

**WOORI FINANCIAL GROUP INC. AND SUBSIDIARIES**

CONSOLIDATED FINANCIAL STATEMENTS

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

# WOORI FINANCIAL GROUP INC.

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## Independent Auditor's Report

(English Translation of a Report Originally Issued in Korean)

**To the Board of Directors and Shareholders of Woori Financial Group Inc.**

### Opinion

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

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

### Basis for Opinion

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

### Key Audit Matter

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

#### *Expected Credit Losses on Loans Measured at Amortized Cost*

Why it is determined to be a key audit matter:

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

The Group measures expected credit losses on loans measured at amortized cost based on both individual and collective assessments. Individual assessment of expected credit losses is performed based on estimation of future forecast cash flow with a relatively high degree of management's

estimation and judgment, and collective assessment of expected credit losses involves a variety of complex variables and assumptions that require management's estimation and judgment. Due to these facts, expected credit losses of loans measured at amortized costs are determined as a key audit matter.

As described in Note 10, loans measured at amortized cost subject to individual or collective assessments amount to 346,252,713 million won, with allowances for credit losses of 2,334,153 million won as of December 31, 2022. Significantly affected subsidiary is Woori Bank.

How our audit addressed the key audit matter:

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

We obtained an understanding and evaluated the processes and controls relating to the assessment of expected credit losses on an individual basis. In particular, we focused our effort on the assumptions used in estimating future cash flows. We evaluated whether management's estimation was reasonable and we assessed the key assumptions in the cash flow projection including growth rate of entities subject to individual assessment and collateral valuation. As part of these procedures, we assessed whether sales growth rate, operating income ratio, and assumptions on investment activities were consistent with historical operating performance and current market conditions. Additionally, we assessed the appropriateness of collateral valuation by conducting our own research on recent property prices and engaged independent appraisal specialists in assessing reasonableness of appraisal reports, models and methodologies used by management.

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

We obtained an understanding and evaluated the processes and controls relating to management's calculation of expected credit losses on a collective basis in accordance with impairment requirements under Korean IFRS 1109 *Financial Instruments*. As explained in Note 2, management assessed credit ratings to recognize lifetime expected credit losses on loans with significant increase in credit risk and impaired loans. Other than these cases, management recognized 12-months of expected credit losses. To calculate expected credit losses, management applied forward-looking information, probability of default and loss given default, etc., estimated through its internal procedures and controls implemented for various assumptions.

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

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

We used risk specialists to test the appropriateness of management's methodologies of reflecting forward-looking information in the estimation of expected credit loss by adjusting the probability of default and loss given default after statistically analyzing the correlation between forward-looking information and probability of default or loss given default. Moreover, we tested the reasonableness and mathematical accuracy of the result through recalculation and examination of supporting data.

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

Furthermore, we tested reasonableness of stage allocation of loans subject to COVID-19 payment relief attributable to significant increase in credit risk. We also tested key assumptions used in calculation of probability of default and required disclosures. We verified accuracy and completeness of aggregation of loans subject to the deferral, and accuracy of calculation of loss allowances.

#### **Other Matter**

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

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

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

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

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

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

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

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

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

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

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

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

The engagement partner on the audit resulting in this independent auditor's report is Sung-jae Lim, Certified Public Accountant.

/s/ Samil PricewaterhouseCoopers

Seoul, Korea

March 7, 2023

This report is effective as of March 7, 2023, the audit report date. Certain subsequent events or circumstances, which may occur between the audit report date and the time of reading this report, could have a material impact on the accompanying consolidated financial statements and notes thereto. Accordingly, the readers of the audit report should understand that there is a possibility that the above audit report may a to be revised to reflect the impact of such subsequent events or circumstances, if any.

**WOORI FINANCIAL GROUP INC. AND SUBSIDIARIES**  
CONSOLIDATED FINANCIAL STATEMENTS  
AS OF AND FOR THE YEARS ENDED DECEMBER 31, 2022 AND 2021

The accompanying consolidated financial statements including all footnote disclosures were prepared by, and are the responsibility of, the management of Woori Financial Group Inc.

**Tae Seung Son**  
**President and Chief Executive Officer**

Main Office Address: (Address) 51, Sogong-ro, Jung-gu, Seoul  
(Phone Number) 02-2125-2000

**WOORI FINANCIAL GROUP INC. AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF FINANCIAL POSITION**  
**AS OF DECEMBER 31, 2022 AND 2021**

	<b>December 31, 2022</b>	<b>December 31, 2021</b>
	<b>(Korean Won in millions)</b>	
<b>ASSETS</b>		
Cash and cash equivalents (Note 2 and 6)	34,219,148	20,613,073
Financial assets at fair value through profit or loss (“FVTPL”) (Notes 4, 7, 11, 12, 18 and 26)	19,860,573	13,497,234
Financial assets at fair value through other comprehensive income (“FVTOCI”) (Notes 4, 8, 11, 12, and 18)	33,085,080	39,119,789
Securities at amortized cost (Notes 4, 9, 11, 12 and 18)	28,268,516	17,086,274
Loans and other financial assets at amortized cost (Notes 4, 10, 11, 12, 18 and 41)	355,760,729	348,885,617
Investments in joint ventures and associates (Note 13)	1,305,636	1,335,167
Investment properties (Notes 14 and 18)	387,707	389,495
Premises and equipment (Notes 15 and 18)	3,142,930	3,174,720
Intangible assets (Note 16)	849,114	785,386
Assets held for sale (Note 17)	13,772	26,327
Net defined benefit asset (Note 24)	319,280	21,346
Current tax assets (Note 38)	53,274	22,598
Deferred tax assets (Note 38)	109,299	31,131
Derivative assets (Designated for hedging) (Notes 4,11,12 and 26)	37,786	106,764
Other assets (Notes 19 and 41)	3,061,552	2,088,950
Total assets	<u>480,474,396</u>	<u>447,183,871</u>
<b>LIABILITIES</b>		
Financial liabilities at fair value through profit or loss (“FVTPL”) (Notes 4, 11, 12, 20 and 26)	8,952,399	4,873,458
Deposits due to customers (Notes 4,11,21 and 41)	342,105,209	317,899,871
Borrowings (Notes 4, 6, 11, 12 and 22)	28,429,603	24,755,459
Debentures (Notes 4, 6, 11 and 22)	44,198,486	44,653,864
Provisions (Notes 23, 40 and 41)	545,865	576,134
Net defined benefit liability (Note 24)	35,202	47,986
Current tax liabilities (Note 38)	843,555	584,491
Deferred tax liabilities (Note 38)	31,799	186,946
Derivative liabilities (Designated for hedging) (Notes 4,11,12 and 26)	202,911	27,584
Other financial liabilities (Notes 4, 6, 11, 12, 25 and 41)	22,811,868	24,171,030
Other liabilities (Notes 6, 25 and 41)	690,157	556,853
Total liabilities	<u>448,847,054</u>	<u>418,333,676</u>
<b>EQUITY</b>		
Owners’ equity (Note 28)		
Capital stock	3,640,303	3,640,303
Hybrid securities	3,112,449	2,294,381
Capital surplus	682,385	682,385
Other equity	(2,423,392)	(2,167,614)
Retained earnings	23,750,152	21,392,564
	<u>28,761,897</u>	<u>25,842,019</u>
Non-controlling interests	2,865,445	3,008,176
Total equity	<u>31,627,342</u>	<u>28,850,195</u>
Total liabilities and equity	<u>480,474,396</u>	<u>447,183,871</u>

The accompanying notes are part of this consolidated financial statements.

**WOORI FINANCIAL GROUP INC. AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME**  
**FOR THE YEARS ENDED DECEMBER 31, 2022 AND 2021**

	<u>2022</u>	<u>2021</u>
	(Korean Won in millions)	
Interest income	14,654,549	9,894,749
Financial assets at FVTPL	106,698	45,803
Financial assets at FVTOCI	632,615	381,814
Financial assets at amortized cost	13,915,236	9,467,132
Interest expense	(5,957,970)	(2,909,028)
<b>Net interest income</b> (Notes 11, 30 and 41)	<b>8,696,579</b>	<b>6,985,721</b>
Fees and commissions income	2,499,700	2,171,705
Fees and commissions expense	(789,530)	(700,930)
<b>Net fees and commissions income</b> (Notes 11, 31 and 41)	<b>1,710,170</b>	<b>1,470,775</b>
Dividend income (Notes 11, 32 and 41)	159,982	309,211
Net gain on financial instruments at FVTPL (Notes 11, 33 and 41)	238,502	325,751
Net gain(loss) on financial assets at FVTOCI (Notes 11 and 34)	(21,498)	32,624
Net gain arising on financial assets at amortized cost (Note 11)	74,204	107,317
Impairment losses due to credit loss (Notes 35 and 41)	(885,272)	(536,838)
General and administrative expense (Notes 36 and 41)	(4,529,890)	(4,147,411)
Other net operating expense (Notes 11, 26, 36 and 41)	(1,012,253)	(887,401)
<b>Operating income</b>	<b>4,430,524</b>	<b>3,659,749</b>
Share of gain of joint ventures and associates (Note 13)	69,996	62,196
Other non-operating expense	(15,146)	27,296
<b>Non-operating expense</b> (Note 37)	<b>54,850</b>	<b>89,492</b>
<b>Net income before income tax expense</b>	<b>4,485,374</b>	<b>3,749,241</b>
Income tax expense (Note 38)	(1,161,392)	(941,870)
<b>Net income</b>	<b>3,323,982</b>	<b>2,807,371</b>
Net gain(loss) on valuation of equity securities at FVTOCI	(30,146)	34,069
Changes in capital due to equity method	(4,527)	(2,607)
Remeasurement gain(loss) related to defined benefit plan	251,440	65,067
<b>Items that will not be reclassified to profit or loss:</b>	<b>216,767</b>	<b>96,529</b>
Net gain(loss) on valuation of debt securities at FVTOCI	(463,725)	(184,396)
Changes in capital due to equity method	5,139	4,133
Net gain(loss) on foreign currency translation of foreign operations	32,536	246,808
Net gain(loss) on valuation of hedges of net investments in foreign operations	(20,701)	-
Net gain(loss) on valuation of cash flow hedge	(9,835)	7,107
<b>Items that may be reclassified to profit or loss:</b>	<b>(456,586)</b>	<b>73,652</b>
<b>Other comprehensive income (loss), net of tax</b>	<b>(239,819)</b>	<b>170,181</b>
<b>Total comprehensive income</b>	<b>3,084,163</b>	<b>2,977,552</b>

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**WOORI FINANCIAL GROUP INC. AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME**  
**FOR THE YEARS ENDED DECEMBER 31, 2022 AND 2021 (CONTINUED)**

	<u>2022</u>	<u>2021</u>
	(Korean Won in millions)	
<b>Net income attributable to:</b>	<b>3,323,982</b>	<b>2,807,371</b>
Net income attributable to owners	3,141,680	2,587,936
Net income attributable to non-controlling interests	182,302	219,435
<b>Total comprehensive income attributable to:</b>	<b>3,084,163</b>	<b>2,977,552</b>
Comprehensive income attributable to owners	2,909,053	2,745,764
Comprehensive income attributable to non-controlling interests	175,110	231,788
<b>Earnings per share (Note 39)</b>		
Basic and diluted earnings per share (Unit: In Korean Won)	4,191	3,481

The accompanying notes are part of this consolidated financial statements.

**WOORI FINANCIAL GROUP INC. AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY**  
**FOR THE YEARS ENDED DECEMBER 31, 2022 AND 2021**

	Capital Stock	Hybrid securities	Capital surplus	Other equity	Retained earnings	Owners' equity in total	Non- controlling interests	Total equity
	(Korean Won in millions)							
<b>January 1, 2021</b>	3,611,338	1,895,366	626,111	(2,347,472)	19,268,265	23,053,608	3,672,237	26,725,845
Total comprehensive income								
Net income	-	-	-	-	2,587,936	2,587,936	219,435	2,807,371
Net gain(loss) on valuation of financial instruments at FVTOCI	-	-	-	(150,470)	-	(150,470)	143	(150,327)
Net gain(loss) due to disposal of equity securities at FVTOCI	-	-	-	(2,220)	2,220	-	-	-
Changes in capital due to equity method	-	-	-	2,472	(946)	1,526	-	1,526
Gain on foreign currency translation of foreign operations	-	-	-	234,583	-	234,583	12,225	246,808
Gain on valuation of cash flow hedge	-	-	-	6,938	-	6,938	169	7,107
Capital related to non-current assets held for sale	-	-	-	(947)	947	-	-	-
Remeasurement gain related to defined benefit plan	-	-	-	65,251	-	65,251	(184)	65,067
Transactions with owners								
Comprehensive stock exchange	28,965	-	35,197	-	-	64,162	-	64,162
Dividends to common stocks	-	-	-	-	(368,357)	(368,357)	(9,391)	(377,748)
Acquisition of treasury stocks	-	-	-	(3,819)	-	(3,819)	-	(3,819)
Issuance of hybrid securities	-	399,015	-	-	-	399,015	-	399,015
Dividends to hybrid securities	-	-	-	-	(66,250)	(66,250)	(144,923)	(211,173)
Redemption of hybrid securities	-	-	-	(27,365)	-	(27,365)	(549,904)	(577,269)
Changes in subsidiaries' capital	-	-	9,382	32,445	(31,251)	10,576	(11,296)	(720)
Others	-	-	11,695	22,990	-	34,685	(180,335)	(145,650)
<b>December 31, 2021</b>	<u>3,640,303</u>	<u>2,294,381</u>	<u>682,385</u>	<u>(2,167,614)</u>	<u>21,392,564</u>	<u>25,842,019</u>	<u>3,008,176</u>	<u>28,850,195</u>
<b>January 1, 2022</b>	3,640,303	2,294,381	682,385	(2,167,614)	21,392,564	25,842,019	3,008,176	28,850,195
Total comprehensive income								
Net income	-	-	-	-	3,141,680	3,141,680	182,302	3,323,982
Net loss on valuation of financial instruments at FVTOCI	-	-	-	(493,462)	-	(493,462)	(409)	(493,871)
Net gain(loss) due to disposal of equity securities at FVTOCI	-	-	-	10,254	(10,254)	-	-	-
Changes in capital due to equity method	-	-	-	612	-	612	-	612
Gain(loss) on foreign currency translation of foreign operations	-	-	-	39,579	-	39,579	(7,043)	32,536
Loss on valuation of hedges of net investments in foreign operations	-	-	-	(20,701)	-	(20,701)	-	(20,701)
Loss on valuation of cash flow hedge	-	-	-	(9,835)	-	(9,835)	-	(9,835)
Capital related to non-current assets held for sale	-	-	-	(279)	279	-	-	-
Remeasurement gain related to defined benefit plan	-	-	-	251,180	-	251,180	260	251,440
Transactions with owners								
Dividends to common stocks	-	-	-	-	(654,996)	(654,996)	(9,949)	(664,945)
Issuance of hybrid securities	-	818,068	-	-	-	818,068	349,215	1,167,283
Dividends to hybrid securities	-	-	-	-	(91,756)	(91,756)	(113,995)	(205,751)
Redemption of hybrid securities	-	-	-	(60,491)	-	(60,491)	(559,565)	(620,056)
Changes in subsidiaries' capital	-	-	-	27,365	(27,365)	-	-	-
Changes in non-controlling interests related to business combinations	-	-	-	-	-	-	16,453	16,453
<b>December 31, 2022</b>	<u>3,640,303</u>	<u>3,112,449</u>	<u>682,385</u>	<u>(2,423,392)</u>	<u>23,750,152</u>	<u>28,761,897</u>	<u>2,865,445</u>	<u>31,627,342</u>

The accompanying notes are part of this consolidated financial statements.

**WOORI FINANCIAL GROUP INC. AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS**  
**FOR THE YEARS ENDED DECEMBER 31, 2022 AND 2021**

	<u>2022</u>	<u>2021</u>
	(Korean Won in millions)	
<b>Cash flows from operating activities (Note 2):</b>		
Net income	3,323,982	2,807,371
Adjustments to net income:		
Income tax expense	1,161,392	941,870
Interest income	(14,654,549)	(9,894,749)
Interest expense	5,957,970	2,909,028
Dividend income	(159,982)	(309,211)
	<u>(7,695,169)</u>	<u>(6,353,062)</u>
 Additions of expenses not involving cash outflows:		
Loss on financial instruments at FVTPL	815,706	16,869
Loss on financial assets at FVTOCI	23,836	15,812
Impairment loss due to credit loss	885,272	536,838
Loss on other provisions	37,493	85,690
Retirement benefit	165,063	177,303
Depreciation and amortization	929,311	791,896
Net loss on foreign currency translation	-	109,668
Loss on derivatives (designated for hedge)	250,268	93,084
Loss on fair value hedge	-	1,947
Loss on valuation of investments in joint ventures and associates	28,861	19,816
Loss on disposal of investments in joint ventures and associates	3,690	174
Loss on disposal of premises and equipment, intangible assets and other assets	3,177	3,354
Impairment loss on premises and equipment, intangible assets and other assets	260	656
Other loss	62,196	-
	<u>3,205,133</u>	<u>1,853,107</u>
 Deductions of income not involving cash inflows:		
Gain on financial assets at FVTOCI	2,338	48,436
Gain on other provisions	55,327	1,591
Net profit on foreign currency translation	3,180	-
Gain on derivatives (designated for hedge)	71,179	61,271
Gain on fair value hedge	257,910	106,253
Gain on valuation of investments in joint ventures and associates	98,858	82,012
Gain on disposal of investments in joint ventures and associates	599	70,834
Gain on disposal of premises and equipment, intangible assets and other assets	55,852	51,083
Reversal of impairment loss on premises and equipment, intangible assets and other assets	310	166
Other income	15,879	35,717
	<u>561,432</u>	<u>457,363</u>
 Changes in operating assets and liabilities:		
Financial instruments at FVTPL	(1,647,572)	42,498
Loans and other financial assets at amortized cost	(5,986,828)	(32,419,399)
Other assets	(1,314,877)	(983,680)
Deposits due to customers	23,536,088	23,830,469
Provisions	(24,041)	(12,278)
Net defined benefit liability	(133,421)	(109,778)
Other financial liabilities	(2,514,238)	9,456,310
Other liabilities	83,559	67,802
	<u>11,998,670</u>	<u>(128,056)</u>
 Interest income received	14,189,016	9,351,055
Interest expense paid	(4,965,594)	(3,016,841)
Dividends received	159,993	309,071
Income tax paid	(1,030,480)	(565,539)
	<u>8,352,935</u>	<u>6,077,746</u>
 Net cash inflow from operating activities	<u>18,624,119</u>	<u>3,799,743</u>

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**WOORI FINANCIAL GROUP INC. AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS**  
**FOR THE YEARS ENDED DECEMBER 31, 2022 AND 2021 (CONTINUED)**

	<u>2022</u>	<u>2021</u>
	(Korean Won in millions)	
<b>Cash flows from investing activities</b>		
Cash in-flows from investing activities:		
Disposal of financial instruments at FVTPL	9,502,271	10,361,751
Disposal of financial assets at FVTOCI	21,717,266	21,645,907
Redemption of securities at amortized cost	5,872,961	6,425,062
Disposal of investments in joint ventures and associates	249,763	195,758
Disposal of investment properties	2,061	-
Disposal of premises and equipment	44,839	2,890
Disposal of intangible assets	978	846
Disposal of assets held for sale	52,417	93,756
Net increase of other assets	62,386	66,305
	<u>37,504,942</u>	<u>38,792,275</u>
Cash out-flows from investing activities:		
Net cash out-flows from obtaining control	378,394	1,638
Acquisition of financial instruments at FVTPL	10,274,187	11,840,524
Acquisition of financial assets at FVTOCI	16,110,501	30,522,971
Acquisition of securities at amortized cost	16,873,194	6,435,692
Acquisition of investments in joint ventures and associates	143,345	400,172
Acquisition of premises and equipment	172,876	119,255
Acquisition of intangible assets	174,749	138,882
Changes in subsidiaries	346,386	-
	<u>44,473,632</u>	<u>49,459,134</u>
Net cash outflow from investing activities	<u>(6,968,690)</u>	<u>(10,666,859)</u>
<b>Cash flows from financing activities:</b>		
Cash in-flows from financing activities:		
Net cash in-flows from hedging activities	54,569	6,987
Net increase in borrowings	2,881,675	3,199,712
Issuance of debentures	23,402,694	32,674,966
Net increase of other liabilities	513	3,488
Issuance of hybrid securities	1,167,283	399,016
Paid-in capital increase on non-controlling interests	-	1,623
Net increase in non-controlling equity liabilities	1,847	10,685
	<u>27,508,581</u>	<u>36,296,477</u>
Cash out-flows from financing activities:		
Redemption of debentures	23,887,568	25,781,305
Redemption of lease liabilities	187,531	177,593
New stock issue cost	-	140
Acquisition of treasury stocks	-	3,757
Dividends paid	654,996	368,357
Redemption of hybrid stocks	643,000	587,650
Dividends paid to hybrid securities	205,751	211,173
Dividends paid to non-controlling interest	9,949	9,391
Changes in non-controlling interests	-	81,410
	<u>25,588,795</u>	<u>27,220,776</u>
Net cash inflow from financing activities	<u>1,919,786</u>	<u>9,075,701</u>
Effects of exchange rate changes on cash and cash equivalents	30,860	1,061,251
<b>Net increase in cash and cash equivalents</b>	<b>13,606,075</b>	<b>3,269,836</b>
<b>Cash and cash equivalents, beginning of the period</b>	<b>20,613,073</b>	<b>17,343,237</b>
<b>Cash and cash equivalents, end of the Period (Note 6)</b>	<b><u>34,219,148</u></b>	<b><u>20,613,073</u></b>

The accompanying notes are part of this consolidated financial statements.

**WOORI FINANCIAL GROUP INC. AND SUBSIDIARIES**  
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**1. GENERAL**

(1) Summary of the Parent company

Woori Financial Group, Inc. (hereinafter referred to the “Parent company”) is primarily aimed at controlling subsidiaries that operate in the financial industry or those that are closely related to the financial industry through the ownership of shares and was established on January 11, 2019 under the Financial Holding Company Act through the comprehensive transfer with shareholders of Woori Bank (hereinafter referred to the “Bank”), Woori FIS Co., Ltd., Woori Finance Research Institute Co., Ltd., Woori Credit Information Co., Ltd., Woori Fund Services Co., Ltd. and Woori Private Equity Asset Management Co. Ltd. The headquarters of the Parent company is located at 51, Sogong-ro, Jung-gu, Seoul, Korea, and the capital stock is 3,640,303 million won. The Parent company’s stocks were listed on the Korea Exchange on February 13, 2019, and its American Depository Shares (“ADS”) are also being traded as the underlying common stock on the New York Stock Exchange since the same date.

The details of stock transfer between the Parent company and subsidiaries as of incorporation are as follows (Unit: Number of shares)

Stock transfer company	Total number of issued shares	Exchange ratio per share	Number of Parent company’s stocks
Woori Bank	676,000,000	1.0000000	676,000,000
Woori FIS Co., Ltd.	4,900,000	0.2999708	1,469,857
Woori Finance Research Institute Co., Ltd.	600,000	0.1888165	113,289
Woori Credit Information Co., Ltd.	1,008,000	1.1037292	1,112,559
Woori Fund Service Co., Ltd.	2,000,000	0.4709031	941,806
Woori Private Equity Asset Management Co., Ltd.	6,000,000	0.0877992	526,795

As of August 1, 2019, the Parent company acquired a 73% interest in Tongyang Asset Management Co., Ltd. and changed the name to Woori Asset Management Corp. Also, as of August 1, 2019, the Parent company gained 100% control of ABL Global Asset Management Co., Ltd., added it as a consolidated subsidiary and changed the name to Woori Global Asset Management Co., Ltd. on December 6, 2019.

The Parent company paid 598,391 million won in cash and 42,103,377 new shares of the Parent company to acquire 100% interest of Woori Card Co., Ltd. from its subsidiary, Woori Bank, on September 10, 2019. On the same date, the Parent company also acquired 59.8% interest of Woori Investment Bank Co., Ltd. from Woori Bank with 392,795 million won in cash.

As of December 30, 2019, the Parent company acquired a 67.2% interest (excluding treasury stocks, 51% interest including treasury stocks) in Woori Asset Trust Co., Ltd. (formerly Kukje Asset Trust Co., Ltd.) and added it as a consolidated subsidiary at the end of 2019.

The Parent Company paid 113,238 million Won in cash to acquire 100% interest of Woori Savings Bank from its subsidiary, Woori Financial Capital Co., Ltd., on March 12, 2021.

As of August 10, 2021, the Parent company paid 5,792,866 new shares of the Parent company to the shareholders of Woori Financial Capital Co., Ltd. (excluding the Parent company) through comprehensive stock exchange and acquired residual interest (9.5%) of Woori Financial Capital Co., Ltd., to make it a wholly owned subsidiary.

