

Separate 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 Shareholders and Board of Directors of Shinhan Bank (A wholly owned subsidiary of Shinhan Financial Group Inc.)

## **Opinion**

We have audited the accompanying separate financial statements of Shinhan Bank (the "Bank"), which comprise the separate statements of financial position as at December 31, 2022 and 2021, and the separate statements of comprehensive income, separate statements of changes in equity and separate statements of cash flows for the years then ended, and notes to the separate financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying separate financial statements present fairly, in all material respects, the separate financial position of the Bank as at December 31, 2022 and 2021, and its separate financial performance and its separate 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 Separate Financial Statements* section of our report. We are independent of the Bank in accordance with the ethical requirements of the Republic of Korea that are relevant to our audit of the separate financial statements and we have fulfilled our other ethical responsibilities in accordance with the ethical requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

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

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

In preparing the separate financial statements, management is responsible for assessing the Bank'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 Bank or to cease operations.

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

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

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

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

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

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

/s/ Samil PricewaterhouseCoopers

March 6, 2023 Seoul, Korea

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 separate financial statements and notes thereto. Accordingly, the readers of the audit report should understand that there is a possibility that the above audit report may have to be revised to reflect the impact of such subsequent events or circumstances, if any.

## **Separate Statements of Financial Position** As of December 31, 2022 and 2021

(In millions of Korean won)	Notes	_	2022	2021
Assets				
Cash and due from banks	3,5,8,40,41	W	16,402,829	17,506,073
Securities at fair value through profit or loss	3,6,41		20,645,384	22,173,110
Derivative assets	3,7,41		4,904,187	2,999,159
Loans at amortized cost	3,8,41		315,234,621	299,559,783
Loans at fair value through profit or loss	3,8		950,519	859,745
Securities at fair value through other comprehensive	3,9,17		,	,
income			47,778,295	47,245,324
Securities at amortized cost	3,9,17		27,081,299	19,996,310
Property and equipment	10,11,16,17		2,354,811	2,297,381
Intangible assets	12		564,569	479,744
Investments in subsidiaries and associates	13		2,330,159	2,281,634
Investment properties	14		597,402	602,835
Defined benefit assets	23		530,174	118,334
Current tax assets	37		6,039	8,641
Deferred tax assets	37		329,421	171,150
Other assets	3,8,15,41		15,132,789	16,216,672
Total assets		w –	454,842,498	432,515,895
Liabilities				
Financial liabilities designated at fair value through prof	it 10			
or loss	18		47,327	-
Deposits	3,19,41		342,202,963	326,016,200
Financial liabilities at fair value through profit or loss	3,20		424,964	583,662
Derivative liabilities	3,7,41		5,817,237	2,857,887
Borrowings	3,21,40,41		23,670,126	20,345,021
Debt securities issued	3,22,40		30,935,213	34,956,862
Provisions	24,39,41		381,345	424,846
Current tax liabilities	37		441,602	285,122
Other liabilities	3,11,25,41,42		21,782,981	19,472,632
Total liabilities		₩ <sup>-</sup>	425,703,758	404,942,232
			,	
Equity				
Capital stock	26		7,928,078	7,928,078
Hybrid bonds	26		2,088,542	1,586,662
Capital surplus	26		398,080	398,080
Capital adjustments	26,37		6,465	6,692
Accumulated other comprehensive loss	26,37		(1,128,983)	(522,669)
Retained earnings	26,27		19,846,558	18,176,820
(Reserve for loan loss)			(2,559,855)	(2,276,212)
(Required amount of loan loss (gain))			((141,679))	(283,643)
(Expected amount of loan loss (gain))			((141,679))	(283,643)
Total equity			29,138,740	27,573,663
Total liabilities and equity		₩ <u></u>	454,842,498	432,515,895
			<u> </u>	

(In millions of Korean won, except earnings per share data)	Notes	2022	2021
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## **Separate Statements of Comprehensive Income** For the years ended December 31, 2022 and 2021

Interest income	•••		4=4.0=4
financial instruments at fair value through profit or loss	W	389,222	171,871
financial instruments at fair value through other		10.071.770	0.21.7.100
comprehensive income and amortized cost		12,354,759	8,215,109
Interest expense		5,505,835	2,549,137
Net interest income	3,28,36,41	7,238,146	5,837,843
Fees and commission income		1,175,314	1,209,108
Fees and commission expense		280,591	258,086
Net fees and commission income	3,29,36,41	894,723	951,022
Dividend income	30,36	18,545	16,992
Net gain on financial instruments at fair value through profit or			
loss	31,36,41	160,286	365,797
Net foreign currencies transaction gain	36	320,984	133,972
Net gain on financial instruments designated at fair			
value through profit or loss	18	2,673	-
Net gain (loss) on disposal of securities at fair value through			
other comprehensive income	9,36	(2,640)	65,675
Net loss on disposal of securities at amortized cost	9	(60)	(310)
Provision for credit loss allowance	3,8,41	544,876	241,100
General and administrative expenses	32,41	3,287,936	3,006,115
Net other operating expenses	34,36,41	(1,148,647)	(950,956)
Operating income		3,651,198	3,172,820
Net non-operating expense	35	(83,722)	(266,692)
Profit before income taxes		3,567,476	2,906,128
Income tax expense	37	935,603	753,194
Profit for the year	27	2,631,873	2,152,934
(Adjusted profit after reflection of reserve for loan loss For the year ended December 31, 2022: 2,773,552 million won For the year ended December 31, 2021:			
1,869,292 million won)			
Other comprehensive income for the year, net of income tax Items that may be reclassified subsequently to profit or loss:			
Foreign currency translation differences for foreign operations Unrealized net change in fair value of financial assets at fair value through other		(5,206)	24,923
comprehensive income		(763,895)	(353,809)

## **Separate Statements of Comprehensive Income (continued)** For the years ended December 31, 2022 and 2021

(In millions of Korean won, except earnings per share data)	Notes		2022	2021
Items that will not be reclassified to				
profit or loss:				
Remeasurements of defined benefit plans		W	192,935	33,996
Unrealized net change in fair value of				
financial assets at fair value through other				
comprehensive income			(28,014)	17,277
Other comprehensive loss for the year, net of income tax	3,26,37	W	(604,180)	(277,613)
Total comprehensive income for the year		₩	2,027,693	1,875,321
Basic and diluted earnings per share in won	38		1,619	1,323

## **Separate Statements of Changes in Equity** For the year ended December 31, 2021

(In millions of Korean won)			Hybrid	Capital	Capital	Accumulated other comprehensive	Retained	
		Capital stock	bonds	surplus	adjustments	income (loss)	earnings	Total
Balance at January 1, 2021	W	7,928,078	1,586,662	398,080	8,148	(278,057)	16,882,135	26,525,046
Total comprehensive income (loss), net of								
income tax								
Profit for the year		-	-	-	-	-	2,152,934	2,152,934
Other comprehensive loss for the year		-	-	-	-	(244,612)	(33,001)	(277,613)
Foreign currency translation differences for	r							
foreign operations		-	-	-	-	24,923	-	24,923
Unrealized net changes in fair values of								
financial assets at fair value through other								
comprehensive loss		-	-	-	-	(303,531)	(33,001)	(336,532)
Remeasurements of defined benefit plans	_			<u> </u>	<u>-</u>	33,996		33,996
Total comprehensive income (loss) for the								
year	_	<u> </u>		<u> </u>	<u>-</u>	(244,612)	2,119,933	1,875,321
Transactions with owners in their capacity								
as owners								
Annual dividends to equity holder		-	-	-	-	-	(770,000)	(770,000)
Dividends to hybrid bond holders		-	-	-	-	-	(55,248)	(55,248)
Share-based payment transactions	_	-		-	(1,456)		<u>-</u>	(1,456)
Total transactions with owners in their								
capacity as owners			<u>-</u>	<u> </u>	(1,456)		(825,248)	(826,704)
Balance at December 31, 2021	W	7,928,078	1,586,662	398,080	6,692	(522,669)	18,176,820	27,573,663

# **Separate Statements of Changes in Equity(continued)**For the year ended December 31, 2022

(In millions of Korean won)						Accumulated other		
			Hybrid	Capital	Capital	comprehensive	Retained	
	_	Capital stock	bonds	surplus	Adjustments	income (loss)	earnings	Total
Balance at January 1, 2022	W	7,928,078	1,586,662	398,080	6,692	(522,669)	18,176,820	27,573,663
Total comprehensive income (loss), net of								
income tax								
Profit for the year		-	=	-	-	=	2,631,873	2,631,873
Other comprehensive income (loss) for the								
year		-	-	-	-	(606,314)	2,134	(604,180)
Foreign currency translation differences for								
foreign operations		_	-	_	-	(5,206)	_	(5,206)
Unrealized net changes in fair values of						, ,		,
financial assets at fair value through other								
comprehensive income (loss)		-	-	-	-	(794,043)	2,134	(791,909)
Remeasurements of defined benefit plans		-	-	-	-	192,935	-	192,935
Total comprehensive income (loss) for the	_							
year		-	-	-	-	(606,314)	2,634,007	2,027,693
Transactions with owners in their capacity	_							
as owners								
Annual dividends to equity holder		-	-	-	-	-	(900,000)	(900,000)
Dividends to hybrid bond holders		-	-	-	-	-	(64,269)	(64,269)
Issuance of hybrid bonds		-	631,581	-	-	-	-	631,581
Repayment of hybrid bonds		-	(129,701)	-	(299)	-	-	(130,000)
Share-based payment transactions		-	<u>-</u>	_	72	-	-	72
Total transactions with owners in their	-							
capacity as owners		-	501,880	-	(227)	-	(964,269)	(462,616)
Balance at December 31, 2022	W	7,928,078	2,088,542	398,080	6,465	(1,128,983)	19,846,558	29,138,740

## **Separate Statements of Cash Flows**For the years ended December 31, 2022 and 2021

Profit before income tax	(In millions of Korean won)	_	2022	2021
Profit before income tax	Cash flaws from anarating activities			
Adjustments for:		<b>13</b> 7	3 567 476	2 006 128
Interest income         (12,743,981)         (8,386,980)           Interest expense         5,505,835         2,549,137           Dividend income         (18,545)         (16,992)           Income and expense items without cash inflow/outflow:         (7,256,691)         (5,854,835)           Net (gain) loss on financial instruments at fair value through profit or loss         (129,624)         125,625           Net gain on financial instruments designated at fair value through profit or loss         (2,673)         -           Net (gain) loss on disposal of financial assets at fair value through other comprehensive income         2,640         (65,675)           Net loss on disposal of securities at amortized cost         544,876         241,100           Provision for credit loss allowance         544,876         241,100           Non-cash employee benefits         128,390         137,135           Depreciation and amortization         370,895         346,425           Net non-cash other operating expenses         142,488         132,268           Non-operating (income) expense         35,173         208,305           Securities at fair value through profit or loss         1,675,242         1,676,383           Derivative assets         2,365,700         4,851,878           Loans at fair value through profit or loss         16,008,			3,307,470	2,900,128
Interest expense   5,505,835   2,549,137   (10,902)			(12 743 981)	(8 386 980)
Dividend income         (18,545)         (16,992)           Income and expense items without cash inflow/outflow:         (7,256,691)         (5,854,835)           Net (gain) loss on financial instruments at fair value through profit or loss         200,157         (38,507)           Net non-cash foreign currencies transaction (gain) loss         (129,624)         125,625           Net gain on financial instruments designated at fair value through profit or loss         (2,673)         -           Net (gain) loss on disposal of financial assets at fair value through other comprehensive income         2,640         (65,675)           Net loss on disposal of securities at amortized cost         544,876         241,100           Non-cash employee benefits         128,390         137,135           Depreciation and amortization         33,098         346,225           Net non-cash other operating expenses         142,488         113,268           Non-operating (income) expense         35,173         208,305           Non-operating in assets and liabilities:         1,675,242         (1,763,383)           Deposits at amortized cost         560,658         1,911,069           Securities at fair value through profit or loss         2,640         4,853,829           Derivative assets         2,657,002         4,853,829           Loans at amortized co				
Income and expense items without cash inflow/outflow:   Net (gain) loss on financial instruments at fair value through profit or loss   200,157   (38,507)   (38,50				
Net (gain) loss on financial instruments at fair value through profit or loss   129,624   125,625   Net gain on financial instruments designated at fair value through profit or loss   126,625   Net gain on financial instruments designated at fair value through profit or loss   12,673	Dividend meome	_		
Net (gain) loss on financial instruments at fair value through profit or loss or foreign currencies transaction (gain) loss         200,157         (38,507)           Net non-cash foreign currencies transaction (gain) loss         (129,624)         125,625           Net gain on financial instruments designated at fair value through profit or loss         (2,673)         -           Net (gain) loss on disposal of financial assets at fair value through other comprehensive income         2,640         (65,675)           Net loss on disposal of securities at amortized cost         60         310           Provision for credit loss allowance         544,876         241,100           Non-cash employee benefits         128,390         137,135           Depreciation and amortization         370,895         346,425           Net non-cash other operating expenses         142,488         113,268           Non-operating (income) expense         35,173         208,305           Changes in assets and liabilities:         1,292,382         1,067,986           Changes in assets and liabilities:         2,365,700         4,853,829           Loans at amortized cost         1,675,242         (1,763,383)           Derivative assets         2,365,700         4,853,829           Loans at fair value through profit or loss         (90,747)         (15,704) <t< td=""><td>Income and expense items without cash inflow/outflow:</td><td>_</td><td>(7,230,071)</td><td>(3,031,033)</td></t<>	Income and expense items without cash inflow/outflow:	_	(7,230,071)	(3,031,033)
Net non-cash foreign currencies transaction (gain) loss         (129,624)         125,625           Net gain on financial instruments designated at fair value through profit or loss         (2,673)         -           Net (gain) loss on disposal of financial assets at fair value through other comprehensive income         2,640         (65,675)           Net loss on disposal of securities at amortized cost         60         310           Provision for credit loss allowance         544,876         241,100           Non-cash employee benefits         128,390         137,135           Depreciation and amortization         370,895         346,425           Net non-cash other operating expenses         142,488         113,268           Non-operating (income) expense         35,173         208,305           Changes in assets and liabilities:         1,292,382         1,067,986           Changes in assets and liabilities:         2,365,700         4,853,829           Deposits at amortized cost         (15,699,351)         (24,318,778)           Derivative assets         2,365,700         4,853,829           Loans at fair value through profit or loss         (15,699,351)         (24,318,778)           Deposits due to customers         16,008,843         34,595,472           Financial liabilities         (22,38,570)         (4,931,2			200 157	(38 507)
Net gain on financial instruments designated at fair value through profit or loss         (2,673)         -           Net (gain) loss on disposal of financial assets at fair value through other comprehensive income         2,640         (65,675)           Net loss on disposal of securities at amortized cost         60         310           Provision for credit loss allowance         544,876         241,100           Non-cash employee benefits         128,390         137,135           Depreciation and amortization         370,895         346,425           Net non-cash other operating expenses         142,488         113,268           Non-operating (income) expense         35,173         208,305           Changes in assets and liabilities:         1,292,382         1,067,986           Securities at fair value through profit or loss         1,675,242         (1,763,383)           Derivative assets         2,365,700         4,853,829           Loans at amortized cost         (15,699,351)         (24,318,778)           Loans at fair value through profit or loss         (90,747)         (15,704)           Other assets         1,254,722         (5,253,851)           Deposits due to customers         16,008,843         34,595,472           Financial liabilities at fair value through profit or loss         (196,589)         21,038 </td <td></td> <td></td> <td></td> <td></td>				
loss         (2,673)         -           Net (gain) loss on disposal of financial assets at fair value through other comprehensive income         2,640         (65,675)           Net loss on disposal of securities at amortized cost         60         310           Provision for credit loss allowance         544,876         241,100           Non-cash employee benefits         128,390         137,135           Depreciation and amortization         370,895         346,425           Net non-cash other operating expenses         142,488         113,268           Non-operating (income) expense         35,173         208,305           Changes in assets and liabilities:         560,658         1,911,069           Securities at fair value through profit or loss         1,675,242         (1,763,383)           Derivative assets         2,365,700         4,853,829           Loans at amortized cost         (15,699,351)         (24,318,778)           Loans at fair value through profit or loss         (90,747)         (15,704)           Other assets         16,008,843         34,955,472           Financial liabilities at fair value through profit or loss         (196,589)         21,038           Derivative liabilities         (2,238,570)         (4,931,284)           Defined benefit liabilities			(125,021)	123,023
Net (gain) loss on disposal of financial assets at fair value through other comprehensive income         2,640         (65,675)           Net loss on disposal of securities at amortized cost         60         310           Provision for credit loss allowance         544,876         241,100           Non-cash employee benefits         128,390         137,135           Depreciation and amortization         370,895         346,425           Net non-cash other operating expenses         142,488         113,268           Non-operating (income) expense         35,173         208,305           Changes in assets and liabilities:         1,292,382         1,067,986           Deposits at amortized cost         560,658         1,911,069           Securities at fair value through profit or loss         1,675,242         (1,763,383)           Derivative assets         2,365,700         4,833,829           Loans at amortized cost         (15,699,351)         (24,318,778)           Loans at fair value through profit or loss         (90,747)         (15,704)           Other assets         1,254,722         (5,253,851)           Deposits due to customers         (196,589)         21,038           Perivative liabilities at fair value through profit or loss         (196,589)         21,038           Defined benefit			(2.673)	_
comprehensive income         2,640         (65,675)           Net loss on disposal of securities at amortized cost         60         310           Provision for credit loss allowance         544,876         241,100           Non-cash employee benefits         128,390         137,135           Depreciation and amortization         370,895         346,425           Net non-cash other operating expenses         142,488         113,268           Non-operating (income) expense         35,173         208,305           Changes in assets and liabilities:         1,292,382         1,067,986           Changes in assets and liabilities:         560,658         1,911,069           Securities at fair value through profit or loss         1,675,242         (1,763,383)           Derivative assets         2,365,700         4,853,829           Loans at amortized cost         (15,699,351)         (24,318,778)           Loans at fair value through profit or loss         (90,747)         (15,704)           Other assets         1,254,722         (5,253,851)           Deposits due to customers         16,008,843         34,595,472           Financial liabilities at fair value through profit or loss         (196,589)         21,038           Derivative liabilities         (261,526)         (180,636) <td></td> <td></td> <td>( ) /</td> <td></td>			( ) /	
Net loss on disposal of securities at amortized cost         60         310           Provision for credit loss allowance         544,876         241,100           Non-cash employee benefits         128,390         137,135           Depreciation and amortization         370,895         346,425           Net non-cash other operating expenses         142,448         113,268           Non-operating (income) expense         35,173         208,305           Changes in assets and liabilities:         1,292,382         1,067,986           Deposits at amortized cost         560,658         1,911,069           Securities at fair value through profit or loss         1,675,242         (1,763,383)           Derivative assets         2,365,700         4,853,829           Loans at amortized cost         (15,699,351)         (24,318,778)           Loans at fair value through profit or loss         (90,747)         (15,704)           Other assets         1,254,722         (5,253,851)           Deposits due to customers         16,008,843         34,595,472           Financial liabilities at fair value through profit or loss         (196,589)         21,038           Derivative liabilities         (22,238,570)         (4,931,284)           Defined benefit liabilities         (261,526)         (180			2,640	(65,675)
Provision for credit loss allowance         544,876         241,100           Non-cash employee benefits         128,390         137,135           Depreciation and amortization         370,895         346,425           Net non-cash other operating expenses         142,488         113,268           Non-operating (income) expense         35,173         208,305           Changes in assets and liabilities:         1,292,382         1,067,986           Changes in assets and liabilities:         1,675,242         (1,763,383)           Deposits at amortized cost         560,658         1,911,069           Securities at fair value through profit or loss         1,675,242         (1,763,383)           Derivative assets         2,365,700         4,853,829           Loans at amortized cost         (15,699,351)         (24,318,778)           Loans at fair value through profit or loss         (90,747)         (15,704)           Other assets         1,254,722         (5,253,851)           Deposits due to customers         16,008,843         34,595,472           Financial liabilities at fair value through profit or loss         (196,589)         21,038           Derivative liabilities         (2,238,570)         (4,931,284)           Defined benefit liabilities         (261,526)         (180,636				
Non-cash employee benefits         128,390         137,135           Depreciation and amortization         370,895         346,425           Net non-cash other operating expenses         142,488         113,268           Non-operating (income) expense         35,173         208,305           Changes in assets and liabilities:         1,292,382         1,067,986           Deposits at amortized cost         560,658         1,911,069           Securities at fair value through profit or loss         1,675,242         (1,763,383)           Derivative assets         2,365,700         4,853,829           Loans at amortized cost         (15,699,351)         (24,318,778)           Loans at fair value through profit or loss         (90,747)         (15,704)           Other assets         1,254,722         (5,253,851)           Deposits due to customers         16,008,843         34,595,472           Financial liabilities at fair value through profit or loss         (196,589)         21,038           Derivative liabilities         (2,238,570)         (4,931,284)           Defined benefit liabilities         (261,526)         (180,636)           Provisions         (10,449)         (12,904)           Other liabilities         (707,756)         (602,305)           Inte	1			
Depreciation and amortization         370,895         346,425           Net non-cash other operating expenses         142,488         113,268           Non-operating (income) expense         35,173         208,305           Changes in assets and liabilities:         1,292,382         1,067,986           Deposits at amortized cost         560,658         1,911,069           Securities at fair value through profit or loss         1,675,242         (1,763,383)           Derivative assets         2,365,700         4,853,829           Loans at amortized cost         (15,699,351)         (24,318,778)           Loans at fair value through profit or loss         (90,747)         (15,704)           Other assets         1,254,722         (5,253,851)           Deposits due to customers         16,008,843         34,595,472           Financial liabilities at fair value through profit or loss         (196,589)         21,038           Derivative liabilities         (2,238,570)         (4,931,284)           Defined benefit liabilities         (261,526)         (180,636)           Provisions         (10,449)         (12,904)           Other liabilities         (707,756)         (602,305)           Income tax paid         (707,756)         (602,305)           Interest re	Non-cash employee benefits			
Net non-cash other operating expenses         142,488         113,268           Non-operating (income) expense         35,173         208,305           Changes in assets and liabilities:         1,292,382         1,067,986           Changes in assets and liabilities:         560,658         1,911,069           Securities at fair value through profit or loss         1,675,242         (1,763,383)           Derivative assets         2,365,700         4,853,829           Loans at amortized cost         (15,699,351)         (24,318,778)           Loans at fair value through profit or loss         (90,747)         (15,704)           Other assets         1,254,722         (5,253,851)           Deposits due to customers         16,008,843         34,595,472           Financial liabilities at fair value through profit or loss         (196,589)         21,038           Derivative liabilities         (2,238,570)         (4,931,284)           Defined benefit liabilities         (261,526)         (180,636)           Provisions         (10,449)         (12,904)           Other liabilities         (707,756)         (602,305)           Income tax paid         (707,756)         (602,305)           Interest received         12,502,525         8,527,589           Interest p	- ·			
Non-operating (income) expense         35,173         208,305           Changes in assets and liabilities:         1,292,382         1,067,986           Deposits at amortized cost         560,658         1,911,069           Securities at fair value through profit or loss         1,675,242         (1,763,383)           Derivative assets         2,365,700         4,853,829           Loans at amortized cost         (15,699,351)         (24,318,778)           Loans at fair value through profit or loss         (90,747)         (15,704)           Other assets         1,254,722         (5,253,851)           Deposits due to customers         16,008,843         34,595,472           Financial liabilities at fair value through profit or loss         (196,589)         21,038           Derivative liabilities         (22,38,570)         (4,931,284)           Defined benefit liabilities         (261,526)         (180,636)           Provisions         (10,449)         (12,904)           Other liabilities         (707,756)         (602,305)           Income tax paid         (707,756)         (602,305)           Interest received         12,502,525         8,527,589           Interest paid         (4,556,579)         (2,594,270)           Dividends received <t< td=""><td></td><td></td><td></td><td></td></t<>				
Changes in assets and liabilities:         1,067,986           Deposits at amortized cost         560,658         1,911,069           Securities at fair value through profit or loss         1,675,242         (1,763,383)           Derivative assets         2,365,700         4,853,829           Loans at amortized cost         (15,699,351)         (24,318,778)           Loans at fair value through profit or loss         (90,747)         (15,704)           Other assets         1,254,722         (5,253,851)           Deposits due to customers         16,008,843         34,595,472           Financial liabilities at fair value through profit or loss         (196,589)         21,038           Derivative liabilities         (2,238,570)         (4,931,284)           Defined benefit liabilities         (261,526)         (180,636)           Provisions         (10,449)         (12,904)           Other liabilities         1,388,521         (1,627,192)           Income tax paid         (707,756)         (602,305)           Interest received         12,502,525         8,527,589           Interest paid         (4,556,579)         (2,594,270)           Dividends received         20,418         32,500				
Changes in assets and liabilities:         Deposits at amortized cost       560,658       1,911,069         Securities at fair value through profit or loss       1,675,242       (1,763,383)         Derivative assets       2,365,700       4,853,829         Loans at amortized cost       (15,699,351)       (24,318,778)         Loans at fair value through profit or loss       (90,747)       (15,704)         Other assets       1,254,722       (5,253,851)         Deposits due to customers       16,008,843       34,595,472         Financial liabilities at fair value through profit or loss       (196,589)       21,038         Derivative liabilities       (2,238,570)       (4,931,284)         Defined benefit liabilities       (261,526)       (180,636)         Provisions       (10,449)       (12,904)         Other liabilities       1,388,521       (1,627,192)         Income tax paid       (707,756)       (602,305)         Interest received       12,502,525       8,527,589         Interest paid       (4,556,579)       (2,594,270)         Dividends received       20,418       32,500				
Deposits at amortized cost       560,658       1,911,069         Securities at fair value through profit or loss       1,675,242       (1,763,383)         Derivative assets       2,365,700       4,853,829         Loans at amortized cost       (15,699,351)       (24,318,778)         Loans at fair value through profit or loss       (90,747)       (15,704)         Other assets       1,254,722       (5,253,851)         Deposits due to customers       16,008,843       34,595,472         Financial liabilities at fair value through profit or loss       (196,589)       21,038         Derivative liabilities       (2,238,570)       (4,931,284)         Defined benefit liabilities       (261,526)       (180,636)         Provisions       (10,449)       (12,904)         Other liabilities       1,388,521       (1,627,192)         Income tax paid       (707,756)       (602,305)         Interest received       12,502,525       8,527,589         Interest paid       (4,556,579)       (2,594,270)         Dividends received       20,418       32,500	Changes in assets and liabilities:	_		
Derivative assets       2,365,700       4,853,829         Loans at amortized cost       (15,699,351)       (24,318,778)         Loans at fair value through profit or loss       (90,747)       (15,704)         Other assets       1,254,722       (5,253,851)         Deposits due to customers       16,008,843       34,595,472         Financial liabilities at fair value through profit or loss       (196,589)       21,038         Derivative liabilities       (2,238,570)       (4,931,284)         Defined benefit liabilities       (261,526)       (180,636)         Provisions       (10,449)       (12,904)         Other liabilities       1,388,521       (1,627,192)         Income tax paid       (707,756)       (602,305)         Interest received       12,502,525       8,527,589         Interest paid       (4,556,579)       (2,594,270)         Dividends received       20,418       32,500			560,658	1,911,069
Derivative assets       2,365,700       4,853,829         Loans at amortized cost       (15,699,351)       (24,318,778)         Loans at fair value through profit or loss       (90,747)       (15,704)         Other assets       1,254,722       (5,253,851)         Deposits due to customers       16,008,843       34,595,472         Financial liabilities at fair value through profit or loss       (196,589)       21,038         Derivative liabilities       (2,238,570)       (4,931,284)         Defined benefit liabilities       (261,526)       (180,636)         Provisions       (10,449)       (12,904)         Other liabilities       1,388,521       (1,627,192)         Income tax paid       (707,756)       (602,305)         Interest received       12,502,525       8,527,589         Interest paid       (4,556,579)       (2,594,270)         Dividends received       20,418       32,500	Securities at fair value through profit or loss		1,675,242	(1,763,383)
Loans at fair value through profit or loss       (90,747)       (15,704)         Other assets       1,254,722       (5,253,851)         Deposits due to customers       16,008,843       34,595,472         Financial liabilities at fair value through profit or loss       (196,589)       21,038         Derivative liabilities       (2,238,570)       (4,931,284)         Defined benefit liabilities       (261,526)       (180,636)         Provisions       (10,449)       (12,904)         Other liabilities       1,388,521       (1,627,192)         Income tax paid       (707,756)       (602,305)         Interest received       12,502,525       8,527,589         Interest paid       (4,556,579)       (2,594,270)         Dividends received       20,418       32,500			2,365,700	4,853,829
Other assets       1,254,722       (5,253,851)         Deposits due to customers       16,008,843       34,595,472         Financial liabilities at fair value through profit or loss       (196,589)       21,038         Derivative liabilities       (2,238,570)       (4,931,284)         Defined benefit liabilities       (261,526)       (180,636)         Provisions       (10,449)       (12,904)         Other liabilities       1,388,521       (1,627,192)         Income tax paid       (707,756)       (602,305)         Interest received       12,502,525       8,527,589         Interest paid       (4,556,579)       (2,594,270)         Dividends received       20,418       32,500	Loans at amortized cost		(15,699,351)	(24,318,778)
Deposits due to customers       16,008,843       34,595,472         Financial liabilities at fair value through profit or loss       (196,589)       21,038         Derivative liabilities       (2,238,570)       (4,931,284)         Defined benefit liabilities       (261,526)       (180,636)         Provisions       (10,449)       (12,904)         Other liabilities       1,388,521       (1,627,192)         Income tax paid       (707,756)       (602,305)         Interest received       12,502,525       8,527,589         Interest paid       (4,556,579)       (2,594,270)         Dividends received       20,418       32,500	Loans at fair value through profit or loss		(90,747)	(15,704)
Financial liabilities at fair value through profit or loss       (196,589)       21,038         Derivative liabilities       (2,238,570)       (4,931,284)         Defined benefit liabilities       (261,526)       (180,636)         Provisions       (10,449)       (12,904)         Other liabilities       1,388,521       (1,627,192)         Income tax paid       (707,756)       (602,305)         Interest received       12,502,525       8,527,589         Interest paid       (4,556,579)       (2,594,270)         Dividends received       20,418       32,500	Other assets		1,254,722	(5,253,851)
Derivative liabilities       (2,238,570)       (4,931,284)         Defined benefit liabilities       (261,526)       (180,636)         Provisions       (10,449)       (12,904)         Other liabilities       1,388,521       (1,627,192)         Income tax paid       (707,756)       (602,305)         Interest received       12,502,525       8,527,589         Interest paid       (4,556,579)       (2,594,270)         Dividends received       20,418       32,500	Deposits due to customers		16,008,843	34,595,472
Defined benefit liabilities       (261,526)       (180,636)         Provisions       (10,449)       (12,904)         Other liabilities       1,388,521       (1,627,192)         Income tax paid       (707,756)       (602,305)         Interest received       12,502,525       8,527,589         Interest paid       (4,556,579)       (2,594,270)         Dividends received       20,418       32,500	Financial liabilities at fair value through profit or loss		(196,589)	21,038
Provisions       (10,449)       (12,904)         Other liabilities       1,388,521       (1,627,192)         4,756,454       3,277,676         Income tax paid       (707,756)       (602,305)         Interest received       12,502,525       8,527,589         Interest paid       (4,556,579)       (2,594,270)         Dividends received       20,418       32,500	Derivative liabilities		(2,238,570)	(4,931,284)
Other liabilities         1,388,521 (1,627,192)           4,756,454         3,277,676           Income tax paid         (707,756) (602,305)           Interest received         12,502,525 8,527,589           Interest paid         (4,556,579) (2,594,270)           Dividends received         20,418 32,500	Defined benefit liabilities		(261,526)	(180,636)
Income tax paid         (707,756)         (602,305)           Interest received         12,502,525         8,527,589           Interest paid         (4,556,579)         (2,594,270)           Dividends received         20,418         32,500	Provisions		(10,449)	
Income tax paid       (707,756)       (602,305)         Interest received       12,502,525       8,527,589         Interest paid       (4,556,579)       (2,594,270)         Dividends received       20,418       32,500	Other liabilities	_	1,388,521	(1,627,192)
Interest received       12,502,525       8,527,589         Interest paid       (4,556,579)       (2,594,270)         Dividends received       20,418       32,500		_	4,756,454	3,277,676
Interest received       12,502,525       8,527,589         Interest paid       (4,556,579)       (2,594,270)         Dividends received       20,418       32,500	Income tax paid		(707,756)	(602,305)
Interest paid       (4,556,579)       (2,594,270)         Dividends received       20,418       32,500			, , , , ,	
Dividends received 20,418 32,500				
		_		

## **Separate Statements of Cash Flows(continued)** For the years ended December 31, 2022 and 2021

Cash flows from investing activities         4,022         (1,206)           Proceeds from decrease of securities at fair value through profit or loss         1,839,509         1,866,642           Acquisition of securities at fair value through profit or loss         (1,944,891)         (2,419,739)           Proceeds from decrease of securities at fair value through other comprehensive income comprehensive income         16,679,279         22,891,054           Acquisition of securities at fair value through other comprehensive income         (18,034,340)         (32,113,930)           Proceeds from decrease of securities at amortized cost         4,864,231         4,235,693           Acquisition of securities at amortized cost         (11,856,814)         4,235,693           Acquisition of securities at amortized cost         (18,034,340)         (32,113,930)           Proceeds from disposal of property and equipment         (220,752)         (169,828)           Acquisition of property and equipment         (220,752)         (169,828)           Proceeds from disposal of intengible assets         3,841         16,698,28           Acquisition of intangible assets         3,839,69         (330,764)           Proceeds from disposal of investments in associates         (72,739)         (100,840)           Proceeds from disposal of investment properties         (5,995)         (2,739)	(In millions of Korean won)	_	2022	2021
Net cash flow of derivative financial instruments for hedges	Cash flows from investing activities			
Proceeds from decrease of securities at fair value through profit or loss	<u> </u>	W	4,022	(1,206)
Acquisition of securities at fair value through profit or loss   1,944,891   1,054			·	
Proceeds from decrease of securities at fair value through other comprehensive income comprehensive income requires at fair value through other comprehensive income roceds from decrease of securities at amortized cost (18,034,340) (32,113,930) rocedes from decrease of securities at amortized cost (11,856,814) (5,117,419) rocedes from disposal of property and equipment (220,752) (169,828) rocedes from disposal of intangible assets (33,481 16 Acquisition of intangible assets (380,396) (330,764) rocedes from disposal of intangible assets (380,396) (330,764) rocedes from disposal of investments in associates (72,739) (100,840) rocedes from disposal of investments in associates (72,739) (100,840) rocedes from disposal of investments in associates (72,739) (100,840) rocedes from disposal of investment properties (5,995) (2,739) rocedes from sale of non-current assets held for sale (5,995) (2,739) rocedes from sale of non-current assets held for sale (5,995) (2,739) rocedes from sale of non-current assets held for sale (5,995) (566,510) rocease in other assets (534,297) (566,510) rocease in other assets (534,297) (566,510) rocease in financing activities (8,986,690) (11,133,374) rocease in financial liabilities designated at fair value through profit or loss rocease in financial liabilities designated at fair value through profit or loss (19,381,515) (12,683,555) rocedes from issuance of debt securities (19,381,515) (12,683,555) rocedes from issuance of debt securities (19,381,515) (12,683,555) rocedes from issuance of hybrid bonds (130,000) roc	<b>U</b> 1			
comprehensive income         16,679,279         22,891,054           Acquisition of securities at fair value through other comprehensive income         (18,034,340)         (32,113,930)           Proceeds from decrease of securities at amortized cost         (4,864,231)         4,235,693           Acquisition of securities at amortized cost         (11,856,814)         (5,117,419)           Proceeds from disposal of property and equipment         9         25           Acquisition of property and equipment         (220,752)         (169,828)           Proceeds from disposal of intangible assets         3,481         16           Acquisition of intangible assets         3,481         16           Proceeds from disposal of investments in associates         (72,739)         (100,840)           Proceeds from disposal of investment properties         (72,739)         (100,840)           Proceeds from disposal of investment properties         (5,995)         (2,739)           Proceeds from sale of non-current assets held for sale         9,991         47,792           Decrease in ot	· · · · · · · · · · · · · · · · · · ·		, , ,	, , , ,
Acquisition of securities at fair value through other comprehensive income         (18,034,340)         (32,113,930)           Proceeds from decrease of securities at amortized cost         4,864,231         4,235,693           Acquisition of securities at amortized cost         (11,856,814)         (5,117,419)           Proceeds from disposal of property and equipment         9         25           Acquisition of property and equipment         (220,752)         (169,828)           Proceeds from disposal of intangible assets         3,481         16           Acquisition of intangible assets         380,396         (330,764)           Proceeds from disposal of investments in associates         (72,739)         (100,840)           Proceeds from disposal of investments in associates         (72,739)         (100,840)           Proceeds from disposal of investment properties         (5,995)         (2,739)           Acquisition of investments in associates         (5,995)         (2,739)           Proceeds from disposal of investment properties         (5,995)         (2,739)           Acquisition of investment properties         (5,995)         (2,739)           Proceeds from disposal of investment properties         (5,995)         (2,739)           Proceeds from sale of non-current assets held for sale         9,991         47,792			16,679,279	22,891,054
Proceeds from decrease of securities at amortized cost         4,864,231         4,235,693           Acquisition of securities at amortized cost         (11,856,814)         (5,117,419)           Proceeds from disposal of property and equipment         9         25           Acquisition of property and equipment         (220,752)         (169,828)           Proceeds from disposal of intangible assets         3,481         16           Acquisition of intangible assets         (380,396)         (330,764)           Proceeds from disposal of investments in associates         (72,739)         (100,840)           Proceeds from disposal of investment properties         7         12           Acquisition of investment properties         (5,995)         (2,739)           Proceeds from disposal of investment properties         (5,995)         (2,739)           Proceeds from disposal of investment properties         (5,995)         (2,739)           Proceeds from sale of non-current assets held for sale         9,991         47,792           Decrease in other assets         (645,080)         627,525           Increase in other assets         (534,297)         (566,510)           Net cash outflow from inancing activities         5         1,652           Increase in financial liabilities designated at fair value through profit or loss         2				
Acquisition of securities at amortized cost         (11,856,814)         (5,117,419)           Proceeds from disposal of property and equipment         9         25           Acquisition of property and equipment         (220,752)         (169,828)           Proceeds from disposal of intangible assets         3,481         16           Acquisition of intangible assets         (380,396)         (330,764)           Proceeds from disposal of investments in associates         17,932         20,842           Acquisition of investments in associates         (72,739)         (100,840)           Proceeds from disposal of investment properties         -         12           Acquisition of investment properties         (5,995)         (2,739)           Proceeds from disposal of investment properties         (5,995)         (2,739)           Proceeds from sist of the inancial activities         (8,986,690)         (11,133,374)           Cash flows from financing activities         15,731,44				
Proceeds from disposal of property and equipment         9         25           Acquisition of property and equipment         (220,752)         (169,828)           Proceeds from disposal of intangible assets         3,481         16           Acquisition of intangible assets         (380,396)         (330,764)           Proceeds from disposal of investments in associates         17,932         20,842           Acquisition of investments in associates         (72,739)         (100,840)           Proceeds from disposal of investment properties         -         12           Acquisition of investment properties         (5,995)         (2,739)           Proceeds from sale of non-current assets held for sale         9,991         47,792           Decrease in other assets         (645,080)         627,525           Increase in other assets         (534,297)         (566,510)           Net cash outflow from investing activities         (8,986,690)         (11,133,374)           Net cash flows of derivative financial instruments for hedges         56         1,652           Increase in financial liabilities designated at fair value through profit or loss         49,993         -           Net increase (decrease) in borrowings         2,948,269         (649,850)           Proceeds from issuance of debt securities         (15,731,442	Acquisition of securities at amortized cost			(5,117,419)
Acquisition of property and equipment         (220,752)         (169,828)           Proceeds from disposal of intangible assets         3,481         16           Acquisition of intangible assets         (380,396)         (330,764)           Proceeds from disposal of investments in associates         17,932         20,842           Acquisition of investments in associates         (72,739)         (100,840)           Proceeds from disposal of investment properties         -         12           Acquisition of investment properties         (5,995)         (2,739)           Proceeds from sale of non-current assets held for sale         9,991         47,792           Decrease in other assets         645,080         627,525           Increase in other assets         (534,297)         (566,510)           Net cash outflow from investing activities         8,986,690         (11,133,374)           Net cash flow of derivative financial instruments for hedges         56         1,652           Increase in financial liabilities designated at fair value through profit or loss         49,993         -           Net increase (decrease) in borrowings         2,948,269         (649,850)           Proceeds from issuance of debt securities         15,731,442         15,225,073           Repayment of debt securities         (19,381,515) <t< td=""><td><u> •</u></td><td></td><td>9</td><td></td></t<>	<u> •</u>		9	
Proceeds from disposal of intangible assets         3,481         16           Acquisition of intangible assets         (380,396)         (330,764)           Proceeds from disposal of investments in associates         (72,739)         (100,840)           Acquisition of investments in associates         (72,739)         (100,840)           Proceeds from disposal of investment properties         5         12           Acquisition of investment properties         (5,995)         (2,739)           Proceeds from sale of non-current assets held for sale         9,991         47,792           Decrease in other assets         645,080         627,525           Increase in other assets         (534,297)         (566,510)           Net cash outflow from investing activities         (8,986,690)         (11,133,374)           Net cash flow of derivative financial instruments for hedges         56         1,652           Increase in financial liabilities designated at fair value through profit or         49,993         -           loss         49,993         -           Net increase (decrease) in borrowings         2,948,269         (649,850)           Proceeds from issuance of debt securities         (19,381,515)         (12,683,555)           Dividends paid         (963,305)         (825,248)           Issuanc			(220,752)	(169,828)
Acquisition of intangible assets         (380,396)         (330,764)           Proceeds from disposal of investments in associates         17,932         20,842           Acquisition of investments in associates         (72,739)         (100,840)           Proceeds from disposal of investment properties         -         12           Acquisition of investment properties         (5,995)         (2,739)           Proceeds from sale of non-current assets held for sale         9,991         47,792           Decrease in other assets         (534,297)         (566,510)           Net cash outflow from investing activities         (8,986,690)         (11,133,374)           Net cash flows from financing activities         56         1,652           Net cash flow of derivative financial instruments for hedges         56         1,652           Increase in financial liabilities designated at fair value through profit or loss         49,993         -           Net increase (decrease) in borrowings         2,948,269         (649,850)           Proceeds from issuance of debt securities         15,731,442         15,225,073           Repayment of debt securities         (963,305)         (825,248)           Issuance of hybrid bonds         631,581         -           Repayment of hybrid bonds         (130,000)         -			3,481	16
Proceeds from disposal of investments in associates         17,932         20,842           Acquisition of investments in associates         (72,739)         (100,840)           Proceeds from disposal of investment properties         -         12           Acquisition of investment properties         (5,995)         (2,739)           Proceeds from sale of non-current assets held for sale         9,991         47,792           Decrease in other assets         645,080         627,525           Increase in other assets         (534,297)         (566,510)           Net cash outflow from investing activities         (8,986,690)         (11,133,374)           Vecash flows from financing activities         56         1,652           Increase in financial liabilities designated at fair value through profit or loss         49,993         -           Net increase (decrease) in borrowings         2,948,269         (649,850)           Proceeds from issuance of debt securities         15,731,442         15,225,073           Repayment of debt securities         (19,381,515)         (12,683,555)           Dividends paid         (963,305)         (825,248)           Issuance of hybrid bonds         (310,000)         -           Repayment of hybrid bonds         (310,000)         -           Increase in other liabi			(380,396)	(330,764)
Acquisition of investments in associates         (72,739)         (100,840)           Proceeds from disposal of investment properties         -         12           Acquisition of investment properties         (5,995)         (2,739)           Proceeds from sale of non-current assets held for sale         9,991         47,792           Decrease in other assets         645,080         627,525           Increase in other assets         (534,297)         (566,510)           Net cash outflow from investing activities         (8,986,690)         (11,133,374)           Cash flows from financing activities         56         1,652           Net cash flow of derivative financial instruments for hedges         56         1,652           Increase in financial liabilities designated at fair value through profit or loss         49,993         -           Net increase (decrease) in borrowings         2,948,269         (649,850)           Proceeds from issuance of debt securities         15,731,442         15,225,073           Repayment of debt securities         (19,381,515)         (12,683,555)           Dividends paid         (963,305)         (825,248)           Issuance of hybrid bonds         (313,000)         -           Repayment of hybrid bonds         (130,000)         -           Increase in other lia			17,932	20,842
Acquisition of investment properties         (5,995)         (2,739)           Proceeds from sale of non-current assets held for sale         9,991         47,792           Decrease in other assets         645,080         627,525           Increase in other assets         (534,297)         (566,510)           Net cash outflow from investing activities         (8,986,690)         (11,133,374)           Cash flows from financing activities           Net cash flow of derivative financial instruments for hedges         56         1,652           Increase in financial liabilities designated at fair value through profit or loss         49,993         -           Net increase (decrease) in borrowings         2,948,269         (649,850)           Proceeds from issuance of debt securities         15,731,442         15,225,073           Repayment of debt securities         (19,381,515)         (12,683,555)           Dividends paid         (963,305)         (825,248)           Issuance of hybrid bonds         631,581         -           Repayment of hybrid bonds         (313,000)         -           Increase in other liabilities         (250,370)         (306,783)           Decrease in other liabilities         (1,262,534)         883,845           Effect of exchange rate fluctuations on cash and cash e			(72,739)	(100,840)
Proceeds from sale of non-current assets held for sale         9,991         47,792           Decrease in other assets         645,080         627,525           Increase in other assets         (534,297)         (566,510)           Net cash outflow from investing activities         (8,986,690)         (11,133,374)           Cash flows from financing activities           Net cash flow of derivative financial instruments for hedges         56         1,652           Increase in financial liabilities designated at fair value through profit or loss         49,993         -           Net increase (decrease) in borrowings         2,948,269         (649,850)           Proceeds from issuance of debt securities         15,731,442         15,225,073           Repayment of debt securities         (19,381,515)         (12,683,555)           Dividends paid         (963,305)         (825,248)           Issuance of hybrid bonds         631,581         -           Repayment of hybrid bonds         (130,000)         -           Increase in other liabilities         101,315         122,556           Decrease in other liabilities         (250,370)         (306,783)           Net cash outflow from financing activities         (1,262,534)         883,845           Effect of exchange rate fluctuations on cash and cash equival	Proceeds from disposal of investment properties		-	12
Decrease in other assets         645,080         627,525           Increase in other assets         (534,297)         (566,510)           Net cash outflow from investing activities         (8,986,690)         (11,133,374)           Cash flows from financing activities           Net cash flow of derivative financial instruments for hedges         56         1,652           Increase in financial liabilities designated at fair value through profit or loss         49,993         -           Net increase (decrease) in borrowings         2,948,269         (649,850)           Proceeds from issuance of debt securities         15,731,442         15,225,073           Repayment of debt securities         (19,381,515)         (12,683,555)           Dividends paid         (963,305)         (825,248)           Issuance of hybrid bonds         631,581         -           Repayment of hybrid bonds         (130,000)         -           Increase in other liabilities         (250,370)         (306,783)           Net cash outflow from financing activities         (1,262,534)         883,845           Effect of exchange rate fluctuations on cash and cash equivalents held         16,447         17,690           Net decrease in cash and cash equivalents         (614,548)         (3,471,370)	Acquisition of investment properties		(5,995)	(2,739)
Cash flows from financing activities   (8,986,690)   (11,133,374)	Proceeds from sale of non-current assets held for sale		9,991	47,792
Net cash outflow from investing activities         (8,986,690)         (11,133,374)           Cash flows from financing activities         56         1,652           Net cash flow of derivative financial instruments for hedges         56         1,652           Increase in financial liabilities designated at fair value through profit or loss         49,993         -           Net increase (decrease) in borrowings         2,948,269         (649,850)           Proceeds from issuance of debt securities         15,731,442         15,225,073           Repayment of debt securities         (19,381,515)         (12,683,555)           Dividends paid         (963,305)         (825,248)           Issuance of hybrid bonds         631,581         -           Repayment of hybrid bonds         (130,000)         -           Increase in other liabilities         101,315         122,556           Decrease in other liabilities         (250,370)         (306,783)           Net cash outflow from financing activities         (1,262,534)         883,845           Effect of exchange rate fluctuations on cash and cash equivalents held         16,447         17,690           Net decrease in cash and cash equivalents         (614,548)         (3,471,370)	Decrease in other assets		645,080	627,525
Cash flows from financing activities           Net cash flow of derivative financial instruments for hedges         56         1,652           Increase in financial liabilities designated at fair value through profit or loss         49,993         -           Net increase (decrease) in borrowings         2,948,269         (649,850)           Proceeds from issuance of debt securities         15,731,442         15,225,073           Repayment of debt securities         (19,381,515)         (12,683,555)           Dividends paid         (963,305)         (825,248)           Issuance of hybrid bonds         631,581         -           Repayment of hybrid bonds         (130,000)         -           Increase in other liabilities         101,315         122,556           Decrease in other liabilities         (250,370)         (306,783)           Net cash outflow from financing activities         (1,262,534)         883,845           Effect of exchange rate fluctuations on cash and cash equivalents held         16,447         17,690           Net decrease in cash and cash equivalents         (614,548)         (3,471,370)           Cash and cash equivalents at the beginning of the year (Note 40)         16,714,298         20,185,668	Increase in other assets		(534,297)	(566,510)
Net cash flow of derivative financial instruments for hedges Increase in financial liabilities designated at fair value through profit or loss 49,993 - Net increase (decrease) in borrowings 2,948,269 (649,850) Proceeds from issuance of debt securities 15,731,442 15,225,073 Repayment of debt securities (19,381,515) (12,683,555) Dividends paid (963,305) (825,248) Issuance of hybrid bonds 631,581 - Repayment of hybrid bonds (130,000) - Increase in other liabilities 101,315 122,556 Decrease in other liabilities (250,370) (306,783) Net cash outflow from financing activities (1,262,534) 883,845  Effect of exchange rate fluctuations on cash and cash equivalents held (614,548) (3,471,370)  Cash and cash equivalents at the beginning of the year (Note 40) 16,714,298 20,185,668	Net cash outflow from investing activities	_	(8,986,690)	(11,133,374)
Net cash flow of derivative financial instruments for hedges Increase in financial liabilities designated at fair value through profit or loss 49,993 - Net increase (decrease) in borrowings 2,948,269 (649,850) Proceeds from issuance of debt securities 15,731,442 15,225,073 Repayment of debt securities (19,381,515) (12,683,555) Dividends paid (963,305) (825,248) Issuance of hybrid bonds 631,581 - Repayment of hybrid bonds (130,000) - Increase in other liabilities 101,315 122,556 Decrease in other liabilities (250,370) (306,783) Net cash outflow from financing activities (1,262,534) 883,845  Effect of exchange rate fluctuations on cash and cash equivalents held (614,548) (3,471,370)  Cash and cash equivalents at the beginning of the year (Note 40) 16,714,298 20,185,668	Cash flows from financing activities			
Increase in financial liabilities designated at fair value through profit or loss			56	1 652
loss       49,993       -         Net increase (decrease) in borrowings       2,948,269       (649,850)         Proceeds from issuance of debt securities       15,731,442       15,225,073         Repayment of debt securities       (19,381,515)       (12,683,555)         Dividends paid       (963,305)       (825,248)         Issuance of hybrid bonds       631,581       -         Repayment of hybrid bonds       (130,000)       -         Increase in other liabilities       101,315       122,556         Decrease in other liabilities       (250,370)       (306,783)         Net cash outflow from financing activities       (1,262,534)       883,845         Effect of exchange rate fluctuations on cash and cash equivalents held       16,447       17,690         Net decrease in cash and cash equivalents       (614,548)       (3,471,370)         Cash and cash equivalents at the beginning of the year (Note 40)       16,714,298       20,185,668	· · · · · · · · · · · · · · · · · · ·		30	1,002
Net increase (decrease) in borrowings       2,948,269       (649,850)         Proceeds from issuance of debt securities       15,731,442       15,225,073         Repayment of debt securities       (19,381,515)       (12,683,555)         Dividends paid       (963,305)       (825,248)         Issuance of hybrid bonds       631,581       -         Repayment of hybrid bonds       (130,000)       -         Increase in other liabilities       101,315       122,556         Decrease in other liabilities       (250,370)       (306,783)         Net cash outflow from financing activities       (1,262,534)       883,845         Effect of exchange rate fluctuations on cash and cash equivalents held       16,447       17,690         Net decrease in cash and cash equivalents       (614,548)       (3,471,370)         Cash and cash equivalents at the beginning of the year (Note 40)       16,714,298       20,185,668			49 993	_
Proceeds from issuance of debt securities       15,731,442       15,225,073         Repayment of debt securities       (19,381,515)       (12,683,555)         Dividends paid       (963,305)       (825,248)         Issuance of hybrid bonds       631,581       -         Repayment of hybrid bonds       (130,000)       -         Increase in other liabilities       101,315       122,556         Decrease in other liabilities       (250,370)       (306,783)         Net cash outflow from financing activities       (1,262,534)       883,845         Effect of exchange rate fluctuations on cash and cash equivalents held       16,447       17,690         Net decrease in cash and cash equivalents       (614,548)       (3,471,370)         Cash and cash equivalents at the beginning of the year (Note 40)       16,714,298       20,185,668				(649.850)
Repayment of debt securities       (19,381,515)       (12,683,555)         Dividends paid       (963,305)       (825,248)         Issuance of hybrid bonds       631,581       -         Repayment of hybrid bonds       (130,000)       -         Increase in other liabilities       101,315       122,556         Decrease in other liabilities       (250,370)       (306,783)         Net cash outflow from financing activities       (1,262,534)       883,845         Effect of exchange rate fluctuations on cash and cash equivalents held       16,447       17,690         Net decrease in cash and cash equivalents       (614,548)       (3,471,370)         Cash and cash equivalents at the beginning of the year (Note 40)       16,714,298       20,185,668	· · · · · · · · · · · · · · · · · · ·			
Dividends paid       (963,305)       (825,248)         Issuance of hybrid bonds       631,581       -         Repayment of hybrid bonds       (130,000)       -         Increase in other liabilities       101,315       122,556         Decrease in other liabilities       (250,370)       (306,783)         Net cash outflow from financing activities       (1,262,534)       883,845         Effect of exchange rate fluctuations on cash and cash equivalents held       16,447       17,690         Net decrease in cash and cash equivalents       (614,548)       (3,471,370)         Cash and cash equivalents at the beginning of the year (Note 40)       16,714,298       20,185,668				
Issuance of hybrid bonds631,581-Repayment of hybrid bonds(130,000)-Increase in other liabilities101,315122,556Decrease in other liabilities(250,370)(306,783)Net cash outflow from financing activities(1,262,534)883,845Effect of exchange rate fluctuations on cash and cash equivalents held16,44717,690Net decrease in cash and cash equivalents(614,548)(3,471,370)Cash and cash equivalents at the beginning of the year (Note 40)16,714,29820,185,668				
Repayment of hybrid bonds(130,000)-Increase in other liabilities101,315122,556Decrease in other liabilities(250,370)(306,783)Net cash outflow from financing activities(1,262,534)883,845Effect of exchange rate fluctuations on cash and cash equivalents held16,44717,690Net decrease in cash and cash equivalents(614,548)(3,471,370)Cash and cash equivalents at the beginning of the year (Note 40)16,714,29820,185,668				(020,2.0)
Increase in other liabilities101,315122,556Decrease in other liabilities(250,370)(306,783)Net cash outflow from financing activities(1,262,534)883,845Effect of exchange rate fluctuations on cash and cash equivalents held16,44717,690Net decrease in cash and cash equivalents(614,548)(3,471,370)Cash and cash equivalents at the beginning of the year (Note 40)16,714,29820,185,668				_
Decrease in other liabilities (250,370) (306,783)  Net cash outflow from financing activities (1,262,534) 883,845  Effect of exchange rate fluctuations on cash and cash equivalents held 16,447 17,690  Net decrease in cash and cash equivalents (614,548) (3,471,370)  Cash and cash equivalents at the beginning of the year (Note 40) 16,714,298 20,185,668				122,556
Net cash outflow from financing activities(1,262,534)883,845Effect of exchange rate fluctuations on cash and cash equivalents held16,44717,690Net decrease in cash and cash equivalents(614,548)(3,471,370)Cash and cash equivalents at the beginning of the year (Note 40)16,714,29820,185,668				
Net decrease in cash and cash equivalents(614,548)(3,471,370)Cash and cash equivalents at the beginning of the year (Note 40)16,714,29820,185,668				
Net decrease in cash and cash equivalents(614,548)(3,471,370)Cash and cash equivalents at the beginning of the year (Note 40)16,714,29820,185,668	Effect of each area and flootantions are each and each are included by		16 447	17.600
Cash and cash equivalents at the beginning of the year (Note 40)  16,714,298  20,185,668	•	_		
	Net decrease in cash and cash equivalents	_	(614,548)	(3,4/1,3/0)
	Cash and cash equivalents at the beginning of the year (Note 40)		16,714,298	20,185,668
		W		

