(986)	3,804
KDB Investment Global Healthcare Private Equity Fund I	142,794	24.14	34,468	-	-	34,468
Korea Investment Green Newdeal Infra Trust No.1	20,431	27.97	5,714	-	-	5,714
BTS 2nd Private Equity Fund	14,505	26.00	3,772	-	-	3,772
Shinhan Global Active REIT Co.Ltd.	94,370	20.37	19,222	-	-	19,222
NH-J&-IBKC Label Technology Fund	35,477	27.81	9,866	-	-	9,866
IMM Global Venture Opportunity, LP	8,775	35.50	3,115	-	-	3,115
Capstone Develop Frontier Trust	32,000	21.43	6,857	-	-	6,857
Nextrade Co., Ltd. (*1)	141,421	8.00	11,314	-	(1,614)	9,700
SH Sustainable Management ESG Short term Bond Security Feeder Investment Trust No.1	11,194	26.90	3,011	-	-	3,011
SH 1.5years Maturity Investment Type Security Investment Trust No.2	15,865	29.00	4,601	-	-	4,601
Eventus-IBKC LIB Fund	27,590	21.88	6,035	-	-	6,035
NH-Daishin-Kyobo healthcare 1 Fund	15,792	25.00	3,948	-	-	3,948
IBKC-Behigh Fund 1 st	10,992	29.73	3,268	-	-	3,268
Nautic Green Innovation ESG Co-investment No.1 Private Equity Fund	16,419	24.10	3,956	-	-	3,956
ON No.1 Private Equity Fund	18,767	28.57	5,362	-	-	5,362
Digital New Deal Kappa Private Equity Fund	16,420	30.12	4,946	-	-	4,946
Others	797,590	-	228,801	-	1,422	230,223
	₩ 9,416,618	-	2,907,155	8	(2,689)	2,904,474

(*1) Other represents the adjustments of fair value when acquired.

(*2) Others are the amount of fair value adjustments that occurred at the time of acquisition and accumulated losses that were not recognized due to the suspension of equity method recognition as the investment account balance became "0" due to the accumulation of losses for the current period.

(*3) The adjustments for others are the unrecognized equity method for preferred stocks without voting rights issued by the invested company.

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15. Investments in associates (continued)

(d) Reconciliation of the financial information to the carrying value of its interests in the associates as of December 31, 2022 and 2021 are as follows (continued):

Investees	December 31, 2021						Carrying value
	Net assets (a)	Ownership (%) (b)	Interests in the net assets (a)*(b)	Intra-group transactions	Other		
BNP Paribas Cardif Life Insurance	₩ 293,634	14.99	44,039	(17)	-	44,022	
Songrim Partners(*1)	(62)	35.34	(22)	-	22	-	
Partners 4th Growth Investment Fund	52,134	25.00	13,033	-	-	13,033	
KTB Newlake Global Healthcare PEF(*1)	30,808	30.00	9,299	-	113	9,412	
Shinhan-Neoplux Energy Newbiz Fund	65,211	31.66	16,032	-	-	16,032	
Shinhan-Albatross tech investment Fund	20,213	50.00	10,389	-	-	10,389	
VOGO Debt Strategy Qualified IV Private	35,896	20.00	7,179	-	-	7,179	
Shinhan-Midas Donga Secondary Fund	7,902	50.00	3,951	-	-	3,951	
ShinHan – Soo Young Entrepreneur Investment Fund No.1	17,608	24.00	4,226	-	-	4,226	
Shinhan Praxis K-Growth Global Private Equity Fund	41,133	18.87	7,761	-	-	7,761	
Kiwoom Milestone Professional Private Real Estate Trust 19	10,505	50.00	5,253	-	-	5,253	
AIP EURO Green Private Real Estate Trust No.3	139,576	21.28	29,703	-	-	29,703	
Shinhan Global Healthcare Fund 1(*1)	(3,464)	4.41	(153)	-	153	-	
KB NA Hickory Private Special Asset Fund	91,668	37.50	34,376	-	-	34,376	
Koramco Europe Core Private Placement Real Estate Fund No.2-2	44,275	44.02	19,492	-	-	19,492	
BNP Paribas Cardif General Insurance	61,431	5.46	3,354	-	-	3,354	
Hermes Private Investment Equity Fund	33,537	29.17	9,782	-	-	9,782	
Shinhan-Nvestor Liquidity Solution Fund	21,420	24.92	5,338	-	-	5,338	
Shinhan AIM FoF Fund 1-A	36,623	25.00	9,156	-	-	9,156	
IGIS Global Credit Fund 150-1	21,609	25.00	5,402	-	-	5,402	
Partner One Value up I Private Equity Fund	28,273	27.91	7,891	-	-	7,891	
Genesis No.1 Private Equity Fund	243,534	22.80	55,533	-	-	55,533	
Korea Omega Project Fund III	18,234	23.53	4,290	-	-	4,290	
Soo Delivery Platform Growth Fund	19,578	30.00	5,873	-	-	5,873	
Genesis North America Power Company No.1 PEF	34,310	40.03	13,736	-	-	13,736	
SH MAIN Professional Investment Type Private Mixed Asset Investment Trust No.3	178,069	23.33	41,549	-	-	41,549	
Korea Finance Security	20,078	14.91	2,994	-	-	2,994	
MIEL CO.,LTD.(*1)	(141)	28.77	(41)	-	41	-	

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15. Investments in associates (continued)

(d) Reconciliation of the financial information to the carrying value of its interests in the associates as of December 31, 2022 and 2021 are as follows (continued):

Investees	December 31, 2021					
	Net assets (a)	Ownership (%)(b)	Interests in the net assets (a)*(b)	Intra-group transactions	Other	Carrying value
AIP Transportation Specialized Privately Placed Fund Trust #1	₩ 97,097	35.73	34,688	-	-	34,688
E&Healthcare Investment Fund No.6	32,615	21.05	6,866	-	-	6,866
One Shinhan Global Fund 1	15,758	20.56	3,773	-	-	3,773
Kiwoom-Shinhan Innovation Fund I	23,462	50.00	11,731	-	-	11,731
Daishin-K&T New Technology Investment Fund	25,571	31.25	7,991	-	-	7,991
Midas Asset Global CRE Debt Private Fund No.6	117,347	41.16	48,305	-	-	48,305
Samchully Midstream Private Placement Special Asset Fund 5-4	65,931	42.92	27,471	-	-	27,471
SH Senior Loan Professional Investment Type Private Mixed Asset Investment Trust No.3	126,020	20.00	25,204	-	-	25,204
NH-Amundi Global Infrastructure Trust 14	61,004	30.00	18,301	-	-	18,301
Jarvis Memorial Private Investment Trust 1	10,210	99.01	10,109	-	-	10,109
Vestas Qualified Investors Private Real Estate Fund Investment Trust No.37	55,254	60.00	33,153	-	-	33,153
Milestone Private Real Estate Fund 3	57,842	32.06	18,544	-	-	18,544
Nomura-Rifa Private Real Estate Investment Trust 31	25,108	31.31	7,902	-	-	7,902
SH Senior Loan Professional Investment Type Private Mixed Asset Investment Trust No.2	48,124	21.27	10,236	-	-	10,236
Cape IT Fund No.3	30,599	32.89	10,065	-	-	10,065
FuturePlay-Shinhan TechInnovation Fund 1	14,297	50.00	7,149	-	-	7,149
Stonebridge Corporate 1st Fund	6,718	44.12	2,964	-	-	2,964
Vogo Realty Partners Private Real Estate Fund V	49,760	21.64	10,766	-	-	10,766
Korea Credit Bureau	85,497	9.00	7,695	-	-	7,695
Goduck Gangil PFV Co., Ltd(*1)	(15,763)	1.04	(164)	-	164	-
SBC PFV Co., Ltd.(*2)	158,286	25.00	34,581	-	(4,995)	29,586
NH-amundi global infra private fund 16	104,016	50.00	52,008	-	-	52,008
IMM Global Private Equity Fund	359,415	33.00	118,615	-	-	118,615
HANA Alternative Estate Professional Private122	39,840	74.02	29,489	-	-	29,489
SH Corporate Professional Investment Type Private Security Investment Trust No.7	100,098	45.96	49,899	-	-	49,899
SH BNCT Professional Investment Type Private Special Asset Investment Trust	389,240	72.50	282,199	-	-	282,199
Deutsche Global Professional Investment Type Private Real Estate Investment Trust No. 24	54,158	52.28	28,312	-	-	28,312
BRAIN DO PROFESSIONALE PRIVATE No. 27	3,351	29.13	976	-	-	976
Sparklabs-Shinhan Opportunity Fund 1	9,372	49.50	4,640	-	-	4,640
BNW Tech-Innovation Private Equity Fund	19,702	29.85	5,881	-	-	5,881

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15. Investments in associates (continued)

(d) Reconciliation of the financial information to the carrying value of its interests in the associates as of December 31, 2022 and 2021 are as follows (continued):

Investees	December 31, 2021					
	Net assets (a)	Ownership (%)(b)	Interests in the net assets (a)*(b)	Intra-group transactions	Other	Carrying value
IGIS Real-estate Private Investment Trust No.33	₩ 33,982	40.86	13,884	-	-	13,884
WWG Global Real Estate Investment Trust no.4	36,019	29.55	10,644	-	-	10,644
Goduck Gangil10 PFV Co., Ltd>(*1)	(8,362)	19.90	(1,664)	-	1,664	-
Fidelis Global Private Real Estate Trust No.2	25,265	78.26	19,773	-	-	19,773
AIP EURO PRIVATE REAL ESTATE TRUST No. 12	171,489	28.70	49,217	-	-	49,217
Shinhan Healthcare Fund 2(*1)	(103)	13.68	(14)	-	14	-
Pebblestone CGV Private Real Estate Trust No.1	28,252	48.53	13,710	-	-	13,710
Shinhan AIM Real Estate Fund No.2	77,582	30.00	23,275	-	-	23,275
Shinhan AIM Real Estate Fund No.1	210,908	21.01	44,312	-	-	44,312
SH Daegu Green Power Cogeneration System Professional Investment Type Private Special Asset Investment Trust	149,627	22.02	32,948	-	-	32,948
SH Sangju YC Expressway Professional Investment Type Private Special Asset Investment Trust	70,401	29.19	20,550	-	-	20,550
SH Global Infrastructure Professional Investment Type Private Special Asset Investment Trust No.7-2	26,396	71.43	18,855	-	-	18,855
Korea Omega-Shinhan Project Fund I	14,488	50.00	7,244	-	-	7,244
ST-Bonanja Food tech	8,650	38.83	3,359	-	-	3,359
Samsung SRA Real Estate Professional Private 45	51,519	25.00	12,880	-	-	12,880
IBK Global New Renewable Energy Special Asset Professional Private2	110,012	28.98	31,887	-	-	31,887
VS Cornerstone Fund	8,281	41.18	3,410	-	-	3,410
Aone Mezzanine Opportunity Professional Private	14,447	66.09	9,540	-	-	9,540
NH-Amundi US Infrastructure Private Fund2	104,313	25.91	27,024	-	-	27,024
KB Distribution Private Real Estate1	49,506	62.00	30,694	-	-	30,694
SH Japan Photovoltaic Private Special Asset Investment Trust No.2	43,385	30.00	13,016	-	-	13,016
Kakao-Shinhan 1st TNYT Fund	29,815	48.62	14,497	-	-	14,497
IMM Special Situation 1-2 PRIVATE EQUITY FUND	57,962	20.00	11,593	-	-	11,593
Pacific Private Placement Real Estate Fund No.40	46,898	24.73	11,598	-	-	11,598
Mastern Private Real Estate Loan Fund No.2	22,314	33.57	7,491	-	-	7,491
LB Scotland Amazon Fulfillment Center Fund 29	44,577	70.14	31,268	-	-	31,268
JR AMC Hungary Budapest Office Fund 16	37,274	32.57	12,140	-	-	12,140
EDNCENTRAL Co.,Ltd.(*1)	(2,487)	19.87	(494)	-	494	-
Future-Creation Neoplux Venture Capital Fund	18,569	16.25	3,017	-	-	3,017
Gyeonggi-Neoplux Superman Fund	36,195	21.76	7,878	-	-	7,878

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15. Investments in associates (continued)

(d) Reconciliation of the financial information to the carrying value of its interests in the associates as of December 31, 2022 and 2021 are as follows (continued):

Investees	December 31, 2021					
	Net assets (a)	Ownership (%)(b)	Interests in the net assets (a)*(b)	Intra-group transactions	Other	Carrying value
NewWave 6th Fund	₩ 48,185	30.00	14,455	-	-	14,455
KTC-NP Growth Champ 2011-2 Private Equity Fund	71,829	5.56	3,990	-	-	3,990
Neoplux No.3 Private Equity Fund	226,008	10.00	22,601	-	-	22,601
PCC Amberstone Private Equity Fund I	105,169	21.67	22,790	-	-	22,790
KIAMCO POWERLOAN TRUST 4TH	95,634	47.37	45,301	-	-	45,301
Masterm Opportunity Seeking Real Estate Fund II	106,584	20.00	21,317	-	-	21,317
AION ELFIS PROFESSIONAL PRIVATE 1	22,112	20.00	4,422	-	-	4,422
T&F 2020 SS Private Equity Fund Specializing in Start-up and Venture Business	14,688	29.68	4,360	-	-	4,360
Neoplux Market-Frontier Secondary Fund	57,319	19.74	11,313	-	-	11,313
Harvest Private Equity Fund II	15,780	22.06	3,481	-	-	3,481
Synergy Green New Deal 1st New Technology Business Investment Fund	34,379	28.17	9,684	-	-	9,684
KAIM Real-estate Private Investment Trust 20	13,125	38.46	5,048	-	-	5,048
KIAMCO Vietnam Solar Special Asset Private Investment Trust	15,053	50.00	7,527	-	-	7,527
Daishin New Technology Investment Fund 5th	18,940	23.44	4,439	-	-	4,439
CSQUARE SNIPER PROFESSIONAL PRIVATE 10	5,194	62.50	3,247	-	-	3,247
Acurus Hyundai Investment Partners New Technology	17,600	26.79	4,714	-	-	4,714
IGIS GLIP Professional Investment Private Real Estate Investment Trust No. 1-1	60,681	97.10	63,944	-	-	63,944
IGIS GLIP Professional Investment Private Real Estate Investment Trust No. 1-2	60,681	97.10	63,944	-	-	63,944
Pacific Sunny Professional Investors Private Placement Real Estate Investment Company No.45	40,385	25.00	14,778	-	-	14,778
SHINHAN-NEO Core Industrial Technology Fund	11,439	49.75	5,691	-	-	5,691
SHBNPP Green New Deal Energy Professional Investment Type Private Special Asset Investment Trust No.2	90,810	30.00	27,243	-	-	27,243
SIMONE Mezzanine Fund No.3	10,395	29.38	3,054	-	-	3,054
Eum Private Equity Fund No.7	37,495	21.00	7,873	-	-	7,873
Kiwoom Private Equity Ant-Man Startup Venture Specialized Private Equity Fund	30,375	25.00	7,594	-	-	7,594
Kiwoom Hero No.4 Private Equity Fund	20,449	21.05	4,305	-	-	4,305
Vogo Canister Professional Trust Private Fund I	112,433	36.53	41,072	-	-	41,072
SW-S Fund	22,191	30.30	6,724	-	-	6,724
CL Buyout 1st PEF	64,359	21.43	13,791	-	-	13,791
Timefolio The Venture-V second	22,060	20.73	4,572	-	-	4,572
Newlake Growth Capital Partners2 PEF	43,187	29.91	12,921	-	-	12,921

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15. Investments in associates (continued)

(d) Reconciliation of the financial information to the carrying values of its interests in the associates as of December 31, 2022 and 2021 are as follows (continued):

Investees	December 31, 2021					
	Net assets (a)	Ownership (%)(b)	Interests in the net assets (a)*(b)	Intra-group transactions	Other	Carrying value
Shinhan Smilegate Global PEF I	₩ 23,469	14.21	3,336	-	-	3,336
Fount Professional Investors Private Investment Trust No.3	10,399	49.98	5,197	-	-	5,197
Genesis Eco No.1 PEF	38,365	29.01	11,130	-	-	11,130
SHINHAN-NEO Market-Frontier 2nd Fund	57,625	42.70	24,606	-	-	24,606
NH-Synergy Core Industrial New Technology Fund	17,430	36.93	6,437	-	-	6,437
J& Moorim Jade Investment Fund	22,259	24.89	5,540	-	-	5,540
Ulmus SHC innovation investment fund	21,601	24.04	5,192	-	-	5,192
Mirae Asset Partners X Private Equity Fund	22,002	35.71	7,858	-	-	7,858
T Core Industrial Technology 1st Venture PEF	14,413	31.47	4,535	-	-	4,535
Curious Finale Corporate Recovery Private Equity Fund	13,285	27.78	3,690	-	-	3,690
TI First Property Private Investment Trust 1	7,637	40.00	3,055	-	-	3,055
MPLUS Professional Private Real Estate Fund 25	7,896	41.67	3,290	-	-	3,290
IBKC Global Contents Investment Fund	20,265	24.39	4,943	-	-	4,943
Nautic Smart No.6 Private Equity Fund	10,533	37.74	3,974	-	-	3,974
Premier Luminous Private Equity Fund	25,167	27.78	6,991	-	-	6,991
Hanyang-Meritz 1 Fund	15,423	22.58	3,483	-	-	3,483
KNT 2ND PRIVATE EQUITY FUND	19,124	21.74	4,157	-	-	4,157
Maple Mobility Fund	43,023	20.18	8,683	-	-	8,683
AVES 1st Corporate Recovery Private Equity Fund	6,215	76.19	4,736	-	-	4,736
JS Shinhan Private Equity Fund	130,966	3.85	5,037	-	-	5,037
Daishin Newgen New Technology Investment Fund 1 st	24,048	50.60	12,169	-	-	12,169
META ESG Private Equity Fund I	21,722	27.40	5,677	-	-	5,677
SWFV FUND-1	23,965	40.25	9,646	-	-	9,646
PHAROS DK FUND	16,289	24.24	3,949	-	-	3,949
Shinhan VC tomorrow venture fund 1	22,603	39.62	9,042	-	-	9,042
Highland 2021-8 Fund	14,998	32.67	4,899	-	-	4,899
Medicii 2021-3 Fund	39,202	24.81	9,728	-	-	9,728
Tres-Yujin Trust	19,989	50.00	9,995	-	-	9,995
Shinhan-Time mezzanine blind Fund	29,885	50.00	14,942	-	-	14,942
Capstone REITs No.26	8,790	50.00	4,395	-	-	4,395
JB Incheon-Bucheon REITS No.54	12,716	39.31	4,999	-	-	4,999
Hankook Smart Real Asset Investment Trust No.3	13,026	33.33	4,342	-	-	4,342
JB Hwaseong-Hadong REITs No.53	16,111	31.03	4,999	-	-	4,999
KB Oaktree Trust No.3	9,475	33.33	3,159	-	-	3,159
Daehan No.36 Office Asset Management Company(*1)	37,891	48.05	18,206	-	3,294	21,500
Rhinos Premier Mezzanine Private Investment Fund No.1	10,759	27.93	3,005	-	-	3,005
SH Real Estate Loan Investment Type Private Real Estate Investment Trust No.2	66,947	29.73	19,903	-	-	19,903
Shinhan JigaeNamsan Road Private Special Asset Investment Trust	161,390	24.85	40,105	-	-	40,105
SKS-Yozma Fund No.1	19,915	29.85	5,945	-	-	5,945
Others	666,941	-	367,840	-	1,492	369,332
₩	8,508,993	-	2,911,306	(17)	2,456	2,913,745

(*1) Other represents the adjustments of fair value when acquired.

(*2) The adjustments for others are the unrecognized equity method for preferred stocks without voting rights issued by the invested company.

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15. Investments in associates (continued)

(e) The unrecognized equity method losses as of and for the years ended December 31, 2022 and 2021 are as follows:

Investees	December 31, 2022	
	Unrecognized equity method losses	Cumulative unrecognized equity method losses
MSTEEL co.Ltd.	₩ (371)	(371)
MIEL CO.,LTD.	-	(41)
Shinhan Global Healthcare Fund 1	(61)	(214)
Shinhan Global Healthcare Fund 2	(82)	(96)
EDNCENTRAL Co.,Ltd.	(504)	(998)
	₩ (1,018)	(1,720)

Investees	December 31, 2021	
	Unrecognized equity method losses	Cumulative unrecognized equity method losses
Songrim Partners	₩ -	(22)
MIEL CO.,LTD.	(16)	(41)
Goduck Gangil1 PFV Co., Ltd.	(19)	(164)
Goduck Gangil10 PFV Co., Ltd.	(1,664)	(1,664)
Shinhan Global Healthcare Fund 1	(153)	(153)
Shinhan Global Healthcare Fund 2	(14)	(14)
EDNCENTRAL Co.,Ltd.	(494)	(494)
	₩ (2,360)	(2,552)

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16. Investment properties

(a) Investment properties as of December 31, 2022 and 2021 are as follows:

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Acquisition cost	₩ 513,986	852,458
Accumulated depreciation	(150,878)	(177,067)
Carrying value	<u>₩ 363,108</u>	<u>675,391</u>

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

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Beginning balance	₩ 675,391	615,235
Acquisition	10,090	8,292
Disposal	(230,148)	(2,279)
Depreciation	(18,115)	(21,616)
Amounts transferred from (to) property and equipment	9,554	73,773
Amounts transferred from (to) assets held for sale(*)	(83,664)	2,238
Foreign currency adjustment	-	(252)
Ending balance	<u>₩ 363,108</u>	<u>675,391</u>

(*) Comprise buildings and land, etc.

(c) Income and expenses on investment property for the years ended December 31, 2022 and 2021 are as follows:

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Rental income	₩ 33,366	35,887
Direct operating expenses for investment properties that generated rental income	16,980	12,033

(d) The fair value of investment property as of December 31, 2022 and 2021 is as follows:

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Land and buildings(*)	₩ 1,063,031	1,374,389

(*) Fair value of investment properties is estimated based in the recent market transaction conditions with an independent third party and certain significant unobservable inputs. Accordingly, fair value of investment properties is classified as level 3.