As of January 7, 2022, the Parent company established Woori Financial F&I Co., Ltd., an investment company for non-performing loans and restructuring companies (100% interest, 200 billion Won in stock payments) and included it as a subsidiary

**WOORI FINANCIAL GROUP INC. AND SUBSIDIARIES**  
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(2) Details of the Parent company and subsidiaries (hereinafter ‘Group’) as of December 31, 2022 and 2021 are as follows:

Subsidiaries	Main business	Percentage of ownership (%)		Location	Financial statements date of use
		December 31, 2022	December 31, 2021		
Held by Woori Financial Group Inc.					
Woori Bank	Bank	100.0	100.0	Korea	December 31
Woori Card Co., Ltd.	Finance	100.0	100.0	Korea	December 31
Woori Financial Capital Co., Ltd.	Finance	100.0	100.0	Korea	December 31
Woori Investment Bank Co., Ltd.	Other credit finance business	58.7	58.7	Korea	December 31
Woori Asset Trust Co., Ltd.	Real estate trust	67.2	67.2	Korea	December 31
Woori Savings Bank (*7)	Mutual saving bank	100.0	100.0	Korea	December 31
Woori Asset Management Corp.	Finance	73.0	73.0	Korea	December 31
Woori Financial F&I Co., Ltd.	Finance	100.0	-	Korea	December 31
Woori Credit Information Co., Ltd.	Credit information	100.0	100.0	Korea	December 31
Woori Fund Service Co., Ltd.	Financial support service business	100.0	100.0	Korea	December 31
Woori Private Equity Asset Management Co., Ltd.	Finance	100.0	100.0	Korea	December 31
Woori Global Asset Management Co., Ltd.	Finance	100.0	100.0	Korea	December 31
Woori FIS Co., Ltd.	System software development & maintenance	100.0	100.0	Korea	December 31
Woori Finance Research Institute Co., Ltd.	Other service business	100.0	100.0	Korea	December 31
Held by Woori Bank					
Woori America Bank(*1)	Finance	100.0	100.0	America	December 31
Woori Global Markets Asia Limited	Finance	100.0	100.0	Hong Kong	December 31
Woori Bank China Limited	Finance	100.0	100.0	China	December 31
AO Woori Bank (*10)	Finance	100.0	100.0	Russia	December 31
PT Bank Woori Saudara Indonesia 1906 Tbk(*1)	Finance	84.2	84.2	Indonesia	December 31
Banco Woori Bank do Brasil S.A.	Finance	100.0	100.0	Brazil	December 31
Korea BTL Infrastructure Fund	Finance	99.9	99.9	Korea	December 31
Woori Finance Myanmar Co., Ltd.	Finance	100.0	100.0	Myanmar	December 31
Wealth Development Bank	Finance	51.0	51.0	Philippines	December 31
Woori Bank Vietnam Limited	Finance	100.0	100.0	Vietnam	December 31
Woori Bank (Cambodia) PLC (*9)	Finance	100.0	100.0	Cambodia	December 31
Woori Bank Europe(*1)	Finance	100.0	100.0	Germany	December 31
Kumho Trust First Co., Ltd. (*2)	Asset securitization	0.0	0.0	Korea	December 31
Asiana Saigon Inc. (*2)	Asset securitization	0.0	0.0	Korea	December 31
KAMCO Value Recreation First Securitization Specialty Co., Ltd. (*2)	Asset securitization	15.0	15.0	Korea	December 31
Deogi Dream Fourth Co., Ltd. (*2) (*5)	Asset securitization	-	0.0	Korea	-
Jeonju Iwon Ltd. (*2)	Asset securitization	0.0	0.0	Korea	December 31
Wonju I one Inc. (*2)	Asset securitization	0.0	0.0	Korea	December 31
Heitz Third Co., Ltd. (*2)	Asset securitization	0.0	0.0	Korea	December 31
Woorihansoop 1st Co., Ltd. (*2)	Asset securitization	0.0	0.0	Korea	December 31
Woori International First Co., Ltd. (*2)	Asset securitization	0.0	0.0	Korea	December 31
Wibihansoop 1st Co., Ltd. (*2)	Asset securitization	0.0	0.0	Korea	December 31
Woori QS 1st Co., Ltd. (*2)	Asset securitization	0.0	0.0	Korea	December 31
Woori Display 1st Co., Ltd. (*2) (*5)	Asset securitization	-	0.0	Korea	-
Tiger Eyes 2nd Co., Ltd. (*2) (*5)	Asset securitization	-	0.0	Korea	-
Woori Display 2nd Co., Ltd. (*2)	Asset securitization	0.0	0.0	Korea	December 31
Woori Dream 2nd Co., Ltd. (*2)	Asset securitization	0.0	0.0	Korea	December 31
Woori H 1st Co., Ltd. (*2)	Asset securitization	0.0	0.0	Korea	December 31
Woori K 1st Co., Ltd. (*2)	Asset securitization	0.0	0.0	Korea	December 31
Woori S 1st Co., Ltd. (*2)	Asset securitization	0.0	0.0	Korea	December 31
Woori Display 3rd Co., Ltd. (*2)	Asset securitization	0.0	0.0	Korea	December 31
TY 1st Co., Ltd. (*2)	Asset securitization	0.0	0.0	Korea	December 31
Woori-HJ 3rd Co., Ltd. (*2) (*5)	Asset securitization	-	0.0	Korea	-

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Subsidiaries	Main business	Percentage of ownership (%)		Location	Financial statements date of use
		December 31,	December 31,		
		2022	2021		
Woori K 2nd Co., Ltd. (*2) (*5)	Asset securitization	-	0.0	Korea	-
Woori KC No.1 Co., Ltd. (*2)	Asset securitization	0.0	0.0	Korea	December 31
Quantum Jump the 2nd Co., Ltd. (*2)	Asset securitization	0.0	0.0	Korea	December 31
Quantum Jump the 1st Co., Ltd. (*2) (*5)	Asset securitization	-	0.0	Korea	-
Woori BK the 1st Co., Ltd. (*2) (*5)	Asset securitization	-	0.0	Korea	-
Woori-HC 1st Co., Ltd. (*2) (*5)	Asset securitization	-	0.0	Korea	-
Wivi Synergy 1st Co., Ltd. (*2)(*5)	Asset securitization	-	0.0	Korea	-
ATLANTIC TRANSPORTATION 1 S.A. (*2)	Asset securitization	0.0	0.0	Marshall islands	December 31
Woori Gongdeok First Co., Ltd. (*2)	Asset securitization	0.0	0.0	Korea	December 31
HD Project Co., Ltd. (*2)	Asset securitization	0.0	0.0	Korea	December 31
Woori HW 1st Co., Ltd. (*2)	Asset securitization	0.0	0.0	Korea	December 31
Woori HC 2nd Co., Ltd. (*2)	Asset securitization	0.0	0.0	Korea	December 31
Woori Dream 3rd Co., Ltd. (*2)	Asset securitization	0.0	0.0	Korea	December 31
Woori SJS 1st Co., Ltd. (*2)	Asset securitization	0.0	0.0	Korea	December 31
Woori Steel 1st Co., Ltd. (*2)	Asset securitization	0.0	0.0	Korea	December 31
SPG the 1st Co., Ltd. (*2)	Asset securitization	0.0	0.0	Korea	December 31
Woori-HWC 1st Co., Ltd. (*2)	Asset securitization	0.0	0.0	Korea	December 31
Woori HC 3rd Co., Ltd. (*2)	Asset securitization	0.0	0.0	Korea	December 31
Woori Park I 1st co., Ltd. (*2)	Asset securitization	0.0	0.0	Korea	December 31
Woori DS 1st co., Ltd. (*2)	Asset securitization	0.0	0.0	Korea	December 31
Woori HC 4th Co., Ltd. (*2)	Asset securitization	0.0	0.0	Korea	December 31
Woori SKR 1st Co., Ltd. (*2)	Asset securitization	0.0	0.0	Korea	December 31
Woori H chemical 1st Co.,Ltd. (*2)	Asset securitization	0.0	0.0	Korea	December 31
HE the 1st Co.,Ltd. (*2)	Asset securitization	0.0	0.0	Korea	December 31
Woori Hub The 1st Co., Ltd. (*2)	Asset securitization	0.0	0.0	Korea	December 31
Woori K The 3rd Co., Ltd. (*2)	Asset securitization	0.0	0.0	Korea	December 31
Woori KF 1st Co., Ltd. (*2)	Asset securitization	0.0	0.0	Korea	December 31
Woori TS 1st Co., Ltd. (*2)	Asset securitization	0.0	0.0	Korea	December 31
Woori H Square 1st Co., Ltd. (*2)	Asset securitization	0.0	0.0	Korea	December 31
Woori L Yongsan 1st Co., Ltd. (*2)	Asset securitization	0.0	0.0	Korea	December 31
Woori HC 5th Co., Ltd. (*2)	Asset securitization	0.0	0.0	Korea	December 31
Woori Ladena 1st Co., Ltd. (*2)	Asset securitization	0.0	0.0	Korea	December 31
Woori HR 1st Co., Ltd. (*2)	Asset securitization	0.0	0.0	Korea	December 31
Woori Lotte Dongtan 1st Co., Ltd. (*2)	Asset securitization	0.0	0.0	Korea	December 31
Woori HC 6th Co., Ltd. (*2)	Asset securitization	0.0	0.0	Korea	December 31
Woori ECO 1st Co., Ltd. (*2)	Asset securitization	0.0	0.0	Korea	December 31
Woori HO 1th Co., Ltd. (*2)	Asset securitization	0.0	-	Korea	December 31
Woori ESG 1st Co.,Ltd. (*2)	Asset securitization	0.0	-	Korea	December 31
Woori Osiria 1st Co.,Ltd. (*2)	Asset securitization	0.0	-	Korea	December 31
Woori Eco 2nd Co.,Ltd. (*2)	Asset securitization	0.0	-	Korea	December 31
Gangnam Landmark 2nd Co., Ltd. (*2)	Asset securitization	0.0	-	Korea	December 31
Woori HP the 1st co.,Ltd. (*2)	Asset securitization	0.0	-	Korea	December 31
G5 Pro Short-term Bond Investment Fund 13 (*3) (*5)	Securities investment and others	-	100.0	Korea	-
Heungkuk Global Private Placement Investment Trust No. 1 (*3)	Securities investment and others	98.8	98.8	Korea	December 31
AI Partners UK Water Supply Private Placement Investment Trust No.2 (*3)	Securities investment and others	97.3	97.3	England	December 31
Multi Asset Global Real Estate Investment Trust No. 5-2 (*3)	Securities investment and others	99.0	99.0	Korea	December 31
IGIS Australia Investment Trust No. 209-1 (*3)	Securities investment and others	99.4	99.4	Korea	December 31
INMARK Spain Private Placement Real Estate Investment Trust No. 26-2 (*3)	Securities investment and others	97.7	97.7	Korea	December 31

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Subsidiaries	Main business	Percentage of ownership (%)		Location	Financial statements date of use
		December 31, 2022	December 31, 2021		
Woori G Japan General Type Private Real Estate Feeder Investment Trust No.1-2 (*3)	Securities investment and others	98.8	98.8	Korea	December 31
IGIS Global Private Placement Real Estate Fund No. 316-1 (*3)	Securities investment and others	99.3	99.3	Korea	December 31
Woori G Secondary Private Placement Investment Trust No. 1 (*3)	Securities investment and others	98.3	98.1	Korea	December 31
Woori G Japan Blind General Type Private Real Estate Feeder Investment Trust No.1 (*3)	Securities investment and others	99.9	99.8	Korea	December 31
JB Airline Private Placement Investment Trust No.8 (*3)	Securities investment and others	97.0	97.0	Korea	December 31
Kiwoom Harmony Private Placement Investment Trust No. 2 (*3)	Securities investment and others	97.1	97.1	Korea	December 31
Kiwoom Harmony Private Placement Investment Trust No. 1 (*3)	Securities investment and others	97.2	96.0	Korea	December 31
Kiwoom Frontier Private Investment Trust No.23[Bond] (*3)	Securities investment and others	99.8	-	Korea	December 31
Principal Guaranteed Trust (*4)	Trust	0.0	0.0	Korea	December 31
Principal and Interest Guaranteed Trust (*4)	Trust	0.0	0.0	Korea	December 31
Held by Multi Asset Global Real Estate Investment Trust No. 5-2 MAGI No.5 LuxCo S.a.r.l.	Asset securitization	54.6	54.6	Luxembourg	December 31
Held by MAGI No.5 LuxCo S.a.r.l. ADP 16 Brussels	Asset securitization	99.9	99.9	Belgium	December 31
Held by Woori Card Co., Ltd. TUTU Finance –WCI Myanmar Co., Ltd.	Finance	100.0	100.0	Myanmar	December 31
PT Woori Finance Indonesia Tbk.	Finance	82.0	-	Indonesia	December 31
Woori Card 2018-1 Securitization Specialty Co., Ltd. (*2) (*5)	Asset securitization	-	0.5	Korea	-
Woori Card 2019-1 Asset Securitization Specialty Co., Ltd. (*2)	Asset securitization	0.5	0.5	Korea	December 31
Woori Card 2020-1 Asset Securitization Specialty Co., Ltd. (*2)	Asset securitization	0.5	0.5	Korea	December 31
Woori Card 2021-1 Asset Securitization Specialty Co., Ltd. (*2)	Asset securitization	0.5	0.5	Korea	December 31
Woori Card 2022-1 Asset Securitization Specialty Co., Ltd. (*2)	Asset securitization	0.5	-	Korea	December 31
Woori Card 2022-2 Asset Securitization Specialty Co., Ltd. (*2)	Asset securitization	0.5	-	Korea	December 31
Woori Card 2023-1 Asset Securitization Specialty Co., Ltd. (*2)	Asset securitization	0.5	-	Korea	December 31
Held by Woori Financial Capital Co., Ltd. ACE Auto Invest the 48th Securitization Specialty Co., Ltd. (*2) (*5)	Asset securitization	-	1.0	Korea	-
ACE Auto Invest the 49th Securitization Specialty Co., Ltd. (*2) (*5)	Asset securitization	-	1.0	Korea	-
Specified Money Market Trust	Trust	100.0	-	Korea	December 31

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Subsidiaries	Main business	Percentage of ownership (%)		Location	Financial statements date of use
		December 31, 2022	December 31, 2021		
Held by Woori Investment Bank Co., Ltd.					
Seari First Securitization Specialty Co., Ltd. (*2) (*5)	Asset securitization	-	5.0	Korea	-
Seari Second Securitization Specialty Co., Ltd. (*2)	Asset securitization	5.0	5.0	Korea	December 31
Namjong 1st Securitization Specialty Co., Ltd. (*2)	Asset securitization	5.0	5.0	Korea	December 31
Bukgeum First Securitization Specialty Co., Ltd. (*2)	Asset securitization	5.0	5.0	Korea	December 31
Bukgeum Second Securitization Specialty Co., Ltd. (*2)	Asset securitization	5.0	5.0	Korea	December 31
WS1909 Securitization Specialty Co., Ltd. (*2)	Asset securitization	5.0	5.0	Korea	December 31
WS2003 Securitization Specialty Co., Ltd. (*2)	Asset securitization	5.0	5.0	Korea	December 31
WS2006 Securitization Specialty Co., Ltd. (*2)	Asset securitization	5.0	5.0	Korea	December 31
WJ2008 Securitization Specialty Co., Ltd. (*2)	Asset securitization	5.0	5.0	Korea	December 31
WH2103 Securitization Specialty Co., Ltd. (*2)	Asset securitization	5.0	5.0	Korea	December 31
WN2103 Securitization Specialty Co., Ltd. (*2)	Asset securitization	5.0	5.0	Korea	December 31
WH2106 Securitization Specialty Co., Ltd. (*2)	Asset securitization	5.0	5.0	Korea	December 31
One Punch Korea the 1st Co., Ltd. (*2) (*5).	Asset securitization	-	0.0	Korea	-
One Punch blue the 1 <sup>st</sup> Co., Ltd. (*2) (*5)	Asset securitization	-	0.0	Korea	-
One Punch red the 1 <sup>st</sup> Co., Ltd. (*2) (*5)	Asset securitization	-	0.0	Korea	-
Held by Woori Asset Management Corp.					
Woori China Convertible Bond Hedging feeder Investment Trust H (debt-oriented hybrid) (*3)	Securities investment and others	88.0	93.6	Korea	December 31
Woori Together TDF 2025 (*3)(*5)	Securities investment and others	-	34.1	Korea	-
Woori Together TDF 2030 (*3)(*5)	Securities investment and others	-	32.3	Korea	-
Woori Together TDF 2035 (*3)	Securities investment and others	57.1	56.0	Korea	December 31
Woori Together TDF 2040 (*3)	Securities investment and others	58.3	55.7	Korea	December 31
Woori Together TDF 2045 (*3)	Securities investment and others	69.3	65.2	Korea	December 31
Woori Together TDF 2050 (*3)	Securities investment and others	66.3	63.6	Korea	December 31
Woori Star50 Feeder Fund(H) (*3) (*5)	Securities investment and others	-	44.8	Korea	-
Woori BIG2 Plus Securities Investment Trust (Balanced Bond) (*3) (*5)	Securities investment and others	-	40.8	Korea	-
Woori Franklin Technology Master Fund (USD) (*3) (*11)	Securities investment and others	91.1	-	Korea	December 31
Woori Franklin Technology Feeder Fund (H) (*3)	Securities investment and others	71.8	-	Korea	December 31
Woori Together OCIO Target Return Master fund (*3) (*11)	Securities investment and others	100.0	-	Korea	December 31
Woori Together OCIO Target Return Feeder fund (*3)	Securities investment and others	81.2	-	Korea	December 31
Woori High Graded Bond Target Return Fund 1 (*3)	Securities investment and others	77.0	-	Korea	December 31

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Subsidiaries	Main business	Percentage of ownership (%)		Location	Financial statements date of use
		December 31, 2022	December 31, 2021		
Woori Multi Return Private Equity 2(*3)	Securities investment and others	30.9	-	Korea	December 31
Held by Woori Financial F&I Co., Ltd.					
WI2203 Securitization Specialty Co., Ltd. (*2)	Asset securitization	5.0	-	Korea	December 31
WM2203 Asset Securitization Specialty Co., Ltd. (*2)	Asset securitization	5.0	-	Korea	December 31
WNI2206 Asset Securitization Specialty Co., Ltd. (*2)	Asset securitization	5.0	-	Korea	December 31
WI2209 Securitization Specialty Co., Ltd. (*2)	Asset securitization	5.0	-	Korea	December 31
WN2212 Asset Securitization Specialty Co., Ltd. (*2)	Asset securitization	5.0	-	Korea	December 31
WK2212 Asset Securitization Specialty Co., Ltd. (*2)	Asset securitization	5.0	-	Korea	December 31
Held by Woori Financial Capital Co., Ltd., Woori Private Equity Asset Management Co., Ltd. and Woori Investment Bank Co., Ltd. (*6)					
Japanese Hotel Real Estate Private Equity Fund 1 (*3)	Securities investment and others	100.0	100.0	Korea	December 31
Held by Woori Global Asset Management Co., Ltd.					
Woori G Global Multi Asset Income Private Placement Investment Trust Class Cs (*3)	Securities investment and others	37.9	37.9	Korea	December 31
Woori G Happy Retirement Lifetime Income TIF Mixed Asset Investment Trust[FoF] C(Y) (*3)	Securities investment and others	99.3	-	Korea	December 31
Held by Woori Bank, Woori Financial Capital Co., Ltd., Woori Investment Bank Co., Ltd., Woori Savings Bank and Woori Private Equity Asset Management Co., Ltd. (*6)					
Woori Innovative Growth Professional Investment Type Private Investment Trust No.1 (*3)	Securities investment and others	90.0	90.0	Korea	December 31
Held by Woori Bank, Woori Financial Capital Co., Ltd., Woori Investment Bank Co., Ltd. and Woori Private Equity Asset Management Co., Ltd. (*6)					
Woori Innovative Growth Professional Investment Type Private Investment Trust No.2 (*3)	Securities investment and others	85.0	85.0	Korea	December 31
Woori Innovative Growth New Deal Private Investment Trust No.3 (*3)	Securities investment and others	94.3	94.3	Korea	December 31
Held by Woori Bank, Woori Financial Capital Co., Ltd. and Woori Investment Bank Co., Ltd. (*6)					
Woori G GP Commitment Loan General Type Private Investment Trust No.1 (*3)	Securities investment and others	100.0	100.0	Korea	December 31
Woori G Equity Bridge Loan General Type Private Investment Trust No.1 (*3)	Securities investment and others	80.0	80.0	Korea	December 31

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Subsidiaries	Main business	Percentage of ownership (%)		Location	Financial statements date of use
		December 31, 2022	December 31, 2021		
Woori G GP Commitment Loan General Type Private Investment Trust No.2 (*3)	Securities investment and others	100.0	-	Korea	December 31
Held by Woori Bank, Woori Financial Capital Co., Ltd., and Woori Global Asset Management Co., Ltd. (*6)					
Woori G New Deal(Infrastructure) Policy Fund No.1(*3)	Securities investment and others	70.0	-	Korea	December 31
Held by Woori bank and Woori Investment Bank Co., Ltd. (*6)					
Heungkuk Woori Tech Company Private Placement Investment Trust No. 1 (*3) (*5)	Securities investment and others	-	100.0	Korea	-
Woori Global Development Infrastructure Synergy Company Private Placement Investment Trust No.1 (*3)	Securities investment and others	100.0	100.0	Korea	December 31
Woori G NorthAmerica Infra Private Placement Investment Trust No. 1 (*3)	Securities investment and others	100.0	100.0	Korea	December 31
Woori G Infrastructure New Deal Specialized Investment Private Equity Investment Trust No. 1 (*3)	Securities investment and others	100.0	100.0	Korea	December 31
Woori G General Type Private Real Estate Investment Trust No.2 (*3)	Securities investment and others	30.1	30.1	Korea	December 31
Woori G ESG Infrastructure Development General Type Private Investment Trust No.1 (*3)	Securities investment and others	100.0	100.0	Korea	December 31
Held by Woori bank (*6)					
Woori G WooriBank Partners General Type Private Investment Trust No.1 (*3)	Securities investment and others	92.6	92.6	Korea	December 31
Woori G General Type Private Real Estate Investment Trust No.1 (*3)	Securities investment and others	80.0	80.0	Korea	December 31
Woori G Global Mid-market Secondary General Type Private Investment Trust No.1(EUR) (*3)	Securities investment and others	80.0	80.0	Korea	December 31
Woori G Woori Bank Partners Professional Type Private Investment Trust No. 2 (*3)	Securities investment and others	90.9	90.9	Korea	December 31
Woori G General Type Private Real Estate Investment Trust No.5 (*3)	Securities investment and others	86.8	87.0	Korea	December 31
Woori G Senior Loan General Type Private Investment Trust No.2(*3)	Securities investment and others	50.0	-	Korea	December 31
Woori G Government Bond MMF C/1 (*3)	Securities investment and others	46.0	-	Korea	December 31
Held by Woori Bank and Woori Financial Capital Co., Ltd.(*6)					
Woori G Renewable New Deal Fund No.1 (*3)	Securities investment and others	60.0	-	Korea	December 31
Woori G Equity Investment General Type Private Investment Trust No.1 (*3)	Securities investment and others	100.0	-	Korea	December 31

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Subsidiaries	Main business	Percentage of ownership (%)		Location	Financial statements date of use
		December 31, 2022	December 31, 2021		
Woori Busan Logistics Infra Private Placement Special Asset Investment Trust (*3)	Securities investment and others	100.0	-	Korea	December 31
Held by Woori Financial Capital Co., Ltd.(*6)					December 31
Woori G Japan Private Placement Real Estate Feeder Investment Trust No.1-1 (*3)	Securities investment and others	63.2	63.2	Korea	December 31
Held by Woori Bank, Woori Card Co., Woori Financial Capital Co., Ltd. and Woori Investment Bank Co., Ltd. (*6)					
Woori FG Digital Investment Fund 1st (*3)	Securities investment and others	100.0	-	Korea	December 31
Held by Woori G Japan Private Placement Real Estate Feeder Investment Trust No.1-1 and Woori G Japan Investment Trust No. 1-2(*6)					
Woori G Japan Private Placement Real Estate Master Investment Trust No.1 (*3)	Securities investment and others	100.0	100.0	Korea	December 31
Held by Woori Financial Capital Co., Ltd. and Woori Investment Bank Co., Ltd. (*6)					
Woori G Japan Private Placement Real Estate Master Investment Trust No.2-1 (*3)	Securities investment and others	100.0	100.0	Korea	December 31
Held by Woori G Japan Private Placement Real Estate Master Investment Trust No.1 and Woori G Japan Private Placement Real Estate Master Investment Trust No.2-1(*6)					
Woori G Japan Private Placement Real Estate Master Investment Trust No.2 (*3)	Securities investment and others	100.0	100.0	Korea	December 31
Held by Woori G Japan Private Placement Real Estate Master Investment Trust No.1					
GK OK Chatan (*3)	Other financial services	99.9	99.9	Japan	October 31 (*8)
Held by Woori G Japan Blind General Type Private Real Estate Feeder Investment Trust No.1 (*6)					
Woori G Private Placement Investment Trust No. 3 (*3)	Securities investment and others	76.5	-	Korea	December 31
Held by Woori G Private Placement Investment Trust No. 3					
GK Woorido	Other financial services	100.0	-	Japan	December 31
Held by Woori G Infrastructure New Deal General Type Private Investment Trust (*6)					
Woori Seoul- Chuncheon Highway Private Placement Special Asset Investment Trust No.1 (*3)	Securities investment and others	48.0	-	Korea	December 31

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- (\*1) Additional investment occurred made for year ended December 31, 2021.
- (\*2) The entity is a structured entity for the purpose of asset securitization. Although the Group is not a majority shareholder, the Group 1) has the power over the investee, 2) is exposed to or has rights to variable returns from its involvement with the investee, and 3) has the ability to use its power to affect its returns.
- (\*3) The entity is a structured entity for the purpose of investment in securities. Although the Group is not a majority shareholder, the Group 1) has the power over the investee, 2) is exposed to or has rights to variable returns from its involvement with the investee, and 3) has the ability to use its power to affect its returns.
- (\*4) The entity is a 'money trust' under the Financial Investment Services and Capital Markets Act. Although the Group is not a majority shareholder, the Group 1) has the power over the investee, 2) is exposed to or has rights to variable returns from its involvement with the investee, and 3) has the ability to use its power to affect its returns.
- (\*5) Companies are excluded from the consolidation as of December 31, 2022.
- (\*6) Determined that the Group controls the investees, considering the Group 1) has the power over the investee, 2) is exposed to or has rights to variable returns from its involvement with the investee, and 3) has the ability to use its power to affect its returns, by two or more subsidiaries' investment or operation.
- (\*7) During March 2021, the Parent company acquired a 100% equity of Woori Financial Savings Bank from the Parent company's subsidiary Woori Financial Capital Co., Ltd.
- (\*8) As the financial statements for the end of the reporting period were not available, the most recent financial statements available from the date of settlement were used.
- (\*9) The Parent company's subsidiary WB Finance Co., Ltd. has changed the name to WOORI BANK (CAMBODIA) PLC.
- (\*10) The Russia – Ukraine conflict has been escalated in February 2022, Russia is imposed to the international sanctions. Due to the sanctions, the lack of liquidity in the Russian foreign exchange market as well as the significant decline in value of the Rubles and the decline in value of Russian companies' securities are in progress. As a result, the Group may experience situations such as a decrease in value of financial assets or operating assets owned by the Group regarding the conflict, an increase in receivable payment terms, limitation to transfer funds, decrease in the profit. As of December 31, 2022, the Group expects such conflict and sanctions would have financial impacts on the business of AO Woori Bank, one of the subsidiaries, in the future. However, the Group cannot reasonably predict the financial impacts because it is very uncertain to estimate the impact on the Group's financial position and business performance.
- (\*11) As a master-feeder fund, it is the percentage of the feeder fund's ownership in the master fund.

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- (3) The Group has not consolidated the following entities as of December 31, 2022 and 2021 despite having more than 50% ownership interest:

Subsidiaries	As of December 31, 2022		
	Location	Main Business	Percentage of ownership (%)
Mirae Asset Maps Clean Water Private Equity Investment Trust 7th (*1)	Korea	Securities Investment	57.6
Kiwoom Yonsei Private Equity Investment Trust (*1)	Korea	Securities Investment	88.9
IGIS Europe Private Placement Real Estate Fund No. 163-2 (*2)	Korea	Securities Investment	97.8
IGIS Global Private Placement Real Estate Fund No. 148-1 (*1)	Korea	Securities Investment	75.0
IGIS Global Private Placement Real Estate Fund No. 148-2 (*1)	Korea	Securities Investment	75.0
Mirae Asset Seoul Ring Expressway Private Special Asset Fund No. 1 (*1)	Korea	Securities Investment	66.7
Hangkang Sewage Treatment Plant Fund (*1)	Korea	Securities Investment	55.6
Korea Investment Pocheon Hwado Expressway Professional Investment Fund (*1)	Korea	Securities Investment	55.2
Midas Global Private Placement Real Estate Investment Trust No. 7-2 (*1)	Korea	Securities Investment	58.3
Together-Korea Government Private Pool Private Securities Investment Trust No.3 (*3)	Korea	Securities Investment	100.0
INMARK France Private Placement Investment Trust No. 18-1 (*1)	Korea	Securities Investment	93.8
Kiwoom Vibrato Private Placement Investment Trust 1-W(EUR) (*2)	Korea	Securities Investment	99.5
KOTAM Global Infra Private Fund 1-4 (*2)	Korea	Securities Investment	99.7
UBSHana Class 1 Special Asset Investment Trust 3 Class C 2 (*1)	Korea	Securities Investment	51.0
Consus Gyeongju Green Specialized Private Special Asset Investment Trust 1 (*1)	Korea	Securities Investment	50.0
Kiwoom Harmony Private Placement Investment Trust No. 3 (*1)	Korea	Securities Investment	77.4
Consus Solar Energy Private Placement Investment Truns No.1(*1)	Korea	Securities Investment	50.0
IGIS ESG General Private Investment Trust No.1(*1)	Korea	Securities Investment	60.0
Kiwoom Aurora Geneal Type Private Placement Investment Trust No. 2(*1)	Korea	Securities Investment	60.0
NH-Amundi WSCP VIII Private Fund 2 (*1)	Korea	Securities Investment	65.2
AI Partners Global Infrastructure Specialized Privately Placed Feeder Fund Trust No. 2 (*2)	Korea	Securities Investment	100.0
Hangang new deal infra BTL fund 4 (HNBF4) (*1)	Korea	Securities Investment	60.0
Rifa Qualified Investors Private Real Estate Investment Trust No.40 (*2)	Korea	Securities Investment	55.0

(\*1) The Group does not have power over the discretionary fund because the fund manager has the sole authority to decide the relevant activities of the investee. The fund manager's delegated power is exercised not only for the Group, but also for other investors as well. The Group does not have the power over the fund's activities even though it holds more than 50% of ownership interest.