## **Notes to the Separate Financial Statements**

December 31, 2022 and 2021

## 1. Reporting entity

Shinhan Bank (the "Bank") is established on October 1, 1943 under the name of Chohung Bank, through the merger of Hansung Bank and Dongil Bank, which are established on February 19, 1897 and August 8, 1906, respectively, to engage in commercial banking and trust operations. The Bank has its headquarters at 20, Sejong-daero 9-gil, Jung-gu, Seoul, Republic of Korea.

The Bank acquired Chungbuk Bank and Kangwon Bank in 1999 and the former Shinhan Bank on April 1, 2006, and subsequently changed its name to Shinhan Bank. As of December 31, 2022, the Bank has 1,585,615,506 outstanding common shares with par value of \text{W7,928,078 million which Shinhan Financial Group Co., Ltd. ("Shinhan Financial Group") owns 100% of those. As of December 31, 2022, the Bank operates through 603 domestic branches, 118 depository offices, 27 premises and 14 overseas branches.

## 2. Significant accounting policies

The significant accounting policies adopted by the Bank are as follows.

## (a) Basis of preparation

The separate financial statements have been prepared in accordance with International Financial Reporting Standards as adopted by the Republic of Korea ("K-IFRS"), as prescribed in the Act on External Audit of Stock Companies.

The separate financial statements of the Bank are separate financial statements prepared in accordance with K-IFRS No. 1027 'Separate Financial Statements' in which presented based on direct equity investments, not on that the controlling company, equity interests in associates and joint ventures does not base the investment on the investee's reported performance and net assets.

The Bank's separate financial statements have been prepared in accordance with the accounting policies stated below.

## (b) Basis of measurement

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

- · derivative financial instruments are measured at fair value
- financial instruments at fair value through profit or loss ("FVTPL") are measured at fair value
- · financial instruments at fair value through other comprehensive income ("FVTOCI") are measured at fair value
- · share-based payment arrangements are initially measured at fair value on grant date
- changes in fair value attributable to the risk being hedged for financial instruments designated as hedged items in qualifying fair value hedge relationships are recognized in profit or loss
- liabilities for defined benefit plans are recognized as net of the total present value of defined benefit obligations less the fair value of plan assets

## Notes to the Separate Financial Statements(continued)

December 31, 2022 and 2021

## 2. Significant accounting policies (continued)

## (c) Functional and presentation currency

The separate financial statements of the Bank are prepared in functional currency of the respective operation. These separate financial statements are presented in Korean won, which is the Bank's functional currency and the currency of the primary economic environment in which the Bank operates.

## (d) Use of estimates and judgements

In preparation of the financial statements according to K-IFRS, the use of estimates and assumptions is required for the application of accounting policies or matters affecting the reporting amounts of assets, liabilities and revenues and expenses as of December 31, 2022. When estimates and assumptions based on management's judgment as of December 31, 2022 differ from the actual, actual results may differ from these estimates. Estimates and underlying assumptions are continually reviewed, and changes in accounting estimates are recognized during the period in which the estimate is changed and the future period in which it will be affected.

Information about significant areas of estimation uncertainty and critical judgements in applying accounting policies that have the significant effect on the amount recognized in the separate financial statements is described in Note 4.

The Bank recognizes credit loss allowance for expected credit losses on debt instruments, loans and receivables that are measured at amortized cost or at FVTOCI, loan commitments and financial guarantee contracts upon adoption of K-IFRS No.1109, 'Financial Instruments'. The measurement of such allowance is determined by techniques, assumptions and input variables used by the Bank to measure expected future cash flows of individual financial instruments and to measure expected credit losses in a collective manner. The details of techniques, assumptions and input variables used to measure the credit loss allowance for expected credit losses as of December 31, 2022 are described in Note 3.

The prolonged COVID-19 is negatively affecting the global economy. The Bank uses forward-looking information to estimate expected credit losses in accordance with K-IFRS No.1109 'Financial Instruments'. Due to the prolonged COVID-19, there have been significant changes in forward-looking information and the Internal and external economic uncertainty such as inflation and rising market interest rates. As of December 31, 2022, the forecast default rate is reestimated using changed forward-looking information on the GDP growth rate, consumer price index growth rate, unemployment rate, etc. which are major variables for calculating the default rate. The Bank will continue to monitor the impact of the Internal and external economic uncertainty and the COVID-19 on the economy.

## Notes to the Separate Financial Statements(continued)

December 31, 2022 and 2021 (In millions of Korean won)

## 2. Significant accounting policies (continued)

(e) New and amended standards and interpretations adopted by the Bank

From the accounting period beginning on January 1, 2022, the Bank has newly applied the following standards and interpretations.

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

The amendments update a reference of definition of assets and liabilities to be recognized in a business combination in revised Conceptual Framework for Financial Reporting. However, the amendments add an exception for the recognition of liabilities and contingent liabilities within the scope of K-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. 1037, 'Provisions, Contingent Liabilities and Contingent Assets' - Onerous Contracts: Cost of Fulfilling a Contract

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

iii) 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
- iv) K-IFRS No. 1007 'Statements of Cash Flows' Cash and cash equivalents

The Bank did not classify deposits with restrictions under related regulations, such as reserve deposits, as cash and cash equivalents. However, in accordance with the agenda decision on 'Demand deposit with restrictions of use arising from a contract with a third party' by the IFRS Interpretation Committee and K-IFRS agenda decision on 'Reserve deposit in Bank of Korea' by Korea Accounting Standards Board, reserve deposits, etc. corresponding to demand deposits were classified as cash and cash equivalents and it was also applied retroactively.

The impact of this change in accounting policy is as follows:

## (a) Impact on the statements of cash flows

		2022	2021
Net cash inflow (outflow) from operating activities	<b>W</b>	(921,621)	(6,901,589)
Effect of exchange rate fluctuations on cash and cash equivalents			
denominated in foreign currency		3,221	4,707
Net increase of cash and cash equivalents at the beginning of the			
year		10,542,701	17,439,583
Net increase of cash and cash equivalents at the end of the year		9,624,301	10,542,701
Impact on the notes to the financial statements			
		2022	2021
Net decrease of restricted deposits	₩	9,624,301	10,542,701

2022

2021

## **Notes to the Separate Financial Statements**

December 31, 2022 and 2021

## 2. Significant accounting policies (continued)

(e) New and amended standards and interpretations adopted by the Bank (continued)

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

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

The amendments clarify that liabilities are classified as either current or non-current, depending on the substantive rights that exist at the end of the reporting period. Classification is unaffected by the likelihood that an entity will exercise right to defer settlement of the liability or the expectations of management. Also, the settlement of liability includes the transfer of the entity's own equity instruments, however, it would be excluded if an option to settle them by the entity's own equity instruments if compound financial instruments is met the definition of equity instruments and recognized separately from the liability. The amendments should be applied for annual periods beginning on or after January 1, 2023, and earlier application is permitted. The Bank expects that the amendments will not have a significant impact on the consolidated financial statements.

ii) K-IFRS No. 1001 'Presentation of Financial Statements' - 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 Bank expects that the amendments will not have a significant impact on the consolidated financial statements.

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 Bank 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 Bank expects that the amendments will not have a significant impact on the consolidated financial statements.

v) K-IFRS No. 1001 'Presentation of Financial Statements' – Classification of Debt with Covenants as Current or Noncurrent

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 Bank expects that the amendments will not have a significant impact on the consolidated financial statements.

(f) Approval date of the financial statements

The separate financial statements of the Bank were authorized for issue by the Board of Directors on February 7, 2023, and the separate financial statements were submitted for approval to the stockholder's meeting held on March 22, 2023.

## **Notes to the Separate Financial Statements**

December 31, 2022 and 2021

## 2. Significant accounting policies (continued)

## (g) Investments in subsidiaries and associates

The accompanying separate financial statements have been prepared on a stand-alone basis in accordance with K-IFRS No.1027, 'Separate Financial Statements'. The Bank's investments in subsidiaries and associates are recorded at cost in accordance with K-IFRS No.1027. However, the investments in subsidiaries and associates subject to K-IFRS No.1101, 'First-time Adoption of K-IFRS' are recorded at previous GAAP carrying amount at the date of transition to K-IFRS. Dividend received from its subsidiaries and associates is recognized in profit or loss when the Bank is entitled to receive the dividend.

#### (h) Foreign currency translation

## i) Foreign currency transactions

Transactions in foreign currencies are translated to the respective functional currencies of the Bank 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. The foreign currency gain or loss on monetary items is the difference between amortized cost in the functional currency at the beginning of the period, adjusted for effective interest and payments during the period, and the amortized cost in foreign currency translated at the exchange rate at the end of the reporting period. Non-monetary assets and liabilities denominated in foreign currencies that are measured at fair value are retranslated to the functional currency at the exchange rate at the date that the fair value is determined.

Foreign currency differences arising on retranslation are recognized in profit or loss, except for differences arising on the retranslation of available-for-sale equity instruments, a financial liability designated as a hedging instrument of the net investment in a foreign operation, or a qualifying cash flow hedge, which are recognized in other comprehensive income. Translation differences on non-monetary assets and liabilities such as equities held at fair value through profit or loss are recognized in profit or loss and translation differences on non-monetary assets such as equities held at fair value through other comprehensive income are recognized in other comprehensive income.

## ii) Foreign operations

If the presentation currency of the Bank 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 end of the reporting period. 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 amounts 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 end of the reporting period.

When a foreign operation is disposed of, the relevant amount in the translation is transferred to profit or loss as part of the profit or loss on disposal.

## **Notes to the Separate Financial Statements**

December 31, 2022 and 2021

## 2. Significant accounting policies (continued)

## (h) 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.

## (i) Cash and cash equivalents

The Bank 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.

## (i) Non-derivative financial assets

Financial assets are recognized when the Bank becomes a party to the contractual provisions of the instrument. In addition, a regular way 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 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. However, once the financial assets are designated at FVTPL, it is irrevocable.

## ii) Equity instruments

For the equity instruments that are not held for trading, at initial recognition, the Bank 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 FVTOCI are classified as financial assets at FVTPL. The Bank subsequently measures all equity investments at fair value. Valuation gains or losses of the equity instruments that are classified as financial assets at FVTOCI previously recognized as other comprehensive income is not reclassified as profit or loss on derecognition. The Bank recognizes dividends in profit or loss when the Bank'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 as gains or losses on financial assets at FVTPL. Impairment loss (reversal) on equity instruments at FVTOCI is not recognized separately.

## iii) Debt instruments

Subsequent measurement of debt instruments depends on the Bank'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 FVTOCI, or at FVTPL. Debt instruments are reclassified only when the Bank's business model changes.

## **Notes to the Separate Financial Statements**

December 31, 2022 and 2021

## 2. Significant accounting policies (continued)

- (i) Non-derivative financial assets (continued)
- iii) Debt instruments (continued)
- (a) 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. Impairment losses, and gains or losses on derecognition of the financial assets at amortized cost are recognized in profit or loss. Interest income on the effective interest method is included in the 'Interest income' in the separate statement of comprehensive income.

#### (b) Financial assets at FVTOCI

Assets that are held within a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets, where the assets' cash flows represent solely payments of principal and interest, are measured at FVTOCI. Other than impairment losses, interest income amortized using effective interest method and foreign exchange differences, gains or losses of the financial assets at FVTOCI are recognized as other comprehensive income in equity. On derecognition, 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 separate statement of comprehensive income. Foreign exchange differences and impairment losses are included in the 'Net foreign currency transaction gain' and 'Provision for credit loss allowance' in the separate statement of comprehensive income, respectively.

## © Financial assets at FVTPL

Debt securities other than financial assets at amortized costs or FVTOCI 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 on financial assets at fair value through profit or loss' in the separate 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 Bank 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 Bank does not have or transfer most of the risks and rewards of ownership of the financial asset, the Bank shall remove the financial asset if it does not control the financial asset. If the Bank 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 Bank 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 Bank 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 separate statement of financial position only when the Bank 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.

## **Notes to the Separate Financial Statements**

December 31, 2022 and 2021

## 2. Significant accounting policies (continued)

## (k) Expected credit losses on financial assets

As for financial assets at amortized cost and financial assets at FVTOCI, the expected credit loss is evaluated at the end of each period and recognized as loss allowances.

Since initial recognition, a loss allowance shall be measured by the three stages in the table below depending on the extent of significant increase in credit risk.

Stage	Category	Description
Stage 1	Credit risk has not increased significantly since initial recognition	12 month expected credit losses: Expected credit loss resulting from potential default of financial instruments occurring over 12 months from the end of reporting period
Stage 2	Credit risk has increased significantly since initial recognition	Lifetime expected credit losses: Expected credit loss resulting from all potential default of financial instruments
Stage 3	Credit-impaired financial assets	occurring over the expected life

However, as for the financial assets whose credit is impaired at the initial recognition, only the cumulative change in the lifetime expected credit loss is recognized as the loss allowance.

The 'lifetime' refers to the expected life to the contractual maturity of the financial asset.

#### i) Forward looking information

The Bank determines a material increase in credit risk and estimates the expected credit loss on a forward-looking basis.

The measuring factors of the expected credit loss are assumed to have certain relationship with the economic cycle. Through relationship analysis between the macroeconomic variables and the credit risk measuring factors, the forward-looking information is reflected in the expected credit loss estimation.

## ii) Financial assets at amortized cost

The expected credit loss on the financial assets at amortized cost is recognized as the difference between the present value of the contractual cash flow and the present value of the expected cash flow. The expected cash flow is estimated separately for the individually material financial assets.

For the financial assets which are not individually material, they are included in a group of assets with a similar credit risk and expected credit loss is estimated collectively.

## **Notes to the Separate Financial Statements**

December 31, 2022 and 2021

## 2. Significant accounting policies (continued)

## (k) Expected credit losses on financial assets (continued)

The expected credit losses of financial assets measured as amortized cost are presented net of loss allowance, and the allowance is derecognized together with the asset when it is determined to be unrecoverable. When the loan previously written-off is subsequently collected, it is recognized as an increase in loss allowance. At the end of the reporting period, the Bank recognizes in profit or loss the amount of the change in loss allowance.

#### iii) Financial assets at FVTOCI

The expected credit loss on the financial assets at FVTOCI is calculated using the same method as that on the financial assets at amortized cost, however the changes in loss allowance are recognized as other comprehensive income. As for disposal and repayment, the loss allowance is reclassified from other comprehensive income to profit or loss.

#### (1) Derivative financial instruments

Derivatives are initially recognized at fair value. Subsequent to initial recognition, derivatives are measured at fair value at the end of every reporting period, and changes therein are accounted for as described below.

## i) Hedge accounting

The Bank holds forward exchange contracts, interest rate swaps, currency swaps and other derivative contracts to manage interest rate risk and foreign exchange risk. The Bank 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), and foreign currency risk of net investment in foreign operation (net investment hedges).

On initial designation of the hedge, the Bank 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, together with the methods that will be used to assess the effectiveness of the hedging relationship.

## a Fair value hedges

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 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 Bank 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 for hedge accounting. Any adjustment arising from gain or loss on the hedged item attributable to the hedged risk is amortized to profit or loss from the date the hedge accounting is discontinued.

## **Notes to the Separate Financial Statements**

December 31, 2022 and 2021

## 2. Significant accounting policies (continued)

(1) Derivative financial instruments (continued)

## **b** Cash flow hedges

When a derivative that meet the application requirements of cash flow hedges is designated as the hedging instrument in a hedge of 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 and presented in the hedging reserve in equity. The amount recognized in other comprehensive income is removed and included in profit or loss in the same period as the hedged cash flows affect profit or loss under the same line item in the separate statements of comprehensive income as the hedged item. Any ineffective portion of changes in the fair value of the derivative is recognized immediately in profit or loss.

Once hedge accounting is discontinued, any cumulative gain or loss existing in equity at that time and is recognized over the period the forecast transaction occurs as profit or loss. However, when a forecast transaction is no longer expected to occur, the cumulative gain or loss recognized in equity is immediately recognized in the profit or loss.

## © Hedge of net investment

Foreign currency differences arising on the retranslation of a financial liability designated as a hedge of a net investment in a foreign operation are recognized in other comprehensive income to the extent that the hedge is effective. To the extent that the hedge is ineffective, such differences are recognized in profit or loss. When the hedged part of a net investment is disposed of, the relevant amount in the accumulated other comprehensive income is transferred to profit or loss as part of the profit or loss on disposal in accordance with K-IFRS No.1021, 'The Effects of Changes in Foreign Exchange Rates'.

## ii) Embedded derivatives

If a hybrid contract contains a host that is not a financial asset, embedded derivatives are separated from the host contract and accounted for separately only if the economic characteristics and risks of the host contract and the embedded derivative are not closely related; a separate instrument with the same terms as the embedded derivative would meet the definition of a derivative; and the combined instrument is not designated at FVTPL. Changes in the fair value of separable embedded derivatives are recognized immediately in profit or loss.

## iii) Derivative financial instruments held for trading

Changes in the fair value of derivative financial instruments not designated as a hedging instrument are recognized immediately in profit or loss.

## **Notes to the Separate Financial Statements**

December 31, 2022 and 2021

## 2. Significant accounting policies (continued)

- (1) Derivative financial instruments (continued)
- iv) Day one profit or loss

If the Bank uses a valuation technique that incorporates data not obtained from observable markets for the fair value at initial recognition of financial instruments, there may be a difference between the transaction price and the amount determined using that valuation technique. As for these circumstances, the difference between the fair value at the initial recognition and the transaction price is not recognized as profit or loss but deferred. The deferred difference is amortized by using straight line method over the life of the financial instruments.

## (m) 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.

Property and equipment are carried at cost less accumulated depreciation and accumulated impairment losses. 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'. Dividend from relevant revaluation surplus is prohibited in accordance with the resolution of the board of directors.

The Bank recognizes in the carrying amount 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 Bank and the cost of the item can be measured reliably. The carrying amount 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 years ended December 31, 2022 and 2021 are as follows:

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

The gain or loss arising from the derecognition of an item of property and equipment, which is included in profit or loss, is determined as the difference between the net disposal proceeds, if any, and the carrying amount of the item.

At the end of each reporting period, the Bank reviews the residual value, useful life, and depreciation method of the asset and treats it as a change in accounting estimate if it is appropriate to change it.

## **Notes to the Separate Financial Statements**

December 31, 2022 and 2021

## 2. Significant accounting policies (continued)

## (n) 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 and membership rights is calculated on a straight-line basis over the estimated useful lives of intangible assets as below from the date that they are available for use. The residual value of intangible assets is zero. However, as there are no foreseeable limits to the periods over which club memberships are expected to be available for use, this intangible asset is determined as having indefinite useful lives and 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 Bank 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.

## (o) 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	Depreciation method	Useful lives
Buildings	Straight-line	40 years

Subsequent costs are recognized in the carrying amount of investment property at cost or, if appropriate, as separate items if it is probable that future economic benefits associated with the item will flow to the Bank and the cost of the item can be measured reliably. The carrying amount of the replaced part is derecognized. The costs of the day-to-day servicing are recognized in profit or loss as incurred.

Depreciation methods, useful lives and residual values are reviewed at the end of each reporting period and adjusted, if appropriate. The change is accounted for as changes in accounting estimates.

## **Notes to the Separate Financial Statements**

December 31, 2022 and 2021

## 2. Significant accounting policies (continued)

## (p) Leases

The Bank leases various tangible assets, such as real estate and vehicles, and the terms of the leases are negotiated individually and include a variety of terms and conditions. There are no other restrictions imposed by the lease contracts, except that the lease assets cannot be provided as collaterals for borrowings. At the commencement date of the lease, the Bank recognizes a right-of-use asset and a lease liability. The payment of each lease is allocated to the repayment of the liability and finance costs. The Bank 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 finance costs. Right-of-use assets are depreciated using a straight-line method from the inception of the lease over the lease term of the right-of-use assets. Lease liabilities are measured at present value of the lease payments that are not paid at the commencement date of the lease agreement and included in other liabilities. Lease payments included in the measurement of the lease liabilities consist of the following:

- Fixed lease payments (including in-substance fixed payments, less any lease incentives receivable)
- Variable lease payments depending on an index or a rate
- Amounts expected to be paid by the lessee under a residual value guarantee
- The exercise price under a purchase option that the lessee is reasonably certain to exercise
- Payments of penalties for early terminating a lease unless the lessee is reasonably certain not to terminate early

If the implicit interest rate in the lease can be readily determined, the lease payments shall be discounted using that rate, and if that rate cannot be readily determined, the lessee shall use the lessee's incremental borrowing rate.

The right-of-use asset is initially at cost, which comprises:

- 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

The Bank includes right-of-use assets within the same line item as that within which the corresponding underlying assets would be presented if they are owned.

Any right-of-use asset that meets the definition of investment property is presented as investment property.

Lease payments associated with short-term leases or leases of low-value assets are recognized as an expense on a straight-line basis over the lease term.

Additional considerations for the Bank's accounting as a lessee include:

- Extension options and termination options are generally included in multiple real estate lease contracts.
- When estimating the lease term, the Bank considers all relevant facts and circumstances that create an economic incentive to exercise the option to extend the lease, or not to exercise the option to terminate the lease.
- Period covered by an extension option (or period covered by termination option) is included in lease term only if the lessee is reasonably certain to exercise (or not to exercise) the option.
- If the lessee and the lessor have the right to terminate without the consent of the other parties, the termination period shall be determined in consideration of the economic disadvantages incurred in terminating the contract.
- When significant events occur or there are significant changes in circumstances that have affected the lessee's control and the lease term before, the parties reassess whether they are quite certain to exercise the option of extension (or not).

## **Notes to the Separate Financial Statements**

December 31, 2022 and 2021

## 2. Significant accounting policies (continued)

## (q) Non-current assets held for sale

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 assets held for sale are measured at the lower of their carrying amount and fair value less cost to sell.

The Bank 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).

## (r) Impairment of non-financial assets

The carrying amounts of the Bank'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 amount.

The Bank estimates the recoverable amount of an individual asset, if it is impossible to measure the individual recoverable amount of an asset, then the Bank estimates the recoverable amount of cash-generating unit ("CGU"). A CGU is the smallest identifiable group of assets that generates cash inflows that are largely independent of the cash inflows from other assets or group of assets. 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 amount 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 amount of the other assets in the CGU on a pro rata basis. Except for impairment losses in respect of goodwill which are never reversed, an impairment loss is reversed if there has been a change in the estimates used to determine the recoverable amount. An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortization, if no impairment loss had been recognized.

## **Notes to the Separate Financial Statements**

December 31, 2022 and 2021

## 2. Significant accounting policies (continued)

#### (s) Non-derivative financial liabilities

The Bank recognizes financial liabilities in the separate statement of financial position when the Bank 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. However, once the financial assets are designated at FVTPL, it is irrevocable. 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.

## 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 deposit, borrowing, debentures, 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 Bank derecognizes a financial liability from the separate statement of financial position when it is extinguished (i.e. when the obligation specified in the contract is discharged, cancelled or expires).

## (t) Paid-in capital

## i) Equity instruments

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

## **Notes to the Separate Financial Statements**

December 31, 2022 and 2021

## 2. Significant accounting policies (continued)

- (t) Paid-in capital (continued)
- ii) Hybrid bonds

The Bank 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 Bank 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.

- (u) 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 Bank during an accounting period, the Bank 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 Bank'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 benefit plans

A defined benefit plan is a post-employment benefit plan other than a defined contribution plan. The Bank's net obligation in respect of defined benefit plans is calculated by estimating 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. The fair value of plan assets is deducted. The calculation is performed annually by an independent actuary using the projected unit credit method.

The discount rate is the yield at the end of the reporting period on high-quality corporate bonds that have maturity dates approximating the terms of the Bank's obligations and that are denominated in the same currency in which the benefits are expected to be paid. The Bank recognizes service cost and net interest on the net defined benefit liability (asset) in profit or loss and remeasurements of the net defined benefit liability (asset) in other comprehensive income.

## iv) Retirement benefits: defined contribution plans

The Bank recognizes the contribution expense as an account of severance payments in profit or loss in the period according to the defined contribution plans.

## v) Termination benefits

Termination benefits are expensed at the earlier of when the Bank can no longer withdraw the offer of those benefits and when the Bank recognizes costs for a restructuring. If benefits are not expected to be wholly settled within 12 months of the end of the reporting period, then they are discounted.

## **Notes to the Separate Financial Statements**

December 31, 2022 and 2021

## 2. Significant accounting policies (continued)

## (v) Share-based payment transactions

The grant date fair value of share-based payment awards granted to employees is recognized as an employee expense, with a corresponding increase in equity, over the period that the employees unconditionally become entitled to the awards. The amount recognized as an expense is adjusted to reflect the number of awards for which the related service and non-market vesting conditions are expected to be met, such that the amount ultimately recognized as an expense is based on the number of awards that do meet the related service and non-market performance conditions at the vesting date. 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 the end of each reporting period and at settlement date. Any changes in the fair value of the liability are recognized as personnel expense in profit or loss.

The Bank has granted share-based payment based on Shinhan Financial Group's share to the employees. In accordance with a repayment arrangement with Shinhan Financial Group, the Bank is required to pay Shinhan Financial Group for the provision of the share-based payments. The Bank recognizes the costs as expenses and accrued expenses in liabilities for the service period. When vesting conditions are not satisfied because of death, retirement or dismissal of employees during the specified service period, no amount is recognized for goods or services received on a cumulative basis. Share-based payment arrangements are accounted for as equity-settled share-based payment transactions, regardless of the repayment arrangement with Shinhan Financial Group. The share-based compensation agreement that the Bank has given to its executives and employees is measured in cash-settled.

## (w) Provisions

Provisions are recognized when the Bank 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.

## **Notes to the Separate Financial Statements**

December 31, 2022 and 2021

## 2. Significant accounting policies (continued)

## (x) Financial guarantee contract

A financial guarantee contract is a contract that requires the Bank 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'

## (y) Recognition of revenues and expenses

The Bank's revenues are recognized using five-step revenue recognition model as follows: ① 'Identifying the contract'  $\rightarrow$  ② 'Identifying performance obligations'  $\rightarrow$  ③ 'Determining the transaction price'  $\rightarrow$  ④ 'Allocating the transaction price to performance obligations'  $\rightarrow$  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 amount of the financial asset or liability. When calculating the effective interest rate, the Bank 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 Bank 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.

## **Notes to the Separate Financial Statements**

December 31, 2022 and 2021

## 2. Significant accounting policies (continued)

- (y) Recognition of revenues and expenses (continued)
- ⓐ 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.

## **b** Fees earned as services are provided

Fees and commission income, including investment management fees, sales commission, and account servicing fees, are recognized as revenue when the related service as a performance obligation is provided.

© 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 as a performance obligation has been completed.

## iii) Dividend income

Dividend income is recognized when the shareholder's right to receive payment is established. Usually this is the exdividend date for equity securities.

#### (z) 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.

Shinhan Financial Group, the parent company, files its national income tax return with the Korean tax authorities under the consolidated corporate tax system, which allows it to make national income tax payments based on the consolidated profits or losses of the Shinhan Financial Group and its wholly owned domestic subsidiaries including the Bank. Deferred taxes are measured based on the future tax benefits expected to be realized in consideration of the expected profits or losses of eligible companies in accordance with the consolidated corporate tax system. Consolidated corporate tax amounts, once determined, are allocated to each of the subsidiaries and are used as a basis for the income taxes to be recorded in their stand-alone financial statements.

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

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 Bank expects, at the end of the reporting period to recover or settle the carrying amount of its assets and liabilities.

## **Notes to the Separate Financial Statements**

December 31, 2022 and 2021

## 2. Significant accounting policies (continued)

#### (z) Income tax (continued)

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

Deferred tax assets and liabilities are offset only if there is a legally enforceable right to offset the related current tax liabilities and assets, and they relate to income taxes levied by the same tax authority and they intend to settle current tax liabilities and assets on a net basis.

If any additional income tax expense exists by payment of dividends, the Bank recognizes it when the liability relating to the payment is recognized.

Because of the tax positions taken by the Bank, tax uncertainties arise from the complexity of transactions and differences in tax law interpretation. Also, uncertainty arises from a tax refund suit, tax investigation, or a refund suit against the tax authorities' assessed tax amount. For the tax amount paid to the tax authorities, in accordance with K-IFRS No.2123, it will be recognized as the corporate tax assets if a refund in the future is probable. In addition, the amount expected to be paid as a result of the tax investigation is recognized as the tax liability.

## (aa) Accounting for trust accounts

The Bank accounts for trust accounts separately from its bank accounts under the Financial Investment Services and Capital Markets Act and thus the trust accounts are not included in the accompanying separate financial statements. Borrowings from trust accounts are included in other liabilities. Trust fees and commissions in relation to the service provided to trust accounts by the Bank are recognized as fees and commission income.

## (ab) Earnings per share

The Bank 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 Bank 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.

## **Notes to the Separate Financial Statements**

December 31, 2022 and 2021

## 3. Financial risk management

## 3-1. Credit risk

Credit risk is the risk of financial loss of the Bank if a customer or counterparty fails to meet its contractual obligation. Credit risk is classified as the most important risk to be managed for the Bank's business activities, and management carefully manages the maximum credit risk exposure. Credit exposure arises principally from due from banks, the lending process related to loans, investment activities in debt securities, drafts in the Group's asset portfolio and off balance sheet items including loan commitments, etc.

#### (a) Credit risk management

Bank's basic policy on credit risk management is determined by the Risk Policy Committee. The Risk Policy Committee consists of the Chief Risk Officer (CRO) as the chairman, 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 the CCO is composed of chairman, 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.

The risk management of the asset is primarily carried out by all operating units that hold and manage the asset subject to credit risk, and the credit risk management department, such as the risk management department and the credit planning department, is in charge of the credit risk management of the Bank as a whole. The risk management department and the risk engineering department manage the credit portfolio by managing credit risk limits set by the Risk Policy Committee and credit maximum exposure limits for the same parties, affiliates, industries, and countries. The Bank also measures and manages risk components such as PD (Probability of Default), LGD (Loss Given Default), and EAD (Exposure at Default) through the operation of the credit rating system and collateral management system. As an organization for supporting and checking loan decisions, the Credit Planning Department manages the credit policy and system of the entire bank, and the Credit Review Department conducts independent credit rating and loan decision making. Also, the Credit Supervision Department conducts individual credit supervision on large loans.

Each of the Bank's borrowers (retail borrowers and companies) is assigned with a credit rating, which is based on a comprehensive internal credit evaluation system that considers a variety of criteria. For retail borrowers, the credit rating takes into account the borrower's individual information, past dealings with the Bank and external credit rating information. For corporate borrowers, the credit rating takes into account financial indicators as well as non-financial indicators such as industry risk, operational risk and management risk, among others. The credit rating, once assigned, serves as the fundamental instrument in the Bank's credit risk management, and is applied in a wide range of credit risk management processes, including credit approval, credit limit management, loan pricing and computation of allowance for credit loss.

The Bank's credit rating system reflects the requirements of Basel III, ACE (Automatic Credit Evaluation), retail SOHO credit rating system with a maximum exposure of \$500 million or less, and Advanced Internal Rating System (AIRS).

The credit decision for companies is based on a collective decision-making system, making objective and prudent decisions. In the case of a general credit, the credit is approved by agreement between the branch's RM (Relationship Manager) and headquarters of each business divisions. In the case of a large or important credit, the credit is approved by a screening body. In particular, the Credit review Committee, which is the highest decision-making body of loans, examines important loans, such as large loans that exceed the limit. The individual credit is evaluated by the individual credit evaluation system based on objective statistical methods and an automated credit scoring system (CSS) based on the Bank's credit policy.

## **Notes to the Separate Financial Statements**

December 31, 2022 and 2021

## 3. Financial risk management (continued)

## 3-1. Credit risk (continued)

#### (a) Credit risk management (continued)

The Bank operates a regular monitoring system for the regular management of individual loans. The review team and RM are required to conduct Loan Reviews by automatically searching for non-performing companies among the corporate loan clients, and the credit supervision department, which is independent of the business group, determines the adequacy of Loan Review results and requests credit rating adjustment of the company as necessary. In accordance with these procedures, a company is classified as an early warning company, an observer company, and a normal company, and discriminatory management is carried out in accordance with the management guidelines for each risk stage to prevent the insolvency of the loans 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.

## (b) Risk management and risk mitigation policy

To control the credit risk of the Bank at an appropriate level, the following risk management system is established and operated.

- Credit risk limits are set and managed by business sector, customer, product, industry, etc. based on credit VaR (Value at Risk) and maximum exposure amount.
- The Risk Management Department establishes and manages limits for credit VaR, and maximum exposure limits. The Credit Planning Department and the credit assessment department conduct maximum exposure limits.
- The Risk Management Department and Risk Engineering Department establishes a credit risk limit operation plan for the entire bank at least once a year and commits it to the risk policy committee.
- Each business unit monitors and adheres to credit risk limits assigned to each business unit
- The risk is re-assessed on an annual basis within a period when it is deemed necessary, and the limits of risks are specified and managed by individual, industry and country.
- The maximum exposure for each borrower, including institutions, is managed by low level limits that are individually set for accounts in the financial statements and off-balance sheet accounts, and risk limits for daily transactions related to commodity trading including foreign currency forward trading, are also determined.
- Actual maximum exposure limits are managed daily.
- Maximum credit risk exposure is managed in the process of analyzing the interest and principal repayment ability of the borrower, and if necessary, changes the loan limit in the process.

Other risk management measures are as follows:

#### i) Collateral

The Bank has adopted policies and procedures to mitigate credit risk. In connection with credit risk, collateral is generally used, and the Bank has adopted a policy for pledging certain types of assets. The main types of collateral are as follows:

- Mortgage
- Real estate, inventories, accounts receivable, etc.
- Financial instruments such as debt securities and equity securities

## **Notes to the Separate Financial Statements**

December 31, 2022 and 2021

## 3. Financial risk management (continued)

## 3-1. Credit risk (continued)

- (b) Risk management and risk mitigation policy (continued)
- i) Collateral (continued)

Long-term loans are generally collateralized. On the other hand, revolving personal loans are generally unsecured. In addition, to minimize losses due to credit risk, the Bank establishes additional collateral for the counterparty in the event of an indication of impairment of the asset.

Collateral for financial assets other than loans is subject to the nature of the products. Except for special cases such as Asset Backed Securities (ABS), unsecured securities are common in the case of debt securities.

## ii) Derivative financial instruments

The Bank maintains a credit limit on the amount and duration of derivative financial instruments that are in between the disposal agreements after purchase.

## iii) Master netting arrangements

The Bank limits its maximum exposure to credit losses by entering into master netting arrangements counterparties in performing significant number of transactions.

Master netting arrangements generally do not result from offsetting assets and liabilities in the separate financial statements, as transactions are usually set at a gross amount basis. However, the right to offset, which is legally enforceable and affects the realization of individual financial assets and the settlement of financial liabilities, may arise under master netting arrangements. The credit risk of financial assets associated with this is reduced by master netting arrangements within the scope of financial liabilities.

The Bank's overall maximum exposure to credit risk that is part of a collective offsetting contract can vary substantially within a short period of time because it is affected by each transaction.

#### iv) Credit related contracts

Guarantees and credit enhancements have credit risks similar to credit. Credit (which guarantees credit on behalf of the customer by issuing a note to a third party for the amount requested under specific terms and conditions) is secured by the underlying commodities associated with them, it involves less risk. The credit enhancement arrangements represent the unused portion of the credit limit in the form of a credit, guarantee or letter of credit. In relation to the credit risk of a credit enhancement arrangement, the Bank is potentially exposed to the same amount as the total unused arrangements. Long-term contracts generally have a greater degree of credit risk than short-term, and the Bank monitors the maturity of credit arrangements.

## **Notes to the Separate Financial Statements**

December 31, 2022 and 2021

## 3. Financial risk management (continued)

## 3-1. Credit risk (continued)

- (c) Techniques, assumptions, and input variables used to measure impairment (Expected credit loss model)
- i) Determining significant increases in credit risk since initial recognition

At the end of each reporting period, the Bank assesses whether the credit risk on a financial instrument has increased significantly since initial recognition. When making the assessment, the Bank 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 that assessment, the Bank compares the risk of a default occurring on the financial instrument at the end of the reporting period with the risk of a default occurring on the financial instrument as at the date of initial recognition and consider reasonable and supportable information, that is available without undue cost or effort, that is indicative of significant increases in credit risk since initial recognition. The supportable information also includes historical default data held by the Bank and the analysis by internal credit risk rating specialists.

#### a Measuring the risk of default

The Bank 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.

The internal credit risk rating based on the borrower's information related to each individual exposure on initial recognition, may change depending on the results of continuing monitoring and reviews.

## **ⓑ** Measuring term structure of probability of default

The Bank 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 Bank uses information obtained from external credit rating agencies when performing these analyses.

The Bank 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.

## © Significant increases in credit risk

The Bank 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:

## **Notes to the Separate Financial Statements**

December 31, 2022 and 2021

## 3. Financial risk management (continued)

## 3-1. Credit risk (continued)

- (c) Techniques, assumptions and input variables used to measure impairment (Expected credit loss model) (continued)
- © Significant increases in credit risk (continued)

Loans with identified indicators for significant

increases in other credit risk

Corporate exposures	Retail exposures
Significant change in credit ratings	Significant change in credit ratings
Continued past due more than 30 days	Continued past due more than 30 days
Loan classification of precautionary and below	Loan classification of precautionary and below
Borrower with early warning signals	Borrower with early warning signals
Negative net assets	Specific pool segment
Adverse audit opinion or disclaimer of opinion	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	Loans with identified indicators for significant increases in other credit risk

The Bank considers the credit risk of financial instrument has been significantly increased since initial recognition if a specific exposure is past due more than 30 days. The Bank counts the number of days past due from the earliest date on which the Bank has not received the contractual payments in full of the borrower and does not consider the grace period granted to the borrower.

The Bank 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 represent proactive prediction than the days of delinquency criteria.
- As a result of applying the judgment criteria, financial instruments shall not be to move too frequently between the 12-months expected credit losses measurement and the lifetime expected credit losses measurement

# **Notes to the Separate Financial Statements**

December 31, 2022 and 2021

#### 3. Financial risk management (continued)

#### 3-1. Credit risk (continued)

- (c) Techniques, assumptions and input variables used to measure impairment (Expected credit loss model) (continued)
- ii) Modified financial assets

If the contractual cash flows on a financial asset have been renegotiated or modified and the financial asset is not derecognized, the Bank 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 end of the reporting period based on the modified contractual terms.

The Bank 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 Bank 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 Bank recognizes the 12-months expected credit losses for that exposure again.

#### iii) Risk of default

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

- if a borrower is more than 90 days past due on its contractual payments,
- if the Bank judges that it is not possible to recover principal and interest without enforcing the collateral on a financial asset

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

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

The definition of default applied by the Bank 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 incurred, and the extent thereof may vary.

#### iv) Reflection of forward-looking information

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

# **Notes to the Separate Financial Statements**

December 31, 2022 and 2021

#### 3. Financial risk management (continued)

#### 3-1. Credit risk (continued)

- (c) Techniques, assumptions, and input variables used to measure impairment (Expected credit loss model) (continued)
- iv) Reflection of forward-looking information (continued)

The Bank 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 Bank used in its business plan and management strategy.

The Bank analyzed the data experienced in the past and scenario data, 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 prolonged COVID-19 and the internal and external economic uncertainty, the Bank reflected final forward-looking information by considering 4 scenarios: upside, central, downside and worst.

The economic variables considered by the Bank for the years ended December 31, 2022 and 2021 are as follows for each scenario;

#### ① Upside scenario

Major				20	023	
variables(*1)(*2)(*3)	Correlation	2022.4Q	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 (%)	-	3.91	3.70	4.00	4.00	4.00

#### (2) Central scenario

Major				20	)23	
variables(*1)(*2)(*3)	Correlation	2022.4Q	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 (%)	-	3.91	4.00	4.20	4.20	4.20

# **Notes to the Separate Financial Statements**

December 31, 2022 and 2021

#### 3. Financial risk management (continued)

#### 3-1. Credit risk (continued)

- (c) Techniques, assumptions and input variables used to measure impairment (Expected credit loss model) (continued)
- iv) Reflection of forward-looking information (continued)
- 3 Downside scenario

Major				2	023	
variables(*1)(*2)(*3)	Correlation	2022.4Q	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 (%)	-	3.91	4.30	4.60	4.60	4.60

#### 4 Worst scenario

<b>Major variables(*1)(*2)(*4)</b>	Correlation	1 year of crisis situations
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 (%)		4.39

<sup>(\*1)</sup> As a result of reviewing the correlation of each variable, the GDP growth rates and consumer price index growth rate were applied among the major variables to reflect the final forward-looking information. The Bank additionally selected the unemployment rate in addition to the table above.

<sup>(\*2)</sup> Considering the forecast period of the company's bankruptcy, the Bank reflected the forward-looking information.

<sup>(\*3)</sup> The macroeconomic outlook figures are estimated by the Bank 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.