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17. Other assets

(a) Other assets as of December 31, 2022 and 2021 are as follows:

	December 31, 2022	December 31, 2021
Accounts receivable	₩ 11,594,139	12,754,436
Domestic exchange settlement debit	6,034,816	6,700,373
Guarantee deposits	1,016,748	1,077,644
Accrued income	3,254,404	2,655,894
Prepaid expense	784,630	491,950
Provisional payments	378,993	295,149
Sundry assets	96,190	88,797
Separate account assets	8,086,147	9,501,135
Advance payments	288,466	207,128
Unamortized deferred acquisition cost	949,322	954,949
Leased assets	1,932,791	1,395,334
Others	505,230	125,815
Discounted present value	(51,864)	(30,614)
Allowances for credit loss of other assets	(362,174)	(244,236)
	₩ <u>34,507,838</u>	<u>35,973,754</u>

(b) Changes in unamortized deferred acquisition cost by insurance type for the years ended December 31, 2022 and 2021 are as follows:

	December 31, 2022						
	Beginning balance	Acquisition cost incurred			Business combination (Note 47)	Amortiza- -tion	Ending balance
		Cost	Expensed	Deferral			
Individual insurance							
Pure endowment insurance	₩ 22,742	10,216	(4,569)	5,647	-	(12,491)	15,898
Death insurance	916,043	636,753	(247,827)	388,926	-	(385,664)	919,305
Endowment insurance	15,769	15,139	(11,168)	3,971	-	(5,974)	13,766
	<u>954,554</u>	<u>662,108</u>	<u>(263,564)</u>	<u>398,544</u>	<u>-</u>	<u>(404,129)</u>	<u>948,969</u>
Group insurance							
Pure protection	395	136	(20)	116	-	(168)	343
General insurance							
Long-term	-	-	-	-	13	(3)	10
	₩ <u>954,949</u>	<u>662,244</u>	<u>(263,584)</u>	<u>398,660</u>	<u>13</u>	<u>(404,300)</u>	<u>949,322</u>

	December 31, 2021						
	Beginning balance	Acquisition cost incurred			Amortiza- -tion	Ending balance	
		Cost	Expensed	Deferral			
Individual insurance							
Pure endowment insurance	₩ 37,504	12,386	(3,680)	8,706	(23,468)		22,742
Death insurance	932,922	655,210	(278,147)	377,063	(393,942)		916,043
Endowment insurance	8,925	19,703	(8,382)	11,321	(4,477)		15,769
	<u>979,351</u>	<u>687,299</u>	<u>(290,209)</u>	<u>397,090</u>	<u>(421,887)</u>		<u>954,554</u>
Group insurance							
Pure protection	591	170	(64)	106	(302)		395
	₩ <u>979,942</u>	<u>687,469</u>	<u>(290,273)</u>	<u>397,196</u>	<u>(422,189)</u>		<u>954,949</u>

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

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18. Leases

(a) Gross investment and present value of minimum lease payment of finance lease as of December 31, 2022 and 2021 are as follows:

		December 31, 2022		
		Gross investment	Unrealized interest income	Present value of minimum lease payment
Not later than 1 year	₩	654,159	82,286	571,873
1 ~ 2 years		477,216	55,860	421,356
2 ~ 3 years		379,998	36,353	343,645
3 ~ 4 years		312,014	20,816	291,198
4 ~ 5 years		250,568	7,415	243,153
Later than 5 years		1,682	4	1,678
	₩	<u>2,075,637</u>	<u>202,734</u>	<u>1,872,903</u>

(*) Interest income on finance lease receivables recognized for the year ended December 31, 2022 is ₩64,679 million.

		December 31, 2021		
		Gross investment	Unrealized interest income	Present value of minimum lease payment
Not later than 1 year	₩	635,826	65,349	570,477
1 ~ 2 years		470,800	39,631	431,169
2 ~ 3 years		308,999	18,738	290,261
3 ~ 4 years		191,257	6,606	184,651
4 ~ 5 years		113,638	4,417	109,221
Later than 5 years		5,170	32	5,138
	₩	<u>1,725,690</u>	<u>134,773</u>	<u>1,590,917</u>

(*) Interest income on finance lease receivables recognized for the year ended December 31, 2021 is ₩60,475 million.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

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18. Leases (continued)

(b) Minimum lease payment receivable schedule for lease contracts of the Group as lessor as of December 31, 2022 and 2021 are as follows:

i) *Finance lease*

		December 31, 2022		
		Minimum lease payment	Present value adjustment	Present value of minimum lease payment
Not later than 1 year	₩	654,159	82,286	571,873
1 ~ 2 years		477,216	55,860	421,356
2 ~ 3 years		379,998	36,353	343,645
3 ~ 4 years		312,014	20,816	291,198
4 ~ 5 years		250,568	7,415	243,153
Later than 5 years		1,682	4	1,678
	₩	<u>2,075,637</u>	<u>202,734</u>	<u>1,872,903</u>
		December 31, 2021		
		Minimum lease payment	Present value adjustment	Present value of minimum lease payment
Not later than 1 year	₩	635,826	65,349	570,477
1 ~ 2 years		470,800	39,631	431,169
2 ~ 3 years		308,999	18,738	290,261
3 ~ 4 years		191,257	6,606	184,651
4 ~ 5 years		113,638	4,417	109,221
Later than 5 years		5,170	32	5,138
	₩	<u>1,725,690</u>	<u>134,773</u>	<u>1,590,917</u>

ii) *Operating lease*

		Minimum lease payment	
		December 31, 2022	December 31, 2021
Not later than 1 year	₩	513,245	371,521
1 ~ 2 years		439,678	320,603
2 ~ 3 years		322,125	251,720
3 ~ 4 years		189,375	147,134
4 ~ 5 years		72,000	53,879
Later than 5 years		6,997	94,143
	₩	<u>1,543,420</u>	<u>1,239,000</u>

(c) Changes in operating lease assets for the years ended December 31, 2022 and 2021 are as follows:

		December 31, 2022	December 31, 2021
Beginning balance	₩	1,393,738	1,014,300
Acquisition		1,017,137	691,192
Disposal		(128,950)	(54,721)
Depreciation		(351,208)	(257,033)
Amounts transferred from(to) property and equipment		(214)	-
Ending balance	₩	<u>1,930,503</u>	<u>1,393,738</u>

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

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18. Leases (continued)

(d) The details of the right-of-use assets by the lessee's underlying asset type as of December 31, 2022 and 2021 are as follows:

		December 31, 2022		
		Acquisition cost	Accumulated depreciation	Carrying value
Real estate	₩	1,124,151	(538,076)	586,075
Vehicle		51,644	(29,317)	22,327
Others		32,933	(22,125)	10,808
	₩	<u>1,208,728</u>	<u>(589,518)</u>	<u>619,210</u>

		December 31, 2021		
		Acquisition cost	Accumulated depreciation	Carrying value
Real estate	₩	1,153,021	(578,980)	574,041
Vehicle		45,670	(23,821)	21,849
Others		30,478	(18,241)	12,237
	₩	<u>1,229,169</u>	<u>(621,042)</u>	<u>608,127</u>

(e) The details of the changes in the right-of-use assets for the years ended December 31, 2022 and 2021 are as follows:

		December 31, 2022			
		Real estate	Vehicle	Others	Total
Beginning balance	₩	574,041	21,849	12,237	608,127
Acquisition		350,328	14,834	3,991	369,153
Disposal		(72,323)	(2,404)	(836)	(75,563)
Depreciation(*)		(271,299)	(12,004)	(4,583)	(287,886)
Effects of foreign currency movements		4,277	52	(1)	4,328
Business combination (Note 47)		1,051	-	-	1,051
Ending balance	₩	<u>586,075</u>	<u>22,327</u>	<u>10,808</u>	<u>619,210</u>

		December 31, 2021			
		Real estate	Vehicle	Others	Total
Beginning balance	₩	556,419	20,621	13,377	590,417
Acquisition		295,228	17,524	4,173	316,925
Disposal		(22,829)	(4,070)	(31)	(26,930)
Depreciation(*)		(271,895)	(12,408)	(5,282)	(289,585)
Effects of foreign currency movements		17,118	182	-	17,300
Ending balance	₩	<u>574,041</u>	<u>21,849</u>	<u>12,237</u>	<u>608,127</u>

(*) Included in general administrative expense and other operating income(expense) of the consolidated statements of comprehensive income.

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18. Leases (continued)

(f) The details of the maturity of the lease liability as of December 31, 2022 and 2021 are as follows:

		December 31, 2022						
		1 month or less	1 month ~ 3 months or less	3 months ~ 6 months or less	6 months ~ 1 year or less	1 year ~ 5 years or less	More than 5 years	Total
Real estate	₩	26,601	34,980	48,209	84,706	315,267	74,190	583,953
Vehicle		4,999	1,851	2,543	4,566	13,910	92	27,961
Others		463	588	1,151	2,219	6,994	10	11,425
	₩	<u>32,063</u>	<u>37,419</u>	<u>51,903</u>	<u>91,491</u>	<u>336,171</u>	<u>74,292</u>	<u>623,339</u>

		December 31, 2021						
		1 month or less	1 month ~ 3 months or less	3 months ~ 6 months or less	6 months ~ 1 year or less	1 year ~ 5 years or less	More than 5 years	Total
Real estate	₩	22,890	33,950	46,532	82,467	266,299	121,360	573,498
Vehicle		4,496	1,935	2,536	4,718	12,298	513	26,496
Others		465	650	1,124	2,205	8,226	26	12,696
	₩	<u>27,851</u>	<u>36,535</u>	<u>50,192</u>	<u>89,390</u>	<u>286,823</u>	<u>121,899</u>	<u>612,690</u>

(*) The above amounts are based on undiscounted cash flows, and have been classified at the earliest maturity that the Group has the obligation to pay.

(g) The lease payments for low-value assets and short-term leases for the years ended December 31, 2022 and 2021 are as follows:

		December 31, 2022	December 31, 2021
Low-value assets	₩	6,888	5,885
Short-term lease(*)		268	766
Total	₩	<u>7,156</u>	<u>6,651</u>

(*) The payments for leases with terms less than 1 month are included.

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19. Pledged assets

(a) Assets pledged as collateral as of December 31, 2022 and 2021 are as follows:

		<u>December 31, 2022</u>	<u>December 31, 2021</u>	<u>Reasons for collateral</u>
Securities:				
Securities at FVTPL	₩	12,627,388	14,944,525	Customer RP, etc.
Securities at FVOCI		9,282,016	3,244,232	Borrowings, Settlement security for Bank of Korea, Borrowing securities, etc.
Securities at amortized cost		15,004,325	16,284,795	Borrowings, Settlement security for Bank of Korea, Customer RP, etc.
		<u>36,913,729</u>	<u>34,473,552</u>	
Deposits at amortized cost		1,883,755	958,206	Borrowings, etc.
Property and Equipment (real estate)		29,288	300,352	Establishing the right to collateral security, etc.
	₩	<u>38,826,772</u>	<u>35,732,110</u>	

(*) The carrying values of assets pledged that the pledgees have the right to sell or re-pledge regardless of the Group's default as of December 31, 2022 and 2021 are ₩9,754,980 million and ₩11,017,362 million, respectively.

(b) The fair value of collateral held that the Group has the right to sell or re-pledge regardless of the pledger's default as of December 31, 2022 and 2021 are as follows:

		<u>December 31, 2022</u>		<u>December 31, 2021</u>	
		<u>Assets received as collateral</u>	<u>The fair value of collateral sold or re-provided as collateral</u>	<u>Assets received as collateral</u>	<u>The fair value of collateral sold or re-provided as collateral</u>
Securities	₩	3,750,199	-	2,163,744	-

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20. Deposits

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

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Demand deposits:		
Korean won	₩ 132,604,867	151,787,483
Foreign currencies	24,841,409	20,320,241
	<u>157,446,276</u>	<u>172,107,724</u>
Time deposits:		
Korean won	171,355,724	140,651,250
Foreign currencies	24,910,187	20,847,651
	<u>196,265,911</u>	<u>161,498,901</u>
Certificates of deposits	14,921,375	16,576,536
Discount note deposits	6,631,858	5,818,001
CMA	4,634,010	5,246,478
Others	3,111,315	3,649,035
	<u>₩ 383,010,745</u>	<u>364,896,675</u>

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21. Financial liabilities at fair value through profit or loss

Financial liabilities at fair value through profit or loss as of December 31, 2022 and 2021 are as follows:

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Securities sold:		
Stocks	₩ 278,341	275,451
Bonds	438,689	505,202
Others	7,074	7,114
	<u>724,104</u>	<u>787,767</u>
Gold/silver deposits	422,006	581,458
	<u>₩ 1,146,110</u>	<u>1,369,225</u>

22. Financial liabilities designated at fair value through profit or loss

(a) Financial liabilities designated at fair value through profit or loss as of December 31, 2022 and 2021 are as follows:

	<u>December 31, 2022</u>	<u>December 31, 2021</u>	<u>Reason for designation</u>
Equity-linked securities sold	₩ 5,437,434	5,795,071	Compound financial instrument
Securities sold with embedded derivatives	2,882,607	2,228,799	
Debt securities issued	47,327	-	Fair value measurement and management
	<u>₩ 8,367,368</u>	<u>8,023,870</u>	

(*) The Group designated the financial liabilities at the initial recognition(or subsequently) in accordance with paragraph 6.7.1 of K-IFRS No. 1109 as financial liabilities at fair value through profit or loss.

Maximum credit risk exposure of the financial liabilities designated at fair value through profit or loss amounts to ₩ 8,367,368 million as of December 31, 2022. Decrease in values of the liability due to credit risk changes is ₩ 5,919 million for the year ended December 31, 2022 and the accumulated changes in values are ₩(-)7,014 million as of December 31, 2022.

(b) The difference between the carrying value of financial liabilities designated at fair value through profit or loss and the amount required to be paid at contractual maturity as of December 31, 2022 and 2021 are as follows:

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Expiration payment	₩ 7,733,506	7,325,678
Carrying value	8,367,368	8,023,870
Difference from carrying value	<u>₩ (633,862)</u>	<u>(698,192)</u>

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23. Borrowings

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

	December 31, 2022		December 31, 2021	
	Interest rate (%)	Amount	Interest rate (%)	Amount
Borrowings denominated in Korean won:				
Borrowings from Bank of Korea	0.25~1.75	₩ 5,100,325	0.25~0.25	₩ 5,278,331
Others	0.00~7.60	23,091,971	0.00~3.93	18,412,343
		<u>28,192,296</u>		<u>23,690,674</u>
Borrowings denominated in foreign currencies:				
Overdraft due from banks	0.00~0.30	48,072	0.00~0.30	42,434
Borrowings from banks	0.15~21.20	7,811,701	(0.49)~12.29	5,292,872
Others	0.00~22.65	2,397,605	0.00~11.25	1,890,291
		<u>10,257,378</u>		<u>7,225,597</u>
Call money	0.05~6.30	1,276,301	(0.30)~1.52	1,534,611
Bill of sale	0.00~3.95	15,057	0.00~1.47	9,032
Bonds sold under repurchase agreements	0.00~6.80	9,544,536	0.00~6.25	10,709,115
Deferred origination costs		(6,393)		(1,964)
		<u>₩ 49,279,175</u>		<u>₩ 43,167,065</u>

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24. Debt securities issued

Debt securities issued as of December 31, 2022 and 2021 are as follows:

	December 31, 2022		December 31, 2021	
	Interest rate (%)	Amount	Interest rate (%)	Amount
Debt securities issued in Korean won:				
Debt securities issued	0.05~9.00	₩ 61,038,481	0.79~8.00	₩ 64,419,771
Subordinated debt securities issued	2.20~4.17	3,275,225	2.20~4.60	5,030,125
Gain on fair value hedges	-	(348,700)	-	(122,069)
Discount on debt securities issued	-	(37,943)	-	(38,845)
		<u>63,927,063</u>		<u>69,288,982</u>
Debt securities issued in foreign currencies:				
Debt securities issued	0.25~7.59	9,586,831	0.25~7.59	7,462,087
Subordinated debt securities issued	3.34~5.10	4,145,264	3.34~5.10	3,307,306
Loss(Gain) on fair value hedges	-	(324,901)	-	130,392
Discount on debt securities issued	-	(45,474)	-	(39,404)
		<u>13,361,720</u>		<u>10,860,381</u>
		<u>₩ 77,288,783</u>		<u>₩ 80,149,363</u>

25. Defined benefit plans

(a) Defined benefit plan assets and obligations

The Group has operated a defined benefit plan and calculates defined benefit obligations based on the employee's pension compensation benefits and service period.

Defined benefit obligations and plan assets as of December 31, 2022 and 2021 are as follows:

	December 31, 2022	December 31, 2021
Present value of defined benefit obligations	₩ 1,934,643	2,205,869
Fair value of plan assets	(2,539,632)	(2,296,685)
Recognized liability(asset) for defined benefit obligations(*)	₩ (604,989)	(90,816)

(*) The asset for defined benefit obligation of ₩604,989 million as of December 31, 2022 is the net defined benefit assets of ₩619,653 million less the net defined liabilities of ₩14,664 million. In addition, the liability for defined benefit obligation of ₩90,816 million as of December 31, 2021 is the net defined benefit liabilities of ₩142,020 million less the net defined assets of ₩51,204 million.

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25. Defined benefit plans (continued)

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

	December 31, 2022		
	Defined benefit obligation	Plan assets	Net defined benefit liability(asset)
Beginning balance	₩ 2,205,869	(2,296,685)	(90,816)
Included in profit or loss:			
Current service cost	170,772	-	170,772
Past service cost	8,330	-	8,330
Interest expense (income)	72,307	(78,823)	(6,516)
Settlement gain or loss	(466)	-	(466)
	<u>250,943</u>	<u>(78,823)</u>	<u>172,120</u>
Included in other comprehensive income:			
Remeasurement loss (gain):			
- Actuarial losses (gains) arising from:			
Demographic assumptions	(938)	-	(938)
Financial assumptions	(419,764)	-	(419,764)
Experience adjustment	35,758	-	35,758
- Return on plan assets excluding interest income	-	36,725	36,725
	<u>(384,944)</u>	<u>36,725</u>	<u>(348,219)</u>
Other:			
Benefits paid by the plan	(138,290)	145,130	6,840
Contributions paid into the plan	-	(345,979)	(345,979)
Changes in the scope of consolidation	1,507	-	1,507
Effect of changes in foreign exchange rates	(442)	-	(442)
	<u>(137,225)</u>	<u>(200,849)</u>	<u>(338,074)</u>
Ending balance	₩ <u>1,934,643</u>	<u>(2,539,632)</u>	<u>(604,989)</u>

(*) Profit and loss related to defined benefit plans are all included in the general administrative expense.

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25. Defined benefit plans (continued)

(b) Changes in the present value of defined benefit obligation and plan assets for the years ended December 31, 2022 and 2021 are as follows (continued):

	December 31, 2021		
	Defined benefit obligation	Plan assets	Net defined benefit liability(asset)
Beginning balance	₩ 2,182,464	(2,138,324)	44,140
Included in profit or loss:			
Current service cost	179,751	-	179,751
Past service cost	2,570	-	2,570
Interest expense (income)	64,729	(64,759)	(30)
Settlement gain or loss	(4,844)	-	(4,844)
	<u>242,206</u>	<u>(64,759)</u>	<u>177,447</u>
Included in other comprehensive income:			
Remeasurement loss (gain):			
- Actuarial losses (gains) arising from :			
Demographic assumptions	(1,642)	-	(1,642)
Financial assumptions	(87,406)	-	(87,406)
Experience adjustment	(5,450)	-	(5,450)
- Return on plan assets excluding interest income	-	35,141	35,141
	<u>(94,498)</u>	<u>35,141</u>	<u>(59,357)</u>
Other:			
Benefits paid by the plan	(122,358)	120,347	(2,011)
Contributions paid into the plan	(10)	(249,099)	(249,109)
Settlement gain or loss	(2,231)	9	(2,222)
Effect of changes in foreign exchange rates	296	-	296
	<u>(124,303)</u>	<u>(128,743)</u>	<u>(253,046)</u>
Ending balance	₩ <u>2,205,869</u>	<u>(2,296,685)</u>	<u>(90,816)</u>

(*) Profit and loss related to defined benefit plans are all included in the general administrative expense.

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25. Defined benefit plans (continued)

(c) The composition of plan assets as of December 31, 2022 and 2021 are as follows:

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Plan assets comprise:		
Debt securities	₩ 31,140	43,607
Due from banks	2,220,218	1,915,361
Others	288,274	337,717
	<u>₩ 2,539,632</u>	<u>2,296,685</u>

(d) Actuarial assumptions as of December 31, 2022 and 2021 are as follows:

	<u>December 31, 2022</u>	<u>December 31, 2021</u>	<u>Description</u>
Discount rate	5.05%~5.93%	3.19%~3.77%	AA0 corporate bond yields
Future salary increase rate	2.00%~7.00%	1.98%~5.00%	Average for 5 years
	+ Upgrade rate	+ Upgrade rate	
Weighted average maturity	6.7 years~ 10.9 years	7.4 years~ 14.8 years	

(e) Sensitivity analysis

As of December 31, 2022 and 2021, reasonably possible changes in one of the relevant actuarial assumptions, holding other assumptions constant, would have affected the defined benefit obligation by the amounts shown below.

	<u>December 31, 2022</u>	
	<u>Defined benefit obligation</u>	
	<u>Increase</u>	<u>Decrease</u>
Discount rate (1%p movement)	₩ (154,651)	168,565
Future salary increase rate (1%p movement)	172,716	(160,649)
	<u>December 31, 2021</u>	
	<u>Defined benefit obligation</u>	
	<u>Increase</u>	<u>Decrease</u>
Discount rate (1%p movement)	₩ (197,174)	216,226
Future salary increase rate (1%p movement)	216,450	(200,843)

(f) The Group's estimated contribution is ₩145,699 million as of December 31, 2023.