(\*2) The Group does not have power over the fund of funds because the Group cannot decide the relevant activities of the fund through the related contract. The Group does not have the power over the fund's activities even though it holds more than 50% of ownership interest.

(\*3) The Group does not have power over the stock market stabilization fund as the fund's relevant activities are determined by the management committee, over which the Group does not have substantial control. The Group does not have the power over the fund's activities even though it holds more than 50% of ownership interest.

Subsidiaries	As of December 31, 2021		
	Location	Main Business	Percentage of ownership (%)
Mirae Asset Maps Clean Water Private Equity Investment Trust 7th (*1)	Korea	Securities Investment	59.7
Kiwoom Yonsei Private Equity Investment Trust (*1)	Korea	Securities Investment	88.9
IGIS Europe Private Placement Real Estate Fund No. 163-2 (*2)(*4)	Korea	Securities Investment	97.9
IGIS Global Private Placement Real Estate Fund No. 148-1 (*1)(*4)	Korea	Securities Investment	75.0
IGIS Global Private Placement Real Estate Fund No. 148-2 (*1)(*4)	Korea	Securities Investment	75.0
Mirae Asset Seoul Ring Expressway Private Special Asset Fund No. 1 (*1)(*4)	Korea	Securities Investment	66.7
Hangkang Sewage Treatment Plant Fund (*1)(*4)	Korea	Securities Investment	55.6
Korea Investment Pocheon Hwado Expressway Professional Investment Fund (*1)(*4)	Korea	Securities Investment	55.2
Midas Global Private Placement Real Estate Investment Trust No. 7-2 (*1)(*4)	Korea	Securities Investment	58.3
Together-Korea Government Private Pool Private Securities Investment Trust No.3 (*3)(*4)	Korea	Securities Investment	100.0
INMARK France Private Placement Investment Trust No. 18-1 (*1)(*4)	Korea	Securities Investment	93.8
Kiwoom Vibrato Private Placement Investment Trust 1-W(EUR) (*2)(*4)	Korea	Securities Investment	99.5
KOTAM Global Infrastructure Private Equity Investment Trust No. 1-4 (*2)	Korea	Securities Investment	99.7
Hana UBS Class One Private Equity No. 3 C2 (*1)	Korea	Securities Investment	51.0
Consus Gyeongju Green Private Equity Investment Trust No. 1 (*1) (*4)	Korea	Securities Investment	50.0
Kiwoom Harmony Private Placement Investment Trust No. 3 (*1) (*4)	Korea	Securities Investment	77.4

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Subsidiaries	As of December 31, 2021		Percentage of ownership (%)
	Location	Main Business	
Consus Solar Energy Private Placement Investment Truns No.1(*1)	Korea	Securities Investment	50.0

- (\*1) The Group does not have power over the discretionary fund because the fund manager has the sole authority to decide the relevant activities of the investee. The fund manager's delegated power is exercised not only for the Group, but also for other investors as well. The Group does not have the power over the fund's activities even though it holds more than 50% of ownership interest.
- (\*2) The Group does not have power over the fund of funds because the Group cannot decide the relevant activities of the fund through the related contract. The Group does not have the power over the fund's activities even though it holds more than 50% of ownership interest.
- (\*3) The Group does not have power over the stock market stabilization fund as the fund's relevant activities are determined by the management committee, over which the Group does not have substantial control. The Group does not have the power over the fund's activities even though it holds more than 50% of ownership interest.
- (\*4) In accordance with the amendment to the Capital Market Act, a specialized investment type private equity fund has been changed to a general private equity fund during the prior period.

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(4) The summarized financial information of the major subsidiaries are as follows. The financial information of each subsidiary was prepared on the basis of consolidated financial statements. (Unit: Korean Won in millions):

As of and for the year ended December 31, 2022					
Subsidiaries	Assets	Liabilities	Operating revenue	Net income (loss) attributable to owners	Comprehensive income (loss) attributable to owners
Woori Bank	443,340,979	417,583,793	38,656,623	2,892,165	2,651,873
Woori Card Co., Ltd.	16,118,967	13,692,456	1,845,296	204,385	199,397
Woori Financial Capital Co., Ltd.	12,581,473	11,040,754	1,323,574	183,328	189,765
Woori Investment Bank Co., Ltd.	5,657,191	4,982,410	406,157	91,794	92,379
Woori Asset Trust Co., Ltd.	322,098	94,573	137,114	60,319	60,316
Woori Savings Bank	1,786,495	1,556,679	110,868	10,607	10,998
Woori Asset Management Corp.	185,389	62,568	35,019	1,259	1,314
Woori Financial F&I Co., Ltd.	336,141	135,562	8,086	867	867
Woori Credit Information Co., Ltd.	42,832	9,240	38,549	1,784	2,083
Woori Fund Service Co., Ltd.	25,094	2,691	16,337	3,917	3,917
Woori Private Equity Asset Management Co., Ltd.	94,434	4,672	7,830	1,902	1,872
Woori Global Asset Management Co., Ltd.	34,988	7,090	13,711	211	211
Woori FIS Co., Ltd.	112,117	54,645	296,235	1,069	11,559
Woori Finance Research Institute Co., Ltd.	6,456	2,604	7,006	46	245

  

As of and for the year ended December 31, 2021					
Subsidiaries	Assets	Liabilities	Operating revenue	Net income (loss) attributable to owners	Comprehensive income (loss) attributable to owners
Woori Bank	415,976,627	391,315,108	24,311,964	2,375,525	2,523,846
Woori Card Co., Ltd.	14,116,832	11,858,065	1,528,680	200,726	210,316
Woori Financial Capital Co., Ltd.	10,259,868	9,073,104	997,655	140,579	141,275
Woori Investment Bank Co., Ltd.	5,159,742	4,559,856	303,253	79,924	79,747
Woori Asset Trust Co., Ltd.	254,773	86,418	94,228	40,300	40,263
Woori Asset Management Corp.	151,651	30,144	33,343	8,244	8,458
Woori Savings Bank	1,444,508	1,222,888	85,813	15,315	14,926
Woori Credit Information Co., Ltd.	40,510	8,532	37,507	1,563	1,513
Woori Fund Service Co., Ltd.	22,168	2,582	15,618	3,570	3,570
Woori Private Equity Asset Management Co., Ltd.	42,790	4,652	4,230	2,209	2,113
Woori Global Asset Management Co., Ltd.	35,265	7,579	11,785	(441)	(441)
Woori FIS Co., Ltd.	105,138	59,225	270,393	1,587	8,010
Woori Finance Research Institute Co., Ltd.	5,864	2,257	6,812	57	64

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(5) The financial support that the Group provides to consolidated structured entities is as follows:

- Structured entity for asset securitization  
The structured entity which is established for the purpose of securitization of project financing loans, corporate bonds, and other financial assets. The Group is involved with the structured entity through provision of credit facility over asset-backed commercial papers issued by the entity, originating loans directly to the structured entity, or purchasing 100% of the subordinated debts issued by the structured entity.
- Structured entity for the investments in securities  
The structured entity is established for the purpose of investments in securities. The Group acquires beneficiary certificates through its contribution of funding to the structured entity by the Group, and it is exposed to the risk that it may not be able to recover its fund depending on the result of investment performance of asset managers of the structured entity.
- Money trust under the Financial Investment Services and Capital Markets Act  
The Group provides with financial guarantee of principal and interest or solely principal to some of its trust products. Due to the financial guarantees, the Group may be obliged when the principal and interest or principal of the trust product sold is short of the guaranteed amount depending on the result of investment performance of the trust product.

As of December 31, 2022 and 2021, the Group provides 231,309 million won and 2,480,131 million won of credit facilities, respectively, for the structured entities mentioned above. As of December 31, 2022 and 2021, the purchase commitment amounts to 2,545,164 million won and 2,263,387 million won, respectively.

(6) The Group has entered into various agreements with structured entities such as asset securitization, structured finance, investment fund, and trust contract. The characteristics of interests and the nature of risks related to unconsolidated structured entities over which the Group does not have control in accordance with K-IFRS 1110 are as follows:

The interests in unconsolidated structured entities that the Group hold are classified into asset securitization, structured finance, investment fund and real-estate trust, based on the nature and the purpose of each structured entity.

Unconsolidated structured entities classified as ‘asset securitization’ are entities that issue asset-backed securities, pay the principal and interest or distributes dividends on asset-backed securities through borrowings or profits from the management, operation and sale of securitized assets. The Group has been purchasing commitments of asset-backed securities or issuing asset-backed securities through credit grants, and recognizes related interest or fee revenue. There are entities that provide additional funding and conditional debt acquisition commitments before the Group’s financial support, but the Group is still exposed to losses arising from the purchase of financial assets issued by the structured entities when it fails to renew the securities.

Unconsolidated structured entities classified as ‘structured finance’ include real estate project financing investment vehicle, social overhead capital companies, and special purpose companies for ship (aircraft) financing. Each entity is incorporated as a separate company with a limited purpose in order to efficiently pursue business goals and the fund is raised by equity investment or loans from financial institutions and participating institutions. ‘Structured financing’ is a financing method for large-scale risky business, with investments made based on feasibility of the specific business or project, instead of credit of business owner or physical collaterals. The investors receive profits from the operation of the business. The Group recognizes interest revenue, profit or loss from assessment or transactions of financial instruments, or dividend income. With regard to uncertainties involving structured financing, there are entities that provide financial support such as additional fund, guarantees and prioritized credit grants prior to the Group’s intervention, but the Group is exposed to possible losses due to loss of principal from reduction in investment value or irrecoverable loans arising from failure to collect scheduled cash flows and cessation of projects.

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Unconsolidated structured entities classified as ‘investment funds’ include investment trusts and private equity funds. An investment trust orders the investment and operation of funds to the trust manager in accordance with trust contract with profits distributed to the investors. Private equity funds finances money required to acquire equity securities to enable direction of management and/or improvement of ownership structure, with profit distributed to the investors. The Group recognizes pro rata amount of dividend income as an investor in the same way as ‘structured finance’, and may be exposed to losses due to reduction in investment value. Investments in MMF(Money Market Funds) as of December 31, 2022 and 2021 are 875,470 million won and 853,140 million won, respectively, and there is no additional commitments for MMF.

‘Real estate trust’ is to be entrusted the underlying property for the purpose of managing, disposing, operating or developing from the consignor who owns the property and distributes the proceeds achieved through the trust to the beneficiary. When the consignee does not fulfill his or her important obligations in the trust contract or it is, in fact, difficult to run the business, the Group may be exposed to the threat of compensating the loss.

The total assets of the unconsolidated structured entity held by the Group, the carrying amount of the items recognized in the consolidated financial statements, the maximum loss exposure, and the losses from the unconsolidated structured entity are as follows. The maximum loss exposure includes the amount of investment recognized in the consolidated financial statements and the amount that is likely to be confirmed in the future when satisfies certain conditions by contracts such as purchase commitments, credit offerings.

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(unit : Korean Won in millions)

	December 31, 2022			
	Asset securitization	Structured Finance	Investment Fund	Real-estate trust
Total asset of the unconsolidated structured entities	14,856,750	82,724,618	132,264,383	1,316,930
Assets recognized in the consolidated financial statements related to the unconsolidated structured entities	8,051,144	5,537,836	4,964,712	40,073
Financial assets at FVTPL	258,552	6,642	4,397,416	10,480
Financial assets at FVTOCI	3,213,331	45,735	-	-
Financial assets at amortized cost	4,579,261	5,485,336	31,124	29,593
Investments in joint ventures and associates	-	-	535,427	-
Derivative assets	-	123	745	-
Liabilities recognized in the consolidated financial statements related to the unconsolidated structured entities	824	6,606	2,091	5,760
Derivative liabilities	729	4,975	2,091	-
Other liabilities (provisions)	95	1,631	-	5,760
The maximum exposure to risks	8,153,111	6,086,831	9,322,308	92,856
Investment assets	8,051,144	5,537,836	4,964,712	40,073
Purchase commitment	-	-	4,352,518	-
Credit offerings and others	101,967	548,995	5,078	52,783
Loss recognized on unconsolidated structured entities	-	17,388	113,976	1,040

(unit : Korean Won in millions)

	December 31, 2021			
	Asset securitization	Structured Finance	Investment Fund	Real-estate trust
Total asset of the unconsolidated structured entities	15,640,521	94,969,317	94,675,732	1,398,508
Assets recognized in the consolidated financial statements related to the unconsolidated structured entities	8,518,101	4,633,475	4,214,747	54,662
Financial assets at FVTPL	374,423	5,021	3,550,532	10,665
Financial assets at FVTOCI	3,878,882	46,478	-	-
Financial assets at amortized cost	4,264,626	4,579,367	71,662	43,997
Investments in joint ventures and associates	-	-	592,553	-
Derivative assets	170	2,609	-	-
Liabilities recognized in the consolidated financial statements related to the unconsolidated structured entities	677	1,536	-	2,964
Derivative liabilities	-	673	-	-
Other liabilities (provisions)	677	863	-	2,964
The maximum exposure to risks	8,739,034	5,728,977	4,221,072	115,212
Investment assets	8,518,101	4,633,475	4,214,747	54,662
Credit offerings and others	220,933	1,095,502	6,325	60,550
Loss recognized on unconsolidated structured entities	183	11,872	71,309	282

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(7) As of December 31, 2022 and 2021, the share of non-controlling interests on the net income and equity of subsidiaries in which non-controlling interests are significant are as follows: (Unit: Korean Won in millions):

1) Accumulated non-controlling interests at the end of the reporting period

	December 31, 2022	December 31, 2021
Woori Bank (*)	2,344,816	2,555,166
Woori Investment Bank Co., Ltd.	283,221	251,879
Woori Asset Trust Co., Ltd.	78,434	60,726
Woori Asset Management Corp	34,073	33,768
PT Bank Woori Saudara Indonesia 1906 Tbk	92,118	87,741
Wealth Development Bank	20,759	20,835
PT Woori Finance Indonesia Tbk.	13,964	-

(\*) Hybrid securities issued by Woori Bank

2) Net income attributable to non-controlling interests

	For the years ended December 31	
	2022	2021
Woori Bank (*)	113,995	144,923
Woori Financial Capital Co., Ltd.	-	17,949
Woori Investment Bank Co., Ltd.	38,319	33,274
Woori Asset Trust Co., Ltd.	18,074	11,366
Woori Asset Management Corp	290	2,341
PT Bank Woori Saudara Indonesia 1906 Tbk	10,806	8,619
Wealth Development Bank	401	928
PT Woori Finance Indonesia Tbk.	379	-

(\*) Distribution of the hybrid securities issued by Woori Bank

3) Dividends to non-controlling interests

	For the years ended December 31	
	2022	2021
Woori Bank (*)	113,995	144,923
Woori Financial Capital Co., Ltd.	-	4,121
Woori Investment Bank Co., Ltd.	7,219	3,610
Woori Asset Trust Co., Ltd	365	365
PT Bank Woori Saudara Indonesia 1906 Tbk	2,330	1,262

(\*) Distribution of the hybrid securities issued by Woori Bank

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**2. BASIS OF PREPARATION AND SIGNIFICANT ACCOUNTING POLICIES**

(1) Basis of presentation

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

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

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

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

The consolidated financial statements, as described in following paragraphs of accounting policy, are prepared at the end of each reporting period in historical cost basis, except for certain non-current assets and financial assets that are either revalued or measured in fair value. Historical cost is generally measured at the fair value of consideration given to acquire assets.

Meanwhile, the consolidated financial statements of the Group were initially approved by the Board of Directors on February 8, 2023, and were revised and approved on March 3, 2023, and the final approval will be made in the annual general shareholders' meeting on March 24, 2023.

- 1) The standards and interpretations that are newly adopted by the Group during the current period, and the changes in accounting policies thereof are as follows:
  - i) K-IFRS 1007 '*Statement of cash flow*' - Cash and cash equivalents

The Group did not classify deposits with restrictions under relevant regulations, such as reserve deposits, as cash and cash equivalents. However, in accordance of the IFRS Interpretation Committee's agenda decision in April 2022 'Demand deposits restricted on use under contracts with third parties' and reply to K-IFRS inquiries 'whether the reserve deposit should be classified as cash and cash equivalents' the policy was changed to classifying the reserve deposits with restrictions under relevant regulations which meet the criteria of demand deposits as cash and cash equivalent and applied the modification retrospectively. The impact of this change in accounting policy is as follows:

- a) Impact on the statements of financial position

	<u>December 31, 2022</u>	<u>December 31, 2021</u>	<u>January 1, 2021</u>
Increase in cash and cash equivalents	22,965,162	13,047,255	7,352,253
Decrease in loans and other financial assets at amortized cost	(22,965,162)	(13,047,255)	(7,352,253)

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b) Impact on the statements of cash flow

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Increase in cash flows from operating activities	9,981,310	5,600,710
Increase in exchange rate changes on cash and cash equivalents denominated in foreign currencies	(63,403)	94,292
Net increase in cash and cash equivalents	9,981,310	5,600,710
Increase in cash and cash equivalents, the beginning of the year	13,047,255	7,352,253
Increase in cash and cash equivalents, the end of the year	22,965,162	13,047,255

ii) Amendments to K-IFRS 1103 '*Business Combination*' - Reference to the Conceptual Framework

The amendments update a reference of definition of assets and liabilities qualify for recognition 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 confirm that contingent assets should not be recognized at the acquisition date. The amendment does not have a significant impact on the financial statements.

iii) Amendments to K-IFRS 1037 '*Provisions, Contingent Liabilities and Contingent Assets*' - Onerous Contracts: Cost of Fulfilling a Contract'

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

iv) Amendments to K-IFRS 1016 '*Property, Plant and Equipment*' - Proceeds before intended use

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

v) Annual Improvements to K-IFRS 2018-2020

The annual improvement includes some amendments to K-IFRS 1101 'First time Adoption of Korean International Financial Reporting Standards', K-IFRS 1109 'Financial Instrument's, K-IFRS 1116 'Lease', K-IFRS 1041 'Agriculture'.

These amendments do not have a significant impact on the consolidated financial statements.

- K-IFRS 1101 '*First time Adoption of Korean International Financial Reporting Standards*' - Subsidiaries that are first-time adopters
- K-IFRS 1109 '*Financial Instrument's* - Fees related to the 10% test for derecognition of financial liabilities
- K-IFRS 1116 '*Lease*' - Delete the contents of the lease improvement reimbursement amount.
- K-IFRS 1041 '*Agriculture*' - Measuring fair value

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- 2) The details of K-IFRSs that have been issued and published as of December 31, 2022 but have not yet reached the effective date, and which the Group have not been early adopted by the Group are as follows:

- i) Amendments to K-IFRS 1001 '*Presentation of Financial Statements*' – Classification of Liabilities as Current or Non-current

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

- ii) Amendments to K-IFRS 1001 '*Presentation of Financial Statements and IFRS Practice Statement 2 Making Materiality Judgements*' - Disclosure of Accounting Policy

'IFRS Practice Statement 2' has been amended to define and disclose important accounting policies and to provide guidance on how to apply the concept of importance. These amendments apply for annual periods beginning on or after January 1, 2023, and early application is permitted. The Group does not expect that these amendments have a significant impact on the financial statements.

- iii) Amendments to K-IFRS 1001 '*Presentation of Financial Statements*' - Disclosure of valuation gains or losses on financial liabilities with condition to adjust exercise price

The amendments require disclosure of valuation gains or losses (limited to those recognized in the profit or loss) of the conversion options or warrants (or financial liabilities including them), if all or part of the financial instrument with exercise price that is adjusted depending on the issuer's share price change is classified as financial liability as defined in paragraph 11 (2) of K-IFRS 1032. These amendments apply for annual periods beginning on or after January 1, 2023, and early application is permitted. The Group does not expect that these amendments have a significant impact on the financial statements.

- iv) Amendments to K-IFRS 1008 '*Accounting Policies, Changes in Accounting Estimates and Errors*' - Definition of Accounting Estimates

The amendments have defined accounting estimates and clarified how to distinguish them from changes in accounting policies. These amendments apply for annual periods beginning on or after January 1, 2023, and early application is permitted. The Group does not expect that these amendments have a significant impact on the financial statements.

- v) Amendments to K-IFRS 1012 '*Income Taxes*' - deferred tax related to assets and liabilities arising from a single transaction

Additional phrase 'the temporary difference to be added and the temporary difference to be deducted do not occur in the same amount' has been added to initial recognition exception for a transaction in which an asset or liability is initially recognized. These amendments apply for annual periods beginning on or after January 1, 2023, and early application is permitted. The Group does not expect that these amendments have a significant impact on the financial statements.

The above enacted or amended standards will not have a significant impact on the Group.

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(2) Basis of consolidated financial statement presentation

The consolidated financial statements consist of the financial statements of the parent company and the entities (including structured entities) controlled by the parent company (or its subsidiaries, which is the “Group”). Control is achieved where the Group 1) has the power over the investee, 2) is exposed, or has rights, to variable returns from its involvement with the investee, and 3) able to use its power to affect its returns. The Group reassesses whether it controls an investee if facts and circumstances indicate that there are changes to one or more of the three elements of control listed above.

When the Group has less than most of the voting rights of an investee, it has power over the investee when the voting rights are sufficient to give it the practical ability to direct the relevant activities of the investee unilaterally. The Group considers all relevant facts and circumstances in assessing whether the Group's voting rights in an investee are enough to give it power, including:

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

Income and expenses of subsidiaries acquired or disposed of during the year are included in the consolidated statement of comprehensive income from the date the Group gains control until the date when the Group ceases to control the subsidiary. The carrying amount of the non-controlling interest after the acquisition is the amount initially recognized plus the amount of proportionate interest of the non-controlling interest in the changes in equity since the acquisition. Total comprehensive income of subsidiaries is attributed to the owner of the Group and to the non-controlling interests even if this results in the non-controlling interests having a negative (-) balance.

When necessary, adjustments are made to the financial statements of subsidiaries to bring their accounting policies into line with the Group's accounting policies.

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

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

When the Group loses control of a subsidiary, a gain or loss on disposal is calculated as the difference between (i) the aggregate of the fair value of the consideration received and the fair value of any retained interest and (ii) the previous carrying amount of the assets (including goodwill), and liabilities of the subsidiary and any non-controlling interests. When assets of the subsidiary are carried at revalued amounts or fair values and the related cumulative gain or loss has been recognized in other comprehensive income and accumulated in equity, the amounts previously recognized in other comprehensive income and accumulated in equity are accounted for as if the Group had directly disposed of the relevant assets (i.e. reclassified to profit or loss or transferred directly to retained earnings). The fair value of any investment retained in the former subsidiary at the date when control is lost is recognized as the fair value on initial recognition for subsequent accounting under K-IFRS 1109 *Financial Instruments* or, when applicable, the cost on initial recognition of an investment in an associate or a joint venture.

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(3) Business combinations

Acquisitions of subsidiaries and businesses are accounted for using the acquisition method. The consideration transferred in a business combination is measured as the sum of the acquisition-date fair values of the assets transferred by the Group in exchange for control of the acquiree, liabilities assumed by the Group for the former owners of the acquiree and the equity interests issued by the Group. Acquisition-related costs are generally recognized in profit or loss as incurred.

At the acquisition date, the acquiree's identifiable acquires assets, liabilities and contingent liabilities are recognized at their fair value, except for the followings:

- Deferred tax assets or liabilities and assets or liabilities related to employee benefit arrangements are recognized and measured in accordance with K-IFRS 1012 *Income Taxes* and K-IFRS 1019 *Employee Benefits*, respectively;
- Liabilities or equity instruments related to share-based payment arrangements of the acquiree or share-based payment arrangements of the Group entered into to replace share-based payment arrangements of the acquiree are measured in accordance with K-IFRS 1102 *Share-based Payment* at the acquisition date; and
- Non-current assets (or disposal groups) that are classified as held for sale are measured in accordance with K-IFRS 1105 *Non-current Assets Held for Sale and Discontinued Operations*

Any excess of the sum of the consideration transferred, the amount of any non-controlling interest in the acquiree and the fair value of the Group's previously held equity interest (if any) in the acquiree over the net of identifiable assets and liabilities assumed of the acquiree at the acquisition date is recognized as goodwill.

If, after reassessment, the Group's interest in the fair value of the acquiree's identifiable net assets exceeds the sum of the consideration transferred, the amount of any non-controlling interest in the acquiree and the fair value of the acquirer's previously held equity interest in the acquiree (if any), the excess is recognized immediately in net income as a bargain purchase gain.

The subsidiary's non-controlling interests are identified separately from the Group's equity. If the element of the non-controlling interest in the acquiree is the current interest at the acquisition date and the holder is entitled to a proportional share of the entity's net assets, the non-controlling interest can be measured in 1) fair value or 2) proportionate share of the current equity instrument of the amount recognized for the acquiree's identifiable net assets at the acquisition date. The selection of these metrics is made for each acquisition transaction. All other non-controlling interests are measured at fair value at the acquisition date. The carrying amount of the non-controlling interest after acquisition reflects the proportional interest of the non-controlling interest in changes in equity after acquisition in the initial recognition amount. Even if the non-controlling interest is a negative (-) balance, total comprehensive income is attributed to the non-controlling interest.

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

The subsequent accounting for changes in the fair value of the contingent consideration that do not qualify as measurement period adjustments depends on how the contingent consideration is classified. Contingent consideration that is classified as equity is not remeasured at subsequent reporting dates and its subsequent settlement is accounted for within equity. Contingent consideration other than the above is remeasured at subsequent reporting dates as appropriate, with the corresponding gain or loss being recognized in profit or loss.

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When a business combination is achieved in stages, the Group's previously held equity interest in the acquiree is remeasured at fair value at the acquisition date (i.e., the date when the Group obtains control) and the resulting gain or loss, if any, is recognized in net income (or other comprehensive income, if applicable). Amounts arising from changes in value of interests in the acquiree prior to the acquisition date that have previously been recognized in other comprehensive income are recognized, identical to the treatment assuming interests are sold directly.