<sup>(\*4)</sup> It was reflected in consideration of the period of the foreign exchange crisis in Korea.

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

#### 3. **Financial risk management (continued)**

# 3-1. Credit risk (continued)

- (c) Techniques, assumptions and input variables used to measure impairment (Expected credit loss model) (continued)
- iv) Reflection of forward-looking information (continued)
- ① Upside scenario

Major				20	022	
variables(*1)(*2)(*3)	Correlation	2021.4Q	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				20	022	
variables(*1)(*2)(*3)	Correlation	2021.4Q	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

# **Notes to the Separate Financial Statements**

December 31, 2022 and 2021

#### 3. Financial risk management (continued)

#### 3-1. Credit risk (continued)

- (c) Techniques, assumptions and input variables used to measure impairment (Expected credit loss model) (continued)
- iv) Reflection of forward-looking information (continued)

#### 3 Downside scenario

Major			2022					
variables(*1)(*2)(*3)	Correlation	2021.4Q	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		

<sup>(\*1)</sup> As a result of reviewing the correlation of each variable, GDP growth rates and private consumption index were applied among the major variables to reflect the final forward-looking information. The Bank additionally selected the KOSPI forecast in addition to the table above.

<sup>(\*2)</sup> Considering the forecast period of the company's bankruptcy, the Bank reflected the future economic outlook.

<sup>(\*3)</sup> The macroeconomic outlook figures are estimated by the Bank 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.

# **Notes to the Separate Financial Statements(continued)**

December 31, 2022 and 2021 (In millions of Korean won)

#### 3. Financial risk management (continued)

#### 3-1. Credit risk (continued)

- (c) Techniques, assumptions and input variables used to measure impairment (Expected credit loss model) (continued)
- iv) Reflection of forward-looking information (continued)

The predicted correlations between the macroeconomic variables and the risk of default, used by the Bank, 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. Although the economy has slowed down by COVID-19 since 2020, the actual default rate of the Bank has remained stable because of various government support in response to the COVID-19. The Bank operates the financial relief programs such as moratorium of interest payments and repayment in installments, and the Group manages credit risk from the loan from such moratorium by classifying the loans to Stage 2 and performing additional expected loss assessment in order to reflect the potential insolvency. In addition, the Bank manages credit risk through additional expected loss assessments for estimated loss loans. As of December 31, 2022, the exposure of the maturity-extended financial loan corresponding to the financial relief program is \(\pi \) 7,528,585 million, and the provision is \(\pi \) 116,447 million.

As of December 31, 2022 and 2021, the exposure and provisions for the borrowers who applied for moratorium of interest payments and moratorium of repayment in installments is as follows:

		December	31, 2022	December 3	31, 2021
		Exposure	Provision	Exposure	Provision
Moratorium of interest					
payments	₩	165,442	26,582	224,449	27,460
Moratorium of repayment					
in installments		1,105,481	123,735	1,342,366	106,899
Moratorium of interest					
payments and					
moratorium of repayment					
in installments		66,218	9,814	65,773	8,459
	W	1,337,141	160,131	1,632,588	142,818

To reflect the COVID-19 economic situation, the Bank has additionally applied the scenario of worst to three macroeconomic variable scenarios: upside, central, and downside as of December 31, 2022. The probability weight of each scenario is determined by considering the probability distribution of the economic growth rate (GDP) estimated based on the economic growth rate forecast for each scenario that reflected future forecast information presented by the internal expert group.

If the probability weights for each scenario are assumed to be 100% and the other assumptions are the same, the sensitivity analysis of the Bank's expected credit loss provisions and their impact on provisions is as follows:

Scenarios	Probability weight		Hypothesis	Difference from book value
Upside	25%	₩	1,815,342	(247,607)
Central	30%		1,839,000	(223,949)
Downside	25%		1,875,792	(187,157)
Worst	20%		3,255,970	1,193,021

# **Notes to the Separate Financial Statements**

December 31, 2022 and 2021

#### 3. Financial risk management (continued)

#### 3-1. Credit risk (continued)

- (c) Techniques, assumptions, and input variables used to measure impairment (Expected credit loss model) (continued)
- v) 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 Bank 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 Bank 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 default. The Bank 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 defaults. The Bank 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 amount of the asset, and EAD of loan commitments or guarantee contracts is calculated as the sum of the amount expected to be used in the future.

# **Notes to the Separate Financial Statements**

December 31, 2022 and 2021

#### 3. Financial risk management (continued)

#### 3-1. Credit risk (continued)

- (c) Techniques, assumptions and input variables used to measure impairment (Expected credit loss model) (continued)
- v) Measurement of expected credit losses (continued)

When measuring expected credit losses on financial assets, the Bank reflects a period of expected credit loss measurement based on a contractual maturity. The Bank takes into consideration of the extension rights held by a borrower when deciding the contractual maturity.

Risk factors such as 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 for classification of groups are periodically reviewed to maintain homogeneity of the group and adjusted if necessary. The Bank uses external benchmark information to supplement internal information for a particular portfolio that did not have sufficient internal data accumulated from the experience.

# vi) Write-off of financial assets

The Bank writes off a portion of or entire loan or debt security that is not expected to receive its principal and interest. In general, the Bank 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 Bank. Apart from write-off, the Bank may continue to exercise its right of collection under its own recovery policy even after the write-off of financial assets.

# **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

#### 3. Financial risk management (continued)

#### 3-1. Credit risk (continued)

#### (d) Maximum exposure to credit risk

The Bank's maximum exposure to credit risk of the financial instruments held as of December 31, 2022 and 2021, are as follows:

		2022	2021
Due from banks (*1)(*2):	***	2 22 7 11	2 2 7 2 7 4 2
Banks	₩	3,837,741	2,259,640
Government/Public sector/Central bank/Etc.		10,442,799	11,214,268
		14,280,540	13,473,908
Loans at amortized cost (*1)(*2):			
Banks		9,060,782	6,017,764
Retail:			
Mortgage lending		49,279,868	48,357,552
Others		105,714,541	111,039,011
		154,994,409	159,396,563
Government/Public sector/Central bank/Etc. Corporate:		672,908	380,747
Large enterprises		38,148,354	29,917,928
Small and medium-sized enterprises		104,073,131	96,411,026
Special finance		8,284,934	7,435,493
Others		103	262
		150,506,522	133,764,709
		315,234,621	299,559,783
Loans at FVTPL (*2):		210,22 1,021	2,5,005,100
Banks		109.099	_
Corporate:		10,,0,,	
Large enterprises		841,420	796,191
Small and medium-sized enterprises		-	63,554
Sman and modium sized enterprises		841,420	859,745
		950,519	859,745
Securities at FVTPL:		750,517	037,143
Debt securities		20,384,064	21,944,948
Gold/Silver deposits		75,969	83,691
Gold/Silver deposits		20,460,033	22,028,639
Securities at FVTOCI (*1)		46,568,165	46,533,961
Securities at amortized cost (*1)		27,081,299	19,996,310
Derivative assets		4,904,187	2,999,159
Other financial assets (*1)(*3)		14,873,152	16,067,141
Off-balance accounts:		11,073,132	10,007,111
Guarantee contracts		22,956,154	21,237,032
Loan commitments and other credit related liabilities		106,344,167	99,176,075
Zom communicity and other create related machines		129,300,321	120,413,107
	w	573,652,837	541,931,753
	T	313,032,031	271,731,733

<sup>(\*1)</sup> The maximum exposure amounts for due from banks, loans, securities, and other financial assets are measured as the amount net of unamortized balances and allowances.

<sup>(\*2)</sup> Due from banks and loans are classified as similar credit risk group to be with consistent calculating capital adequacy ratio under New Basel Capital Accord (Basel III).

<sup>(\*3)</sup> Other financial assets comprise accounts receivable, accrued income, guarantee deposits, domestic exchange settlement receivables, suspense payments, etc.

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

(In millions of Korean won)

#### **Financial risk management (continued)** 3.

- (e) Credit risk exposure by credit risk grade
- i) The maximum exposure of financial instruments to credit risk by credit risk grade as of December 31, 2022 and 2021 are as follows:

				De	cember 31,	, 2022			
	12-month ex	pected loss	Life-ti	me expected	loss				
	Grade 1	Grade 2	Grade 1	Grade 2	Impaired	Total	Allowances	Net	Mitigation of credit risk due to collateral
Due from banks:									
Banks Government/Public	₩ 2,932,741	903,624	-	5,777	-	3,842,142	(4,401)	3,837,741	-
sector/Central									
bank/Etc.	10,280,551	164,107	_	295	_	10,444,953	(2,154)	10,442,799	-
	13,213,292	1,067,731		6,072		14,287,095	(6,555)	14,280,540	
Loans at amortized		<del></del> .							
cost:									
Banks	5,738,195	3,223,948	111,593	-	-	9,073,736	(12,954)	9,060,782	40,251
Retail									
Residential real									
estate									
mortgage							(40040)		
loan	46,324,747	228,730	1,959,107	716,564		49,290,811	(10,943)	49,279,868	46,601,611
Etc.	95,004,177	3,136,778	6,340,616	1,295,696	386,498	106,163,765	(449,224)	105,714,541	65,555,139
Government/Public sector/Central									
bank/Etc.	658,638	2,864	12,055			673,557	(649)	672,908	
Corporate	050,050	2,604	12,033	-	-	073,337	(049)	072,908	-
Large enterprises	27,854,230	6,569,223	2,030,041	1,901,017	66,915	38,421,426	(273,072)	38,148,354	9,800,807
Small and									
medium-sized									
enterprises	66,706,388	18,408,615	8,104,620	11,273,758	403,588	104,896,969	(823,838)	104,073,131	77,154,482
Special finance	2,013,909	6,181,568	26,997	83,401	-	8,305,875	(20,941)	8,284,934	4,606,199
Others		43		86		129	(26)	103	
	244,300,284	37,751,769	18,585,029	15,270,522	918,664	316,826,268	(1,591,647)	315,234,621	203,758,489
Securities at									
FVTOCI (*)	38,391,288	8,109,792	-	67,085	-	46,568,165	-	46,568,165	-
Securities at									
amortized cost	26,739,285	349,004	<u> </u>	-		27,088,289	(6,990)	27,081,299	
<u> 1</u>	<del>W</del> 322,644,149	47,278,296	18,585,029	15,343,679	918,664	404,769,817	(1,605,192)	403,164,625	203,758,489

<sup>(\*)</sup> Credit loss allowance recognized in other comprehensive income on securities at FVTOCI is \(\mathbb{W}\)23,341 million.

# **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

# 3. Financial risk management (continued)

- (e) Credit risk exposure by credit risk grade (continued)
- i) The maximum exposure of financial assets to credit risk by credit risk grade as of December 31, 2022 and 2021, are as follows (continued):

Jonows (commueu	·)·			De	ecember 31	, 2021			
	12-month ex	pected loss	Life-ti	me expected	loss				
	Grade 1	Grade 2	Grade 1	Grade 2	Impaired	Total	Allowances	Net	Mitigation of credit risk due to collateral
Due from banks: Banks W Government/Public sector/Central	2,134,442	127,299	-	927	-	2,262,668	(3,028)	2,259,640	-
bank/Etc.	11,025,047	192,992	_	_	_	11,218,039	(3,771)	11,214,268	_
oum no	13,159,489	320,291		927		13,480,707	(6,799)	13,473,908	_
Loans at amortized cost: Banks Retail Residential real estate	3,016,602	2,894,519	112,254	4,149		6,027,524	(9,760)	6,017,764	133,618
mortgage loan Etc. Government/Public	45,691,426 100,308,167	254,012 3,507,886	1,723,343 5,972,455	632,584 1,239,316	- , .	48,364,079 111,340,022	(6,527) (301,011)	48,357,552 111,039,011	45,191,358 65,116,939
sector/Central bank/Etc. Corporate	364,960	16,112	-	-	-	381,072	(325)	380,747	-
Large enterprises Small and medium-sized	20,984,112	4,957,456	2,162,190	2,022,702	44,598	30,171,058	(253,130)	29,917,928	8,442,183
enterprises	61,100,517	18,231,991	6,827,506	10,544,625	454,658	97,159,297	(748,271)	96,411,026	69,638,603
Special finance	2,343,147	5,014,808	22,524	72,558	-	7,453,037	(17,544)	7,435,493	4,024,391
Others	-	150	-	139	-	289	(27)	262	-
	233,808,931	34,876,934	16,820,272	14,516,073	874,168	300,896,378	(1,336,595)	299,559,783	192,547,092
Securities at FVTOCI (*) Securities at	39,899,435	6,481,889	-	152,637	-	46,533,961	-	46,533,961	-
amortized cost	19,696,698	305,050	-	-	-	20,001,748	(5,438)	19,996,310	-
₩	306,564,553	41,984,164	16,820,272	14,669,637	874,168	380,912,794	(1,348,832)	379,563,962	192,547,092

<sup># 306,564,553 41,984,164 16,820,272 14,669,637 874,168 380,912,794 (1,348,832) 379,563,96 (\*)</sup> Credit loss allowance recognized in other comprehensive income on securities at FVTOCI is W27,044 million.

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

(In millions of Korean won)

# Financial risk management (continued)

# 3-1. Credit risk (continued)

- (e) Credit risk exposure by credit risk grade (continued)
- ii) Credit risk exposure per credit grade of off-balance accounts as of December 31, 2022 and 2021, are as follows:

December 31, 2022

	12-month		Lifetime exp		
		expected _	credit los		Total
	_	credit loss	Not impaired	Impaired	
Guarantee contracts:					
Grade 1	$\mathbf{W}$	14,727,821	489,130	-	15,216,951
Grade 2		7,454,098	187,161	-	7,641,259
Impaired		-	-	97,944	97,944
		22,181,919	676,291	97,944	22,956,154
Loan commitment and other credit related liabilities:					
Grade 1		88,031,487	4,178,074	-	92,209,561
Grade 2		12,703,740	1,430,866	-	14,134,606
Impaired		-	-	-	-
		100,735,227	5,608,940	-	106,344,167
	W	122,917,146	6,285,231	97,944	129,300,321
	_	12-month	December 31, Lifetime exp	ected	TD 4.1
		expected _	credit los		Total
	_	credit loss	Not impaired	<b>Impaired</b>	
Guarantee contracts:					
Grade 1	W	15,103,235	946,274	-	16,049,509
Grade 2		4,872,548	222,951	-	5,095,499
Impaired	_			92,024	92,024
_		19,975,783	1,169,225	92,024	21,237,032
Loan commitment and other credit related liabilities:					
Grade 1		80,546,417	3,457,333	-	84,003,750
Grade 2		14,454,119	718,206	-	15,172,325
Impaired		-	-	-	-
		95,000,536	4,175,539	-	99,176,075
	W	114,976,319	5,344,764	92,024	120,413,107

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

(In millions of Korean won)

# **Financial risk management (continued)**

# 3-1. Credit risk (continued)

- (e) Credit risk exposure by credit risk grade (continued)
- iii) Credit risk exposure per collateral of financial instruments as of December 31, 2022 and 2021, are as follows:

			Decemb	per 31, 2022	
		12-month expected credit loss	Lifetime (	Total	
		credit ioss	Not impaired	Impaired	
Guarantees	W	60,184,010	8,440,825	226,585	68,851,420
Deposits and savings		1,401,295	185,583	1,894	1,588,772
Property and equipment		1,546,097	392,319	11,523	1,949,939
Real estate		118,968,759	14,873,094	221,262	134,063,115
	W	182,100,161	23,891,821	461,264	206,453,246

			Decembe	er 31, 2021	
		12-month expected	Lifetime ex credit	Total	
		credit loss	Not impaired	Impaired	
Guarantees	W	60,333,317	8,273,844	192,946	68,800,107
Deposits and savings		1,268,932	184,133	1,048	1,454,113
Property and equipment		1,576,192	403,953	20,162	2,000,307
Real estate		111,831,401	12,632,188	207,834	124,671,423
	W	175,009,842	21,494,118	421,990	196,925,950

iv) Credit risk exposure per LTV of mortgage loans as of December 31, 2022 and 2021, are as follows:

				December 31	, 2022						
	•	LTV of mortgage loans									
		40% or less	Above 40% ~ 60%	Above 60% ~ 80%	Above 80% ~ 100%	Other	Total				
Loans at amortized											
cost	W	20,098,063	14,653,155	11,013,168	1,398,701	2,127,724	49,290,811				
Less: allowance		(921)	(1,934)	(5,928)	(1,188)	(972)	(10,943)				
	W	20,097,142	14,651,221	11,007,240	1,397,513	2,126,752	49,279,868				
				December 31	/						
				LTV of mortgag	ge loans						
			<b>Above 40% ∼</b>	<b>Above 60% ∼</b>	<b>Above 80% ∼</b>						
		40% or less	60%	80%	100%	Other	Total				
Loans at amortized											
cost	₩	18,854,425	14,533,616	12,152,193	1,584,852	1,238,993	48,364,079				
Less: allowance		(501)	(1,014)	(3,608)	(1,032)	(372)	(6,527)				
	W	18,853,924	14,532,602	12,148,585	1,583,820	1,238,621	48,357,552				

# **Notes to the Separate Financial Statements**

December 31, 2022 and 2021

# 3. Financial risk management (continued)

- (e) Credit risk exposure by credit risk grade (continued)
- v) Credit qualities are classified based on the internal credit rating as follows:

Type of Borrower	Grade 1	Grade 2
Retail	Pool of retail loans with probability of default of less than 2.25%	Pool of retail loans with probability of default of 2.25% or more
Governments, Public sector, Central bank	OECD sovereign credit rating of 6 or above	OECD sovereign credit rating of below 6
Banks and Corporations	Internal credit rating of BBB+ or above	Internal credit rating of below BBB+

- (f) Nature and effect of modification in contractual cash flows
- i) For the financial assets for which the loss allowances have been measured at amounts equal to the lifetime expected credit losses, and the contractual cash flows are modified for the years ended December 31, 2022 and 2021, the amortized costs before modification amounted to \$50,916 million and \$16,192 million, respectively, and the net losses resulting from the modification amounted to \$16,297 million and \$2,908 million, respectively
- ii) As of December 31, 2022 and 2021, the book value of financial asset, for which contractual cash flows have been modified while the loss allowance is measured at an amount equal to lifetime expected credit losses at initial recognition, and the loss allowance reverted to being measured at an amount equal to 12-month expected credit losses for the years ended December 31, 2022 and 2021 are \(\prec{\psi}5,686\) million and \(\prec{\psi}54,904\) million, respectively.
- (g) The contractual amounts outstanding on financial assets that are written-off but are still subject to enforcement activity as of December 31, 2022 and 2021, are \text{\$\psi\$}5,319,394 million and \text{\$\psi\$}6,085,461 million, respectively.
- (h) As of December 31, 2022 and 2021, there are no assets acquired by the execution of collateral, respectively.

# **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

# 3. Financial risk management (continued)

# 3-1. Credit risk (continued)

# (i) Concentration by geographic location

An analysis of concentration by geographic location for financial instruments excluding equity securities as of December 31, 2022 and 2021, is as follows:

					D	ecember 31, 2				
Division(*)		Korea	U.S.A	U.K	Japan	Germany	Vietnam	China	Others	Total
Due from banks:										
Banks	W	530,550	1,402,279	519,736	319,656	399,409	2,369	346,148	317,594	3,837,741
Government/		220,220	1,102,275	017,700	517,000	2,,,.0,	2,505	3 .0,1 .0	517,55	3,037,711
Public										
sector/Central										
bank/Etc		9,665,222	641,433	<u>-</u>			<u> </u>		136,144	10,442,799
		10,195,772	2,043,712	519,736	319,656	399,409	2,369	346,148	453,738	14,280,540
Loans at amortized										
cost: Banks		1,269,463	4,762	25,270	519,389	496,138	881,846	1,875,557	3,988,357	9,060,782
Retail		1,209,403	4,/62	23,270	319,389	490,138	881,840	1,8/3,33/	3,988,337	9,000,782
Residential										
real estate										
mortgage										
loan		48,430,053	80,874	2,351	2,430	803	2,847	437,297	323,213	49,279,868
Etc		105,238,847	105,550	3,415	4,778	2,035	3,426	234,333	122,157	105,714,541
Government/										
Public										
sector/Central										
bank/Etc		670,050	-	-	-	-	-	-	2,858	672,908
Corporate										
Large enterprises		35,969,313	251,206	51,119			369,515	92,419	1,414,782	38,148,354
Small and		33,909,313	231,200	31,119	-	-	309,313	92,419	1,414,762	36,146,334
medium-										
sized										
enterprises		100,876,692	816,096	95,019	4,841	-	666,482	142,431	1,471,570	104,073,131
Special										
finance		6,293,885	803,632	197,345	5,241	8,408	80,187	-	896,236	8,284,934
Others		75	12	<u> </u>		<u> </u>	<u> </u>	<u> </u>	16	103
		298,748,378	2,062,132	374,519	536,679	507,384	2,004,303	2,782,037	8,219,189	315,234,621
Loans at FVTPL		400.000								400.000
Banks		109,099	-	-	-	-	-	-	-	109,099
Corporate										
Large enterprises		841,420	_	_	_	_	_	_	_	841,420
cherphises		950,519				<del></del> -			<u>-</u>	950,519
		750,517								750,517
Securities at FVTPL										
Debt securities		19,737,537	129,986	4,817	32,171	21,649	-	2,713	455,191	20,384,064
Gold/Silver										
Deposits			<u> </u>	75,969						75,969
		19,737,537	129,986	80,786	32,171	21,649	<u> </u>	2,713	455,191	20,460,033
Securities at										
FVTOCI		42,241,578	2,603,072	157,951	194,855	34,065	-	189,718	1,146,926	46,568,165
Securities at		26 701 010							200 201	27.091.200
amortized cost Off-balance		26,781,018	-	-	-	-	-	-	300,281	27,081,299
accounts										
Guarantee										
contracts		21,741,395	88,371	23,481	860	35,488	500,127	123,985	442,447	22,956,154
Loan		,,,-,-	0.0,0 / 2			,	,	,	,	,, ,
Commitments										
and other										
credit related										
liabilities		101,042,206	540,162	314,302	346,083	11,878	47,638	234,493	3,807,405	106,344,167
	W	521,438,403	7,467,435	1,470,775	1,430,304	1,009,873	2,554,437	3,679,094	14,825,177	553,875,498

<sup>(\*)</sup> Geographical breakdown is the book value, net of unamortized balances and allowance for doubtful accounts.

# **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

# 3. Financial risk management (continued)

# 3-1. Credit risk (continued)

# (i) Concentration by geographic location (continued)

An analysis of concentration by geographic location for financial instruments excluding equity securities, net of allowance, as of December 31, 2022 and 2021 is as follows (continued):

					D	ecember 31, 20	21			
Division(*)		Korea	U.S.A	U.K	Japan	Germany	Vietnam	China	Others	Total
Due from banks:  Banks  Government/ Public	W	92,177	929,454	25,563	227,479	279,348	5,750	428,577	271,292	2,259,640
sector/Central bank/Etc		10,569,824	469,171	<u> </u>			<u>-</u>		175,273	11,214,268
		10,662,001	1,398,625	25,563	227,479	279,348	5,750	428,577	446,565	13,473,908
Loans at amortized										
cost:		1 120 021	4.050	11.725	1.47.02.6	204 220	1.070.627	0.67.040	2 402 410	6.017.764
Banks		1,129,921	4,950	11,735	147,936	284,329	1,078,627	867,848	2,492,418	6,017,764
Retail Residential										
real estate										
mortgage										
loan		47,515,208	83,872	2,287	2,695	1,122	1,820	473,116	277,432	48,357,552
Etc		110,532,691	109,690	2,962	4,908	1,715	3,530	249,913	133,602	111,039,011
Government/		,,	,	_,	.,,	-,,	-,	,,,	,	,,
Public										
sector/Central										
bank/Etc		364,655	-	-	-	-	-	-	16,092	380,747
Corporate										
Large										
enterprises		27,339,606	477,069	84,477	-	11,333	468,177	218,685	1,318,581	29,917,928
Small and										
medium-sized		02 277 520	650.062	44.270	1.505		155 626	257.040	1 (22 17)	06.411.026
enterprises		93,377,539	650,862	44,270	1,595	-	455,636	257,948	1,623,176	96,411,026
Special finance		5,594,272	787,296	83,208			104,761		865,956	7,435,493
Others		3,394,272	787,290	65,206	-	-	104,701	-	110	7,433,493
Others		285,854,037	2,113,746	228,939	157,134	298,499	2,112,551	2,067,510	6,727,367	299,559,783
Loans at FVTPL		263,634,037	2,113,740	220,939	137,134	290,499	2,112,331	2,007,310	0,727,307	299,339,763
Corporate										
Large										
enterprises		796,191	-	-	-	-	_	_	_	796,191
Small and		,								,
medium-sized										
enterprises		63,554	-	-	-	-	-	-	-	63,554
		859,745			-		-		-	859,745
Securities at FVTPL										
Debt securities		21,148,366	326,107	8,396	50,503	19,048	-	9,041	383,487	21,944,948
Gold/Silver										
deposits		<del></del>		83,691			<u> </u>			83,691
~		21,148,366	326,107	92,087	50,503	19,048		9,041	383,487	22,028,639
Securities at		42.045.050	1 226 004	120.051	100 104	50 100		202 515	605.550	46.522.061
FVTOCI		43,945,878	1,326,804	120,851	120,134	52,199	-	282,517	685,578	46,533,961
Securities at amortized cost		19,740,332							255,978	19,996,310
Off-balance		19,740,332	-	-	-	-	-	-	233,976	19,990,310
accounts										
Guarantee										
contracts		20,290,609	116,954	4,690	_	2,954	444,911	94,342	282,572	21,237,032
Loan		20,270,007	110,50.	.,000		2,50.	,>11	, .,5 .2	202,072	21,207,002
Commitments										
and other										
credit related										
liabilities		97,155,315	144,078	237,450	369,354	3,698	463	246,034	1,019,683	99,176,075
	W	499,656,283	5,426,314	709,580	924,604	655,746	2,563,675	3,128,021	9,801,230	522,865,453

W 499,656,283 5,426,314 709,580 924,604 655,746 2,563,675 3,128 (\*) Geographical breakdown is the book value, net of unamortized balances and allowance for doubtful accounts.

# **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

# 3. Financial risk management (continued)

- (j) Concentration by industry sector
- i) An analysis of concentration by industry sector for financial assets excluding equity securities as of December 31, 2022 and 2021, is as follows:

					December 31, 2022				
	Finance and			Real estate and		Lodging and			
Division(*)	insurance	Manufacturing	Retail and wholesale	service	Construction	Restaurant	Others	Retail customers	Total
Due from banks:									
Banks	₩ 3,837,741	-	-	-	-	-	-	-	3,837,741
Government/Public sector/Central bank/Etc	10,442,799	-	-	-	-	-	-	-	10,442,799
	14,280,540	-				-	-		14,280,540
Loans at amortized cost:									
Banks	8,434,415	-	-	-	29,979	-	596,388	-	9,060,782
Retail									
Residential real estate mortgage loan	-	-	-	-	-	-	-	49,279,868	49,279,868
Etc	-	-	-	-	-	-	-	105,714,541	105,714,541
Government/Public sector/Central bank/Etc	661,030	-	-	-	-	-	11,878	-	672,908
Corporate									
Large enterprises	5,852,276	19,782,526	4,010,626	1,624,201	676,354	361,756	5,840,615	-	38,148,354
Small and medium-sized enterprises	1,164,813	33,475,941		28,252,026	2,092,414	5,100,102	17,330,432	-	104,073,131
Special finance	2,078,996	9,299	19,657	3,206,604	283,678	87,079	2,599,621	-	8,284,934
Others	-		26	2	-	<u> </u>	75	<u>-</u>	103
	18,191,530	53,267,766	20,687,712	33,082,833	3,082,425	5,548,937	26,379,009	154,994,409	315,234,621
Loans at FVTPL								,	<u>.</u>
Bank	-	-	-	69,533	-	-	39,566	-	109,099
Corporate									
Large enterprises	247,197	504,572	89,651		-	<u> </u>	<u>-</u>	<u>-</u>	841,420
	247,197	504,572	89,651	69,533	-	-	39,566	-	950,519
Securities at FVTPL								,	<u>.</u>
Debt securities	11,354,129	1,593,010	988,310	740,083	78,632	59,459	5,570,441	-	20,384,064
Gold/Silver deposits	75,969	-	-	-	-	-	-	-	75,969
Securities at FVTOCI	20,895,501	1,962,036	417,514	547,578	562,659	28,371	22,154,506	-	46,568,165
Securities at amortized cost	9,583,886	9,931	-	131,534	218,861	-	17,137,087	-	27,081,299
Off-balance accounts									
Guarantee contracts	7,737,119	9,192,708	3,285,811	141,467	207,900	89,527	1,935,351	366,271	22,956,154
Loan commitments and other credit related									
Liabilities	18,160,200	26,152,698	9,382,258	2,724,488	1,749,009	300,671	11,058,686	36,816,157	106,344,167
	₩ 100,526,071	92,682,721	34,851,256	37,437,516	5,899,486	6,026,965	84,274,646	192,176,837	553,875,498

<sup>(\*)</sup> Industrial breakdown is the book value, net of unamortized balances and allowance for doubtful accounts.

# **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

# 3. Financial risk management (continued)

- (j) Concentration by industry sector (continued)
- i) An analysis of concentration by industry sector for financial assets excluding equity securities as of December 31, 2022 and 2021, is as follows (continued):

Covernment/Public sector/Central bank/Etc   11,214,268   -   -   -     -     -							December 31, 2021				
Due from banks:		_	Finance and			Real estate and		Lodging and			
Banks   W   2,259,640   -   -     -     -     2,25   2,2	Division(*)	_	insurance	Manufacturing	Retail and wholesale	service	Construction	Restaurant	Others	Retail customers	Total
Covernment/Public sector/Central bank/Ec	Due from banks:										
Loans at amortized cost:  Banks 5,373,574 644,190 6,01  Retail  Residential real estate mortgage loan 48,357,552 48,35  Etc	Banks	W	2,259,640			-	-	-	-	-	2,259,640
Comparison	Government/Public sector/Central bank/Etc		11,214,268		-	-	-	-	-	-	11,214,268
Retail   Retail   Residential real estate mortgage loan		_	13,473,908			-	-	-	-	-	13,473,908
Reside   Reside   Securities at FVTPL   Residential real estate mortgage loan	Loans at amortized cost:	_									
Residential real estate mortgage loan Etc	Banks		5,373,574		-	-	-	-	644,190	-	6,017,764
Etc	Retail										
Government/Public sector/Central bank/Etc 374,415 6,332 388 Corporate  Corporate  Large enterprises 3,376,873 16,665,592 3,318,802 1,580,878 570,074 162,880 4,242,829 - 29,91   Small and medium-sized enterprises 1,298,767 31,754,858 15,378,005 25,459,543 1,880,595 5,165,838 15,473,420 - 96,41   Special finance 1,959,337 15,721 21,084 2,738,689 151,690 88,551 2,460,421 - 7,43   Others 12,382,966 48,436,219 18,717,915 29,779,111 2,602,359 5,417,272 22,827,378 159,396,563 299,55    Loans at FVTPL  Corporate  Large enterprises 368,872 425,281 2,037 - 1 1 - 79   Small and medium-sized enterprises - 36,470 9,516 2,002 500 - 15,066 - 66   Securities at FVTPL  Debt securities at FVTPL  Debt securities 4 FVTPL  Debt securities 8 13,315,465 1,644,338 876,013 237,597 80,644 62,437 5,728,454 - 21,944   Gold/Silver deposits 83,691	Residential real estate mortgage loan		-			-	-	-	-	48,357,552	48,357,552
Corporate   Large enterprises   3,376,873   16,665,592   3,318,802   1,580,878   570,074   162,880   4,242,829   - 29,91     Small and medium-sized enterprises   1,298,767   31,754,858   15,378,005   25,459,543   1,880,595   5,165,838   15,473,420   - 96,44     Special finance   1,959,337   15,721   21,084   2,738,689   151,690   88,551   2,460,421   - 7,43     Others   - 48   24   1   - 3   3   186   -	Etc		-		-	-	-	-	-	111,039,011	111,039,011
Large enterprises         3,376,873         16,665,592         3,318,802         1,580,878         570,074         162,880         4,242,829         29,91           Small and medium-sized enterprises         1,298,767         31,754,858         15,378,005         25,459,543         1,880,595         5,165,838         15,473,420         -         96,41           Special finance         1,959,337         15,721         21,084         2,738,689         151,690         88,551         2,460,421         -         7,43           Others         -         48         24         1         -         3         186         -         -         7,43           Loans at FVTPL         -         12,382,966         48,436,219         18,717,915         29,779,111         2,602,359         5,417,272         22,827,378         159,396,563         299,55           Loans at FVTPL         -         -         36,872         425,281         -         -         2,037         -         1         -         79           Small and medium-sized enterprises         -         36,872         425,281         -         -         2,037         -         15,066         -         6           Securities at FVTPL         -         -	Government/Public sector/Central bank/Etc		374,415			-	-	-	6,332	-	380,747
Small and medium-sized enterprises         1,298,767         31,754,858         15,378,005         25,459,543         1,880,595         5,165,838         15,473,420         -         96,41           Special finance         1,959,337         15,721         21,084         2,738,689         151,690         88,551         2,460,421         -         7,43           Others         12,382,966         48,436,219         18,717,915         29,779,111         2,602,359         5,172,722         22,827,378         159,396,563         299,55           Loans at FVTPL         Corporate         Large enterprises         368,872         425,281         -         -         2,037         -         1         -         79           Small and medium-sized enterprises         368,872         425,281         -         -         2,037         -         15,066         -         6           Small and medium-sized enterprises         368,872         461,751         9,516         2,002         500         -         15,066         -         6           Securities at FVTPL         Debt securities         13,315,465         1,644,338         876,013         237,597         80,644         62,437         5,728,454         -	Corporate										
Special finance Others         1,959,337   15,721   21,084   2,738,689   151,690   88,551   2,460,421   - 7,43   7,45	Large enterprises		3,376,873	16,665,592	3,318,802	1,580,878	570,074	162,880	4,242,829	-	29,917,928
Others         1         48         24         1         -         3         186         -	Small and medium-sized enterprises		1,298,767	31,754,858	15,378,005	25,459,543	1,880,595	5,165,838	15,473,420	-	96,411,026
Loans at FVTPL   Corporate   Small and medium-sized enterprises   13,315,465   1,644,338   876,013   237,597   80,644   62,437   5,728,454   19,873,019   6,578,642   6,586,542   6,586,	Special finance		1,959,337	15,721	21,084	2,738,689	151,690	88,551	2,460,421	-	7,435,493
Loans at FVTPL Corporate  Large enterprises 368,872 425,281 2,037 - 1 - 79 Small and medium-sized enterprises 5,6470 9,516 2,002 500 - 15,066 - 6  Securities at FVTPL  Debt securities 13,315,465 1,644,338 876,013 237,597 80,644 62,437 5,728,454 - 21,94 Gold/Silver deposits 83,691	Others	_	<u> </u>	48	3 24	1	<u> </u>	3	186	<u> </u>	262
Corporate   Large enterprises   368,872   425,281   -   2,037   -   1   -   79			12,382,966	48,436,219	18,717,915	29,779,111	2,602,359	5,417,272	22,827,378	159,396,563	299,559,783
Large enterprises 368,872 425,281 2,037 - 1 - 79 Small and medium-sized enterprises - 36,470 9,516 2,002 500 - 15,066 - 66 368,872 461,751 9,516 2,002 2,537 - 15,066 - 85 Securities at FVTPL  Debt securities 9 13,315,465 1,644,338 876,013 237,597 80,644 62,437 5,728,454 - 21,94 Gold/Silver deposits 83,691 85 Securities at FVTOCI 22,882,007 2,217,547 345,180 439,424 758,642 18,142 19,873,019 - 46,53 Securities at mortized cost 5,806,542 115,136 140,163 - 13,934,469 - 19,99	Loans at FVTPL	_			·			.,			<u>.</u>
Small and medium-sized enterprises         -         36,470         9,516         2,002         500         -         15,066         -         6           Securities at FVTPL           Debt securities         13,315,465         1,644,338         876,013         237,597         80,644         62,437         5,728,454         -         21,94           Gold/Silver deposits         83,691         -	Corporate										
Securities at FVTPL         368,872         461,751         9,516         2,002         2,537         -         15,067         -         85           Debt securities         13,315,465         1,644,338         876,013         237,597         80,644         62,437         5,728,454         -         21,94           Gold/Silver deposits         83,691         - <td></td> <td></td> <td>368,872</td> <td>425,281</td> <td>-</td> <td>-</td> <td>2,037</td> <td>-</td> <td>1</td> <td>-</td> <td>796,191</td>			368,872	425,281	-	-	2,037	-	1	-	796,191
Securities at FVTPL         Debt securities         13,315,465         1,644,338         876,013         237,597         80,644         62,437         5,728,454         -         21,94           Gold/Silver deposits         83,691         -         -         -         -         -         -         -         8           Securities at FVTOCI         22,882,007         2,217,547         345,180         439,424         758,642         18,142         19,873,019         -         46,53           Securities at amortized cost         5,806,542         -         -         115,136         140,163         -         13,934,469         -         19,99	Small and medium-sized enterprises	_	<u> </u>	36,470	9,516	2,002	500	<u>-</u>	15,066	<u> </u>	63,554
Debt securities         13,315,465         1,644,338         876,013         237,597         80,644         62,437         5,728,454         -         21,94           Gold/Silver deposits         83,691         -         -         -         -         -         -         -         -         -         8           Securities at FVTOCI         22,882,007         2,217,547         345,180         439,424         758,642         18,142         19,873,019         -         46,53           Securities at amortized cost         5,806,542         -         -         115,136         140,163         -         13,934,469         -         19,99			368,872	461,751	9,516	2,002	2,537	-	15,067	-	859,745
Gold/Silver deposits         83,691         -         -         -         -         -         -         -         -         -         -         -         -         -         8           Securities at FVTOCI         22,882,007         2,217,547         345,180         439,424         758,642         18,142         19,873,019         -         46,53           Securities at amortized cost         5,806,542         -         -         115,136         140,163         -         13,934,469         -         19,99	Securities at FVTPL	_			·			.,			<u>.</u>
Securities at FVTOCI         22,882,007         2,217,547         345,180         439,424         758,642         18,142         19,873,019         -         46,53           Securities at amortized cost         5,806,542         -         -         115,136         140,163         -         13,934,469         -         19,99	Debt securities		13,315,465	1,644,338	876,013	237,597	80,644	62,437	5,728,454	-	21,944,948
Securities at amortized cost 5,806,542 115,136 140,163 - 13,934,469 - 19,99	Gold/Silver deposits		83,691		-	-	-	-	-	-	83,691
			22,882,007	2,217,547	345,180	439,424	758,642	18,142	19,873,019	-	46,533,961
Off-balance accounts	Securities at amortized cost		5,806,542	-	-	115,136	140,163	-	13,934,469	-	19,996,310
	Off-balance accounts										
Guarantee contracts 6,219,402 8,232,786 3,622,124 647,065 165,934 211,103 2,127,728 10,890 21,23	Guarantee contracts		6,219,402	8,232,786	3,622,124	647,065	165,934	211,103	2,127,728	10,890	21,237,032
Loan commitments and other credit related	Loan commitments and other credit related										
	Liabilities	_		, ,							99,176,075
$\Psi$ 91,735,595 77,957,590 29,782,562 33,788,404 5,472,671 6,035,267 80,134,168 197,959,196 522,86		₩	91,735,595	77,957,590	29,782,562	33,788,404	5,472,671	6,035,267	80,134,168	197,959,196	522,865,453

<sup>(\*)</sup> Industrial breakdown is the book value, net of unamortized balances and allowance for doubtful accounts.

# **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

# 3. Financial risk management (continued)

- (j) Concentration by industry sector (continued)
- ii) As of December 31, 2022 and 2021, the concentration by industry sector for corporate loans that could be affected by the prolonged COVID-19 among the financial instruments is as follows, and the industries that will be affected by the future economic conditions may change significantly:

					December 31, 2	022			
		Airlift passenger	Lodging	Oil/petroleum refinery	Art-related	Movie theater	Clothing manufacturing	Travel	Total
Loans at amortized									
Cost	₩	129,467	3,010,180	1,193,391	198,752	71,912	1,898,834	49,500	6,552,036
Securities at FVTOCI		123,875	18,416	211,000	-	-	14,776	-	368,067
Securities at amortized									
Cost		59,997	-	-	=	-	-	-	59,997
Off-balance accounts		434,150	247,228	2,719,276	7,474	76,817	858,832	35,464	4,379,241
	W	747,489	3,275,824	4,123,667	206,226	148,729	2,772,442	84,964	11,359,341

_				December 31, 2	021			
_	Airlift passenger	Lodging	Oil/petroleum refinery	Art-related	Movie theater	Clothing manufacturing	Travel	Total
-								
₩	139,614	2,996,759	919,090	207,408	81,499	1,747,453	52,924	6,144,747
	-	-	29,911	-	-	-	2,737	32,648
	109,006	18,142	264,343	-	7,123	10,678	-	409,292
	363,362	316,113	2,646,739	14,775	91,622	778,608	36,331	4,247,550
W	611,982	3,331,014	3,860,083	222,183	180,244	2,536,739	91,992	10,834,237
	₩	109,006 363,362	₩ 139,614 2,996,759 109,006 18,142 363,362 316,113	₩ 139,614 2,996,759 919,090 29,911 109,006 18,142 264,343 363,362 316,113 2,646,739	Airlift passenger         Lodging         Oil/petroleum refinery         Art-related           ₩         139,614         2,996,759         919,090         207,408           -         -         29,911         -           109,006         18,142         264,343         -           363,362         316,113         2,646,739         14,775	Airlift passenger         Lodging         Oil/petroleum refinery         Art-related         Movie theater           ₩         139,614         2,996,759         919,090         207,408         81,499           -         -         29,911         -         -           109,006         18,142         264,343         -         7,123           363,362         316,113         2,646,739         14,775         91,622	W     139,614     2,996,759     919,090     207,408     81,499     1,747,453       -     -     29,911     -     -     -       109,006     18,142     264,343     -     7,123     10,678       363,362     316,113     2,646,739     14,775     91,622     778,608	Airlift passenger         Lodging         Oil/petroleum refinery         Art-related         Movie theater         Clothing manufacturing         Travel           W         139,614         2,996,759         919,090         207,408         81,499         1,747,453         52,924           -         -         -         29,911         -         -         -         2,737           109,006         18,142         264,343         -         7,123         10,678         -           363,362         316,113         2,646,739         14,775         91,622         778,608         36,331

iii) In the case of borrowers classified as normal and impaired among individual loans subject to lifetime expected credit losses as disclosed in Note 3-1. (e), the effect of COVID-19 may be relatively large. The impact is subject to change, depending on the future economic situation.

# **Notes to the Separate Financial Statements**

December 31, 2022 and 2021

#### 3. Financial risk management (continued)

#### 3-2. Market risk

Market risk is the risk that changes in market price such as interest rates, equity prices, and foreign exchange rates, etc. will affect the Bank's income. Trading position is exposed to the risk such as interest rates, equity prices, foreign exchange rates, etc., and non-trading position is mainly exposed to interest rates. The Bank separates and manages its exposure to market risk between trading and non-trading position.

The Bank carries out decision-making functions such as policy establishment and setting limits on market risk management by the Risk Policy Committee, and the Risk Engineering Department provides comprehensive market risk management, market risk system management, and Middle Office functions for all operating departments and desks.

The basis of market risk management is limit management to keep the maximum possible loss due to market risk within a certain level. The Risk Policy Committee sets and operates the VaR limit, loss limit, sensitivity limit, investment limit and position limit, and stress loss limit for each operating department and desk. The Risk Engineering department monitors the operation status independently from the operating department. The Bank regularly reports to the Risk Policy Committee and Risk Management Committee. In addition, the Fair Value Assurance Council and the Risk Engineering Department conduct a review of the fair value evaluation method and risk assessment before the launch (or transactions) of new products in each business unit. The Risk Review Council for derivatives and structured products supports rational decision-making such as checking risk factors and reviewing investment limits, so that objective analysis and review of risk factors can be conducted in advance.

#### (a) Market risk management of trading positions

Trading data for foreign exchange, stocks, bonds, and derivatives, which are subject to the measurement of market risks of trading positions, are managed by entering transactions in the front system, and are automatically interfaced with the market risk management system (Risk Watch) to perform daily risk measurement and limit management. In addition, in order to supplement the risk measurement by statistical method and to manage the impact and loss scale of rapid changes in the economic environment, stress testing is regularly conducted in parallel, and through this, the loss extent is managed within a certain range in case of crisis of the Bank.

#### i) Measurement method on market risk arising from trading positions

The Bank applies historical simulation VaR methodology to each market risk, such as interest rates, stock prices, and exchange rates exposed to trading positions to calculate market risk in a 99% confidence level. VaR is based on a statistical assessment of potential losses to current positions from an adverse market movement. This represents the maximum amount of losses that can be incurred at the level of 99% confidence. Therefore, there is a statistical probability (1.0%) that the actual loss may be greater than the VaR measurement.

The VaR model measures expected losses assuming that the daily position at the measurement point remains and that market movements for the past 10 days from each measurement point will continue in the future.

Limits for each type of market risk are the limits set on market risk within the Bank's total risk limit. It is calculated by multiplying the average 10 days VaR and Stressed VaR for the previous 60 days by the regulatory multiplier and used as a market risk management tool. The Bank's VaR limit is set annually by the Risk Management Committee or the Risk Policy Committee, and compliance of each type of limit is monitored on a daily basis. In addition, when the set limit is exceeded, the manager of the operation department reports the excess details, reasons for the excess, and solutions to the group head in charge, and manages the set limit to be reduced to the limit within the next business day.

The quality of the VaR model is continuously monitored by post verification of VaR results, and all post verification results are reported to the Board of Directors.

# **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

# 3. Financial risk management (continued)

# 3-2. Market risk (continued)

- (a) Market risk management of trading positions (continued)
- ii) VaR of trading positions

The Bank manages VaR for trading portfolio based on financial statements. The minimum, maximum, average VaR and the VaR the years ended December 31, 2022 and 2021 are as follows:

	. <u></u>	December 31, 2022								
		Average	Maximum	Minimum	Year-end					
Interest rate risk	W	44,719	64,628	24,322	53,777					
Equity risk		20,303	24,879	13,443	21,659					
Foreign currency risk (*)		191,013	262,319	161,760	252,453					
Volatility risk		84	211	25	110					
Commodity risk		13	193	-	27					
Covariance		(33,760)	(77,335)	(10,872)	(62,957)					
	₩ <u></u>	222,372	274,895	188,678	265,069					

<sup>(\*)</sup> The Bank measured foreign currency risk arising from trading positions and non-trading positions.

		December 31, 2021						
		Average	Maximum	Minimum	Year-end			
Interest rate risk	W	28,749	55,773	17,537	28,030			
Equity risk		11,583	21,340	3,850	19,618			
Foreign currency risk (*)		159,165	185,514	136,936	161,978			
Volatility risk		162	368	29	60			
Commodity risk		11	151	-	8			
Covariance		(25,023)	(52,611)	(13,207)	(17,470)			
	₩ <u></u>	174,646	210,534	145,147	192,222			

<sup>(\*)</sup> The Bank measured foreign currency risk arising from trading positions and non-trading positions.

# **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

#### 3. Financial risk management (continued)

#### 3-2. Market risk (continued)

#### (b) Market risk management of non-trading positions

The most critical market risk that arises from non-trading position is the interest rate risk. Accordingly, the Bank measures and manages market risk for non-trading position by taking into account effects of interest rate changes on both its net asset value and income.

The Bank carries out decision-making functions such as establishing policies and setting detailed limits on interest rate risk management by the Risk Policy Committee, and within these principles and limits, management departments by account, such as overseas branches, subsidiaries, and finance departments, trust headquarters, and general finance departments, primarily recognize and manage interest rate risk. The Risk Management Department and the Risk Engineering Department support the Risk Policy Committee's decision on interest rate risk, monitor whether the interest rate risk limit is exceeded, and evaluate and manage the overall interest rate risk.

The Bank measures and manages interest rate risk using various analysis methods such as interest rate gap, duration gap, and scenario based NII (Net Interest Income) simulation through the Asset Liability Management (ALM) system. Interest rate VaR and interest rate EaR (Earnings at Risk) and interest rate gap ratios are set and monitored monthly. In addition, stress testing evaluates the impact on interest rate risk in various crisis situations.

#### i) Measurement method on market risk arising from non-trading positions

The Bank calculates and manages the amount of change in economic value of equity (interest rate VaR) and the maximum expected interest loss (interest rate EaR) over the next year on the application of the IRRBB Standard Method interest rate scenario provided by the Bank for International Settlements ("BIS"). It also manages the risk of interest rate market risk by reflecting the customer behaviour ratio based on IRRBB standard method.

In order to calculate the interest rate risk, the Bank uses the six scenarios defined by the Basel Committee, 1) Parallel shock increases, 2) Parallel shock decreases, 3) Shock stiffener, 4) Shock plattner, 5) short-term interest rate increases, and 6) short-term interest rate decreases. Based on the six scenarios, the changes in economic value of equity are measured to calculate the maximum loss (VaR: Value at Risk) and the changes in net interest income are measured to calculate the maximum expected changes of profit or loss (EaR: Earning at Risk) based on the two scenarios (parallel shock increases and decreases).