26. Provisions

(a) Provisions as of December 31, 2022 and 2021 are as follows:

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Asset retirement obligations	₩ 91,571	82,123
Expected loss related to litigation	29,238	9,693
Unused credit commitments	317,590	300,008
Guarantee contracts issued	83,411	81,922
Financial guarantee contracts issued	55,828	55,344
Non-financial guarantee contracts issued	27,583	26,578
Others(*)	744,504	693,110
	<u>₩ 1,266,314</u>	<u>1,166,856</u>

(*) As of December 31, 2022 and 2021, the Group recognizes a provision of ₩ 574,013 million and ₩ 518,955 million, respectively, an estimated amount which is highly probable to be paid for customer losses expected due to delays in redemption of Lime CI funds, etc.

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26. Provisions (continued)

(b) Changes in provision for unused credit commitments and financial guarantee contracts issued for the years ended December 31, 2022 and 2021 are as follows:

		December 31, 2022						
		Unused credit commitments			Financial guarantee contracts issued			
		12 months expected credit loss	Life time expected credit loss	Impaired financial asset	12 months expected credit loss	Life time expected credit loss	Impaired financial asset	Total
Beginning balance	₩	150,573	147,511	1,924	48,607	6,709	28	355,352
Transfer (from)to 12 months expected credit loss		68,226	(67,945)	(281)	2,680	(2,680)	-	-
Transfer (from)to life time expected credit loss		(10,794)	10,842	(48)	(3,715)	3,715	-	-
Transfer (from)to impaired financial asset		(316)	(1,274)	1,590	-	-	-	-
Provided (reversed)		(30,016)	50,733	(1,155)	(972)	537	5	19,132
Change in foreign exchange rate		(2,068)	131	-	910	118	-	(909)
Others(*)		(43)	-	-	603	(712)	(5)	(157)
Ending balance	₩	<u>175,562</u>	<u>139,998</u>	<u>2,030</u>	<u>48,113</u>	<u>7,687</u>	<u>28</u>	<u>373,418</u>

(*) Others include effects of the provision from the new financial guarantee contracts measured at fair value, and the expired contracts, the change of discount rate and others.

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26. Provisions (continued)

(b) Changes in provision for unused credit commitments and financial guarantee contracts issued for the years ended December 31, 2022 and 2021 are as follows (continued):

		December 31, 2021						
		Unused credit commitments			Financial guarantee contracts issued			
		12 months expected credit loss	Life time expected credit loss	Impaired financial asset	12 months expected credit loss	Life time expected credit loss	Impaired financial asset	Total
Beginning balance	₩	164,147	140,137	1,435	54,550	7,335	10	367,614
Transfer (from)to 12 months expected credit loss		63,335	(63,249)	(86)	2,931	(2,931)	-	-
Transfer (from)to life time expected credit loss		(11,889)	11,917	(28)	(3,621)	3,621	-	-
Transfer (from)to impaired financial asset		(274)	(939)	1,213	-	-	-	-
Provided (reversed)		(66,373)	58,188	(610)	(581)	(178)	5	(9,549)
Change in foreign exchange rate		1,964	1,077	-	1,910	534	-	5,485
Others (*)		(337)	380	-	(6,582)	(1,672)	13	(8,198)
Ending balance	₩	<u>150,573</u>	<u>147,511</u>	<u>1,924</u>	<u>48,607</u>	<u>6,709</u>	<u>28</u>	<u>355,352</u>

(*) Others include effects of the provision from the new financial guarantee contracts measured at fair value, and the expired contracts, the change of discount rate and others.

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26. Provisions (continued)

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

	December 31, 2022				
	Asset retirement	Litigation	Guarantee	Others	Total
Beginning balance	₩ 82,123	9,693	26,578	693,110	811,504
Provision(reversal)	27,474	20,733	(410)	127,460	175,257
Provision used	(25,228)	(779)	-	(75,355)	(101,362)
Change in foreign exchange rate	4	-	1,352	315	1,671
Others(*)	7,090	(409)	63	(1,026)	5,718
Business combination (Note 47)	108	-	-	-	108
Ending balance	₩ 91,571	29,238	27,583	744,504	892,896

(*) Others include increase in provisions based on the present value, the effect of changes in discount rate over the period and others.

	December 31, 2021				
	Asset retirement	Litigation	Guarantee	Other	Total
Beginning balance	₩ 65,659	12,468	21,956	337,039	437,122
Provision(reversal)	8,185	2,552	3,457	350,090	364,284
Provision used	(3,793)	(5,327)	-	(37,604)	(46,724)
Change in foreign exchange rate	4	-	1,265	(1,314)	(45)
Others(*)	12,068	-	(100)	44,899	56,867
Ending balance	₩ 82,123	9,693	26,578	693,110	811,504

(*) Others include increase in provisions based on the present value, the effect of changes in discount rate over the period and others.

(d) Asset retirement obligation liabilities represent the estimated cost to restore the existing leased properties which is discounted to the present value using the appropriate discount rate at the end of the reporting period. Disbursements of such costs are expected to incur at the end of lease contract. Such costs are reasonably estimated using the average lease year and the average restoration expenses. The average lease year is calculated based on the past ten-year historical data of the expired leases. The average restoration expense is calculated based on the actual costs incurred for the past three years using the three-year average inflation rate.

(e) Allowance for guarantees and acceptances as of December 31, 2022 and 2021 are as follows:

	December 31, 2022	December 31, 2021
Outstanding guarantees and acceptances	₩ 12,154,088	10,540,968
Contingent guarantees and acceptances	4,565,829	4,670,771
ABS and ABCP purchase commitments	1,496,604	1,525,768
Endorsed bill	10,025	8,199
	₩ 18,226,546	16,745,706
Allowance for loss on guarantees and acceptances	₩ 83,411	81,922
Ratio	%	0.46

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27. Liability under insurance contracts

(a) Overview of the insurance risk – Shinhan Life Insurance Co., Ltd.

i) Overview of the insurance risk

i-1) Insurance risk and reinsurance

Insurance risk is the likelihood of an insurance event occurring and the uncertainty as to the total amount and timing of benefits paid as a result of the event. The main risk covered by insurance contracts is the risk that the actual claim or benefit payment will exceed the accumulated liability. This risk can occur for the following reasons:

- ① Frequency risk: Possibility that the number of occurrences of the insurance event is different from the expected number
- ② Severity risk: The cost of an incident may be different from the expected cost level

Experience shows that more or more similar insurance contracts are less likely to have an unusual effect from some contracts, and the Group forms a sufficiently diversified group of contracts in consideration of this when acquiring the contracts.

Insurance risk includes a lack of risk diversification and relates to geographical location and the nature of the policyholder as well as to the diversification of risk forms or sizes.

If the insurance contract covers death, the catastrophe affects the frequency the most and can affect the frequency of death earlier than expected due to a wide range of causes such as eating habits, smoking, and exercise habits. And if the coverage is survival, medical technology and social conditions can increase the survival rate. The frequency may also be affected by excessive concentration in the coverage area.

Insurance accidents in life insurance include not only the death of the insured (insured) but also survival, disability and hospitalization.

The Group basically classifies the Group's insurance products into individual insurance and group insurance according to the policyholder. Group insurance means a contract under which the insured belongs to a group of a certain size or larger and in which the policyholder is the representative of the Group or organization. The group insurance can be divided into savings and protections. Protection insurance means insurance in which the sum of benefits paid for survival at the base age does not exceed the premium already paid; savings insurance is defined as insurance, except for protection insurance, in which the sum of benefits paid for survival exceeds the premium already paid. Individual insurance can be classified into death insurance in which the insured's death is insured, survival insurance in which the life is insured for a certain period of time, and endowment insurance.

Life insurance products can also be divided into guaranteed fixed rates, floating rates, interest-sensitive, and variable types.

In the guaranteed fixed interest type, since the expected rate does not change from the time the policyholder enters into the contract to the end of the insurance period, the Group assumes the interest rate risk if the asset management yield or market interest rate is lower than the expected rate. Floating interest rate type divides the net insurance premium into the guaranteed portion and the reserve portion, so that the guaranteed portion is applied with the predetermined expected rate, and the reserve portion changes the reserve rate of policy reserve according to asset management yield, and some hedging on interest rate risk is feasible.

The Group uses acquisition strategies and reinsurance strategies to manage the uncertainty of the total amount and timing of insurance claims paid out as a result of an insured event.

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27. Liability under insurance contracts (continued)

(a) Overview of the insurance risk – Shinhan Life Insurance Co., Ltd. (continued)

i) Overview of the insurance risk (continued)

i-1) Insurance risk and reinsurance (continued)

① Acquisition strategy

Acquisition strategy means diversifying the type of risk or the level of benefits that are acquired. For example, a company can balance mortality and survival risks. In addition, the selection of policyholders through regular check-ups is one of the major acquisition strategies.

② Reinsurance strategy

The risk to be ceded by the Group is based on the acquired insurance contract, which can be the total amount of risk or risk per contract on a per capita basis or per contract basis. In principle, the reinsurance method provides the risk premium excess reinsurance, but other methods may be used within the scope of the relevant laws as required. The degree of reinsurance held by the Group shall be determined by considering the Group's assets, contract conditions, risk level, and technology for selecting the contract.

Insurance risk can also be affected by the policyholder's right to terminate the contract or exercise annuity conversion rights to reduce or not pay the full premium. As a result, insurance risks may be affected by the policyholder's actions and decisions. The Group's insurance risk can be estimated on the assumption that the policyholder is reasonable. For example, a person who is worse than a person in good health would have less intention of terminating insurance that guarantees death. These factors are also reflected in the assumptions about the Group's insurance liability.

i-2) Discretionary participation features

The discretionary participation feature is a contractual right to receive additional benefits which have the following characteristics in addition to the unconditional rights of the policyholder or investor, which fulfils all three requirements below. Insurance premiums for investment contracts without discretionary participation feature are recognized as deposits, and premiums for investment contracts with discretionary participation feature are recognized as profit or loss.

① It constitutes a significant portion of the total payments in the contract.

② The amount or timing is determined at the discretion of the issuer under the contract.

③ The contract is based on one or more of the following:

- The performance arising from specific contract groups or specific contract types;
- Realized or unrealized return on investment arising from the specific asset group held by the issuer; or
- Profit or loss of the entity, fund or other entity that issued the contract;

The Group's participating contract meets all three of the above requirements and includes a discretionary participation feature.

If the actual base rate matches with the expected base rate assumed upon calculation of the insurance premium of the Group, income and expenses are balanced over the insurance period, that the premiums do not fall short. In practice, however, the expected risk, expected interest rate, and projected expense ratio applied when calculating premiums will differ from the actual rate where the interest rate or expense ratio changes due to changes in risk rate or economic situation. These differences constitute the Group's profit or losses and, depending on the source, these may consist of mortality risk, interest rate, interest rate risk, and expense rate.

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27. Liability under insurance contracts (continued)

(a) Overview of the insurance risk – Shinhan Life Insurance Co., Ltd. (continued)

i) Overview of the insurance risk (continued)

i-2) Discretionary participation features (continued)

Compared to contracts without discretionary participation feature, in contracts with discretionary participation, the sources of profit or loss below are shared between the policyholders and the Group, thereby reducing the risk.

① Gain or losses on mortality risk

It is caused by the difference between the expected risk rate and the actual risk rate. In case of death insurance, if the actual mortality rate is lower than the expected mortality rate, there is a risk difference gain, and vice versa.

② Gain or losses on interest rate risk

It is caused by the difference between the expected interest rate and the actual interest rate. If the actual asset management return is higher than the expected interest rate, interest rate difference is generated, and vice versa.

③ Gain or losses on expense rate risk

It is caused by the difference between the business expense and the actual expense. If the actual expense is lower than the business expense, the difference in expense is incurred, and vice versa.

As described above, if the expected base rate used by the Group to calculate the premium is different from the actual, the profits generated from the settlement must be refunded to the policyholder because the profits generated are taken in the calculation of premiums, and the dividend paid to the policyholder is distinguished from the dividend paid to shareholders.

The Group first accumulates policy reserves at the end of each reporting period, and then divides the remainder into gain or losses from participating and non-participating insurance contracts and gain or losses on management of the capital account. Gain or losses from non-participating insurance and management of the capital account are treated as the shareholder's interest, shareholder's interest for the gain or losses on participating insurance is less than 10th of 100th, and the remaining portion shall be treated as the policyholder's interest. Policyholder's shares may not be used or accumulated for purpose other than the financial resources for policyholder dividends and the purpose of accumulating excess participating policyholder dividend reserve.

Policyholder dividends represent amounts payable to policyholders due to interest rate difference, long-term duration, mortality rate difference, and expense rate difference, and the reserve for policyholder dividends is divided into policyholder dividend reserve and excess participating policyholder dividend reserve. Excess participating policyholder dividend reserve is the amount to be accumulated in the total amount to be used for future policyholder dividends if there is surplus after accumulating the reserve for loss from participating insurance and the policyholder dividend reserve from the policyholders' interest of participating interest in the year.

The policyholder dividend reserve is a defined dividend reserve that determines the amount to be paid for each policyholder, whereas the amount of excess participating policyholder dividend reserve is not confirmed for each policyholder. The Group should first use the excess participating policyholder dividend reserve accumulated in gross amount prior to the year and the excess participating policyholder dividend reserve accumulated should be used as the policyholder dividend within 5 years from the end of the year.

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(In millions of won)

27. Liability under insurance contracts (continued)

(a) Overview of the insurance risk – Shinhan Life Insurance Co., Ltd. (continued)

i) Overview of the insurance risk (continued)

i-2) Discretionary participation features (continued)

Reserve for loss from participating insurance is the amount that is accumulated for the purpose of preserving the loss of participating insurance according to laws and regulations. Prior to accumulate the policyholder dividend reserve, the dividend reserves of the retained dividends take precedence over the policyholder dividend reserve and the excess participating policyholder dividend reserve.

Reserve for loss from participating insurance is accumulated within 30th of the policyholder's interests, preferentially compensates for losses incurred in participating insurance within 5 years of accumulation, and the remaining amount after compensation is used for the dividends of the policyholder.

ii) Insurance risk management policy

Unlike other financial instruments, life insurance companies' insurance policies have the characteristics of long-term contracts, which can be exposed to insurance risk that may arise due to an increase in actual claim payments than the risk rate determined at the time of development of the product and interest rate risk that may arise due to differences in interest rates and maturities between insurance liabilities and asset management.

The purpose of the Group's risk management is to generate long-term stable growth and profits by proactively preventing and systematically managing the various risks that may arise in the course of management activities, reflecting these uncertain financial environments and the characteristics of life insurance products with long-term attributes.

To achieve this risk management policy, the Group's risk management strategy measures the risk-based capital stock (RBC) required capital and manages it within acceptable limits. To this end, the Group has established the basic principles of risk management and established and implemented regulations and management systems to implement them. In addition, through the Risk Management Committee and Risk Management Organization, various risk-related decision-making is supported, and risk management procedures are in place to identify and manage risks in a timely manner.

In general, risk management procedures are to recognize exposed risks, measure their size, set acceptable limits, monitor them regularly to report to management, and efficiently control and manage risks in case they exceed their limits.

Management methods by risk type are as follows:

- ① Insurance risk management: From the time of product development, by setting profitability guidelines, products are developed to ensure proper profitability, and appropriate acceptance criteria are set and operated to prevent reverse selection, and claim payments can be made fairly.
- ② Interest rate risk management: Establish a guideline and consider the market interest rate and asset management profit rate to determine the published interest rate and expected interest rate within the guidelines. In addition, the asset management strategy is set considering the interest rate level and maturity of liabilities, after analyzing the attributes of long-term insurance liabilities, the long-term target portfolio is established, and the annual portfolio can be guided by comprehensively considering the risk level and return of the managed asset.
- ③ Liquidity risk management: Inspect and manage the amount of paid insurance and liquid assets on a daily basis.

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27. Liability under insurance contracts (continued)

(a) Overview of the insurance risk – Shinhan Life Insurance Co., Ltd. (continued)

iii) Standard policy reserve system

The policy reserve is a liability to the policyholder and the faithfulness of the reserve on the basis of the profit or loss account is directly linked to the maintenance of the Group's management integrity and the protection of the policyholder's interests, so it is subject to strict regulatory regulations. Accordingly, the supervisory authorities apply the standard policy reserve system in relation to the method of setting up and calculating the respective policy reserves.

The current method of using the reserve base rate equal to the insurance premium calculation base rate can threaten the financial health of the Group by causing insolvency of the reserve fund in case of liberalization of insurance prices, so the standard policy reserve system is introduced to use objective and conservative basic rates to prevent insolvency of the financial structure that can result from liberalization of insurance premium prices and protect the rights and interests of policyholders.

In other words, the standard policy reserve is an institutional device that dualizes the contract base rate by setting the risk or interest rate applied to calculating the policy reserve in a more conservative manner than the risk or interest rate applied to calculating the insurance premium. In order for the insurance company to calculate the policy reserve, the future expected basic rate, such as the expected interest rate and the expected risk rate, is necessary, and the policy reserve is the estimated amount of the debt estimated by the expected basic rate. Since the real intention of liberalization is not to leave such a policy reserve entirely to the discretion of the insurer after price liberalization, the government needed an objective and certain level of reserve accumulation system to strengthen the financial stability of insurance companies and protection of policyholders, and prevent insurers' insolvency due to price competition such as insurance premium dumping after price liberalization.

According to the Regulation on Supervision of Insurance Business, premium reserves are calculated by applying the standard rate and standard risk rate set by the supervisor authority. In this case, the standard rate is to apply the standard rate of the year in which the insurance contract was signed over the entire insurance period. However, the highest interest rate among the interest rates specified in the insurance premium and policy reserve calculation method for the floating interest rate product is applied. As a result, when the premium reserve calculated at the base rate applied when calculating the premium differs from the premium reserve calculated at the standard interest rate and the standard risk rate, a large amount is required to be accumulated as the premium reserve so that more than a certain minimum reserve is accumulated, hence the system tends to protect policyholders by enhancing reserves.

The current reserve for liability is calculated using the evaluation method for the year of issuance. In other words, the basic rate of evaluation of the reserve for liability is applied in the same way as the interest rate and risk rate applied at the time the insurance contract was established until the end of the contract. This method is suitable for a stable situation in which the financial environment at the time of sale of the insurance product and the financial environment during the insurance period are almost unchanged, however, in the event of fluctuations such as market interest rates and the expected risk rate at the time of sale of a contract, it is not possible to react flexibly. Therefore, there is a possibility that the policy reserve may not properly reflect the fair value of the contract. A liability adequacy test system was introduced to compensate for the shortcomings that could not reflect such market changes.

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27. Liability under insurance contracts (continued)

(a) Overview of the insurance risk – Shinhan Life Insurance Co., Ltd. (continued)

iv) Financial risks related to insurance contracts

iv-1) Form of exposure by each type of risk

Investment contracts that include insurance contracts and discretionary participation feature may be exposed to financial risks although it is an insurance liability, and the form of exposure is as follows:

① Credit risk

Credit risk refers to the risk of loss resulting from the borrower's failure to repay a loan or meet contractual obligations. The Group's reinsurance assets and reinsurance receivables are exposed to credit risk as assets that may incur losses if the reinsurer defaults at the time of receipt of the claims and receivables.

② Interest rate risk

Interest rate risk means the risk that arises when the Group's financial position fluctuates unfavorably due to the effect of interest rates on assets and liabilities.

③ Liquidity risk

Liquidity risk refers to the risk that assets and liabilities are subject to inconsistency or failure to respond to unexpected cash outflows. Therefore, future cash outflows from investment contracts, including insurance liabilities which account for most of the Company's liabilities and dividend components, are factors used to determine the level of risk associated with the Group's liquidity.

④ Market risk

Market risk refers to the risk of loss arising when the Group's financial position fluctuates unfavourably due to adverse price fluctuations such as stock prices and exchange rates. There is no impact on profit or loss or capital due to changes in each liability amount, since fluctuations in stock prices and exchange rates, the prices of investment contracts, including insurance liabilities which account for most of the Group's liabilities and dividend components, do not fluctuate.

iv-2) The degree to which the discretionary participation feature mitigates or aggravates risk

A relatively high premium is received by setting and producing a relatively conservative base rate compared to a contract without discretionary participation features, and a relatively high premium is later refunded to the contractor through a policyholder dividend for the premium payment based on conservative calculation of the expected base rate. However, contracts without a discretionary participation feature will set the expected optimal base rate, which is not conservative, and receive a relatively low premium when establishing the initial expected base rate. Thereafter, if the expected basic rate is different from the actual result, the Group will assume the profit or loss according to the result. Thus, a contract with a discretionary participation feature is a structure that establishes a conservative base rate and shares the risks associated with the contract with the policyholder, and in the case of a contract without discretionary participation element, the Group assumes the risk for the initial basis set by the Group.

iv-3) Risks associated with guarantees

The guarantee options inherent in insurance contracts include guaranteed minimum death benefit, guaranteed minimum annuity guarantee benefit, and guaranteed minimum interest rate benefit. These guarantees can increase cash flow outflows when market prices and interest rates fall below a certain level.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

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(In millions of won)

27. Liability under insurance contracts (continued)

(b) Overview of the insurance risk – Shinhan EZ General Insurance, Ltd.

Insurance risk is the risk that arises in relation to the acquisition of insurance contracts and payment of insurance claims, which are business of the Group, and is classified into insurance price risk and reserve risk. Insurance price risk refers to the risk of exceeding the expected risk rate and expected expense ratio set at the time of insurance premium calculation, and reserve risk refers to the loss of the Group due to the occurrence of more insurance payments in the future due to insufficient reserves accumulated at the time of evaluation. Reserve risk is measured for general non-life insurance.

i) Measurement and management

① Measurement of insurance risk

The insurance risk is measured by using the standard model (Article 7-2, Paragraph 4 of the Insurance Industry Supervision Regulations) and calculated by dividing the insurance price risk and the reserve risk, and considering the diversification effect on the assumption that the two risks are mutually independent. Insurance price risk is calculated by multiplying the premium held by insurance product category by the risk coefficient, and reserve risk is calculated by multiplying the risk coefficient by the reserve payable by insurance product category of general non-life insurance.