If the initial accounting for a business combination is not completed by the end of the reporting period in which the business combination occurred, the Group reports in consolidated financial statements the provisional amount of items that have not been accounted for. If there is new information about the facts and circumstances that existed as of the acquisition date during the measurement period (see above), the Group retrospectively adjusts the provisional amounts recognized at the acquisition date or recognizes additional assets and liabilities to reflect the information that would have affected the measurement of the amount recognized at the acquisition date if it had already known at the acquisition date.

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(4) Investments in joint ventures and associates

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

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

The net income of current period and the assets and liabilities of the joint ventures and associates are incorporated in these consolidated financial statements using the equity method of accounting, except when the investment is classified as held for sale, in which case it is accounted for in accordance with K-IFRS 1105 Non-current Assets Held for Sale and Discontinued Operations. Under the equity method, an investment in the joint ventures and associates is initially recognized in the consolidated statements of financial position at cost and adjusted thereafter to recognize the Group's share of the net assets of the joint ventures and associates and any impairment. When the Group's share of losses of the joint ventures and associates exceeds the Group's interest in the associate, the Group discontinues recognizing its share of further losses. Additional losses are recognized only to the extent that the Group has incurred legal or constructive obligations or made payments on behalf of the joint ventures and associates.

Investment in joint ventures and associates are accounted for and applied with the equity method from the time the investee becomes an associate or a joint venture.

Any excess of the cost of acquisition over the Group's share of the net fair value of the identifiable assets, liabilities and contingent liabilities of the joint ventures and associates recognized at the date of acquisition is recognized as goodwill, which is included within the carrying amount of the investment. Any excess of the Group's share of the net fair value of the identifiable assets, liabilities and contingent liabilities over the cost of acquisition exists after the review, it is recognized immediately in net income.

The requirements of K-IFRS 1028 - Investments in Associates and Joint Ventures to determine whether there has been a loss event are applied to identify whether it is necessary to recognize any impairment loss with respect to the Group's investment in the joint ventures and associates. When necessary, the entire carrying amount of the investment (including goodwill) is tested for impairment in accordance with K-IFRS 1036 - Impairment of Assets as a single asset by comparing its recoverable amount (higher of value in use and fair value less costs to sell) with its carrying amount. Any impairment loss recognized is not allocated to any asset (including goodwill), which forms part of the carrying amount of the investment. Any reversal of that impairment loss is recognized in accordance with K-IFRS 1036 to the extent that the recoverable amount of the investment subsequently increases.

The Group ceases to use the equity method from the time it fails meet the definition of an associate or a joint venture. Upon a loss of significant influence over the joint ventures and associates, the Group discontinues the use of the equity method and measures at fair value of any investment that the Group retains in the former joint ventures and associates from the date when the Group loses significant influence. The fair value of the investment is regarded as its fair value on initial recognition as a financial asset in accordance with K-IFRS 1109 Financial Instruments; Recognition and Measurement. The Group recognized differences between the carrying amount and fair value in net income and it is included in determination of the gain or loss on disposal of joint ventures and associates. The Group accounts for all amounts recognized in other comprehensive income in relation to that joint ventures and associates on the same basis as would be required if the joint ventures and associates had directly disposed of the related assets or liabilities. Therefore, if a gain or loss previously recognized in other comprehensive income by an associate or a joint venture would be reclassified to net income on the disposal of the related assets or liabilities, the Group reclassifies the gain or loss from equity to net income as a reclassification adjustment.

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When the Group's ownership of interest in an associate or a joint venture decreases but the Group continues to maintain significant influence over an associate or a joint venture, the Group reclassifies to profit or loss the proportion of the gain or loss that had previously been recognized in other comprehensive income relating to that decrease in ownership interest if the gain or loss would be reclassified to profit or loss on the disposal of the related assets or liabilities. Meanwhile, if interest on associate or joint venture meets the definition of non-current asset held for sale, it is accounted for in accordance with K-IFRS 1105.

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

When the Group transacts with an associate or a joint venture of the Group, profits and losses resulting from the transactions with the associate or joint venture are recognized in the Group's consolidated financial statements only to the extent of interests in the associate or joint venture that are not related to the Group.

The Group applies K-IFRS 1109 Financial Instruments, including the impairment requirements, to its long-term investment interests in associates and joint ventures that form part of its net investment without applying the equity method. In addition, when applying K-IFRS 1109 to long-term investments, the Group does not consider adjustments to the carrying amount required by K-IFRS 1028. Examples of such adjustments include an impairment assessment or an adjustment to the carrying amount of the long-term investment interest resulting from the allocation of losses to the investee in accordance with K-IFRS 1028.

(5) Investment in joint operation

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

When the Group operates as a joint operator, it recognizes in relation to its interest in a joint operation:

- its assets, including its share of any assets held jointly;
- its liabilities, including its share of any liabilities incurred jointly;
- its revenue from the sale of its share of the output arising from the joint operation;
- its share of the revenue from the sale of the output by the joint operation;
- its expenses, including its share of any expenses incurred jointly.

The Group accounts for the assets, liabilities, revenues and expenses that correspond to its interest in a joint operation in accordance with the K-IFRSs applicable to the specific assets, liabilities, revenues and expenses.

When the Group enters into a transaction with a joint operation in which it is a joint operator, such as a sale or contribution of assets, it is conducting the transaction with the other parties to the joint operation and, as such, the Group recognizes gains and losses resulting from such a transaction only to the extent of the other parties' interests in the joint operation.

When the Group enters a transaction with a joint operation in which it is a joint operator, such as a purchase of assets, it does not recognize proportional share of profit or loss until the asset is sold to a third party.

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(6) Revenue recognition

K-IFRS 1115 requires the recognition of revenues based on transaction price allocated to the performance obligation when or as the Group performs that obligation to the customer. Revenues other than those from contracts with customers, such as interest revenue and loan origination fee (cost), are recognized through effective interest rate method.

1) Revenues from contracts with customers

The Group recognizes revenue when the Group satisfies a performance obligation by transferring a promised good or service to a customer. When a performance obligation is satisfied, the Group shall recognize as a revenue the amount of the transaction price that is allocated to that performance obligation. The transaction price is the amount of consideration to which the Group expects to be entitled in exchange for transferring promised goods or services to a customer, excluding amounts collected on behalf of third parties.

The Group is recognizing revenue by major sources as shown below:

① Fees and commission received for brokerage

The fees and commission received for agency are the amount of consideration or fee expected to be entitled to receive in return for providing goods or services to the other parties with the Group acting as an agency, such as in the case of sales of bancassurance and beneficiary certificates. Most of these fees and commission received for brokerage are from the business activities relevant to Banking segment.

② Fees and commission received related to credit

The fees and commission received related to credit mainly include the lending fees received from the loan activity and the fees received in the L/C transactions. Except for the fees and commission accounted for in calculating the effective interest rate, it is generally recognized when the performance obligation has been performed. Most of these fees and commission received related to credit are from the business activities relevant to Banking, Credit card and Investment banking segment.

③ Fees and commission received for electronic finance

The fees and commission received for electronic finance include fees received in return for providing various kinds of electronic financial services through firm-banking and CMS. These fees are recognized as revenue immediately upon the completion of services. Most of these fees and commission received for electronic finance are from the business activities relevant to Banking and Investment banking segment.

④ Fees and commission received on foreign exchange handling

The fees and commission received on foreign exchange handling consist of various fees incurred when transferring foreign currency. The point of processing the customer's request is the time when performance obligation is satisfied, and revenue is immediately recognized when fees and commission are received after requests are processed. The business activities relevant to these fees and commission received on foreign exchange handling are substantially attributable to Banking segment.

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⑤ Fees and commission received on foreign exchange

The fees and commission received on foreign exchange consist of fees related to the issuance of various certificates, such as exchange, import and export performance certificates, purchase certificates, etc. The point of processing the customer's request is the time when performance obligation is satisfied, and revenue is immediately recognized when fees and commission are received after requests are processed. The business activities relevant to these fees and commission received on foreign exchange are substantially attributable to Banking segment.

⑥ Fees and commission received for guarantee

The fees and commission received for guarantee include the fees received for the various warranties. The activities related to the warranty consist mainly of performance obligations satisfied over time and fees and commission are recognized over the guarantee period. The business activities relevant to these fees and commission received for guarantee are substantially attributable to Banking segment.

⑦ Fees and commission received on credit card

The fees and commission received on credit card consist mainly of merchant account fees and annual fees.

The Group recognizes merchant account fees by multiplying agreed commission rate to the amount paid by using the credit card. The annual fees are performance obligation satisfied over time and are recognized over agreed periods after the annual fees are paid in advance. The business activities relevant to these fees and commission received on credit card are substantially attributable to Credit cards segment.

⑧ Fees and commission received on securities business

The fees and commission received on securities business consist mainly of fees and commission for the sale of beneficiary certificates, and these fees are recognized when the beneficiary certificates are sold to customers. The business activities relevant to these fees and commission received on securities business are substantially attributable to Banking and Investment banking segment.

⑨ Fees and commission from trust management

The fees and commission from trust management consist of fees and commission received in return for the operation and management services for entrusted assets. These operation and management services are performance obligations satisfied over time, and revenue is recognized over the service period. Among the fees and commission from trust management, variable considerations such as profit commission that are affected by the value of entrusted assets and base return of the future periods are recognized as revenue when limitations to the estimates are lifted. Most of these fees and commission received for brokerage are from the business activities relevant to Banking segment.

⑩ Fees and commission received on credit Information

The fees and commission received on credit Information are composed of the fees and commission received by performing credit investigation and proxy collection services. Credit investigation fees and commission are the amount received in return for verifying the information requested by the customer and are recognized as revenue at the time the verification is completed. Proxy collection service fees are recognized by rying the applicable rate to the collected amount at the time when collection services are completed. Most of these fees and commission received for brokerage are from the business activities relevant to other segments.

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⑪ Other fees

Other fees are usually fees related to remittances, but include fees related to various other services provided to customers by the Group. These fees are recognized when transactions occur at the customers' request and services are provided, at the same time when commission are received. These other fees occur across all operating segments.

2) Revenues from sources other than contracts with customers

① Interest income

Interest income on financial assets measured at FVTOCI and financial assets at amortized costs is measured using the effective interest method.

The effective interest method is a method of calculating the amortized cost of a debt instrument and of allocating the interest income over the expected life of the asset. The effective interest rate is the rate that exactly discounts estimated future cash flows to the instrument's initial unamortized cost over the expected period, or shorter if appropriate. Future cash flows include commissions and cost of reward points (limited to the primary component of effective interest rate) and other premiums or discounts that are paid or received between the contractual parties when calculating the effective interest rate, but does not include expected credit losses. All contractual terms of a financial instrument are considered when estimating future cash flows.

For purchased or originated credit-impaired financial assets, interest revenue is recognized by applying the credit-adjusted effective interest rate to the amortized cost of the financial asset from initial recognition. Even if the financial asset is no longer impaired in the subsequent periods due to credit improvement, the basis of interest revenue calculation is not changed from amortized cost to unamortized cost of the financial assets.

② Loan origination fees and costs

The commission fees earned on loans, which is part of the effective interest of loans, is accounted for as deferred origination fees. Incremental costs related to the origination of loans are accounted for as deferred origination fees and is being added or deducted to/from interest income on loans using effective interest rate method.

3) Dividend income

Dividend income is recognized when the right to receive dividends as a shareholder is confirmed. Dividend income is recognized as an appropriate item of profit or loss in the statement of comprehensive income according to the classification of financial instruments.

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(7) Accounting for foreign currencies

The Group's consolidated financial statements are presented in Korean Won, which is the functional currency of the Group. At the end of each reporting period, monetary assets and liabilities denominated in foreign currencies are translated to the functional currency at its prevailing exchange rates at the date. The effective portion of the changes in fair value of a derivative that qualifies as a cash flow hedge and the foreign exchange differences on monetary items that form part of net investment in foreign operations are recognized in equity.

Assets and liabilities of the foreign operations subject to consolidation are translated into Korean Won at foreign exchange rates at the end of the reporting period. Except for situations in which it is required to use exchange rates at the date of transaction due to significant changes in exchange rates during the period, items that belong to profit or loss shall be measured by average exchange rate, with foreign exchange differences recognized as other comprehensive income and added to equity (allocated to non-controlling interests, if appropriate). When foreign operations are disposed, the controlling interest's share of accumulated foreign exchange differences related to such foreign operations will be reclassified to profit or loss, while non-controlling interest's corresponding share will not be reclassified.

Adjustments to fair value of identifiable assets and liabilities, and goodwill arising from the acquisition of foreign operations will be treated as assets and liabilities of the corresponding foreign operation, and translated using foreign exchange rates at the end of the period. The foreign exchange differences are recognized in other comprehensive income.

(8) Cash and cash equivalents

The Group is classifying cash on hand, demand deposits, interest-earning deposits with original maturities of up to three months on acquisition date, and highly liquid investments that are readily convertible to known amounts of cash and subject to an insignificant risk of changes in value as cash and cash equivalents.

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(9) Financial assets and financial liabilities

1) Financial assets

A regular way purchase or sale of financial assets is recognized or derecognized on the trade or settlement date. A regular way purchase or sale is a purchase or sale of a financial asset under a contract whose term requires delivery of the asset within the time frame established generally by regulation or convention in the marketplace concerned.

On initial recognition, financial assets are classified into financial assets at FVTPL, financial assets at FVTOCI, and financial assets at amortized cost according to its business model and contractual cash flows.

a) Business model

The Group evaluates the way business is being managed, and the purpose of the business model for managing a financial asset best reflects the way information is provided to the management at its portfolio level. Such information considers the following:

- The accounting policies and purpose specified for the portfolio, the actual operation of such policies. This includes strategy of the management focusing on the receipt of contractual interest revenue, maintaining a certain level of interest income, matching the duration of financial assets and the duration of corresponding liabilities to obtain the asset, and outflow or realization of expected cash flows from disposal of assets
- The way the performance of a financial asset held under the business model is evaluated, and the way such evaluation is being reported to the management
- The risk affecting the performance of the business model (and financial assets held under the business model), and the way such risk is being managed
- The compensation plan for the management (e.g. whether the management is being compensated based on the fair value of assets or based on contractual cash flows received)
- Frequency, amount, timing and reason for sale of financial assets in the past, and forecast of future sale activities.

b) Contractual cash flows

The principal is defined to be the fair value of a financial assets at initial recognition. Interest is not only composed of consideration for the time value of money, consideration for the credit risk related to remaining principal at a certain period of time, and consideration for other cost (e.g. liquidity risk and cost of operation) and fundamental risk associated with lending, but also profit.

When evaluating whether contractual cash flows are solely payments of principal and interests, the Group considers the contractual terms of the financial instrument. When a financial asset contains contractual conditions that modify the timing and amount of contractual cash flows, it is required to determine whether contractual cash flows that arise during the remaining life of the financial instrument due to such contractual condition are solely payments of principal and interest. The Group considers the following elements when evaluating the above:

- Conditions that lead to modification of timing or amount of cash flows
- Contractual terms that adjust contractual nominal interest, including floating rate features
- Early payment features and maturity extension features
- Contractual terms that limit the Group's claim on cash flows arising from certain assets

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① Financial assets at FVTPL

The Group is classifying those financial assets that are not classified as either financial assets at amortized cost or financial assets at FVTOCI, and those designated to be measured at FVTPL, as financial assets at FVTPL. Financial assets at FVTPL are measured at fair value, and related profit or loss is recognized in net income. Transaction costs related to acquisition at initial recognition is recognized in net income immediately upon its occurrence.

It is possible to designate a financial asset as financial asset at FVTPL if at initial recognition: (a) it is possible to remove or significantly reduce recognition or measurement mismatch that may otherwise have occurred if not for its designation as financial asset at FVTPL; (b) the financial asset forms part of the Group's financial instrument group (a group composed of a combination of financial asset or liability), is measured at fair value and is being evaluated for its performance, and such information is provided internally; and (c) the financial asset is part of a contract that contains one or more of embedded derivatives, and is a hybrid contract in which designation as financial asset at FVTPL is allowed under K-IFRS 1109 Financial Instruments. However, the designation is irrevocable.

② Financial assets at FVTOCI

When financial assets are held under a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets, and when contractual cash flows from such financial assets are solely payments of principal and interest, the financial assets are classified as financial assets at FVTOCI. Also, for investments in equity instruments that are not held for short-term trade, an irrevocable election is available at initial recognition to present subsequent changes in fair value as other comprehensive income.

At initial recognition, financial assets at FVTOCI is measured at its fair value plus any direct transaction cost, and is subsequently measured in fair value. However, for equity instruments that do not have a quotation in an active market and in which fair value cannot be measured reliably, they are measured at cost. The income tax effects related to the changes in fair value except for profit or loss items such as impairment losses (reversals), interest revenue calculated by using effective interest method, and foreign exchange gain or loss about debt instrument are recognized as other comprehensive income until the asset's disposal. Upon derecognition, the accumulated other comprehensive income is reclassified from equity to net income for FVTOCI (debt instrument), and reclassified within the equity for FVTOCI (equity instruments).

③ Financial assets at amortized cost

When financial assets are held under a business model whose objective is to hold financial assets in order to collect contractual cash flows, and when contractual cash flows from such financial assets are solely payments of principal and interest, the financial assets are classified as financial assets at amortized cost. At initial recognition, financial assets at amortized cost are recognized at fair value plus any direct transaction cost. Financial assets at amortized cost is presented at amortized cost using effective interest method, less any loss allowance.

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2) Financial liabilities

At initial recognition, financial liabilities are classified into either financial liabilities at FVTPL or financial liabilities at amortized cost.

Financial liabilities are usually classified as financial liabilities at FVTPL when they are acquired with a purpose to repurchase them within a short period of time, when they are part of a certain financial instrument portfolio that is actually and recently being managed with a purpose of short-term profit and joint management by the Group at initial recognition, and when they are derivatives that do not qualify as hedging instruments. Financial liabilities at FVTPL are measured at fair value plus direct transaction cost at initial recognition, and are subsequently measured at fair value. Profit or loss arising from financial liabilities at FVTPL is recognized in net income when occurred.

It is possible to designate a financial liability as financial liability at FVTPL if at initial recognition: (a) it is possible to remove or significantly reduce recognition or measurement mismatch that may otherwise have occurred if not for its designation as financial liability at FVTPL; (b) the financial asset forms part of the Group's financial instrument group (a group composed of a combination of financial asset or liability) according to the Group's documented risk management or investment strategy, is measured at fair value and is being evaluated for its performance, and such information is provided internally; and (c) the financial liability is part of a contract that contains one or more of embedded derivatives, and is a hybrid contract in which designation as financial liability at FVTPL is allowed under K-IFRS 1109 Financial Instruments.

Financial liabilities designated as at FVTPL are initially recognized at fair value, with any direct transaction cost recognized in profit or loss, and are subsequently measured at fair value. Any profit or loss from financial liabilities at FVTPL are recognized in profit or loss.

Financial liabilities not classified as financial liabilities at FVTPL are measured at amortized cost.

3) Reclassification

Financial assets are not reclassified after initial recognition unless the Group modifies the business model used to manage financial assets. When the Group modifies the business model used to manage financial assets, all affected financial assets are reclassified on the first day of the first reporting period after the modification.

4) Derecognition

Financial assets are derecognized when contractual rights to cash flows from the financial assets are expired, or when substantially all of risk and reward for holding financial assets is transferred to another entity as a result of a sale of financial assets. If the Group does not have and does not transfer substantially all of the risk and reward of holding financial assets with control of the transferred financial assets retained, the Group recognizes financial assets to the extent of its continuing involvement. If the Group holds substantially all the risk and reward of holding a financial asset, it continues to recognize that asset and proceeds are accounted for as collateralized borrowings.

When a financial asset is fully derecognized, the difference between the carrying amount and the sum of proceeds and accumulated other comprehensive income is recognized as profit or loss in case of FVTOCI (debt instruments), and as retained earnings for FVTOCI (equity instruments).

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In case when a financial asset is not fully derecognized, the Group allocates the carrying amount into amounts retained in the books and removed from the books, based on the relative fair value of each portion at the date of sale, and based on the degree of continuing involvement. For the derecognized portion of the financial assets, the difference between its carrying amount and the sum of proceeds and the portion of accumulated other comprehensive income attributable to that portion will be recognized in profit or loss in case of debt instruments and recognized in retained earnings in case of equity instruments. The accumulated other comprehensive income is distributed to the portion of carrying amount retained in the books, and to the portion of carrying amount removed from the books.

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

When the Group exchanges with the existing lender one debt instrument into another one with the substantially different terms, such exchange is accounted for as an extinguishment of the original financial liability and the recognition of a new financial liability. Similarly, the Group accounts for substantial modification of terms of an existing liability or part of it as an extinguishment of the original financial liability and the recognition of a new liability. It is assumed that the terms are substantially different if the discounted present value of the cash flows under the new terms, including any fees paid net of any fees received and discounted using the original effective rate is at least 10 percent different from the discounted present value of the remaining cash flows of the original financial liability.

5) Fair value of financial instruments

Financial assets at FVTPL and financial assets at FVTOCI are measured and presented in consolidated financial statements at their fair values, and all derivatives are also subject to fair value measurement.

Fair value is defined as the price that would be received to exchange an asset or paid to transfer a liability in a recent transaction between independent parties that are reasonable and willing. Fair value is the transaction price of identical financial assets or financial liabilities generated in an active market. An active market is a market where trade volume is sufficient and objective price information is available due to the fact that bid and ask price differences are small.

When trade volume of a financial instrument is low, when transaction prices within the market show large differences among them, or when it cannot be concluded that a financial instrument is being traded within an active market due to disclosures being extremely shallow, fair value is measured using valuation techniques based on alternative market information or using internal valuation techniques based on general and observable information obtained from objective sources. Market information includes maturity and characteristics, duration, similar yield curve, and variability measurement of financial instruments of similar nature. Fair value amount contains unique assumptions on each entity (the Group concluded that it is using assumptions applied in valuing financial instruments in the market, or risk-adjusted assumptions in case marketability does not exist).

The market approach and income approach, which are valuation techniques used to estimate the fair value of financial instruments, both require significant judgment. Market approach measures fair value using either a recent transaction price that includes the financial instrument, or observable information on comparable firm or assets. Income approach measures fair value through discounting future cash flows with a discount rate reflecting market expectations, and revenue, operating income, depreciation, capital expenditures, income tax, working capital and estimated residual value of financial investments are being considered when deriving future cash flows. Valuation techniques such as the above include estimates based on the financial instruments' complexity and usefulness of observable information in the market.

The valuation techniques used in the evaluation of financial instruments are explained below.

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The fair value of equity securities included in financial assets at FVTPL and financial assets at FVTOCI category is recognized in the statement of financial position at its available market price. Debt securities traded in the over-the-counter market are generally recognized at an amount computed by an independent appraiser. When the Group uses the fair value determined by independent appraisers, the Group usually obtains three values from three different appraisers for each financial instrument, and selects the minimum amount without making additional adjustments. For equity securities without marketability, the Group uses the amount determined by the independent appraiser. The Group verifies the prices obtained from appraisers in various ways, including the evaluation of independent appraisers' competency, indirect verification through comparison between appraisers' price and other available market information, and reperformed by employees who have knowledge of valuation models and assumptions that appraisers used.

b) Derivatives

The Group's transactions involving derivatives such as futures and exchange traded options are measured at market value. For exchange traded derivatives classified as level 2 in the fair value hierarchy, the fair value is estimated using internal valuation techniques. If there are no publicly available market prices because they are traded over-the-counter, fair value is measured through internal valuation techniques. When using internal valuation techniques to derive fair value, the types of derivatives, base interest rate or characteristics of prices, or stock market indices are considered. When variables used in the internal valuation techniques are not observable information in the market, such variables may contain significant estimates.

c) Adjustment of valuation amount

The Group is exposed to credit risk when a counterparty to a derivative contract does not perform its contractual obligation, and the exposure amount is equal to the amount of derivative asset recognized in the statement of financial position. When the Group earns income through valuation of derivatives, such income is recognized as derivative asset in the statement of financial position. Some of the derivatives are traded in the market, but most of the derivatives are measured at estimated fair value derived from internal valuation models that use observable information in the market. As such, in order to estimate the fair value there should be an adjustment made to incorporate counterparty's credit risk, and credit risk adjustment is being considered when valuing derivative assets such as over-the counter derivatives. The amount of financial liabilities is also adjusted by the Group's own credit risk when valuing them.

The amount of adjustment is derived from counterparty's probability of default and loss given default. This adjustment considers contractual matters that are designed to reduce the Group's exposure to each counterparty's credit risk. When derivatives are under master netting arrangement, the exposure used in the computation of credit risk adjustment is a net amount after adding/deducting cash collateral received (or paid) from loss(or gain) position derivatives with the same counterparty.

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6) Expected credit losses on financial assets

The Group recognizes loss allowance on expected credit losses for the following assets:

- Financial assets at amortized cost
- Debt instruments measured at FVTOCI
- Contract assets as defined by K-IFRS 1115

Expected credit losses are weighted-average value of a range of possible results, considering the time value of money, and are measured by incorporating information on current conditions and forecasts of future economic conditions that are available without undue cost or effort.

The methods to measure expected credit losses are classified into following three categories in accordance with K-IFRS:

- General approach: Financial assets that does not belong to below two models and unused loan commitments
- Simplified approach: When financial assets are either trade receivables, contract assets or lease receivables
- Credit impairment model: Purchased or originated credit-impaired financial assets

The measurement of loss allowance under general approach is differentiated depending on whether the credit risk has increased significantly after initial recognition. That is, loss allowance is measured based on 12-month expected credit loss when the credit risk has not increased significantly after initial recognition, while loss allowance is measured at lifetime expected credit loss when credit risk has increased significantly. Lifetime is the expected remaining life of the financial instrument up to the maturity date of the contract.

The measurement of loss allowance under simplified approach is always based on lifetime expected credit loss, and loss allowance under credit impairment model is measured as the cumulative change in lifetime expected credit loss since initial recognition.

a) Measurement of expected credit losses on financial asset at amortized cost

The expected credit losses on financial assets at amortized cost is measured by the difference between the contractual cash flows during the period and the present value of expected cash flows. Expected cash inflows are computed for individually significant financial assets in order to calculate expected credit losses.

When financial assets that are not individually significant, they are included in a group of financial assets with similar credit risk characteristics and expected credit losses of the group are calculated collectively.

Expected credit losses are deducted through loss allowance account, and when the financial asset is determined to be uncollectible, the loss allowance is written off from the books along with the related financial asset.

b) Measurement of expected credit losses on financial asset at FVTOCI(Debt instruments)

The measurement method of expected credit loss is identical to financial asset at amortized cost, but changes in the loss allowance is recognized in other comprehensive income. When financial assets at FVTOCI is disposed or repaid, the related loss allowance is reclassified from accumulated other comprehensive income to net income.

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(10) Offsetting financial instruments

Financial assets and liabilities are presented as a net amount in the statements of financial position when the Group has an enforceable legal right and an intention to settle on a net basis or to realize an asset and settle the liability simultaneously.

(11) Investment properties

The Group classifies a property held to earn rentals and/or for capital appreciation as an investment property. Investment properties are measured initially at cost, including transaction costs, less subsequent depreciation and impairment.

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

While land is not depreciated, all other investment properties are depreciated based on the depreciation method and useful lives of premises and equipment. The estimated useful lives, residual values and depreciation method are reviewed at the end of each reporting period, and when it is deemed appropriate to change them, the effect of any change is accounted for as a change in accounting estimates.