# ii) Interest rate VaR and EaR for non-trading positions

Interest rate VaR (maximum expected loss among  $\triangle$ EVE) and EaR (maximum expected changes in profit of loss among  $\triangle$  NII) for non-trading positions which were measured by the IRRBB standard methodology provided by BIS as of December 31, 2022 and 2021, are as follows:

		December 31, 2022	December 31, 2021
Interest rate VaR	W	744,505	858,113
Interest rate EaR		487,930	146,582

# **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

#### 3. Financial risk management (continued)

#### 3-2. Market risk (continued)

#### (c) Foreign exchange risk

The Bank manages foreign currency risk based on general positions which includes all spot and future foreign currency positions, etc. The Risk Policy Committee oversees the Bank's foreign exchange exposure for both trading and non-trading activities by establishing limits for the net foreign currencies open position. The Bank's foreign exchange position is centralized at the S&T Center. Dealers in S&T Center manage the Bank's overall position within the set limits through spot trading, forward contracts, currency options, futures and swaps and foreign exchange swaps. The Bank's foreign exchange transactions are mainly conducted in the U.S. dollar (USD), Japanese yen (JPY), Euro (EUR) and Chinese yuan (CNY). Other foreign currencies are limitedly traded.

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

		December 31, 2022							
		USD	JPY	EUR	CNY	Others	Total		
Assets									
Cash and due from banks	W	5,177,653	281,015	96,737	117,928	420,019	6,093,352		
Securities at FVTPL		1,114,580	-	249,734	-	217,562	1,581,876		
Derivative assets		589,057	-	6,632	-	1,675	597,364		
Loans at amortized cost		27,630,573	461,718	790,477	80,881	2,649,319	31,612,968		
Securities at FVTOCI		5,255,322	-	3,236	-	743,161	6,001,719		
Securities at amortized									
cost		64,338	-	-	-	288,468	352,806		
Other financial assets	_	2,834,131	517,926	554,925	278,352	997,631	5,182,965		
		42,665,654	1,260,659	1,701,741	477,161	5,317,835	51,423,050		
				_					
Liabilities									
Deposits		22,848,469	1,561,570	938,970	136,269	2,235,135	27,720,413		
Financial liabilities									
at FVTPL		2,958	-	-	-	422,006	424,964		
Derivative liabilities		698,616	-	27,933	-	44,348	770,897		
Borrowings		10,096,821	256,837	56,131	16,809	151,793	10,578,391		
Debt securities issued		6,187,754	352,677	675,600	108,864	1,030,092	8,354,987		
Other financial liabilities		3,644,958	195,025	618,771	298,103	742,954	5,499,811		
	_	43,479,576	2,366,109	2,317,405	560,045	4,626,328	53,349,463		
Net assets (liabilities)		(813,922)	(1,105,450)	(615,664)	(82,884)	691,507	(1,926,413)		
Off-balance sheet items									
Derivative exposures		1,370,460	798,652	308,088	(50,025)	(748,646)	1,678,529		
Net position	W	556,538	(306,798)	(307,576)	(132,909)	(57,139)	(247,884)		

# **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

#### 3. Financial risk management (continued)

#### 3-2. Market risk (continued)

#### (c) 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	Others	Total				
Assets											
Cash and due from banks	W	3,408,568	236,656	100,615	70,409	352,531	4,168,779				
Securities at FVTPL		1,261,781	13,108	245,151	-	100,632	1,620,672				
Derivative assets		244,888	1	3,861	-	23,235	271,985				
Loans at amortized cost		22,647,204	506,397	561,925	77,170	3,415,722	27,208,418				
Securities at FVTOCI		3,667,519	-	25,094	-	392,781	4,085,394				
Securities at amortized											
cost		63,685	-	-	-	244,922	308,607				
Other financial assets		3,759,217	161,714	321,752	18,558	572,847	4,834,088				
		35,052,862	917,876	1,258,398	166,137	5,102,670	42,497,943				
	_										
Liabilities											
Deposits		16,996,254	805,570	846,294	167,274	1,894,864	20,710,256				
Financial liabilities											
at FVTPL		-	-	-	-	581,458	581,458				
Derivative liabilities		142,701	-	6,825	-	8,348	157,874				
Borrowings		7,330,370	264,864	88,892	14,168	146,320	7,844,614				
Debt securities issued		5,084,597	137,022	671,170	-	687,112	6,579,901				
Other financial liabilities		3,174,790	61,993	194,096	26,259	728,499	4,185,637				
		32,728,712	1,269,449	1,807,277	207,701	4,046,601	40,059,740				
Not assets (liabilities)		2 224 150	(251 572)	(549.970)	(41.5(4)	1.056.060	2 429 202				
Net assets (liabilities)		2,324,150	(351,573)	(548,879)	(41,564)	1,056,069	2,438,203				
Off-balance sheet items											
Derivative exposures		(2,217,398)	22,190	548,262	(93,821)	(1,034,217)	(2,774,984)				
Net position	W	106,752	(329,383)	(617)	(135,385)	21,852	(336,781)				

#### (d) Interest rate risk management

The Bank is closely monitoring the output and market of various industrial working groups that manage the transition to new interest rate indicators. It includes announcements made by LIBOR regulators.

Regulators have made it clear that they will not persuade or force banks to submit LIBOR by the end of 2021. In response to this announcement, the Bank has established a LIBOR-related response plan consisting of job flows such as risk management, accounting, tax, law, computerization, and customer management. The plan is dedicated to the Chief Financial Officer (CFO) and important matters are reported to the Board of Directors. The purpose of the plan is to identify the impact and risks associated with reforming interest rate indicators within the business and prepare and implement action plans to facilitate the transition to alternative benchmark rates. The Bank aims to close its response plan in accordance with the guidelines of the regulators.

# **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

#### Financial risk management (continued)

#### 3-2. Market risk (continued)

(d) Interest rate risk management (continued)

The financial instruments that have not been converted to alternative benchmark rates among the LIBOR interest rates as of December 31, 2022 are as follows:

#### i) Non-derivative financial assets

December 31, 2022
Book value to

		Book value t	o be converted t	to alternative benc	hmark rates
Division(*1)		USD LIBOR(*2)	JPY LIBOR	EUR LIBOR	Other LIBORs
Due from banks and loans at amortized cost:					
Loans	W	2,158,647		-	
Securities at fair value through other comprehensive income:					
Financial institution bonds		189,047		-	
Corporate bonds and others		229,030		-	
•	W	418,077		_	
Loan commitments and guarantee contracts	W	213,463	•	-	

<sup>(\*1)</sup> The assets are book value and the loan commitments and guarantee contracts are in nominal amount.

#### December 31, 2021

		Book value to be converted to alternative benchmark rates						
Division(*1)	•	USD LIBOR(*2)	JPY LIBOR	EUR LIBOR	Other LIBORs			
Due from banks and loans at amortized cost:								
Loans	W	2,379,219	69,500	25,608	122,104			
Securities at fair value through other								
comprehensive income:								
Financial institution bonds		167,167	-	-	-			
Corporate bonds and others		281,949	-	-	-			
	-	449,116	-	-				
Loan commitments and guarantee contracts	W	189,538	-	-	13,853			

<sup>(\*1)</sup> The assets are book value and the loan commitments and guarantee contracts are in nominal amount.

#### ii) Non-derivative financial liabilities

#### December 31, 2022

		Book value to be converted to alternative benchmark rates							
Division	_	USD LIBOR(*)	JPY LIBOR	EUR LIBOR	Other LIBORs				
Financial liabilities at amortized cost:									
Deposits	$\mathbf{W}$	200,000		-					
Borrowings		50,692		-					
Debt securities issued		1,097,132		-					
	W	1,347,824		-					

<sup>(\*)</sup> The instruments that will be matured before the end of June 30, 2023 are excluded in terms of USD LIBOR.

<sup>(\*2)</sup> The instruments that will be matured before the end of June 30, 2023 are excluded in terms of USD LIBOR.

<sup>(\*2)</sup> The instruments that will be matured before the end of June 30, 2023 are excluded in terms of USD LIBOR.

# **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

# 3. <u>Financial risk management (continued)</u>

#### 3-2. Market risk (continued)

- (d) Interest rate risk management (continued)
- ii) Non-derivative financial liabilities (continued)

December 31, 2021 Book value to be converted to alternative benchmark rates Division **USD** LIBOR(\*) JPY LIBOR **EUR LIBOR** Other LIBORs Financial liabilities at amortized cost: ₩ 200,000 Deposits Borrowings 347,420 833 745,680 Debt securities issued W 833 1,293,100

#### iii) Derivatives

	Dec	cember 31, 2022							
	•	Open interest to be converted to alternative benchmark rates							
Division	_	USD LIBOR(*)	JPY LIBOR	EUR LIBOR	Other LIBORs				
Trading:									
Interest rates related	$\mathbf{W}$	9,936,940		-					
Foreign currency related		11,589,415		-					
	<del>-</del>	21,526,355		-					
Hedge:	_								
Interest rates related	W	4,196,714		-					
(*) The instruments that will be metured !	bafara the and of I	Juna 20, 2022 ara a	valudad in tarms	of HCD I IDOD					

<sup>(\*)</sup> The instruments that will be matured before the end of June 30, 2023 are excluded in terms of USD LIBOR.

December	31,	2021
----------	-----	------

		Open interest to be converted to alternative benchmark rates					
Division	-	USD					
		LIBOR(*)	JPY LIBOR	EUR LIBOR	Other LIBORs		
Trading:							
Interest rates related	W	9,335,656		-			
Foreign currency related		10,744,788		-			
	·-	20,080,444		-			
Hedge:	-						
Interest rates related	W	4,150,155		-			

<sup>(\*)</sup> The instruments that will be matured before the end of June 30, 2023 are excluded in terms of USD LIBOR.

<sup>(\*)</sup> The instruments that will be matured before the end of June 30, 2023 are excluded in terms of USD LIBOR.

# **Notes to the Separate Financial Statements**

December 31, 2022 and 2021

#### 3. Financial risk management (continued)

#### 3-3. Liquidity risk

Liquidity risk is the risk that the Bank will encounter difficulty in meeting obligations associated with its financial liabilities that are settled by delivering cash or another financial asset. The Risk Policy Committee is responsible for establishing policies and setting the limits related to liquidity risk management. The Risk Management Department evaluates and manages the Bank's overall liquidity risk and monitors compliance of all operating subsidiaries and foreign branches with limits on a daily basis.

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

- -raise funding in sufficient amounts at the optimal time and 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 as to 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 in actual; and
- -consider liquidity-related costs, benefits, and risks in determining the price of products and services, employee performance evaluations and approval of launching new products and services.

The Bank uses various analysis methods such as liquidity gap, liquidity ratio, loan-deposit ratio, and real liquidity gap reflecting the customer behaviour model through the ALM system, while managing its liquidity risks on won and foreign currency through various indices including risk limits, early warning index, and monitoring index. Demand deposits, in analysing the maturity structures of assets and liabilities, can be classified as short-term because they can be withdrawn whenever a customer requests; however, considering customers' behaviours that usually maintain an average balance of a certain percentage, non-core deposits are classified to be short-term.

# **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

#### 3. Financial risk management (continued)

#### 3-3. Liquidity risk (continued)

#### (a) Contractual maturities for financial instruments

Contractual maturities for financial assets and financial liabilities as of December 31, 2022 and 2021, are as follows:

				De	cember 31, 20	022		
			1 month ~	3 months ~	6 months ~	1 year ~		
		1 month	3 months	6 months	1 year	5 years	More than	
		or less	or less	or less	or less	or less	5 years	Total
Assets								
Cash and due from banks	W	16,162,231	118,425	53,299	82,955	-	-	16,416,910
Securities at FVTPL		18,014,762	3,131	21,263	29,584	411,482	2,165,162	20,645,384
Derivative assets		4,827,637	2,336	3,466	7,204	50,984	24,583	4,916,210
Loans at amortized cost		23,036,535	37,191,907	50,235,899	79,605,828	101,719,988	67,518,829	359,308,986
Loans at FVTPL		139,540	781,525	29,454	-	-	-	950,519
Securities at FVTOCI		40,396,149	215,000	496,625	950,714	5,149,929	569,878	47,778,295
Securities at amortized cost		387,716	1,780,190	1,033,586	3,183,836	20,581,328	2,130,358	29,097,014
Other financial assets		12,433,139	-	-	124,179	-	1,168,763	13,726,081
	W	115,397,709	40,092,514	51,873,592	83,984,300	127,913,711	73,577,573	492,839,399
Liabilities								
Deposits	W	192,770,158	40,141,924	37,566,136	63,873,950	13,069,511	483,340	347,905,019
Financial liabilities at FVTPL		424,964	-	-	-	-	-	424,964
Derivative liabilities		4,935,194	25,005	36,447	62,289	269,131	52,538	5,380,604
Borrowings		6,481,498	3,517,531	3,812,202	4,718,181	4,457,620	1,311,701	24,298,733
Debt securities issued		1,044,582	4,466,416	5,983,247	9,078,536	9,230,776	2,999,187	32,802,744
Financial liabilities								
designated at FVTPL		-	-	2,090	-	54,180	-	56,270
Other financial liabilities		19,015,932	18,617	24,518	114,905	133,792	20,562	19,328,326
	W	224,672,328	48,169,493	47,424,640	77,847,861	27,215,010	4,867,328	430,196,660

These amounts include cash flows of principal and interest on financial assets and financial liabilities. The undiscounted cash flows were classified based on the earliest dates for obligated repayment. Financial instruments at FVTPL that can be disposed of immediately and financial instruments at FVTOCI except for assets restricted for sale for certain periods were included in 1 month or less.

# **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

#### 3. Financial risk management (continued)

#### 3-3. Liquidity risk (continued)

(a) Contractual maturities for financial instruments (continued)

Contractual maturities for financial assets and financial liabilities as of December 31, 2022 and 2021, are as follows: (continued)

		December 31, 2021							
	-	1 month ~ 3 months ~ 6 months ~ 1 year ~							
		1 month	3 months	6 months	1 year	5 years	More than		
		or less	or less	or less	or less	or less	5 years	Total	
Assets	_								
Cash and due from banks	W	17,255,001	234,382	23,747	-	-	-	17,513,130	
Securities at FVTPL		22,173,110	-	-	-	-	-	22,173,110	
Derivative assets		2,853,149	20,039	24,489	40,424	236,954	68,034	3,243,089	
Loans at amortized cost		17,526,000	34,174,437	46,224,480	74,580,499	96,270,150	59,969,280	328,744,846	
Loans at FVTPL		170,018	626,620	56,104	4,936	3,162	-	860,840	
Securities at FVTOCI		44,641,205	152,534	91,467	629,642	1,235,778	568,274	47,318,900	
Securities at amortized cost		400,674	2,346,561	1,525,663	2,375,654	13,029,048	1,631,632	21,309,232	
Other financial assets		14,018,918	-	-	129,815	-	1,182,308	15,331,041	
	W	119,038,075	37,554,573	47,945,950	77,760,970	110,775,092	63,419,528	456,494,188	
Liabilities									
Deposits	W	195,118,833	33,243,610	37,171,703	52,829,767	9,270,251	420,750	328,054,914	
Financial liabilities at									
FVTPL		583,662	-	-	-	-	-	583,662	
Derivative liabilities		2,621,710	1,112	1,634	3,263	24,263	15,456	2,667,438	
Borrowings		6,643,980	2,872,296	2,432,832	3,463,052	4,016,978	1,095,175	20,524,313	
Debt securities issued		437,731	3,903,853	4,555,188	11,813,258	12,846,610	2,992,528	36,549,168	
Other financial liabilities	_	17,682,178	24,076	31,999	116,816	145,726	15,133	18,015,928	
	W	223,088,094	40,044,947	44,193,356	68,226,156	26,303,828	4,539,042	406,395,423	

These amounts include cash flows of principal and interest on financial assets and financial liabilities. The undiscounted cash flows were classified based on the earliest dates for obligated repayment. Financial instruments at FVTPL that can be disposed of immediately and financial instruments at FVTOCI except for assets restricted for sale for certain periods were included in 1 month or less.

#### (b) Contractual maturities for off-balance sheet items

Financial guarantees such as guarantee contracts, loan commitments and others provided by the Bank are classified based on the earliest date at which the Bank should fulfill the obligation under the guarantee when the counterparty requests for the payment.

Off-balance accounts as of December 31, 2022 and 2021, are as follows:

		December 31, 2022	December 31, 2021
Guarantee contracts	₩	22,956,154	21,237,032
Loan commitments and others		106,344,167	99,176,075
	W	129,300,321	120,413,107

# **Notes to the Separate Financial Statements**

December 31, 2022 and 2021

#### 3. Financial risk management (continued)

#### 3-4. Measurement of fair value

The fair value which the Bank primarily uses for measurement of financial instruments are the published price quotations in an active market which are based on the dealer price quotations of financial assets traded in an active market where available, which is the best evidence of fair value.

If the market for a financial instrument is not active, such as OTC (Over The Counter market) derivatives, fair value is established either by using a valuation technique or an independent third-party valuation agency.

The Bank uses diverse valuation techniques under reasonable assumptions which are based on the inputs observable in markets at the end of each reporting period.

Valuation techniques include using the recent arm's length market transactions between knowledgeable, willing parties, if available, reference to the current fair value of another instrument that is substantially the same, discounted cash flow analysis and option pricing models. For example, the fair value for interest swaps is the present value of estimated future cash flows, and fair value for foreign exchange forwards contracts is measured by using the published forward exchange rate at the end of each reporting period.

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

- (i) Level 1: Financial instruments measured at quoted prices from active markets are classified as level 1.
- (ii) Level 2: Financial instruments measured using valuation techniques where all significant inputs are observable market data are classified as level 2.
- (iii) 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.

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

(In millions of Korean won)

# **Financial risk management (continued)**

- (a) Financial instruments measured at fair value
- i) The table below analyzes financial instruments measured at the fair value as of December 31, 2022 and 2021, by the level in the fair value hierarchy into which the fair value measurement is categorized:

		December 31, 2022				
		Level 1	Level 2	Level 3	Total	
Financial assets						
Loans at FVTPL:						
Loans	W	-	950,519	-	950,519	
Securities at FVTPL:						
Debt securities		244,846	16,318,784	3,820,434	20,384,064	
Equity securities		18,645	-	166,706	185,351	
Gold/Silver deposits		75,969	-	-	75,969	
_		339,460	16,318,784	3,987,140	20,645,384	
Derivative assets:	_					
Trading		233	4,824,897	1,300	4,826,430	
Hedging		-	77,757	· -	77,757	
		233	4,902,654	1,300	4,904,187	
Securities at FVTOCI:	_					
Debt securities		18,027,749	28,540,416	-	46,568,165	
Equity securities		691,227	-	518,903	1,210,130	
1 2	_	18,718,976	28,540,416	518,903	47,778,295	
	<del>W</del> _	19,058,669	50,712,373	4,507,343	74,278,385	
Financial liabilities	_			<del></del>	. , ,	
Financial liabilities designated						
at FVTPL: Debt securities issued	W	-	47,327	-	47,327	
Financial liabilities at FVTPL:						
Securities sold	W	2,958	-	-	2,958	
Gold/Silver deposits		422,006	<u> </u>	<u>-</u>	422,006	
		424,964	=	=	424,964	
Derivative liabilities:						
Trading		2	4,922,121	110	4,922,233	
Hedging			551,246	343,758	895,004	
		2	5,473,367	343,868	5,817,237	
	W	424,966	5,520,694	343,868	6,289,528	

# **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

# 3. Financial risk management (continued)

- (a) Financial instruments measured at fair value (continued)
- i) The table below analyzes financial instruments measured at the fair value as of December 31, 2022 and 2021, by the level in the fair value hierarchy into which the fair value measurement is categorized (continued):

		December 31, 2021				
		Level 1	Level 2	Level 3	Total	
Financial assets						
Loans at FVTPL:						
Loans	W	-	787,163	72,582	859,745	
Securities at FVTPL:						
Debt securities		420,433	18,484,324	3,040,191	21,944,948	
Equity securities		21,652	-	122,819	144,471	
Gold/Silver deposits		83,691	-	-	83,691	
		525,776	18,484,324	3,163,010	22,173,110	
Derivative assets:						
Trading		164	2,841,425	860	2,842,449	
Hedging		-	156,710	-	156,710	
		164	2,998,135	860	2,999,159	
Securities at FVTOCI:						
Debt securities		17,001,888	29,532,073	-	46,533,961	
Equity securities		257,915	-	453,448	711,363	
		17,259,803	29,532,073	453,448	47,245,324	
	<del>W</del>	17,785,743	51,801,695	3,689,900	73,277,338	
Financial liabilities	· · · · · · · · · · · · · · · · · · ·					
Financial liabilities at FVTPL:						
Securities sold	W	2,203	-	-	2,203	
Gold/Silver deposits		581,459	-	-	581,459	
•		583,662	_	_	583,662	
Derivative liabilities:						
Trading		650	2,619,631	849	2,621,130	
Hedging		-	54,009	182,748	236,757	
		650	2,673,640	183,597	2,857,887	
	<del>w</del> -	584,312	2,673,640	183,597	3,441,549	

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

(In millions of Korean won)

#### **Financial risk management (continued)**

# 3-4. Measurement of fair value (continued)

- (a) Financial instruments measured at fair value (continued)
- ii) There were no transfers between level 1 and level 2 financial assets measured at fair value the years ended December 31, 2022 and 2021.
- iii) Changes in level 3 of the fair value hierarchy

Changes in level 3 of the fair value hierarchy the years ended December 31, 2022 and 2021 are as follows:

	_	December 31, 2022									
	_	Loans at FVTPL	Securities at FVTPL	Securities at FVTOCI	Derivative assets	Derivative liabilities	Total				
Beginning balance Total gain or loss: Recognized in profit	₩	72,582	3,163,010	453,448	860	(183,597)	3,506,303				
or loss (*1)  Recognized in other comprehensive		(3,662)	37,504	-	793	(160,439)	(125,804)				
income		-	-	(8,897)	-	-	(8,897)				
Purchases/issues		-	1,072,545	85,262	-	(298)	1,157,509				
Settlements Transfers into level 3		(68,920)	(332,725)	(10,910)	(428)	466	(412,517)				
(*2) Transfers from level 3		-	68,083	-	-	-	68,083				
(*2)		-	(21,277)	-	75	-	(21,202)				
Ending balance	₩	-	3,987,140	518,903	1,300	(343,868)	4,163,475				

	_	December 31, 2021									
		Loans at FVTPL	Securities at FVTPL	Securities at FVTOCI	Derivative assets	Derivative liabilities	Total				
Beginning balance	W	136,358	2,286,874	457,996	3,022	(106,906)	2,777,344				
Total gain or loss:											
Recognized in profit											
or loss (*1)		(3,051)	134,081	-	(1,448)	(79,562)	50,020				
Recognized in other comprehensive											
income		-	-	(5,706)	_	-	(5,706)				
Purchases/issues		-	888,102	1,398	400	(597)	889,303				
Settlements		(60,725)	(284,198)	(240)	(1,070)	3,457	(342,776)				
Transfers into level 3											
(*2)		-	139,467	-	33	-	139,500				
Transfers from level 3											
(*2)		-	(1,316)	-	(77)	11	(1,382)				
Ending balance	W	72,582	3,163,010	453,448	860	(183,597)	3,506,303				
	_										

# **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

#### 3. Financial risk management (continued)

- (a) Financial instruments measured at fair value (continued)
- (\*1) Gains or losses among the changes in level 3 of the fair value hierarchy and gains or losses related to financial assets that the Bank held as of December 31, 2022 and 2021, are presented in the statements of comprehensive income as follows:

	_	Decem	ber 31, 2022	December 31, 2021		
			Gains or losses recognized in profit or loss		Gains or losses recognized in profit or loss	
		Gains or losses recognized in profit or loss	for financial instrument held at the end of the year	Gains or losses recognized in profit or loss	for financial instrument held at the end of the year	
Net gain on financial assets at FVTPL	₩	35,206		130,744		
Net other operating expenses	_	(161,010)	(161,010)	(80,724)		
	W	(125,804)	(134,755)	50,020	39,494	

<sup>(\*2)</sup> Changes in the availability of observable market data for the financial assets have resulted in transfers between levels. The Bank has recognized changes in levels at the end of the reporting period when events or situations that cause transfers between levels occur.

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

(In millions of Korean won)

#### **Financial risk management (continued)**

- (a) Financial instruments measured at fair value (continued)
- iv) Valuation techniques and inputs used in measuring fair value of financial instruments
  - ⓐ Valuation techniques and inputs used in measuring fair value of financial instruments classified as level 2 as of December 31, 2022 and 2021, are as follows:

	December 31, 2022						
	Type of financial instruments	_	Book value	Valuation techniques	Inputs		
Financial instruments							
Loans at	FVTPL	₩	950,519	Discounted cash flow	Discount rate Discount rate,		
Securities at				Discounted cash flow,	Price of underlying assets,		
FVTPL	Debt securities		16,318,784	Net asset value	such as securities and bonds		
Derivative assets	Trading		4,824,897	Option model, Discounted cash flow	Discount rate, foreign exchange rate, volatility, stock price, commodity index, etc.		
	Hedging	W	77,757 4,902,654		price, commounty index, etc.		
Securities at FVTOCI	Debt securities	₩	28,540,416 50,712,373	Discounted cash flow	Discount rate		
Financial liabilities							
Financial liabilities designated at							
FVTPL	Debt securities	W	47,327	Option model	Discount rate, volatility Discount rate, foreign		
Derivative	Trading	W	4,922,121	Option model,	exchange rate, volatility, stock		
liabilities	Hedging		551,246	Discounted cash flow	price, commodity index, etc.		
			5,473,367	_			
		W	5,520,694	=			

# **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

#### 3. Financial risk management (continued)

- (a) Financial instruments measured at fair value (continued)
- iv) Valuation techniques and inputs used in measuring fair value of financial instruments (continued)
- ⓐ Valuation techniques and inputs used in measuring fair value of financial instruments classified as level 2 as of December 31, 2022 and 2021, are as follows: (continued)

	December 31, 2021						
	Type of financial instruments		Book value	Valuation techniques	Inputs		
Financial instruments							
Loans at	FVTPL	₩	787,163	Discounted cash flow	Discount rate Discount rate,		
Securities at FVTPL	Debt securities		18,484,324	Discounted cash flow, Net asset value	price of underlying assets, such as securities and bonds		
Derivative assets	Trading		2,841,425	Option model, Discounted cash flow	Discount rate, foreign exchange rate, volatility, stock		
g	Hedging	W	156,710 2,998,135		price, commodity index, etc.		
Securities at FVTOCI	Debt securities		29,532,073	Discounted cash flow	Discount rate		
		W	51,801,695				
Financial liabilities							
Derivative liabilities	Trading Hedging	w w	2,619,631 54,009 2,673,640	Option model, Discounted cash flow	Discount rate, foreign exchange rate, volatility, stock price, commodity index, etc.		
		**	2,073,040				

# **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

#### 3. Financial risk management (continued)

#### 3-4. Measurement of fair value (continued)

- (a) Financial instruments measured at fair value (continued)
- iv) Valuation techniques and inputs used in measuring fair value of financial instruments (continued)
- **(b)** The Bank uses the valuation values of external independent and qualified evaluators or internal evaluation models to determine the fair value of group assets at the end of each reporting period. As of December 31, 2022 and 2021, the valuation technique and significant but not observable input variables used to measure the fair value of financial assets classified as fair value level 3 are as follows:

				December	31, 2022		
	Valuation technique	Type of financial instrument	Book value	Input	Significant unobservable input	Range of input	Relationship of unobservable inputs to fair value
Financial instruments Securities at FVTPL	Net asset value method, option model (*1)(*2)	Debt securities	3,820,434	Volatility of underlying assets, Discount rate	Volatility of underlying assets, Discount rate	25.64%~35.54% 7.56%~15.15%	
	Discounted cash flow, comparable company analysis	Equity securities	166,706 ₩ <u>3,987,140</u>	Volatility of underlying assets, Discount rate, Stock price	Volatility of underlying assets, Discount rate	25.30% 5.59%~15.18%	The higher the volatility, the higher the volatility of fair value, Fair value increases as discount rate decreases
Derivative assets  Securities at	Option model (*2)	Equity and foreign exchange related	1,300	Volatility of underlying assets, Price of underlying assets, exchange rates	Volatility of underlying assets	4.89%~31.73%	The higher the volatility, the higher the volatility of fair value
FVTOCI	value method, discounted cash flow, comparable company analysis, option model (*1)	Equity securities	518,903	Volatility of underlying assets, Discount rate, Stock price	Volatility of underlying assets, Discount rate	28.62% 9.08%~19.14%	The higher the volatility, the higher the volatility of fair value, Fair value increases as discount rate decreases

<del>W</del> 4,507,343

# **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

#### 3. Financial risk management (continued)

- (a) Financial instruments measured at fair value (continued)
- iv) Valuation techniques and inputs used in measuring fair value of financial instruments (continued)
- ⓑ The Bank uses the valuation values of external independent and qualified evaluators or internal evaluation models to determine the fair value of group assets at the end of each reporting period. As of December 31, 2022 and 2021, the valuation technique and significant but not observable input variables used to measure the fair value of financial assets classified as fair value level 3 are as follows (continued):

	Valuation technique	Type of financial instrument	Book value	Input	Significant unobservable input	Range of input	Relationship of unobservable inputs to fair value
Financial instruments Derivative liabilities	Option model (*2)	Equity related	110	Volatility of underlying assets, Price of underlying assets, Foreign exchange rate	Volatility of underlying assets	4.89%~43.22%	The higher the volatility, the higher the volatility of fair value
	Option model (*2)	Interest rates related	343,758 <del>************************************</del>	Volatility of underlying assets, Regression coefficient, Correlation coefficient, Interest rate	Volatility of underlying assets, Regression coefficient, Correlation coefficient	0.64%~1.02% 0.0026%~1.4568% 52.90%~90.34%	

<sup>(\*1)</sup> The Bank uses Binomial Tree and LSMC option model.

<sup>(\*2)</sup> Option models that the Bank uses in derivative valuation include Black-Scholes model, Hull-White model, depending on the type of product, methods such as Monte Carlo simulation.

# **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

#### 3. Financial risk management (continued)

- (a) Financial instruments measured at fair value (continued)
- iv) Valuation techniques and inputs used in measuring fair value of financial instruments (continued)
- (b) The Bank uses the valuation values of external independent and qualified evaluators or internal evaluation models to determine the fair value of group assets at the end of each reporting period. As of December 31, 2022 and 2021, the valuation technique and significant but not observable input variables used to measure the fair value of financial assets classified as fair value level 3 are as follows (continued):

	December 31, 2021							
	Valuation technique	Type of financial instrument	Book value	Input	Significant unobservable input	Range of input	Relationship of unobservable inputs to fair value	
Financial	-			•	-		<u> </u>	
Loans at FVTPL	Option model (*1)	Loans	₩ 72,582	Volatility of underlying assets, Discount rate	Volatility of underlying assets	17.89%~41.5%	The higher the volatility, the higher the volatility of fair value	
Securities at FVTPL	Net asset value method, option model (*1)	Debt securities	3,040,191	Volatility of underlying assets, Discount rate	Volatility of underlying assets	19.48%~41.5%	The higher the volatility, the higher the volatility of fair value	
	Discounted cash flow, comparable company analysis	Equity securities	122,819	Discount rate, Terminal growth rate, Stock price	Discount rate, Terminal growth rate, Volatility	5.45%~16.35% 1.00%	Fair value increases as discount rate decreases, Fair value increases as growth rate increases	
			3,163,010					
Derivative assets	Option model (*2)	Equity and foreign exchange related	785	Volatility of underlying assets, Price of underlying assets, Exchange rate	Volatility of underlying assets	2.29%~21.7%	The higher the volatility, the higher the volatility of fair value	
	Discounted cash flow	Interest rates related	75	Discount rate	Discount rate	1.11%~1.83%	Fair value increases as discount rate decreases	
			860					
Securities at FVTOCI	Net asset value method, discounted cash flow, comparable company analysis, option model (*1)	Equity securities	453,448	Volatility of underlying assets, Discount rate, Terminal growth rate, Stock price	Volatility of underlying assets, Discount rate, Terminal growth rate	25.49% 9.8%~22.79% 0%~1.00%	The higher the volatility, the higher the volatility of fair value, Fair value increases as discount rate decreases, Fair value increases as growth rate increases	
		Ţ	¥ 3,689,900					

# **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

#### 3. Financial risk management (continued)

- (a) Financial instruments measured at fair value (continued)
- iv) Valuation techniques and inputs used in measuring fair value of financial instruments (continued)
- ⓑ The Bank uses the valuation values of external independent and qualified evaluators or internal evaluation models to determine the fair value of group assets at the end of each reporting period. As of December 31, 2022 and 2021, the valuation technique and significant but not observable input variables used to measure the fair value of financial assets classified as fair value level 3 are as follows (continued):

					December 31	, 2021		
	Valuation technique	Type of financial instrument		Book value	Input	Significant unobservable input	Range of input	Relationship of unobservable inputs to fair value
Financial liabilities Derivative liabilities	Option model (*2)  Option model (*2)	Equity related Interest rates related	₩	182,748	Volatility of underlying assets, Price of underlying assets, Exchange rate Volatility of underlying assets, Regression coefficient, Correlation coefficient, Interest rate	Volatility of underlying assets Volatility of underlying assets, Regression coefficient, Correlation coefficient	2.29%~21.7% 0.46%~0.78% 0.0024%~0.539% 38.06%~90.34%	The higher the volatility, the higher the volatility of fair value  The higher the volatility, the higher the volatility of fair value, The effects of trading instruments and market conditions increase or decrease fair value with changes in regression and correlation coefficients
			₩	183,597				

<sup>(\*1)</sup> The Bank uses Binomial Tree and LSMC option model.

<sup>(\*2)</sup> Option models that the Bank uses in derivative valuation include Black-Scholes model, Hull-White model, depending on the type of product, methods such as Monte Carlo simulation.

# **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

#### 3. Financial risk management (continued)

#### 3-4. Measurement of fair value (continued)

- (a) Financial instruments measured at fair value (continued)
- v) Sensitivity to changes 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 effect on profit (loss), and other comprehensive income (loss) as of December 31, 2022 and 2021, are as follows:

		_		December	r 31, 2022	
			Profit (loss)	for the year	Other comp income (loss)	
Type of financial in	nstruments (*1)		Favorable change	Unfavorable change	Favorable change	Unfavorable change
Securities at FVTPL	Debt securities (*2) Equity securities (*3)	W	2,194 6,271	(2,088) (4,613)	-	-
Derivative assets (*2)	Equity and foreign exchange related		243	(242)	-	-
Securities at FVTOCI (*3)	Equity securities		-	-	13,431	(10,682)
		W	8,708	(6,943)	13,431	(10,682)
Derivative liabilities (*2)	Equity and foreign exchange related Interest rates related	W	17 4,960	(19) (6,131)	-	-
	interest rates related	W	4,977	(6,151)		<u>-</u>

<sup>(\*2)</sup> Based on 10% of increase or decrease in unobservable volatility of underlying assets or correlation coefficient.

<sup>(\*3)</sup> Based on changes in unobservable growth rate (-1.0%~1.0%) and discount rate (-1%p~1%p).

# **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

#### 3. Financial risk management (continued)

#### 3-4. Measurement of fair value (continued)

- (a) Financial instruments measured at fair value (continued)
- v) Sensitivity to changes in unobservable inputs (continued)

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

_		Decembe	r 31, 2021	
_	Profit (loss)	for the year	Other comp income (loss)	
	Favorable change	Unfavorable change	Favorable change	Unfavorable change
W	1,363	(1,058)	-	-
2)	1,181	(919)	-	-
(*3)	3,462	(2,775)	-	-
gn				
d	61	(61)	-	-
	-	-	15,359	(11,009)
W	6,067	(4,813)	15,359	(11,009)
gn =				
d <del>W</del>	71	(71)	-	-
ited	7,154	(6,983)	-	-
W	7,225	(7,054)	-	-
	2) *3) m 1	Favorable change  W 1,363 2) 1,181 **3) 3,462 m d 61  W 6,067 m d 71 tted 7,154	Profit (loss) for the year Favorable change Unfavorable change  W 1,363 (1,058) 2) 1,181 (919) 3,462 (2,775) 3,462 (2,775) 4 61 (61) W 6,067 (4,813) 4 71 (71) 4 4 7,154 (6,983)	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$

<sup>(\*1) \(\</sup>pi\) 3,439,091 million of financial instruments classified as level 3 are excluded from sensitivity analysis since calculation of sensitivity according to the fluctuation of input variables is impracticable.

<sup>(\*2)</sup> Based on 10% of increase or decrease in unobservable volatility of underlying assets or correlation coefficient.

<sup>(\*3)</sup> Based on changes in unobservable growth rate (-0.5%p~0.5%p) and discount rate (-1%p~1%p).

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

#### 3. Financial risk management (continued)

# 3-4. Measurement of fair value (continued)

(b) Financial instruments measured at amortized cost

i) 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 book 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. Therefore, the book value for deposits approximates fair value.
Loans at amortized cost	The fair value of loans at amortized cost is measured by discounting the expected cash flows anticipated to be received at the market interest rate, credit risk of a borrower, etc.
Securities at amortized cost	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 book value and the fair value for demand deposits, cash management account deposits, call money and bonds sold under repurchase agreements as short-term instruments are identical. The fair value of others is measured by discounting the contractual cash flows at the market interest rate that takes into account the residual risk.
Debentures	An external professional evaluation agency is used to calculate the valuation amount using the market information, and the fair value is calculated using DCF model.
Other financial assets and financial liabilities	The book value is used as a fair value for short-term and transitional accounts such as spot exchange, unpaid/uncollected domestic exchange settlements, and the fair value, the present value of the contractual cash flow discounted at the market interest rate taking the residual risk into account, is calculated for the rest of other financial instruments and liabilities.

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

(In millions of Korean won)

#### **Financial risk management (continued)**

- (b) Financial instruments measured at amortized cost (continued)
- ii) The book value and the fair value of financial instruments measured at amortized cost as of December 31, 2022 and 2021, are as

		December 31, 2022							
			Book value						
			Unamortized						
		Balance	balance	Allowance	Total	Fair value			
Assets	•								
Cash and due from banks:									
Cash	₩	2,122,289	-	-	2,122,289	2,122,289			
Due from banks		14,287,095	-	(6,555)	14,280,540	14,280,540			
Loans at amortized cost:									
Household loans		130,915,759	393,127	(366,894)	130,941,992	129,129,004			
Corporate loans		174,203,093	110,938	(1,192,745)	173,121,286	172,659,835			
Public and other loans		3,680,407	(1,020)	(21,236)	3,658,151	3,655,430			
Loans to bank		7,523,964	-	(10,772)	7,513,192	7,498,642			
Securities at amortized cost:									
Government bonds		16,636,462	-	(858)	16,635,604	16,119,000			
Financial institutions bonds		4,979,608	-	(2,200)	4,977,408	4,939,661			
Corporate bonds and others		5,472,219	-	(3,932)	5,468,287	5,135,178			
Other financial assets		15,178,432	(39,637)	(265,643)	14,873,152	15,106,169			
	W	374,999,328	463,408	(1,870,835)	373,591,901	370,645,748			
Liabilities									
Deposits:									
Demand deposits	W	146,994,390	-	_	146,994,390	146,994,390			
Time deposits		170,915,657	-	-	170,915,657	170,618,812			
Negotiable certificates									
of deposits		13,010,355	-	-	13,010,355	12,838,071			
Note discount deposits		6,631,857	-	-	6,631,857	6,631,276			
CMA		4,634,010	-	-	4,634,010	4,634,010			
Others		16,694	-	_	16,694	16,692			
Borrowings:									
Call money		653,509	-	-	653,509	653,509			
Bill sold		15,057	-	-	15,057	15,006			
Bonds sold under repurchas	e								
agreements		84,091	-	-	84,091	84,091			
Borrowings		22,919,860	(2,391)	-	22,917,469	22,772,308			
Debt securities issued:									
Debt securities issued in Korea	n								
won		22,622,315	(12,474)	-	22,609,841	22,289,016			
Debt securities issued in foreign	1								
currencies		8,354,986	(29,614)	-	8,325,372	8,288,033			
Other financial liabilities		21,624,244	(18,465)	-	21,605,779	21,335,373			
	W	418,477,025	(62,944)	-	418,414,081	417,170,587			
	-								

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

(In millions of Korean won)

#### **Financial risk management (continued)**

- (b) Financial instruments measured at amortized cost (continued)
- ii) The book value and the fair value of financial assets measured at amortized cost as of December 31, 2022 and 2021, are as follows: (continued)

		December 31, 2021						
			Unamortized					
	_	Balance	balance	Allowance	Total	Fair value		
Assets								
Cash and due from banks:								
Cash	₩	4,032,165	-	-	4,032,165	4,032,165		
Due from banks		13,480,707	-	(6,799)	13,473,908	13,473,908		
Loans at amortized cost:								
Household loans		135,835,403	430,945	(244,073)	136,022,275	135,578,230		
Corporate loans		157,371,443	113,342	(1,066,109)	156,418,676	157,102,586		
Public and other loans		3,387,086	1,558	(19,907)	3,368,737	3,386,347		
Loans to bank		3,756,600	-	(6,505)	3,750,095	3,749,543		
Securities at amortized cost:								
Government bonds		13,728,952	-	(748)	13,728,204	13,752,442		
Financial institutions bonds		1,652,951	-	(809)	1,652,142	1,644,736		
Corporate bonds and others		4,619,845	-	(3,881)	4,615,964	4,585,460		
Other financial assets		16,250,366	(24,498)	(158,727)	16,067,141	16,218,654		
	W	354,115,518	521,347	(1,507,558)	353,129,307	353,524,071		
Liabilities	_							
Deposits:								
Demand deposits	W	162,994,815	_	_	162,994,815	162,994,815		
Time deposits		136,865,901	_	_	136,865,901	136,630,962		
Negotiable certificates of		150,000,501			120,000,001	100,000,00		
deposits		15,073,359	_	_	15,073,359	15,102,796		
Note discount deposits		5,818,001	_	_	5,818,001	5,817,844		
CMA		5,246,478	_	_	5,246,478	5,246,478		
Others		17,646	_	_	17,646	17,646		
Borrowings:		17,010			17,010	17,010		
Call money		1,072,657	_	_	1,072,657	1,072,657		
Bill sold		9,032	_	_	9,032	9,019		
Bonds sold under repurchase		>,052			>,002	,,015		
agreements		82,577	_	_	82,577	82,578		
Borrowings		19,180,789	(34)	_	19,180,755	19,140,345		
Debt securities issued:		19,100,709	(31)		17,100,733	17,110,515		
Debt securities issued in Korea	1							
won	1	28,418,946	(14,726)	_	28,404,220	28,404,598		
Debt securities issued in foreigr	1	20,110,510	(11,720)		20, 10 1,220	20,101,570		
currencies		6,579,900	(27,258)	_	6,552,642	6,732,197		
Other financial liabilities		19,381,982	(9,077)		19,372,905	19,366,132		
Other imanetar naomities	W	400,742,083	(51,095)	<del></del> -	400,690,988	400,618,067		
		700,742,003	(31,093)		700,070,700	700,010,007		

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

(In millions of Korean won)

#### **Financial risk management (continued)**

- (b) Financial instruments measured at amortized cost (continued)
- iii) The fair value hierarchy of financial instruments which are not measured at fair value in the separate statement of financial position as of December 31, 2022 and 2021, are as follows:

	<b>December 31, 2022</b>						
		Level 1	Level 2	Level 3	Total		
Assets							
Cash and due from banks:							
Cash	W	2,122,289	-	-	2,122,289		
Due from banks		-	14,280,540	-	14,280,540		
Loans at amortized cost:							
Household loans		-	-	129,129,004	129,129,004		
Corporate loans		-	_	172,659,835	172,659,835		
Public and other loans		-	-	3,655,430	3,655,430		
Loans to bank		-	4,440,276	3,058,366	7,498,642		
Securities at amortized cost:				•			
Government bonds		5,620,012	10,498,988	_	16,119,000		
Financial institutions bonds		1,898,457	3,041,204	_	4,939,661		
Corporate bonds and others		-	5,135,178	_	5,135,178		
Other financial assets		_	11,946,279	3,159,890	15,106,169		
	w -	9,640,758	49,342,465	311,662,525	370,645,748		
Liabilities	··· <del>-</del>	3,0.0,720	.5,5 .2, .00	511,002,020	270,010,710		
Deposits:							
Demand deposits	W		146,994,390		146,994,390		
Time deposits	<del>-11</del>	-	140,554,550	170,618,812	170,618,812		
Negotiable certificates of		-	-	170,010,012	170,010,012		
deposits				12,838,071	12,838,071		
Note discount deposits		-	-	, , , , , , , , , , , , , , , , , , ,			
CMA		-	4,634,010	6,631,276	6,631,276 4,634,010		
Others		-	4,034,010	16,692	16,692		
		-	-	10,092	10,092		
Borrowings:			(52.500		(52.500		
Call money		-	653,509	15.006	653,509		
Bill sold		-	-	15,006	15,006		
Bonds sold under repurchase				0.4.001	04.001		
agreements		-	-	84,091	84,091		
Borrowings		-	-	22,772,308	22,772,308		
Debt securities issued:							
Debt securities issued			24 24 = 4 = 4	0=4.50	22 200 01 6		
in Korean won		-	21,317,454	971,562	22,289,016		
Debt securities issued			0.000.000		0.000.000		
in foreign currencies		-	8,288,033	-	8,288,033		
Other financial liabilities	_	<u> </u>	8,487,115	12,848,258	21,335,373		
	₩		190,374,512	226,796,076	417,170,587		

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

(In millions of Korean won)

#### **Financial risk management (continued)**

- (b) Financial instruments measured at amortized cost (continued)
- iii) The fair value hierarchy of financial instruments which are not measured at fair value in the separate statement of financial position as of December 31, 2022 and 2021, are as follows (continued):

		December 31, 2021				
		Level 1	Level 2	Level 3	Total	
Assets						
Cash and due from banks:						
Cash	W	4,032,165	-	-	4,032,165	
Due from banks		-	13,473,908	-	13,473,908	
Loans at amortized cost:						
Household loans		-	-	135,578,230	135,578,230	
Corporate loans		-	-	157,102,586	157,102,586	
Public and other loans		-	-	3,386,347	3,386,347	
Loans to bank		-	1,334,361	2,415,182	3,749,543	
Securities at amortized cost:			, ,	, ,	, ,	
Government bonds		2,983,626	10,768,816	_	13,752,442	
Financial institutions bonds		698,105	946,631	_	1,644,736	
Corporate bonds and others		-	4,585,460	_	4,585,460	
Other financial assets		_	13,469,731	2,748,923	16,218,654	
Chief Imane at assets	<u>w</u>	7,713,896	44,578,907	301,231,268	353,524,071	
Liabilities	·· <u> </u>	7,715,050	, / 0,5 0 /	201,221,200	200,02 1,071	
Deposits:						
Demand deposits	W		162,994,815		162,994,815	
Time deposits	**	-	102,994,013	136,630,962	136,630,962	
Negotiable certificates of		-	-	130,030,902	130,030,902	
deposits				15,102,796	15,102,796	
		-	-	5,817,844	, ,	
Note discount deposits CMA		-	5 246 479	3,617,644	5,817,844	
Others		-	5,246,478	17.646	5,246,478	
		-	-	17,646	17,646	
Borrowings:			1 072 657		1 072 (57	
Call money		-	1,072,657	0.010	1,072,657	
Bill sold		-	-	9,019	9,019	
Bonds sold under repurchase				02.570	00.570	
agreements		-	-	82,578	82,578	
Borrowings		-	-	19,140,345	19,140,345	
Debt securities issued:						
Debt securities issued				1.160.610	20 101 500	
in Korean won		-	27,235,956	1,168,642	28,404,598	
Debt securities issued						
in foreign currencies		-	6,732,197	-	6,732,197	
Other financial liabilities			8,639,608	10,726,524	19,366,132	
	₩	<u> </u>	211,921,711	188,696,356	400,618,067	

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

(In millions of Korean won)

#### **Financial risk management (continued)**

- (b) Financial instruments measured at amortized cost (continued)
- iv) Valuation techniques and inputs used in measuring fair value of financial instruments classified as level 2 or level 3 as of December 31, 2022 and 2021, are as follows:

	December 31, 2022								
Level	Type of financial instrument		Fair value (*)	Valuation technique	Inputs				
Level 2	Securities at	_							
	amortized cost	₩	18,675,370		Discount rate				
Level 3	Loans at amortized			D: 4 1 1 C	Discount rate, Credit spread,				
	cost		308,502,635	Discounted cash flow	Prepayment rate				
	Other financial				1 7				
	assets		3,159,890		Discount rate				
		W	330,337,895						
Level 2	Debt securities	-	, ,						
	issued	W	29,605,487		Discount rate				
Level 3	Deposits (*)		189,479,076		Discount rate				
	Borrowings (*)		14,950,136		Discount rate				
	2 ( )		, ,	Discounted cash flow	Discount rate, Regression				
	Debt securities				coefficient, Correlation				
	issued		971,562		coefficient				
	Other financial				***************************************				
	liabilities		12,848,258		Discount rate				
	iido iiido	W	247,854,519		2 is count rate				
		**-	271,03 <b>7</b> ,317						

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

# Notes to the Separate Financial Statements

December 31, 2022 and 2021 (In millions of Korean won)

#### 3. Financial risk management (continued)

# 3-4. Measurement of fair value (continued)

- (b) Financial instruments measured at amortized cost (continued)
- iv) Valuation techniques and inputs used in measuring fair value of financial instruments classified as level 2 or level 3 as of December 31, 2022 and 2021, are as follows (continued):

	December 31, 2021										
Level	Type of financial instrument		Fair value (*)	Valuation technique	Inputs						
Level 2	Securities at amortized cost	₩	16,300,907		Discount rate						
Level 3	Loans at amortized cost Other financial		298,482,345	Discounted cash flow	Discount rate, Credit spread, Prepayment rate						
	assets		2,748,923		Discount rate						
	D.1. ''	₩	317,532,175								
Level 2	Debt securities issued	W	33,968,153		Discount rate						
	Deposits (*)		157,434,025		Discount rate						
	Borrowings (*)		11,763,989		Discount rate						
				Discounted cash flow	Discount rate, Regression						
Level 3	Debt securities				coefficient, Correlation						
	issued		1,168,642		coefficient						
	Other financial										
	liabilities	_	10,726,524		Discount rate						
		₩	215,061,333								

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

#### (c) Deferred day one gain or loss

Deferred day one gain or loss for the years ended December 31, 2022 and 2021 is as follows:

		December 31, 2022					
		Beginning balance	New transaction	Profit and loss recognition	Ending balance		
Loans at FVTPL	W	(330)	-	330	-		
Equity options		92	261	(193)	160		
	W	(238)	261	137	160		
			December	31, 2021			
		Beginning	New	Profit and loss	Ending		
	_	balance	transaction	recognition	balance		
Loans at FVTPL	W	(2,253)	-	1,923	(330)		
Equity options	_	36	137	(81)	92		
	W	(2,217)	137	1,842	(238)		

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

(In millions of Korean won)

#### **Financial risk management (continued)**

# 3-4. Measurement of fair value (continued)

# (d) Classification by category of financial instruments

Financial instruments and liabilities are measured at fair value or amortized cost. The carrying amounts of each category of financial assets as of December 31, 2022 and 2021, are as follows:

		December 31, 2022							
		Financial instruments at FVTPL	Financial instruments at FVTOCI	Financial instruments designated at FVTOCI	Financial instruments at amortized cost	Derivatives held for hedging	Total		
Assets									
Due from banks	W	-	-	-	14,280,540	-	14,280,540		
Securities									
at FVTPL		20,645,384	-	-	-	-	20,645,384		
Derivative assets		4,826,430	-	-	-	77,757	4,904,187		
Loans at FVTPL		950,519	-	-	-	-	950,519		
Loans at amortized cost		-	-	-	315,234,621	-	315,234,621		
Securities at FVTOCI		-	46,568,165	1,210,130	-	-	47,778,295		
Securities at amortized									
cost		-	-	-	27,081,299	-	27,081,299		
Other financial assets					14,873,152		14,873,152		
	₩	26,422,333	46,568,165	1,210,130	371,469,612	77,757	445,747,997		

	- -	Financial liabilities at FVTPL	Financial liabilities designated at FVTPL	Financial Liabilities at amortized cost	Derivatives held for hedging	Total
Liabilities						
Deposits	W	-	-	342,202,963	-	342,202,963
Financial liabilities						
at FVTPL		424,964	-	-	-	424,964
Financial liabilities						
designated at FVTPL		-	47,327	-	-	47,327
Derivative liabilities		4,922,232	-	-	895,005	5,817,237
Borrowings		-	-	23,670,126	-	23,670,126
Debt securities issued		_	-	30,935,213	-	30,935,213
Other financial liabilities		-	-	21,605,779	-	21,605,779
	W	5,347,196	47,327	418,414,081	895,005	424,703,609

# **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

#### 3. Financial risk management (continued)

#### 3-4. Measurement of fair value (continued)

(d) Classification by category of financial instruments (continued)

Financial instruments and liabilities were measured at fair value or amortized cost. The carrying amounts of each category of financial assets as of December 31, 2022 and 2021, are as follows (continued):

			December 31, 2021						
		Financial instruments at FVTPL	Finar instrui at FVT	nents	Financial instruments designated at FVTOCI	Financial instruments at amortized cost	Derivatives held for hedging	Total	
Assets				,					
Due from banks	₩	-		-	-	13,473,907	-	13,473,907	
Securities									
at FVTPL		22,173,110		-	-	-	-	22,173,110	
Derivative assets		2,842,449		-	-	-	156,710	2,999,159	
Loans at FVTPL		859,745		-	-	-	-	859,745	
Loans at amortized cost		-		-	-	299,559,783	-	299,559,783	
Securities at FVTOCI		-	46,5	33,961	711,363	-	-	47,245,324	
Securities at amortized									
cost		-		-	-	19,996,310	-	19,996,310	
Other financial assets		-		-	-	16,067,141	-	16,067,141	
	W	25,875,304	46,5	33,961	711,363	349,097,141	156,710	422,374,479	
	-	Financial liabiliti FVTPL	es at		ncial liabilities at nortized cost	Derivatives for hedgi		Total	
Liabilities									
Deposits	W		_		326,016,200	)	_	326,016,200	
Financial liabilities					,, -			,,	
at FVTPL		5	83,662			-	_	583,662	
Derivative liabilities			21,130			-	236,757	2,857,887	
Borrowings		,-	_		20,345,02		<u>-</u>	20,345,021	
Debt securities issued			_		34,956,862		_	34,956,862	
Other financial					, ,			,,	
liabilities			_		19,372,905	5	-	19,372,905	
	W	3,2	04,792		400,690,988	3	236,757	404,132,537	

There are no financial instruments that are reclassified between categories of financial instruments as of December 31, 2022 and 2021.