② The method of insurance risk management

The Group sets an insurance risk permissible limit every year, monitors compliance with the limit, and executes in accordance with preset countermeasures when the limit is exceeded. In addition, underwriting guidelines, retention, and reinsurance strategies are established and operated so that risks can be retained at an appropriate level for each type of insurance.

ii) The target of insurance risk management

The insurance risk management targets of the Group are the appropriateness of the insurance price and the adequacy of the reserve, and are identified as follows.

- Appropriateness of insurance price: Changes in the ratio of incurred loss to premium for earned risk (risk loss ratio) are being verified.
- Adequacy of reserve: Based on the insurance industry supervision regulation, an evaluation of conducted for the adequacy of reserves and a report on the review of reserve requirements is submitted to the Financial Supervisory Service.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

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December 31, 2022 and 2021

(In millions of won)

27. Liability under insurance contracts (continued)

(b) Overview of the insurance risk – Shinhan EZ General Insurance Ltd. (continued)

iii) Insurance price

The product development department of the Group proceeds with product development according to the product development and approval process so that the related department can fully review and make decisions about possible risks in the development and sale of new products. In addition, pre-analysis and evaluation are conducted, such as analysis of the adequacy of the expected risk rate and expected expense ratio of new products, profit and loss analysis, etc., and a senior actuary confirms the adequacy of the basic documents and related coefficients.

iv) Accumulating reserves

The senior accountant regularly verifies the adequacy of the reserve by using the total amount estimation method. Total amount estimation is based on Paid Ladder Development Method (PLDM), Incurred Ladder Development Method (ILDM), Average Payment Method (APM), frequency/severity method, and Bornhuetter-Ferguson method. It is calculated by applying the method allowed under the Supervisory Regulations, etc. In addition, we have submitted a verification opinion on this to the Financial Supervisory Service.

v) Sensitivity analysis of insurance risk

The Group manages insurance risk by conducting sensitivity analysis based on the discount rate, claim payment rate, retention rate and expense ratio, etc. that are judged to have a significant impact on the amount, timing and uncertainty of the future cash flow of the insurer.

vi) Concentration of insurance risk and reinsurance

Every year, a reinsurance operation strategy for each item (automotive/general) is established and implemented after deliberation and resolution by the Risk Management Committee. The reinsurance operation strategy is established after reviewing its adequacy based on the Group's underlying assets, insurance risk level, and reinsurance cost.

- Objective of reinsurance transactions
- Setting acceptable risk holding limits and planning for ceding reinsurance
- Monitoring method for adequacy of reinsurance operation
- Method for selecting reinsurers and reinsurance brokers and criteria of security

In principle, reinsurance transactions are executed according to the reinsurance operation strategy, and in the case of underwriting contracts in excess of the holding limit, the Risk Management Committee consider and determine whether or not to underwrite.

vii) Credit risk from insurance contracts

Credit risk arising from contracts refers to economic losses resulting from the inability to fulfill the obligations specified in the contracts due to default or deterioration of credit ratings of the counterparty, reinsurer. The Group enters into voluntary reinsurance or special contractual reinsurance contracts with reinsurance companies or non-life insurance companies for a part of the total insurance amount. The holding and reinsurance strategy is the risk transfer strategy of the Group. Holding and ceding are determined through the risk evaluation of each contract. When applying the new holding and reinsurance strategy, the expected profit and loss compared to the existing reinsurance strategy, the expected profit and loss against risk, and the cost of financing are calculated. It is decided by the Risk Management Committee.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

(In millions of won)

27. Liability under insurance contracts (continued)

(b) Overview of the insurance risk – Shinhan EZ General Insurance Ltd. (continued)

viii) Liquidity risk from insurance contracts

Liquidity risk arising from insurance contracts may result in inability to respond to a request for claim payment due to mismatched fund management or loss due to the raising of high-interest financing to resolve such a mismatch of funds or the unfavorable sale of owned assets. The Group the liquidity gap ratio of general accounts to manage liquidity risk.

(c) Insurance liabilities as of December 31, 2022 and 2021 are as follows:

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Policy reserve	₩ 54,316,740	54,330,046
Policyholder's equity adjustment	(1,616)	3,452
	<u>₩ 54,315,124</u>	<u>54,333,498</u>

(d) Policy reserve as of December 31, 2022 and 2021 are as follows:

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Life insurance:		
Variable interest rate	₩ 27,303,550	29,399,446
Fixed interest rate	26,919,128	24,930,600
	<u>54,222,678</u>	<u>54,330,046</u>
General insurance:		
Automotive	1,880	-
General	89,297	-
Long-term	2,885	-
	<u>94,062</u>	<u>-</u>
	<u>₩ 54,316,740</u>	<u>54,330,046</u>

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

(In millions of won)

27. Liability under insurance contracts (continued)

(e) The details of policy reserves for insurance risk classification as of December 31, 2022 and 2021 are as follows:

	December 31, 2022						
	Individual insurance				Group insurance		
	Pure endowment	Death	Endowment	Subtotal	Pure protection	Savings	Subtotal
Premium reserve	₩ 14,123,768	30,270,677	7,589,977	51,984,422	13,556	66	13,622
Guarantee reserve	20,514	278,826	745	300,085	-	-	-
Unearned premium reserve	2	1,642	-	1,644	1	-	1
Reserve for outstanding claims	275,089	1,182,023	338,747	1,795,859	14,154	-	14,154
Interest rate difference guarantee reserve	1,496	106	6	1,608	-	-	-
Mortality gains reserve	5,932	31,100	70	37,102	2	-	2
Interest gains reserve	22,202	209	10	22,421	-	-	-
Expense gains reserve	5,490	7,060	-	12,550	-	-	-
Long term duration dividend reserve	24,550	11,881	6	36,437	-	-	-
Reserve for policyholder's profit dividend	1,616	-	-	1,616	-	-	-
Reserve for losses on dividend insurance contract	1,155	-	-	1,155	-	-	-
₩	14,481,814	31,783,524	7,929,561	54,194,899	27,713	66	27,779

	December 31, 2022				
	General insurance				Total
	Automotive	General	Long-term	Subtotal	
Premium reserve	₩ -	-	2,814	2,814	52,000,858
Guarantee reserve	-	-	-	-	300,085
Unearned premium reserve	-	86,699	-	86,699	88,344
Reserve for outstanding claims	1,880	2,598	71	4,549	1,814,562
Interest rate difference guarantee reserve	-	-	-	-	1,608
Mortality gains reserve	-	-	-	-	37,104
Interest gains reserve	-	-	-	-	22,421
Expense gains reserve	-	-	-	-	12,550
Long term duration dividend reserve	-	-	-	-	36,437
Reserve for policyholder's profit dividend	-	-	-	-	1,616
Reserve for losses on dividend insurance contract	-	-	-	-	1,155
₩	1,880	89,297	2,885	94,062	54,316,740

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

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December 31, 2022 and 2021

(In millions of won)

27. Liability under insurance contracts (continued)

(e) The details of policy reserves for insurance risk classification as of December 31, 2022 and 2021 are as follows (continued):

	December 31, 2021								
	Individual insurance				Group insurance				
	Pure endowment	Death	Endowment	Subtotal	Pure protection	Savings	Subtotal	Total	
Premium reserve	₩ 14,515,676	28,443,718	9,078,015	52,037,409	15,609	64	15,673	52,053,082	
Guarantee reserve	24,717	284,474	871	310,062	-	-	-	310,062	
Unearned premium reserve	1	1,660	-	1,661	8	-	8	1,669	
Reserve for outstanding claims	266,157	1,137,858	424,897	1,828,912	14,376	-	14,376	1,843,288	
Interest rate difference guarantee reserve	1,734	130	7	1,871	-	-	-	1,871	
Mortality gains reserve	6,894	34,085	88	41,067	2	-	2	41,069	
Interest gains reserve	23,031	242	12	23,285	-	-	-	23,285	
Expense gains reserve	6,068	7,595	-	13,663	-	-	-	13,663	
Long term duration dividend reserve	26,799	12,663	7	39,469	-	-	-	39,469	
Reserve for policyholder's profit dividend	1,635	-	-	1,635	-	-	-	1,635	
Reserve for losses on dividend insurance contract	953	-	-	953	-	-	-	953	
	₩	14,873,665	29,922,425	9,503,897	54,299,987	29,995	64	30,059	54,330,046

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

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27. Liability under insurance contracts (continued)

(f) Changes in policy reserves

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

		December 31, 2022							
		Life insurance			General insurance				
		Insurance contracts with fixed-interest	Insurance contracts with variable-interest	Subtotal	Automotive	General	Long-term	Subtotal	Total
Beginning balance	₩	24,930,600	29,399,446	54,330,046	-	-	-	-	54,330,046
Reserve (*)		1,988,528	(2,095,896)	(107,368)	978	20,127	1,551	22,656	(84,712)
Business combination (Note 47)		-	-	-	902	69,170	1,334	71,406	71,406
Ending balance	₩	<u>26,919,128</u>	<u>27,303,550</u>	<u>54,222,678</u>	<u>1,880</u>	<u>89,297</u>	<u>2,885</u>	<u>94,062</u>	<u>54,316,740</u>

(*) This is the amount of provision for insurance contract liabilities less changes in reinsurance assets and includes effects from changes in foreign exchange rate.

		December 31, 2021		
		Insurance contracts with fixed-interest	Insurance contracts with variable-interest	Total
Beginning balance	₩	23,414,098	29,977,303	53,391,401
Reserve (*)		1,516,502	(577,857)	938,645
Ending balance	₩	<u>24,930,600</u>	<u>29,399,446</u>	<u>54,330,046</u>

(*) This is the amount of provision for insurance contract liabilities less changes in reinsurance assets and includes effects from changes in foreign exchange rate.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

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27. Liability under insurance contracts (continued)

(g) Changes in policy reserves by insurance risk classification

Changes in policy reserves by insurance risk classification for the years ended December 31, 2022 and 2021 are as follows:

	December 31, 2022											
	Individual insurance				Group insurance			General insurance				Total
	Pure endowment	Death	Endowment	Sub total	Pure protection	Savings	Sub total	Auto-motive	General	Long-term	Sub total	
Beginning balance	₩ 14,873,665	29,922,425	9,503,897	54,299,987	29,995	64	30,059	-	-	-	-	54,330,046
Reserve (reversal) (*)	(391,851)	1,861,099	(1,574,336)	(105,088)	(2,282)	2	(2,280)	978	20,127	1,551	22,656	(84,712)
Business combination (Note 47)	-	-	-	-	-	-	-	902	69,170	1,334	71,406	71,406
Ending balance	₩ 14,481,814	31,783,524	7,929,561	54,194,899	27,713	66	27,779	1,880	89,297	2,885	94,062	54,316,740

(*) This is the amount of provision for insurance contract liabilities less changes in reinsurance assets and includes effects from changes in foreign exchange rate.

	December 31, 2021							
	Individual insurance				Group insurance			
	Pure endowment	Death	Endowment	Subtotal	Pure protection	Savings	Sub total	Total
Beginning balance	₩ 14,936,578	28,074,444	10,346,489	53,357,511	33,828	62	33,890	53,391,401
Reserve (reversal) (*)	(62,913)	1,847,981	(842,592)	942,476	(3,833)	2	(3,831)	938,645
Ending balance	₩ 14,873,665	29,922,425	9,503,897	54,299,987	29,995	64	30,059	54,330,046

(*) This is the amount of provision for insurance contract liabilities less changes in reinsurance assets and includes effects from changes in foreign exchange rate.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

(In millions of won)

27. Liability under insurance contracts (continued)

(h) Reinsurance credit risk as of December 31, 2022 and 2021 are as follows:

	December 31, 2022		December 31, 2021	
	Reinsurance assets	Reinsurance account receivable	Reinsurance assets	Reinsurance account receivable
AAA	₩ 22,687	4,525	-	-
AA- to AA+	33,859	53,317	15,310	23,472
A- to A+	274,704	93,633	31,740	46,615
Unrated	118	204	-	-
	₩ 331,368	151,679	47,050	70,087

(i) Income or expenses on insurance for the years ended December 31, 2022 and 2021 are as follows:

	December 31, 2022	December 31, 2021
Insurance income:		
Premium income	₩ 6,258,858	6,255,872
Reinsurance income (*1)	182,566	153,534
Provision for insurance liabilities (*1),(*2)	342,088	-
Separate account income	107,393	75,117
	6,890,905	6,484,523
Insurance expenses:		
Claims paid	6,467,553	5,346,364
Reinsurance premium expenses(*1)	456,732	175,282
Provision for insurance liabilities (*1),(*2)	-	933,875
Separate account expenses	107,394	75,116
Acquisition costs	662,244	687,469
Collection expenses and discount fee	18,575	16,810
Deferred acquisition costs	(398,660)	(397,196)
Amortization of deferred acquisition costs	404,300	422,189
	7,718,138	7,259,909
Net loss on insurance	₩ (827,233)	(775,386)

(*1) It includes reinsurance expenses of ₩244,855 million, reinsurance income of ₩ 7,314 million and reversal of insurance liabilities of ₩242,071 million due to an issuance of joint reinsurance.

(*2) Interest expenses on savings insurance contracts are included.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

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December 31, 2022 and 2021

(In millions of won)

27. **Liability under insurance contracts (continued)**

(j) Maturity of premium reserve as of December 31, 2022 and 2021 are as follows:

		December 31, 2022						
		Less than or equal to 1 year	1 ~ 3 years	3 ~ 7 years	7 ~ 10 years	10 ~ 20 years	More than 20 years	Total
Life insurance:								
Variable interest rate	₩	616,479	911,463	856,451	650,770	1,847,433	19,601,653	24,484,249
Fixed interest rate		223,095	546,105	1,011,399	698,021	1,979,082	23,056,093	27,513,795
		839,574	1,457,568	1,867,850	1,348,791	3,826,515	42,657,746	51,998,044
General insurance:								
Long-term		-	-	-	40	2,774	-	2,814
Ending balance	₩	839,574	1,457,568	1,867,850	1,348,831	3,829,289	42,657,746	52,000,858

		December 31, 2021						
		Less than or equal to 1 year	1 ~ 3 years	3 ~ 7 years	7 ~ 10 years	10 ~ 20 years	More than 20 years	Total
Life insurance:								
Variable interest rate	₩	906,017	1,492,275	1,420,942	653,388	2,001,348	20,082,744	26,556,714
Fixed interest rate		99,289	471,909	772,549	687,077	2,072,122	21,393,422	25,496,368
Ending balance	₩	1,005,306	1,964,184	2,193,491	1,340,465	4,073,470	41,476,166	52,053,082

(k) Liability adequacy test, LAT

[Shinhan Life Insurance Co., Ltd.]

i) *Scope*

Liability adequacy tests were performed on the premium reserve, unearned premium reserve and guarantee reserve for the contracts held at December 31, 2022. The premium reserve considered the amount net level premium reserve less, where appropriate, deferred acquisition cost and Loan on policy in accordance with the Article 6-3 of Regulation on Supervision of Insurance Business Act.

ii) *Output overview*

In the debt appraisal system, the insurance premium surplus method is applied to calculate premium deficits. Premium deficiency refers to deficiency when the amount of accumulated reserve is insufficient due to a decrease in the interest rate after the sale of the product or an increase in the risk rate compared with the expected basic rate at the time of product development.

The insurance premium standard inspection method is a method of calculating the reserve amount based on the present value of total income reflecting the interest rate, the risk rate, the business ratio, the cancellation rate, etc. and the present value of the total expenditure, that is, interest rate(discount rate), business ratio, risk rate, and cancellation rate calculated based on the Group's own experience, which reflects company-specific characteristics, and does not reflect subjective factors such as management's willingness to improve management.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

(In millions of won)

27. **Liability under insurance contracts (continued)**

(k) Liability adequacy test, LAT (continued)

iii) *Assumptions and basis of calculation applied*

The assumptions and basis of calculation applied to calculate the estimates of future cash flows when performing liability adequacy test for the years ended December 31, 2022 and 2021 are as follows. The criteria of Insurance contract liability adequacy test were changed during the period, and the Group has applied the change in the accounting policy as it provides more reliable and relevant information on the estimate of future cash flows, and the notes as of December 31, 2021 and January 1, 2021 have been restated.

	Assumptions			Assumption applied and calculation method
	December 31, 2022	December 31, 2021	January 1, 2021	
Discount rate	-2.838% ~ 21.144%	-3.39% ~ 19.541%	Shinhan Life Insurance Co., Ltd. -3.623% ~ 23.477% Orange Life Insurance Co., Ltd. -3.623% ~ 23.477%	The interest rate scenario calculated and presented by the Financial Supervisory Service as a scenario in which a liquidity premium is added to the risk-free rate of return scenario. • Death due to other causes: Based on the statistics illustrating the past five-year experience, the ratio of premiums to on-level risk premiums by risk collateral and time elapsed.
Mortality rate	9% ~ 771%	16% ~ 751%	Shinhan Life Insurance Co., Ltd. 10.38% ~ 585.90% Orange Life Insurance Co., Ltd. 15% ~ 255%	• Death due to natural causes: The ratio of actual mortality to the latest expected mortality
Surrender ratio	0% ~ 78%	0% ~ 84%	Shinhan Life Insurance Co., Ltd. 0.53% ~ 29.83% Orange Life Insurance Co., Ltd. 0% ~ 61%	Lapse rate by sales channel, product, and time elapsed for the past five years.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

(In millions of won)

27. Liability under insurance contracts (continued)

(k) Liability adequacy test, LAT (continued)

iv) The result of liability adequacy test as of December 31, 2022 and 2021, and January 1, 2021 are as follows:

				December 31, 2022		
				Provisions for test	LAT base	Premium surplus (loss)
Participating:						
	Fixed interest	₩	1,388,054	1,679,179	(291,125)	
	Variable interest		2,082,019	2,890,311	(808,292)	
Non- Participating:						
	Fixed interest		20,382,784	6,245,441	14,137,343	
	Variable interest		21,124,126	17,994,755	3,129,371	
	Variable type		147,988	(1,104,320)	1,252,308	
	Co-reinsurance		240,720	135,465	105,255	
		₩	45,365,691	27,840,831	17,524,860	

				December 31, 2021		
				Provisions for test	LAT base	Premium surplus (loss)
Participating:						
	Fixed interest	₩	1,371,625	2,098,387	(726,762)	
	Variable interest		2,099,040	3,024,911	(925,871)	
Non- Participating:						
	Fixed interest		18,749,426	8,155,797	10,593,629	
	Variable interest		23,059,035	21,378,217	1,680,818	
	Variable type		109,753	(1,437,388)	1,547,141	
		₩	45,388,879	33,219,924	12,168,955	

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

(In millions of won)

27. Liability under insurance contracts (continued)

(k) Liability adequacy test, LAT (continued)

iv) The result of liability adequacy test as of December 31, 2022 and 2021 and January 1, 2021 are as follows (continued):

< Shinhan Life Insurance >

				January 1, 2021		
				Provisions for test	LAT base	Premium surplus (loss)
Participating:						
	Fixed interest	₩	598,793	1,371,496	(772,703)	
	Variable interest		915,382	1,062,384	(147,002)	
Non- Participating:						
	Fixed interest		7,230,482	4,222,670	3,007,812	
	Variable interest		14,456,394	13,753,963	702,431	
	Variable type		165,259	61,212	104,047	
		₩	23,366,310	20,471,725	2,894,585	

<Orange Life Insurance >

				January 1, 2021		
				Provisions for test	LAT base	Premium surplus (loss)
Participating:						
	Fixed interest	₩	745,614	793,719	(48,105)	
	Variable interest		1,174,807	1,698,984	(524,177)	
Non- Participating:						
	Fixed interest		10,061,004	5,850,160	4,210,844	
	Variable interest		9,190,507	8,998,793	191,714	
	Variable type		(15,032)	(1,548,878)	1,533,846	
		₩	21,156,900	15,792,778	5,364,122	

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

(In millions of won)

27. Liability under insurance contracts (continued)

(k) Liability adequacy test, LAT (continued)

[Shinhan EZ General Insurance Ltd.]

i) Scope

Liability adequacy tests are performed on the premium reserve and unearned premium reserve for the contracts held at December 31, 2022. The premium reserve considered the amount net level premium reserve less, where appropriate, deferred acquisition cost in accordance with the Article 6-3 of Regulation on Supervision of Insurance Business Act.

ii) Output overview

In the debt appraisal system, the insurance premium surplus method is applied to calculate premium deficits. Premium deficiency refers to deficiency when the amount of accumulated reserve is insufficient due to a decrease in the interest rate after the sale of the product or an increase in the risk rate compared with the expected basic rate at the time of product development.

The insurance premium standard inspection method is a method of calculating the reserve amount based on the present value of total income reflecting the interest rate, the risk rate, the business ratio, the cancellation rate, etc. and the present value of the total expenditure, that is, business ratio, risk rate, and cancellation rate calculated based on the Group's own experience, which reflects company-specific characteristics, and does not reflect subjective factors such as management's willingness to improve management.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

(In millions of won)

27. Liability under insurance contracts (continued)

(k) Liability adequacy test, LAT (continued)

iii) Assumptions and basis of calculation applied

The assumptions and basis of calculation applied to calculate the estimates of future cash flows when performing liability adequacy test for the year ended December 31, 2022 are as follows.