An investment property is derecognized from the consolidated financial statements on disposal or when it is permanently withdrawn from use and no future economic benefits are expected even from its disposal. The gain or loss on the derecognition of an investment property is calculated as the difference between the net disposal proceeds and the carrying amount of the property and is recognized in profit or loss in the period of the derecognition.

(12) Premises and equipment

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

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

While land is not depreciated, for all other premises and equipment, depreciation is charged to net income on a straight-line basis by applying the following estimated economic useful lives on the amount of cost or revalued amount less residual value.

	Useful life
Buildings used for business purpose	26 to 57 years
Structures in leased office	4 to 5 years
Properties for business purpose	4 to 7 years

The Group reassesses the depreciation method, the estimated useful lives and residual values of premises and equipment at the end of each reporting period. If changes in the estimates are deemed appropriate, the changes are accounted for as a change in an accounting estimate. When there is an indicator of impairment and the carrying amount of a premises and equipment item exceeds the estimated recoverable amount, the carrying amount of such asset is reduced to the recoverable amount.

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(13) Intangible assets and goodwill

The Group recognizes the acquisition cost of an intangible asset as the manufacturing cost or purchase cost plus additional incidental expenses. Development costs are the sum of expenditures incurred after the asset recognition requirements, such as technical feasibility and future economic benefits, are met. After the initial recognition, the carrying value is presented as the accumulated amortization and accumulated impairment losses deducted from the cost.

The Group's intangible asset are amortized over the following economic lives using the straight-line method. However, for some intangible assets, the period of time that is expected to be available is not predictable, so the useful life of some intangible assets is assessed as indefinite and not depreciated.

The estimated useful life and amortization method of intangible assets with a finite useful life are reviewed at the end of each reporting period. If changes in the estimates are deemed appropriate, the changes are accounted for as a change in an accounting estimate.

	Useful life
Industrial property rights	5 to 10 years
Development costs	5 years
Software and others	1 to 10 years

In addition, when an indicator that intangible assets are impaired is noted, and the carrying amount of the asset exceeds the estimated recoverable amount of the asset, the carrying amount of the asset is reduced to its recoverable amount.

Goodwill acquired in a business combination is included in intangible assets. Goodwill is not amortized, but is subject to an impairment test at the cash-generating unit level every year, and whenever there is an indicator that goodwill is impaired.

Goodwill is allocated to each of the Group's cash-generating unit (or groups of cash-generating units) that is expected to benefit from the synergies of the combination. If the recoverable amount of the cash-generating unit is less than its carrying amount, the impairment loss is allocated first to reduce the carrying amount of any goodwill allocated to the unit and then to the other assets of the unit on a pro rata basis based on the carrying amount of each asset in the unit. Any impairment loss for goodwill is recognized directly in profit or loss. An impairment loss recognized for goodwill is not reversed in subsequent periods.

(14) Impairment of non-monetary assets

Intangible assets with indefinite useful lives or intangible assets that are not yet available for use are tested for impairment annually, regardless of whether there is any indication of impairment. All other assets are tested for impairment by estimating the recoverable amount when there is an objective indication that the carrying amount may not be recoverable. Recoverable amount is the higher of value in use or net fair value, less costs to sell. If the recoverable amount of an asset is estimated to be less than its carrying amount, the carrying amount of the asset is reduced to its recoverable amount and such impairment loss is recognized immediately in net income.

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(15) Leases

The Group determines whether the contract is a lease or includes a lease at the time of the contract agreement. In exchange for consideration in a contract, the contract is either a lease or includes a lease if the control over the use of the identified asset is transferred for a period of time. In determining whether a contract transfers control over the use of the asset to which it is identified, the Group uses the definition of lease in K-IFRS 1116.

① The Group as a lessee

The Group recognizes the right-of-use asset and the lease liability at the commencement date of the lease. The right-of-use asset is measured at cost, which comprises the amount of the initial measurement of the lease liability, lease payments made at or before the commencement date (less any lease incentives received), initial direct costs, and 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.

The right-of-use asset is subsequently depreciated on a straight-line basis from the commencement of the lease to the end of the lease term. However, if the lease transfers ownership of the underlying asset to the lessee by the end of the lease term or if the cost of the right-of-use asset reflects that the lessee will exercise a purchase option, the lessee depreciates the right-of-use asset same as a fixed asset from the commencement date to the end of the useful life of the underlying asset. The right-of-use asset may be reduced by an impairment of the underlying asset or adjusted by remeasurement of the lease liability.

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

The Group makes adjustments to reflect the terms of the lease and the characteristics of the lease asset in interest rates obtained from external financial information, and calculates the incremental borrowing rate.

The Group calculates the lease term by including the relevant period when it is quite certain that the lessee will exercise the extension option or the termination option. The Group calculates the enforceable period in consideration of the economic disadvantages of terminating the contract if the lessee and the lessor have the right to terminate it without the consent of the other parties.

The lease payments included in the measurement of the lease liability comprise the following:

- Fixed payments (including in-substance fixed payments)
- Variable lease payments that depend on an index (or a rate), initially measured using the index or a rate as at the commencement date
- Amounts expected to be payable by the lessee under residual value guarantees
- The exercise price of a purchase option if the lessee is reasonably certain to exercise that option, lease payments of the extended period if the lessee is reasonably certain to exercise extension option, and payments of penalties for terminating the lease, if the lease term reflects the lessee exercising an option to terminate the lease

The lease liability is subsequently increased by the interest expense recognized for the lease liability and decreased by reflecting the payment of the lease payments. The lease liability is remeasured if the future lease payments change depending on changes in the index (or a rate), changes in the expected amount to be paid under the residual value guarantee, and changes in the assessment of whether the purchase or extension option is reasonably certain to be exercised or not to exercise the terminate option.

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When remeasuring a lease liability, the related right-of-use asset is adjusted and if the carrying amount of the right-of-use asset decreases to zero, the remeasurement amount is recognized in profit or loss.

The Group applies its judgment when determining the lease term for some lease contracts that include the extension option. The assessment of whether the Group is reasonably certain to exercise the option significantly affects the lease term and therefore has a significant impact on the amount of lease liabilities and the right-of-use asset.

Because the Group can replace the asset without significant cost or business discontinuation, the option to extend the lease is not included in the lease liability in most offices and vehicle transport leases.

The Group reevaluates the lease term when the option is exercised (or not exercised) or the Group is liable to exercise (or not exercise) the option. Group will change its judgment only when significant events occur that affect the lessee's control and the determination of the lease term, or there is a significant change in the circumstances.

Lease liabilities and right-of-use-asset increased by 1,650 million won, reflecting the exercise impact of the extension and termination options during the current term.

In the statement of financial position, the Group classified the right-of-use assets that do not meet the definition of investment property as 'premises and equipment' and the lease liabilities as 'other financial liabilities.'

The Group has chosen a practical expedient that does not recognize the right-of-use asset and lease liabilities for short-term leases with a lease term less than 12 months and leases for which the underlying asset is of low value. The Group recognizes the lease payments associated with those leases as an expense on a straight-line basis over the lease term.

② The Group as a lessor

At the date of the agreement or the effective date of the modification containing the lease element, the Group allocates the consideration of the contract to each lease element based on its relative stand-alone price.

As a lessor, the Group classifies its leases as either a finance lease or an operating lease at the commencement date.

The Group subsequently judges whether the lease transfers substantially all the risks and rewards incidental to ownership of an underlying asset. A lease is classified as a finance lease if it transfers substantially all the risks and rewards incidental to ownership of an underlying asset, otherwise a lease is classified as an operating lease.

If the agreement contains both lease and non-lease elements, the Group applies K-IFRS 1115 to allocate the consideration of the contract.

The Group applies the derecognition and impairment provisions of K-IFRS 1109 to its net investment in the lease. The Group also carries out regular review of the unguaranteed residual value used to calculate total lease investment.

The Group recognizes lease payments from operating lease as income on a straight-line basis.

The accounting policy that the Group has applied as a lessor is not different from K-IFRS 1116.

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(16) Derivative instruments

Derivative instruments are classified as forwards, futures, options and swaps, depending on the types of transactions and are classified at the point of transaction as either trading or hedging based on its purpose.

Derivatives are initially recognized at fair value at the date of contract and are subsequently measured at fair value at the end of each reporting period. The resulting gain or loss is recognized in net income immediately unless the derivative is designated or effective as a hedging instrument. If derivatives have been designated as hedging instruments and if it is effective, the point of recognition of gain or loss depends on the characteristics of hedging relationship.

Derivatives that have positive (+) fair values are recognized as financial assets and those that have negative (-) fair values are recognized as financial liabilities. Derivatives are not offset in the consolidated financial statements unless they have legally enforceable right to set off or are intended to set off.

1) Embedded derivatives

Embedded derivatives are components of a hybrid financial instrument that includes a non-derivative host contract. It has an effect of modifying part of cash flows of the hybrid financial instrument similar to an independent derivative.

Embedded derivatives that are part of a hybrid contract of which the host contract is a financial asset within the scope of K-IFRS 1109 are not separated. The classification is done by considering the hybrid contract as a whole, and subsequent measurement is either at amortized cost or fair value.

If embedded derivatives are part of a hybrid contract of which the host contract is not a financial asset within the scope of K-IFRS 1109 (e.g. financial liability), then these are treated as separate derivatives if embedded derivatives meet the definition of a derivative, characteristics & risk of the embedded derivatives are not closely related to that of host contract, and if the host contract is not measured at FVTPL.

2) Hedge accounting

The Group is applying K-IFRS 1109 in regard to hedge accounting. The Group is designating certain derivatives as hedging instrument against fair value changes in relation to the interest rate risk, foreign currency translation and interest rate risk, and foreign currency translation risk.

The Group is documenting the relationship between hedging instruments and hedged items at the commencement of hedging in accordance with their purpose and strategy. Also, the Group documents at the commencement and subsequent dates whether the hedging instrument effectively counters the changes in fair value of hedged items. A hedging instrument is effective only when it meets all the following criteria:

- When there is an economic relationship between the hedged items and hedging instruments
- When the effect of credit risk is not stronger than the change in value due to the economic relationship between the hedged items and hedging instruments
- When the hedge ratio of hedging relationship is equal to the proportion of the number of items that the group actually hedges and the number of hedging instruments that the Group actually uses to hedge the number of hedged items

When a hedging relationship no longer meets the hedging effectiveness requirements related to hedge ratio, but when the purpose of risk management on designated hedging relationship is still maintained, the hedge ratio of the hedging relationship is adjusted so that hedging relationship may meet the requirements again (Hedge ratio readjustment).

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The Group has designated derivatives as hedging instrument except for the portion on foreign currency basis spread. The fair value change due to foreign currency basis spread is recognized in other comprehensive income and is accumulated in equity. If the hedged item is related to transactions, the accumulated other comprehensive income is reclassified to profit or loss when the hedged item affects the profit or loss. However, when non-monetary items are subsequently recognized due to hedged items, the accumulated equity is removed from the equity directly, and is included in the initial carrying amount of the recognized non-monetary items. Such transfers does not affect other comprehensive income. But if part or all of accumulated equity is not expected to be recovered in the future periods, the amount not expected to be recovered is immediately reclassified to profit or loss. If the hedged item is time-related, then the foreign currency basis spread on the day the derivative is designated as a hedging instrument that is related to the hedged item is reclassified to profit or loss over the term of the hedge.

3) Fair value hedge

Gain or loss arising from valid hedging instrument is recognized in profit or loss. However, when the hedging instrument mitigates risks on equity instruments designated as financial assets at FVTOCI, related gain or loss is recognized in other comprehensive income.

The carrying amount of hedged items that are not measured in fair value is adjusted by the changes in fair value arising from the hedged risk, with resulting gain or loss reflected in net income. In case of debt instruments measured at FVTOCI, carrying amount is an amount that is already adjusted to fair value and thus gain or loss arising from the hedged risk is recognized in profit or loss instead of other comprehensive income without adjustments in carrying amount. When the hedged item is equity instruments measured at FVTOCI, the gain or loss arising from hedged risk is retained at other comprehensive income in order to match the gain or loss with hedging instruments.

When gains or losses arising from the hedged risk are recognized in profit or loss of the current term, they are recognized as items related to the hedged items.

Hedge accounting ceases to apply only when hedging relationship (or part of it) does not meet the requirements of hedge accounting (even after hedging relationship readjustment, if applicable). This treatment holds in case of lapse, disposal, expiry and exercise of hedging instruments, and this cease of treatment applies prospectively. The fair value adjustments made to carrying amount of hedged item due to hedged risk is amortized from the date of discontinuance of hedge accounting and is recognized in profit or loss.

4) Cash flow hedge

The Group recognizes the effective portion of changes in the fair value of derivatives and other valid hedging instruments that are designated and qualified as cash flow hedges in other comprehensive income to the extent of cumulative fair value changes of the hedged item from the starting date of hedge accounting and it is cumulated in the cash flow hedge reserve. The gain or loss relating to the ineffective portion is recognized immediately in net income.

Amounts previously recognized in other comprehensive income and accumulated in equity are reclassified to net income when the hedged item affects net income. However, when non-monetary assets or liabilities are subsequently recognized due to expected transactions involving hedged items, the valuation gain or loss accumulated in the equity as other comprehensive income is removed from the equity and included in the initial carrying amount of the recognized non-monetary assets or liabilities. Such transfers does not affect other comprehensive income. Also, if the cash flow hedge reserve is loss and accumulated other comprehensive income is a loss and part or all of the losses are not expected to be recovered in the future periods, the said amount is immediately reclassified to profit or loss.

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Hedge accounting ceases to apply only when hedging relationship (or part of it) does not meet the requirements of hedge accounting (even after hedging relationship readjustment, if applicable). This treatment holds in case of lapse, disposal, expiry and exercise of hedging instruments, and this cease of treatment applies prospectively. At the point of cessation of cash flow hedge, the valuation gain or loss recognized as accumulated other comprehensive income continues to be recognized as equity, and is reclassified to profit or loss when the expected transaction is ultimately recognized as profit or loss. However, when transactions are no longer expected to occur, the valuation gain or loss of hedging instrument recognized as accumulated other comprehensive income is immediately reclassified to profit or loss.

(17) Assets (or disposal group) held for sale

The Group classifies a non-current asset (or disposal group) as held for sale if its carrying amount will be recovered principally through a sale transaction rather than through continuing use. Non-current assets (and disposal groups) classified as held for sale are measured at the lower of their previous carrying amount and fair value less costs to sell.

(18) Provisions

Provisions are recognized if it has present or contractual obligations as a result of the past event, it is probable that an outflow of resources will be required to settle the obligation and the amount of the obligation is reliably estimated. A provision is not recognized for the future operating losses.

The Group recognizes provisions related to the payment guarantees, loan commitment and litigations. Under the terms of lease agreement, the cost incurred by the Group to recover the leased asset to its original state are recognized as provisions at the commencement of the lease or during a specific period in which the obligation is incurred as a result of the using the asset. The provisions are measured as the best estimate of the expenditure required to recover the asset, which is regularly reviewed and sated to the new situation.

Where there are a number of similar obligations, the probability that an outflow will be required in settlement is determined by considering the obligations as a whole. Although the likelihood of outflow for any one item may be small, if it is probable that some outflow of resources will be needed to settle the obligations as a whole, a provision is recognized.

At the end of each reporting period, the remaining provision balance is reviewed an assessed to determine if the current best estimate is being recognized.

(19) Equity instruments issued by the Group

1) Capital and compound financial instruments

The Group classifies a financial instrument that it issues as a financial liability or an equity instrument in accordance with the substance of the contractual arrangement. A financial liability is a contractual obligation to deliver cash or another financial asset to another entity. An equity instrument is any contract that evidences a residual interest in the assets of an entity after deducting all of its liabilities. The compound financial instruments are financial instruments where it is neither a financial liability nor an equity instrument because it was designed to contain both equity and debt elements.

If the Group reacquires its own equity instruments, the consideration paid including the direct transaction costs (net of tax expense) are presented as a deduction from total equity until such instruments are retired or reissued. When these instruments are reissued, the consideration received (net of direct transaction costs) is included in the shareholder's equity.

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2) Hybrid securities

The Group classifies hybrid securities that have the unconditional right to avoid contractual obligations, such as to deliver cash or other financial assets in relation to financial instruments into equity instruments and presents as part of equity. Meanwhile, hybrid securities issued by subsidiaries of the group are classified as non-controlling interests according to the criteria, and the distribution paid is treated as net profit attributable to non-controlling interests in the consolidated comprehensive income statement.

(20) Financial guarantee contracts

A financial guarantee contract is a contract where the issuer must pay a certain amount of money in order to compensate losses suffered by the creditor when debtor defaults on a debt instrument in accordance with original or modified contractual terms.

A financial guarantee is initially measured at fair value and is subsequently measured at the higher of the amounts below unless it is designated to be measured at FVTPL or when it arises from disposal of an asset.

- Loss allowance in accordance with K-IFRS 1109
- Initial carrying amount less accumulated profit measured in accordance with K-IFRS 1115

(21) Employee benefits and pensions

The Group recognizes the undiscounted amount of short-term employee benefits expected to be paid in exchange for the services rendered by the employees. Also, the Group recognizes expenses and liabilities in the case of accumulating compensated absences when the employees render services that entitle their right to future compensated absences. Similarly, the Group recognizes expenses and liabilities for customary profit distribution or bonuses when the employees render services, even though the Group does not have legal obligation to do so because it can be construed as constructive obligation.

The Group is operating defined contribution plans and defined benefit plans. Contributions to defined contribution plans are recognized as an expense when employees have rendered services entitling them to receive the benefits. For defined benefit plans, the defined benefit liability is calculated through an actuarial assessment using the projected unit credit method every end of the reporting period, conducted by a professional actuaries. Remeasurement, comprising actuarial gains and losses, the return on plan assets (excluding the amount included in net interest from net defined benefit liability (asset)), and the effect of the changes to the asset ceiling is reflected immediately in the separate statement of financial position with a charge or credit recognized in other comprehensive income in the period in which they occur.

Remeasurement recognized in the consolidated statement of comprehensive income is not reclassified to profit or loss in the subsequent periods. Past service cost is recognized in profit or loss in the period of a plan amendment. Net interest is calculated by applying the discount rate at the beginning of the period to the net defined benefit liability or asset. Defined benefit costs are composed of service cost (including current service cost and past service cost, as well as gains and losses on settlements), net interest expense (income) and remeasurement.

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

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

Liabilities for termination benefits are recognized at the earlier of either the date when the Group is no longer able to cancel its proposal for termination benefits or the date when the Group has recognized the cost of restructuring that accompanies the payment of termination benefits.

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(22) Income taxes

Income tax expense is composed of current tax and deferred tax. That is, income tax expense is composed of taxes payable or refundable during the period and deferred taxes calculated by applying asset-liability method to taxable and deductible temporary differences arising from operating loss and tax credit carryforwards. Temporary differences are the differences between the carrying values of assets and liabilities for financial reporting purposes and their tax bases. Deferred income tax benefit or expense is recognized for the change in deferred tax assets or liabilities. Deferred tax assets and liabilities are measured as of the reporting date using the enacted or substantively enacted tax rates expected to apply in the period in which the liability is settled or asset is realized. Deferred tax assets, including the carryforwards of unused tax losses, are recognized to the extent it is probable that the deferred tax assets will be realized.

Deferred income tax assets and liabilities are offset if, and only if, the Group has a legally enforceable right to offset current tax assets against current tax liabilities, and the deferred tax assets and liabilities relate to income taxes levied by the same taxation authority or when the entity intends to settle current tax liabilities and assets on a net basis with different taxable entities.

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

Deferred liabilities are not recognized if the temporary difference arises from the initial recognition of goodwill. Deferred tax assets or liabilities are not recognized if they arise from the initial recognition (other than in a business combination) of other assets and liabilities in a transaction that affects neither the taxable profit(tax loss) nor the accounting profit.

Current and deferred taxes are recognized in profit or loss, except when they relate to items that are recognized in other comprehensive income or directly in equity or when it arises from business combination.

The tax uncertainty arises from the compensation claim filed by the Group, and refund litigation for the amount of tax levied by the tax authority due to differences in tax law analysis. In response, the Group paid taxes in accordance with K-IFRS 2123 due to the tax authority's claim, but recognized as a corporate tax asset if it is highly probable of a refund in the future. In addition, the Group appropriately estimates and reflects the amount of corporate tax liabilities based on the analysis of corporate tax laws and the evaluation of many factors, including past experiences.

(23) Criteria of calculating earnings per share ("EPS")

Basic EPS is a calculation of net income per each common stock. It is calculated by dividing net income attributable to ordinary shareholders by the weighted-average number of common shares outstanding. Diluted EPS is calculated by adjusting the earnings and number of shares for the effects of all dilutive potential common shares.

(24) Share-based payment

For cash-settled share-based payment transactions that provide cash in return for the goods or services received, the Group measures the goods or services received, and the corresponding liability at the fair value and recognizes as employee benefit expenses and liabilities during the vesting period. The fair value of the liability is remeasured at the end of each reporting period and the settlement date until the liability is settled, and changes in fair value are recognized as employee benefits.

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**3. SIGNIFICANT ACCOUNTING ESTIMATES AND ASSUMPTIONS**

Significant accounting estimates and assumptions are continuously evaluated based on a number of factors, including historical experience and expectations of future events that are considered reasonably probable. Accounting estimates calculated based on these definitions may not match actual results. The accounting estimates and assumptions that include a significant risk of materially changing the carrying amounts of assets and liabilities currently recognized in the following accounting period are as follows.

1) COVID-19 effect review

The diffusion of COVID-19 has had a significant impact on the global economy including Korea. Financial and economic shocks may have negative impacts on the Group's financial condition and results of operations in various forms both domestically and internationally, however, the Korean government is providing unprecedented financial and economic relief measures such as extension of maturity of loans. Despite the announcement of these various forms of government support policies, the negative impact of the COVID-19 on the global economy continues.

The Group determined that the credit risk of loan affected by the loan deferment has significantly increased and evaluated that the possibility of default is high. The Group will continue to assess the adequacy of forward-looking information related to the duration of the impact of COVID-19 on economy and government policies.

<Woori Bank>

Woori Bank's total loans (loan receivables, payment guarantees) that are subject to loan deferment and interest deferment, total loans that changed its stage from 12-month to lifetime expected credit losses (Stage 2), and the expected credit loss allowances recognized additionally are as follows. (Unit: Korean Won in millions):

		December 31, 2022	December 31, 2021
Total loans (loan receivables, payment guarantees) that are subject to loan deferment and interest deferment.	Corporate	1,960,524	2,428,496
	Retail	216,487	167,146
	Total	2,177,011	2,595,642
Total loans changed its stage from 12-month to lifetime (Stage 2) expected credit losses.	Corporate	1,777,108	2,125,492
	Retail	169,851	134,920
	Total	1,946,959	2,260,412
The expected credit loss allowances that are additionally recognized.	Corporate	312,371	275,057
	Retail	12,643	9,657
	Total	325,014	284,714

In addition, as of December 31, 2022 and 2021, the Group applied the overlay in consideration of the potential for insolvency due to market interest rate hikes and the increase in economic uncertainty due to the prolonged spread of COVID-19 when forecasting the future economy.

As of December 31, 2022 and 2021, the monetary effect of the provision for expected credit loss due to the application of the forecast of future economic conditions overlay is as follows. (Unit: Korean Won in millions):

	December 31, 2022	December 31, 2021
Corporate	347,801	48,583
Retail	16,256	6,237
Total	364,057	54,820

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<Woori Card>

Woori Card Co., Ltd. determined that the credit risk of obligors receiving financial support due to COVID-19 significantly increased, and transferred the loss allowance at the amount equivalent to lifetime expected credit loss. As of December 31, 2022, the balance of amortised cost of a financial asset of the obligors who need financial support amounts to 6,670 million won, and the additional provisioned loss allowance is 177 million won.

<Woori Financial Capital Co., Ltd.>

Woori Financial Capital Co., Ltd. determined that the credit risk of obligors receiving financial support due to COVID-19 significantly increased, and evaluated that the possibility of default is high. As a result, as of December 31, 2022 and 2021, the amortized cost of a financial asset of the obligors subject to the deferment of redemption and interest deferment due to COVID-19 amounts to 52,611 million won and 80,291 million won, and the expected credit loss provisions recognized in relation to them are 10,606 million won and 15,575 million won.

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2) Income taxes

The Group has recognized current and deferred taxes based on best estimates of expected future income tax effect arising from the Group's operations until the end of the current reporting period. However, actual tax payment may not be identical to the related assets/liabilities already recognized, and these differences may affect current taxes and deferred tax assets/liabilities at the time when income tax effects are finalized.

Deferred tax assets relating to tax losses carried forward and deductible temporary differences are recognized only to the extent that it is probable that future taxable profit will be available against which the tax losses carried forward and the deductible temporary differences can be utilized. In this case the Group's evaluation considers various factors such as estimated future taxable profit based on forecasted operating results, which are based on historical financial performance. The Group is reviewing the carrying amount of deferred tax assets every end of the reporting period and in the event that the possibility of earning future taxable income changes, the deferred tax assets are adjusted up to taxable income sufficient to use deductible temporary differences.

3) Valuation of financial instruments

Financial assets at FVTPL and FVTOCI are recognized in the consolidated financial statements at fair value. All derivatives are measured at fair value. Valuation techniques are required in order to determine fair values of financial instruments where observable market prices do not exist. Financial instruments that are not actively traded and have low price transparency will have less objective fair value and require broad judgment in liquidity, concentration, uncertainty in market factors and assumption in price determination and other risks.

As described in '2. Basis of Preparation and Significant Accounting Policies (9) 5) Fair value of financial instruments', when valuation techniques are used to determine the fair value of a financial instrument, various general and internally developed techniques are used, and various types of assumptions and variables are incorporated during the process.

4) Impairment of financial instruments

The accuracy of the provision for credit losses is determined by the estimation of the expected cash flows for each tenant for estimating the individually assessed loan-loss allowance, and the assumptions and variables in the model used for estimating the collectively assessed loan-loss allowance payment, guarantee and unused commitment.

The Group has estimated the allowance for credit losses based on reasonable and supportable information that was available without undue cost or effort at the reporting date about past events, current conditions and forecasts of future economic conditions.

Information on measuring expected credit loss is described in 4. Risk Management (1) 2) Measurement of expected credit loss.

5) Defined benefit plan

The Group operates a defined benefit pension plan. Defined benefit obligation is calculated at every end of the reporting period by performing actuarial valuation, and estimation of assumptions such as discount rate, expected wage growth rate and mortality rate is required to perform such actuarial valuation. The defined benefit plan, due to its long-term nature, contains significant uncertainties in its estimates.

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**4. RISK MANAGEMENT**

The Group is exposed to various risks that may arise from its operating activities and the main types of risks are credit risk, market risk, liquidity risk and etc. The Risk Management Department analyze and assess the level of complex risks in order to manage the risks and the risk management standards such as policies, regulations, management systems and decision-making have been established and operated for sound management of the Group.

The risk management organization is operated by Risk Management Committee, Chief Risk Officer(CRO), and Risk Management Department. The Board of Directors operates a Risk Management Committee comprised of outside directors for professional risk management. The Risk Management Committee plays a role as the top decision-making body in risk management by establishing basic policies for risk management that are in line with the Group's management strategy and determining the risk level that the Group is willing to take.