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

(In millions of Korean won)

# **Financial risk management (continued)**

# 3-4. Measurement of fair value (continued)

(e) Financial income and costs by category for the years ended December 31, 2022 and 2021 are as follows:

	_	December 31, 2022						
			Fees and	Reversal of				
		Interest	commission	(Provision for)			Other	
		income	income	credit loss			comprehensive	
		(expense)	(expense)	allowance	Others	Total	loss	
Deposits	W	74,520	_	679	-	75,199	-	
Securities at FVTPL		375,725	14,000	-	185,856	575,581	-	
Securities at FVTOCI		789,659	10,154	3,095	(59,221)	743,687	(1,076,194)	
Securities at amortized								
cost		528,522	-	(1,449)	(60)	527,013	-	
Loans at FVTPL		13,497	-	-	8,569	22,066	-	
Loans at amortized cost		10,906,269	51,479	(532,333)	8,664	10,434,079	-	
Other financial assets		55,789	143,778	(2,821)	2,203	198,949	-	
Financial liabilities at								
FVTPL		-	(225)	-	(33,846)	(34,071)	-	
Financial liabilities								
designated at FVTPL		(1,296)	-	-	2,673	1,377	-	
Financial liabilities at								
amortized cost		(5,504,539)	(63)	-	775,708	(4,728,894)	(30,716)	
Net derivatives held for								
hedging		-	-	-	(733,160)	(733,160)	-	
Allowance for off-balance								
sheet items	_			(12,047)		(12,047)		
	W	7,238,146	219,123	(544,876)	157,386	7,069,779	(1,106,910)	

	_	December 31, 2021						
			Fees and	Reversal of				
		Interest	commission	(Provision for)			Other	
		income	income	credit loss			comprehensive	
	_	(expense)	(expense)	allowance	Others	Total	loss	
Deposits	₩	11,577	-	(2,553)	_	9,024		
Securities at FVTPL		163,509	11,623	-	376,653	551,785	-	
Securities at FVTOCI		506,877	7,024	(16,867)	70,630	567,664	(418,663)	
Securities at amortized cost		384,371	-	(2,061)	(310)	382,000	-	
Loans at FVTPL		8,362	-	-	11,107	19,469	-	
Loans at amortized cost		7,273,709	60,391	(241,563)	11,860	7,104,397	-	
Other financial assets		38,575	130,882	(818)	1	168,640	-	
Financial liabilities at								
FVTPL		-	101	-	(21,370)	(21,269)	-	
Financial liabilities at								
amortized cost		(2,549,137)	(116)	-	281,818	(2,267,435)	(37,527)	
Net derivatives held for								
hedging		-	-	-	(278,146)	(278,146)	-	
Allowance for off-balance								
sheet items		-	-	22,762	-	22,762	-	
	W	5,837,843	209,905	(241,100)	452,243	6,258,891	(456,190)	
	-			· · · · · · · ·			· · · · · ·	

# **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

#### 3. Financial risk management (continued)

#### 3-5. Capital risk management

In response to the increased risk of financial institutions following financial deregulation in the 1980s, Capital regulations applicable to banks are adopted in 1988, which focused primarily on capital adequacy and asset soundness as a measure of risk. Building upon the initial Basel Capital Accord of 1988, capital regulations are developed to reflect additional risks as well. For the purpose of improving risk management and increasing capital adequacy of banks, capital adequacy standards based on the new Basel Capital Accord (Basel III) is implemented by the Financial Services Commission regulations beginning on December 1, 2013. Under these regulations, all domestic banks including the Bank are required to maintain a certain ratio or higher of the common stock capital ratio, basic capital ratio, and total equity capital ratio step by step from the effective date and report whether the Bank meet the capital adequacy ratio to the Financial Services Commission according to 'Banking-related Legislation'.

Under the Banking Act, the capital of a bank is divided into two categories.

- (a) Tier 1 capital (Common equity Tier 1 capital + Additional Tier 1 capital)
  - i) Common equity Tier 1 capital: Common equity Tier 1 capital that can be compensated first and last at the time of bank liquidation and is not repaid except at the time of liquidation, including common stock, capital surplus, other comprehensive income accumulated, other capital surplus, capital adjustment, and part of the non-controlling shareholding of the bank's subsidiary.
  - ii) Additional Tier 1 capital: Additional Tier 1 capital consists of equity instrument that meet certain criteria for perpetual nature of the equity instrument, any related capital surplus, instruments issued by consolidated subsidiaries of the Bank and held by third parties that meet certain criteria.

# (b) Tier 2 capital (Supplementary capital)

The Bank includes capital securities that meet the recognition requirements to compensate for the Bank's losses upon liquidation. This includes some of the associated capital surplus and the amount of external investors' holdings of supplementary capital issued by subsidiaries. Also, it includes the provisions that meet Basel III requirements.

The Bank calculates the ratio of equity capital by dividing the equity capital (the amount deducted from the sum of the above basic capital and supplementary capital) into risk-weighted assets. Risk weighted assets are calculated by applying higher weights to reflect the actual risk of the Bank. It comprises the sum of credit risk weighted assets, operational risk weighted assets, market risk weighted assets and additional risk assets.

The Bank evaluates and manages the capital adequacy ratio pursuant to internally developed standards. It means that the Bank assesses whether the level on ratio of available capital to economic capital is sufficient, or not. The Bank manages the economic adequacy by the amount of each risk type including credit, market, operation, interest rate, liquidity, concentration, and foreign currency settlement risk, as well as the total amounts of all of those risk types.

# **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

#### 3. Financial risk management (continued)

#### 3-5. Capital risk management (continued)

Details of capital categories and the capital adequacy ratio of the Bank as of December 31, 2022 and 2021 are as follows:

Category		<b>December 31, 2022</b>	December 31, 2021
Capital:	_		
Common equity Tier 1 capital	₩	26,729,156	26,069,127
Additional Tier 1 capital		1,788,975	1,497,029
Tier 1 capital	_	28,518,131	27,566,156
Tier 2 capital		5,241,681	4,630,525
	₩ _	33,759,812	32,196,681
Risk-weighted assets (*1)			
Credit risk-weighted assets	₩	165,459,759	154,332,487
Market risk-weighted assets		12,959,292	12,020,063
Operating risk-weighted assets		11,560,955	10,745,434
	₩	189,980,006	177,097,984
Capital adequacy ratio:			
Common equity Tier 1 capital ratio		14.07%	14.72%
Tier 1 capital ratio		15.01%	15.57%
Tier 2 capital ratio		2.76%	2.61%
Total capital ratio	_	17.77%	18.18%

<sup>(\*1)</sup> The additional risk weighted assets resulting from the insufficient capital under capital floor is included in credit risk-weighted assets.

The criteria for capital adequacy to be complied with by the Bank are 8.0% or more of the total equity capital ratio, 6.0% or higher of the basic capital ratio, and 4.5% or more of the common stock capital ratio. In addition, the minimum regulatory BIS capital ratio required to be observed by 2019 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, the capital conservation capital and D-SIB capital will be raised by 2.5%p and 1.0%p each year by applying the transitional criteria by 2019, 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).

# **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

# 3. Financial risk management (continued)

# 3-6. Transaction as a transfer of financial instrument

- (a) Transfers financial assets that are not derecognized
- i) Bonds sold under repurchase agreements at a fixed price as of December 31, 2022 and 2021 are as follows:

		<b>December 31, 2022</b>	<b>December 31, 2021</b>
Transferred assets:		_	
Securities at amortized cost		204,300	210,490
	W	204,300	210,490
Associated liabilities:			
Bonds sold under repurchase agreements	₩	84,091	82,578

ii) When the Bank's securities are transferred, the Bank transfers the ownership of the securities, but upon the termination, the Bank will have to return the securities. As a result, securities loaned as of December 31, 2022 and 2021 are as follows:

		December 31, 2022	December 31, 2021	Lender
Securities at FVTOCI:		<u> </u>		
				Korea Securities Finance
Government bonds	₩	2,830,091	2,177,012	Corp.,
				Korea Securities Depository
T' '1' '' ' 1 1		267.702	200.504	Korea Securities Finance
Financial institutions bonds		267,702	209,594	Corp.,
Securities at amortized cost:				Korea Securities Depository
Securities at amortized cost.				Korea Securities Finance
				Corp.,
Government bonds		898,347	23,872	Korea Securities Depository
				NH Investment & Securities
				Co., Ltd.
				Korea Securities Finance
Financial institutions bonds		89,665	-	Corp.,
				Korea Securities Depository
	W	4,085,805	2,410,478	

<sup>(</sup>b) Financial instruments that are qualified for derecognition but under continuing involvement.

There is no financial instrument that meets the conditions of derecognition and in which the Bank has continuing involvement as of December 31, 2022 and 2021.

# **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

#### 3. Financial risk management (continued)

#### 3-7. Offsetting financial assets and financial liabilities

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

		December 31, 2022					
		Gross amounts of recognized financial Gross assets and amounts of liabilities set recognized off in the		ed Net amounts  Il of financial  Id assets and  set liabilities	Related amounts the statement of position		
	_	financial assets and liabilities	statement of financial position	the statement of financial position	Financial instruments	Cash collateral received	Net amount
Financial assets							
Derivative assets (*1) Other financial assets	W	4,890,356	-	4,890,356	10,043,722	74,895	1,789,565
(*1)		7,017,826	-	7,017,826	10,043,722	74,055	1,707,505
Bonds sold under repurchase agreements related collateral of securities (*2) Bonds purchased under		204,300	-	204,300	77,938	-	126,362
resale agreement (Loans) (*2)		3,023,909		3,023,909	3,023,909		
Securities lent (*2)		4,085,806	-	4,085,806	4,085,806	-	-
Domestic exchange settlements receivables (*3) Receivable from disposal		44,745,207	39,051,457	5,693,750	-	-	5,693,750
of securities, etc. (*4)		18,901	3,245	15,656			15,656
	W_	63,986,305	39,054,702	24,931,603	17,231,375	74,895	7,625,333
Financial liabilities Derivative liabilities (*1) Other financial liabilities	₩	5,694,565	-	5,694,565	9,825,349	_	1,679,179
(*1) Bonds sold under repurchase agreements		5,809,963	-	5,809,963	.,,		,,
(Borrowings) (*2)		84,091	-	84,091	77,938	-	6,153
Securities sold		2,958	-	2,958	2,958	-	-
Domestic exchange settlement payables (*3)		41,284,827	39,051,457	2,233,370	2,233,370		
Payable from purchase of		41,204,02/	37,031,43/	2,233,370	2,233,370	-	-
securities, etc. (*4)		4,235	3,245	990	990	-	-
	W	52,880,639	39,054,702	13,825,937	12,140,605		1,685,332
	_						

<sup>(\*1)</sup> The Bank has certain derivative transactions subject to the ISDA (International Swaps and Derivatives Association) agreement. According to the ISDA agreement, when credit events (e.g. default) of counterparties occur, the net amount after offsetting the amounts obligated by each party is settled.

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

<sup>(\*3)</sup> The Bank has legally enforceable right to set off and settles financial assets and liabilities on a net basis. Therefore, domestic exchanges settlement receivables (payables) are recorded on a net basis in the separate statements of financial position.

<sup>(\*4)</sup> Receivables and payables related to settlement of purchase and disposition of enlisted securities are offset and the net amount is presented in the separate statement of financial position because the Bank currently has a legally enforceable right to set off the recognized amounts and intends to settle on a net basis. The effect of offsetting due to the establishment of 'Central Counter Party ("CCP")' system is included in the amount.

# **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

#### 3. Financial risk management (continued)

#### 3-7. Offsetting financial assets and financial liabilities (continued)

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

			December 31, 2021						
		Gross amounts	Gross amounts of recognized financial assets and liabilities set off in the	Net amounts of financial assets and liabilities presented in	Related amounts the statement of position				
		of recognized financial assets and liabilities	statement of financial position	the statement of financial position	Financial instruments	Cash collateral received	Net amount		
Financial assets									
Derivative assets (*1)	₩	2,978,110	-	2,978,110					
Other financial assets (*1) Bonds sold under repurchase agreements		7,506,542	-	7,506,542	8,885,619	-	1,599,033		
related collateral of securities (*2) Bonds purchased under resale agreement (Loans)		210,490	-	210,490	81,849	-	128,641		
(*2)		1,814,157	-	1,814,157	1,814,157	-	-		
Securities lent (*2) Domestic exchange settlements receivables		2,410,477	-	2,410,477	2,410,477	-	-		
(*3) Receivable from disposal		44,599,946	37,953,026	6,646,920	-	-	6,646,920		
of securities, etc. (*4)		27,762	2,464	25,298	=	_	25,298		
	W	59,547,484	37,955,490	21,591,994	13,192,102		8,399,892		
Financial liabilities									
Derivative liabilities (*1) Other financial liabilities	₩	2,850,975	-	2,850,975					
(*1) Bonds sold under repurchase agreements		6,413,960	-	6,413,960	8,734,105	-	530,830		
(Borrowings) (*2)		82,578	-	82,578	81,849	_	729		
Securities sold		2,203	-	2,203	2,203	-	-		
Domestic exchange		20.54.55	25.052.026	1 011 741	1 011 541				
settlement payables (*3) Payable from purchase of		39,764,767	37,953,026	1,811,741	1,811,741	-	-		
securities, etc. (*4)		5,095	2,464	2,631	701	-	1,930		
, , ,	W	49,119,578	37,955,490	11,164,088	10,630,599		533,489		

<sup>(\*1)</sup> The Bank has certain derivative transactions subject to the ISDA (International Swaps and Derivatives Association) agreement. According to the ISDA agreement, when credit events (e.g. default) of counterparties occur, the net amount after offsetting the amounts obligated by each party is settled.

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

<sup>(\*3)</sup> The Bank has legally enforceable right to set off and settles financial assets and liabilities on a net basis. Therefore, domestic exchanges settlement receivables (payables) are recorded on a net basis in the separate statements of financial position.

<sup>(\*4)</sup> Receivables and payables related to settlement of purchase and disposition of enlisted securities are offset and the net amount is presented in the separate statement of financial position because the Bank currently has a legally enforceable right to set off the recognized amounts and intends to settle on a net basis. The effect of offsetting due to the establishment of 'Central Counter Party ("CCP")' system is included in the amount.

# **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

#### 4. Significant estimates and judgments

The preparation of separate financial statements requires the application of certain critical estimates and judgments relative to the future. Management's estimated outcomes may differ from actual outcomes. The change in an accounting estimate is recognized prospectively in profit or loss in the period of the change, if the change affects that period only, or the period of the change and future periods, if the change affects both.

#### (a) Income taxes

The Bank 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 Bank has recognized current and deferred taxes that reflect tax consequences based on the best estimates in which the Bank expects, at the end of the reporting period, to recover or settle the carrying amount 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.

#### (b) Fair value of financial instruments

The fair values of financial instruments which are not actively traded in the market are determined by using valuation techniques. The Bank 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.

#### (c) Allowances for loan losses, guarantees and unused loan commitments

The Bank determines and recognizes allowances for losses on debt securities, loans and other receivables measured at amortized cost or FVTOCI and recognizes provisions for guarantees and unused loan commitments through impairment testing. The accuracy of allowances for credit losses is 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.

#### (d) Defined benefit obligation

The present value of a defined benefit obligation that is measured by actuarial valuation methods uses various assumptions which can change according to various elements. The rate used to discount post-employment benefit obligations is determined by reference to market yields at the end of the reporting period on high quality corporate bonds. The currency and term of the corporate bonds are consistent with the currency and estimated term of the post-employment benefit obligations. Actuarial gains and losses including experience adjustments and the effects of changes in actuarial assumptions are recognized in other comprehensive income. Other significant assumptions related to defined benefit obligations are based on current market situations.

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

(In millions of Korean won)

# 5. Cash and due from banks

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

		December 31, 2022	<b>December 31, 2021</b>
Cash	W	2,122,289	4,032,166
Deposits in Korean won:			
Reserve deposits		8,477,472	9,624,230
Others		50,715	1,128
	_	8,528,187	9,625,358
Deposits in foreign currencies:	_		
Deposits		4,997,926	3,291,073
Time deposits		318,891	220,318
Others		442,091	343,958
		5,758,908	3,855,349
Allowance for impairment		(6,555)	(6,800)
	W	16,402,829	17,506,073

(b) Restricted due from banks as of December 31, 2022 and 2021, are as follows:

Classification		December 31, 2022	December 31, 2021	The laws of evidence, etc.
Deposits in Korean won:	_		,	
Reserve deposits	W	8,477,472	9,624,230	Article 55 of the Bank of Korea Act
Other				Article 387 of Capital Market Act of Korea
Other	_	547	292	Act, etc.
	_	8,478,019	9,624,522	
Deposits in foreign currencies:				
Deposits		1,240,981	1,462,023	Article 55 of the Bank of Korea Act, etc.
Time deposits		57,029	41,493	New York State Banking Law
Others		43,754	35,412	Derivative contract
	_	1,341,764	1,538,928	
:	W	9,819,783	11,163,450	

# Notes to the Separate Financial Statements December 31, 2022 and 2021 (In millions of Korean won)

# Securities at fair value through profit or loss

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

		December 31, 2022	December 31, 2021
Debt securities:			
Government bonds	₩	170,485	230,520
Financial institution bonds		2,224,195	2,309,952
Corporate bonds		1,289,716	1,971,091
Bills bought		6,065,944	6,373,677
CMA		4,165,612	3,752,612
Beneficiary Certificates		4,799,667	6,035,227
Others		1,668,445	1,271,869
		20,384,064	21,944,948
Equity securities:			
Stocks		185,351	144,471
Gold/Silver deposits		75,969	83,691
	<b>W</b>	20,645,384	22,173,110

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

(In millions of Korean won)

#### **Derivatives**

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

		<b>December 31, 2022</b>	December 31, 2021
Foreign currency related			
Over the counter:			
Currency forwards	W	113,339,828	131,232,008
Currency swaps		40,489,614	36,781,607
Currency options		1,327,752	2,274,151
Exchange traded:			
Currency futures		38,019	35,565
		155,195,213	170,323,331
Interest rates related			
Over the counter:			
Interest rate swaps		32,258,308	31,976,536
Interest rate options		175,847	196,920
Exchange traded:			
Interest rate futures		159,744	520,863
Interest rate swaps (*)		38,396,230	31,454,900
		70,990,129	64,149,219
Equity related			
Over the counter:			
Equity options		217,834	132,403
Exchange traded:			
Equity futures		25,132	65,424
Equity options		<u> </u>	28,125
		242,966	225,952
Commodity related			
Over the counter:			
Commodity swap and forwards		241,494	355,116
		241,494	355,116
Hedge			
Fair value hedge:			
Interest rate swaps		13,530,243	7,079,469
	W	240,200,045	242,133,087

<sup>(\*)</sup> The notional amount of derivatives which is settled in the 'Central Counter Party ("CCP")' system.

# Notes to the Separate Financial Statements December 31, 2022 and 2021 (In millions of Korean won)

# **Derivatives (continued)**

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

		<b>December 31, 2022</b>		<b>December 31, 2021</b>		
		Assets	Liabilities	Assets	Liabilities	
Foreign currency related		_	_	_		
Over the counter:						
Currency forwards	W	2,667,834	2,442,351	2,036,282	1,638,923	
Currency swaps		1,592,059	1,831,980	653,317	757,845	
Currency options		14,776	13,603	12,225	11,592	
		4,274,669	4,287,934	2,701,824	2,408,360	
Interest rates related						
Over the counter:						
Interest rate swaps		536,301	633,013	132,507	210,773	
Interest rate options		3,203	-	1,895	-	
Exchange traded:						
Interest rate futures		<u>-</u>	<u> </u>	100	143	
		539,504	633,013	134,502	210,916	
Equity related		-		-		
Over the counter:						
Equity options		1,258	1,279	785	1,347	
Exchange traded:						
Equity futures		233	2	21	507	
Equity options		<u> </u>	<u> </u>	43		
		1,491	1,281	849	1,854	
Commodity related						
Over the counter:						
Commodity swap and forwards		10,766	4	5,274	-	
Hedge						
Fair value hedge:						
Interest rate swaps		77,757	895,005	156,710	236,757	
	W	4,904,187	5,817,237	2,999,159	2,857,887	
	<b>—</b>	4,704,18/	3,017,437	2,333,139	2,031,001	

# Notes to the Separate Financial Statements December 31, 2022 and 2021 (In millions of Korean won)

# **Derivatives (continued)**

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

		December 31, 2022		December 31, 2021		
		Gain	Loss	Gain	Loss	
Foreign currency related		_				
Over the counter:						
Currency forwards	₩	2,408,904	2,395,009	1,995,173	1,693,861	
Currency swaps		1,209,877	1,403,673	1,079,253	1,321,665	
Currency options		12,138	7,890	23,412	21,418	
	•	3,630,919	3,806,572	3,097,838	3,036,944	
Interest rates related	•					
Over the counter:						
Interest rate swaps		549,643	583,086	156,634	277,964	
Interest rate options		1,898	36	736	-	
Exchange traded:						
Interest rate futures		-	-	100	143	
	•	551,541	583,122	157,470	278,107	
Equity related	•	_				
Over the counter:						
Equity options		4,416	271	1,470	419	
Exchange traded:						
Equity futures		233	2	21	507	
Equity options					58	
		4,649	273	1,491	984	
Commodity related	•	_				
Over the counter:						
Commodity swap and forwards		10,766	4	5,274	-	
		10,766	4	5,274	_	
Hedge	•			<u> </u>		
Fair value hedge:						
Interest rate swaps		67,614	807,803	7,456	284,906	
	W	4,265,489	5,197,774	3,269,529	3,600,941	

# **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

#### 7. <u>Derivatives (continued)</u>

- (d) Hedge accounting
- i) Purpose and strategy of hedge accounting

The Bank trades derivative financial instruments to hedge the interest rate risk and foreign exchange risk arising from the bank's assets and liabilities. The Bank applies fair value risk hedge accounting using interest rate swaps to avoid the risk of changes in fair value due to changes in market interest rates on structured bonds in won, foreign currency issued financial bonds, structured deposits in won and foreign currency investment bonds. In addition, to avoid the risk of foreign currency exchange rate fluctuations at foreign operations, the Bank applies net investment risk hedge accounting for foreign operations that utilize currency forwards 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:

	<u></u>	December 31, 2022						
		1 year or less	1 year ~ 2 years or less	2 years ~ 3 years or less	3 years ~ 4 years or less	4 years ~ 5 years or less	More than 5 years	Total
Fair value hedges								
Interest rate swaps	W	4,553,650	2,540,240	143,969	1,337,001	586,760	4,368,623	13,530,243
Average price conditions (*1)		0.42%	0.48%	0.73%	0.84%	0.71%	0.60%	0.55%
Average hedge ratio		100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Hedge of net investments								
in foreign operations (*2)								
Debt securities issued								
in foreign currencies	₩	311,420	-	34,336	164,749	-	-	510,505
Average hedge ratio		100%	-	100%	100%	-	-	100%
(%1) T	COMOD	TIOD COED	2 A LIGD I	1 21/15	1 1 23 4	ATID D 1		

<sup>(\*1)</sup> Interest rate swaps consist of 3M CD, USD SOFR, 3M USD Libor, 3M Euribor and 3M AUD Bond.

<sup>(\*2)</sup> The average exchange rates of net investment hedge instruments are USD/KRW 1,217.32, AUD/KRW 877.18.

		December 31, 2021						
		1 year or less	1 year ~ 2 years or less	2 years ~ 3 years or less	3 years ~ 4 years or less	4 years ~ 5 years or less	More than 5 years	Total
Fair value hedges								
Interest rate swaps	W	643,057	597,492	268,468	140,689	1,273,227	4,156,536	7,079,469
Average price conditions (*1)		0.80%	0.75%	0.75%	0.82%	0.65%	0.57%	0.63%
Average hedge ratio		100%	100%	100%	100%	100%	100%	100%
Hedge of net investments								
in foreign operations (*2)								
Debt securities issued								
in foreign currencies	W	154,115	291,318	-	34,356	-	-	479,789
Average hedge ratio		100%	100%	-	100%	-	-	100%
(4)(4) T	COMPOR	ON A TIOD T 11	23.4.5	1 103.6	ATTE D 1			

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

<sup>(\*2)</sup> The average exchange rates of net investment hedge instruments are USD/KRW1,165.80 and AUD/KRW 877.18.

# **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

# 7. <u>Derivatives (continued)</u>

(e) Impact of hedge accounting on the separate financial statements

i) Impact on hedging instruments in the separate statement of financial position as of December 31, 2022 and 2021, and separate statement of comprehensive income and separate statement of changes in equity for the year then ended are as follows:

			December 31, 2022						
		_			Separate statement of financial position	Separate statement of comprehensive income			
			Notional amounts	Derivative assets	Derivative liabilities	Debt securities issued	Other comprehensive income for the year	Changes in fair value for the year	
Fair value hedges: Interest rate risk	Interest rate swaps	₩	13,530,243	77,757	895,005	-	-	(740,189)	
Hedge of net investor foreign operations: Foreign									
exchange risk	issued in foreign currencies		510,505			508,661	(30,716)	(30,716)	
		₩ _	14,040,748	77,757	895,005	508,661	(30,716)	770,905	

# **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

#### 7. <u>Derivatives (continued)</u>

- (e) Impact of hedge accounting on the separate financial statements (continued)
- i) Impact on hedging instruments in the separate statement of financial position as of December 31, 2022 and 2021, and separate statement of comprehensive income and separate statement of changes in equity For the year then ended and for the year then ended are as follows (continued):

			December 31, 2021							
		_			Separate statement of financial position	Separate statement of comprehensive income				
		_	Notional amounts	Derivative assets	Derivative liabilities	Debt securities issued	Other comprehensive income for the year	Changes in fair value for the year		
Fair value hedges: Interest rate risk	Interest rate swaps	W	7,079,469	156,710	236,757	-	-	(277,450)		
Hedge of net invest foreign operations Foreign										
exchange risk	issued in foreign currencies	w _	479,789 7,559,258	156,710	236,757	478,500 478,500	(37,527) (37,527)	(37,527) (314,977)		

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

(In millions of Korean won)

#### **Derivatives (continued)**

- (e) Impact of hedge accounting on the separate financial statements (continued)
- ii) Impact on hedged items in the separate statement of financial position as of December 31, 2022 and 2021, and separate statement of comprehensive income and separate statement of changes in equity For the year ended December 31,2022 and 2021 are as follows:

						December 31, 2022			
		_		rate statement		Separate statement of comprehensive income			
	Hedging instruments		Securities at FVTOCI	Deposits	Debt securities issued	Other comprehensive income for the year	Fair value hedges adjusted accumulated amount	Changes in fair value for the year	Reserve of exchange differences on translation
Fair value he					_				-
Interest rate	Debt securities issued Investment	₩	-	-	12,169,122	-	(673,601)	679,835	-
	bonds		505,668	- - 42 472	-	-	69,687	(65,158)	-
	Time deposits	_	505,668	542,473 542,473	12,169,122		(187,527) (791,441)	93,762	
Hedge of net is			303,000	342,473	12,107,122		(771,441)	700,437	
Foreign exchange risk	investments in foreign operations		_	_	_	30,716	_	30,716	47,627
	operations	w-	505,668	542,473	12,169,122	30,716	(791,441)	739,155	47,627
				parate statemen		December 31, 2021 Separate statement of comprehensive	1		
	Hedging		Securities at	inancial positi	Debt securities	Other comprehensive income for the	Fair value hedges Adjusted accumulated	Changes in fair value	Reserve of exchange differences on
	instruments		FVTOCI	D '4		mediae for the	accumulated		differences on
Fair value he				Deposits	issued	vear	amount	for the year	translation
	eages:	_	1 1 1001	Deposits	issued	year	amount	for the year	translation
Interest rate	Debt securitie issued Investment	es V		Deposits	5,734,095	year -	8,324	for the year 231,503	translation
	Debt securities issued			-		year - -			translation -
Interest rate	Debt securitie issued Investment		580,552	636,235	5,734,095	year - - -	8,324 6,207 (93,765)	231,503 (7,283) 46,941	translation -
Interest rate	Debt securities issued Investment bonds		¥ -	636,235		-	8,324 6,207	231,503 (7,283)	translation -
Interest rate	Debt securitie issued Investment bonds Time deposits  nvestments		580,552	636,235	5,734,095	-	8,324 6,207 (93,765)	231,503 (7,283) 46,941	translation -
Interest rate risk  Hedge of net i	Debt securitie issued Investment bonds Time deposits  nvestments erations: Net investments sk in foreign		580,552	636,235	5,734,095	- - - -	8,324 6,207 (93,765)	231,503 (7,283) 46,941 271,161	
Interest rate risk  Hedge of net in foreign operations of the second sec	Debt securitie issued Investment bonds Time deposits  nvestments erations: Net investments		580,552 - - - - - - - - - - - - - - -	636,235	5,734,095	-	8,324 6,207 (93,765)	231,503 (7,283) 46,941	translation

# **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

# 7. <u>Derivatives (continued)</u>

(e) Impact of hedge accounting on the separate financial statements (continued)

iii) The amounts recognized as gains or losses due to an ineffective portion of hedge for the years ended December 31, 2022 and 2021 are as follows:

	December 31, 2022						
	Gains on fair value hedges (hedged items)	Gains (losses) on fair value hedges (hedging instruments)	Hedge ineffectiveness recognized in profit or loss (*)				
W	708,439	(740,189)	(31,750)				
	20.716	(20.717)					
w —	739,155	(770,905)	(31,750)				
		fair value hedges (hedged items)  ₩ 708,439	Gains on fair value hedges (hedged items)  Gains (losses) on fair value hedges (hedging instruments)  (740,189)				

<sup>(\*)</sup> Recognized hedge ineffectiveness is included in other operating income and expenses in the separate statement of comprehensive income

			<b>December 31, 2021</b>	
		Gains on fair value hedges (hedged items)	Gains (losses) on fair value hedges (hedging instruments)	Hedge ineffectiveness recognized in profit or loss (*)
Fair value hedges: Interest rate swaps	₩	271,161	(277,450)	(6,289)
Hedge of net investments in foreign operations:		27.527	(27,527)	
Foreign exchange risk	<u>w</u> –	37,527 308,688	(37,527) (314,977)	(6,289)
	<del></del>	300,000	(314,977)	(0,289)

<sup>(\*)</sup> Recognized hedge ineffectiveness is included in other operating income and expenses in the separate statement of comprehensive income

(f) The effects of quantifying the credit risk of derivatives mitigated by collateral held as of December 31, 2022 and 2021, are as follows:

	December 31, 2022	December 31, 2021		
Deposits, securities, and etc.	1,486,480	603,833		

# **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

#### 7. <u>Derivatives (continued)</u>

(g) Hedge relationships affected by an interest rate benchmark reform

The revised Standard requires that exceptions be applied when analysing future information in relation to the application of risk hedge accounting, while uncertainties arising from the interest rate benchmark reform movement exist. The exception assumes that when assessing whether the expected cash flows that comply with existing interest rate benchmarks 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 benchmark on which the hedged item and the hedging instrument is not altered as a result of the interest rate benchmark reform.

The carrying amount of hedged items and nominal amount of the hedging instruments related to the interest rate benchmark exposed to the hedging relationship due to the Bank's interest rate benchmark reform as of December 31,2022 and December 31,2021 are as follows:

December 31, 2022

Interest rate index	Nominal amount of hedging instruments (*)	Carrying amount of hedged assets	Carrying amount of hedged liabilities
KRW 3M CD	7,700,000	-	7,557,687
USD 3M LIBOR(*)	4,196,714	283,014	3,785,641
EURLIBOR 3M	274,294	3,236	269,826

December 31, 2021

Interest rate index	Nominal amount of hedging instruments (*)	Carrying amount of hedged assets	Carrying amount of hedged liabilities
KRW 3M CD	1,520,000	-	1,449,653
USD 3M LIBOR(*)	4,150,155	504,935	3,589,452
EURLIBOR 3M	293,972	25,094	267,830

<sup>(\*)</sup> The instruments that will be matured before the end of June 30, 2023 are excluded 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 (KOFR)" was finally selected as the risk-free index interest rate. The Bank has assumed that in this hedging relationship, the spread changed on the basis of SOFR and KOFR would be similar to the spread included in the interest rate swap used as the hedging instrument after LIBOR rate is suspended. The Bank does not assume any changes in other conditions.

#### 8. Loans

(a) Details of loans as of December 31, 2022 and 2021, are as follows:

		December 3	31, 2022	December 31, 2021				
	_	Loans at amortized cost	Loans at FVTPL	Loans at amortized cost	Loans at FVTPL			
Household loans	₩	130,915,759	_	135,835,403	-			
Corporate loans		174,203,093	841,420	157,371,443	859,745			
Public and other loans		3,680,407	109,099	3,387,086	-			
Loans to banks	_	7,523,964		3,756,600	-			
		316,323,223	950,519	300,350,532	859,745			
Deferred loan origination costs and fees	_	503,045	<u>-</u>	545,845				
		316,826,268	950,519	300,896,377	859,745			
Less: Allowance for impairment	_	(1,591,647)		(1,336,594)	-			
	W	315,234,621	950,519	299,559,783	859,745			

# **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

#### 8. Loans (continued)

- (b) Changes in allowance for impairment and book value
- i) Changes in allowance for impairment of due from banks, loans at amortized cost and other assets the years ended December 31, 2022 and 2021 are as follows:

									December	31, 2022							
			Due from banks Household Corporate Others														
	_	Due	e from bank	KS .		Household			Corporate	Others							
		12-month	Lifetime e	etime expected		Lifetime		12-month	Lifetime e	expected	12-month	Lifetime e	expected	12-month	Lifetime	expected	Total
		expected	credit	losses	expected	credit	losses	expected	credit	losses	expected	credit l	losses	expected	credit	losses	10001
		credit	Not		credit	Not		credit	Not		credit	Not		credit	Not		
	_	losses	impaired	Impaired	losses	impaired	Impaired	losses	impaired	Impaired	losses	impaired	Impaired	losses	impaired	Impaired	
Beginning balance	₩	6,685	115	; .	71,708	61,685	110,679	327,122	526,942	212,047	11,648	9,269	5,494	155,230	2,231	1,265	1,502,120
Transfer to 12 month																	
expected credit losses		-	-		14,355	(14,021)	(334)	54,377	(52,736)	(1,641)	403	(403)	-	144	(144)	-	-
Transfer to lifetime																	
expected credit losses		-	-		(7,212)	23,535	(16,323)	(32,743)	34,327	(1,584)	(122)	122	-	(87)	87	-	-
Transfer to credit-																	
impaired financial																	
assets		-	-		(1,555)	(6,128)	7,683	(1,193)	(12,225)	13,418	(1)	(5)	6	(10)	(139)	149	-
Provision for (reversal																	
of) allowance (*1)		(795)	116	, ·	44,970	49,488	141,604	(5,178)	139,357	155,646	3,829	232	2,387	481	1,734	606	534,477
Write-offs		-	-			-	(185,116)	-	-	(187,416)	-	-	(1,121)	-	-	(1,364)	(375,017)
Effect of discounting		-	-			-	(5,568)	-	-	(11,169)	-	-	-	-	-	-	(16,737)
Disposal of loans		-	-		-	(28)	(832)	-	(5)	(10,676)	-	-	(217)	-	-	(61)	(11,819)
Recoveries		-	-			-	78,506	-	-	38,336	-	-	145	-	-	122	117,109
Others (*2)	_	432	2	! .	(178)	(13)	(11)	2,902	4,890	(53)	341	1		105,399		-	113,712
Ending balance	W	6,322	233		122,088	114,518	130,288	345,287	640,550	206,908	16,098	9,216	6,694	261,157	3,769	717	1,863,845

Dogombon 21 2022

<sup>(\*1)</sup> Additional provision for credit loan allowance is recognized for the year ended December 31, 2022, to cope with prolonged COVID-19 and Internal and external economic uncertainty. As of December 31, 2022, the Bank has set aside an additional provision of \(\mathbb{W}\) 152,889 million (including provisions for debt securities, provisions for off-balance accounts, etc.) through the re-estimation of the forecast default rate that reflected the updated forward-looking information considering worst scenario for the year ended December 31, 2022, and an additional provision of \(\mathbb{W}\)112,467 million through the additional selection and adjustment of cash flows for loans subject to individual assessment, and an additional provision of \(\mathbb{W}\) 133,638 million was set aside by reflecting additional expected losses on loans in moratorium of interest payments and moratorium of repayment including mature-extended loans and estimated loss loans and mature-extended loans.

<sup>(\*2)</sup> Other changes are due to debt restructuring, debt-equity swap and foreign exchange rate, etc.

# **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

#### 8. Loans (continued)

(b) Changes in allowance for impairment and book value (continued)

i) Changes in allowance for impairment of due from banks, loans at amortized cost and other assets the years ended December 31, 2022 and 2021 are as follows: (continued)

	_									December	31, 2021							
		Loans at amortized cost																
	_	Due from banks				Household Corporate							Others					
		12-month	Lifetime	expected	12-month		Lifetime	e expected 12-month		-month Lifetime expected		12-month Lifetime e		xpected	12-month	nonth Lifetime expected		Total
		expected	ected credit losses		expected		credit losses		expected	credit losses		expected	credit losses		expected	credit losses		Total
		credit	Not		cre	dit	Not		credit	Not		credit	Not		credit	Not		
	_	losses	impaired	Impaired	los	ses	impaired	Impaired	losses	impaired	Impaired	losses	impaired	Impaired	losses	impaired	Impaired	
Beginning balance	₩	3,338	550	)	- 79	,454	66,988	129,600	359,727	484,968	280,621	12,885	9,600	6,417	16,573	2,345	1,438	1,454,504
Transfer to 12 month																		
expected credit losses		-		•	- 17	,618	(17,200)	(418)	58,873	(54,028)	(4,845)	200	(200)	-	151	(151)	-	-
Transfer to lifetime										40.500		/a = 0.						
expected credit losses		(1)	1		- (7	605)	19,740	(12,135)	(36,844)	40,580	(3,736)	(359)	359	-	(87)	87	-	-
Transfer to credit-																		
impaired financial						2.50)	(5.040)	. 20.	(00 <b>=</b> )	(10.055)	20.064	(5)		_	(=)	(110)	106	
assets		-		•	- (1	350)	(5,046)	6,396	(987)	(19,077)	20,064	(7)	-	7	(7)	(119)	126	-
Provision for (reversal		2.011	(450)		(1.6	540	(2.002)	112 162	(5( 077)	66.714	140.600	(1.502)	(400)	(500)	(1.42)	60	001	244.022
of) allowance (*1) Write-offs		3,011	(459)	)	- (16	346)	(2,802)	113,163	(56,977)		140,600		(490)		\ /		891	244,932
		-		-	-	-	-	(196,530)	-	-	(223,778)		-	(1,218)	-	_	(1,701)	(423,227)
Effect of discounting		-		-	-	-	(1)	(4,437) (844)	-	-	(11,460) (14,408)		-	(1)	-	-	(40)	(15,897)
Disposal of loans		-		•	-	-	(1)	\ /	-	-	. , ,		-	007	-	-	(40) 551	(15,294)
Recoveries Others (*2)		337	23	<del>-</del> !	-	137	-	75,878	3,330	7,785	55,834 (26,845)		-		138,742	-	331	133,150 123,952
` '	w	6,685	115		- 71	,708	61,685	110,679	327,122	526,942	212,047		9,269	5,494		2,231	1,265	1,502,120
Ending balance	***=	0,083	113	)	- /	,/08	01,083	110,079	347,122	320,942	212,047	11,048	9,209	5,494	133,230	2,231	1,203	1,302,120

<sup>(\*1)</sup> Additional provision for credit loan allowance is recognized for the year ended December 31, 2021, to cope with the economic recession caused by the spread of the COVID-19. As of December 31, 2021, the Bank has set aside an additional provision of \(\pm\)63,422 million through the additional selection and adjustment of cash flows for loans subject to individual assessment, and additional provision of \(\pm\)83,029 million through reflecting additional expected losses on loans in moratorium of interest payments and moratorium of repayment.

<sup>(\*2)</sup> Other changes are due to debt restructuring, debt-equity swap and foreign exchange rate, etc.

# **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

#### 8. Loans (continued)

(b) Changes in allowance for impairment and book value (continued)

ii) Changes in book value of due from banks, loans at amortized costs and other assets the years ended December 31, 2022 and 2021 are as follows:

December 31, 2022 Loans at amortized cost Total Due from banks Household Others Other assets Corporate 12-month Lifetime expected Lifetime expected Lifetime expected Lifetime expected 12-month Lifetime expected 12-month 12-month 12-month credit losses credit losses credit losses credit losses expected credit losses expected expected expected expected credit credit Not credit Not credit Not credit Not Not impaired Impaired Impaired impaired Impaired Impaired losses losses impaired Impaired losses impaired losses losses impaired 16,172,54 330,602,95 Beginning balance W 13,479,781 926 128,084,633 7,879,251 302,464 134,147,344 22,783,357 554,084 6,454,681 672,811 17,752 51,275 2,053 Transfer to 12 month expected credit losses 3,323,494 (3,316,473)(7,021)6,173,537 (6,166,691)(6,846)55,767 (55,767)13,902 (13,901)(1) Transfer to lifetime expected credit losses (4,089,781)4,122,985 (33,204)(9,033,069)9,042,177 (9,108)(52,028)(2) (18,909) 18,912 52,030 (3) Transfer to creditimpaired financial assets (116,472)(134,895)251,367 (162,626)(280,044)442,670 (18)(12)30 (547)(1,723)2,270 Origination, recoveries, (1,123,25)and others(\*) 801,242 (4,155,148)(629,627)17,356,558 (107,683)(113,941) 4,065,181 179 39,333 (920) 16,188,486 5.146 54,804 (3,384)(185,116)Write-offs (187,416)(1,121)(1,364) (375,017) Disposal of loans (1,151)(41,224)(1,333)(116,939)(2,748)(869)(164,264)10,523,58 15,043,73 346,252,15 Ending balance W 14.281.023 6.072 - 123,046,726 7.920.090 342,070 148,481,744 25,269,783 562,504 14,090 93,896 3 665,678 3 1,166

<sup>(\*)</sup> Other changes are due to debt restructuring, debt-equity swap and foreign exchange rate, etc.