	Assumptions			Assumption applied and calculation method
	December 31, 2022	December 31, 2021	January 1, 2021	
Long-term(*):				
Discount rate	-2.838%~ 21.144%	-3.39%~19.541%	-3.623%~23.477%	The interest rate scenario calculated and presented by the Financial Supervisory Service as a scenario in which a liquidity premium is added to the risk-free rate of return scenario. Due to lack of empirical statistics, the application of long-term non-life insurance industry statistics and risk rates applied to calculating product prices by insurance coverage
Loss rate	49%~145%	19%~131%	3%~365%	Due to lack of empirical statistics, the application of long-term non-life insurance industry statistics
Lapse ratio	0%~18%	0%~17%	0%~15%	
General:				
Loss rate	37%	36%	39%	Based on the statistics illustrating the past five-year experience, the ratio of incurred loss to earned premium
Loss Assumed Expense ratio	19%	21%	11%	Based on the statistics illustrating the past three-year experience, the ratio of best estimated LAE(Loss Assumed Expense) ratio
Administration expense ratio	70%	62%	63%	Based on the statistics illustrating the past one-year experience, the ratio of best estimated expense ratio

(*) Among the expense ratios, the new acquisition cost was calculated based on the amount to be executed in the future in accordance with related regulations such as internal recruitment allowance regulations, and the maintenance cost was calculated for each cost driver based on experience statistics for the last year.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

(In millions of won)

27. Liability under insurance contracts (continued)

(k) Liability adequacy test, LAT (continued)

iv) The result of liability adequacy test as of December 31, 2022 and 2021, and January 1, 2021 are as follows:

		December 31, 2022		
		Provisions for test	LAT base	Premium surplus (loss)
Long-term	₩	16	2,627	(2,611)
General		85,187	86,699	(1,512)
	₩	<u>85,203</u>	<u>89,326</u>	<u>(4,123)</u>
		December 31, 2021		
		Provisions for test	LAT base	Premium surplus (loss)
Long-term	₩	12	2,496	(2,484)
General		53,442	53,663	(221)
	₩	<u>53,454</u>	<u>56,159</u>	<u>(2,705)</u>
		January 1, 2021		
		Provisions for test	LAT base	Premium surplus (loss)
Long-term	₩	-	(1,610)	1,610
General		21,453	19,188	2,265
	₩	<u>21,453</u>	<u>17,578</u>	<u>3,875</u>

28. Other liabilities

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

	December 31, 2022	December 31, 2021
Lease liabilities(*)	₩ 623,339	612,690
Accounts payable	12,452,551	14,041,740
Accrued expenses	4,416,908	3,273,939
Dividend payable	34,698	32,275
Advance received	186,134	177,121
Unearned income	451,757	397,010
Withholding value-added tax and other taxes	750,547	673,294
Securities deposit received	2,451,521	1,985,269
Foreign exchange settlement pending	359,422	221,521
Domestic exchange settlement pending	2,308,574	1,890,408
Payable from trust account	6,579,457	5,191,901
Due to agencies	718,082	887,400
Deposits for subscription	18,931	133,550
Separate account liabilities	8,004,363	9,834,895
Sundry liabilities	2,149,043	1,563,832
Others	81,148	126,455
Present value discount	(97,703)	(52,464)
	₩ <u>41,488,772</u>	<u>40,990,836</u>

(*) As of December 31, 2022, the Group accounts for the lease liabilities as other liabilities. For the year ended December 31, 2022, the amount of variable lease payments that are not included in the measurement of lease liabilities is ₩ 12,337 million, cash outflows from leases are ₩ 279,406 million, and interest expense on lease liabilities is ₩ 13,379 million. For the year ended December 31, 2021, the amount of variable lease payments that are not included in the measurement of lease liabilities is ₩ 79 million, cash outflows from leases are ₩ 283,470 million, and interest expense on lease liabilities is ₩ 10,873 million.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

(In millions of won)

29. **Equity**

(a) Equity as of December 31, 2022 and 2021 are as follows:

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Capital stock:		
Common stock	₩ 2,608,176	2,608,176
Preferred stock	361,465	361,465
	<u>2,969,641</u>	<u>2,969,641</u>
Hybrid bond	4,196,968	3,334,531
Capital surplus:		
Share premium	11,352,819	11,352,819
Others	742,224	742,224
	<u>12,095,043</u>	<u>12,095,043</u>
Capital adjustments	(582,859)	(664,429)
Accumulated other comprehensive income, net of tax:		
Loss on financial assets at fair value through other comprehensive income	(3,053,865)	(614,872)
Gain (loss) on financial assets at fair value through profit or loss (Overlay approach)	(78,276)	141,821
Equity in other comprehensive income of associates	(8,126)	7,595
Foreign currency translation adjustments for foreign operations	(112,283)	(125,219)
Net loss from cash flow hedges	(96,965)	(26,471)
Other comprehensive loss of separate account	(136,057)	(22,850)
Remeasurement of net defined benefit liabilities (assets)	(91,993)	(343,124)
Changes in own credit risk on financial liabilities designated under fair value option	(5,155)	(1,816)
	<u>(3,582,720)</u>	<u>(984,936)</u>
Retained earnings(*1),(*2),(*3)	33,342,633	30,541,300
Non-controlling interest(*4),(*5)	2,691,716	2,247,272
	<u>₩ 51,130,422</u>	<u>49,538,422</u>

(*1) As of December 31, 2022 and 2021, profits reserved by the Group as of Article 53 of the Financial Holding Companies Act amounted to ₩2,573,435 million and ₩2,432,039 million, respectively.

(*2) As of December 31, 2022 and 2021, the regulatory reserves for loan losses the Group appropriated in retained earnings are ₩18,524 million and ₩15,552 million, respectively.

(*3) As of December 31, 2022, profit dividends within retained earnings of subsidiaries of the Group restricted in accordance with laws, etc. are amounted to ₩7,428,897 million.

(*4) As of December 31, 2022 and 2021, the total amounts of hybrid bonds that Shinhan Bank, Jeju Bank, Shinhan Capital Co.,Ltd. and Shinhan Life Insurance Co., Ltd. have recognized as non-controlling interests are ₩2,537,569 million and ₩2,035,762 million, respectively. And, for the years ended December 31, 2022 and 2021, the amounts of dividends paid for the hybrid bonds by Shinhan Bank, Jeju Bank, Shinhan Capital Co.,Ltd. and Shinhan Life Insurance Co., Ltd. ₩81,262 million and ₩71,746 million, respectively, are allocated to profit attributed to non-controlling interest.

(*5) During the year ended December 31, 2022, non-controlling interests decreased by ₩ 89,912 million due to the acquisition of remaining shares by Shinhan Asset Trust Co., Ltd., and non-controlling interests increased by ₩ 19,454 million due to paid-in capital increase of Shinhan EZ General Insurance, Ltd. During the year ended December 31, 2021, non-controlling interests decreased by ₩ 59,709 million due to the acquisition of the remaining shares by Shinhan Asset Management Co., Ltd.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

(In millions of won, except per share data)

29. Equity (continued)

(b) Capital stock

Capital stock of the Group as of December 31, 2022 and 2021 are as follows:

Number of authorized shares	1,000,000,000
Par value per share in won	₩ 5,000
Number of issued common stocks as of December 31, 2022	508,784,869
Number of issued common stocks as of December 31, 2021	516,599,554
Number of issued preferred stocks as of December 31, 2022 and 2021	17,482,000

The details of changes in the number of common shares outstanding as of December 31, 2022 and 2021 are as follows:

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Beginning balance	516,593,202	515,894,758
Increase	-	700,870
Decrease	(7,814,685)	(2,426)
Ending balance	508,778,517	516,593,202

(c) The details of preferred stock are as follows:

	<u>The number of shares</u>	<u>Contracted dividend rate</u>	<u>Conversion request period(*)</u>
Convertible preferred stock	17,482,000	4.0% per year based on issue price (non-cumulative participating)	2020.05.01~2023.04.30

(*) Preferred stocks that have not been converted for 4 years from the issuance date and until the expiration date of the period of existence are automatically converted to common stocks at the expiration date of the period of existence.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

(In millions of won, except per share data)

29. Equity (continued)

(d) Hybrid bonds

Hybrid bonds classified as other equity instruments as of December 31, 2022 and 2021 are as follows:

	<u>Issue date</u>	<u>Maturity date</u>	<u>Interest rate (%)</u>		<u>December 31, 2022</u>	<u>December 31, 2021</u>
	June 25, 2015	June 25, 2045	4.38	₩	199,455	199,455
	September 15, 2017	Perpetual bond	3.77		-	134,683
	September 15, 2017	Perpetual bond	4.25		89,783	89,783
	April 13, 2018	Perpetual bond	4.08		134,678	134,678
	April 13, 2018	Perpetual bond	4.56		14,955	14,955
	August 29, 2018	Perpetual bond	4.15		398,679	398,679
KRW	June 28, 2019	Perpetual bond	3.27		199,476	199,476
	September 17, 2020	Perpetual bond	3.12		448,699	448,699
	March 16, 2021	Perpetual bond	2.94		429,009	429,009
	March 16, 2021	Perpetual bond	3.30		169,581	169,581
	January 25, 2022	Perpetual bond	3.90		560,438	-
	January 25, 2022	Perpetual bond	4.00		37,853	-
	August 26, 2022	Perpetual bond	4.93		343,026	-
	August 26, 2022	Perpetual bond	5.15		55,803	-
USD	August 13, 2018	Perpetual bond	5.88		559,526	559,526
	May 12, 2021	Perpetual bond	2.88		556,007	556,007
				₩	<u>4,196,968</u>	<u>3,334,531</u>

(*) For the year ended December 31, 2022, the deduction for capital related to hybrid bonds issued is ₩2,880 million.

The hybrid bonds above can be repaid early after 5 or 10 years from the date of issuance, and the controlling company has an unconditional right to extend the maturity under the same condition.

(e) Capital adjustments

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

		<u>December 31, 2022</u>	<u>December 31, 2021</u>
Beginning balance	₩	(664,429)	(687,935)
Acquisition of treasury stocks		(300,000)	(79)
Disposal and retirement of treasury stocks		300,000	23,589
The acquisition commitment amount for subsidiaries' remaining shares		86,711	-
Repayments of hybrid bonds		(317)	-
Other transactions with owners		(4,824)	(4)
Ending balance	₩	<u>(582,859)</u>	<u>(664,429)</u>

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

(In millions of won)

29. Equity (continued)

(f) Accumulated other comprehensive income

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

	December 31, 2022										
	Items that are or may be reclassified to profit or loss						Items that will never be reclassified to profit or loss				
	Gain (loss) on securities at fair value through other comprehensive income	Gain (loss) on valuation of financial asset measured at FVTPL (overlay approach)	Equity in other comprehensive income (loss) of associates	Foreign currency translation adjustments for foreign operations	Net gain (loss) from cash flow hedges	Other comprehensive income (loss) of separate account	Remeasurements of the defined benefit plans	Equity in other comprehensive income (expense) of associates	Gain (loss) on securities at fair value through other comprehensive income	Gain (loss) on financial Liabilities measured at FVTPL attributable to changes in credit risk	Total
Beginning balance	₩ (730,295)	141,821	7,623	(125,219)	(26,471)	(22,850)	(343,124)	(28)	115,423	(1,816)	(984,936)
Change due to fair value	(3,340,230)	(299,934)	(16,914)	-	-	(153,594)	-	9	19,610	(5,919)	(3,796,972)
Reclassification:											
Change due to impairment or disposal	(37,142)	-	(7,333)	-	-	-	-	-	-	-	(44,475)
Effect of hedge accounting	-	-	-	-	(190,372)	-	-	-	-	-	(190,372)
Hedging	63,480	-	-	(25,793)	90,328	-	-	-	-	-	128,015
Effects from changes in foreign exchange rate	-	-	-	40,679	-	-	-	-	(823)	-	39,856
Remeasurements of the defined benefit plans	-	-	-	-	-	-	348,248	-	-	-	348,248
Deferred income taxes(*)	866,180	79,837	8,489	(154)	29,550	40,387	(96,257)	(14)	(11,520)	1,170	917,668
Transfer to other account	-	-	-	-	-	-	-	42	(2,134)	1,410	(682)
Non-controlling interests	3,586	-	-	(1,796)	-	-	(860)	-	-	-	930
Ending balance	₩ (3,174,421)	(78,276)	(8,135)	(112,283)	(96,965)	(136,057)	(91,993)	9	120,556	(5,155)	(3,582,720)

(*) The effect of the tax rate change due to the revision of the tax law at the end of 2022 was reflected.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

(In millions of won)

29. Equity (continued)

(f) Accumulated other comprehensive income (continued)

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

	December 31, 2021										
	Items that are or may be reclassified to profit or loss						Items that will never be reclassified to profit or loss				
	Gain (loss) on securities at fair value through other comprehensive income	Gain (loss) on valuation of financial asset measured at FVTPL (overlay approach)	Equity in other comprehensive income (loss) of associates	Foreign currency translation adjustments for foreign operations	Net gain (loss) from cash flow hedges	Other comprehensive income (loss) of separate account	Remeasurements of the defined benefit plans	Equity in other comprehensive income (expense) of associates	Gain (loss) on securities at fair value through other comprehensive income	Gain (loss) on financial Liabilities measured at FVTPL attributable to changes in credit risk	Total
Beginning balance	₩ 146,829	161,919	4,875	(377,061)	(48,171)	18,423	(385,780)	(26)	79,982	(5,171)	(404,181)
Change due to fair value	(1,110,290)	(31,924)	6,517	-	-	(56,484)	-	(3)	21,408	(1,526)	(1,172,302)
Reclassification:											
Change due to impairment or disposal	(114,399)	-	-	-	-	-	-	-	-	-	(114,399)
Effect of hedge accounting	-	-	-	-	(209,869)	-	-	-	-	-	(209,869)
Hedging	10,627	-	-	(74,525)	239,800	-	-	-	-	-	175,902
Effects from changes in foreign exchange rate	-	-	-	333,059	-	-	-	-	673	-	333,732
Remeasurements of the defined benefit plans	-	-	-	-	-	-	59,441	-	-	-	59,441
Deferred income taxes	334,391	11,826	(3,769)	(6,226)	(8,231)	15,211	(16,164)	1	(16,061)	(1,272)	309,706
Transfer to other account	-	-	-	-	-	-	-	-	29,421	6,153	35,574
Non-controlling interests	2,547	-	-	(466)	-	-	(621)	-	-	-	1,460
Ending balance	₩ (730,295)	141,821	7,623	(125,219)	(26,471)	(22,850)	(343,124)	(28)	115,423	(1,816)	(984,936)

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

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December 31, 2022 and 2021

(In millions of won)

29. Equity (continued)

(g) Appropriation of retained earnings

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

Date of appropriation:	December 31, 2022		December 31, 2021	
		March 23, 2023		March 24, 2022
Unappropriated retained earnings:				
Balance at beginning of year	₩	5,461,771		5,355,358
Retirement of treasury stock		(300,661)		-
Dividend to hybrid bonds		(156,277)		(116,388)
Interim dividends		(637,598)		(299,082)
Net income		1,249,251		1,413,956
		<u>5,616,486</u>		<u>6,353,844</u>
Appropriation of retained earnings:				
Legal reserve		124,925		141,396
Dividends				
Dividends on common stocks paid		440,093		723,230
Dividends on preferred stocks paid		15,122		24,475
Regulatory reserve for loan losses		2,554		2,972
Loss on repayments of hybrid bonds		317		-
		<u>583,011</u>		<u>892,073</u>
Unappropriated retained earnings to be carried over to subsequent year	₩	<u>5,033,475</u>		<u>5,461,771</u>

(*) These statements of appropriation of retained earnings are based on the separate financial statements of Shinhan Finance Group.

(h) Regulatory reserve for loan losses

In accordance with Regulations for the Supervision of Financial Institutions, the Group reserves the difference between allowance for credit losses by K-IFRS and that as required by the Regulations at the account of regulatory reserve for loan losses in retained earnings.

i) Changes in regulatory reserve for loan losses including non-controlling interests as of December 31, 2022 and 2021 are as follows:

	December 31, 2022		December 31, 2021	
Beginning balance	₩	3,699,315		3,329,899
Planned regulatory provision (reversal) of loan losses		(37,228)		369,416
Ending balance	₩	<u>3,662,087</u>		<u>3,699,315</u>

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

(In millions of won, except per share data)

29. Equity (continued)

(h) Regulatory reserve for loan losses (continued)

ii) Profit attributable to equity holders of Shinhan Financial Group and earnings per share after factoring in regulatory reserve for loan losses for the years ended December 31, 2022 and 2021 are as follows:

		<u>December 31, 2022</u>	<u>December 31, 2021</u>
Profit attributable to equity holders of Shinhan Financial Group	₩	4,642,292	4,019,254
Provision for regulatory reserve for loan losses		<u>37,614</u>	<u>(364,882)</u>
Profit attributable to equity holders of Shinhan Financial Group adjusted for regulatory reserve	₩	<u>4,679,906</u>	<u>3,654,372</u>
Basic and diluted earnings per share adjusted for regulatory reserve in won(*)		8,525	6,625

(*) Dividends for hybrid bonds are deducted.

(i) Treasury stock

The acquisitions of treasury stock for the years ended December 31, 2022 and 2021 are as follows:

	<u>December 31, 2022(*)</u>		<u>December 31, 2021</u>	
	<u>The number of share</u>	<u>Carrying value</u>	<u>The number of share</u>	<u>Carrying value</u>
Beginning balance	6,352 ₩	227	704,796 ₩	28,215
Acquisition	7,814,685	300,000	2,426	79
Disposal	-	-	(700,870)	(28,067)
Retirement	<u>(7,814,685)</u>	<u>(300,000)</u>	-	-
Ending balance	<u>6,352 ₩</u>	<u>227</u>	<u>6,352 ₩</u>	<u>227</u>

(*) The controlling company has acquired treasury stocks for retirement for the years ended December 31, 2022 and completed retirement of treasury stocks by retained earnings on April 25 (3,665,423 shares) and November 23, 2022 (4,149,262 shares).

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

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30. Dividends

(a) For the year ended December 31, 2022, the interim dividends paid are as follows:

Dividend base date			<u>Amount</u>
March 31, 2022 (1 st Quarter)	Common stock (₩400 per share)	₩	206,277
	Convertible preferred stock (₩400 per share)		6,993
		₩	<u>213,270</u>
June 30, 2022 (2 nd Quarter)	Common stock (₩400 per share)	₩	205,171
	Convertible preferred stock (₩400 per share)		6,993
		₩	<u>212,164</u>
September 30, 2022 (3 rd Quarter)	Common stock (₩400 per share)	₩	205,171
	Convertible preferred stock (₩400 per share)		6,993
		₩	<u>212,164</u>
		₩	<u>637,598</u>

(b) Details of dividends recognized as distributions to stockholders for the years ended December 31, 2022 and 2021 are as follows:

	<u>December 31, 2022(*1)</u>	<u>December 31, 2021</u>
Common Stock:		
Total number of shares issued and outstanding	508,784,869	516,599,554
Par value per share in won	5,000	5,000
Dividend per share in won	865	1,400
Dividends(*2)	₩ 440,093	723,230
Dividend rate per share	% 17.3	28.0
Preferred Stock:		
Total number of shares issued and outstanding	17,482,000	17,482,000
Par value per share in won	5,000	5,000
Dividend per share in won	865	1,400
Dividends	₩ 15,122	24,475
Dividend rate per share	% 17.3	28.0

(*1) The current dividend(plan) will be decided on March 23, 2023. The amount of dividends was not recognized as a distribution to the owner during the period.

(*2) Dividends on own shares held by the Group are excluded.

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30. Dividends (continued)

(c) The details of dividends paid by the Group related to the preferred stock issued for the years ended December 31, 2022 and 2021 are as follows:

December 31, 2022					
	Number of shares	Dividend per share (in won)	Total dividend paid	Issue price per share (in won)	Dividend rate per issue price (%)
Convertible preferred stock	17,482,000	2,065	36,101	42,900	4.81

December 31, 2021					
	Number of shares	Dividend per share (in won)	Total dividend paid	Issue price per share (in won)	Dividend rate per issue price (%)
Convertible preferred stock	17,482,000	1,960	34,265	42,900	4.57

(d) Dividends for hybrid bond is calculated as follows for the years ended December 31, 2022 and 2021:

	December 31, 2022	December 31, 2021
Amount of hybrid bond	₩ 4,212,700	3,347,700
Interest rate (%)	2.88 ~ 5.88	2.88 ~ 5.88
Dividends	₩ 156,277	116,388

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31. Net interest income

Net interest income for the years ended December 31, 2022 and 2021 are as follows:

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Interest income:		
Cash and due from banks at amortized cost	₩ 272,407	85,846
Deposits at FVTPL	1,329	1,298
Securities at FVTPL	870,441	659,927
Securities at FVOCI	1,209,153	896,027
Securities at amortized cost	1,275,368	1,091,974
Loans at amortized cost	16,316,497	11,889,767
Loans at FVTPL	69,146	35,587
Others	94,325	63,804
	<u>20,108,666</u>	<u>14,724,230</u>
Interest expense:		
Deposits	4,642,670	2,173,804
Financial liabilities designated at FVTPL	1,296	-
Borrowings	938,641	330,548
Debt securities issued	1,901,458	1,390,230
Others	160,920	60,323
	<u>7,644,985</u>	<u>3,954,905</u>
Net interest income	₩ <u>12,463,681</u>	<u>10,769,325</u>

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

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32. Net fees and commission income

Net fees and commission income for the years ended December 31, 2022 and 2021 are as follows:

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Fees and commission income:		
Credit placement fees	₩ 68,002	71,480
Commission received as electronic charge receipt	147,727	148,626
Brokerage fees	341,634	577,238
Commission received as agency	136,114	146,662
Investment banking fees	232,512	188,644
Commission received in foreign exchange activities	295,161	271,808
Trust management fees	308,353	310,376
Credit card fees	1,202,129	1,175,084
Operating lease fees(*)	478,374	365,447
Others	900,570	884,520
	<u>4,110,576</u>	<u>4,139,885</u>
Fees and commission expense:		
Credit-related fee	37,331	38,668
Credit card fees	895,787	836,990
Others	651,892	589,230
	<u>1,585,010</u>	<u>1,464,888</u>
Net fees and commission income	₩ <u>2,525,566</u>	<u>2,674,997</u>

(*) Among operating lease fees recognized for the years ended December 31, 2022 and 2021, there is no variable lease fee income which does not vary by index or rate.