The Chief Risk Officer (CRO) assists the Risk Management Committee and operates a Group Risk Management Council comprised of risk management managers of subsidiaries to periodically check and improve the risk burden of external environments and the Group. The risk management department is independent and is in charge of risk management of the Group. It also supports reporting and decision-making of key risk-related issues.

(1) Credit risk

Credit risk represents the possibility of financial losses incurred due to the refusal of the transaction or when the counterparty fails to fulfill its contractual obligations. The goal of credit risk management is to maintain the Group's credit risk exposure to a permissible degree and to optimize its rate of return considering such credit risk.

1) Credit risk management

To measure credit risk, the Group considers the probability of failure in performing the obligation of its counterparties, credit exposure to the counterparty, the related default risk and the rate of default loss. The Group uses the credit rating model to assess the possibility of counterparty's default risk; and when assessing the obligor's credit rating, other than quantitative methods utilizing financial statements and others, and assessor's judgement, the Group utilizes credit rating derived using statistical methods.

In order to manage credit risk limit, the Group establishes the appropriate credit line per obligor, company or industry by monitoring obligor's credit line, total exposures and loan portfolios when approving the loan.

The Group mitigates credit risk resulting from the obligor's credit condition by using financial and physical collateral, guarantees, netting agreements and purchase of credit derivatives that have low correlation with the obligor's credit status. The Group has adopted the entrapment method to mitigate its credit risk. Credit risk mitigation is reflected in qualifying financial collateral, trade receivables, guarantees, residential and commercial real estate and other collaterals. The Group regularly performs a revaluation of collateral reflecting such credit risk mitigation.

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2) Measurement of expected credit loss

K-IFRS 1109 requires entities to measure loss allowance equal to 12-month expected credit losses or lifetime expected credit losses after classifying financial assets into one of the three stages, depends on the degree of increase in credit risk since their initial recognition.

Classification	Stage 1	Stage 2	Stage 3
Definition	No significant increase in credit risk after initial recognition (*)	Significant increase in credit risk after initial recognition	Credit-impaired
Loss allowance	12-month expected credit losses: Expected credit losses that result from those default events on the financial instrument that are possible within 12 months after the reporting date	Lifetime expected credit losses: Expected credit losses that result from all possible default events over the life of the financial instrument	

(\*) If the financial instrument has low credit risk at the end of the reporting period, the Group may assume that the credit risk has not increased significantly since initial recognition.

Loss allowance under credit impairment model is measured as the cumulative change in lifetime expected credit loss since initial recognition.

At the end of each reporting period the Group assesses whether credit risk has significantly been increased since the date of initial recognition. The Group assesses whether the credit risk has increased significantly since initial recognition by using credit rating, asset quality level, early warning system, days past due and others. For financial assets whose contractual cash flows have been modified, the Group assesses whether there is a significant increase in credit risk on the same basis.

The Group performs the below assessment to both corporate and retail exposures, and indicators of significant increase in credit risk are as follows:

Corporate Exposures	Retail Exposures
Asset quality level 'Precautionary' or lower	Asset quality level 'Precautionary' or lower
More than 30 days past due	More than 30 days past due
'Warning' level in early warning system	Significant decrease in credit rating(*)
Debtor experiencing financial difficulties (Capital impairment, Adverse opinion or Disclaimer of opinion by external auditors)	Deferment of repayment of principal and interest
Significant decrease in credit rating (*)	Deferment of interest
Deferment of repayment of principal and interest	
Deferment of interest	

(\*) The Group has applied the below indicators of significant decrease in credit rating since initial recognition as follows, and the estimation method is regularly being monitored

	Credit rating	Significant increased indicator of the credit rating
Corporate	AAA ~ A+	More than or equal to 4 steps
	A- ~ BBB	More than or equal to 3 steps
	BBB- ~ BB+	More than or equal to 2 steps
	BB ~ BB-	More than or equal to 1 step
Retail	1 ~ 3	More than or equal to 3 steps
	4 ~ 5	More than or equal to 2 steps
	6 ~ 10	More than or equal to 1 step

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The Group determined that there is no significant increase in credit risk after initial recognition for debt securities, etc. with a credit rating of A + or higher, which are deemed to have low credit risk at the end of the reporting period.

The Group concludes that credit is impaired when financial assets are under conditions stated below:

- When principal and interest of loan is overdue for 90 days or longer due to significant deterioration in credit
- For loans overdue for less than 90 days, when it is determined that not even a portion of the loan will be recovered unless claim actions such as disposal of collaterals are taken
- When other objective indicators of impairment have been noted for the financial asset.

The Group has estimated the allowance for credit losses using an estimation model that additionally reflects the future economic forward information based on the past experience loss rate data.

Loss allowance is calculated by applying PD (default rate) and LGD (loss rate on default) estimated for each financial asset in consideration of factors such as obligor type, credit rating and portfolio. The estimates are regularly being reviewed in order to reduce discrepancies with actual losses.

In measuring the expected credit losses, the Group is also using reasonable and supportable macroeconomic indicators such as GDP growth rate, Personal consumption expenditures increase/decrease rate, consumer price index change rate in order to forecast future economic conditions.

The Group is conducting the following procedures to estimate and apply future economic forecast information.

- Development of estimation models through regression analysis of corporate retail/year-by-year default rate and macroeconomic indicator data by year
- Calculation of estimated default rate incorporating future economic forecasts by applying estimated macroeconomic indicators provided by verified institutions such as Bank of Korea and National Assembly Budget Office to the estimation model developed
- Forecast of macroeconomic variables

a) Probability weight

As of December 31, 2022, the probability weights applied to the scenarios of the forecasts of macroeconomic variables is as follows (Unit: %):

	<u>Basic Scenario</u>	<u>Upside Scenario</u>	<u>Downside Scenario</u>
Probability weight	52.57	12.52	34.91

b) Economic forecast of each major macroeconomic variables by scenario (prospect period: 2023)

As of December 31, 2022, the forecasts of major macroeconomic variables by scenario is as follows (Unit: %)

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	<u>Basic Scenario</u>	<u>Upside Scenario</u>	<u>Downside Scenario</u>
GDP growth rate	1.70	1.89	1.36
Personal consumption expenditures increase/decrease rate	2.70	3.11	1.97
Consumer price index change rate	3.60	3.39	3.97

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The results of Woori Bank's sensitivity analysis on expected credit loss provisions due to changes in macroeconomic indicators as of December 31, 2022 and 2021 are as follows (Unit: Korean Won in millions):

			December 31, 2022
Corporate	Personal consumption expenditures increase/decrease rate	Increase by 1% point	(59,987)
		Decrease by 1% point	68,036
Retail	Consumer price index change rate	Increase by 1% point	(24,164)
		Decrease by 1% point	28,042
			December 31, 2021
Corporate	GDP growth rate	Increase by 1% point	(68,140)
		Decrease by 1% point	74,495
Retail	Personal consumption expenditures increase/decrease rate	Increase by 1% point	(40,654)
		Decrease by 1% point	43,028
	GDP growth rate	Increase by 1% point	(8,798)
		Decrease by 1% point	9,163
Consumer price index change rate	Increase by 1% point	(29,469)	
	Decrease by 1% point	34,352	

(\*) The sensitivity of the effect of the GDP growth rate on banks' ECLs is not significant.

- The increase rate between the measured default rate and the predicted default rate is used as a future economic forecast adjustment coefficient and reflected to the applicable estimate for the current year.

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3) Maximum exposure

The Group's maximum exposure to credit risk shows the uncertainties related to the maximum possible variation of financial assets' net value as a result of changes in the specific risk factors, prior to the consideration of collaterals that are recorded at net carrying amount after allowances and other credit enhancements. However, the maximum exposure is the fair value amount (recorded on the books) for derivatives, maximum contractual obligation for payment guarantees and unused amount of commitments for loan commitment.

The maximum exposure to credit risk as of December 31, 2022 and 2021 is as follows (Unit: Korean Won in millions):

		December 31, 2022	December 31, 2021
Loans and other financial assets at amortized cost (*1)	Korean treasury and government agencies	2,877,685	2,207,893
	Banks	21,571,097	24,412,685
	Corporates	143,507,852	131,027,256
	Consumers	187,804,095	191,237,783
	Sub-total	<u>355,760,729</u>	<u>348,885,617</u>
Financial assets at FVTPL (*2)	Deposits	34,995	65,072
	Debt securities	4,270,532	2,743,239
	Loans	899,228	667,467
	Derivative assets	8,206,181	4,803,131
	Others	1,505	1,518
	Sub-total	<u>13,412,441</u>	<u>8,280,427</u>
Financial assets at FVTOCI	Debt securities	32,145,758	38,126,977
Securities at amortized cost	Debt securities	28,268,516	17,086,274
Derivative assets	Derivative assets (Designated for hedging)	37,786	106,764
Off-balance accounts	Payment guarantees (*3)	11,921,586	12,987,809
	Loan commitments	118,172,070	114,414,462
	Sub-total	<u>130,093,656</u>	<u>127,402,271</u>
	Total	<u>559,718,886</u>	<u>539,888,330</u>

(\*1) Cash and cash equivalents are not included.

(\*2) Puttable financial instruments are not included.

(\*3) As of December 31, 2022 and 2021, the financial guarantee amount of 3,095,091 million won and 3,960,383 million won are included, respectively.

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a) Credit risk exposure by geographical areas

The following tables analyze credit risk exposure by geographical areas (Unit: Korean Won in millions):

	December 31, 2022						Total
	Korea	China	USA	UK	Japan	Others (*)	
Loans and other financial assets at amortized cost	331,572,328	5,188,826	4,721,440	215,174	719,301	13,343,660	355,760,729
Securities at amortized cost	26,883,967	642,089	421,248	16,658	-	304,554	28,268,516
Financial assets at FVTPL	9,272,673	2,607	2,210,580	318,322	168,013	1,440,246	13,412,441
Financial assets at FVTOCI	27,780,323	806,320	2,297,076	1,726	41,421	1,218,892	32,145,758
Derivative assets (Designated for hedging)	37,786	-	-	-	-	-	37,786
Off-balance accounts	126,531,020	981,139	380,209	25,644	16,987	2,158,657	130,093,656
Total	<u>522,078,097</u>	<u>7,620,981</u>	<u>10,030,553</u>	<u>577,524</u>	<u>945,722</u>	<u>18,466,009</u>	<u>559,718,886</u>

(\*) Others consist of financial assets in Indonesia, Hong Kong, Germany, Australia, and other countries.

	December 31, 2021						Total
	Korea	China	USA	UK	Japan	Others (*)	
Loans and other financial assets at amortized cost	325,947,526	5,620,622	3,742,331	212,821	635,939	12,726,378	348,885,617
Securities at amortized cost	16,785,265	92,880	27,018	-	-	181,111	17,086,274
Financial assets at FVTPL	6,150,464	1,330	1,188,358	195,048	61,315	683,912	8,280,427
Financial assets at FVTOCI	34,242,133	808,359	1,713,435	1,755	23,193	1,338,102	38,126,977
Derivative assets (Designated for hedging)	11,678	-	95,086	-	-	-	106,764
Off-balance accounts	123,375,839	1,001,430	375,929	31,116	32,402	2,585,555	127,402,271
Total	<u>506,512,905</u>	<u>7,524,621</u>	<u>7,142,157</u>	<u>440,740</u>	<u>752,849</u>	<u>17,515,058</u>	<u>539,888,330</u>

(\*) Others consist of financial assets in Indonesia, Hong Kong, Germany, Australia, and other countries.

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b) Credit risk exposure by industries

- ① The following tables analyze credit risk exposure by industries, which are service, manufacturing, finance and insurance, construction, individuals and others in accordance with the Korea Standard Industrial Classification Code as of December 31, 2022 and 2021 (Unit: Korean Won in millions):

	December 31, 2022						
	Service	Manufacturing	Finance and insurance	Construction	Individuals	Others	Total
Loans and other financial assets at amortized cost	78,173,716	37,013,486	31,485,795	5,613,480	183,167,572	20,306,680	355,760,729
Securities at amortized cost	239,141	-	16,198,175	199,924	-	11,631,276	28,268,516
Financial assets at FVTPL	200,678	184,019	9,776,234	51,244	1,167	3,199,099	13,412,441
Financial assets at FVTOCI	417,877	231,132	22,249,839	48,225	-	9,198,685	32,145,758
Derivative assets (Designated for hedging)	-	-	37,786	-	-	-	37,786
Off-balance accounts	18,661,383	22,492,863	10,523,731	3,143,673	69,404,456	5,867,550	130,093,656
Total	<u>97,692,795</u>	<u>59,921,500</u>	<u>90,271,560</u>	<u>9,056,546</u>	<u>252,573,195</u>	<u>50,203,290</u>	<u>559,718,886</u>
	December 31, 2021						
	Service	Manufacturing	Finance and insurance	Construction	Individuals	Others	Total
Loans and other financial assets at amortized cost	67,895,018	37,679,784	32,493,347	4,303,491	185,972,844	20,541,133	348,885,617
Securities at amortized cost	479,291	-	7,061,770	250,607	-	9,294,606	17,086,274
Financial assets at FVTPL	115,346	146,277	6,646,922	13,623	1,836	1,356,423	8,280,427
Financial assets at FVTOCI	376,998	258,866	29,444,989	131,967	-	7,914,157	38,126,977
Derivative assets (Designated for hedging)	-	-	79,369	27,395	-	-	106,764
Off-balance accounts	18,565,570	18,994,662	11,763,667	3,900,766	67,966,826	6,210,780	127,402,271
Total	<u>87,432,223</u>	<u>57,079,589</u>	<u>87,490,064</u>	<u>8,627,849</u>	<u>253,941,506</u>	<u>45,317,099</u>	<u>539,888,330</u>

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- ② The detailed industries of financial assets and corporate loans that might get affected by the spread of COVID-19 as of December 31, 2022 and 2021 are as follow and the industries that can be affected may change by future economic conditions. (Unit: Korean Won in millions):

< Woori Bank >

			December 31, 2022		
			Loans and other financial assets at amortized cost	Financial assets at FVTPL	Financial assets at FVTOCI
Service business	Distribution business	General retail business	1,157,537	824	6,296
		General wholesale business	1,801,361	1,659	-
		Sub-total	2,958,898	2,483	6,296
	Accommodation business		1,434,456	2,228	24,121
	Travel business		48,655	-	-
	Art/sports, leisure service		1,780,739	1,012	-
	Food business		1,520,098	426	-
	Transportation business		357,940	181	-
	Education Business		425,779	169	-
	Others		1,560,457	773	-
		Sub-total	10,087,022	7,272	30,417
	Manufacturing	Textile		2,361,092	767
Metal			1,579,004	191	-
Non-metal			796,671	1,529	7,629
Chemical			3,649,189	158	-
Electronics			1,409,475	58	-
Others			3,280,434	1,287	11,452
Sub-total			13,075,865	3,990	27,979
	Total	23,162,887	11,262	58,396	

  

			December 31, 2022	
			Off-balance accounts	Total
Service business	Distribution business	General retail business	496,830	1,661,487
		General wholesale business	533,368	2,336,388
		Sub-total	1,030,198	3,997,875
	Accommodation business		161,573	1,622,378
	Travel business		16,369	65,024
	Art/sports, leisure service		104,065	1,885,816
	Food business		179,977	1,700,501
	Transportation business		248,801	606,922
	Education Business		40,891	466,839
	Others		301,343	1,862,573
		Sub-total	2,083,217	12,207,928
	Manufacturing	Textile		1,076,002
Metal			1,225,601	2,804,796
Non-metal			381,014	1,186,843
Chemical			3,627,183	7,276,530
Electronics			1,202,758	2,612,291
Others			2,530,964	5,824,137
Sub-total			10,043,522	23,151,356
	Total	12,126,739	35,359,284	

**WOORI FINANCIAL GROUP INC. AND SUBSIDIARIES**  
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			December 31, 2021		
			Loans and other financial assets at amortized cost	Financial assets at FVTPL	Financial assets at FVTOCI
Service business	Distribution business	General retail business	754,850	274	-
		General wholesale business	809,893	221	-
		Sub-total	1,564,743	495	-
	Accommodation business		1,441,185	625	23,840
	Travel business		53,302	-	-
	Art/sports, leisure service		600,746	503	-
	Food business		1,279,128	216	-
	Transportation business		404,120	77	-
	Others		1,050,229	599	-
		Sub-total		6,393,453	2,515
Manufacturing	Textile		2,626,493	724	10,718
	Metal		199,877	10	-
	Non-metal		148,471	24	-
	Chemical		904,563	1,994	-
	Electronics		103,510	31	-
	Others		191,865	-	-
	Sub-total		4,174,779	2,783	10,718
	Total		10,568,232	5,298	34,558

			December 31, 2021	
			Off-balance accounts	Total
Service business	Distribution business	General retail business	299,064	1,054,188
		General wholesale business	237,678	1,047,792
		Sub-total	536,742	2,101,980
	Accommodation business		181,563	1,647,213
	Travel business		12,455	65,757
	Art/sports, leisure service		63,660	664,909
	Food business		179,799	1,459,143
	Transportation business		167,883	572,080
	Others		191,837	1,242,665
		Sub-total		1,333,939
Manufacturing	Textile		1,012,989	3,650,924
	Metal		9,704	209,591
	Non-metal		48,171	196,666
	Chemical		689,895	1,596,452
	Electronics		33,389	136,930
	Others		87,587	279,452
	Sub-total		1,881,735	6,070,015
	Total		3,215,674	13,823,762

**WOORI FINANCIAL GROUP INC. AND SUBSIDIARIES**  
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< Woori Card Co., Ltd. >

	December 31, 2022				
	Loans and other financial assets at amortized cost	Financial assets at FVTPL	Financial assets at FVTOCI	Off-balance accounts	Total
Accommodation business	5,562	-	-	9,762	15,324
Travel business	7,927	-	-	15,182	23,109
Aviation	1,072	-	-	3,760	4,832
Cosmetics industry	11,364	-	-	9,766	21,130
Distribution business	30,904	-	-	36,190	67,094
Food industry	134,006	-	-	115,695	249,701
Art/sports, leisure service	24,614	-	-	41,003	65,617
Total	215,449	-	-	231,358	446,807

  

	December 31, 2021				
	Loans and other financial assets at amortized cost	Financial assets at FVTPL	Financial assets at FVTOCI	Off-balance accounts	Total
Accommodation business	2,341	-	-	11,472	13,813
Travel business	3,334	-	-	20,056	23,390
Aviation	983	-	-	4,025	5,008
Cosmetics industry	3,187	-	-	10,692	13,879
Distribution business	7,582	-	-	38,741	46,323
Food industry	30,267	-	-	122,793	153,060
Art/sports, leisure service	8,336	-	-	44,286	52,622
Total	56,030	-	-	252,065	308,095

**WOORI FINANCIAL GROUP INC. AND SUBSIDIARIES**  
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<Woori Financial Capital Co., Ltd.>

			December 31, 2022			
			Loans and other financial assets at amortized cost	Financial assets at FVTPL	Financial assets at FVTOCI	
Service business	Distribution business	General retail business	363,655	-	-	
		General wholesale business	266,515	-	-	
		Sub-total	630,170	-	-	
		Accommodation business	40,237	-	-	
		Travel business	5,880	-	-	
		Art/sports, leisure service	66,388	-	-	
		Food business	228,254	-	-	
		Transportation business	367,311	-	-	
		Education business	52,652	-	-	
		Others	1,997,073	-	-	
		Sub-total	3,387,965	-	-	
	Manufacturing		Textile	15,204	-	-
			Metal	25,274	-	-
Non-metal			4,067	-	-	
Chemical			14,071	-	-	
Transportation			2,867	-	-	
Electronics			28,202	-	-	
Cosmetics			1,192	-	-	
Others			235,972	-	-	
	Sub-total	326,849	-	-		
	Total COVID-19 vulnerable business	3,714,814	-	-		
Other business	Others		5,337,618	21,652	-	
		Total	9,052,432	21,652	-	

			December 31, 2022		
			Off-balance accounts	Total	
Service business	Distribution business	General retail business	-	363,655	
		General wholesale business	-	266,515	
		Sub-total	-	630,170	
		Accommodation business	-	40,237	
		Travel business	-	5,880	
		Art/sports, leisure service	-	66,388	
		Food business	-	228,254	
		Transportation business	-	367,311	
		Education business	-	52,652	
		Others	206,191	2,203,264	
		Sub-total	206,191	3,594,156	
	Manufacturing		Textile	-	15,204
			Metal	-	25,274
Non-metal			-	4,067	
Chemical			-	14,071	
Transportation			-	2,867	
Electronics			-	28,202	
Cosmetics			-	1,192	
Others			19,892	255,864	
	Sub-total	19,892	346,741		
	Total COVID-19 vulnerable business	226,083	3,940,897		
Other business	Others		347,025	5,706,295	
		Total	573,108	9,647,192	

**WOORI FINANCIAL GROUP INC. AND SUBSIDIARIES**  
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			December 31, 2021			
			Loans and other financial assets at amortized cost	Financial assets at FVTPL	Financial assets at FVTOCI	
Service business	Distribution business	General retail business	77,841	-	-	
		General wholesale business	292,832	-	-	
		Sub-total	370,673	-	-	
	Accommodation business	Travel business		7,338	-	-
		Art/sports, leisure service		57	-	-
		Food business		8,544	-	-
		Transportation business		125,075	-	-
		Education business		598,972	-	-
		Others		22,118	-	-
		Sub-total		102,787	-	-
	Manufacturing	Textile		1,235,564	-	-
				727	-	-
				2,824	-	-
			698	-	-	
			172	-	-	
			438	-	-	
			3,993	-	-	
			685	-	-	
	108,540	-	-			
	118,077	-	-			
Total COVID-19 vulnerable business			1,353,641	-	-	
Other business	Others		6,489,394	28,222	-	
	Total		7,843,035	28,222	-	

			December 31, 2021		
			Off-balance accounts	Total	
Service business	Distribution business	General retail business	-	77,841	
		General wholesale business	-	292,832	
		Sub-total	-	370,673	
	Accommodation business	Travel business		-	7,338
		Art/sports, leisure service		-	57
		Food business		-	8,544
		Transportation business		-	125,075
		Education business		-	598,972
		Others		-	22,118
		Sub-total		140,549	243,336
	Manufacturing	Textile		140,549	1,376,113
				-	727
				-	2,824
			-	698	
			-	172	
			-	438	
			-	3,993	
			-	685	
	13,432	121,972			
	13,432	131,509			
Total COVID-19 vulnerable business			153,981	1,507,622	
Other business	Others		812,597	7,330,213	
	Total		966,578	8,837,835	

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< Woori Investment Bank Co., Ltd. >

	December 31, 2022				
	Loans and other financial assets at amortized cost	Financial assets at FVTPL	Financial assets at FVTOCI	Off-balance accounts	Total
Accommodation business	19,323	-	-	-	19,323
Distribution business	10,084	19,774	-	-	29,858
Art/sports, leisure service	59,160	-	-	-	59,160
Total	88,567	19,774	-	-	108,341

	December 31, 2021				
	Loans and other financial assets at amortized cost	Financial assets at FVTPL	Financial assets at FVTOCI	Off-balance accounts	Total
Accommodation business	57,142	-	-	-	57,142
Distribution business	12,885	-	-	-	12,885
Art/sports, leisure service	31,772	-	-	-	31,772
Total	101,799	-	-	-	101,799

**WOORI FINANCIAL GROUP INC. AND SUBSIDIARIES**  
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4) Credit risk exposure

a) Financial assets

The maximum exposure to credit risk by asset quality, except for financial assets at FVTPL and derivative asset (designated for hedging) as of December 31, 2022 and 2021 is as follows (Unit: Korean Won in millions):

	December 31, 2022								
	Stage 1		Stage 2		Stage 3	Credit impairment model	Total	Loss allowance	Total, net
	Above appropriate credit rating (*1)	Less than a limited credit rating (*2)	Above appropriate credit rating (*1)	Less than a limited credit rating (*2)					
Loans and other financial assets at amortized cost	308,498,799	23,391,187	13,061,081	11,533,632	1,447,967	313,717	358,246,383	(2,485,654)	355,760,729
Korean treasury and government agencies	2,879,057	39	-	-	-	-	2,879,096	(1,411)	2,877,685
Banks	21,182,445	393,181	2,125	-	18,053	-	21,595,804	(24,707)	21,571,097
Corporates	120,407,588	16,680,863	2,556,885	4,429,148	637,187	313,717	145,025,388	(1,517,536)	143,507,852
General business	74,939,770	9,291,691	1,754,620	3,083,232	421,659	-	89,490,972	(1,016,039)	88,474,933
Small- and medium-sized enterprise	34,965,279	6,751,297	754,668	1,257,741	173,818	-	43,902,803	(400,328)	43,502,475
Project financing and others	10,502,539	637,875	47,597	88,175	41,710	313,717	11,631,613	(101,169)	11,530,444
Consumers	164,029,709	6,317,104	10,502,071	7,104,484	792,727	-	188,746,095	(942,000)	187,804,095
Securities at amortized cost	28,276,901	-	-	-	-	-	28,276,901	(8,385)	28,268,516
Financial assets at FVTOCI (*3)	31,914,193	231,565	-	-	-	-	32,145,758	(11,805)	32,145,758
Total	368,689,893	23,622,752	13,061,081	11,533,632	1,447,967	313,717	418,669,042	(2,505,844)	416,175,003

	December 31, 2022				
	Collateral value				
	Stage1	Stage2	Stage3	Credit impairment model	Total
Loans and other financial assets at amortized cost	213,228,740	19,354,919	607,614	313,717	233,504,990
Korean treasury and government agencies	24,276	-	-	-	24,276
Banks	1,858,595	-	-	-	1,858,595
Corporates	82,314,488	4,982,087	316,085	313,717	87,926,377
General business	44,465,799	3,390,139	194,597	-	48,050,535
Small- and medium-sized enterprise	32,503,289	1,537,173	84,798	-	34,125,260
Project financing and others	5,345,400	54,775	36,690	313,717	5,750,582
Consumers	129,031,381	14,372,832	291,528	-	143,695,742
Securities at amortized cost	-	-	-	-	-
Financial assets at FVTOCI (*3)	-	-	-	-	-
Total	213,228,740	19,354,919	607,614	313,717	233,504,990

(\*1) Credit grade of corporates are AAA ~ BBB, and consumers are grades 1 ~ 6.

(\*2) Credit grade of corporates are BBB- ~ C, and consumers are grades 7 ~ 10.

(\*3) Financial assets at FVTOCI has been disclosed as the amount before deducting loss allowance because loss allowance does not reduce the carrying amount.