## **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

#### 8. Loans (continued)

(b) Changes in allowance for impairment and book value (continued)

ii) Changes in book value of due from banks, loans at amortized costs and other assets the years ended December 31, 2022 and 2021 are as follows: (continued)

								December	31, 2021							
	-						Loans a	at amortized	cost							
	Du	e from ban	ks		Household			Corporate			Others			Other assets	S	
	12-month expected	Lifetime credit	expected losses	12-month expected	Lifetime credit	expected losses	12-month expected	Lifetime credit		12-month expected	Lifetime credit		12-month expected		expected losses	Total
	credit	Not		credit	Not		credit	Not		credit	Not		credit	Not		
	losses	impaired	Impaired	losses	impaired	Impaired	losses	impaired	Impaired	losses	impaired		losses	impaired	Impaired	
Beginning balance	₩ 21,166,163	2,060		- 118,191,818	7,920,963	343,414	118,666,465	20,596,059	690,861	8,493,253	664,875	18,043	10,800,533	47,117	2,319	307,603,943
Transfer to 12 month																
expected credit losses	-	-		- 3,110,355	(3,104,184)	(6,171)	5,070,686	(5,000,096)	(70,590)	43,342	(43,342)	-	10,795	(10,795)	-	-
Transfer to lifetime																
expected credit losses	(378)	378		- (3,372,020)	3,404,970	(32,950)	(7,744,782)	7,754,721	(9,939)	(94,269)	94,271	(2)	(15,354)	15,356	(2)	-
Transfer to credit-																
impaired financial																
assets	-	-	-	- (92,053)	(115,423)	207,476	(133,439)	(247,827)	381,266	(896)	(2)	898	(394)	(1,125)	1,519	-
Origination, recoveries,																
and others(*)	(7,686,004)	(1,512)	-	- 10,246,533	(226,351)	26,095	18,288,414	(319,320)	(94,524)	(1,986,749)	(42,991)	75	5,376,961	723	773	23,582,123
Write-offs	-	-	-		-	(196,530)	-	-	(223,778)	-	-	(1,218)	-	-	(1,701)	(423,227)
Disposal of loans	<u> </u>	-			(724)	(38,870)	-	(180)	(119,212)		-	(44)	-	(1)	(855)	(159,886)
Ending balance	₩ 13,479,781	926		- 128,084,633	7,879,251	302,464	134,147,344	22,783,357	554,084	6,454,681	672,811	17,752	16,172,541	51,275	2,053	330,602,953
Transfer to 12 month expected credit losses Transfer to lifetime expected credit losses Transfer to creditimpaired financial assets Origination, recoveries, and others(*) Write-offs Disposal of loans	losses   W   21,166,163     (378)     (7,686,004)	378 (1,512)		losses - 118,191,818 - 3,110,355 - (3,372,020) - (92,053) - 10,246,533	impaired 7,920,963 (3,104,184) 3,404,970 (115,423) (226,351) (724)	(6,171) (32,950) 207,476 26,095 (196,530) (38,870)	losses 118,666,465 5,070,686 (7,744,782) (133,439) 18,288,414	impaired 20,596,059 (5,000,096) 7,754,721 (247,827) (319,320) (180)	(70,590) (9,939) 381,266 (94,524) (223,778) (119,212)	losses 8,493,253 43,342 (94,269) (896) (1,986,749)	impaired 664,875 (43,342) 94,271 (2) (42,991)	(2) 898 75 (1,218) (44)	losses 10,800,533 10,795 (15,354) (394) 5,376,961	impaired 47,117 (10,795) 15,356 (1,125) 723 (1)	(2) 1,519 773 (1,701) (855)	23,582, (423,2 (159,8

<sup>(\*)</sup> Other changes are due to debt restructuring, debt-equity swap and foreign exchange rate, etc.

(c) Changes in deferred loan origination costs for the years ended December 31, 2022 and 2021 are as follows:

		December 31, 2021	
Beginning balance	$\mathbf{W}$	545,845	502,147
Loan origination		215,314	307,669
Amortization		(258,114)	(263,971)
Ending balance	₩ <u></u>	503,045	545,845

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

(In millions of Korean won)

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

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

	Dec	ember 31, 2022	December 31, 2021
Securities at FVTOCI:			
Debt securities:			
Government bonds	$\mathbf{W}$	19,910,331	17,194,913
Financial institutions bonds		16,739,963	17,639,617
Corporate bonds		9,868,516	11,699,431
Others		49,355	-
		46,568,165	46,533,961
Equity securities:			
Stocks		1,171,335	660,925
Equity investments		-	563
Others		38,795	49,875
		1,210,130	711,363
	$\mathbf{w}^{-}$	47,778,295	47,245,324
Securities at amortized cost:			
Debt securities:			
Government bonds	W	16,636,462	13,728,952
Financial institutions bonds		4,979,608	1,652,951
Corporate bonds		5,472,219	4,619,845
		27,088,289	20,001,748
Allowance for impairment		(6,990)	(5,438)
· ····································	<u> </u>	27,081,299	19,996,310

#### **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

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

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

Details of equity instruments designated at FVTOCI as of December 31, 2022 and 2021, are as follows:

		December 31, 2022	<b>December 31, 2021</b>
Marketable securities	W	691,227	257,915
Non-marketable securities		480,108	403,010
Others		38,795	50,438
	W	1,210,130	711,363

Above equity securities are equity securities designated as FVTOCI, and for the retention required by the policy, the option of measuring FVTOCI is exercised

Cumulative net losses reclassified in equity upon disposition of equity securities the years ended December 31, 2022 and 2021 are 42,943 million and 44(-)45,518 million and there are no cumulated gains or losses replaced by the reclassification of the account the years ended December 31, 2022 and 2021, respectively.

(b) Gains and losses on sale of securities at FVTOCI

Gains and losses on sale of securities at FVTOCI for the years ended December 31, 2022 and 2021 are as follows:

		December 31,	December 31,
		2022	2021
Gain on sale of securities at FVTOCI	<del>W</del>	6,486	71,018
Loss on sale of securities at FVTOCI		(9,126)	(5,343)
	₩	(2,640)	65,675

The Bank disposed equity instruments that are measured at FVTOCI for debt-equity swap. At the time of disposal, fair value of equity instruments for the years ended December 31, 2022 and 2021 are \text{W48,525} million and \text{W79,386} million, and cumulative net gains or losses For the year ended December 31, 2022 and 2021 are \text{W2,943} million and \text{W(-)45,518} million, respectively.

(c) Gains and losses on sale of securities at amortized cost

Gains and losses on sale of securities at amortized cost for the years ended December 31, 2022 and 2021 are as follows:

		<b>December 31, 2022</b>	December 31, 2021
Gain on disposal of securities at amortized cost	W	5	24
Loss on disposal of securities at amortized cost		(65)	(334)
	W	(60)	(310)

Securities at amortized cost are sold due to the partial redemption of payables.

## **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

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

- (d) Changes in allowance for credit loss and total carrying amount of securities at FVTOCI and securities at amortized cost
- i) Changes in allowance for credit loss and total carrying amount of securities at FVTOCI and securities at amortized cost the years ended December 31, 2022 and 2021 are as follows:

			December 31, 2022									
	•		Securities at	t FVTOCI		Securities at amortized cost						
	•		Lifetime exp		_		Lifetime exp los					
		12-month expected	Not impaired financial	Impaired financial	T-4-1	12-month expected credit	Not impaired financial	Impaired financial	T-4-1			
D ' ' 1 1	***	credit losses	assets	assets	Total 27.044	losses	assets	assets	Total			
Beginning balance Transfer to 12-month expected credit	W	-,	567	-	27,044	5,438	-	<del>-</del>	5,438			
losses Transfer to lifetime expected credit		166	(166)	-	-	-	-	-	-			
losses Transfer to impaired		(20)	20	-	-	-	-	-	-			
financial assets		_	_	_	_	_	_	_	_			
Provision(reversal) Disposals and		(2,749)	(347)	-	(3,096)	1,449	-	-	1,449			
others(*)		(615)	8	-	(607)	103	_	_	103			
Ending balance	W	23,259	82	-	23,341	6,990	-	_	6,990			

<sup>(\*)</sup> Other changes are due to foreign exchange rate changes, etc.

	_		December 31, 2021										
			Securities at	FVTOCI		Se	curities at an	nortized cost					
		Lifetime expe				_	Lifetime exp los						
		12-month expected credit losses	Not impaired financial assets	Impaired financial assets	Total	12-month expected credit losses	Not impaired financial assets	Impaired financial assets	Total				
Beginning balance	W	15,255	634	-	15,889	3,008	-	-	3,008				
Transfer to 12-month expected credit													
losses		33	(33)	-	-	-	-	-	-				
Transfer to lifetime expected credit		(**)											
losses		(63)	63	-	-	-	-	-	-				
Transfer to impaired financial assets		_	-	-	-	-	-	-	-				
Provision(reversal)		16,888	(21)	-	16,867	2,061	-	-	2,061				
Disposals and													
others(*)		(5,636)	(76)		(5,712)	369			369				
Ending balance	₩	26,477	567	-	27,044	5,438	-	-	5,438				

<sup>(\*)</sup> Other changes are due to foreign exchange rate changes, etc.

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

(In millions of Korean won)

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

- (d) Changes in allowance for credit loss and total carrying amount of securities at FVTOCI and securities at amortized cost (continued)
- ii) Changes in carrying amount of securities at FVTOCI and securities at amortized cost for the year ended December 31, 2022 and 2021, are as follows:

				December 31,	, 2022					
-		Securities at	FVTOCI		Securities at amortized cost					
	_	Lifetime expe loss			_	Lifetime credit				
	12-month expected credit losses	Not impaired financial assets	Impaired financial assets	Total	12-month expected credit losses	Not impaired financial assets	Impaired financial assets	Total		
Beginning										
balance W	46,381,324	152,637	-	46,533,961	20,001,748	-	-	20,001,748		
Transfer to 12- month expected credit losses	61,740	(61,740)	_	_	_	_	_	-		
Transfer to lifetime expected credit losses		23,619								
Transfer to impaired	(23,619)	23,019	-	-	-	-	-	-		
financial asset Net increase	-	-	-	-	-	-	-	-		
(decrease) in balance	81,635	(47,431)	_	34,204	7,086,541	_	_	7,086,541		
Ending balance W	46,501,080	67,085		46,568,165	27,088,289			27,088,289		
<i>-</i>	- ) ,000	,		- ) )- 00	. , , = 02			. , ,		

					December 31	, 2021			
			Securities at	FVTOCI		Se	ecurities at am	ortized cost	
			_	expected credit losses			Lifetime expediosse		
		12-month expected credit losses	Not impaired financial assets	Impaired financial assets	Total	12-month expected credit losses	Not impaired financial assets	Impaired financial assets	Total
Beginning									
balance	W	37,386,822	250,581	-	37,637,403	19,065,398	-		19,065,398
Transfer to 12- month expected credit losses Transfer to		51,055	(51,055)	-	-	-			-
lifetime expected		(0.7.667)	25.665						
credit losses Transfer to impaired		(35,665)	35,665	-	-	-		-	-
financial asset Net increase (decrease) in		-	-	-	-	-	•	-	-
balance		8,979,112	(82,554)	-	8,896,558	936,350			936,350
Ending balance	W	46,381,324	152,637	-	46,533,961	20,001,748		-	20,001,748

## **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

#### 10. 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 Carrying amount 1,298,835 Land 1,298,835 Buildings (\*) 888,574 (425,299)463,275 Right-of-use assets 732,937 (447,746)285,191 307,510 1,434,662 (1,127,152)Others 4,355,008 (2,000,197)2,354,811

		December 31, 2021						
		Acquisition cost	Accumulated depreciation	Carrying amount				
Land	W	1,287,167	-	1,287,167				
Buildings (*)		865,636	(389,542)	476,094				
Right-of-use assets		802,080	(503,901)	298,179				
Others		1,332,911	(1,096,970)	235,941				
	W	4,287,794	(1,990,413)	2,297,381				

<sup>(\*) \</sup>forall 129 millions of government subsidy is deducted from book value.

### **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

#### 10. Property and equipment (continued)

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

	_		Dec	ember 31, 202	2	
				Right-		
				of-use		
	_	Land	Buildings	assets	Others	Total
Beginning balance	W	1,287,167	476,094	298,179	235,941	2,297,381
Acquisitions (*1)(*2)		631	48,995	223,862	167,330	440,818
Disposals and write-offs (*3)		-	(173)	(67,713)	(1,515)	(69,401)
Depreciation		-	(44,415)	(169,618)	(94,254)	(308,287)
Amounts transferred to						
investment properties		12,703	(15,830)	-	-	(3,127)
Amounts transferred to non-current						
assets held for sale		(1,666)	(1,395)	-	-	(3,061)
Effects of foreign currency			(4)	101		400
movements	_		(1)	481	8	488
Ending balance	₩	1,298,835	463,275	285,191	307,510	2,354,811

<sup>(\*3) ₩1,719</sup> million of write-off is included.

	_		Dec	ember 31, 202	1	
				Right-		
				of-use		
		Land	Buildings	assets	Others	Total
Beginning balance	W	1,283,316	493,250	329,028	160,919	2,266,513
Acquisitions (*1)(*2)		126	30,444	160,431	143,055	334,056
Disposals and write-offs (*3)		(283)	(142)	(5,699)	(820)	(6,944)
Depreciation		-	(42,402)	(189,474)	(67,440)	(299,316)
Amounts transferred to		4 177	(4.200)			(22)
investment properties		4,177	(4,209)	-	-	(32)
Amounts transferred to non-current assets held for sale		(169)	(853)	-	-	(1,022)
Effects of foreign currency						
movements			6	3,893	227	4,126
Ending balance	W	1,287,167	476,094	298,179	235,941	2,297,381

<sup>(\*2) \(\</sup>forall 6,276\) million of provision for the asset retirement related to newly acquired assets is included.

<sup>(\*2) \</sup>prescript{\psi}3,614 million of provision for the asset retirement related to newly acquired assets is included.

<sup>(\*3) &</sup>lt;del>W</del>979 million of loss on write-off is included.

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

(In millions of Korean won)

#### 10. Property and equipment (continued)

(c) Insured assets and liability insurances as of December 31, 2022 are as follows:

Type of insurance	Insured assets		Amount covered	Insurance company
Comprehensive insurance for financial institutions	Cash & securities	w	20,000	Samsung Fire & Marine Insurance Co., Ltd. and 4 other insurance companies
Property insurance	Real estate & movable			Samsung Fire & Marine
Burglary insurance	properties for business purpose		874,386	Insurance Co., Ltd., etc. and 4 other insurance companies Samsung Fire & Marine
	Cash & securities		60,000	Insurance Co., Ltd., etc. and 3 other companies Meritz Fire & Marine
Compensation liability insurance for officers	-		50,000	Insurance Co., Ltd., etc. and 6 other companies
Compensation liability insurance for gas accident	Real estate		500	Meritz Fire & Marine Insurance Co., Ltd.
Compensation liability insurance for personal information protection	-		10,000	DB Insurance Co., Ltd.
Compensation liability insurance for electronic financial transaction	-		3,000	Lotte Insurance Co., Ltd., etc.
Compensation liability insurance for casualty	Real estate		1,000	Samsung Fire & Marine Insurance Co., Ltd.
Compaensation liability insurance for elevator accidents	-	_	80	Samsung Fire & Marine Insurance Co., Ltd.
		W	1,018,966	

Besides the insurances listed above, the Bank also has automobile liability insurance, medical insurance for employees, and casualty insurance for protecting property and employees.

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

(In millions of Korean won)

#### 11. Leases

(a) Details of lease right-to-use assets by class of underlying asset of the lessee as of December 31, 2022 and 2021, are as follows:

			December 31, 2022	
		Acquisition cost	Accumulated depreciation	Book value
Real property	W	657,858	(397,877)	259,981
Vehicle		43,698	(28,615)	15,083
Others		31,381	(21,254)	10,127
	W	732,937	(447,746)	285,191
			December 31, 2021	
	_		December 31, 2021 Accumulated	
		Acquisition cost	depreciation	Book value
Real property	W	733,749	(462,214)	271,535
Vehicle		38,712	(23,903)	14,809
Others		29,619	(17,784)	11,835
	₩	802,080	(503,901)	298,179

(b) Changed in underlying assets for the years ended December 31, 2022 and 2021, are as follows:

			December 3	1, 2022	
		Real property	Vehicle	Others	Total
Beginning balance	W	271,535	14,809	11,835	298,179
Acquisitions		211,414	9,116	3,332	223,862
Disposals		(65,506)	(1,371)	(837)	(67,714)
Depreciation		(157,886)	(7,529)	(4,203)	(169,618)
Effects of foreign currency movements		424	58	-	482
Ending balance	₩.	259,981	15,083	10,127	285,191
			December 3	1, 2021	
		Real property	Vehicle	Others	Total
Beginning balance	W	301,873	14,352	12,803	329,028
Acquisitions		143,924	12,346	4,161	160,431
Disposals		(2,533)	(3,135)	(29)	(5,697)
Depreciation		(175,620)	(8,755)	(5,100)	(189,475)
		3,891	ì	· ·	3,892
Effects of foreign currency movements		3,071			2,072

#### **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

#### 11. Leases (continued)

Vehicle

Others

(c) Details of maturity of lease liabilities as of December 31, 2022 and 2021, are as follows:

5,891

22,556

449

1,335

24,076

619

		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
Assets								
Real property	W	16,656	16,863	21,812	35,990	124,006	26,492	241,819
Vehicle		6,364	1,214	1,679	3,127	9,576	-	21,960
Others		439	541	1,079	2,076	6,558	10	10,703
	<b>W</b> _	23,459	18,618	24,570	41,193	140,140	26,502	274,482
				Dec	cember 31, 202	1		
			1 month~	3 months~	6 months~	1 year~		
		1 month	3 months	6 months	1 year	5 years	More than	
		or less	or less	or less	or less	or less	5 years	Total
Assets	_							
Real property	W	16,216	22,122	29,165	48,753	129,174	15,106	260,536

The abovementioned amounts shown above are classified by the earliest maturity dates on which the Bank's payment obligation arises based on undiscounted cash flows.

1,757

1,077

31,999

3,312

2,110

54,175

8,574

8,003

145,751

15,106

20,869

12,258

293,662

- (d) For the years ended December 31, 2022 and 2021, the lease payment for the low value assets is \(\foware \psi, 194\) million and \(\foware \psi, 206\) million. Short-term lease payment does not exist.
- (e) The Bank applied a practical simplified method that does not evaluate whether it is a lease change for real estate rental fee discounts that have occurred as a direct result of the COVID-19. For the years ended December 31, 2022 and 2021, the amount recognized in profit or loss to reflect changes in lease payments arising from the rent discount is \w22,308 million and \w47,589 million, respectively.

### **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

#### 12. <u>Intangible assets</u>

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

		December 31, 2022	December 31, 2021
Software	W	118,856	81,561
Development cost		144,191	78,159
Memberships		45,611	47,138
Others		255,911	272,886
	W	564,569	479,744

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

		<b>December 31, 2022</b>					
		Software	Development cost	Memberships	Others	Total	
Beginning balance	W	81,561	78,159	47,138	272,886	479,744	
Acquisitions		67,372	98,249	1,746	95,286	262,653	
Disposals		-	-	(3,300)	-	(3,300)	
Amortization (*1)		(30,089)	(32,217)	-	(112,247)	(174,553)	
Effects of foreign currency							
movements		12		27	(14)	25	
Ending balance(*2)	W	118,856	144,191	45,611	255,911	564,569	

<sup>(\*1)</sup> W111,945 million among amortization cost of other intangible assets is included in other operating expenses.

<sup>(\*2) \</sup>text{\text{\$\psi}44,100 million of other intangible assets is accounted for as accounts payable.}

	December 31, 2021					
	· <u></u>	Software	Development cost	Memberships	Others	Total
Beginning balance	W	67,323	60,000	47,123	267,467	441,913
Acquisitions		39,896	41,297	-	114,506	195,699
Disposals		(1,993)	-	(16)	-	(2,009)
Amortization (*1)		(23,671)	(23,138)	-	(109,102)	(155,911)
Effects of foreign currency						
movements		6		31	15	52
Ending balance (*2)	W	81,561	78,159	47,138	272,886	479,744

<sup>(\*1)</sup> W108,802 million among amortization cost of other intangible assets is included in other operating expenses.

<sup>(\*2) \</sup>psi 161,843 million of other intangible assets is accounted for as accounts payable.

## **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

#### 13. <u>Investments in subsidiaries and associates</u>

(a) Investments in subsidiaries and associates as of December 31, 2022 and 2021, are as follows:

					Ownership (%)		Book value		
					December 31,	December 31,	De	ecember 31,	December 31,
	Investees	Location	Reporting date	<b>Industry sector</b>	2022	2021		2022	2021
Subsidiaries	Shinhan Bank America	U.S.A	December 31	Banking	100.00	100.00	W	193,049	193,049
	Shinhan Bank Europe GmbH	Germany	December 31	Banking	100.00	100.00		78,606	78,606
	Shinhan Bank Cambodia	Cambodia	December 31	Banking	97.50	97.50		84,351	84,351
	Shinhan Kazakhstan Bank Limited	Kazakhstan	December 31	Banking	100.00	100.00		40,532	40,532
	Shinhan Bank Canada	Canada	December 31	Banking	100.00	100.00		79,695	79,695
	Shinhan Bank China Limited	China	December 31	Banking	100.00	100.00		355,443	355,443
	Shinhan Bank Japan	Japan	March 31	Banking	100.00	100.00		410,485	410,485
	Shinhan Bank Vietnam Ltd.	Vietnam	December 31	Banking	100.00	100.00		389,607	389,607
	Shinhan Bank Mexico	Mexico	December 31	Banking	99.99	99.99		97,468	97,468
	PT Bank Shinhan Indonesia(*7)	Indonesia	December 31	Banking	99.00	99.00		349,847	349,847
	Shinhan-Daesung Contents Fund	Korea	December 31	Investment	71.43	71.43		2,690	5,000
Associates	BNP Paribas Cardif Life Insurance Co., Ltd(*1)	Korea	December 31	Insurance	14.99	14.99		42,204	42,204
	KOREA FINANCE SECURITY(*3)	Korea	December 31	Other	14.91	14.91		3,448	3,448
	DOODOO LOGITECH(*2)	Korea	December 31	Other	27.96	27.96		-	-
	One Shinhan Future's Fund 1	Korea	December 31	Investment	27.78	27.78		2,206	3,000
	KST-SH Laboratory Investment Fund No.1	Korea	December 31	Investment	20.00	20.00		2,000	1,500
	One Shinhan Future's Fund 2	Korea	December 31	Investment	29.70	29.70		2,970	2,970
	One Shinhan Future's Fund 3(*4)	Korea	December 31	Investment	29.90	-		598	-
	One Shinhan Connect Fund 1	Korea	December 31	Investment	30.00	30.00		70,937	72,000
	One Shinhan Connect Fund 2(*4)	Korea	December 31	Investment	33.33	-		15,000	-
	Neoplux Technology Valuation Investment Fund	Korea	December 31	Investment	33.33	33.33		2,278	2,278
	Partners 4th Growth Investment Fund	Korea	December 31	Investment	25.00	25.00		9,219	9,801
	KTB Newlake Global Healthcare PEF (*5)	Korea	December 31	Investment	-	20.00		-	6,770
	Newlake Growth Capital Partners2 PEF	Korea	December 31	Investment	23.01	23.01		10,000	10,000
	Songrim Co., Ltd.(*8)	Korea	December 31	Retail	-	35.34		-	-
	MIEL Co., Ltd.(*2)	Korea	December 31	Other	28.77	28.77		-	-
	MSTEEL Co., Ltd.(*2)	Korea	December 31	Other	29.45	29.45		-	-
	JB AIR(*8)	Korea	December 31	Other	-	28.77		-	-
	BACK DOO(*2)	Korea	December 31	Retail	25.90	25.90		-	-
	CHUNG UN(*2)	Korea	December 31	Manufacturing	22.53	22.53		_	-
	Jin Myeong Plus(*2)	Korea	December 31	Manufacturing	22.20	22.20		_	_

## **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

#### 13. Investments in subsidiaries and associates (continued)

(a) Investments in subsidiaries and associates as of December 31, 2022 and 2021, are as follows (continued):

					Owner	smp ( /0)		DUUK	vaiuc
					December 31,	December 31,	De	cember 31,	December 31,
	Investees	Location	Reporting date	Industry sector	2022	2021		2022	2021
Associates	SEOKWANG T&I	Korea	December 31	Manufacturing	28.55	-	W	-	-
	Korea Credit Bureau(*3)	Korea	December 31	Credit information	4.50	4.50		2,250	2,250
	Goduck Gangil1 PFV Co., Ltd(*3)	Korea	December 31	Real estate	1.04	1.04		50	50
	Goduck Gangil10 PFV Co., Ltd(*3)	Korea	December 31	Real estate	14.00	14.00		700	700
	SBC PFV Co., Ltd(*3)(*6)	Korea	December 31	Real estate	12.50	12.50		16,250	16,250
	DDI LVC Master Real Estate Investment Trust Co., Ltd.(*3)(*4)	Korea	December 31	Real estate	15.00	-		6,625	-
	Logisvalley Shinhan REIT Co., Ltd.(*3)(*4)	Korea	December 31	Real estate	14.95	-		2,925	_
	ICSF (The Korea's Information Center for Savings & Finance)	Korea	December 31	Service	32.26	32.26		156	156
	Shinhan-Albatross Technology Investment Fund	Korea	December 31	Investment	33.33	33.33		1,900	3,100
	Shinhan-Neoplux Energy Newbiz Fund	Korea	December 31	Investment	23.33	23.33		10,651	10,940
	Starsets-DA Value Healthcare Fund I	Korea	December 31	Investment	24.10	24.10		508	614
	Shinhan SKS Corporate Recovery Private Equity Fund	Korea	December 31	Investment	23.99	23.99		8,980	4,015
	BTS 2nd Private Equity Fund(*4)	Korea	December 31	Investment	20.00	-		3,026	_
	Shinhan global flagship venture fund 1(*4)	Korea	December 31	Investment	45.00	-		18,000	_
	Korea Digital Asset Custody(*3)	Korea	December 31	Service	14.09	14.98		505	505
	Shinhan VC Tomorrow Venture Fund 1	Korea	December 31	Investment	21.74	21.74		15,000	5,000
							W	2,330,159	2,281,634

Ownership (%)

**Book value** 

<sup>(\*1)</sup> It can exert significant influence through important business transactions with the Bank, it has been reclassified into the investments in associates.

<sup>(\*2)</sup> In the course of the rehabilitation process, the shares were acquired through debt-equity swap. 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.

<sup>(\*3)</sup> Although it holds less than 20% of shares, the equity method is applied for evaluation since it has significant impact on the investee, such as participation in their decision making.

<sup>(\*4)</sup> It is newly acquired or newly incorporated as investments in associates for the year ended December 31, 2022.

<sup>(\*5)</sup> It is excluded from associates due to partial repayment for the year ended December 31, 2022.

<sup>(\*6)</sup> The percentage of voting rights held is 4.65%.

<sup>(\*7)</sup> Due to a drop in recoverable amount, PT Bank Shinhan Indonesia recognized an impairment of \square\$56,021 million for the year ended December 31, 2021.

<sup>(\*8)</sup> It is excluded from associates due to disposals for the year ended December 31, 2022.

#### **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

#### 14. <u>Investment properties</u>

(a) Investment properties as of December 31, 2022 and 2021 are as follows:

			December 31, 2022				
		Accumulated					
	_	Acquisition cost	depreciation	Book value			
Land	W	438,660	<u>-</u>	438,660			
Buildings		285,005	(126,263)	158,742			
	<b>w</b>	723,665	(126,263)	597,402			

		December 31, 2021	
		Accumulated	
	Acquisition cost	depreciation	Book value
W	452,311	_	452,311
	257,432	(106,908)	150,524
W	709,743	(106,908)	602,835
	_	¥ 452,311 257,432	Acquisition cost         depreciation           ₩         452,311           257,432         (106,908)

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

		<b>December 31, 2022</b>			
		Land	Buildings	Total	
Beginning balance	W	452,311	150,524	602,835	
Acquisition		-	5,995	5,995	
Depreciation		-	(12,465)	(12,465)	
Amounts transferred from (to) property and equipment		(12,703)	15,830	3,127	
Amounts transferred to assets held for sale		(948)	(1,142)	(2,090)	
Ending balance	W	438,660	158,742	597,402	

	<b>December 31, 2021</b>		
	Land	Buildings	Total
W	454,486	155,599	610,085
	-	2,739	2,739
	-	(12)	(12)
	=	(12,248)	(12,248)
	(4,177)	4,209	32
_	2,002	237	2,239
₩	452,311	150,524	602,835
	· · · · · · · · · · · · · · · · · · ·	₩ 454,486 - - - (4,177) 2,002	Land     Buildings       ₩     454,486     155,599       -     2,739       -     (12)       -     (12,248)       (4,177)     4,209       2,002     237

(c) Fair value of investment properties as of December 31, 2022 and 2021 are as follows:

		<b>December 31, 2022</b>	<b>December 31, 2021</b>	
Investment properties (*)	W	732,849	703,067	

- (\*) Fair value of investment properties is estimated based on the recent market transactions and certain significant unobservable inputs. Accordingly, fair value of investment properties is classified as level 3.
- (d) Income and expenses on investment properties for the years ended December 31, 2022 and 2021 are as follows:

		<b>December 31, 2022</b>	<b>December 31, 2021</b>
Rental income	W	26,642	24,236
Direct operating expenses for investment			
properties that generate rental income		6,325	4,985

#### **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

#### 15. Other assets

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

		<b>December 31, 2022</b>	<b>December 31, 2021</b>
Accounts receivable	W	6,532,095	7,093,427
Domestic exchange settlement receivable		5,693,750	6,646,920
Guarantee deposits		792,967	905,818
Accrued income		1,783,857	1,327,712
Prepaid expense		96,047	78,918
Suspense payments		370,112	272,743
Sundry assets		164,341	65,762
Others		4,900	8,596
Present value discount		(39,637)	(24,498)
Allowance for impairment		(265,643)	(158,726)
	W	15,132,789	16,216,672

#### 16. Non-current assets held for sale

(a) Non-current assets held for sale as of December 31, 2022 and 2021 are as follows:

The Bank classified property and equipment which are highly expected to be sold within one year from December 31, 2022, as non-current assets held for sale. There is no non-current assets held for sale as of December 31, 2022 and 2021.

(b) The cumulative income or loss recognized in other comprehensive income

There are no cumulative income or loss recognized in other comprehensive income relating to non-current assets held for sale as of December 31, 2022 and 2021.

#### **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

#### 17. Pledged assets

(a) Assets pledged as collateral as of December 31, 2022 and 2021 are as follows:

		<b>December 31, 2022</b>	<b>December 31, 2021</b>	Reasons for collateral
Securities(*1)				
Securities at FVTOCI	₩	6,800,795	2,338,898	Borrowings, Settlement security for Bank of Korea, Borrowing securities, etc Borrowings, Settlement
Securities at amortized cost		15,064,412	16,279,257	security for Bank of Korea, Customer RP, etc
		21,865,207	18,618,155	
				Establishment of the right to
Property and Equipment(*2)		4,246	4,041	pledge, etc
	₩	21,869,453	18,622,196	

<sup>(\*1)</sup> The carrying amounts of assets pledged as collateral that the third party had the right to sell or repledge regardless of the Bank's default as of December 31, 2022 and 2021 are \(\pi\) 911,672 million and \(\pi\) 606,432 million, respectively. (\*2) The amounts are based on the notification amount of pledge.

(b) The fair value of collateral held that the Bank has the right to sell or repledge regardless of pledger's default as of December 31, 2022 and 2021 are as follows:

		Decem	ber 31, 2022	<b>December 31, 2021</b>		
		Collateral held	Collateral sold or repledged	Collateral held	Collateral sold or repledged	
Securities	W	3,750,199	-	2,163,744	=	

#### **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

#### 18. Financial liabilities designated at FVTPL

(a) Financial liabilities designated at FVTPL as of December 31, 2022 and 2021, are as follows:

Classification (*1)		<b>December 31, 2022</b>	<b>December 31, 2021</b>	
Debt securities issued (*2)	W	47,327		-

- (\*1) In accordance with K-IFRS No. 1109 'Financial Instruments', the Bank has designated debt securities issued that are permitted to designate financial liabilities at FVTPL.
- (\*2) The carrying amount of financial liabilities designated at FVTPL was calculated based on the option valuation model.
- (b) The difference between the carrying amount of financial liabilities designated at FVTPL and the amount required to be paid at contractual maturity as of December 31, 2022 are as follows and there is no amount for the year ended December 31, 2021.

		December 31, 2022				
		Redemption amount	Carrying	Difference		
		on a contractual maturity	amounts	Difference		
Debt securities issued	W	50,000	47,327	2,673	_	

(c) The details of net gain or loss (excluding interest income and interest expenses) related to financial liabilities designated at FVTPL for the year ended December 31, 2022 are as follows and there is no amount for the year ended December 31, 2021.

			<b>December 31, 2022</b>	
	•	Gain or loss on valuation	Gain or loss on sale	Total
Debt securities issued	W	2,673		2,673

## **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

#### 19. Deposits

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

		<b>December 31, 2022</b>	<b>December 31, 2021</b>
Demand deposits:			
Korean won	W	130,933,700	150,311,797
Foreign currencies		16,060,690	12,683,018
		146,994,390	162,994,815
Time deposits:			
Korean won		162,344,292	131,674,963
Foreign currencies		8,758,892	5,284,703
Gain on fair value hedge		(187,527)	(93,765)
		170,915,657	136,865,901
Negotiable certificates of deposits		13,010,355	15,073,359
Note discount deposits		6,631,857	5,818,001
CMA		4,634,010	5,246,478
Others		16,694	17,646
	W	342,202,963	326,016,200

#### 20. Financial liabilities at fair value through profit or loss

(a) Financial liabilities at FVTPL as of December 31, 2022 and 2021, are as follows:

	<b>December 31, 2022</b>		<b>December 31, 2021</b>			
	Interest rate (%)		Amount	Interest rate (%)		Amount
Securities sold: Equity securities	-	— ₩	2,958	-	w	2,203
Gold/Silver deposits	-		422,006	_		581,459
•		W	424,964		W	583,662

(b) Net gain (loss) on financial liabilities at FVTPL for the years ended December 31, 2022 and 2021 are as follows:

	-	December 31, 2022	December 31, 2021
Securities sold:	·		
Gain on sale	$\mathbf{W}$	1,430	-
Loss on sale		(794)	-
Gain on valuation		· -	30
Loss on valuation	-	(44)	(27)
Gold/Silver deposits:			
Gain on sale		3,535	3,937
Loss on sale		(810)	(446)
Loss on valuation		(38,997)	(26,224)
	₩ <sub>=</sub>	(35,680)	(22,730)

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

(In millions of Korean won)

#### 21. Borrowings

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

	<b>December 31, 2022</b>			<b>December 31, 2021</b>		
	Interest rate (%)		Amount	Interest rate (%)		Amount
Call money:						
Foreign currencies	$0.67 \sim 6.30$	W	653,509	(-)0.20~ 0.35	W	1,072,657
		_	653,509		_	1,072,657
Bill sold	0.00~3.95	_	15,057	0.00~ 1.47	_	9,032
Bonds sold under repurchase						
agreements:						
Korean won	$0.00 \sim 3.21$		1,264	$0.00 \sim 1.12$		1,175
Foreign currencies	5.15~6.50		82,827	5.15		81,402
		_	84,091		-	82,577
Borrowings in Korean won:		_			-	
Borrowings from Bank of Korea	$0.25 \sim 1.75$		4,999,051	0.25		5,150,101
Others	$0.00 \sim 3.70$		8,078,754	$0.00 \sim 3.70$		7,340,134
			13,077,805		-	12,490,235
Borrowings in foreign currencies:		_			-	
Overdraft due to banks	-		46,074	-		42,412
Borrowings from banks	$0.00 \sim 5.65$		7,283,800	(-)0.49~1.34		4,772,245
Sub-lease	$0.00 \sim 2.28$		8,719	0.00		9,994
Others	$0.91 \sim 5.36$	_	2,503,462	$0.18 \sim 0.45$	_	1,865,903
		_	9,842,055		_	6,690,554
Deferred origination fees			(2,391)		_	(34)
		W	23,670,126		W	20,345,021

#### 22. <u>Debt securities issued</u>

Debt securities issued as of December 31, 2022 and 2021, are as follows:

	Decen	<b>December 31, 2022</b>		December 3		31, 2021	
	Interest		_	Interest			
	rate (%)		Amount	rate (%)		Amount	
Debt securities issued in Korean won:							
Debt securities issued	0.05~4.59	W	20,510,890	$0.79 \sim 8.00$	W	24,680,890	
Subordinated debt securities issued	2.20~3.98		2,460,125	2.20~4.60		3,860,125	
Loss on fair value hedges			(348,700)			(122,069)	
Discount on debt securities issued			(12,474)			(14,726)	
			22,609,841		-	28,404,220	
Debt securities issued in foreign currencies:		_	_				
Debt securities issued	0.25~6.02		5,611,828	0.25~3.88		4,149,877	
Subordinated debt securities issued	3.75~5.00		3,068,059	3.75~5.00		2,299,631	
Gain (loss) on fair value hedges			(324,901)			130,392	
Discount on debt securities issued			(29,614)			(27,258)	
		_	8,325,372			6,552,642	
		W	30,935,213		W	34,956,862	

## **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

#### 23. Defined benefit liabilities

The Bank operates a defined benefit pension system based on employees' length of service. The Bank also trusts plan assets in trust companies, fund companies and other similar companies.

(a) Defined benefit plan assets and liabilities

Defined benefit plan assets and liabilities as of December 31, 2022 and 2021, are as follows:

	_	<b>December 31, 2022</b>	<b>December 31, 2021</b>
Present value of defined benefit obligations	W	1,388,849	1,584,830
Fair value of plan assets	_	(1,919,023)	(1,703,164)
Net defined benefit assets	₩ _	530,174	118,334

(b) Changes in the present value of defined benefit obligations the years ended December 31, 2022 and 2021 are as follows:

	<b>December 31, 2022</b>	December 31, 2021
Beginning balance \text{\text{\text{\W}}}	1,584,830	1,576,227
Current service cost	122,877	124,827
Interest expense	52,716	47,385
Remeasurements (*1)(*2)	(293,413)	(73,914)
Benefits paid by the plan	(82,951)	(95,950)
Others	4,790	5,055
Past service cost	-	1,200
Ending balance \text{\text{\text{\$\psi}}}	1,388,849	1,584,830

<sup>(\*1)</sup> Remeasurements for the year ended December 31, 2022 consist of \(\precenture{\psi}\)326,395 million of actuarial gain arising from changes in financial assumptions, \(\psi\)33,175 million of actuarial loss arising from changes in experience adjustments and \(\psi\)193 million of actuarial gain arising from changes in demographic assumptions.

(c) Changes in the fair value of plan assets the years ended December 31, 2022 and 2021 are as follows:

		December 31, 2022	December 31, 2021
Beginning balance	W	1,703,164	1,590,977
Interest income		58,657	49,551
Remeasurements		(26,111)	(27,024)
Contributions paid into the plan		261,000	177,000
Benefits paid by the plan		(77,687)	(87,340)
Ending balance	W	1,919,023	1,703,164

(d) The amount of major categories of the fair value of plan assets as of December 31, 2022 and 2021 are as follows:

		<b>December 31, 2022</b>	<b>December 31, 2021</b>
Deposits	W	1,719,109	1,532,588
Others		199,914	170,576
	₩	1,919,023	1,703,164

<sup>(\*2)</sup> Remeasurements for the year ended December 31, 2021 consist of \(\mathbb{W}\)65,794 million of actuarial gain arising from changes in financial assumptions, \(\mathbb{W}\)8,120 million of actuarial gain arising from changes in experience adjustments.

## **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

#### 23. Defined benefit liabilities (continued)

(e) Actuarial assumptions as of December 31, 2022 and 2021 are as follows:

	<b>December 31, 2022</b>	December 31, 2021	Descriptions
Discount rate	5.83%	3.48%	AA0 Corporate bond yields
Future salary increasing rate	2.36% + Promotion rate	2.29% + Promotion rate	Average for last 5 years

#### (f) Sensitivity analysis

Sensitivity analysis of the present value fluctuations of defined benefit obligations as of December 31, 2022 and 2021 are as follows:

		December 31	, 2022
		Change in present value when the factor rises by 100 basis points	Change in present value when the factor falls by 100 basis points
Discount rate	W	(113,588)	130,260
Future salary increasing rate		133,606	(118,254)
		December 31	, 2021
		Change in present value when the factor rises by 100 basis points	Change in present value when the factor falls by 100 basis points
Discount rate	₩	Change in present value when the	Change in present value when the factor falls by 100 basis

(g) The maturity analysis of undiscounted retirement benefit payments for the years ended December 31, 2022 and 2021 are as follows:

				Decem	ber 31, 2022		
		1 year or less	1 year~ 2 years or less	2 years~ 5 years or less	5 years~ 10 years or less	More than 10 years	Total
Salary payment amount	W	33,565	67,201	364,100	506,434	1,585,864	2,557,164
				Decem	ber 31, 2021		
		1 year	1 year∼ 2 years	2 years~ 5 years	5 years~ 10 years	More than	Total
		or less	or less	or less	or less	10 years	10001

<sup>(</sup>h) The weighted average durations of defined benefit obligations as of December 31, 2022 and 2021 are 9.3 years and 10.3 years, respectively.

<sup>(</sup>i) The Bank's estimated contribution will be  $\pm$  106,000 million as of December 31, 2022.

## **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

#### 24. Provisions

(a) Changes in provision for unused credit commitments and guarantee contracts issued the years ended December 31, 2022 and 2021 are as follows:

		<b>December 31, 2022</b>							
			ommitments and		C		4-		
		118	abilities for cred		Gua	arantee contr			
			Lifetime expe	cted credit		Lifetime exp	ected credit		
			losse	es	_	losses			
		12-month			12-month	Not			
		expected	Not impaired	Impaired	expected	impaired	Impaired		
		credit	financial	financial	credit	financial	financial		
		losses	asset	asset	losses	asset	asset	Total	
Beginning balance	W	48,059	9,735		100,688	7,108	154	165,744	
Transfer to 12-month									
expected credit losses		3,033	(3,033)	-	1,963	(1,963)	_	-	
Transfer to lifetime									
expected credit losses		(2,460)	2,460	-	(2,442)	2,442	-	-	
Transfer to impaired									
financial asset		(43)	(48)	91	-	-	-	-	
Provision (reversal)		7,261	3,780	(91)	915	349	(167)	12,047	
Foreign exchange									
movements		809	17	-	754	42	10	1,632	
Others (*)			<u> </u>		(10,525)	(128)	3	(10,650)	
Ending balance	₩	56,659	12,911		91,353	7,850		168,773	

<sup>(\*)</sup> These include the new occurrence of guarantee contracts, which are evaluated at the initial fair value, and the effects of changes due to the arrival of maturity and changes in discount rates.

## **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

#### 24. Provisions (continued)

(a) Changes in provision for unused credit commitments and guarantee contracts issued the years ended December 31, 2022 and 2021 are as follows: (continued)

			<b>December 31, 2021</b>							
			ommitments and abilities for cred		C		aata	_		
		112				arantee contr				
			Lifetime expe	cted credit		Lifetime exp	ected credit			
		_	losse	es	_	losses				
		12-month			12-month	Not	<u> </u>			
		expected	Not impaired	Impaired	expected	impaired	Impaired			
		credit	financial	financial	credit	financial	financial			
		losses	asset	asset	losses	asset	asset	Total		
Beginning balance	W	64,862	13,125		107,469	6,779	1,448	193,683		
Transfer to 12-month expected credit losses		3,960	(3,960)	-	1,769	(1,769)	-	-		
Transfer to lifetime expected credit losses		(3,003)	3,003	-	(2,108)	2,943	(835)	-		
Transfer to impaired										
financial asset		(54)	(75)	129	-	-	-	-		
Provision (reversal)		(19,344)	(2,477)	(129)	85	(235)	(662)	(22,762)		
Foreign exchange										
movements		1,638	119	-	1,370	374	130	3,631		
Others (*)		_	<u> </u>		(7,897)	(984)	73	(8,808)		
Ending balance	W	48,059	9,735		100,688	7,108	154	165,744		

<sup>(\*)</sup> These include the new occurrence of guarantee contracts, which are evaluated at the initial fair value, and the effects of changes due to the arrival of maturity and changes in discount rates.

#### **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

#### 24. Provisions (continued)

(b) Changes in other provisions the years ended December 31, 2022 and 2021 are as follows:

	_	December 31, 2022					
	_	Asset		Non-guarantee			
		retirement	Litigation	contracts	Others	Total	
Beginning balance	W	48,862	3,113	25,652	181,475	259,102	
Provision (reversal)		5,826	1,134	47	(51,462)	(44,455)	
Provision used		(6,468)	=	-	(2,168)	(8,636)	
Foreign exchange							
movements		-	=	1,339	319	1,658	
Others (*)		6,277	-	17	(1,391)	4,903	
Ending balance	W	54,497	4,247	27,055	126,773	212,572	
	<del>.</del>						

<sup>(\*)</sup> This is the effect of changing the discount rate.

			December 31, 2021					
	_	Asset		Non-guarantee				
		retirement	Litigation	contracts	Others	Total		
Beginning balance	W	40,884	8,892	20,817	107,469	178,062		
Provision (reversal)		6,779	(672)	3,671	79,421	89,199		
Provision used		(2,415)	(5,107)	-	(5,092)	(12,614)		
Foreign exchange								
movements		-	-	1,165	(634)	531		
Others (*)		3,614	-	(1)	311	3,924		
Ending balance	W	48,862	3,113	25,652	181,475	259,102		
(1) mil 1 1 00	a 1 .							

<sup>(\*)</sup> This is the effect of changing the discount rate.

#### (c) Asset retirement obligation liabilities

Asset retirement obligation liabilities represent the estimated cost to restore the existing leased properties which are 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 the lease contract. Such costs are reasonably estimated using the average lease period and the average restoration expenses. The average lease period 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.

#### **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

#### 25. Other liabilities

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

		<b>December 31, 2022</b>	<b>December 31, 2021</b>
Accounts payable	W	6,657,466	7,265,027
Borrowing from trust account		6,701,010	5,480,533
Accrued expenses		2,884,292	1,744,875
Liability incurred by agency relationship		1,384,311	1,191,097
Domestic exchange settlement payable		2,233,371	1,811,741
Lease liabilities (*)		274,482	293,662
Agency business income		711,437	875,734
Guarantee deposits received		297,639	228,587
Foreign exchange settlement payables		359,394	221,521
Suspense payable		14,990	24,911
Unearned income		78,050	54,889
Withholding value-added tax and other taxes		183,338	127,830
Dividends payable		965	-
Sundry liabilities		20,701	161,302
Present value discount		(18,465)	(9,077)
	<b>W</b>	21,782,981	19,472,632

<sup>(\*)</sup> For the year ended December 31, 2022, expenses for the variable lease payments that are not included in the measurement of lease liabilities amount to \w12,337 million, the cash outflows from lease liabilities amount to \w164,466 million, and interest expense on lease liabilities amount to \w5,332 million. Expenses for variable lease payments not included in the measurement of lease liabilities for the year ended December 31, 2021 amount to \w79 million, cash outflows from lease liabilities amount to \w178,686 million, and interest expense on lease liability amounts to \w4,505 million.

## **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

#### 26. Equity

(a) Equity as of December 31, 2022 and 2021, are as follows:

		<b>December 31, 2022</b>	December 31, 2021
Capital stock:	_		
Common stock	₩	7,928,078	7,928,078
Other equity instruments:			
Hybrid bonds		2,088,542	1,586,662
Capital surplus:			
Share premium		398,080	398,080
Capital adjustments:			
Stock options		1,744	3,702
Others		4,721	2,990
	_	6,465	6,692
Accumulated other comprehensive income (loss):	_		
Net change in fair value of financial instruments at			
FVTOCI		(1,014,552)	(220,508)
Foreign currency translation differences for foreign		· · · · · · · · · · · · · · · · · · ·	,
operations		(51,203)	(45,998)
Remeasurements of defined benefit plans		(63,229)	(256,163)
Credit risk adjustment of financial liabilities		1	-
•	_	(1,128,983)	(522,669)
Retained earnings:	_	<u> </u>	
Legal reserve (*1)		2,652,548	2,437,255
Voluntary reserve (*2)		14,448,374	13,518,553
Other reserve (*3)		175,898	156,327
Unappropriated retained earnings (*4)		2,569,738	2,064,685
	_	19,846,558	18,176,820
	W	29,138,740	27,573,663
	_		

<sup>(\*1)</sup> According to the Article 40 of the Banking Act, the Bank is required to appropriate an amount equal to a minimum of 10% of cash dividends paid for each accounting period as a legal reserve, until such reserve equals 100% of issued capital. The legal reserve is only available to be used to reduce accumulated deficit or transfer to capital stock.

<sup>(\*2)</sup> The amounts include a regulatory reserve for loan loss of 42,559,855 million and 42,276,212 million as of December 31, 2022 and 2021, respectively. The amounts also include asset revaluation surplus of 4355,898 million as of both December 31, 2022 and 2021.

<sup>(\*3)</sup> Other reserve was established according to the laws applicable to some oversea branches and it may be used only to reduce their deficit.

<sup>(\*4)</sup> The amounts include expected reversal of regulatory reserve for loan loss of \text{\psi}141,679 million and provision for the regulatory reserve for loan loss of \text{\psi}283,643 million as of December 31, 2022 and 2021, respectively.