33. Dividend income

Dividend income for the years ended December 31, 2022 and 2021 are as follows:

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Securities at FVTPL	₩ 115,533	100,315
Securities at FVOCI	26,996	24,216
	<u>₩ 142,529</u>	<u>124,531</u>

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

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34. Net gain (loss) on financial instruments measured at fair value through profit or loss

Net gain (loss) on financial instruments measured at fair value through profit or loss for the ended December 31, 2022 and 2021 are as follows:

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Net loss on due from banks measured at FVTPL		
Loss on valuation	₩ (10,600)	(296)
Loss on sale	-	(1,479)
	<u>(10,600)</u>	<u>(1,775)</u>
Net gain (loss) on loans measured at FVTPL		
Loss on valuation	(35,652)	(78,416)
Gain on sale	14,063	15,312
	<u>(21,589)</u>	<u>(63,104)</u>
Net gain (loss) on securities measured at FVTPL		
Debt securities		
Gain (loss) on valuation	(432,967)	97,281
Loss on sale	(86,011)	(92,230)
Other gains	573,600	506,980
	<u>54,622</u>	<u>512,031</u>
Equity securities		
Gain (loss) on valuation	(67,022)	180,363
Gain (loss) on sale	(124,557)	199,702
	<u>(191,579)</u>	<u>380,065</u>
Other		
Gain on valuation	2,089	9,316
	<u>(134,868)</u>	<u>901,412</u>
Net gain (loss) on financial liabilities measured at FVTPL		
Debt securities		
Gain (loss) on valuation	41,317	(7,745)
Gain (loss) on disposal	53,067	(67,522)
	<u>94,384</u>	<u>(75,267)</u>
Other		
Loss on valuation	(38,997)	(26,224)
Gain on disposal	2,724	3,489
	<u>(36,273)</u>	<u>(22,735)</u>
	<u>58,111</u>	<u>(98,002)</u>
Derivatives:		
Loss on valuation	(719,766)	(64,128)
Gain on transaction	524,599	429,228
	<u>(195,167)</u>	<u>365,100</u>
	<u>₩ (304,113)</u>	<u>1,103,631</u>

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35. Net gain (loss) on financial instruments designated at fair value through profit or loss

Net gain (loss) on financial instruments designated at fair value through profit or loss for the years ended December 31, 2022 and 2021 are as follows:

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Financial liabilities designated at fair value through profit or loss:		
Debt securities issued:		
Gain on valuation	₩ 2,673	-
Compound financial instruments:		
Gain on valuation	804,068	423,914
Loss on sale and redemption	(229,799)	(512,215)
	<u>574,269</u>	<u>(88,301)</u>
	₩ <u>576,942</u>	<u>(88,301)</u>

36. Reversal of (provision for) credit loss allowance

Reversal of (provision for) credit loss allowance on financial assets for the years ended December 31, 2022 and 2021 are as follows:

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Allowance provided:		
Loans at amortized cost	₩ (1,244,424)	(907,070)
Other financial assets at amortized cost	(32,779)	(52,162)
Securities at fair value through other comprehensive income	-	(19,697)
Unused credit line and financial guarantee	(19,132)	-
Securities at amortized cost	-	(5,305)
	<u>(1,296,335)</u>	<u>(984,234)</u>
Allowance reversed:		
Securities at fair value through other comprehensive income	₩ 3,748	-
Securities at amortized cost	291	-
Unused credit commitment and financial guarantee	-	9,549
	<u>4,039</u>	<u>9,549</u>
	₩ <u>(1,292,296)</u>	<u>(974,685)</u>

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37. General and administrative expenses

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

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Employee benefits:		
Salaries	₩ 3,423,186	3,283,436
Severance benefits:		
Defined contribution	38,902	38,577
Defined benefit	169,882	192,614
Termination benefits	154,012	268,089
	<u>3,785,982</u>	<u>3,782,716</u>
Entertainment	46,359	38,552
Depreciation	516,164	490,457
Amortization	186,448	155,202
Taxes and utility bills	226,197	187,432
Advertising	339,955	280,780
Research	29,289	25,320
Others	883,120	782,629
	₩ <u>6,013,514</u>	<u>5,743,088</u>

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38. Share-based payments

(a) Performance shares granted as of December 31, 2022 are as follows:

Type	Expired	Not expired
	Cash-settled share-based payment	
Performance conditions	Relative stock price linked (20.0%), management index (80.0%)	
Exercising period	4 years from the commencement date of the year to which the grant date belongs	
Estimated number of shares vested at December 31, 2022	743,160	2,182,644
Fair value per share in Korean won (*)	₩ 44,222, ₩ 33,122, ₩ 37,387 and ₩ 37,081 for the expiration of exercising period from 2019 to 2022	₩ 35,200

(*) Based on performance-based stock compensation, the reference stock price (the arithmetic average of the weighted average share price of transaction volume for the past two month, the previous one month, and the past one week) of four years after the commencement of the grant year is paid in cash, and the fair value of the reference stock to be paid in the future is assessed as the closing price of the settlement.

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38. Share-based payments (continued)

(b) Share-based compensation costs for the years ended December 31, 2022 and 2021 are as follows:

		December 31, 2022		
		Employees of		
		The controlling company	The subsidiaries	Total
Stock options granted: 7 th (*)	₩	-	-	-
Performance shares		3,159	25,092	28,251
	₩	3,159	25,092	28,251

		December 31, 2021		
		Employees of		
		The controlling company	The subsidiaries	Total
Stock options granted: 7 th (*)	₩	(1)	(1)	(2)
Performance shares		4,286	32,899	37,185
	₩	4,285	32,898	37,183

(*) As of December 31, 2021, all stock options have expired.

(c) Accrued expenses as of December 31, 2022 and 2021 are as follows:

		December 31, 2022		
		Accrued expense		
		The controlling company	The subsidiaries	Total
Performance shares	₩	12,746	91,469	104,215

		December 31, 2021(*)		
		Accrued expense		
		The controlling company	The subsidiaries	Total
Performance shares	₩	10,598	82,498	93,096

(*) As of December 31, 2021, all stock options have expired.

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39. Net other operating expense

Other operating income and other operating expense for the years ended December 31, 2022 and 2021 are as follows:

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Other operating income		
Gain on disposal of assets:		
Loans at amortized cost	₩ 33,147	18,843
Others:		
Gain on hedged items	1,122,823	501,676
Reversal of allowance for guarantees and acceptances	410	-
Gain on other trust accounts	142	44,238
Reversal of other allowance	13,348	8,886
Others	448,640	356,611
	<u>1,585,363</u>	<u>911,411</u>
	₩ <u>1,618,510</u>	<u>930,254</u>
Other operating expense		
Loss on disposal of assets:		
Loans at amortized cost	₩ 5,533	347
Others:		
Loss on hedged items	1,089,220	518,891
Fund contribution	440,715	397,884
Provision for guarantees and acceptances	-	3,457
Provision for other debt allowances	22,721	52,123
Depreciation of operating lease assets	351,208	257,033
Others	1,458,617	1,190,546
	<u>3,362,481</u>	<u>2,419,934</u>
	₩ <u>3,368,014</u>	<u>2,420,281</u>
Net other operating expenses	₩ <u>(1,749,504)</u>	<u>(1,490,027)</u>

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40. Net other non-operating income

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

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Other non-operating income		
Gain on disposal of assets:		
Property and equipment	₩ 67,411	1,836
Investment property	29,305	108
Assets held for sale (*1)	448,770	16,976
Lease assets	36	247
Right-of-use assets	4,131	2,986
	<u>549,653</u>	<u>22,153</u>
Investments in associates:		
Gain on disposal	8,965	39,593
Reversal of impairment loss	5,924	-
	<u>14,889</u>	<u>39,593</u>
Others:		
Rental income on investment property	33,366	35,887
Reversal of impairment losses on intangible asset	396	372
Gain from assets contributed	4	20
Gain from bargain purchase	12,349	-
Others	75,504	64,272
	<u>121,619</u>	<u>100,551</u>
	<u>686,161</u>	<u>162,297</u>
Other non-operating expense		
Loss on disposal of assets:		
Property and equipment	2,546	2,027
Investment property	-	2,111
Lease assets	9	-
Right-of-use assets	737	2,920
Others	183	1,186
	<u>3,475</u>	<u>8,244</u>
Investments in associates:		
Loss on disposal	19,045	11,002
Impairment loss	7,529	10,719
	<u>26,574</u>	<u>21,721</u>
Others:		
Donations	67,558	64,098
Depreciation of investment properties	18,115	21,616
Impairment loss on property and equipment	-	7,594
Impairment loss on intangible assets	3,158	34,916
Write-off of intangible assets	1,822	1,346
Expenses on collection of special bonds	10,259	11,275
Others (*2)	215,725	518,519
	<u>316,637</u>	<u>659,364</u>
	<u>346,686</u>	<u>689,329</u>
Net other non-operating gain (loss)	₩ 339,475	(527,032)

(*1) Gain and loss on disposal of sale-and-leaseback are included in gain and loss on disposal of property and equipment, gain and loss on disposal of investment property and gain on assets held for sale, respectively. Gain on disposal of sale-and-leaseback for the years ended December 31, 2022 and 2021 are ₩ 443,780 million and ₩ 9,761 million, respectively.

(*2) It includes ₩ 168,020 million and ₩ 466,775 million, respectively, for the years ended December 31, 2022 and 2021 of estimated claim for damages that are highly probable to be paid in case of customer losses expected due to redemption delays of Lime CI funds, etc.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

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41. Income tax expense

(a) Income tax expense for the years ended December 31, 2022 and 2021 are as follows:

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Current income tax expense	₩ 1,666,075	1,498,819
Temporary differences (*)	(926,267)	(322,279)
Income tax recognized in other comprehensive income (*)	877,280	294,496
Income tax expenses	₩ <u>1,617,088</u>	<u>1,471,036</u>

(*) As the corporate tax rate was changed due to the tax law revision in the end of 2022, the effect of the tax rate change was reflected in deferred tax assets (liabilities) expected to be realized 2023 onward.

(b) Income tax expense calculated by multiplying net income before tax with the tax rate for the years ended December 31, 2022 and 2021 are as follows:

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Profit before income taxes	₩ 6,349,251	5,583,664
Income taxes at statutory tax rates	1,735,682	1,530,030
Adjustments:		
Non-taxable income	(13,902)	(8,417)
Non-deductible expense	16,762	15,975
Tax credit	(1,233)	(159)
Others	(120,221)	(66,393)
Income tax expense	₩ <u>1,617,088</u>	<u>1,471,036</u>
Effective tax rate	%	25.47
		26.35

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41. Income tax expense (continued)

(c) Deferred tax expenses by origination and reversal of deferred assets and liabilities and temporary differences for the years ended December 31, 2022 and 2021 are as follows:

	December 31, 2022			
	Beginning Balance	Profit or loss	Other comprehensive income(loss)	Ending Balance(*2)
Unearned income	₩ (340,992)	(9,780)	-	(350,772)
Account receivable	(26,580)	2,885	-	(23,695)
Financial assets measured at fair value	266,958	84,474	937,122	1,288,554
Investment in associates and etc.	178,262	(3,681)	8,829	183,410
Valuation and depreciation of property and equipment	(136,170)	34,750	-	(101,420)
Derivative asset	21,649	207,136	32,965	261,750
Deposits	24,430	12,617	-	37,047
Accrued expenses	154,716	55,021	(9)	209,728
Defined benefit obligation	549,950	23,951	(98,124)	475,777
Plan assets	(601,844)	(36,244)	2,107	(635,981)
Other provisions	389,546	9,304	-	398,850
Allowance for acceptances and guarantees	32,462	(8,039)	-	24,423
Allowance related to asset revaluation	(49,713)	1,822	-	(47,891)
Allowance for expensing depreciation	(274)	72	-	(202)
Accrued contributions	36,114	925	-	37,039
Financial liabilities designated at fair value through profit of loss	(74,655)	(204,434)	-	(279,089)
Allowances	132,239	33,839	-	166,078
Constructive dividend	16,737	450	-	17,187
Liability under insurance contracts	1,871	(15)	-	1,856
Others	(882,404)	(111,817)	(5,609)	(999,830)
	<u>(307,698)</u>	<u>93,236</u>	<u>877,281</u>	<u>662,819</u>
Expired unused tax losses:				
Extinguishment of deposit and insurance liabilities	266,605	(47,047)	-	219,558
	<u>₩ (41,093)</u>	<u>46,189</u>	<u>877,281</u>	<u>882,377</u>

(*1) Deferred tax assets from overseas subsidiaries are decreased by ₩2,797 million due to foreign exchange rate movements.

(*2) As the corporate tax rate was changed due to the tax law revision in the end of 2022, the effect of the tax rate change was reflected in deferred tax assets (liabilities) expected to be realized 2023 onward.

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41. Income tax expense (continued)

(c) Deferred tax expenses by origination and reversal of deferred assets and liabilities and temporary differences for the years ended December 31, 2022 and 2021 are as follows (continued):

	December 31, 2021			
	Beginning Balance	Profit or loss	Other comprehensive income(loss)	Ending Balance(*)
Unearned income	₩ (328,278)	(12,714)	-	(340,992)
Account receivable	(29,078)	2,498	-	(26,580)
Financial assets measured at fair value	(142,085)	83,716	325,327	266,958
Investment in associates and etc.	161,270	22,616	(5,624)	178,262
Valuation and depreciation of property and equipment	(150,786)	14,616	-	(136,170)
Derivative asset (liability)	(55,590)	86,234	(8,995)	21,649
Deposits	27,632	(3,202)	-	24,430
Accrued expenses	140,864	13,852	-	154,716
Defined benefit obligation	538,654	26,411	(15,115)	549,950
Plan assets	(553,907)	(47,067)	(870)	(601,844)
Other provisions	312,278	77,268	-	389,546
Allowance for acceptances and guarantees	88,050	(55,588)	-	32,462
Allowance related to asset revaluation	(49,713)	-	-	(49,713)
Allowance for expensing depreciation	(337)	63	-	(274)
Accrued contributions	16,618	19,496	-	36,114
Financial liabilities designated at fair value through profit of loss	(28,226)	(46,429)	-	(74,655)
Allowances	223,651	(91,412)	-	132,239
Constructive dividend	16,291	446	-	16,737
Liability under insurance contracts	1,739	132	-	1,871
Deficit carried over	311	(311)	-	-
Others	(837,736)	(44,441)	(227)	(882,404)
	(648,378)	46,184	294,496	(307,698)
Expired unused tax losses:				
Extinguishment of deposit and insurance liabilities	284,067	(17,462)	-	266,605
	₩ (364,311)	28,722	294,496	(41,093)

(*) Deferred tax assets from overseas subsidiaries are increased by ₩ 939 million due to foreign exchange rate movements.

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41. Income tax expense (continued)

(d) Deferred tax assets and liabilities that are directly charged or credited to equity for the years ended December 31, 2022 and 2021 are as follows:

	January 1, 2022		Changes		December 31, 2022	
	OCI	Tax effect	OCI	Tax effect	OCI	Tax effect
Gain (loss) on valuation of financial assets measured at FVOCI	₩ (824,213)	209,342	(3,293,654)	854,660	(4,117,867)	1,064,002
Gain (loss) on financial liabilities measured at FVTPL attributable to changes in credit risk	(2,506)	689	(4,508)	1,170	(7,014)	1,859
Foreign currency translation adjustments for foreign operations	(116,876)	(8,343)	13,091	(155)	(103,785)	(8,498)
Gain (loss) on cash flow hedges	(38,004)	11,532	(100,043)	29,551	(138,047)	41,083
Equity in other comprehensive income(loss) of associates	13,362	(5,766)	(24,196)	8,474	(10,834)	2,708
The accumulated other comprehensive income(loss) in separate account(*)	(31,072)	8,223	(153,594)	40,387	(184,666)	48,610
Remeasurements of the defined benefit liability	(473,356)	130,232	347,388	(96,257)	(125,968)	33,975
Gain (loss) on valuation of financial asset measured at FVTPL (Overlay approach)	192,125	(50,304)	(299,934)	79,837	(107,809)	29,533
₩	<u>(1,280,540)</u>	<u>295,605</u>	<u>(3,515,450)</u>	<u>917,667</u>	<u>(4,795,990)</u>	<u>1,213,272</u>

	January 1, 2021		Changes		December 31, 2021	
	OCI	Tax effect	OCI	Tax effect	OCI	Tax effect
Gain (loss) on valuation of financial assets measured at FVOCI	₩ 335,800	(108,989)	(1,160,013)	318,331	(824,213)	209,342
Gain (loss) on financial liabilities measured at FVTPL attributable to changes in credit risk	(7,133)	1,961	4,627	(1,272)	(2,506)	689
Foreign currency translation adjustments for foreign operations	(374,944)	(2,117)	258,068	(6,226)	(116,876)	(8,343)
Gain (loss) on cash flow hedges	(67,935)	19,764	29,931	(8,232)	(38,004)	11,532
Equity in other comprehensive income(loss) of associates	6,850	(2,000)	6,512	(3,766)	13,362	(5,766)
The accumulated other comprehensive income(loss) in separate account(*)	25,412	(6,988)	(56,484)	15,211	(31,072)	8,223
Remeasurements of the defined benefit liability	(532,176)	146,396	58,820	(16,164)	(473,356)	130,232
Gain (loss) on valuation of financial asset measured at FVTPL (Overlay approach)	224,049	(62,130)	(31,924)	11,826	192,125	(50,304)
₩	<u>(390,077)</u>	<u>(14,103)</u>	<u>(890,463)</u>	<u>309,708</u>	<u>(1,280,540)</u>	<u>295,605</u>

(*) Deferred tax effects, which are originated from the accumulated other comprehensive income in separate account, are included in the other liabilities of principle and interest guaranteed separate account's financial statement.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

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December 31, 2022 and 2021

(In millions of won)

41. Income tax expense (continued)

(e) The amount of deductible temporary differences that are not recognized as deferred tax assets as of December 31, 2022 and 2021 are as follows:

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Temporary differences related to Shinhan EZ General Insurance, Ltd. (*)	₩ 119,553	-

(*) Shinhan EZ General Insurance, Ltd., a newly incorporated subsidiary for the current period, suffered a net loss for the current period, etc. As of the end of 2022, deferred corporate tax assets were not recognized as it was determined that the temporary difference to be deducted in excess of the temporary difference to be added and the tax loss were not feasible. The expiration date of unused carried tax losses not recognized as deferred tax assets as of the end of the reporting period is as follows:

	<u>Less than 1 year</u>	<u>1~2 years</u>	<u>2~3 years</u>	<u>More than 3 years</u>	<u>Total</u>
Tax loss carried-forward	₩ 9,207	19,979	9,006	76,230	114,422

(f) The amount of temporary difference regarding investment in subsidiaries that are not recognized as deferred tax liabilities as of December 31, 2022 and 2021 are as follows:

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Investment in subsidiaries, etc.	₩ (8,888,268)	(8,486,919)

(g) The Group set off a deferred tax asset against a deferred tax liability of the same taxable entity if, and only if, they relate to income taxes levied by the same taxation authority and the entity has a legally enforceable right to set off current tax assets against current tax liabilities. Deferred tax assets and liabilities presented on a gross basis prior to any offsetting as of December 31, 2022 and 2021 are as follows:

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Deferred tax assets	₩ 1,072,327	593,852
Deferred tax liabilities	(189,950)	(634,945)

(h) As of the end of 2022, the Group is in the process of litigation for cases where tax uncertainty exists (claim amount: ₩ 30,590 million). The Group determined that there is a high probability of winning the case and reflected it as current corporate tax assets and corporate tax expenses.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

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(In millions of won, except per share data)

42. Earnings per share

(a) Basic and diluted earnings per share for the years ended December 31, 2022 and 2021 are as follows:

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Profit attributable to equity holders of Shinhan Financial Group	₩ 4,642,292	4,019,254
Less:		
Dividends to hybrid bond	(156,277)	(116,388)
Net profit available for common stock	₩ <u>4,486,015</u>	<u>3,902,866</u>
Weighted average number of common shares outstanding(*)	530,638,621	534,049,948
Basic and diluted earnings per share in won	₩ <u>8,454</u>	<u>7,308</u>

(*) The number of basic ordinary shares outstanding is 508,784,869 shares and the above weighted-average stocks are calculated by reflecting treasury stocks issued and 17,482,000 shares of convertible preferred shares issued on May 1, 2019.

(b) The calculation details of the weighted average number of ordinary shares for the years ended December 31, 2022 and 2021 are as follows:

	<u>December 31, 2022</u>	
	<u>Number of shares</u>	<u>Number of days</u>
Number of common shares issued	508,784,869	187,476,994,819
Shares of convertible preferred stock	17,482,000	6,380,930,000
Shares of treasury stock	(6,352)	(174,828,329)
Average number of ordinary shares	526,260,517	193,683,096,490
Days		365 days
Weighted average number of ordinary shares		530,638,621

	<u>December 31, 2021</u>	
	<u>Number of shares</u>	<u>Number of days</u>
Number of common shares issued	516,599,554	188,558,837,210
Shares of convertible preferred stock	17,482,000	6,380,930,000
Shares of treasury stock	(6,352)	(11,536,338)
Average number of ordinary shares	534,075,202	194,928,230,872
Days		365 days
Weighted average number of ordinary shares		534,049,948

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December 31, 2022 and 2021

(In millions of won)

43. Commitments and contingencies

(a) Guarantees, acceptances and credit commitments as of December 31, 2022 and 2021 are as follows:

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Guarantees and purchase agreements:		
Outstanding guarantees	₩ 12,154,088	10,540,968
Contingent guarantees	4,565,829	4,670,771
ABS and ABCP purchase agreements	1,496,604	1,525,768
	<u>18,216,521</u>	<u>16,737,507</u>
Commitments to extend credit:		
Loan commitments in won	83,231,840	81,707,963
Loan commitments in foreign currency	25,052,284	19,807,686
Other agreements (*)	96,971,153	92,338,217
	<u>205,255,277</u>	<u>193,853,866</u>
Endorsed bills:		
Secured endorsed bills	10,025	8,199
Unsecured endorsed bills	7,046,806	7,683,165
	<u>7,056,831</u>	<u>7,691,364</u>
	<u>₩ 230,528,629</u>	<u>218,282,737</u>

(*) Unused credit commitments provided to the card customers are included, the amounts are ₩ 90,452,012 million for the year ended December 31, 2022 and ₩ 86,979,545 million for the year ended December 31, 2021.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

(In millions of won)

43. Commitments and contingencies (continued)

(b) Pending litigations

The Group's pending lawsuits as a defendant as of December 31, 2022 are as follows:

Case	Number of claim	Claim amount	Description	Status
Return of unjust earning	1	₩ 33,096	The Plaintiff believes that the group of lenders including the Group unfairly sold two oil drilling vessels that are the core assets for borrowers and it caused losses to other bankrupt creditors of the borrower. Therefore, the Plaintiff filed a lawsuit for damages.	The first trial is ongoing as of December 31, 2022.
Loss claim	1	64,748	Joint Tort liability and Vicarious liability	The first trial is ongoing as of December 31, 2022.
Loss claim	1	36,436	Joint Tort liability and Vicarious liability	The first trial is ongoing as of December 31, 2022.
Hwaseong Bansong- dong Construction Payment Litigation (Hyosung Heavy Industries, etc. 1)	1	25,507	The plaintiffs, as contractors, claimed unpaid construction costs.	The first trial is ongoing as of December 31, 2022.
Others	588	370,892	It includes various cases, such as compensation for loss claim.	
	<u>592</u>	<u>₩ 530,679</u>		

As of the December 31, 2022, the Group has recorded ₩ 29,238 million and ₩ 3,991 million, respectively, as provisions and insurance contract liabilities (reserve for claims) for litigations, etc., which have been decided to lose at the first trial. The outcome of the remaining litigations other than those accounted for provisions, etc. are not expected to have a material impact on the consolidated financial statements, but additional losses may result from future litigation.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

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December 31, 2022 and 2021

(In millions of won)

43. Commitments and contingencies (continued)

(c) As a Prime Brokerage Service operator, the Group entered into a total return swap agreement (“TRS”, derivatives that exchange profits and losses from underlying assets such as stocks, bonds and funds) with a fund operated by Lime Asset Management (“Lime Fund”). Through TRS with the Group, the Lime Fund invested approximately \$200 million in IIG Global Trade Finance Fund, IIG Trade Finance Fund, and IIG Trade Finance Fund-FX Hedge (“IIG Fund”) from May 2017 to September 2017. The Group invested the IIG Fund in LAM Enhanced Finance III L.P (“LAM III Fund”) in kind and acquired the LAM III Fund's beneficiary certificates in accordance with the management instructions of Lime Asset Management in 2019. The recoverable value of the LAM III Fund beneficiary certificates is affected by the recoverable value of the IIG Fund invested in kind.