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	December 31, 2021							
	Stage 1		Stage 2		Stage 3	Total	Loss allowance	Total, net
	Above appropriate credit rating (*1)	Less than a limited credit rating (*2)	Above appropriate credit rating (*1)	Less than a limited credit rating (*2)				
Loans and other financial assets at amortized cost	303,317,270	22,734,430	13,270,491	10,190,307	1,332,644	350,845,142	(1,959,525)	348,885,617
Korean treasury and government agencies	2,211,798	9	9	-	-	2,211,816	(3,923)	2,207,893
Banks	23,865,911	492,447	46,373	-	23,509	24,428,240	(15,555)	24,412,685
Corporates	108,917,062	15,952,017	2,698,907	3,963,782	658,923	132,190,691	(1,163,435)	131,027,256
General business	68,767,641	9,010,115	1,886,740	2,597,136	438,537	82,700,169	(785,908)	81,914,261
Small- and medium-sized enterprise	33,306,787	6,459,338	790,750	1,353,313	156,440	42,066,628	(322,635)	41,743,993
Project financing and others	6,842,634	482,564	21,417	13,333	63,946	7,423,894	(54,892)	7,369,002
Consumers	168,322,499	6,289,957	10,525,202	6,226,525	650,212	192,014,395	(776,612)	191,237,783
Securities at amortized cost	17,091,509	-	-	-	-	17,091,509	(5,235)	17,086,274
Financial assets at FVTOCI (*3)	37,917,922	209,055	-	-	-	38,126,977	(12,146)	38,126,977
Total	358,326,701	22,943,485	13,270,491	10,190,307	1,332,644	406,063,628	(1,976,906)	404,098,868

	December 31, 2021			
	Collateral value			
	Stage1	Stage2	Stage3	Total
Loans and other financial assets at amortized cost	208,188,057	18,098,940	643,183	226,930,180
Korean treasury and government agencies	20,679	-	-	20,679
Banks	1,287,055	-	-	1,287,055
Corporates	74,403,502	4,796,510	351,837	79,551,849
General business	40,288,663	3,120,790	220,792	43,630,245
Small- and medium-sized enterprise	30,852,567	1,675,720	80,830	32,609,117
Project financing and others	3,262,272	-	50,215	3,312,487
Consumers	132,476,821	13,302,430	291,346	146,070,597
Securities at amortized cost	-	-	-	-
Financial assets at FVTOCI (*3)	-	-	-	-
Total	208,188,057	18,098,940	643,183	226,930,180

(\*1) Credit grade of corporates are AAA ~ BBB, and consumers are grades 1 ~ 6.

(\*2) Credit grade of corporates are BBB- ~ C, and consumers are grades 7 ~ 10.

(\*3) Financial assets at FVTOCI has been disclosed as the amount before deducting loss allowance because loss allowance does not reduce the carrying amount.

b) Payment Guarantees and commitments

The credit quality of the payment guarantees and loan commitments as of December 31, 2022 and 2021 are as follows (Unit: Korean Won in millions):

Financial assets	December 31, 2022					
	Stage 1		Stage 2		Stage3	Total
	Above appropriate credit rating (*1)	Less than a limited credit rating (*2)	Above appropriate credit rating (*1)	Less than a limited credit rating (*2)		
Off-balance accounts:						
Payment Guarantees	10,790,470	846,997	25,826	245,061	13,232	11,921,586
Loan Commitments	113,169,542	2,610,173	1,638,982	753,139	234	118,172,070
Total	123,960,012	3,457,170	1,664,808	998,200	13,466	130,093,656

(\*1) Credit grade of corporates are AAA ~ BBB, and consumers are grades 1 ~ 6.

(\*2) Credit grade of corporate are BBB- ~ C, and consumers are grades 7 ~ 10.

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	December 31, 2021					
	Stage 1		Stage 2		Stage3	Total
	Above appropriate credit rating (*1)	Less than a limited credit rating (*2)	Above appropriate credit rating (*1)	Less than a limited credit rating (*2)		
Financial assets						
Off-balance accounts:						
Payment Guarantees	11,560,908	1,037,142	47,549	275,166	67,044	12,987,809
Loan Commitments	107,916,434	3,591,413	2,072,348	832,173	2,094	114,414,462
Total	<u>119,477,342</u>	<u>4,628,555</u>	<u>2,119,897</u>	<u>1,107,339</u>	<u>69,138</u>	<u>127,402,271</u>

(\*1) Credit grade of corporates are AAA ~ BBB, and consumers are grades 1 ~ 6.

(\*2) Credit grade of corporate are BBB- ~ C, and consumers are grades 7 ~ 10.

5) Collateral and other credit enhancements

For the years ended December 31, 2022 and 2021, there have been no significant changes in the value of collateral or other credit enhancements held by the Group and there have been no significant changes in collateral or other credit enhancements due to changes in the collateral policy of the Group.

- 6) Among financial assets that measured loss allowance at lifetime expected credit losses, amortized costs before changes in contractual cash flows as of December 31, 2022 and 2021 are 149,511 million won and 145,594 million won, respectively, with net losses recognized along with the changes 8,474 million won and 11,734 million won, respectively.
- 7) The Group determines which loan is subject to write-off in accordance with internal guidelines and writes off loan receivables when it is determined that the loans are practically irrecoverable. For example, loans are practically irrecoverable when application is made for rehabilitation under the Debtor Rehabilitation and Bankruptcy Act and loans are confirmed as irrecoverable by the court's decision to waive debtor's obligation, or when it is impossible to recover the loan amount through legal means such as auctioning of debtor's assets or through any other means of recovery available.

As the Group manages receivables that have not lost the right of claim to the debtor for the grounds of incomplete statute limitation and uncollected receivables under the related laws as receivable charge-offs, the balance as of December 31, 2022 and 2021 are 9,825,284 million won and 10,107,413 million won. In addition, the contractual non-recoverable amount of financial assets amortized for the year ended December 31, 2022, but still in the process of recovery is 1,382,281 million won.

(2) Market risk

Market risk is the possible risk of loss arising from trading position and non-trading position as a result of the volatility of market factors such as interest rates, stock prices and foreign exchange rates.

1) Market risk management

Market risk management refers to the process of making and implementing decisions for the avoidance, acceptance or mitigation of risks by identifying the underlying source of the risks, measuring its level, and evaluating the appropriateness of the level of accepted market risks for both trading and non-trading activities.

a) Trading activities

The Group uses the standard method and the internally developed model (the Bank) in measuring market risk for trading positions, and allocates market risk capital through the Risk Management Committee. Risk management departments of the Group and its subsidiaries manage limits in detail including those on risk and loss with their management result regularly reported to the Risk

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Management Committee.

Woori Bank, a subsidiary of the Group, uses the internal model approved by the Financial Supervisory Service to measure the VaR using the Historical Simulation Method based on a 99% confidence level and a 10-day retention period, and calculates equity capital required for market risk for calculating the BIS ratio. For internal management purposes, limit management is performed on a daily basis measuring VaR based on a 99% confidence and 1 day retention period. In addition, Woori Bank perform a daily verification that compares VaR measurement and profit and loss to verify the suitability of the model.

The minimum, maximum and average VaR of the Bank for the year December 31, 2022 and 2021, and the VaR of the Bank as of December 31, 2022 and 2021 are as follows (Unit: Korean Won in millions):

Risk factor	December 31, 2022	For the year ended December 31, 2022			December 31, 2021	For the year ended December 31, 2021		
		Average	Maximum	Minimum		Average	Maximum	Minimum
Interest rate	11,800	8,847	11,987	4,298	4,177	4,681	14,017	2,405
Stock price	7,055	6,590	12,448	1,806	2,972	3,637	6,676	1,609
Foreign currencies	17,608	14,002	22,251	5,421	5,904	6,745	13,144	4,747
Diversification	(17,354)	(12,725)	(19,640)	(4,201)	(6,072)	(7,300)	(20,006)	(3,627)
Total VaR(*)	19,109	16,714	27,046	7,324	6,981	7,763	13,831	5,134

(\*) VaR (Value at Risk): Retention period of 1 day, Maximum expected losses under 99% level of confidence.

b) Non-trading activities

From the end of 2019 for the Bank and the beginning of 2021 for non-banking subsidiaries, the Bank and its subsidiaries manage and measure interest risk for non-trading activities through  $\Delta$ NII(Change in Net Interest Income) and  $\Delta$ EVE(Change in Economic Value of Equity) in accordance with IRRBB(Interest Rate Risk in the Banking Book).

$\Delta$ NII represents a change in net interest income that may occur over a certain period (e.g. one year) due to changes in interest rates, and  $\Delta$ EVE indicates the economic value changes in equity capital that could be caused by changes in interest rates affecting the present value of asset, liabilities, and off-balance accounts.

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△EVE and △NII calculated on interest risk in banking book(IRRBB) basis for assets and liabilities by subsidiary as of December 31, 2022 and 2021 are as follows(Unit: Korean Won in millions):

	December 31, 2022		December 31, 2021	
	△EVE (*1)	△NII (*2)	△EVE (*1)	△NII (*2)
Woori Bank	411,447	448,509	920,290	195,186
Woori Card Co., Ltd.	139,005	185,637	126,576	59,114
Woori Financial Capital Co., Ltd.	43,098	13,814	58,794	1,384
Woori Investment Bank Co., Ltd.	26,311	8,229	17,607	5,556
Woori Asset Trust Co., Ltd.	1,137	6,736	820	1,709
Woori Asset Management Corp.	913	1,299	1,411	504
Woori Savings Bank	6,618	10,348	15,175	949
Woori Private Equity Asset Management Co., Ltd.	547	886	32	59
Woori Global Asset Management Co., Ltd.	251	538	246	143
Woori Financial F&I Co., Ltd.	26,069	219	-	-

(\*1) △EVE: change in Economic Value of Equity

(\*2) △NII: change in Net Interest Income

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At the interest rate re-pricing date, cash flows (both principal and interest) of interest bearing assets and liabilities, which is the basis of non-trading position interest rate risk management are as follows: (Unit: Korean Won in millions):

		December 31, 2022						
		Within 3 months	4 to 6 months	7 to 9 months	10 to 12 months	1 to 5 years	Over 5 years	Total
<b>Asset:</b>								
Loans and other financial assets at amortized cost		224,863,400	56,669,335	15,469,920	15,108,779	59,454,649	5,963,926	377,530,009
Financial assets at FVTPL		1,888,996	119,725	1,364	4,670	71,620	13,129	2,099,504
Financial assets at FVTOCI		6,093,805	4,224,460	3,014,625	3,550,982	15,409,527	584,203	32,877,602
Securities at amortized cost		2,749,432	1,806,804	1,768,936	1,427,736	20,126,354	2,100,203	29,979,465
Total		<u>235,595,633</u>	<u>62,820,324</u>	<u>20,254,845</u>	<u>20,092,167</u>	<u>95,062,150</u>	<u>8,661,461</u>	<u>442,486,580</u>
<b>Liability:</b>								
Deposits due to customers		167,237,029	49,107,093	33,506,265	40,006,233	55,855,781	69,861	345,782,262
Borrowings		14,829,024	4,159,096	1,542,340	1,183,331	6,654,602	472,325	28,840,718
Debentures		9,068,737	4,905,727	4,633,137	4,962,350	19,621,659	3,298,581	46,490,191
Total		<u>191,134,790</u>	<u>58,171,916</u>	<u>39,681,742</u>	<u>46,151,914</u>	<u>82,132,042</u>	<u>3,840,767</u>	<u>421,113,171</u>
		December 31, 2021						
		Within 3 months	4 to 6 months	7 to 9 months	10 to 12 months	1 to 5 years	Over 5 years	Total
<b>Asset:</b>								
Loans and other financial assets at amortized cost		205,915,030	58,661,091	14,461,769	12,840,318	62,337,321	5,204,605	359,420,134
Financial assets at FVTPL		1,725,063	52,361	49,843	17,817	223,107	13,501	2,081,692
Financial assets at FVTOCI		5,489,649	4,741,319	3,915,011	4,139,102	19,962,071	634,111	38,881,263
Securities at amortized cost		1,297,865	847,134	813,405	949,475	11,990,559	2,116,986	18,015,424
Total		<u>214,427,607</u>	<u>64,301,905</u>	<u>19,240,028</u>	<u>17,946,712</u>	<u>94,513,058</u>	<u>7,969,203</u>	<u>418,398,513</u>
<b>Liability:</b>								
Deposits due to customers		145,744,829	47,792,440	33,334,918	28,615,157	62,635,705	59,155	318,182,204
Borrowings		11,422,868	4,168,941	1,788,597	1,540,533	5,119,291	428,660	24,468,890
Debentures		8,325,421	3,035,764	3,203,743	3,174,902	25,036,943	3,342,284	46,119,057
Total		<u>165,493,118</u>	<u>54,997,145</u>	<u>38,327,258</u>	<u>33,330,592</u>	<u>92,791,939</u>	<u>3,830,099</u>	<u>388,770,151</u>

2) Currency risk

Currency risk arises from the financial instruments denominated in foreign currencies other than the functional currency. Therefore, no currency risk arises from non-monetary items or financial instruments denominated in the functional currency.

Financial instruments in foreign currencies exposed to currency risk as of December 31, 2022 and 2021 are as follows (Unit: USD in millions, JPY in millions, CNY in millions, EUR in millions, and Korean Won in millions):

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		December 31, 2022									
		USD		JPY		CNY		EUR		Others	Total
		Foreign currency	Korean Won equivalent	Foreign currency	Korean Won equivalent	Foreign currency	Korean Won equivalent	Foreign currency	Korean Won equivalent	Korean Won equivalent	Korean Won equivalent
Asset	Cash and cash equivalents	9,041	11,457,194	64,824	617,888	1,542	279,779	484	653,870	1,022,909	14,031,640
	Loans and other financial assets at amortized cost	24,361	30,872,442	116,298	1,108,529	24,637	4,470,059	2,510	3,391,155	4,952,002	44,794,187
	Financial assets at FVTPL	970	1,229,059	25,416	242,260	-	-	358	484,172	176,057	2,131,548
	Financial assets at FVTOCI	3,307	4,191,383	-	-	3,999	725,511	2	2,573	725,271	5,644,738
	Securities at amortized cost	576	729,811	-	-	3,540	642,214	69	93,250	206,497	1,671,772
	Total	<u>38,255</u>	<u>48,479,889</u>	<u>206,538</u>	<u>1,968,677</u>	<u>33,718</u>	<u>6,117,563</u>	<u>3,423</u>	<u>4,625,020</u>	<u>7,082,736</u>	<u>68,273,885</u>
Liability	Financial liabilities at FVTPL	415	526,553	26,766	255,128	-	-	322	434,590	274,895	1,491,166
	Deposits due to customers	24,569	31,135,881	227,260	2,166,196	28,125	5,102,886	2,108	2,847,863	5,008,487	46,261,313
	Borrowings	6,894	8,737,229	44,365	422,876	1,023	185,652	431	582,034	2,179,085	12,106,876
	Debentures	4,174	5,289,246	-	-	-	-	195	263,187	339,188	5,891,621
	Other financial liabilities	3,040	3,852,255	8,685	82,783	4,295	779,233	380	513,285	200,249	5,427,805
	Total	<u>39,092</u>	<u>49,541,164</u>	<u>307,076</u>	<u>2,926,983</u>	<u>33,443</u>	<u>6,067,771</u>	<u>3,436</u>	<u>4,640,959</u>	<u>8,001,904</u>	<u>71,178,781</u>
Off-balance accounts		<u>6,698</u>	<u>8,488,374</u>	<u>34,512</u>	<u>328,964</u>	<u>1,141</u>	<u>207,012</u>	<u>787</u>	<u>1,063,680</u>	<u>868,470</u>	<u>10,956,500</u>

  

		December 31, 2021									
		USD		JPY		CNY		EUR		Others	Total
		Foreign currency	Korean Won equivalent	Foreign currency	Korean Won equivalent	Foreign currency	Korean Won equivalent	Foreign currency	Korean Won equivalent	Korean Won equivalent	Korean Won equivalent
Asset	Cash and cash equivalents	3,176	3,765,800	32,829	338,222	1,236	230,188	94	125,513	971,774	5,431,497
	Loans and other financial assets at amortized cost	28,771	34,107,769	147,981	1,504,891	23,733	4,420,551	2,329	3,126,363	5,604,781	48,764,355
	Financial assets at FVTPL	468	556,296	14,618	150,596	-	-	327	438,662	71,369	1,216,923
	Financial assets at FVTOCI	3,195	3,787,466	-	-	3,899	726,310	33	44,638	741,348	5,299,762
	Securities at amortized cost	240	283,935	-	-	499	92,917	29	39,142	138,422	554,416
	Total	<u>35,850</u>	<u>42,501,266</u>	<u>195,428</u>	<u>1,993,709</u>	<u>29,367</u>	<u>5,469,966</u>	<u>2,812</u>	<u>3,774,318</u>	<u>7,527,694</u>	<u>61,266,953</u>
Liability	Financial liabilities at FVTPL	274	324,420	16,384	168,798	-	-	239	321,354	203,523	1,018,095
	Deposits due to customers	19,803	23,476,384	219,514	2,261,520	26,342	4,906,441	1,640	2,201,233	4,798,322	37,643,900
	Borrowings	5,766	6,835,191	31,601	325,745	-	-	349	469,124	1,395,597	9,025,657
	Debentures	3,566	4,228,055	-	-	-	-	-	-	341,621	4,569,676
	Other financial liabilities	2,739	3,247,454	10,673	109,958	2,658	495,125	335	449,897	211,392	4,513,826
	Total	<u>32,148</u>	<u>38,111,504</u>	<u>278,172</u>	<u>2,866,021</u>	<u>29,000</u>	<u>5,401,566</u>	<u>2,563</u>	<u>3,441,608</u>	<u>6,950,455</u>	<u>56,771,154</u>
Off-balance accounts		<u>8,047</u>	<u>9,540,185</u>	<u>32,777</u>	<u>337,685</u>	<u>2,533</u>	<u>471,852</u>	<u>598</u>	<u>803,357</u>	<u>1,250,186</u>	<u>12,403,265</u>

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3) Interest Rate Benchmark Reform Risk Management

The Group closely monitors the outputs and markets of various industrial working groups that manage the transition to new interest rate benchmark, which includes announcements by LIBOR regulators.

A fundamental shift in interest rate indicators (hereinafter referred to as "interest rate benchmark reform") is taking place around the world, and some Interbank Offered Rates ("IBORs") are being replaced by new risk-free rates. In particular, for the case of LIBOR, except for USD LIBOR for overnight rate, 1, 3, 6, and 12 month rates, all of the calculations were suspended as of December 31, 2021, and the aforementioned 5 USD LIBORs will also be suspended as of June 30, 2023.

The Group established a LIBOR-related response plan consisting of the business flow of risk management, accounting, tax, law, computerization and customer management. The purpose of the plan is to identify the impact and risks associated with interest rate benchmark reform within the business, and to prepare and implement an action plan to ensure a smooth transition to alternative interest rates. The Group aims to close the response plan in line with the supervisory authority's response guidelines.

<Woori Bank>

The details of Woori Bank's financial instruments that have not completed the conversion to the LIBOR-related interest rates benchmark at the end of the year are as follows: Non-derivative financial instrument is presented at the carrying amount, while the derivative financial instrument is presented at the nominal amount.

		December 31.2022	
		USD(*1)	
		Total	Interest Rate
		Amount(*2)	Provision
Non-derivative financial assets	Financial assets at FVTOCI	514,935	355,247
	Financial assets at amortized cost	4,214,876	3,237,567
	Total	<u>4,729,811</u>	<u>3,592,814</u>
Non-derivative financial liabilities	Financial liabilities at amortized cost	<u>89,326</u>	<u>89,326</u>
Derivatives	Interest rate(trading)	26,210,037	26,208,438
	Currency(trading)	33,886,969	33,598,769
	Interest rate(hedging)	2,344,505	2,344,505
	Total	<u>62,441,511</u>	<u>62,151,712</u>

(\*1) Financial instruments related to USD Libor (overnight rate, 1, 3, 6, 12 month rates) that are expired before June 30, 2023 are excluded.

(\*2) For contracts that do not have an interest rate alternative clause, The Group is in the process of negotiating to add an interest rate alternative clause.

The KRW CD rates are planned to be replaced by the Korea Overnight Financing Repo Rate (KOFRR) in the long run, but when the CD rates will be ceased or the policy response directions to activate alternative rates are not clear.

< Woori Card Co., Ltd. >

The hedging relationship in which Woori Card applies cash flow risk hedge is affected by interest rate indicators related to interest rate benchmark reform. The interest rate benchmarks for which the hedging relationship is exposed are USD 1M LIBOR and USD 3M LIBOR. The nominal amounts of hedging instruments associated with 1M LIBOR and 3M LIBOR among the hedging relationships of Woori Card are USD 270,000,000 and USD 100,000,000, respectively. Woori Card is closely monitoring market and industry discussions regarding applicable alternative benchmark interest rates for exposed interest rate benchmarks, and believes that this uncertainty will no longer appear when exposed interest benchmarks are replaced by applicable interest rates.

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<Woori Financial Capital Co., Ltd.>

The hedging relationship in which Woori Financial Capital applies cash flow risk hedge accounting is affected by interest rate benchmarks related to interest rate benchmark reform. The interest rate benchmark with the corresponding hedging relationship exposed is the KRW 3M CD. The nominal amount of the hedging instrument associated with the KRW 3M CD of Woori Financial Capital's hedging relationship is KRW 40 billion. Woori Financial Capital is closely watching market and industry discussions regarding applicable alternative benchmark interest rates for exposed interest rate benchmarks, and believes that this uncertainty will no longer appear when exposed interest benchmarks are replaced by applicable interest rates.

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(3) Liquidity risk

Liquidity risk refers to the risk that the Group may encounter difficulties in meeting obligations from its financial liabilities.

1) Liquidity risk management

Liquidity risk management is to prevent potential cash shortages as a result of mismatching maturity of assets and liabilities or unexpected cash outflows. The consolidated financial liabilities that are relevant to liquidity risk are incorporated within the scope of risk management. Derivatives instruments are excluded from those financial liabilities as they reflect expected cash flows for a pre-determined period.

Assets and liabilities are grouped by account under Asset Liability Management (“ALM”) in accordance with the characteristics of the account. The Group manages liquidity risk by identifying the maturity gap and such gap ratio through various cash flows analysis (i.e. based on remaining maturity and contract period, etc.), while maintaining the gap ratio at or below the target limit.

The information on early repayment related to asset securitization is described in NOTE 40. CONTINGENT LIABILITIES AND COMMITMENTS (4) 3).

2) Maturity analysis of non-derivative financial liabilities

a) Cash flows of principals and interests by remaining contractual maturities of non-derivative financial liabilities as of December 31, 2022 and 2021 are as follows (Unit: Korean Won in millions):

	December 31, 2022						Total
	Within 3 months	4 to 6 months	7 to 9 months	10 to 12 months	1 to 5 years	Over 5 years	
Financial liabilities at FVTPL	35,161	-	-	-	-	12,113	47,274
Deposits due to customers	228,890,427	36,851,103	24,091,740	42,652,679	14,999,516	1,522,830	349,008,295
Borrowings	8,969,648	5,734,715	3,210,812	3,156,211	7,457,240	484,909	29,013,535
Debentures	6,348,064	6,841,379	5,211,032	5,214,942	19,621,659	3,298,581	46,535,657
Lease liabilities	68,279	36,724	35,136	29,646	151,379	33,007	354,171
Other financial liabilities	14,409,376	113,049	19,370	20,315	765,870	3,037,563	18,365,543
Total	<u>258,720,955</u>	<u>49,576,970</u>	<u>32,568,090</u>	<u>51,073,793</u>	<u>42,995,664</u>	<u>8,389,003</u>	<u>443,324,475</u>

  

	December 31, 2021						Total
	Within 3 months	4 to 6 months	7 to 9 months	10 to 12 months	1 to 5 years	Over 5 years	
Financial liabilities at FVTPL	100,976	10,397	91,785	107,230	-	-	310,388
Deposits due to customers	224,881,863	32,559,199	20,290,566	31,768,748	9,213,279	1,615,198	320,328,853
Borrowings	9,477,536	4,366,223	2,415,548	2,494,732	5,800,815	440,506	24,995,360
Debentures	3,068,600	4,201,926	5,316,672	5,371,869	24,982,746	3,342,284	46,284,097
Lease liabilities	41,731	53,245	30,148	25,494	156,228	38,275	345,121
Other financial liabilities	17,614,313	228,388	12,190	11,894	610,514	1,999,198	20,476,497
Total	<u>255,185,019</u>	<u>41,419,378</u>	<u>28,156,909</u>	<u>39,779,967</u>	<u>40,763,582</u>	<u>7,435,461</u>	<u>412,740,316</u>

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- b) Cash flows of principals and interests by expected maturities of non-derivative financial liabilities as of December 31, 2022 and 2021 are as follows (Unit: Korean Won in millions):

		December 31, 2022						
		Within 3 months	4 to 6 months	7 to 9 months	10 to 12 months	1 to 5 years	Over 5 years	Total
Financial liabilities at								
	FVTPL	35,161	-	-	-	-	12,113	47,274
	Deposits due to customers	242,132,680	41,113,768	24,269,363	29,670,943	10,490,993	56,013	347,733,760
	Borrowings	8,969,648	5,734,715	3,210,812	3,156,211	7,457,240	484,909	29,013,535
	Debentures	6,348,064	6,841,379	5,211,032	5,214,942	19,621,659	3,298,581	46,535,657
	Lease liabilities	68,344	36,729	35,377	29,948	157,361	38,584	366,343
	Other financial liabilities	14,409,376	113,049	19,370	20,315	765,870	3,037,563	18,365,543
	<b>Total</b>	<b>271,963,273</b>	<b>53,839,640</b>	<b>32,745,954</b>	<b>38,092,359</b>	<b>38,493,123</b>	<b>6,927,763</b>	<b>442,062,112</b>

  

		December 31, 2021						
		Within 3 months	4 to 6 months	7 to 9 months	10 to 12 months	1 to 5 years	Over 5 years	Total
Financial liabilities at								
	FVTPL	100,976	10,397	91,785	107,230	-	-	310,388
	Deposits due to customers	230,823,884	33,705,990	20,107,790	27,331,774	7,871,688	89,643	319,930,769
	Borrowings	9,477,536	4,366,223	2,415,548	2,494,732	5,800,815	440,506	24,995,360
	Debentures	3,068,600	4,201,926	5,316,672	5,371,869	24,982,746	3,342,284	46,284,097
	Lease liabilities	41,716	53,260	30,216	25,653	162,092	41,814	354,751
	Other financial liabilities	17,614,313	228,388	12,190	11,894	610,514	1,999,198	20,476,497
	<b>Total</b>	<b>261,127,025</b>	<b>42,566,184</b>	<b>27,974,201</b>	<b>35,343,152</b>	<b>39,427,855</b>	<b>5,913,445</b>	<b>412,351,862</b>

3) Maturity analysis of derivative financial liabilities

Derivatives held for trading purpose are not managed in accordance with their contractual maturity, since the Group holds such financial instruments with the purpose of disposing or redemption before their maturity. As such, those derivatives are incorporated as “within 3 months” in the table below. Derivatives designated for hedging purpose are estimated by offsetting cash inflows and cash outflows.

The cash flow by the maturity of derivative financial liabilities as of December 31, 2022 and 2021 is as follows (Unit: Korean Won in millions):

		Remaining maturity						
		Within 3 months	4 to 6 months	7 to 9 months	10 to 12 months	1 to 5 years	Over 5 years	Total
December 31, 2022	Cash flow risk hedge	856	905	915	1,255	50,682	-	54,613
	Fair value risk hedge	25,048	16,175	31,974	18,540	118,027	(3,615)	206,149
	Trading purpose	8,905,125	-	-	-	-	-	8,905,125
December 31, 2021	Cash flow risk hedge	246	(206)	(502)	(717)	(2,744)	(4,053)	(7,976)
	Fair value risk hedge	(1,656)	598	(940)	1,392	21,552	-	20,946
	Trading purpose	4,566,443	-	-	-	-	-	4,566,443

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4) Maturity analysis of off-balance accounts (Payment guarantees, commitments, and etc)

A payment guarantee represents an irrevocable undertaking that the Group should meet a customer's obligations to third parties if the customer fails to do so. The loan commitment represents the limit if the Group has promised a credit to the customer. Loan commitments include commercial standby facilities and credit lines, liquidity facilities to commercial paper conduits and utilized overdraft facilities. The maximum limit to be paid by the Group in accordance with guarantees and loan commitment only applies to principal amounts. There are contractual maturities for payment guarantees, such as financial guarantees for debentures issued or loans, unused loan commitments, and other credits, however, under the terms of the guarantees and unused loan commitments, funds should be paid upon demand from the counterparty. Details of off-balance accounts as of December 31, 2022 and 2021 are as follows (Unit: Korean Won in millions):

	December 31, 2022	December 31, 2021
Payment guarantees	11,921,586	12,987,809
Loan commitments	118,172,070	114,414,462
Other commitments	4,602,429	3,427,331

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(4) Operational risk

The Group defines the operational risk that could cause a negative effect on capital resulting from inadequate internal process, labor work and systematic problem or external factors.