## **Notes to the Separate Financial Statements**

December 31, 2022 and 2021

(In millions of Korean won, except for share data, par value)

#### 26. Equity (continued)

#### (b) Capital stock

Capital stock of the Bank as of December 31, 2022 and 2021, are as follows:

	<b>December 31, 2022</b>	December 31, 2021
Number of authorized shares	2,000,000,000 shares	2,000,000,000 shares
Par value per share in won	₩5,000	<del>W</del> 5,000
Number of issued shares outstanding	1,585,615,506 shares	1,585,615,506 shares

#### (c) Hybrid bonds

Hybrid bonds as of December 31, 2022 and 2021, are as follows:

			Book va	alue	
Date of issuance	Date of maturity		December 31, 2022	December 31, 2021	Interest rate (%)
Hybrid bonds issued in					
Korean won:					
June 7, 2013	June 7, 2043	₩	299,568	299,568	4.63
June 29, 2017	Perpetual bond		-	129,701	-
June 29, 2017	Perpetual bond		69,844	69,844	3.81
October 15, 2018	Perpetual bond		199,547	199,547	3.70
February 25, 2019	Perpetual bond		299,327	299,327	3.30
February 25, 2020	Perpetual bond		239,459	239,459	2.88
February 25, 2020	Perpetual bond		49,888	49,888	3.08
November 5, 2020	Perpetual bond		299,327	299,328	2.87
May 3, 2022	Perpetual bond		322,277	=	4.50
October 17, 2022	Perpetual bond		309,305	=	5.70
		W	2,088,542	1,586,662	
Dividends on hybrid bond holders		W	64,269	55,248	
Weighted average interest rate (%)			3.57	3.48	

The above hybrid bonds are subject to early redemption option after five years or ten years from the date of issuance, and the maturity can be extended under the same condition at the maturity date.

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

(In millions of Korean won)

#### 26. Equity (continued)

(d) Changes in accumulated other comprehensive income (loss) including reclassification adjustment the years ended December 31, 2022 and 2021 are as follows:

		December 31, 2022					
		Items that are	or may be	Items that will not be			
		reclassified to profit or loss		reclassified to profit or loss			
			Foreign				
		Net change in	currency	Net change in	Remeasur-		
		fair value of	translation	fair value of	ements of	Total	
		financial	differences for	financial	the defined	10141	
		instruments at	foreign	instruments at	benefit		
		FVTOCI	operations	FVTOCI	plans		
Beginning balance	W	(282,341)	(45,998)	61,833	(256,163)	(522,669)	
Change due to fair value							
measurement		(1,124,645)	=	(38,412)	-	(1,163,057)	
Change due to impairment		(3,702)	-	-	-	(3,702)	
Change due to disposal		30,852	=	-	-	30,852	
Effect of hedge accounting		63,480	(30,716)	-	-	32,764	
Effect of foreign currency							
movements		-	24,497	(823)	-	23,674	
Remeasurements of defined							
benefit plans		-	-	-	267,303	267,303	
Amounts transferred from							
retained earnings		-	-	(2,943)	-	(2,943)	
Effect of tax	_	284,354	1,014	(2,204)	(74,369)	208,795	
Ending balance	W	(1,032,002)	(51,203)	17,451	(63,229)	(1,128,983)	

		December 31, 2021					
	-	Items that are	or may be	Items that will not be			
	_	reclassified to	profit or loss	reclassified to pr	rofit or loss		
			Foreign				
		Net change in	currency	Net change in	Remeasur-		
		fair value of	translation	fair value of	ements of	Total	
		financial	differences for	financial	the defined	Total	
		instruments at	foreign	instruments at	benefit		
	_	FVTOCI	operations	FVTOCI	plans		
Beginning balance	₩	71,467	(70,921)	11,556	(290,159)	(278,057)	
Change due to fair value							
measurement		(434,854)	-	23,156	-	(411,698)	
Change due to impairment		11,155	-	-	-	11,155	
Change due to disposal		(74,939)	-	-	-	(74,939)	
Effect of hedge accounting		10,627	(37,527)	-	-	(26,900)	
Effect of foreign currency							
movements		-	71,904	674	-	72,578	
Remeasurements of defined							
benefit plans		=	=	-	46,890	46,890	
Amounts transferred to							
retained earnings		=	=	45,518	-	45,518	
Effect of tax	_	134,203	(9,454)	(19,071)	(12,894)	92,784	
Ending balance	₩	(282,341)	(45,998)	61,833	(256,163)	(522,669)	

## **Notes to the Separate Financial Statements**

December 31, 2022 and 2021

(In millions of Korean won, except for par value per share, dividend per share)

#### 26. Equity (continued)

(e) The appropriation of retained earnings for the year ended December 31, 2022, is expected to be appropriated at the shareholders' meeting on March 22, 2023. The appropriation date for the year ended December 31, 2021, was March 23, 2022.

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

		<b>December 31, 2022</b>	December 31, 2021
Unappropriated retained earnings:			
Balance at beginning of year	$\mathbf{W}$	<del>-</del>	-
Transfer from other comprehensive income			
through the sale of securities at FVTOCI		2,134	(33,001)
Interest on hybrid bond		(64,269)	(55,248)
Profit for the year		2,631,873	2,152,934
		2,569,738	2,064,685
Transfer from reserves:			
Voluntary reserve		11,253,761	10,607,590
Regulatory reserve		141,679	<u> </u>
		11,395,440	10,607,590
Appropriation of retained earnings:			
Legal reserve		263,187	215,294
Regulatory reserve for loan loss		-	283,643
Other reserve		11,590	19,577
Voluntary reserves		12,532,997	11,253,761
Loss on redemption of hybrid bond		299	-
Dividends on common stock		1,157,105	900,000
(Dividend per share in won:			
2022: <del>W</del> 729.75 (14.60%)			
2021: <del>W</del> 567.60 (11.35%)			
		13,965,178	12,672,275
Unappropriated retained earnings to be			
carried over to subsequent year	₩ _	<u> </u>	<u> </u>

#### (f) Dividends

Dividends of common stock for the years ended December 31, 2022 and 2021 are as follows:

	_	December 31, 2022	December 31, 2021
Number of issued shares outstanding		1,585,615,506	1,585,615,506
Par value per share in won	₩	5,000	5,000
Dividend rate per share		14.60%	11.35%
Dividend per share in won	₩	729.75	567.60

#### **Notes to the Separate Financial Statements**

December 31, 2022 and 2021

(In millions of Korean won, except for earnings per share)

#### 26. Equity (continued)

#### (g) Dividend payout ratio

Dividend payout ratio for the years ended December 31, 2022 and 2021 are as follows:

	_	December 31, 2022	<b>December 31, 2021</b>
Dividends	W	1,157,105	900,000
Profit for the year		2,631,873	2,152,934
Dividend payout ratio to profit for the year		43.97%	41.80%
Profit for the year adjusted for regulatory reserve for loan			
loss		2,773,552	1,869,292
Dividend payout ratio to profit for the year adjusted for			
regulatory reserve for loan loss		41.72%	48.15%

#### 27. Regulatory reserve for loan loss

The Bank should calculate and disclose regulatory reserve for loan loss, in accordance with the Article 29-1 and 29-2 of Regulation on Supervision of Banking Business.

(a) The regulatory reserve for loan loss as of December 31, 2022 and 2021, are as follows:

		<b>December 31, 2022</b>	<b>December 31, 2021</b>
Regulatory reserve for loan loss	W	2,559,855	2,276,212
Provision for (reversal of) regulatory reserve for loan loss		(141,679)	283,643
	W	2,418,176	2,559,855

(b) Profit for the year adjusted for regulatory reserve for loan loss and adjusted profit after reflecting regulatory reserve for loan loss for the years ended December 31, 2022 and 2021 are as follows:

		<b>December 31, 2022</b>	<b>December 31, 2021</b>
Provision for (reversal of) regulatory reserve for loan loss	W	(141,679)	283,643
Adjusted profit after reflecting regulatory reserve for loan loss(*)		2,773,552	1,869,292
Adjusted earnings per share after reflecting regulatory reserve for			
loan loss in won		1,709	1,144

<sup>(\*)</sup> The adjusted reserve which reflects abovementioned loan loss is not based on K-IFRS and is calculated by assuming that the provisions of loan loss before income tax effects are reflected in profit for the year.

## **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

#### 28. Net interest income

(a) Net interest income for the years ended December 31, 2022 and 2021 are as follows:

		December 31, 2022	December 31, 2021
Interest income:	<del>-</del>		
Cash and due from banks	W	74,520	11,577
Securities at FVTPL		375,725	163,509
Securities at FVTOCI		789,659	506,877
Securities at amortized cost		528,522	384,372
Loans(*)		10,919,766	7,282,071
Others		55,789	38,574
	<del>-</del>	12,743,981	8,386,980
Interest income from impaired financial assets	_	16,737	15,897

<sup>(\*)</sup> Interest income from loans at FVTPL for the years ended December 31, 2022 and 2021 are \$43,497 million and \$48,362 million, respectively.

(b) Net interest expense for the years ended December 31, 2022 and 2021 are as follows:

		December 31, 2022	December 31, 2021
Financial liabilities at amortized cost(*)	_	·-	
Deposits		4,214,452	1,857,093
Borrowings		399,371	134,658
Debt securities issued		778,377	525,261
Others		112,339	32,125
	-	5,504,539	2,549,137
Financial liabilities designated at fair value	-		
Debt securities issued		1,296	-
	$\mathbf{W}^{-}$	5,505,835	2,549,137

<sup>(\*)</sup> There is no interest expense on financial liabilities at fair value through profit or loss for the years ended December 31, 2022 and 2021.

## **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

#### 29. Net fees and commission income

Net fees and commission income for the years ended December 31, 2022 and 2021 are as follows:

		<b>December 31, 2022</b>	<b>December 31, 2021</b>
Fees and commission income:			
Credit placement fees	₩	56,812	62,691
Commission received as electronic			
charge receipt		148,744	149,859
Brokerage fees		62,454	92,693
Commission received as agency		263,514	269,198
Investment banking fees		114,377	108,836
Commission received in foreign			
exchange activities		116,216	112,452
Asset management fees from trust accounts		195,950	204,936
Guarantee fees		93,294	79,868
Others		123,953	128,575
	W	1,175,314	1,209,108
Fees and commission expense:	•		
Credit-related fees	W	33,833	35,382
Brand-related fees		45,850	42,279
Service-related fees		45,900	44,004
Trading and brokerage fees		9,450	8,093
Commission paid in foreign			
exchange activities		27,723	20,466
Others		117,835	107,862
	W	280,591	258,086

#### 30. Dividend income

Dividend income for the years ended December 31, 2022 and 2021 are as follows:

		December 31, 2022	December 31, 2021
Securities at FVTPL	₩	292	593
Securities at FVTOCI (*)		18,253	16,399
	₩	18,545	16,992

<sup>(\*)</sup> Dividend income for stocks disposed For the year ended December 31, 2022 is \text{\text{W}982} million and dividend income for stocks disposed For the year ended December 31, 2021 is \text{\text{W}840} million.

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

(In millions of Korean won)

## 31. Gain and loss on financial instruments at fair value through profit or loss

Gain and loss on financial instruments at FVTPL for the years ended December 31, 2022 and 2021 are as follows:

	<b>December 31, 2022</b>	December 31, 2021
Financial instruments at FVTPL Debt:		
Gain on valuation of debt securities	<del>W</del> 178,414	209,183
Gain on sale of debt securities	59,951	42,668
Loss on valuation of debt securities	(124,573)	(107,024)
Loss on sale of debt securities	(121,986)	(71,783)
Others	168,313	156,862
	160,119	229,906
Equity:		
Gain on valuation of equity securities	6,386	11,395
Gain on sale of equity securities	8,387	13,857
Loss on valuation of equity securities	(4,578)	(1,421)
Loss on sale of equity securities	(6,771)	(4,333)
	3,424	19,498
Gold/Silver:	• 000	0.016
Gain on valuation of gold/Silver deposits	2,089	9,316
Gain on sale of gold/Silver deposits	3,535	3,937
Loss on valuation of gold/Silver deposits	(38,997)	(26,224)
Loss on sale of gold/Silver deposits	(810)	(446)
Loans at FVTPL:	(34,183)	(13,417)
Gain on valuation of loans	170	2,824
Gain on valuation of loans	12,182	14,698
Loss on valuation of loans	(143)	(3,252)
Loss on variation of totals  Loss on sale of loans	(3,640)	(3,163)
Loss on sale of founs	8,569	11,107
	137,929	247,094
Derivatives		
Foreign currency related:	14550005	0.015.000
Gain on valuation and transaction	14,750,325	8,017,928
Loss on valuation and transaction	(14,932,919)	(7,891,509)
•	(182,594)	126,419
Interest rates related:	1 452 005	756 620
Gain on valuation and transaction	1,453,895	756,620
Loss on valuation and transaction	(1,268,029)	(753,133)
Equity related:	185,866	3,487
Gain on valuation and transaction	29,314	10,988
Loss on valuation and transaction	(12,006)	(17,511)
Zess en varianten und transcuonen	17,308	(6,523)
Commodity related:	<del></del>	
Gain on valuation and transaction	33,518	8,752
Loss on valuation and transaction	(31,741)	(13,432)
	1,777	(4,680)
	22,357	118,703
Net gain on financial instruments at FVTPL	₩ <u>160,286</u>	365,797

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

(In millions of Korean won)

#### 32. General and administrative expenses

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

		<b>December</b> 31, 2022	December 31, 2021
Employee benefits:		31, 2022	31, 2021
Short and long-term employee benefits	₩	1,853,364	1,753,180
Post-employee defined benefits		116,963	123,903
Post-employee defined contributions		332	259
Termination benefits		133,580	128,534
		2,104,239	2,005,876
Amortization:			
Depreciation		138,669	109,842
Amortization of intangible assets		62,608	47,108
Depreciation of right-of-use assets		169,618	189,475
		370,895	346,425
Other general and administrative expenses:			
Rent		51,441	49,713
Service contract expenses		255,737	222,054
Taxes and dues		108,787	80,658
Advertising		154,239	95,466
Electronic data processing expenses		55,498	49,974
Others		187,100	155,949
		812,802	653,814
	₩	3,287,936	3,006,115

## **Notes to the Separate Financial Statements**

December 31, 2022 and 2021

#### 33. Share-based payments

(a) Equity-settled share-based payments

i) Equity-settled share-based payments as of December 31, 2022 are as follows:

Type Equity-settled share-based payment(\*)
Service period Upon appointment and promotion since January 1, 2014
(Within 1 year from grant date)
Performance conditions Linked to relative stock price (20.0%) and management index for 4 years (80.0%)

(\*) The Bank granted shares of Shinhan Financial Group. According to the commitment, the amount that the Bank pays to the Shinhan Financial Group is recognized as liabilities, and the difference between the amount recognized as liabilities and the compensation cost based on equity-settled share-based payments is recognized in equity.

#### **Notes to the Separate Financial Statements**

December 31, 2022 and 2021

(In millions of Korean won, except for estimated shares)

#### 33. Share-based payments (continued)

- (b) Equity-settled share-based payments (continued)
- ii) Granted shares and the fair value of grant date as of December 31, 2022 are as follows:

		Fair value (*1)	
Grant date	Grant shares	(in won)	Estimated shares (*2)
January 1, 2017	217,300	45,300	9,366
January 23, 2017	2,700	45,600	2,536
March 7, 2017	17,400	46,950	14,300
January 1, 2018	225,070	49,400	27,349
January 24, 2018	1,275	52,700	992
January 1, 2019	296,226	39,600	254,973
March 26, 2019	23,410	42,750	16,725
April 1, 2019	3,696	43,750	2,583
June 1, 2019	2,839	44,450	1,487
July 4, 2019	7,392	44,450	3,406
July 8, 2019	3,696	43,650	1,666
-	801,004		335,383

<sup>(\*1)</sup> The fair value per share is evaluated based on the closing price of Shinhan Financial Group at each grant date. As of December 31, 2022, the fair value per share data evaluated by Shinhan Financial Group amounted to \(\mathbb{W}\)35,200.

<sup>(\*2)</sup> Grant shares at grant date were adjusted pursuant to increase rate of stock price (20.0%) and achievement of target ROE (80.0%) based on standard quantity applicable to the days of service among specified period of service, which allows the determination of acquired quantity at the end of the operation period.

## **Notes to the Separate Financial Statements**

December 31, 2022 and 2021

(In millions of Korean won, except for estimated shares, fair value per share)

#### 33. Share-based payments (continued)

(b) Details of performance-based stock compensation as of December 31, 2022 are as follows:

	Expired	Not expired	
Туре	Cash-settled share-based payment		
Performance conditions	Relative stock price linker index (60.0%), and price	ed (20.0%), management udential index (20.0%)	
Exercising period	4 years from the commencement date of the years to which the grant date belongs		
Grant shares	973,	960	
Estimated number of shares vested at December 31, 2022	-	877,393	
Fair value per share in Korean won	35,2	000	

(\*) 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 months, 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.

(c) Stock compensation costs calculated for the years ended December 31, 2022 and 2021 are as follows:

		<b>December 31, 2022</b>	<b>December 31, 2021</b>
Compensation costs recorded for the year	₩	11,427	13,232

(d) Accrued expenses of the stock compensation costs and residual compensation costs as of December 31, 2022 and 2021 are as follows:

	_	December 31, 2022	<b>December 31, 2021</b>
Accrued expenses	W	42,341	39,630

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

(In millions of Korean won)

## 34. Net other operating expenses

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

		December 31, 2022	December 31, 2021
Other operating income	•		
Gain on sale of assets:			
Loans at amortized cost	W	11,428	11,860
Loans written off		1,062	-
	-	12,490	11,860
Others:	•	_	
Gain on hedge activity from hedged items		776,107	289,733
Gain on hedge activity from hedging instruments		78,065	16,421
Others		25,706	48,518
	•	879,878	354,672
	•	892,368	366,532
Other operating expense	-		
Loss on sale of assets:			
Loans at amortized cost		3,826	-
Others:			
Loss on hedge activity from hedged items		75,233	19,359
Loss on hedge activity from hedging instruments		811,225	294,567
Provision for allowance for acceptances and guarantee		47	3,671
Provision for other allowance		6,882	4,894
Contribution to fund		430,699	388,765
Deposit insurance fee		408,069	388,552
Others		305,034	217,680
	-	2,037,189	1,317,488
	•	2,041,015	1,317,488
Net other operating expenses	W	(1,148,647)	(950,956)

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

(In millions of Korean won)

## 35. Net non-operating income (expenses)

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

		<b>December 31, 2022</b>	<b>December 31, 2021</b>
Non-operating income			
Gain on sale of assets:			
Property and equipment	W	43	280
Intangible assets		273	-
Non-current assets held for sale		4,990	15,786
	<u></u>	5,306	16,066
Investments in associates:			_
Dividend income		1,873	15,508
Gain from disposal		-	2,215
		1,873	17,723
Others:			
Rental income on investment property		26,642	24,236
Others		26,117	32,137
		52,759	56,373
		59,938	90,162
Non-operating expenses			
Loss on sale of assets:			
Property and equipment		3	36
Intangible assets		91	-
Non-current assets held for sale		150	<u> </u>
		244	36
Investments in associates:			
Impairment loss		-	56,022
Others:			
Investment properties depreciation		12,465	12,248
Donations		40,762	42,124
Others		90,189	246,424
		143,416	300,796
		143,660	356,854
Net non-operating expenses	<del>W</del>	(83,722)	(266,692)

## **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

#### 36. Operating revenue

Operating revenue for the years ended December 31, 2022 and 2021 are as follows:

		December 31, 2022	December 31, 2021
Interest income	W	12,743,981	8,386,980
Fees and commission income		1,175,314	1,209,108
Dividend income		18,545	16,992
Gain on financial instruments at FVTPL		16,706,480	9,259,028
Net gain on financial instruments designated at fair value			
through profit		2,673	=
Foreign currencies transaction gain		2,261,670	2,864,594
Gain on disposal of securities at FVTOCI		6,486	71,018
Gain on disposal of securities at amortized cost		5	24
Reversal of provisions for guarantees		-	811
Reversal of provisions for unused credit limit		-	21,950
Other operating income		892,368	366,532
	₩	33,807,522	22,197,037

#### 37. Income tax expense and deferred taxes

(a) Details of income tax expense for the years ended December 31, 2022 and 2021 are as follows:

		December 31,	December 31,
		2022	2021
Current income tax expense	₩	885,074	660,404
Deferred taxes arising from changes in temporary differences(*)		(200,601)	(16,049)
Deferred taxes arising from utilization of expired unused tax losses(*)		42,329	14,522
Tax adjustment charged or credited directly to equity(*)		208,801	94,317
Income tax expense	₩	935,603	753,194
	1 6000	0 0 0	CC 4 C 1 1 1

<sup>(\*)</sup> The tax rate was changed due to amendments of the tax law at the end of 2022, reflecting the effect of changing the tax rate on deferred tax assets (liabilities) expected to be realized after 2023.

(b) The income tax expense calculated by applying statutory tax rates to the Bank's taxable income differs from the actual tax expense in the separate statements of income for the years ended December 31, 2022 and 2021 for the following reasons:

		December 31, 2022	December 31, 2021
Profit before income tax	W	3,567,476	2,906,128
Statutory tax rate		27.50%	27.50%
Income tax expense at statutory tax rates	•	970,694	788,823
Adjustments:		(679)	(476)
Non-taxable income		7,462	6,855
Non-deductible expense		(45,223)	(34,142)
Decrease resulting from consolidated corporate tax system		(629)	6,281
Income tax paid(refund)		3,978	(14,147)
Others(impact of tax rate change, etc.)		935,603	753,194
Income tax expense	W	26.23%	25.92%
Effective tax rate	•		

## **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

#### 37. Income tax expense and deferred taxes (continued)

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

		<b>December 31, 2022</b>			
				Other	_
		Beginning		comprehensive	Ending
		Balance	Profit or loss	income (loss)	Balance(*3)
Accrued income	₩	(186,356)	1,642	-	(184,714)
Accounts receivable		(26,660)	2,888	-	(23,772)
Securities at FVTPL		125,762	(32,243)	-	93,519
Investments in associates and			` '		
subsidiaries		59,039	(2,147)	-	56,892
Deferred loan origination costs and					
fees		(150,107)	16,834	-	(133,273)
Revaluation and depreciation on		(112 =0=)	< 0. <b>-</b> 4		(406000)
property and equipment		(113,787)	6,854	-	(106,933)
Derivative liabilities		(88,483)	40,212	-	(48,271)
Deposits		24,430	12,617	-	37,047
Accrued expenses		57,468	33,833	-	91,301
Defined benefit obligations		406,345	13,087	(79,526)	339,906
Plan assets		(468,370)	(15,251)	5,158	(478,463)
Other provisions		80,087	(12,489)	-	67,598
Allowance for guarantees and					
acceptance		36,740	(3,282)	-	33,458
Allowance for advanced depreciation		(48,712)	1,775	-	(46,937)
Allowance for expensing depreciation		(273)	71	-	(202)
Net change in fair value of securities					
at FVTOCI		83,641	-	282,150	365,791
Donation payables		36,114	925	-	37,039
Allowance and bad debt		342	(667)	-	(325)
Compensation expenses associated					
with stock option		22	(1)	-	21
Fictitious dividends		16,613	455	-	17,068
Others		118,147	(72,194)	1,019	46,972
	₩	(37,998)	(7,081)	208,801	163,722
Expired unused tax losses					
Appropriation by extinctive					
prescription of deposit	W	251,364	(42,329)	-	209,035
Temporary differences not					
qualified for deferred tax assets or					
liabilities					
Investments in associates and		40.017	1 100		42.227
Subsidiaries (*1)(*2)	117	42,216	1,120	-	43,336
	₩	171,150	(50,530)	208,801	329,421

<sup>(\*1)</sup> The effect of corporate tax by equity method evaluation is reasonably estimated by each investment company of the associates considering the applicable amount and feasibility of deferred tax.

<sup>(\*2)</sup> The temporary difference in deferred tax assets not recognized in relation to investment assets in associates is \times 192,508 million and \times 192,508 million for the years ended December 31, 2022 and 2021, respectively. And the temporary difference in deferred tax liabilities not recognized in relation to investment assets in associates is \times 28,977 million and \times 38,995 million for the years ended December 31, 2022 and 2021, respectively.

<sup>(\*3)</sup> The tax rate was changed due to amendments of the tax law at the end of 2022, Income tax rate was changed, and accordingly, 26.5% of deferred tax assets (liabilities) expected to be realized after 2023 were applied.

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

(In millions of Korean won)

## 37. Income tax expense and deferred taxes (continued)

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

		December 31, 2021			
				Other	
		Beginning		comprehensive	Ending
		Balance	Profit or loss	income (loss)	balance
Accrued income	W	(167,249)	(19,107)	-	(186,356)
Accounts receivable		(29,158)	2,498	-	(26,660)
Securities at FVTPL		137,285	(11,523)	-	125,762
Investments in associates and					
subsidiaries		40,867	18,172	-	59,039
Deferred loan origination costs and		(120,001)	(12.016)		(150 107)
fees		(138,091)	(12,016)	-	(150,107)
Revaluation and depreciation on property and equipment		(113,038)	(749)		(113,787)
Derivative liabilities		(27,476)	(61,007)	_	(88,483)
Deposits		27,632	(3,202)	-	24,430
Accrued expenses		57,554	(86)	_	57,468
Defined benefit obligations		402,461	24,211	(20,327)	406,345
Plan assets		(429,598)	(46,204)	7,432	(468,370)
Other provisions		64,689	15,398	7,432	80,087
Allowance for guarantees and		04,089	13,396	-	80,087
acceptance		37,541	(801)	_	36,740
Allowance for advanced depreciation		(48,712)	-	_	(48,712)
Allowance for expensing depreciation		(337)	64	_	(273)
Net change in fair value of securities		(337)	0.1		(273)
at FVTOCI		(31,491)	-	115,132	83,641
Donation payables		16,562	19,552	-	36,114
Allowance and bad debt		(1,557)	1,899	-	342
Compensation expenses associated		, ,			
with stock option		22	-	-	22
Fictitious dividends		16,168	445	-	16,613
Others		113,706	12,361	(7,920)	118,147
	₩	(72,220)	(60,095)	94,317	(37,998)
Expired unused tax losses					
Appropriation by extinctive					
prescription of deposit	₩	265,886	(14,522)	-	251,364
Temporary differences not qualified for deferred tax assets or					
liabilities					
Investments in associates and					
Subsidiaries (*)		24,044	18,172		42,216
	W	169,622	(92,789)	94,317	171,150

<sup>(\*)</sup> The effect of corporate tax by equity method evaluation is reasonably estimated by each investment company of the associates considering the applicable amount and feasibility of deferred tax.

## **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

## 37. Income tax expense and deferred taxes (continued)

(d) Changes in tax effects that are directly charged or credited to equity for the years ended December 31, 2022 and 2021 are as follows:

		<b>December 31, 2022</b>		December	<b>December 31, 2021</b>			
		Amount before tax	Tax effects	Amount before tax	Tax effects	Changes in tax effects		
Net change in fair value of securities at FVTOCI Foreign currency translation differences for foreign	₩	(1,380,342)	365,791	(304,149)	83,641	282,150		
operations		(69,665)	18,460	(63,445)	17,447	1,013		
Remeasurements of defined benefit plans Capital adjustments	₩ <u>_</u>	(86,026) 2,373 (1,533,660)	22,797 (629) 406,419	(353,329) 5,106 (715,817)	97,165 (1,404) 196,849	(74,368) 6 208,801		
		December	31, 2022	Decembe	r 31, 2021			
		Amount	TD ee 4	Amount		Changes in		
Net change in fair value of	_	before tax	Tax effects	before tax	Tax effects	tax effects		
securities at FVTOCI Foreign currency translation differences for foreign	₩	(304,149)	83,641	114,514	(31,491)	115,132		
operations		(63,445)	17,447	(97,822)	26,901	(9,454)		
Remeasurements of defined benefit plans		(353,329)	97,165	(400,219)	110,060	(12,895)		
Capital adjustments	W	5,106 (715,817)	(1,404) 196,849	10,683 (372,844)	(2,938) 102,532	1,534 94,317		

(e) The current tax assets and liabilities as of December 31, 2022 and 2021 are as follows:

	I	December 31, 2022	<b>December 31, 2021</b>
Current tax assets: Prepaid income taxes	₩	6,039	8,641
Current tax liabilities:			
Payable due to consolidated tax system		426,134	270,804
Income taxes payables		15,468	14,318
	<u> </u>	441,602	285,122

(f) The deferred tax assets / liabilities and current tax assets / liabilities presented on a gross basis prior to any offsetting as of December 31, 2022 and 2021 are as follows:

	_	<b>December 31, 2022</b>	<b>December 31, 2021</b>
Deferred tax assets	₩	3,041,865	2,183,834
Deferred tax liabilities		2,712,444	2,012,684
Current tax assets		431,710	345,780
Current tax liabilities		867,273	622,261

## **Notes to the Separate Financial Statements**

December 31, 2022 and 2021

(In millions of Korean won, except for earnings per share, share data)

#### 38. Earnings per share

(a) The calculation details of earnings per share for the years ended December 31, 2022 and 2021 are as follows:

	<b>December 31, 2022</b>		<b>December 31, 2021</b>	
Profit for the year	W	2,631,873	2,152,934	
Less: dividends on hybrid bonds		(64,269)	(55,248)	
Profit available for common stock	W	2,567,604	2,097,686	
Weighted average number of common		1,585,615,506	1,585,615,506	
shares outstanding		shares	shares	
Basic and diluted earnings per share in won	₩	1,619	1,323	

Considering that the Bank had no dilutive potential common shares and that stock options were not included in the calculation of diluted earnings per share because they were anti-dilutive for the reporting periods presented, diluted earnings per share equal to basic earnings per share for the years ended December 31, 2022 and 2021.

(b) Weighted average number of common shares outstanding for the years ended December 31, 2022 and 2021 are as follows:

	<b>December 31, 2022</b>	December 31, 2021
Number of common shares outstanding	1,585,615,506 shares	1,585,615,506 shares
Weight	365/365	365/365
Weighted average number of common shares outstanding	1,585,615,506 shares	1,585,615,506 shares

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

(In millions of Korean won)

## 39. Commitments and contingencies

(a) Guarantees, acceptances and credit commitments as of December 31, 2022 and 2021, are as follows:

	December 31, 2022	December 31, 2021
W	12,619,097	11,166,765
	4,452,971	4,561,758
	5,874,061	5,500,310
	22,946,129	21,228,833
	81,319,128	80,030,506
	20,077,539	15,582,891
	4,947,500	3,562,678
	106,344,167	99,176,075
_		
	10,025	8,199
	7,046,806	7,683,165
	7,056,831	7,691,364
W	136,347,127	128,096,272
	- - -	**************************************

## (b) Provision for acceptances and guarantees

Provision for acceptances and guarantees, as of December 31, 2022 and 2021, are as follows:

		December 31, 2022	December 31, 2021
Guarantees outstanding	W	12,619,097	11,166,765
Contingent guarantees		4,452,971	4,561,758
ABS and ABCP purchase commitments		5,874,061	5,500,310
Secured endorsed bills		10,025	8,199
	W	22,956,154	21,237,032
Provision for acceptances and guarantees	$\mathbf{w}^{-}$	126,258	133,602
Ratio (%)		0.55	0.63

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

(In millions of Korean won)

## 39. Commitments and contingencies (continued)

## (c) Legal contingencies

Pending litigations in which the Bank was involved as a defendant as of December 31, 2022 and 2021, are as follows:

	December 31, 2022						
Case	Number of claims	Claim amount	Description	Status			
Deposit return	1 4	4,606	The plaintiff alleges that the Bank has canceled the money received in his account without his consent and requested the Bank to pay the deposit equivalent to the amount.	instance and the third instance is			
Cheque return	1	2,000	The plaintiff presented a total of nine checks (W2 billion in total) to the Bank. However, the payment was rejected due to the accident report caused by defraudation from the Bank. Therefore, the plaintiff claimed to be the legitimate holder of the cashier's check in this case and requested the payment of the check against the Bank.				
Return of unjust earning	1	33,096	The plaintiff believes that the group of lenders including the Bank unfairly sold two oil drilling vessels that are the core assets for borrowers and it caused losses to other bankruptcy creditors of the borrower. Therefore, the Plaintiff filed a lawsuit for damages.				
Others	152	67,383	It includes various cases, such as compensation for loss claim.				
	155 ¥	<i>¥</i> 107,085					

## **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

#### 39. Commitments and contingencies (continued)

#### (c) Legal contingencies (continued)

Pending litigations in which the Bank was involved as a defendant as of December 31, 2022 and 2021, are as follows (continued):

			<b>December 31, 2021</b>	
Case	Number of claims	Claim amount	Description	Status
Deposit return	1	₩ 4,606	The plaintiff alleges that the Bank has canceled the money received in his account without his consent and requested the Bank to pay the deposit equivalent to the amount.	instance and the third instance is
Cheque return	1	9,000	The plaintiff presented a total of nine checks (W 9 billion in total) to the Bank. However, the payment was rejected due to the accident report (lost of check) from the Bank. Therefore, the Plaintiff claimed to be the legitimate holder of the cash'er's check in this case and requested the payment of the check against the Bank.	
Return of unjust earning	1	33,096	The plaintiff believes that the group of lenders including the Bank unfairly sold two oil drilling vessels that are the core assets for borrowers and it caused losses to other bankruptcy creditors of the borrower. Therefore, the Plaintiff filed a lawsuit for damages.	
Others	167	75,559	It includes various cases, such as compensation for loss claim.	
	170	₩122,261		

As of December 31, 2022 and December 31 2021, the Bank recorded a provision of \(\pi\)4,247 million and \(\pi\)3,113 million for litigation for certain of the above lawsuits. Additional losses may be incurred from these legal actions besides the current provision established by the Bank, but the amount of loss is not expected to have a material effect on the Bank's separate financial statements.

## (d) Principal guaranteed trusts or principal and interest guaranteed trusts

Book value of trusts with guarantee commitments of payments of principal or principal and interest as of December 31, 2022 and 2021 are as follows:

		December 31, 2022	December 31, 2021
Principal guarantee commitments:			_
Market evaluation form	$\mathbf{W}$	2,319,621	2,758,204
Book value evaluation form		1,468,910	1,533,644
		3,788,531	4,291,848
Principal and interest guarantee commitments:			
Book value evaluation form		1,807	1,781
	W	3,790,338	4,293,629
Principal in the money trusts	<del>W</del> =	3,519,612	3,931,525
Accrued trust income		270,726	362,104

There may occur additional losses depending on the operating results of trust agreements.

## **Notes to the Separate Financial Statements**

December 31, 2022 and 2021

## 39. Commitments and contingencies (continued)

#### (e) Others

The Bank recognized \(\pi\)339.9 billion and \(\pi\)289.9 billion, respectively, in the estimated amount of damages, which is likely to be paid to fulfill its obligations as of December 31, 2022 and December 31, 2021, as provisions, for customer losses expected due to delayed redemption of Lime CI funds, etc. according to the Financial Dispute Mediation Committee of the Financial Supervisory Service and Resolution of Board of Directors. In this regard, the amount paid in advance for liquidity supply and the amount compensated through fact-checking is \(\pi\)326.8 billion and \(\pi\)217.4 billion, respectively, as of December 31, 2022 and 2021.

## **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

## 40. Statements of cash flows

(a) Cash and cash equivalents reported in the accompanying separate statements of cash flows as of December 31, 2022 and 2021, are as follows:

		<b>December 31, 2022</b>	<b>December 31, 2021</b>
Cash	W	2,122,289	4,032,166
Reserve deposits		8,477,472	9,624,230
Other deposits		5,803,068	3,849,677
Cash and due from banks		16,402,829	17,506,073
Less: Restricted due from banks(*)		(195,131)	(620,132)
Less: Due with original maturities of more than three months		(107,948)	(171,643)
	W	16,099,750	16,714,298

<sup>(\*)</sup> Items which meets the definition of cash in K-IFRS No. 1007 'Statements of Cash Flows' is excluded.

(b) Significant non-cash activities for the years ended December 31, 2022 and 2021 are as follows:

	_	December 31, 2022	<b>December 31, 2021</b>
Debt-equity swap	W	-	32,239
Accounts payable for purchase of property and equipment		(3,797)	3,797
Accounts payable for purchase of intangible assets		(117,743)	(137,058)
Recognition of right-of-use assets		223,862	160,431
Recognition of lease liabilities		184,089	142,312

(c) Changes in liabilities resulting from financing activities for the years ended December 31, 2022 and 2021 are as follows:

Total
5,586,096
(849,683)
2,871
702,025
(681,924)
827,620
5,587,005

			D	ecember 31, 2021	l	
		Derivativ e assets	Borrowings	Debentures	Lease liabilities	Total
Beginning balance	W	(252,187)	20,393,392	32,170,986	322,480	52,634,671
Changes in cash flows		1,652	(649,850)	2,541,518	(174,401)	1,718,919
Amortization		-	270	1,560	4,505	6,335
Net foreign currencies transaction loss		-	601,209	477,791	4,464	1,083,464
Changes in fair value of hedged						
items		-	-	(234,993)	-	(234,993)
Others		241,086	-	-	136,614	377,700
Ending balance	W	(9,449)	20,345,021	34,956,862	293,662	55,586,096

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

(In millions of Korean won)

## 41. Related party transactions

Related party	Account		December 31, 2022	December 31, 2021
Subsidiaries				
Shinhan Bank Europe GmbH	Cash and due from banks	W	143,923	2,975
	Loans		263,294	201,926
	Allowance for loan loss		(597)	(457)
	Other assets		1,714	98
	Deposits		91	42
	Borrowings		102,855	73,791
Shinhan Bank Cambodia	Cash and due from banks		1,504	19
	Loans		615,908	446,934
	Allowance for loan loss		(1,878)	(1,386)
	Other assets		5,855	1,101
	Borrowings		30,415	7,706
	Provisions		2	2
Shinhan Kazakhstan Bank	Cash and due from banks		115	624
Limited	Loans		38,019	-
	Allowance for loan loss		(165)	(3)
	Other assets		372	280
	Provisions		1,019	567
Shinhan Bank Canada	Cash and due from banks		5,370	227
	Loans		56,123	13,959
	Allowance for loan loss		(305)	(49)
	Other assets		341	8
	Deposits		185	157
	Borrowings		15,163	11,049
Shinhan Bank China Limited	Cash and due from banks		220,158	26,059
	Loans		1,024	226,855
	Allowance for loan loss		(463)	(565)
	Other assets		60	545
	Deposits		7,379	5,002
	Borrowings		108,432	15,969
	Provisions		190	166

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

(In millions of Korean won)

## 41. Related party transactions (continued)

Related party	Account		December 31, 2022	December 31, 2021
Subsidiaries				_
Shinhan Bank Japan	Cash and due from banks	W	9,411	31,220
	Loans		120,394	41,493
	Allowance for loan loss		(132)	(84)
	Other assets		346	8
	Deposits		934	3,680
	Borrowings		161,647	72,619
Shinhan Bank Vietnam Ltd.	Cash and due from banks		2,371	5,757
	Derivative assets		-	41
	Loans		62,981	38,882
	Allowance for loan loss		(17)	(15)
	Other assets		422	2,682
	Deposits		30,903	48,245
	Derivative liabilities		167	71
	Borrowings		370,145	380,229
	Provisions		531	428
	Other liabilities		-	2,372
PT Bank Shinhan Indonesia	Cash and due from banks		233	270
	Loans		443,555	304,674
	Allowance for loan loss		(1,343)	(950)
	Other assets		1,878	227
	Deposits		4,571	3,222
	Derivative liabilities		7,365	1,281
Shinhan Bank Mexico	Loans		177,422	128,745
	Allowance for loan loss		(536)	(399)
	Other assets		1,188	117
	Provisions		5	10
Trust accounts	Other liabilities		137,894	291,079
Grand 1 divi	Financial assets measured at		,	,
Structured entities	FVTPL		2,410,801	1,493,570
	Derivative assets		6,021	4,455
	Loans		232,613	75,132
	Allowance for loan loss		(439)	(71)
	Other assets		45,630	47,482
	Deposits		13,822	11,351
	Derivative liabilities		46,168	17,914
	Provisions		49,786	50,420
	Other liabilities		106	725
			100	, 20

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

(In millions of Korean won)

## 41. Related party transactions (continued)

Related party	Account		<b>December 31, 2022</b>	<b>December 31, 2021</b>
The parent company				
Shinhan Financial Group	Current tax assets	W	1,814	2,510
	Deposits		2,188	3,964
	Current tax liabilities		426,134	270,804
	Other liabilities		55,204	53,484
Entities under common control				
Shinhan Card Co., Ltd.	Derivative assets		-	1,521
	Loans		407,242	28,709
	Allowance for loan loss		(66)	(24)
	Other assets (*1)		9,573	7,449
	Deposits		106,830	32,795
	Derivative liabilities		46,340	23,185
	Provisions		451	493
	Other liabilities		30,462	32,684
Shinhan Securities Co., Ltd.	Financial assets measured at			
	FVTPL (*3)		4,142	4,640
	Derivative assets		18,875	4,208
	Loans		-	136,155
	Allowance for loan loss		-	(37)
	Other assets (*1)		1,942	24,645
	Deposits		1,110,223	629,843
	Derivative liabilities		1,153	3,718
	Provisions		133	492
	Other liabilities		38,643	36,606
Shinhan Life Insurance Co., Ltd.	Derivative assets		15,465	25,027
	Other assets		49	4
	Deposits		64,736	149,605
	Derivative liabilities		31,956	4,728
	Provisions		31	34
	Other liabilities		13,326	30,611
Shinhan Capital Co., Ltd.	Deposits		1,923	1,893
•	Provisions		16	18
	Other liabilities		13,152	13,170
Jeju Bank	Loans		1,906	2,060
•	Allowance for loan loss		(2)	(2)
	Deposits		2,726	2,604
	Other liabilities		2,139	2,139
Shinhan Asset Management Co., Ltd.	Financial assets measured at			
2	FVTPL (*3)		26,205	26,702
	Other assets		· -	1
	Deposits		27,476	130,040
	Other liabilities		480	751
Shinhan DS	Other assets		20,350	15,151
	Deposits		4,838	879
	Other liabilities		8,295	7,367
Shinhan Savings Bank	Other liabilities		8,987	9,126
Shinhan Aitas	Deposits		9,878	18,308
	Other liabilities		58	18

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

(In millions of Korean won)

## 41. Related party transactions (continued)

Related party	Account		<b>December 31, 2022</b>	<b>December 31, 2021</b>
Entities under common control				
Shinhan AI	Other assets	₩	28	28
	Deposits		-	7
	Other liabilities		1,575	2,090
Shinhan REITs Management	Deposits		3,331	443
C	Other liabilities		8	-
Shinhan Asset Trust Co., Ltd.	Loans		3,982	3,235
	Deposits		310,233	226,576
	Other liabilities		592	377
Shinhan Venture Investment Co., Ltd.	Deposits		11,003	6,496
,	Other liabilities		10	´ -
Shinhan EZ General Insurance,				
Ltd.(*4)	Deposits		4	_
One-Shinhan Connect Fund 1	Deposits		22,009	63,557
One-Shinhan Connect Fund 2	Deposits		28,983	-
IMM Long-term Solutions Private	r		,,,,,,,,	
Equity Fund	Deposits		619	_
_4,	Other liabilities		7	_
SH Global Private Real Estate			,	
Investment Trust No.5	Derivative assets		_	3,043
1111001110110 11400 11010	Derivative liabilities		5,837	-
SH US Nevada Photovoltaic Private	zenium e naemies		2,037	
Special Asset Investment Trust	Derivative assets		333	2,180
Shinhan AIM Real Estate Fund No.15	Derivative assets		-	16
Similar i in i i i i i i i i i i i i i i i i i	Derivative liabilities		93	-
Shinhan AIM Fund of Fund 4	Derivative assets		38	12
Similar First Fana of Fana F	Derivative liabilities		511	148
SH Veneta Toll Road Pro. Private	Berraure manning		311	110
Special Asset Investment Trust(Infra)	Derivative liabilities		454	_
Shinhan AIM Real Estate Fund No.22-A	Derivative assets			680
Similar And Real Estate Fund 10.22 71	Derivative liabilities		768	-
SH Global Green Energy Partnership	Berryative mannings		700	
Private Special Asset Investment Trust				
No.1	Derivative assets		29	1
110.1	Derivative liabilities		23	117
Shinhan Dollar Income Private Security	Derivative habilities		23	11/
Investment Trust No.2	Derivative assets		1,579	
Kyobo-AXA Czech Republic-Praha	Delivative assets		1,3/9	-
Private Realestate Trust No.1	Derivative assets			400
Titvate Rediestate Trust Ivo.1	Derivative liabilities		173	400
	Derivative madifities		1/3	-

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

(In millions of Korean won)

## 41. Related party transactions (continued)

Related party	Account	December 31, 2022	December 31, 2021
<b>Investments in associates and associates</b>			
of entities under common control			
BNP Paribas Cardif Life			
Insurance Co., Ltd.	Deposits	18,745	14,870
BNP Paribas Cardif General			
Insurance(*4)	Deposits	-	1,455
Dream High Fund III(*2)	Deposits	-	4
Partners 4th Growth Investment Fund	Deposits	742	10,096
Snowball Venture Fund II(*2)	Deposits	-	350
ICSF (The Korea's Information			
Center for Savings & Finance)	Deposits	2	16
KOREA FINANCE SECURITY	Deposits	415	457
Hermes Private Equity Fund	Deposits	218	246
Korea Credit Bureau	Deposits	721	1,394
Goduck Gangil1 PFV Co., Ltd	Loans	6,825	12,000
	Allowance for loan loss	(20)	(52)
	Deposits	3	-
SBC PFV Co., Ltd	Deposits	21,163	33,278
Sprott Global Renewable Private			
Equity Fund I	Deposits	100	176
IMM Investment Co., Ltd.	Loans	800	800
	Allowance for loan loss	(3)	(3)
	Deposits	14,824	21,543
Goduck Gangil 10 PFV Co., Ltd	Loans	3,100	7,600
	Allowance for loan loss	(9)	(24)
	Deposits	26,880	72,740

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

(In millions of Korean won)

#### 41. Related party transactions (continued)

Related party	Account		December 31, 2022	December 31, 2021
<b>Investments in associates and associates</b>				
of entities under common control				
Shinhan Global Healthcare Fund II	Deposits	W	1	1
IMM Special Situation Private Equity				
Fund(the number two of one)	Deposits		151	23
NV Station Private Equity Fund	Deposits		21	41
Korea Digital Asset Custody	Deposits		153	526
SW-S Fund	Deposits		112	115
WaveTechnology Co., Ltd	Deposits		41	99
iPIXEL Co., Ltd.	Loans		-	55
	Deposits		225	651
CJL No.1 Private Equity Fund	Deposits		603	779
EDNCENTRAL Co., Ltd.	Deposits		-	1
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	-
-	Allowance for loan loss		(28)	-
	Deposits		1,421	-
Shinhan-Albatross tech investment	•			
Fund	Deposits		3,402	-
Shinhan Global Active REIT Co.Ltd	Deposits		393	-
SEOKWANG T&I	Deposits		1	-
Shinhan Time 1st Investment fund	Deposits		238	-
DeepBlue No.1 Private Equity Fund	Deposits		400	-
Key management personnel	•			
- · · ·	Loans		6,563	6,150
	Allowance for loan loss		(2)	(1)
	Provisions		-	ĺ
AND THE RESERVE OF THE PARTY OF				

<sup>(\*1)</sup> Includes right-of-use assets.

<sup>(\*2)</sup> It has been removed from the related party as of December 31, 2022.

<sup>(\*3)</sup> It includes the amount related to investments in structured entities.

<sup>(\*4)</sup> Changed from Investments in associates or associates of entities under common control to Entities under common control for the year ended December 31, 2022.