Meanwhile, IIG Fund received cancellation of registration and asset freeze from the US Securities and Exchange Commission in November 2019. The Financial Supervisory Service (FSS) announced in its interim inspection of Lime Fund in February 2020 that the Group is charged of being involved in poor concealment and fraud of Lime Fund while operating TRSs with Lime Fund, and a related prosecution investigation has been under way since then.

Institutional sanctions (banned from the sale of new private equity funds and etc. for six months) against the Group was finalized by the Financial Services Commission on November 12, 2021.

In addition, the prosecution arrested and indicted the former director of Prime Brokerage Services for fraud charges and violation of the Capital Market and Financial Investment Services Act. Finally, the former director of Prime Brokerage Services was found guilty.

The prosecution indicted the Group and the former director of Prime Brokerage Services on January 22, 2021 for violating ‘Financial Investment Services and Capital Markets Act’. It is expected that the criminal trial will determine whether the Group is legally responsible or not. The Group has determined the present obligation that the Group may be liable for the charge of involvement in the fraud is not significant.

Considering the board resolutions and the results of the Financial Supervisory Service's dispute settlement committee, the Group has been completed or will be carried out the compensation and liquidity supply for some of the Lime Fund sales in the future.

(d) The Group has sold Gen2 related trust instruments from May 2014 to November 2019. As of December 31, 2022, approximately ₩420 billion, the entire outstanding balance, is suspended from redemption and delayed in repayment. In accordance with a resolution of the Board of Directors on September 28, 2021, the Group has decided to pay 40% of the investment principal to the customers who have agreed to the suspension of redemption and settle the amount upon investment recovery.

(e) The Group is responsible for the completion of construction when the contractor fails to fulfill its responsibilities. In case the Group fails to fulfill its responsibility, it is in the process of a responsible-for-completion land trust project (154 cases other than the new residential and commercial apartment project in Jongno-gu, Seoul (excluding completed workplaces)) to compensate for damages incurred to the financial institutions, and for the period ended December 31, 2022, the total PF loans amounted to ₩ 5,194.9 billion. The amount of claim for damages of the Group is determined after identifying whether it is a damage caused by the Group's failure to fulfill its responsibilities. As of December 31, 2022, the risk of the Group to bear the responsibility to complete the project is low, and the loss cannot be reliably measured, hence this was not reflected in the financial statements for the period ended December 31, 2022. Meanwhile, the process of each business sites will be continuously monitored.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

(In millions of won)

44. Statement of cash flows

(a) Cash and cash equivalents in the consolidated statements of cash flows as of December 31, 2022 and 2021 are as follows:

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Cash and due from banks at amortized cost	₩ 29,551,335	28,471,127
Adjustments:		
Due from financial institutions with a maturity over three months from date of acquisition	(1,886,179)	(1,490,600)
Restricted due from banks	(3,663,731)	(2,877,084)
	<u>(5,549,910)</u>	<u>(4,367,684)</u>
	₩ <u>24,001,425</u>	<u>24,103,443</u>

(b) Significant non-cash activities for the years ended December 31, 2022 and 2021 are as follows:

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Investment conversion	₩ -	32,239
Transfers from construction-in-progress to property and equipment	33,983	18,748
Transfers between property and equipment and investment property	9,554	73,773
Transfers between assets held for sale and property and equipment	101,757	1,022
Transfers between investment property and assets held for sale	83,664	2,238
Accounts payable for purchase of intangible assets, etc.	117,743	137,058
Transaction for right-of-use assets	293,590	289,995

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

(In millions of won)

44. Statement of cash flows (continued)

(c) Changes in assets and liabilities arising from financing activities for the years ended December 31, 2022 and 2021 are as follows:

	December 31, 2022					
	Net Derivative liabilities	Borrowings	Debt securities issued	Lease liabilities	Financial liabilities designated at FVTPL	Total
Beginning balance	₩ (81,407)	43,167,065	80,149,363	612,690	-	123,847,711
Changes from cash flows	71,629	6,145,271	(2,255,974)	(259,913)	49,993	3,751,006
Changes from non-cash flows						
Amortization of discount on borrowings and debentures	-	(94,209)	45,713	13,379	-	(35,117)
Changes in foreign currency	-	294,867	58,406	19,032	-	372,305
Other	541,712	(233,819)	(708,725)	237,049	(2,666)	(166,449)
Business combination (Note 47)	-	-	-	1,102	-	1,102
Ending balance	₩ <u>531,934</u>	<u>49,279,175</u>	<u>77,288,783</u>	<u>623,339</u>	<u>47,327</u>	<u>127,770,558</u>

	December 31, 2021				
	Net Derivative liabilities	Borrowings	Debt securities issued	Lease liabilities	Total
Beginning balance	₩ (88,784)	41,594,064	75,134,394	594,161	117,233,835
Changes from cash flows	12,667	849,212	4,417,830	(275,273)	5,004,436
Changes from non-cash flows					
Amortization of discount on borrowings and debentures	-	(71,390)	9,257	10,873	(51,260)
Changes in foreign currency	-	193,892	779,919	16,235	990,046
Other	(5,290)	601,287	(192,037)	266,694	670,654
Ending balance	₩ <u>(81,407)</u>	<u>43,167,065</u>	<u>80,149,363</u>	<u>612,690</u>	<u>123,847,711</u>

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

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45. Related parties

Intra-group balances, and income and expenses arising from intra-group transactions are eliminated in preparing the consolidated financial statements. In accordance with K-IFRS No. 1024, the Group defines the retirement benefit plans of the associates, key management and their families, the consolidation group and related parties as the scope of related parties. The amount of profit and loss, bond and debt balance between the Group and the related parties are disclosed. For details of the subsidiaries and associates, refer to 'Note 15'.

(a) Balances with the related parties as of December 31, 2022 and 2021 are as follows:

Related party	Account	December 31, 2022	December 31, 2021
Investments in associates:			
BNP Paribas Cardif Life Insurance	Other assets	₩ 38	61
"	Credit card loans	117	87
"	Deposits	18,745	14,870
	Unused credit commitments	1	-
Partners 4th Growth Investment Fund	Deposits	742	10,096
Shinhan EZ General Insurance, Ltd. (*2)	Credit card loans	-	24
"	ACL	-	(2)
"	Other provisions	-	4
"	Deposits	-	1,455
Dream High Fund III (*1)	Deposits	-	4
Midas Dong-A Snowball Venture Fund 2	Deposits	-	350
Incorporated association Finance Saving Information Center	Deposits	2	16
Nomura-Rifa Private Real Estate Investment Trust No.19	Loans	11,880	11,880
"	Other assets	44	-
SH MAIN Professional Investment Type Private Mixed Asset Investment Trust No.3	Other assets	427	345
Korea Finance Security	Deposits	415	457
SHINHAN-CORE TREND GLOBAL FUND 1 (*1)	Unearned revenue	-	17
Hermes Private Investment Equity Fund	Deposits	218	246
Korea Credit Bureau	Deposits	721	1,394
Goduck Gangil1 PFV Co., Ltd	Loans	6,825	12,000
"	ACL	(20)	(52)
"	Deposits	3	-
SBC PFV Co., Ltd	Deposits	21,163	33,278
Sprott Global Renewable Private Equity Fund I	Deposits	100	176
IMM Global Private Equity Fund	Loans	800	800
"	ACL	(3)	(3)
"	Deposits	14,824	21,543
Goduck Gangil10 PFV Co., Ltd	Loans	3,100	7,600
"	ACL	(9)	(24)
"	Deposits	26,880	72,740
Shinhan Global Healthcare Fund 2	Deposits	1	1
One Shinhan Global Fund 1	Unearned revenue	-	104
IMM Special Situation 1-2 PRIVATE EQUITY FUND	Deposits	151	23
EDNCENTRAL Co.,Ltd.	Loans	-	19,739
"	Accrued income	-	9
"	Deposits	-	1
"	Unearned revenue	-	40
Future-Creation Neoplux Venture Capital Fund	Account receivables	3,949	3,919
Neoplux Market-Frontier Secondary Fund	Account receivables	904	954
Gyeonggi-Neoplux Superman Fund	Account receivables	623	620
Shinhan-Neoplux Energy Newbiz Fund	Account receivables	978	1,002

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

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45. Related parties (continued)

(a) Balances with the related parties as of December 31, 2022 and 2021 are as follows (continued):

Related party	Account	December 31, 2022	December 31, 2021
Investments in associates (continued):			
SHINHAN-NEO Core Industrial Technology Fund	Account receivables	₩ 124	-
KTC-NP Growth Champ 2011-2 Private Equity Fund	Account receivables	2,675	4,512
Neoplux No.3 Private Equity Fund	Account receivables	3,190	662
NV Station Private Equity Fund	Deposits	21	41
Korea Digital Asset Custody	Deposits	153	526
SW-S Fund	Deposits	112	115
Shinhan Smilegate Global PEF I	Unearned revenue	9	49
WaveTechnology co.Ltd	Deposits	41	99
SHINHAN-NEO Market-Frontier 2nd Fund	Account receivables	513	513
iPIXEL Co.,Ltd.	Loans	-	55
"	Deposits	225	651
CJL No.1 Private Equity Fund	Deposits	603	779
NewWave 6th Fund	Account receivables	849	-
Nova New Technology Investment Fund No.1	Deposits	215	357
DS Power Semicon Private Equity Fund	Deposits	100	-
Genesis No.1 Private Equity Fund	Deposits	19	-
DDI LVC Master Real Estate Investment Trust Co., Ltd.	Deposits	59	-
Newlake Growth Capital Partners2 PEF	Deposits	353	-
Logisvalley Shinhan REIT Co.,Ltd.	Loans	43,000	-
"	ACL	(28)	-
"	Account receivables	81	-
"	Deposits	1,421	-
Shinhan-Albatross tech investment Fund	Deposits	3,402	-
Shinhan Global Active REIT Co.Ltd	Deposits	393	-
Shinhan VC tomorrow venture fund 1	Account receivables	850	-
SH Sustainable Management ESG Short term Bond Security Feeder Investment Trust No.1	Accrued income	1	-
SH Global Net Zero Solution Security Investment Trust	Accrued income	2	-
SEOKWANG T&I	Deposits	1	-
Shinhan Time 1st Investment fund	Deposits	238	-
DeepBlue No.1 Private Equity Fund	Deposits	400	-
Key management personnel and their immediate relatives:	Loans	6,561	6,149
	Assets	87,471	70,850
	Liabilities	₩ 91,731	159,432

(*1) Excluded from the associates due to disposal and liquidation for the year ended December 31, 2022.

(*2) For the year ended December 31, 2022, it is incorporated into the consolidation target as the Group held control due to increased equity ratio and BNP Paribas Cardif General Insurance, Ltd. has changed its name to Shinhan EZ General Insurance, Ltd.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

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(In millions of won)

45. Related parties (continued)

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

Related party	Account	December 31, 2022	December 31, 2021
Investments in associates			
BNP Paribas Cardif Life Insurance	Fees and commission income	₩ 1,890	3,023
"	Interest expense	(52)	(13)
"	General and administrative expenses	(1)	(2)
Shinhan Praxis K-Growth Global Private Equity Fund	Fees and commission income	42	323
Shinhan EZ General Insurance, Ltd. (*3)	Fees and commission income	2	10
"	Reversal for credit loss	5	6
"	Interest expense	(1)	(1)
SM New Technology Business Investment Fund I (*1)	Fees and commission income	-	187
Partners 4th Growth Investment Fund	Interest expense	(12)	(11)
Shinhan-Albatross Technology Investment Fund	Fees and commission income	146	129
Shinhan-Midas Dong-A Secondary Fund	Fees and commission income	121	115
Shinhan-Nvestor Liquidity Solution Fund	Fees and commission income	181	271
Shinhan-PS Investment Fund No.1	Fees and commission income	15	20
Nomura-Rifa Private Real Estate Investment Trust No.19	Interest income	522	530
SH MAIN Professional Investment Type Private Mixed Asset Investment Trust No.3	Fees and commission income	1,550	974
KOREA FINANCE SECURITY	Fees and commission income	6	8
"	Interest expense	-	(1)
ShinHan – Soo Young Entrepreneur Investment Fund	Fees and commission income	140	1,028
Shinhan-Rhinos 1 Fund (*2)	Fees and commission income	61	47
SHINHAN-CORE TREND GLOBAL FUND1 (*2)	Fees and commission income	-	106
Kiwoom-Shinhan Innovation Fund I	Fees and commission income	118	240
One Shinhan Global Fund1	Fees and commission income	104	208
Open-Shinhan Portfolio Investment Association No. 1	Fees and commission income	-	59
FuturePlay-Shinhan TechInnovation Fund 1	Fees and commission income	227	241
Korea Credit Bureau	Fees and commission income	13	14
"	Interest expense	-	(9)
Goduck Gangill PFV Co., Ltd	Interest income	377	754
"	Reversal for credit loss	31	20
SBC PFV Co., Ltd	Fees and commission income	808	776
"	Interest expense	(23)	(14)
IMM Global Private Equity Fund	Interest income	29	23
"	Interest expense	(274)	(49)
"	Provision for credit loss	-	(1)

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

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(In millions of won)

45. Related parties (continued)

(b) Transactions with the related parties for the years ended December 31, 2022 and 2021 are as follows (continued):

Related party	Account	December 31, 2022	December 31, 2021
Investments in associates (continued)			
Goduck Gangil10 PFV Co., Ltd	Interest income	₩ 171	283
"	Interest expense	(738)	(78)
"	Provision for credit loss	14	(4)
COSPEC BIM tech (*1)	Interest income	-	41
"	Provision(reversal) for credit loss	-	95
Korea Omega Project Fund I	Fees and commission income	180	180
New Green Shinhan Mezzanine Fund(*1)	Fees and commission income	-	334
Sparklabs-Shinhan Opportunity Fund 1	Fees and commission income	202	202
EDNCENTRAL Co.,Ltd.	Interest income	267	1,140
"	Fees and commission income	3,212	714
Kakao-Shinhan 1 st TNYT Fund	Fees and commission income	386	386
KoFC-Neoplux R&D-Biz Creation 2013-1 Investment (*1)	Interest income	-	1
"	Fees and commission income	-	5,474
Future-Creation Neoplux Venture Capital Fund	Interest income	74	31
"	Fees and commission income	53	308
Neoplux Market-Frontier Secondary Fund	Fees and commission income	904	954
Gyeonggi-Neoplux Superman Fund	Fees and commission income	623	621
Shinhan-Neoplux Energy Newbiz Fund	Fees and commission income	978	1,002
NewWave 6 th Fund	Fees and commission income	1,014	1,210
SHINHAN-NEO Core Industrial Technology Fund	Fees and commission income	498	498
KTC-NP Growth Champ 2011-2 Private Equity Fund	Interest income	59	26
Neoplux No.3 Private Equity Fund	Fees and commission income	3,190	2,433
Pacific Sunny Professional Investors Private Placement Real Estate Investment Company No.45 (*2)	Fees and commission income	-	83
Shinhan Smilegate Global PEF I	Fees and commission income	49	189
SHINHAN-NEO Market-Frontier 2 nd Fund	Fees and commission income	2,050	2,026
Korea Digital Asset Custody	Interest expense	-	(2)
SWK-Shinhan New Technology Investment Fund 1 st	Fees and commission income	76	41
Ulmus SHC innovation investment fund	Fees and commission income	94	63
iPIXEL Co.,Ltd.	Interest income	1	2
CJL No.1 Private Equity Fund	Interest expense	(7)	(2)
Reverent-Shinhan Vista Fund	Fees and commission income	40	90
Hermes Private Investment Equity Fund	Interest expense	-	(1)
Kiwoom-Shinhan Innovation Fund 2	Fees and commission income	279	115
ETRI Holdings-Shinhan 1 st Unicorn Fund	Fees and commission income	100	32
Shinhan-Time mezzanine blind Fund	Fees and commission income	107	300
Shinhan VC tomorrow venture fund 1	Fees and commission income	3,400	419
JS Shinhan Private Equity Fund	Fees and commission income	587	250
Stonebridge-Shinhan Unicorn Secondary Fund	Fees and commission income	591	-
Shinhan-Kunicorn first Fund	Fees and commission income	261	-

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

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(In millions of won)

45. Related parties (continued)

(b) Transactions with the related parties for the years ended December 31, 2022 and 2021 are as follows (continued):

Related party	Account	December 31, 2022	December 31, 2021
Investments in associates (continued)			
Shinhan-Quantum Startup Fund	Fees and commission income	₩ 125	-
Shinhan Simone Fund I	Fees and commission income	78	-
ShinhanFitrin 1st Technology Business Investment Association	Fees and commission income	59	-
DDI LVC Master Real Estate Investment Trust Co., Ltd.	Interest expense	(1)	-
Logisvalley Shinhan REIT Co.,Ltd.	Interest income	1,018	-
"	Fees and commission income	458	-
"	Interest expense	(1)	-
"	Provision(reversal) for credit loss	(28)	-
Shinhan-Albatross tech investment Fund	Interest expense	(7)	-
Shinhan-Dev healthcare Fund I	Fees and commission income	66	-
Shinhan-Cognitive Start-up Fund L.P.	Fees and commission income	192	-
Global Commerce Fund	Fees and commission income	10	-
Shinhan-HGI Social Enterprise Fund	Fees and commission income	27	-
Shinhan-WWG Energy Fund New Technology Venture Investment Fund	Fees and commission income	22	-
IGIS-Shinhan New Technology Fund I	Fees and commission income	36	-
Shinhan-G.N.Tech Smart Innovation Fund	Fees and commission income	81	-
SH Sustainable Management ESG Short term Bond Security Feeder Investment Trust No.1	Fees and commission income	6	-
SH Global Net Zero Solution Security Investment Trust	Fees and commission income	82	-
Newlake Growth Capital Partners2 PEF	Interest expense	(1)	-
Shinhan Global Active REIT Co.Ltd	Interest expense	(1)	-
DeepBlue No.1 Private Equity Fund	Interest expense	(2)	-
DS SHINHAN Content Investment Fund 1	Fees and commission income	18	-
Shinhan Time 1st Investment fund	Fees and commission income	4	-
SHINHAN SGC ESG Fund No.1	Fees and commission income	5	-
Shinhan-Sneak Peek Bio&Healthcare Bounce Back Fund	Fees and commission income	4	-
Shinhan-iSquare Venture Fund 1st	Fees and commission income	3	-
Key management personnel and their immediate relatives			
Interest income		205	122
		₩ 27,198	28,589

(*1) Excluded from the associates due to disposal and liquidation for the year ended December 31, 2021

(*2) Excluded from the associates due to disposal and liquidation for the year ended December 31, 2022.

(*3) For the year ended December 31, 2022, it is incorporated into the consolidation target as the Group held control due to increased equity ratio and BNP Paribas Cardif General Insurance, Ltd. has changed its name to Shinhan EZ General Insurance, Ltd. The transaction amount for the years ended December 31, 2022 and 2021 is the amount before being incorporated into the consolidation target.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

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(In millions of won)

45. Related parties (continued)

(c) Key management personnel compensation

Key management personnel compensation for the years ended December 31, 2022 and 2021 are as follows:

		December 31, 2022	December 31, 2021
Short-term employee benefits	₩	27,591	23,972
Severance benefits		817	686
Share-based payment transactions(*)		9,777	13,886
	₩	<u>38,185</u>	<u>38,544</u>

(*) The expenses of share-based payment transactions are the remuneration expenses during the vesting period.

(d) The guarantees and purchase agreement provided between the related parties as of December 31, 2022 and 2021 are as follows:

Guarantor	Guaranteed Parties	Amount of guarantees		Account
		December 31, 2022	December 31, 2021	
Shinhan Bank	BNP Paribas Cardif Life Insurance	₩ 10,000	10,000	Unused loan limit
"	Key Management Personnel	2,143	1,607	Unused loan limit
Shinhan Card	BNP Paribas Cardif Life Insurance	883	913	Unused credit line
"	Shinhan EZ General Insurance, Ltd.(*)	-	226	Unused credit line
The Group	Structured entities	296,118	207,078	Purchase agreement
		₩ <u>309,144</u>	<u>219,824</u>	

(*) For the year ended December 31, 2022, it is incorporated into the consolidation target as the Group held control due to increased equity ratio and BNP Paribas Cardif General Insurance, Ltd. has changed its name to Shinhan EZ General Insurance, Ltd.