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

(In millions of Korean won)

## 41. Related party transactions (continued)

Related party	Account		December 31, 2022	December 31, 2021
Subsidiaries				
Shinhan Bank Europe GmbH	Interest income	W	2,644	334
	Fees and commission income		134	89
	Reversal of (provision for) allowance		(140)	(5)
Shinhan Bank Cambodia	Interest income		12,518	2,732
	Fees and commission income		487	438
	Reversal of (provision for) allowance		(492)	(475)
	Interest expense		(7)	-
Shinhan Kazakhstan Bank Limited	Interest income		24	-
	Fees and commission income		624	414
	Reversal of (provision for) allowance		(162)	-
	Other operating expense		(452)	(200)
Shinhan Bank Canada	Interest income		951	417
	Fees and commission income		153	138
	Other operating income		2	3
	Reversal of (provision for) allowance		(256)	117
Shinhan Bank China Limited	Interest income		1,264	874
	Fees and commission income		338	333
	Reversal of (provision for) allowance		102	(417)
	Interest expense		(330)	-
	Other operating expense		(24)	(73)
Shinhan Bank Japan	Interest income		1,911	85
•	Fees and commission income		1,330	1,024
	Other operating income		2	14
	Reversal of (provision for) allowance		(49)	(55)
	Interest expense		(8)	-
Shinhan Bank Vietnam Ltd.	Interest income		1,570	-
	Fees and commission income		1,932	1,777
	Reversal of (provision for) allowance		(2)	(7)
	Interest expense		(8,514)	(1,330)
	Loss related to derivatives		(978)	(1,364)
	Other operating expense		(103)	(88)
Shinhan Indonesia	Interest income		10,264	2,875
	Fees and commission income		438	453
	Other operating income		-	2
	Loss related to derivatives		(650)	(1,854)
	Reversal of (provision for) allowance		(393)	(254)
Shinhan Bank America	Fees and commission income		300	176

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

(In millions of Korean won)

## 41. Related party transactions (continued)

Related party	Account		December 31, 2022	December 31, 2021
Subsidiaries				
Shinhan Bank Mexico	Interest income	W	3,408	804
	Fees and commission income		189	126
	Other operating income		5	-
	Reversal of (provision for) allowance		(138)	571
Trust Accounts	Fees and commission income		18,371	21,171
	Interest expense		(3,957)	(1,922)
Structured entities	Interest income		56,002	17,829
	Fees and commission income		13,506	21,924
	Gain related to derivatives		6,416	10,308
	Other operating income		1,666	8,747
	Reversal of (provision for) allowance		(368)	(52)
	Interest expense		(3)	(9)
	Loss related to derivatives		(50,001)	(26,935)
	Other operating expense		-	(2,284)
The parent company	1 8 1			( ) - )
Shinhan Financial Group	Fees and commission income		3	_
1	Other operating income		1,886	1,099
	Interest expense		(221)	(123)
	Fees and commission expense		(41,682)	(38,435)
	Other operating expense		(584)	(4,364)
Entities under common control	o mor operating emperate		(00.)	(1,501)
Shinhan Card Co., Ltd.	Interest income		4,235	1,056
	Fees and commission income		165,870	172,909
	Gain related to derivatives		2,832	7,494
	Other operating income		5,728	5,236
	Interest expense		(274)	(185)
	Fees and commission expense		(9,482)	(11,007)
	Loss related to derivatives		(30,976)	(52,019)
	Reversal of (provision for) allowance		(67)	(6)
	Other operating expense		(21)	(1,064)
Shinhan Securities Co., Ltd.	Interest income		1,002	562
5	Fees and commission income		4,893	6,780
	Gain and losses related to financial			
	instruments measured at FVTPL(*)		(26)	1,121
	Gain related to derivatives		81,866	16,407
	Other operating income		7,318	6,953
	Interest expense		(6,449)	(1,587)
	Fees and commission expense		(22)	(1,507)
	Loss related to derivatives		(68,389)	(29,640)
	Reversal of (provision for) allowance		37	(26)
	Other operating expense		(637)	(1,294)
	other operating expense		(037)	(1,2)7)

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

(In millions of Korean won)

## 41. Related party transactions (continued)

Related party	Account	_	<b>December 31, 2022</b>	<b>December 31, 2021</b>
<b>Entities under common control</b>				
Shinhan Life Insurance	Interest income	W	-	34
Co., Ltd.	Fees and commission income		9,658	6,409
	Gain related to derivatives		54,710	43,515
	Other operating income		3,814	2,639
	Interest expense		(1,719)	(289)
	Fees and commission expense		(569)	(1,235)
	Loss related to derivatives		(53,308)	(9,035)
	Other operating expense		-	(23)
Shinhan Capital Co., Ltd.	Fees and commission income		26	24
1 ,	Other operating income		920	827
	Interest expense		(236)	(123)
Jeju Bank	Interest income		2	14
ogu zumi	Other operating income		589	527
	Interest expense		(38)	(19)
	Reversal of (provision for) allowance		(30)	3
Shinhan Asset Management	Gains and losses related to financial			3
Co., Ltd	Instruments measured at FVTPL(*)		5,799	610
Co., Liu	Fees and commission income		47	43
	Other operating income		139	127
			(864)	(737)
	Interest expense Fees and commission expense			
Chinhan DC			(1,409)	(2,029)
Shinhan DS	Fees and commission income		- 200	1
	Other operating income		899	904
	Interest expense		(138)	(85)
gitt gart by i	Other operating expense		(81,255)	(62,238)
Shinhan Savings Bank	Fees and commission income		1,520	1,249
	Other operating income		774	661
at 1 1	Interest expense		(186)	(77)
Shinhan Aitas	Fees and commission income		47	40
	Other operating income		160	149
	Interest expense		(165)	(90)
Shinhan REITs Management	Interest expense		(40)	(26)
Shinhan AI	Other operating income		100	85
	Fees and commission expense		(6,921)	(7,248)
Shinhan Asset Trust Co., Ltd.	Interest income		(2,070)	(1,878)
	Fees and commission income		24	15
	Interest expense		(2,095)	(808)
	Fees and commission expense		(340)	(449)
SHBNPP Future Energy				
Professional Investment Type Private Special Asset	Fees and commission income		1	1
Investment Trust No.1				
Shinhan Venture Investment	Interest expense		(199)	(4)
Co., Ltd.	1		( )	( )
Shinhan EZ General Insurance, Ltd.(*2)	Fees and commission income		2	-
	Interest expense		(1)	-
One-Shinhan Connect Fund 1	Interest expense		(44)	-
One-Shinhan Connect Fund 2	Interest expense		(18)	-
IMM Long-term Solutions Private Equity Fund	Interest expense		(10)	-

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

(In millions of Korean won)

## 41. Related party transactions (continued)

Related party	Account		<b>December 31, 2022</b>	<b>December 31, 2021</b>
Entities under common control SH Global Private Real Estate Investment Trust No.5	Gain related to derivatives	W	-	3,043
	Loss related to derivatives		(5,837)	-
SH US Nevada Photovoltaic Private Special Asset Investment Trust	Gain related to derivatives		333	2,180
Shinhan AIM Real Estate Fund No.15	Gain related to derivatives		-	16
	Loss related to derivatives		(93)	-
Shinhan AIM Fund of Fund 4	Gain related to derivatives		38	12
	Loss related to derivatives		(511)	(148)
SH Veneta Toll Road Pro. Private Special Asset Investment Trust(Infra)	Loss related to derivatives		(454)	-
Shinhan AIM Real Estate Fund	Gain related to derivatives		-	680
No.22-A	Loss related to derivatives		(768)	-
SH Global Green Energy Partnership Private Special Asset Investment Trust No.1	Gain related to derivatives		29	1
	Loss related to derivatives		(23)	(117)
Shinhan Dollar Income Private Security Investment Trust No.2	Gain related to derivatives		1,579	-
Kyobo-AXA Czech Republic- Praha Private Realestate Trust No.1	Gain related to derivatives		-	400
	Loss related to derivatives		(173)	-

## **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

#### 41. Related party transactions (continued)

Related party	Account	<b>December 31, 2022</b>	<b>December 31, 2021</b>
Investments in associates and			
associates of entities under			
common control			
BNP Paribas Cardif Life Insurance Co., Ltd.	Fees and commission income	¥ 1,283	2,177
hisurance co., Etc.	Interest expense	(52)	(13)
BNP Paribas Cardif General Insurance(*2)	Fees and commission income	1	6
	Interest expense	(1)	(1)
Partners 4th Growth Investment Fund	Interest expense	(12)	(11)
KOREA FINANCE SECURITY	Fees and commission income	6	8
SECURITY	Interest expense	_	(1)
Korea Credit Bureau	Fees and commission income	13	14
12010W C10U10 DU10UU	Interest expense	-	(9)
Goduck Gangill PFV Co., Ltd	Interest income	377	754
	Reversal of (provision for) allowance	31	20
SBC PFV Co., Ltd	Fees and commission income	808	776
	Interest expense	(23)	(14)
IMM Investment Co., Ltd.	Interest income	29	23
	Interest expense	(274)	(49)
C 1 1 C '110 PEV C	Reversal of (provision for) allowance	-	(1)
Goduck Gangil10 PFV Co., Ltd	Interest income	171	283
	Interest expense	(738)	(78)
COCREC DIM ( )	Reversal of (provision for) allowance	14	(4)
COSPEC BIM tech	Interest income	-	41
Vorce Digital Asset Custody	Reversal of (provision for) allowance Interest expense	-	95
Korea Digital Asset Custody CJL No.1 Private Equity Fund	Interest expense  Interest expense	(7)	(2)
iPIXEL Co., Ltd.	Interest income	(7)	(2)
Hermes Private Investment		1	
Equity Fund	Interest expense	-	(1)
DDI LVC Master Real Estate Investment Trust Co., Ltd.	Interest expense	(1)	-
Logisvalley Shinhan REIT Co., Ltd.	Interest income	1,018	-
,	Interest expense	(1)	-
	Reversal of (provision for) allowance	(28)	-
Shinhan-Albatross tech investment Fund	Interest expense	(7)	-
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)	-
Key management personnel			
(11) 771	Interest income	205	122

<sup>(\*1)</sup> The amount of investment profits and losses related to structured entities is included

<sup>(\*2)</sup> During the period, it has changed to a jointly controlled entity from an associate or an associate of entity under joint control.

## **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

#### 41. Related party transactions (continued)

(c) Details of transactions with key management for the years ended December 31, 2022 and 2021 are as follows:

		December 31, 2022	December 31, 2021
Short and long term employee benefits	W	11,742	11,237
Post-employment benefits		395	408
Share-based payment transactions		4,345	5,535
	W	16,482	17,180

(d) The guarantees provided between the related parties as of December 31, 2022 and 2021, are as follows:

	Amount of	guarantees	
Guaranteed party	December 31, 2022	December 31,2021	Account
Shinhan Bank China Limited	90,828	74,342	Financial guarantee (payment guarantee method)
Shinhan Bank Europe GmbH	-	30,623	Risk Participation Agreement
Shinhan Bank Cambodia	634	593	Financial guarantee (payment guarantee method)
Shinhan Kazakhstan Bank Limited	216,376	98,751	Financial quarantee
	3,833	3,777	Payment guarantee
Shinhan Bank Vietnam Ltd.	408,747	314,323	Financial guarantee
			(payment guarantee method)
Shinhan Bank Mexico	6,337	11,855	Unused credit limit
Structured entities (*1)	4,138,341	3,745,590	ABCP purchase commitments
	431,959	431,121	Unused credit limit
	30,424	28,460	Financial guarantee
			(payment guarantee method)
	16,826	18,186	Financial guarantee (letter of credit method)
	2,027	1,270	
	1,045,050	911,797	Security underwriting commitment(*2)
Shinhan Securities Co., Ltd.	19,000	19,000	
,	382,692	305,120	, .
Shinhan Card Co., Ltd.	301,207	504,667	Unused credit limit
	36,878	16,715	Financial guarantee (letter of credit method)
Shinhan Life Insurance Co., Ltd	400,000	130,000	Unused credit limit
Shinhan Capital Co., Ltd.	40,000	40,000	Unused credit limit
BNP Paribas Cardif Life Insurance	10,000	10,000	Unused credit limit
Key management personnel	2,143	1,607	Unused credit limit
<i>†</i>	7,583,302	6,697,797	

<sup>(\*1)</sup> The amount of guarantees of the ABCP purchase commitments for a structured entity is the total ABCP purchase commitments amount, less the balance of the ABCP held as of December 31, 2022.

In addition to the abovementioned payment guarantee, the Bank provides LOC (Letter of Comfort) for borrowings of subsidiaries.

<sup>(\*2)</sup> The amount is for subsidiaries and associates, which are structured entities, under common control.

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

(In millions of Korean won)

- (e) Collaterals provided to related parties
- i) Details of collaterals provided to the related parties as of December 31, 2022 and 2021, are as follows:

				December 31, 2022		December	31, 2021
	Related		_	Carrying	Amounts	Carrying	Amounts
	party	Pledged assets	_	amounts	collateralized	amounts	collateralized
Subsidiary	Shinhan Bank						
	Japan	Securities	W	480,067	480,067	381,624	381,624
Entities under	Shinhan Life						
common	Insurance Co.,						
control	Ltd	Securities	_	10,055	10,055	10,101	10,101
			W	490,122	490,122	391,725	391,725

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

(In millions of Korean won)

- (e) Collaterals provided to related parties (continued)
- ii) Details of collaterals provided by the related parties as of December 31, 2022 and 2021, are as follows:

	Related party	Pledged assets		December 31, 2022	December 31, 2021
Subsidiaries	Maestro YS Co., Ltd.	Trust	₩	54,000	54,000
	Tiger Eyes 1st Co., Ltd.	Real estate		-	60,000
	Bright Unjung Co., Ltd.	Trust		54,000	54,000
		Stocks		44,400	44,400
	GIB DM Co., Ltd.	Stocks		14,160	14,160
	Maestro ER Co., Ltd.	Real estate		78,000	42,000
	Maestrogongdeok Co., Ltd.	Real estate		48,600	48,600
	MAESTRO st Co., Ltd.	Trust and real estate		48,000	48,000
	GIBDAEMYUNG 1st Co., Ltd.	Trust		84,000	84,000
	MAESTRO S.A Co., Ltd.	Real estate			45,600
	MaestroDcube Co., Ltd.	Real estate		60,000	60,000
	MAESTRO DS Co., Ltd.	Trust		318,000	318,000
	GIB st Co., Ltd.	Trust		59,400	59,400
	GIB JDT Co., Ltd.	Trust		36,000	36,000
	GIB (B) Co., Etc.	Deposit Return Bond		36,000	36,000
		Stocks		36,000	36,000
	GIB Caps Co., Ltd.	Stocks		72,000	72,000
	Shinhan S-Force(*)	Real estate		72,000	60,000
	GIB YB Co., Ltd.	Real estate		23,520	23,520
	GIB Portfolio A 3rd Co., Ltd.	Real estate		264,000	264,000
	Rich gate Songpa Co., Ltd.(*)	Real estate		204,000	31,200
				160.020	
	S-bright Hongdae Co., Ltd.	Real estate		169,920	169,920
	S-Tiger Seomyeon Co., Ltd.	Real estate		49,000	55,370
	S-bright Pangyo Co., Ltd.	Trust		48,000	48,000
	S-Tiger energy Co., Ltd.	Real estate		48,000	48,000
	S-Tiger Jeju Co., Ltd.	Real estate		30,000	30,000
	Rich gate Shinseol Corp.	Real estate		14,280	14,280
	S-Tiger K Co., Ltd	Real estate		96,000	96,000
	GIB Saha Co., Ltd.	Stocks		33,800	33,800
	GIB Magok Co., Ltd.	Trust		288,000	288,000
	D. 1	Stocks		288,000	288,000
	Rich gate Yongsan Corp.	Trust		72,000	72,000
	GIB st 2nd Co., Ltd.	Trust		38,400	38,400
	Shinhan GIB Logen Co., Ltd.	Stocks		48,000	48,000
	GIB Doowol Co., Ltd.	Stocks		24,000	24,000
	GIB Haeundae Co., Ltd.	Stocks		37,200	37,200
	S-Tiger 1st Co., Ltd.	Trust		36,000	36,000
	GIB Chowol Co., Ltd.	Stocks		24,000	24,000
	Rich gate Box Corp.	Real estate		86,222	86,222
	Rich gate Alpha Corp.	Real estate		768,000	-
	Rich gate Jaseok Corp.	Real estate		79,080	-
	GIB Shinchon Co., Ltd.	Real estate		98,400	-
	Rich gate N Corp.	Real estate		42,840	-
	Shinhan GIB Hwasung Co., Ltd.	Stocks		36,000	-
	Shinhan GIB Mirae Co., Ltd.	Stocks		12,000	-
	GIB Pungmoo Co., Ltd.	Stocks		84,500	-
	GIB Sahwa Co., Ltd.	Stocks		48,000	-
	RICHGATE GANGNAM			40,000	
	Co., Ltd.	Real estate		48,000	-
	GIB YD Co., Ltd.	Real estate		3,600	-
	GIB HOMEPLUS. Co., Ltd.	Trust		22,800	-
	RICH GATE GANGSEO				
	Co., Ltd.	Trust		48,000	-
	Rich gate H Corp.	Trust		60,000	-
	<b>C</b> 1			,	

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

(In millions of Korean won)

- (e) Collaterals provided to related parties (continued)
- ii) Details of collaterals provided by the related parties as of December 31, 2022 and 2021, are as follows: (continued)

	Related party	Pledged assets	Ι	December 31, 2022	December 31, 2021
Entities under	Shinhan Securities Co., Ltd.	Deposits		266,600	245,700
common control		Real estate		-	91,974
	Jeju Bank	Government bonds		40,000	20,000
	Shinhan Life Insurance Co., Ltd.	Government bonds		378,000	49,000
	Shinhan Credit Information Co., Ltd.	Deposits		180	180
	Shinhan Card Co., Ltd.	Bonds		520,000	-
Investments in associates	BNP Paribas Cardif Life Insurance Co., Ltd.	Public bonds		12,400	12,000
	iPIXEL Co., Ltd.	Electronic Credit Guarantees		190	190
	Logisvalley Shinhan REIT Co., Ltd.	Trust		51,600	-
Key management personnel		Real estate		8,073	10,012
•		Deposits etc.		1,306	2,011
		Guarantees		3,092	375
			W	5,344,563	3,359,514

<sup>(\*)</sup> It has been removed from the related party for the year ended December 31, 2022.

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

(In millions of Korean won)

- (f) Transactions with related parties
- i) Details of major lease and collection of related parties as of December 31, 2022 and 2021, are as follows:

	December 31, 2022					
	Related party		Beginning balance(*1)	Rental(*2)	Recovery (*2)(*3)	Ending balance (*1)
Subsidiaries	Shinhan Bank China Limited	W	226,855	34,727	(260,558)	1,024
	Shinhan Bank Vietnam Ltd.		38,882	146,742	(122,643)	62,981
	Shinhan Bank Canada		13,959	57,340	(15,176)	56,123
	Shinhan Bank Europe GmbH		201,926	504,437	(443,069)	263,294
	Shinhan Bank Cambodia		446,934	664,289	(495,315)	615,908
	Shinhan Bank Mexico		128,745	268,927	(220,250)	177,422
	Shinhan Bank Indonesia		304,674	602,020	(463,139)	443,555
	Shinhan Bank Japan		41,493	402,777	(323,876)	120,394
	Shinhan Kazakhstan Bank Limited		-	38,019	-	38,019
	Structured entities		75,132	224,270	(66,789)	232,613
Entities under common control	Shinhan Card Co., Ltd.		28,709	408,649	(30,116)	407,242
	Jeju Bank		2,060	3,893	(4,047)	1,906
	Shinhan Securities Co., Ltd.		136,155	-	(136,155)	-
Investment in associates	Goduck Gangill PFV Co., Ltd.		12,000	-	(5,175)	6,825
	Goduck Gangil10 PFV Co., Ltd.		7,600	-	(4,500)	3,100
	IMM Investment Co., Ltd.		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
		<b>W</b> _	1,672,129	3,403,680	(2,595,040)	2,480,769

<sup>(\*1)</sup> The amount is before deducting allowance.

<sup>(\*2)</sup> Some of the limit loans are shown in net amount.
(\*3) It includes gains and losses of foreign exchange regarding overseas subsidiaries.

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

(In millions of Korean won)

- (f) Transactions with related parties (continued)
- i) Details of major lease and collection of related parties as of December 31, 2022 and 2021, are as follows (continued):

	December 31, 2021						
	Related party		Beginning balance(*1)	Rental(*2)	Recovery (*2)(*3)	Ending balance(*1)	
Subsidiaries	Shinhan Bank Vietnam Ltd.	W	37,975	89,831	(88,924)	38,882	
	Shinhan Bank Cambodia		306,816	456,766	(316,648)	446,934	
	Shinhan Bank China						
	Limited		87,766	232,976	(93,887)	226,855	
	Shinhan Bank Canada		81,064	54,011	(121,116)	13,959	
	Shinhan Bank Mexico		112,717	164,004	(147,976)	128,745	
	Shinhan Bank Indonesia		342,284	317,219	(354,829)	304,674	
	Shinhan Bank Europe GmbH		205,791	531,624	(535,489)	201,926	
	Shinhan Bank Japan		43,520	212,681	(214,708)	41,493	
	Structured entities		14,393	119,794	(59,055)	75,132	
Entities under common control	Shinhan Card Co., Ltd.		39,255	2,411	(12,957)	28,709	
	Jeju Bank		8,885	4,359	(11,184)	2,060	
	Shinhan Securities Co., Ltd.		5,440	130,750	(35)	136,155	
Investment in	Goduck Gangill PFV Co.,						
associates	Ltd		24,000	-	(12,000)	12,000	
	Goduck Gangil10 PFV Co.,						
	Ltd		9,400	600	(2,400)	7,600	
	IMM Investment Co., Ltd.		800	-	-	800	
	iPIXEL Co., Ltd.		-	71	(16)	55	
	COSPEC BIM tech		151	-	(151)	-	
		_	5,146	5,315	(4,311)	6,150	
		W	1,325,403	2,322,412	(1,975,686)	1,672,129	

<sup>(\*1)</sup> The amount is before deducting allowance.

<sup>(\*2)</sup> Some of the limit loans are shown in net amount.

<sup>(\*3)</sup> It includes gains and losses of foreign exchange regarding overseas subsidiaries.

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

(In millions of Korean won)

- (f) Transactions with related parties (continued)
- ii) Details of significant redemption and borrowings of related parties as of December 31, 2022 and 2021, are as follows:

				<b>December 31, 2022</b>				
	Related party	Account	-	Beginning balance	Rental	Recovery (*1)	Ending balance	
Subsidiaries	Shinhan Bank Europe GmbH	Borrowing	₩	73,791	258,029	(228,965)	102,855	
	Shinhan Bank Japan Shinhan Bank Canada	Borrowing Borrowing		72,619 11,049	527,785 47,850	(438,757) (43,736)	161,647 15,163	
	Shinhan Bank China Limited	Borrowing		15,969	248,423	(155,960)	108,432	
	Shinhan Bank Vietnam Ltd. Shinhan Bank Cambodia S-Tiger Games Co., Ltd.	Borrowing Borrowing Deposit (*2)		380,229	1,305,082 94,133 1,033	(1,315,166) (63,718)	370,145 30,415 1,033	
Entities under common control	Shinhan Securities Co., Ltd.	Deposit (*2)		142,000	355,743	-	497,743	
common control	Shinhan Card Co., Ltd.	Deposit (*2)		2,395	-	(1,800)	595	
	Shinhan Asset Management Co., Ltd.	Deposit (*2)		78,911	9,968	(78,538)	10,341	
	Shinhan Aitas Shinhan DS	Deposit (*2)		12,000	10,000 3,000	(17,000)	5,000 3,000	
	Shinhan Asset Trust Co., Ltd.	Deposit (*2)		180,000	50,000	(130,000)	100,000	
	Shinhan Life Insurance Co., Ltd.	Deposit (*2)		1,245	23,320	-	24,565	
	Shinhan REITs Management Co., Ltd.	Deposit (*2)		-	3,000	-	3,000	
	Shinhan Venture Investment Co., Ltd.	Deposit (*2)		-	12,000	(1,500)	10,500	
	IMM Long-term Solutions Private Equity Fund	Deposit (*2)		-	609	-	609	
Associate of entity under joint control	IMM Investment Co., Ltd.	Deposit (*2)		-	10,000	-	10,000	
under John Control	CJL No.1 Private Equity Fund	Deposit (*2)		-	603	-	603	
	DeepBlue No.1 Private Equity Fund	Deposit (*2)			400	-	400	
			W	970,208	2,960,978	(2,475,140)	1,456,046	

<sup>(\*1)</sup> It includes gains and losses of foreign exchange regarding overseas subsidiaries.
(\*2) The details of settlements among related parties, such as depository liabilities that can be deposited and withdrawn on demand, are excluded.

## **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

- (f) Transactions with related parties (continued)
- ii) Details of significant redemption and borrowings of related parties as of December 31, 2022 and 2021, are as follows (continued):

			<b>December 31, 2021</b>				
			-	Beginning		Recovery	Ending
	Related party	Account	_	balance	Rental	(*1)	balance
Subsidiaries	Shinhan Bank Europe					_	_
	GmbH	Borrowing	W	106,301	290,743	(323,253)	73,791
	Shinhan Bank Japan	Borrowing		71,732	208,698	(207,811)	72,619
	Shinhan Bank Canada	Borrowing		5,533	62,606	(57,090)	11,049
	Shinhan Bank China						
	Limited	Borrowing		18,632	35,061	(37,724)	15,969
	Shinhan Bank Vietnam Ltd.	Borrowing		429,443	1,252,396	(1,301,610)	380,229
Entities under							
common control	Jeju Bank	Borrowing		-	17,003	(17,003)	-
	Shinhan Securities Co., Ltd.	Deposit (*2)		138,634	175,291	(171,925)	142,000
	Shinhan Credit Information						
	Co., Ltd.	Deposit (*2)		2,390	-	-	2,390
	Shinhan Card Co., Ltd.	Deposit (*2)		5	-	-	5
	Shinhan Asset Management						
	Co., Ltd.	Deposit (*2)		70,373	13,010	(4,472)	78,911
	Shinhan Aitas	Deposit (*2)		10,000	5,000	(3,000)	12,000
	Asia Trust Co., Ltd.	Deposit (*2)		150,000	30,000	-	180,000
	Shinhan Life Insurance Co.,						
	Ltd.	Deposit (*2)		3,610	870	(3,235)	1,245
	Shinhan REITs						
	Management Co., Ltd.	Deposit (*2)	_	<u> </u>	5,000	(5,000)	
			W	1,006,653	2,095,678	(2,132,123)	970,208

<sup>(\*1)</sup> It includes gains and losses of foreign exchange regarding overseas subsidiaries.

<sup>(\*2)</sup> The details of settlements among related parties, such as depository liabilities that can be deposited and withdrawn on demand, are excluded.

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

(In millions of Korean won)

## 41. Related party transactions (continued)

#### (g) Major commitments related to derivatives

As of December 31, 2022 and 2021, the major commitments related to derivative assets and liabilities with related parties are as follows.

	Related party	Classification of commitments		December 31, 2022	December 31, 2021
Entities under	Shinhan Life Insurance		-		
common control	Co., Ltd.	Derivatives	₩	1,001,557	835,382
	Shinhan Card Co., Ltd.	Derivatives		898,006	1,120,693
	Shinhan Securities Co., Ltd. SH Global Private Real Estate	Derivatives		567,315	871,673
	Investment Trust No.5 SH US Nevada Photovoltaic Private	Derivatives		194,657	91,046
	Special Asset Investment Trust Shinhan AIM Real Estate Fund	Derivatives		47,524	44,456
	No.15	Derivatives		2,128	1,440
	Shinhan AIM Fund of Fund 4 SH Veneta Toll Road Pro. Private Special Asset Investment	Derivatives		30,904	28,040
	Trust(Infra) Shinhan AIM Real Estate Fund	Derivatives		27,609	-
	No.22-A SH Global Green Energy Partnership Private Special Asset	Derivatives		24,575	20,951
	Investment Trust No.1 Shinhan Dollar Income Private	Derivatives		11,706	5,568
	Security Investment Trust No.2 Kyobo-AXA Czech Republic-Praha	Derivatives		37,639	-
	Private Realestate Trust No.1	Derivatives		8,390	8,140

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

(In millions of Korean won)

## 41. Related party transactions (continued)

#### (g) Major commitments related to derivatives

As of December 31, 2022 and 2021, the major commitments related to derivative assets and liabilities with related parties are as follows. (continued)

,	Related party	Classification of commitments	Γ	December 31, 2022	December 31, 2021
Subsidiaries		<b>5</b>		< 1 0 1 <b>0</b>	405004
	Shinhan Bank Vietnam Ltd.	Derivatives	₩	64,842	105,981
	PT Bank Shinhan Indonesia	Derivatives		82,504	91,287
	MPC Yulchon Green 1st	Derivatives		1,900	4,300
	MPC Yulchon 1st	Derivatives		42,900	61,500
	Shinhan-S-Russell Co., Ltd.	Derivatives		22,500	33,750
	Sunny Financial 10th Co., Ltd.	Derivatives		-	30,000
	Tiger Eyes 1st Co., Ltd.	Derivatives		-	35,000
	S-redefine 3rd Co., Ltd.	Derivatives		-	20,000
	Rich gate 8th Corp.	Derivatives		-	30,000
	GIB sol 1st Corp.	Derivatives		-	20,000
	Rich gate 12th Corp.	Derivatives		-	40,000
	Maestro ER Co., Ltd.	Derivatives		-	35,000
	Rich gate 14th Corp.	Derivatives		11,500	11,500
	MAESTROST Co., Ltd.	Derivatives		40,000	80,000
	MAESTROSP Co., Ltd.	Derivatives		-	21,000
	S-Tiger 5th Co., Ltd.	Derivatives		-	52,000
	GIB time 1st	Derivatives		-	30,000
	Maestrogongdeok Co., Ltd.	Derivatives		40,000	40,000
	S-redefine 10th Co., Ltd.	Derivatives		40,000	40,000
	MAESTRO BIZON Co., Ltd.	Derivatives		-	250,000
	MAESTRO S.I Co., Ltd.	Derivatives		-	25,000
	MaestroLEC Co., Ltd.	Derivatives		-	30,000
	GIBDAEMYUNG 1st Co., Ltd.	Derivatives		55,000	60,000
	S-Tiger 8th Co., Ltd.	Derivatives		-	50,000
	MAESTRO S.A Co., Ltd.	Derivatives		-	38,000
	GIB Porter 1st Co., Ltd. SHINHAN DISPLAY 3rd	Derivatives		60,847	56,920
	Co., Ltd	Derivatives		100,000	100,000
	MAESTRO H Co., Ltd.	Derivatives		50,000	50,000
	MaestroDcube Co., Ltd.	Derivatives		50,000	50,000
	MAESTRO landmark Co., Ltd.	Derivatives		150,000	150,000
	SH ROAD No.1 Co., Ltd.	Derivatives		16,826	18,186
	Airforce 1st Co., Ltd.	Derivatives		10,020	14,000
	GIB. Portfolio A 3rd Co., Ltd	Derivatives		30,000	30,000
	Rich gate Songpa Corp.	Derivatives		50,000	26,000
	S-Tiger 10th Co., Ltd.	Derivatives		200,000	200,000
	Maestro YS Co., Ltd.	Derivatives		45,000	45,000
	Maestro ER Co., Ltd.	Derivatives		30,000	30,000
	S-force 2nd Co., Ltd.	Derivatives		-	50,000

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

(In millions of Korean won)

## 41. Related party transactions (continued)

(g) Major commitments related to derivatives (continued)

As of December 31, 2022 and 2021, the major commitments related to derivative assets and liabilities with related parties are as follows (continued):

	Related party	Classification of commitments		December 31, 2022	December 31, 2021
Subsidiaries	GIB County 1st Co., Ltd.	_	_		
	•	Derivatives	W	19,644	19,515
	S-Tiger Energy Co., Ltd.	Derivatives		40,000	40,000
	S-Tiger K Co., Ltd.	Derivatives		80,000	80,000
	S-Tiger Seomyeon Co., Ltd.	Derivatives		-	43,500
	S-bright Pangyo Co., Ltd.	Derivatives		40,000	40,000
	S-Tiger Lip Co., Ltd.	Derivatives		30,000	30,000
	Bright Unjung Co., Ltd.	Derivatives		37,000	37,000
	GIB HC 1st Co., Ltd.	Derivatives		29,412	29,219
	Rich gate shinseol Corp.	Derivatives		11,900	11,900
	MPC Yulchon II	Derivatives		41,200	46,000
	S-Tiger Jeju Co., Ltd.	Derivatives		25,000	25,000
	S-Tiger First Co., Ltd.	Derivatives		30,000	30,000
	GIB EMT Co., Ltd.	Derivatives		40,000	40,000
	S-Bright LDC Co., Ltd.	Derivatives		50,000	50,000
	GIB AL 1st Co., Ltd.	Derivatives		29,911	-
	Rich gate N Corp.	Derivatives		13,900	-
	Rich gate Alpha Corp.	Derivatives		50,000	-
	Rich gate Jaseok Corp.	Derivatives		14,000	-
	S-first 1st Co., Ltd.	Derivatives		100,000	-
	OSHC Co., Ltd.	Derivatives		30,087	-
			W	4,697,883	5,603,947

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

(In millions of Korean won)

## 41. Related party transactions (continued)

## (h) Major investment and collection transactions

Major investments and collection transactions with related parties the years ended December 31, 2022 and 2021 are as follows:

	December 31, 2022		
	Related party	Investment	Collection
Investments in	Shinhan-Albatross Technology Investment Fund	-	1,200
associates	Shinhan-Neoplux Energy Newbiz Fund	-	288
	Korea Digital Asset Custody	-	-
	Newlake Growth Capital Partners2 PEF	-	136
	Neoplux Technology Valuation Investment Fund	-	598
	Stassets-DA Value Healthcare Fund I	-	107
	KST-SH Laboratory Investment Fund No.1	500	-
	Partners 4th Growth Investment Fund	_	1,714
	One Shinhan Connect Fund 1	11,100	12,163
	One Shinhan Connect Fund 2	15,000	_
	Shinhan SKS Corporate Recovery Private Equity Fund	4,965	_
	Shinhan VC tomorrow venture fund 1	10,000	_
	One Shinhan Futures Fund 1		794
	One Shinhan Futures Fund 3	598	,,,
	DDI LVC Master Real Estate Investment Trust Co., Ltd.	6,625	_
	Logisvalley Shinhan REIT Co., Ltd.(*)	9,800	_
	BTS 2nd Private Equity Fund	3,026	_
	Shinhan global flagship venture fund 1	18,000	-
	Shinhan-Daesung Contents Fund	10,000	2,310
Entities under	SHBNPP Mokpo New Port Professional Investment Type Private Special Asset	-	2,310
common control	Investment Trust		1,519
		-	1,319
and investments in	SHBNPP Real Estate Loan Professional Investment Type Private Real Estate		720
associates under	Investment Trust No.1	-	720
common control	SHBNPP Venture Professional Investment Type Private Investment Trust No.1	-	4,223
	Shinhan AIM Social Enterprise Investment Fund I	0.027	659
	SHINHAN NPS RENEWABLE FUND NO.1	8,927	34
	SHBNPP Venture Professional Investment Type Private Investment Trust No.2	3,500	3,457
	Shinhan AIM Social Enterprise Investment Fund II	324	-
	SHBNPP WTE(Iste To Energy) Professional Investment Type Private Special		
	Asset Investment Trust No.1	1,151	-
	Shinhan AIM FoF Fund 6	12,673	-
	SHBNPP Venture Professional Investment Type Private Investment Trust No.3	10,500	-
	SHBNPP Ongoing Peace TDF 2040 Security Investment Trust(H)[Equity		
	Balanced-FoF]	-	1,247
	SH BNPP Startup Venture Alpha Specialized Investment Private Equity Mixed		
	Asset Trust No.1	525	-
	Shinhan AIM Investment Finance Specialized Investment Trust No. 1	5,396	-
	Shinhan ESG Bond Specialized Investment Trust No. 1	-	70,678
	Shinhan AIM Social Enterprise Investment Fund III	1,775	-
	SH Venture Professional Investment Type Private Investment Trust No.4	21,000	-
	SHBNPP Green New Deal Energy Professional Investment Type Private		
	Special Asset Investment Trust No.3	8,234	-
	SH Startup Venture Alpha Private Equity Mixed Asset Trust No.2	1,575	-
	Shinhan Digital New Deal Private Mixed Asset	4,007	-
	Shinhan Subway line no.9 Private Mixed Asset	115,457	5,112
	Shinhan AIM FoF Fund 9-C	9,560	-,
	SH Venture Private Investment Trust No.5	21,000	_
	Shinhan Greenway Corporate Investment FUND NO.1	7,300	_
		,,500	

<sup>(\*)</sup> It includes investment without voting rights.

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

(In millions of Korean won)

## 41. Related party transactions (continued)

(h) Major investment and collection transactions (continued)

Major investments and collection transactions with related parties the years ended December 31, 2022 and 2021 are as follows:

	December 31, 2022	Towns of a cont	Calland
F.,4:4:4	Related party  Shinhan Dollar Income Private No.2 Fund  W	Investment	Collection
Entities under		)	-
common control	Shinhan Corporate Investment Type Private No.15 Fund	50,000	-
and investments in	SH BGT Private Special Asset Investment Trust No.2	3,995	-
associates under	SH-KT Logistics Investment Type Private Real Estate Investment Trust No.1[FoFs]	11,600	2 (00
common control	Aone Mezzanine Opportunity Private Mixed Investment	-	2,600
	SHBNPP MAIN Professional Investment Type Private Mixed Asset Investment Tr	0.000	
	No.3	9,200	669
	SHBNPP Senior Loan Professional Investment Type Private Mixed Asset Investment		
	Trust No.3	-	201
	SHBNPP Senior Loan Professional Investment Type Private Mixed Asset Investment		
	Trust No.2	-	3,474
	SHBNPP Sangju YC Expressway Professional Investment Type Private Special As		
	Investment Trust [Infra business]	5	-
	SHBNPP Japan Photovoltaic Private Special Asset Investment Trust No.2	-	4,361
	Mastern Opportunity Seeking Real Estate Fund II	-	2,366
	SHBNPP BNCT Professional Investment Type Private Mixed Asset	-	16,452
	SH Estate Loan Private Investment No.2	29,458	1,531
	SHBNPP Jigae Namsan BTO professional Investment Type Private Special Asset		
	Investment Trust	247	-
	Pacific Private Investment Trust No.49-1	10,000	-
	Shinhan Digital Healthcare New Technology Investment Fund 1	-	587
	Truston Global Professional Investment Type Private Special Asset Investment		
	Trust No.3	-	409
	IMM Long-term Solutions Private Equity Fund	19,434	-
	Synergy-Turnaround 18th New Technology Fund	1,000	-
	Genesis No.1 Private Equity Fund	238	-
	T&F 2020 SS Private Equity Fund Specializing in Start-up and Venture Business	-	842
	SHINHAN-NEO Core Industrial Technology Fund	1,160	_
	SHINHAN-NEO Market-Frontier 2nd Fund	3,000	_
	Synergy-Turnaround 13th New Technology Fund	, <u>-</u>	1,374
	J& Moorim Jade Investment Fund	-	131
	Gyeonggi-Neoplux Superman Fund	_	248
	SHBNPP Global Infrastructure Professional Investment Type Private Special Asset		
	Investment Trust No.7-2	4,732	418
	Genesis Eco No.1 PEF	97	-
	Daishin Newgen New Technology Investment Fund 1st	-	854
	KTB Newlake Global Healthcare PEF	6.283	10.187
	NH-Brain EV Fund	10,000	10,107
	IGEN2022 No.1 private Equity Fund	4,000	237
	IP-LD 2022 No.1 Fund	1,000	231
	NH-J&-IBKC Label Technology Fund	5,000	-
	History 2022 Fintech Fund	1,100	-
	NH-Daishin-Kyobo healthcare 1 Fund	3,000	-
	· · · · · · · · · · · · · · · · · · ·	1,500	-
	IBKC-Behigh Fund 1st		-
	ON No.1 Private Equity Fund	2,000	152 000
	₩	528,586	153,900

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

(In millions of Korean won)

## 41. Related party transactions (continued)

(h) Major investment and collection transactions (continued)

Major investments and collection transactions with related parties For the year ended December 31, 2022 and 2021 are as follows:

	Related party	Investment	Collection
Subsidiaries	Shinhan-Albatross Technology Investment Fund	- W	6,000
Investments in	Shinhan-Neoplux Energy Newbiz Fund	1,400	1,050
associates	Korea Digital Asset Custody	505	-
	Newlake Growth Capital Partners2 PEF	10,000	-
	Neoplux Technology Valuation Investment Fund	-	10,897
	Korea Credit Bureau	-	45
	One-Shinhan Future's New Technology Investment Fund 2	1,170	-
	KST-SH Laboratory Investment Fund No.1	500	_
	Partners 4th Growth Investment Fund	-	16,143
	One Shinhan Connect New Technology Investment Fund 1	72,000	_
	SBC PFV Co., Ltd	6,250	-
	Shinhan SKS Corporate Recovery Private Equity Fund	4,015	-
	Shinhan VC tomorrow venture fund 1	5,000	-
Entities under	SHBNPP Konkuk University Dormitory Private Speical Asset Fund 1	-	1,766
common control and entities under	SHBNPP Future Energy Professional Investment Type Private Special Asset		
common control	Investment Trust No.1		7,037
common control	SHBNPP Mokpo New Port Professional Investment Type Private Special Asset	-	7,037
	Investment Trust		1,273
	SHBNPP Real Estate Loan Professional Investment Type Private Real Estate	_	1,273
	Investment Trust No.1	7,500	7,204
	SHBNPP Venture Professional Investment Type Private Investment Trust No.1	2,800	7,204
	Shinhan AIM Social Enterprise Investment Fund I	860	-
	Shinhan Energy Specialized Investment Trust No. 1	1,926	1,870
	SHBNPP Venture Professional Investment Type Private Investment Trust No.2	14,000	1,070
	SHBNPP Lifetime Income TIF Mixed Asset Investment Trust	1,000	-
	Shinhan AIM Social Enterprise Investment Fund II	804	_
	SHBNPP WTE(Iste To Energy) Professional Investment Type Private Special	004	_
	Asset Investment Trust No.1	5,857	_
	Shinhan AIM FoF Fund 6	11,902	_
	SHBNPP Venture Professional Investment Type Private Investment Trust No.3	31,500	_
	SHBNPP Startup Venture Alpha Specialized Private Equity Fund 1st	2,625	_
	Shinhan BNPP Global NextG EMP Securities Investment Trust	1,100	_
	Shinhan AIM Investment Finance Specialized Investment Trust No. 1	3,190	_
	Shinhan ESG Bond Specialized Investment Trust No. 1	100,000	_
	Shinhan AIM Social Enterprise Investment Fund III	1,485	_
	GVA KONEX High Yield IPO-I Professional Investors	5,000	_
	SHBNPP Corporate Professional Investment Type Private Security Investment	-,	
	Trust No.45	_	80,245
	SHBNPP Venture Professional Investment Type Private Investment Trust No.4	21,000	
	SHBNPP Green New Deal Energy Professional Investment Type Private Special	,000	
	Asset Investment Trust No.3	14,158	-

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

(In millions of Korean won)

## 41. Related party transactions (continued)

(h) Major investment and collection transactions (continued)

Major investments and collection transactions with related parties the years ended December 31, 2022 and 2021 are as follows:

	Related party		Investment	Collection
Entities under common control	Shinhan Global Carbon Neutral Solution Security Investment Trust	W	2,500	-
and investments in associates under	Shinhan Global Mega Trend Alpha Security Investment Trust		1,575	-
common control	SH Digital New Deal BTL General Type Private Mixed Asset Investment Trust No.3		1,032	-
	Shinhan Mezzanine General Private Investment Trust No. 3		5,000	-
	SHBNPP MAIN Professional Investment Type Private Mixed Asset Investment Trust No.3		17,500	-
	SHBNPP Senior Loan Professional Investment Type Private Mixed Asset Investment Trust No.3		-	28,379
	SHBNPP Senior Loan Professional Investment Type Private Mixed Asset Investment Trust No.2		-	2,181
	SHBNPP Sangju YC Expressway Professional Investment Type Private Special Asset Investment Trust		6	-
	SHBNPP Jigae Namsan BTO professional Investment Type Private Special Asset Investment Trust		4,052	19,806
	SHBNPP Japan Photovoltaic Private Special Asset Investment Trust No. 2		-	10,501
	Mastern Opportunity Seeking Real Estate Fund II		238	-
	IGIS GLIP Professional Investment Type Private Real Estate Investment Trust No. 1-1		533	-
	IGIS GLIP Professional Investment Type Private Real Estate Investment Trust No. 1-2		533	-
	SHBNPP BNCT Professional Investment Type Private Special Asset Investment Trust		-	7,838
	PHAROS DK FUND		2,000	-
	SH Real Estate Loan Investment Type Private Real Estate Investment Trust No.2		14,128	-
	Shinhan JigaeNamsan Road Private Special Asset Investment Trust		32,562	-
	Shinhan Digital Healthcare New Technology Investment Fund 1 KST-SH Laboratory Investment Fund No.1		500	422
	Truston Global Professional Investment Type Private Special Asset Investment Trust No.3		-	2,105
	One Shinhan Future's Fund 2		1,170	
	Neoplux Technology Valuation Investment Fund		72 000	7,824
	One-Shinhan Connect New Technology Investment Fund 1 Shinhan SKS Corporate Recovery Private Equity Fund		72,000 4,015	-
	Shinhan Nautic No.1 Private Equity Fund		3,000	1,434
	T Core Industrial Technology No.1 Venture Private Equity Fund		1,500	
	Hermes Private Investment Equity Fund		-,	704
	Partner One Value up No.1 Private Equity Fund		_	734
	Genesis No.1 Private Equity Fund		226	-
	KIWOOM PRIVATE EQUITY GIANT PRIVATE EQUITY FUND		-	306
	Macquarie Korea Opportunities Joint Investment & Private Investment Corporation No. 1		-	608
	Shinhan-Neo Component Equipment Investment Association SHINHAN-NEO Market-Frontier 2nd Fund		1,160 7,500	-

## **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

#### 41. Related party transactions (continued)

(h) Major investment and collection transactions (continued)

Major investments and collection transactions with related parties the years ended December 31, 2022 and 2021 are as follows: (continued)

	Related party		Investment	Collection
Entities under common control	Synergy-Turnaround 13th New Technology Fund	₩	1,000	-
and investments in associates under	NH-Synergy Core Industrial New Technology Fund		3,500	-
common control	J& Moorim Jade Investment Fund		1,500	-
	Gyeonggi-Neoflux Superman Investment Association		-	610
	SHBNPP Global Infrastructure Professional Investment Type Private Special Asset Investment Trust No.7-2		11,975	233
	Genesis Eco No.1 PEF		5,903	-
	AIP Semiconductor-M3X Venture Fund No.1		2,000	-
	NH Kyobo AI Solution New Technology Investment Fund		2,000	-
	Daishin Newgen New Technology Investment Fund 1st		3,000	-
	META ESG Private Equity Fund I		3,000	-
	SWFV New Technology FUND-1		4,700	-
	SKS-Yozma Fund No.1		3,000	-
	Keistone Unicorn Private Equity Fund		4,000	-
		W	545,855	217,215

<sup>(</sup>i) The main types of transactions between the Bank and related parties include deposit transactions, loan transactions, credit offering transactions by local subsidiaries due to the acquisition of L/C opened by the Bank, overdraft transactions related to credit card funds settlement, and CLS payment service agreement transactions.

<sup>(</sup>j) For the years ended December 31, 2022 and 2021, the Bank purchased bonds through Shinhan Securities Co., Ltd. at 4.3571,746 million and 4.3582,550 million, respectively, while the amount sold is 4.3582,550 million, respectively.

<sup>(</sup>k) As of December 31, 2022 and 2021, the plan assets deposited in the DB type retirement pension managed by Shinhan Life Insurance are \(\mathbf{W}\) 99,992 million and \(\mathbf{W}\) 156,326 million, respectively.

<sup>(1)</sup> As of December 31, 2022 and 2021, the limitation contract amount provided by Shinhan Card, a related party, is  $\frac{1}{2}$  66,900 million and  $\frac{1}{2}$  67,572 million, respectively.

## **Notes to the Separate Financial Statements**

December 31, 2022 and 2021 (In millions of Korean won)

## 42. <u>Information of trust business</u>

(a) Total assets with trust business as of December 31, 2022 and 2021, and operating revenue for the years ended December 31, 2022 and 2021 are as follows:

		Total as	ssets	Operating revenue			
		December 31, 2022	December 31, 2021	December 31, 2022	December 31, 2021		
Consolidated	W	3,764,132	4,363,636	112,993	137,447		
Unconsolidated		91,944,641	87,663,477	1,303,280	1,230,398		
	W	95,708,773	92,027,113	1,416,274	1,367,845		

(b) Significant balances with trust business as of December 31, 2022 and 2021, are as follows:

		December 31, 2022	December 31, 2021
Borrowings from trust accounts	W	6,701,010	5,480,533
Deposit		30,094	30,744
Accrued revenues from asset management fee from trust			
accounts		41,180	32,485
Accrued interest expenses		7,977	1,702

(c) Significant transactions with trust business for the years ended December 31, 2022 and 2021 are as follows:

		December 31, 2022	December 31, 2021
Asset management fee from trust accounts	W	195,950	204,936
Termination fee		1,056	9,713
Interest expense for deposits		552	275
Interest on borrowings from trust accounts		103,271	22,444



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

(English Translation of a Report Originally Issued in Korean)

To the Chief Executive Officer of Shinhan Bank

We have reviewed the accompanying management's report on the effectiveness of Internal Control over Financial Reporting ("ICFR") of Shinhan Bank (the Bank) as of December 31, 2022. The Bank's management is responsible for designing and operating ICFR and for its assessment of the effectiveness of ICFR. Our responsibility is to review the management's report on the effectiveness of ICFR and issue a report based on our review. The management's report on the effectiveness of ICFR of the Bank states that "Based on our assessment, we concluded that the Bank's ICFR is designed and operated effectively as of December 31, 2022, in all material respects, in accordance with the Conceptual Framework for Designing and Operating ICFR".

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

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

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

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

/s/ Samil PricewaterhouseCoopers

March 6, 2023

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 Bank's internal control over financial reporting 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.