(e) Details of collaterals provided by the related parties as of December 31, 2022 and 2021 are as follows:

Provided to	Provided by	Pledged assets	Amount of assets pledged	
			December 31, 2022	December 31, 2021
Shinhan Bank	BNP Paribas Cardif Life Insurance	Government bonds	₩ 12,400	12,000
	iPIXEL Co.,Ltd.	Electronic credit guarantee	190	190
	Logisvalley Shinhan REIT Co.,Ltd.	Collateral trust	51,600	-
	Key Management Personnel	Properties	8,073	10,012
	"	Deposits and etc.	1,306	2,011
	"	Guarantee	3,092	375
			<u>12,471</u>	<u>12,398</u>
			₩ <u>76,661</u>	<u>12,398</u>

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

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45. Related parties (continued)

(f) Details of significant loan transactions with related parties as of December 31, 2022 and 2021 are as follows:

Classification	Company	December 31, 2022				
		Beginning	Execution	Collection	Others(*)	Ending
Investments in associates	Nomura-Rifa Private Real Estate Investment Trust No.19	₩ 11,880	-	-	-	11,880
	EDNCENTRAL Co.,Ltd.	19,739	-	(20,000)	261	-
	Goduck Gangil1 PFV Co., Ltd.	12,000	-	(5,175)	-	6,825
	Goduck Gangil10 PFV Co., Ltd.	7,600	-	(4,500)	-	3,100
	IMM Global Private Equity Fund	800	-	-	-	800
	iPIXEL Co.,Ltd.	55	-	-	(55)	-
	Logisvalley Shinhan REIT Co.,Ltd.	-	43,000	-	-	43,000
	Key Management Personnel	6,150	4,590	(4,177)	-	6,563
	Total	₩ 58,224	47,590	(33,852)	206	72,168

(*) The effect on changes in allowance for credit loss is included.

Classification	Company	December 31, 2021				
		Beginning	Execution	Collection	Others(*)	Ending
Investments in associates	Nomura-Rifa Private Real Estate Investment Trust No.19	₩ 11,973	-	-	(93)	11,880
	IGIS PRIVATE REAL ESTATE TRUST NO.331	9,688	-	(9,769)	81	-
	EDNCENTRAL Co.,Ltd.	19,381	-	-	358	19,739
	Goduck Gangil1 PFV Co., Ltd.	24,000	-	(12,000)	-	12,000
	Goduck Gangil10 PFV Co., Ltd.	9,400	600	(2,400)	-	7,600
	IMM Global Private Equity Fund	800	-	-	-	800
	COSPEC BIM tech	151	-	-	(151)	-
	iPIXEL Co.,Ltd.	-	71	-	(16)	55
	Key Management Personnel	5,146	5,315	(4,311)	-	6,150
Total	₩ 80,539	5,986	(28,480)	179	58,224	

(*) The effect on changes in allowance for credit loss is included.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

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46. Interests in unconsolidated structured entities

(a) The nature and extent of interests in unconsolidated structured entities

The Group involved in assets-backed securitization, structured financing, beneficiary certificates (primarily investment funds) and other structured entities and characteristics of these structured entities are as follows:

	<u>Description</u>
Assets-backed securitization	<p>Securitization vehicles are established to buy assets from originators and issue asset-backed securities in order to facilitate the originators' funding activities and enhance their financial soundness. The Group is involved in the securitization vehicles by purchasing (or committing to purchase) the asset-backed securities issued and/or providing other forms of credit enhancement.</p> <p>The Group does not consolidate a securitization vehicle if (i) the Group is unable to make or approve decisions as to the modification of the terms and conditions of the securities issued by such vehicle or disposal of such vehicles' assets, (ii) (even if the Group is so able) if the Group does not have the exclusive or primary power to do so, or (iii) if the Group does not have exposure, or right, to a significant amount of variable returns from such entity due to the purchase (or commitment to purchase) of asset-backed securities so issued or subordinated obligations or by providing other forms of credit support.</p>
Structured financing	<p>Structured entities for project financing are established to raise funds and invest in a specific project such as M&A (mergers and acquisitions), BTL (build-transfer-lease), shipping finance, etc. The Group is involved in the structured entities by originating loans, investing in equity, or providing credit enhancement.</p>
Investment fund	<p>Investment fund means an investment trust, a PEF (private equity fund) or a partnership which invests in a group of assets such as stocks or bonds by issuing a type of beneficiary certificates to raise funds from the general public, and distributes its income and capital gains to their investors. The Group manages assets by investing in shares of investment fund or playing a role of an operator or a GP (general partner) of investment fund, on behalf of other investors.</p>

The size of unconsolidated structured entities as of December 31, 2022 and 2021 are as follows:

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Total assets:		
Asset-backed securitization	₩ 237,920,155	248,200,446
Structured financing	343,752,304	255,854,384
Investment fund	343,504,568	301,241,508
	₩ <u>925,177,027</u>	<u>805,296,338</u>

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

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December 31, 2022 and 2021

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46. Interests in unconsolidated structured entities (continued)

(b) Nature of risks

i) The carrying values of the assets and liabilities relating to its interests in unconsolidated structured entities as of December 31, 2022 and 2021 are as follows:

		December 31, 2022			
		Assets-backed securitization	Structured financing	Investment fund	Total
Assets under consolidated financial statements:					
Loans measured at fair value through profit or loss	₩	9,269	693,630	498	703,397
Loan at amortized cost		869,478	15,725,255	183,263	16,777,996
Securities at fair value through profit or loss		2,475,307	250,470	13,767,837	16,493,614
Derivate assets		4,432	-	-	4,432
Securities at fair value through other comprehensive income		1,832,987	179,714	-	2,012,701
Securities at amortized cost		6,894,241	-	-	6,894,241
Other assets		4,337	44,448	5,608	54,393
	₩	<u>12,090,051</u>	<u>16,893,517</u>	<u>13,957,206</u>	<u>42,940,774</u>
Liabilities under consolidated financial statements:					
Derivate liabilities	₩	24,902	91	-	24,993
Other liabilities		788	18,840	101	19,729
	₩	<u>25,690</u>	<u>18,931</u>	<u>101</u>	<u>44,722</u>
		December 31, 2021			
		Assets-backed securitization	Structured financing	Investment fund	Total
Assets under consolidated financial statements:					
Loans measured at fair value through profit or loss	₩	16,352	156,630	42,231	215,213
Loan at amortized cost		731,184	13,548,490	155,572	14,435,246
Securities at fair value through profit or loss		3,752,394	235,238	14,014,493	18,002,125
Derivate assets		4,343	16,560	-	20,903
Securities at fair value through other comprehensive income		2,510,057	215,237	-	2,725,294
Securities at amortized cost		6,493,106	-	-	6,493,106
Other assets		138	17,280	177	17,595
	₩	<u>13,507,574</u>	<u>14,189,435</u>	<u>14,212,473</u>	<u>41,909,482</u>
Liabilities under consolidated financial statements:					
Derivate liabilities	₩	3,817	48	-	3,865
Other liabilities		103	21,683	-	21,786
	₩	<u>3,920</u>	<u>21,731</u>	<u>-</u>	<u>25,651</u>

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

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46. Interests in unconsolidated structured entities (continued)

(b) Nature of risks (continued)

ii) The maximum risk exposure of the Group relating to its interests in unconsolidated structured entities as of December 31, 2022 and 2021 are as follows:

December 31, 2022				
	Assets-backed securitization	Structured financing	Investment fund	Total
Assets held	₩ 12,090,051	16,893,517	13,957,206	42,940,774
ABS and ABCP				
purchase agreements	1,014,702	104,773	2,257,564	3,377,039
Loan commitments	419,039	988,331	-	1,407,370
Guarantees	15,000	80,000	-	95,000
Others	-	103,039	-	103,039
	<u>₩ 13,538,792</u>	<u>18,169,660</u>	<u>16,214,770</u>	<u>47,923,222</u>
December 31, 2021				
	Assets-backed securitization	Structured financing	Investment fund	Total
Assets held	₩ 13,507,574	14,189,435	14,212,473	41,909,482
ABS and ABCP				
purchase agreements	895,273	2,210	2,703,353	3,600,836
Loan commitments	439,843	984,082	6,900	1,430,825
Guarantees	21,200	105,550	-	126,750
Others	-	150,579	-	150,579
	<u>₩ 14,863,890</u>	<u>15,431,856</u>	<u>16,922,726</u>	<u>47,218,472</u>

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47. Business combination

(a) Shinhan EZ General Insurance, Ltd.

i) *General information*

On June 30, 2022, the Group obtained control by acquiring 94.54% (The acquisition price of ₩ 41 billion) of the total issued shares of Shinhan EZ General Insurance, Ltd. (formerly, BNP Paribas Cardif General Life Insurance Ltd.) after the Financial Services Commission approved the incorporation of subsidiary on June 9, 2022. The main reason for business combination is to secure new business opportunities in the insurance finance area and to achieve synergy between existing businesses.

ii) *Identifiable net assets*

Fair values of assets acquired and liabilities assumed as of acquisition date are as follows:

	<u>Amount(*1)</u>
Assets:	
Cash and due from banks at amortized cost	₩ 79,723
Securities at fair value through profit or loss	5,977
Securities at fair value through other comprehensive income	24,805
Loans at amortized cost(*2)	98
Property and equipment	1,938
Intangible assets	4,425
Other assets	36,980
	<u>153,946</u>
Liabilities:	
Liabilities under insurance contracts(*3)	71,406
Other liabilities	26,824
	<u>98,230</u>
Fair value of the identifiable net assets	₩ <u>55,716</u>

(*1) The accounting for the acquisition of Shinhan EZ General Insurance, Ltd. was determined using the identifiable assets and liabilities recognized by Shinhan EZ General Insurance, Ltd. at the time of business combination.

(*2) During the business combination, the Group acquired receivables that were fair value of ₩ 98 million, and the total contract amount was ₩ 98 million. There is no contractual cash flow that is not expected to be recovered from the receivables.

(*3) VOBA (Value Of Business Acquired) measured separately was adjusted by applying the direct method based on the actuarial appraisal value model to the carrying amount of the acquired company's insurance contract liabilities.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

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47. Business combination (continued)

(a) Shinhan EZ General Insurance, Ltd. (continued)

iii) *Gain from bargain purchase*

Gain from bargain purchase recognized as a result of business combination is as follows:

		<u>Amount</u>
Transfer cost(*)	₩	43,367
Fair value of the identifiable net assets		<u>55,716</u>
Gain from bargain purchase	₩	<u>(12,349)</u>

(*) Includes the 5.46% shares Shinhan Life Insurance Co., Ltd. held.

iv) *Expenses related to business combination*

The expenses in connection with the business combination amounts to W 1,259 million, including legal fees and due diligence fees, and the fee was recognized as a fee and commission expense in the consolidated comprehensive income.

v) *Net cash outflows from business combination*

		<u>Amount</u>
Consideration paid in cash	₩	41,000
Cash and cash equivalent acquired		<u>13,869</u>
Net cash outflows	₩	<u>27,131</u>

vi) *If Shinhan EZ Insurance had been consolidated from the beginning of the current year, the operating loss and net loss of Shinhan EZ Insurance, which would have been recorded in the consolidated statement of comprehensive income, are ₩ 15,242 million and ₩ 15,030 million, respectively.*

(b) The merger of Shinhan Asset Management Co., Ltd. and Shinhan Alternative Investment Management Inc.

Shinhan Asset Management Co., Ltd. and Shinhan Alternative Investment Management Inc. have merged on January 5, 2022 to form a holding company named Shinhan Asset Management Co., Ltd. As a result of the merger, the common shareholders as of immediately prior to the merger of Shinhan Alternative Investment Management Inc. (the merged company) are entitled to receive 0.4430946 share of Shinhan Asset Management Co., Ltd. (the surviving company)'s common share (₩ 5,000 per share) per common share of Shinhan Alternative Investment Management Inc. There is no further transfer of any such shares except in accordance with the exchange ratio agreed upon by both parties under the merger agreement addressed above.

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48. Events after the reporting period

(a) Decided to acquire and retire treasury stock

The controlling company decided to acquire and retire treasury stocks that worth ₩ 150 billion through a resolution of the Board of Directors on February 8, 2023, in order to enhance shareholder value.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

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49. Uncertainty due to changes in domestic and global economic conditions

Increased internal and external economic uncertainty, such as inflation and rising market interest rates, and the prolonged COVID-19 are negatively affecting the global economy. The Group uses forward-looking information to estimate expected credit losses in accordance with K-IFRS No.1109 ‘Financial Instruments’ and there have been changes in forward-looking information due to the increase in future uncertainty. Accordingly, the probability of default rate for the year ended December 31, 2022 is re-estimated using changed forward-looking information on major variables such as GDP growth rate, consumer price fluctuation rate and unemployment rate to compute the probability of default rate. The Group will continue to monitor internal and external economic uncertainties and the impact of the COVID-19 on the economy.

Risk exposures by major consolidated subsidiaries due to COVID-19 are as follows, figures may significantly vary for industries that are highly affected by future economic conditions:

(a) Shinhan Bank

		December 31, 2022							
		Airlift passenger	Lodging	Oil/petroleum refinery	Art-related	Movie theater	Clothing manufacturing	Travel	Total
Loans at amortized cost	₩	154,076	3,281,340	1,217,228	209,652	76,982	2,160,803	56,719	7,156,800
Securities at fair value through other comprehensive income		123,875	18,416	211,000	-	-	14,776	-	368,067
Securities at amortized cost		59,997	-	-	-	-	-	-	59,997
Off-balance accounts		435,399	254,076	2,731,899	8,500	76,817	1,162,054	36,784	4,705,529
	₩	<u>773,347</u>	<u>3,553,832</u>	<u>4,160,127</u>	<u>218,152</u>	<u>153,799</u>	<u>3,337,633</u>	<u>93,503</u>	<u>12,290,393</u>
		December 31, 2021							
		Airlift passenger	Lodging	Oil/petroleum refinery	Art-related	Movie theater	Clothing manufacturing	Travel	Total
Loans at amortized cost	₩	164,904	3,314,684	937,385	219,859	86,241	2,082,545	92,152	6,897,770
Securities at fair value through profit or loss		-	-	29,911	-	-	-	2,737	32,648
Securities at fair value through other comprehensive income		114,158	18,142	264,343	-	7,123	10,678	-	414,444
Off-balance accounts		364,351	323,638	2,650,311	20,196	91,622	982,026	37,941	4,470,085
	₩	<u>643,413</u>	<u>3,656,464</u>	<u>3,881,950</u>	<u>240,055</u>	<u>184,986</u>	<u>3,075,249</u>	<u>132,830</u>	<u>11,814,947</u>

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49. Uncertainty due to changes in domestic and global economic conditions (continued)

Risk exposures by major consolidated subsidiaries due to COVID-19 are as follows, figures may significantly vary for industries that are highly affected by future economic conditions (continued):

(b) Shinhan Card Co., Ltd.

December 31, 2022				
Retails				
	Credit sales	Short term card loan	Long term card loan	Total
Loans at amortized cost	₩ 439,882	187,652	424,445	1,051,979
Total Exposure	870,572		-	870,572
December 31, 2021				
Retails				
	Credit sales	Short term card loan	Long term card loan	Total
Loans at amortized cost	₩ 371,197	152,838	387,318	911,353
Total Exposure	814,598		-	814,598

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49. Uncertainty due to changes in domestic and global economic conditions (continued)

Risk exposures by major consolidated subsidiaries due to COVID-19 are as follows, figures may significantly vary for industries that are highly affected by future economic conditions (continued):

(c) Jeju Bank

		December 31, 2022								
		Airlift passenger	Lodging	Art-related	Movie theater	Leisure related service industry	Bus business	Bath business	Youth training facilities business	Total
Loans at amortized cost	₩	-	303,118	4,752	226	11,299	8,152	9,064	5,438	342,049
Off-balance accounts		1	6,107	173	4	841	384	339	4	7,853
	₩	1	309,225	4,925	230	12,140	8,536	9,403	5,442	349,902
		December 31, 2021								
		Airlift passenger	Lodging	Art-related	Movie theater	Leisure related service industry	Bus business	Bath business	Youth training facilities business	Total
Loans at amortized cost	₩	-	295,664	4,161	596	25,432	7,535	17,089	5,466	355,943
Off-balance accounts		4	5,439	161	4	991	197	538	6	7,340
	₩	4	301,103	4,322	600	26,423	7,732	17,627	5,472	363,283

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49. Uncertainty due to changes in domestic and global economic conditions (continued)

As of December 31, 2022 and 2021, the exposure of the loans applied for moratorium of interest payments and moratorium of repayment in installments is as follows:

(a) Shinhan Bank

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Moratorium of interest payments	₩ 165,442	224,449
Moratorium of repayment in installments	1,105,481	1,342,366
Moratorium of interest payments and moratorium of repayment in installments	66,218	65,773
	<u>₩ 1,337,141</u>	<u>1,632,588</u>

(b) Jeju Bank

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Moratorium of interest payments	₩ -	348
Moratorium of repayment in installments	351,129	276,193
	<u>₩ 351,129</u>	<u>276,541</u>

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50. LIBOR Interest rates

The effective interest rate, not the carrying value, is adjusted when replacing the interest rate index of a financial instrument measured at amortized cost in relation to the reform of the interest rate index. It includes exceptions, such as allowing hedge accounting to continue uninterrupted even if an interest rate indicator replacement occurs in a hedging relationship. Regarding the suspension of LIBOR interest rate calculation, the financial instruments that have not been converted to replaced interest rate benchmark among the LIBOR interest rates as of December 31, 2022 and December 31, 2021 are as follows:

(a) Non-derivative financial assets

		December 31, 2022			
		Carrying Value			
		USD LIBOR(*2)	JPY LIBOR	EUR LIBOR	Other LIBORs
Due from banks and loans at amortized cost:					
Loans	₩	2,511,050	-	-	-
Financial assets at fair value through profit or loss:					
Corporate bonds and others		253,126	-	-	-
Securities at fair value through other comprehensive income:					
Financial institution bonds		189,047	-	-	-
Corporate bonds and others		229,030	-	-	-
		<u>418,077</u>	<u>-</u>	<u>-</u>	<u>-</u>
Commitments and financial guarantee contracts(*1)	₩	217,839	-	-	-

(*1) The commitments and guarantee contracts are in nominal amount.

(*2) The instruments that will be matured before the end of June 30, 2023 when USD LIBOR interest rate calculation is discontinued are excluded.

		December 31, 2021			
		Carrying Value			
		USD LIBOR(*2)	JPY LIBOR	EUR LIBOR	Other LIBORs
Due from banks and loans at amortized cost:					
Loans	₩	2,768,972	207,660	49,642	122,104
Securities at fair value through other comprehensive income:					
Financial institution bonds		167,167	-	-	-
Corporate bonds and others		281,949	-	-	-
		<u>449,116</u>	<u>-</u>	<u>-</u>	<u>-</u>
Commitments and guarantee contracts(*1)	₩	280,224	39,148	56,552	13,853

(*1) The commitments and guarantee contracts are in nominal amount.

(*2) The instruments that will be matured before the end of June 30, 2023 when USD LIBOR interest rate calculation is discontinued are excluded.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

(In millions of won)

50. LIBOR Interest rates (continued)

(b) Non-derivative financial liabilities

		December 31, 2022			
		Carrying Value			
		USD LIBOR(*)	JPY LIBOR	EUR LIBOR	Other LIBORs
Financial liabilities at amortized cost:					
Deposits	₩	200,000	-	-	-
Borrowings		50,692	-	-	-
Debt securities issued		1,355,525	-	-	-
	₩	<u>1,606,217</u>	<u>-</u>	<u>-</u>	<u>-</u>
Financial liabilities designated at fair value through profit or loss					
Derivatives-combined securities	₩	15,000	-	-	-

(*) The instruments that will be matured before the end of June 30, 2023 when USD LIBOR interest rate calculation is discontinued are excluded.

		December 31, 2021			
		Carrying Value			
		USD LIBOR(*)	JPY LIBOR	EUR LIBOR	Other LIBORs
Financial liabilities at amortized cost:					
Deposits	₩	200,000	-	-	-
Borrowings		347,420	-	-	-
Debt securities issued		986,871	-	-	-
	₩	<u>1,534,291</u>	<u>-</u>	<u>-</u>	<u>-</u>

(*) The instruments that will be matured before the end of June 30, 2023 when USD LIBOR interest rate calculation is discontinued are excluded.

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Notes to the Consolidated Financial Statements

December 31, 2022 and 2021

(In millions of won)

50. LIBOR Interest rates (continued)

(c) Derivatives

		December 31, 2022			
		Notional amount			
		USD LIBOR(*)	JPY LIBOR	EUR LIBOR	Other LIBORs
Trading:					
Interest rates related	₩	11,488,018	-	-	-
Foreign currency related		11,718,419	-	-	-
Equity related		183,779	-	-	-
Credit related		2,370	-	-	-
Others		405,536	-	-	-
		<u>23,798,122</u>	<u>-</u>	<u>-</u>	<u>-</u>
Hedge:					
Interest rates related		4,196,714	-	-	-
Foreign currency related		258,529	-	-	-
	₩	<u>4,455,243</u>	<u>-</u>	<u>-</u>	<u>-</u>

(*) The instruments that will be matured before the end of June 30, 2023 when USD LIBOR interest rate calculation is discontinued are excluded.

		December 31, 2021			
		Notional amount			
		USD LIBOR(*)	JPY LIBOR	EUR LIBOR	Other LIBORs
Trading:					
Interest rates related	₩	10,772,390	-	-	-
Foreign currency related		10,900,844	-	-	-
Equity related		268,243	-	-	-
Credit related		1,108	-	-	-
Others		379,360	-	-	-
		<u>22,321,945</u>	<u>-</u>	<u>-</u>	<u>-</u>
Hedge:					
Interest rates related		4,150,155	-	-	-
Foreign currency related		278,705	-	-	-
	₩	<u>4,428,860</u>	<u>-</u>	<u>-</u>	<u>-</u>

(*) The instruments that will be matured before the end of June 30, 2023 when USD LIBOR interest rate calculation is discontinued are excluded.