1) Operational risk management

The Group has established and operated an operating risk management system to strengthen external competitiveness, reduce risk capital volume, enhance operational risk management capacity and prevent accidents through compliance with Basel II, and has obtained approval from the Financial Supervisory Service for “Advanced Measurement Approaches”(AMA) based on self-compliance verification and independent third-party inspection results.

2) Operational risk measurement

The Group is applying the basic indicator method for the purpose of calculating the regulatory capital of operation risk, and the Bank is applying the Advanced Measurement Approaches. The Bank applies AMA using internal and external loss data, business environment and internal control factors, and scenario analysis.

(5) Capital management

The Group complies with the standard of capital adequacy provided by financial regulatory authorities. The capital adequacy standard is based on Basel III published by Basel Committee on Banking Supervision in Bank for International Settlement and was implemented in Korea in December 2013. The capital adequacy ratio is calculated by dividing own capital by asset (weighted with a risk premium – risk weighted assets) based on the consolidated financial statements of the Group.

According to the above regulations, the Group is required to meet the following minimum requirements: Tier 1 common capital ratio of 8.0%, a Tier 1 capital ratio of 9.5%, and a total capital ratio of 11.5% as of December 31, 2022 and 2021

Details of the Group’s capital adequacy ratio as of December 31, 2022 and 2021 are as follows (Unit: Korean Won in millions):

Details(*)	December 31, 2022	December 31, 2021
Tier 1 capital	23,757,296	21,994,047
Other Tier 1 capital	4,208,994	3,590,212
Tier 2 capital	3,437,735	3,395,989
Total risk-adjusted capital	31,404,025	28,980,248
Risk-weighted assets for credit risk	182,028,062	171,199,840
Risk-weighted assets for market risk	6,759,527	6,388,428
Risk-weighted assets for operational risk	16,519,885	14,914,801
Total risk-weighted assets	205,307,474	192,503,069
Common Equity Tier 1 ratio	11.57%	11.43%
Tier 1 capital ratio	13.62%	13.29%
Total capital ratio	15.30%	15.05%

(\*) The capital ratio at the end of the current period is provisional

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**5. OPERATING SEGMENTS**

In evaluating the results of the Group and allocating resources, the Group’s Chief Operation Decision Maker (“CODM”) utilizes the information per type of customers. With the establishment of Woori Financial Group Inc. during the prior term, the Group reports to the CODM according to the organizational sectors below. This financial information of the segments is regularly reviewed by the CODM to make decisions about resources to be allocated to each segment and evaluate its performance.

(1) Segment by type of organization

The Group’s reporting segments consist of banking, credit card, capital, comprehensive finance and other sectors, and the composition of such reporting segments was divided based on internal report data periodically reviewed by the management to evaluate the performance of the segment and make decisions on the resources to be distributed.

	<u>Operational scope</u>
Banking	Loans/deposits and relevant services for customers of Woori Bank and its subsidiaries
Credit card	Credit card, cash services, card loans and accompanying business of Woori Card Co., Ltd.
Capital	Installments, loans including lease financing, and accompanying business of Woori Financial Capital Co., Ltd.
Investment	Securities operation, sale of financial instruments, project financing and other related activities for comprehensive financing of Woori Investment bank Co., Ltd.
Banking	
Others	Woori Financial Group Inc., Woori Asset Trust Co., Ltd., Woori Asset Management Corp., Ltd., Woori Financial F&I Co., Ltd., Woori Savings Bank., Woori Credit Information Co., Ltd., Woori Fund Services Inc., Woori Private Equity Asset Management Co., Ltd., Woori Global Asset Management Co., Ltd., Woori FIS Co., Ltd. and Woori Finance Research Institute,

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(2) The composition of each organization's sectors for the years ended December 31, 2022 and 2021 are as follows (Unit: Korean Won in millions):

For the year ended December 31, 2022

	Banking	Credit card	Capital	Investment banking	Others (*1)	Sub-total	Other adjustments (*2)	Internal adjustments (*3)	Consolidated Adjustments (*4)	Total
Net interest income	6,603,834	675,250	376,133	117,867	73,800	7,846,884	34,307	817,543	(2,155)	8,696,579
Non-interest income(expense)	1,520,576	110,888	83,428	82,885	1,750,203	3,547,980	17,498	(761,029)	(1,655,342)	1,149,107
Impairment losses due to credit loss	(426,552)	(238,607)	(107,906)	(16,491)	(38,319)	(827,875)	-	(57,992)	595	(885,272)
General and administrative expense	(3,914,672)	(262,525)	(99,872)	(61,631)	(493,502)	(4,832,202)	(409)	-	302,721	(4,529,890)
Net operating income(expense)	3,783,186	285,006	251,783	122,630	1,292,182	5,734,787	51,396	(1,478)	(1,354,181)	4,430,524
Share of gain of associates	73,958	-	1,430	334	2,173	77,895	(182)	-	(7,717)	69,996
Other non-operating expense	5,563	(6,373)	(1,835)	(1,399)	(2,386)	(6,430)	2,371	1,478	(12,565)	(15,146)
Net operating income(expense)	79,521	(6,373)	(405)	(1,065)	(213)	71,465	2,189	1,478	(20,282)	54,850
Net income(expense) before tax	3,862,707	278,633	251,378	121,565	1,291,969	5,806,252	53,585	-	(1,374,463)	4,485,374
Tax expense	(959,298)	(73,869)	(68,050)	(29,771)	(26,739)	(1,157,727)	-	-	(3,665)	(1,161,392)
Net income(loss)	2,903,409	204,764	183,328	91,794	1,265,230	4,648,525	53,585	-	(1,378,128)	3,323,982
Total assets	443,340,979	16,118,967	12,581,473	5,657,191	28,059,619	505,758,229	2,019,322	-	(27,303,155)	480,474,396
Investment in associate	917,581	-	40,987	6,548	22,427,853	23,392,969	29,658	-	(22,116,991)	1,305,636
Other assets	442,423,398	16,118,967	12,540,486	5,650,643	5,631,766	482,365,260	1,989,664	-	(5,186,164)	479,168,760
Total liabilities	417,583,793	13,692,456	11,040,754	4,982,410	4,146,997	451,446,410	50,762	-	(2,650,118)	448,847,054

(\*1) Other segments include gains and losses from Woori Financial Group Inc., Woori Asset Trust Co., Ltd., Woori Savings Bank, Woori Asset Management Corp., Woori Financial F&I Co., Ltd., Woori Credit Information Co., Ltd., Woori Fund Service Co., Ltd., Woori Private Equity Asset Management Co., Ltd., Woori Global Asset Management Co., Ltd., Woori FIS Co., Ltd. and Woori Finance Research Institute.

(\*2) Other segments includes the funds subject to Group's consolidated not included in the reporting segment.

(\*3) Internal reconciliation includes the adjustment of deposit insurance premiums of KRW 423,834 million and fund contribution fees of KRW 402,057 million from net interest income expenses to non-interest income expenses in order to present the profit and loss adjustment between reporting divisions in accordance with management accounting standards as profit and loss in accordance with accounting standards

(\*4) Consolidation adjustments include the elimination of KRW 300,297 million of internal transactions between Woori FIS Co., Ltd., the group's IT service agency, and affiliates, and the removal of KRW 1,272,393 million of dividends received by the holding company from its subsidiaries.

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	Banking	Credit card	Capital	Investment banking	Others (*1)	Sub-total	Other adjustments (*2)	Internal adjustments (*3)	consolidated adjustments (*4)	Total
Net interest income	5,158,078	606,506	315,600	108,321	29,515	6,218,020	9,938	758,559	(796)	6,985,721
Non-interest income(expense)	1,661,903	63,839	95,297	49,419	1,111,422	2,981,880	16,431	(670,230)	(969,804)	1,358,277
Impairment losses due to credit loss	(140,574)	(164,097)	(122,089)	(1,885)	(19,601)	(448,246)	-	(89,683)	1,091	(536,838)
General and administrative expense	(3,606,715)	(225,175)	(99,048)	(51,490)	(440,601)	(4,423,029)	(256)	-	275,874	(4,147,411)
Net operating income(expense)	3,072,692	281,073	189,760	104,365	680,735	4,328,625	26,113	(1,354)	(693,635)	3,659,749
Share of gain of associates	60,049	-	1,000	750	4,390	66,189	51	-	(4,044)	62,196
Other non-operating expense	42,542	(7,936)	(16,943)	(660)	(1,071)	15,932	2,956	1,354	7,054	27,296
Non-operating income(expense)	102,591	(7,936)	(15,943)	90	3,319	82,121	3,007	1,354	3,010	89,492
Net income(expense) before tax	3,175,283	273,137	173,817	104,455	684,054	4,410,746	29,120	-	(690,625)	3,749,241
Tax expense	(790,177)	(72,411)	(33,238)	(24,531)	(16,799)	(937,156)	-	-	(4,714)	(941,870)
Net income(loss)	2,385,106	200,726	140,579	79,924	667,255	3,473,590	29,120	-	(695,339)	2,807,371
Total assets	415,976,627	14,116,832	10,259,868	5,159,742	25,627,649	471,140,718	1,101,162	-	(25,058,009)	447,183,871
Investment in associate	858,706	-	12,403	8,846	22,165,895	23,045,850	35,134	-	(21,745,817)	1,335,167
Other assets	415,117,921	14,116,832	10,247,465	5,150,896	3,461,754	448,094,868	1,066,028	-	(3,312,192)	445,848,704
Total liabilities	391,315,108	11,858,065	9,073,104	4,559,856	3,284,269	420,090,402	54,595	-	(1,811,321)	418,333,676

(\*1) Other segments include gains and losses from Woori Financial Group Inc., Woori Asset Trust Co., Ltd., Woori Savings Bank, Woori Asset Management Corp., Woori Financial F&I Co., Ltd., Woori Credit Information Co., Ltd., Woori Fund Service Co., Ltd., Woori Private Equity Asset Management Co., Ltd., Woori Global Asset Management Co., Ltd., Woori FIS Co., Ltd. and Woori Finance Research Institute.

(\*2) Other segments includes the funds subject to Group's consolidated not included in the reporting segment.

(\*3) Internal reconciliation includes the adjustment of deposit insurance premiums of KRW 406,276 million and fund contribution fees of KRW 367,961 million from net interest income expenses to non-interest income expenses in order to present the profit and loss adjustment between reporting divisions in accordance with management accounting standards as profit and loss in accordance with accounting standards

(\*4) Consolidation adjustments include the elimination of KRW 274,768 million of internal transactions between Woori FIS Co., Ltd., the group's IT service agency, and affiliates, and the removal of KRW 692,605 million of dividends received by the holding company from its subsidiaries.

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- (3) Operating profit or loss from external customers for the years ended December 31, 2022 and 2021 are as follows (Unit: Korean Won in millions):

Details	For the years ended December 31	
	2022	2021
Domestic	3,835,809	3,288,341
Foreign	594,715	371,408
Total	4,430,524	3,659,749

- (4) Major non-current assets as of December 31, 2022 and 2021 are as follows (Unit: Korean Won in millions):

Details (*)	December 31, 2022 (*)	December 31, 2021 (*)
Domestic	5,152,033	5,201,838
Foreign	533,354	482,930
Total	5,685,387	5,684,768

(\*) Major non-current assets included joint ventures and related business investments, investment properties, premises equipment, and intangible assets.

- (5) Information about major customers

The Group does not have any single customer that generates 10% or more of the Group's total revenue for the years ended December 31, 2022 and 2021.

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**6. STATEMENTS OF CASH FLOWS**

(1) Details of cash and cash equivalents are as follows (Unit: Korean Won in millions):

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Cash	1,771,316	1,742,449
Foreign currencies	628,590	503,205
Demand deposits	31,729,228	18,208,784
Fixed deposits	<u>90,014</u>	<u>158,635</u>
Total	<u><u>34,219,148</u></u>	<u><u>20,613,073</u></u>

(2) Details of restricted cash and cash equivalents are as follows (Unit: Korean Won in millions)

	<u>Counterparty</u>	<u>December 31, 2022</u>	<u>Reason of restriction</u>
Due from banks in local currency:			
Due from BOK	BOK	<u>16,527,445</u>	Reserve deposits under the BOK Act
Due from banks in foreign currencies:			
Due from banks on demand	BOK and others	<u>6,437,717</u>	Reserve deposits under the BOK Act and others
Total		<u><u>22,965,162</u></u>	
	<u>Counterparty</u>	<u>December 31, 2021</u>	<u>Reason of restriction</u>
Due from banks in local currency:			
Due from BOK	BOK	<u>9,619,055</u>	Reserve deposits under the BOK Act
Due from banks in foreign currencies:			
Due from banks on demand	BOK and others	<u>3,428,200</u>	Reserve deposits under the BOK Act and others
Total		<u><u>13,047,255</u></u>	

(3) Significant transactions of investing activities and financing activities not involving cash inflows and outflows are as follows (Unit: Korean Won in millions):

	<u>For the years ended December 31</u>	
	<u>2022</u>	<u>2021</u>
Changes in other comprehensive income related to valuation of financial assets at FVTOCI	(493,871)	(150,327)
Changes in other comprehensive income related to valuation of assets of associate	612	1,526
Changes in other comprehensive income related to valuation profit or loss on cash flow hedge	(9,835)	7,107
Changes in financial assets measure at FVTOCI due to debt-for-equity swap	14,594	79
Changes in the investment assets of associates due to the transfer of assets held-for-sale	-	(52)
Changes in the property, plant and equipment due to the transfer of assets held-for-sale	(13,109)	(12,852)
Transfer of investment properties and premises and equipment	7,154	6,095
Changes in account payables related to premises and equipment	281	-
Changes in account payables related to intangible assets	(11,530)	(11,640)
Changes in right-of-use assets and lease liabilities	194,236	150,644

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	For the years ended December 31	
	2022	2021
Comprehensive stock exchange	-	64,301
Changes in other comprehensive income related to foreign operation translation	28,746	246,808

- (4) Adjustments of liabilities from financing activities in current and prior year are as follows (Unit: Korean Won in millions):

	For the year ended December 31, 2022					
	Not involving cash inflows and outflows					
	Beginning balance	Cash flow	Foreign Exchange	Variation of gain(loss) on valuation of hedged items	Others (*)	Ending balance
Borrowings	24,755,459	2,881,675	760,918	-	31,551	28,429,603
Debentures	44,653,864	(484,874)	297,861	(257,910)	(10,455)	44,198,486
Lease liabilities	343,213	(187,531)	4,645	-	158,834	319,161
Other liabilities	26,907	513	-	-	(36)	27,384
Total	69,779,443	2,209,783	1,063,424	(257,910)	179,894	72,974,634

(\*) The change in lease liabilities due to the new contract includes 235,215 million won.

	For the year ended December 31, 2021					
	Not involving cash inflows and outflows					
	Beginning balance	Cash flow	Foreign Exchange	Variation of gains on valuation of hedged items	Others (*)	Ending balance
Borrowings	20,745,466	3,199,712	804,649	-	5,632	24,755,459
Debentures	37,479,358	6,893,661	392,077	(104,306)	(6,926)	44,653,864
Lease liabilities	407,431	(177,593)	10,950	-	102,425	343,213
Other liabilities	26,354	14,173	-	-	(13,620)	26,907
Total	58,658,609	9,929,953	1,207,676	(104,306)	87,511	69,779,443

(\*) The change in lease liabilities due to the new contract includes 189,660 million won.

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**7. FINANCIAL ASSETS AT FVTPL**

- (1) Details of financial assets at FVTPL as of December 31, 2022 and 2021 are as follows (Unit: Korean Won in millions):

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Financial assets at fair value through profit or loss measured at fair value	19,860,573	13,497,234

- (2) Financial assets at fair value through profit or loss measured at fair value as of December 31, 2022 and 2021 are as follows (Unit: Korean Won in millions):

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Deposits:		
Gold banking asset	34,995	65,072
Securities:		
Debt securities		
Korean treasury and government agencies	2,754,442	995,713
Financial institutions	620,311	925,474
Corporates	721,573	751,636
Others	174,206	70,416
Equity securities	383,883	329,864
Capital contributions	1,976,474	1,287,723
Beneficiary certificates	3,902,762	3,504,547
Others	143,334	94,673
Sub-total	<u>10,676,985</u>	<u>7,960,046</u>
Loans	899,228	667,467
Derivatives assets	8,206,181	4,803,131
Other financial assets	43,184	1,518
Total	<u><u>19,860,573</u></u>	<u><u>13,497,234</u></u>

The Group does not have financial assets at fair value through profit or loss designated as upon initial recognition as of December 31, 2022 and 2021.

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**8. FINANCIAL ASSETS AT FVTOCI**

- (1) Details of financial assets at FVTOCI as of December 31, 2022 and 2021 are as follows (Unit: Korean Won in millions):

	December 31, 2022	December 31, 2021
Debt securities:		
Korean treasury and government agencies	5,487,983	4,728,085
Financial institutions	16,870,619	22,909,615
Corporates	4,044,446	5,091,035
Bond denominated in foreign currencies	5,644,684	5,299,707
Securities loaned	98,026	98,535
Sub-total	<u>32,145,758</u>	<u>38,126,977</u>
Equity securities	939,322	992,812
Total	<u>33,085,080</u>	<u>39,119,789</u>

- (2) Details of equity securities designated as financial assets at FVTOCI as of December 31, 2022 and 2021 are as follows (Unit: Korean Won in millions):

Purpose of acquisition	December 31, 2022	December 31, 2021	Remarks
Investment for strategic business partnership purpose	776,199	796,835	
Debt-equity swap	157,216	195,971	
Others	5,907	6	Insurance for mutual aid association, etc.
Total	<u>939,322</u>	<u>992,812</u>	

- (3) Changes in the loss allowance and gross carrying amount of financial assets at FVTOCI are as follows (Unit: Korean Won in millions):

1) Allowance for credit losses

	For the year ended December 31, 2022			
	Stage 1	Stage 2	Stage 3	Total
Beginning balance	(12,146)	-	-	(12,146)
Transfer to 12-month expected credit losses	-	-	-	-
Transfer to lifetime expected credit losses	-	-	-	-
Transfer to credit-impaired financial assets	-	-	-	-
Reversal of loss allowance	827	-	-	827
Disposal	714	-	-	714
Others (*)	(1,200)	-	-	(1,200)
Ending balance	<u>(11,805)</u>	<u>-</u>	<u>-</u>	<u>(11,805)</u>

(\*) Others consist of foreign currencies translation, etc.

	For the year ended December 31, 2021			
	Stage 1	Stage 2	Stage 3	Total
Beginning balance	(9,631)	-	-	(9,631)
Transfer to 12-month expected credit losses	-	-	-	-
Transfer to lifetime expected credit losses	-	-	-	-
Transfer to credit-impaired financial assets	-	-	-	-
Net provision of loss allowance	(4,909)	-	-	(4,909)
Disposal	2,378	-	-	2,378
Others (*)	16	-	-	16
Ending balance	<u>(12,146)</u>	<u>-</u>	<u>-</u>	<u>(12,146)</u>

(\*) Others consist of foreign currencies translation, etc.

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2) Gross carrying amount

	For the year ended December 31, 2022			
	Stage 1	Stage 2	Stage 3	Total
Beginning balance	38,126,977	-	-	38,126,977
Transfer to 12-month expected credit losses	-	-	-	-
Transfer to lifetime expected credit losses	-	-	-	-
Transfer to credit-impaired financial assets	-	-	-	-
Acquisition	16,108,426	-	-	16,108,426
Disposal / Recovery	(21,670,160)	-	-	(21,670,160)
Gain (loss) on valuation	(669,936)	-	-	(669,936)
Amortization based on effective interest method	41,813	-	-	41,813
Others (*)	208,638	-	-	208,638
Ending balance	32,145,758	-	-	32,145,758

(\*) Others consist of foreign currencies translation, etc.

	For the year ended December 31, 2021			
	Stage 1	Stage 2	Stage 3	Total
Beginning balance	28,948,141	-	-	28,948,141
Transfer to 12-month expected credit losses	-	-	-	-
Transfer to lifetime expected credit losses	-	-	-	-
Transfer to credit-impaired financial assets	-	-	-	-
Acquisition	30,522,426	-	-	30,522,426
Disposal / Recovery	(21,533,360)	-	-	(21,533,360)
Gain (loss) on valuation	(213,517)	-	-	(213,517)
Amortization based on effective interest method	31,641	-	-	31,641
Others (*)	371,646	-	-	371,646
Ending balance	38,126,977	-	-	38,126,977

(\*) Others consist of foreign currencies translation, etc.

- (4) During the years ended December 31, 2022 and 2021, the Group sold its equity securities., designated as financial assets at FVTOCI in accordance with decision of disposal by the creditors, and the fair values at disposal dates were 3,567 million won and 138,511 million won, respectively and cumulative gains and losses at disposal dates were 14,444 million won in gain and 3,062 million won in loss, respectively.

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**9. SECURITIES AT AMORTIZED COST**

- (1) Details of securities at amortized cost as of December 31, 2022 and 2021 are as follows (Unit: Korean Won in millions):

	December 31, 2022	December 31, 2021
Korean treasury and government agencies	10,083,951	8,882,500
Financial institutions	10,283,631	1,835,947
Corporates	6,237,547	5,818,646
Bond denominated in foreign currencies	1,671,772	554,416
Allowance for credit losses	(8,385)	(5,235)
Total	<u>28,268,516</u>	<u>17,086,274</u>

- (2) Changes in the loss allowance and gross carrying amount of securities at amortized cost are as follows (Unit: Korean Won in millions):

1) Loss allowance

	For the year ended December 31, 2022			
	Stage 1	Stage 2	Stage 3	Total
Beginning balance	(5,235)	-	-	(5,235)
Transfer to 12-month expected credit losses	-	-	-	-
Transfer to lifetime expected credit losses	-	-	-	-
Transfer to credit-impaired financial assets	-	-	-	-
Net provision of loss allowance	(3,151)	-	-	(3,151)
Others (*)	1	-	-	1
Ending balance	<u>(8,385)</u>	<u>-</u>	<u>-</u>	<u>(8,385)</u>

(\*) Changes due to foreign currencies translation, etc.

	For the year ended December 31, 2021			
	Stage 1	Stage 2	Stage 3	Total
Beginning balance	(4,566)	-	-	(4,566)
Transfer to 12-month expected credit losses	-	-	-	-
Transfer to lifetime expected credit losses	-	-	-	-
Transfer to credit-impaired financial assets	-	-	-	-
Net provision of loss allowance	(664)	-	-	(664)
Others (*)	(5)	-	-	(5)
Ending balance	<u>(5,235)</u>	<u>-</u>	<u>-</u>	<u>(5,235)</u>

(\*) Changes due to foreign currencies translation, etc.

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2) Gross carrying amount

	For the year ended December 31, 2022			
	Stage 1	Stage 2	Stage 3	Total
Beginning balance	17,091,509	-	-	17,091,509
Transfer to 12-month expected credit losses	-	-	-	-
Transfer to lifetime expected credit losses	-	-	-	-
Transfer to credit-impaired financial assets	-	-	-	-
Acquisition	16,873,194	-	-	16,873,194
Disposal / Recovery	(5,871,234)	-	-	(5,871,234)
Amortization based on effective interest method	86,212	-	-	86,212
Others (*)	97,220	-	-	97,220
Ending balance	28,276,901	-	-	28,276,901

(\*) Changes due to foreign currencies translation, etc.

	For the year ended December 31, 2021			
	Stage 1	Stage 2	Stage 3	Total
Beginning balance	17,025,405	-	-	17,025,405
Transfer to 12-month expected credit losses	-	-	-	-
Transfer to lifetime expected credit losses	-	-	-	-
Transfer to credit-impaired financial assets	-	-	-	-
Acquisition	6,435,692	-	-	6,435,692
Disposal / Recovery	(6,425,408)	-	-	(6,425,408)
Amortization based on effective interest method	14,810	-	-	14,810
Others (*)	41,010	-	-	41,010
Ending balance	17,091,509	-	-	17,091,509

(\*) Changes due to foreign currencies translation, etc.

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**10. LOANS AND OTHER FINANCIAL ASSETS AT AMORTIZED COST**

- (1) Details of loans and other financial assets at amortized cost as of December 31, 2022 and 2021 are as follows (Unit: Korean Won in millions):

	December 31, 2022	December 31, 2021
Due from banks	2,994,672	2,866,884
Loans	343,918,560	336,799,510
Other financial assets	8,847,497	9,219,223
Total	<u>355,760,729</u>	<u>348,885,617</u>

- (2) Details of due from banks are as follows (Unit: Korean Won in millions):

	December 31, 2022	December 31, 2021
Due from banks in local currency:		
Due from The Bank of Korea (“BOK”)	160,000	600,000
Due from depository banks	170,006	159,264
Due from non-depository institutions	183	14,146
Due from the Korea Exchange	2,440	54
Others	421,318	191,501
Loss allowance	(116)	(2,452)
Sub-total	<u>753,831</u>	<u>962,513</u>
Due from banks in foreign currencies:		
Due from banks on demand	199,671	194,781
Due from banks on time	466,963	205,351
Others	1,586,408	1,507,821
Loss allowance	(12,201)	(3,582)
Sub-total	<u>2,240,841</u>	<u>1,904,371</u>
Total	<u>2,994,672</u>	<u>2,866,884</u>

- (3) Details of restricted due from banks are as follows (Unit: Korean Won in millions):

	Counterparty	December 31, 2022	Reason of restriction
Due from banks in local currency:			
Due from BOK	BOK	160,000	Reserve deposits under BOK Act
Due from KSFC	The Korea Securities Finance Corporation	2,419	Customer deposits return reserve
Others	Korea Exchange and others	223,705	Korean Won CCP margin and others
Sub-total		<u>386,124</u>	
Due from banks in foreign currencies:			
Due from banks on demand	BOK and others	193,507	Reserve deposits under BOK Act and others
Due from banks on time	National Bank Cambodia	253	Reserve deposits and others
Others	Korea Investment & Securities and others	1,581,298	Overseas futures and options trade deposits and others
Sub-total		<u>1,775,058</u>	
Total		<u>2,161,182</u>	

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	Counterparty	December 31, 2021	Reason of restriction
Due from banks in local currency:			
Due from BOK	The BOK	600,000	Reserve deposits under the BOK Act
Due from KSFC	KB Securities Co. Ltd.	54	Futures trading margin
Others	Korea Federation of Savings Banks and others	75,897	Guarantees, mortgage of domestic exchange transactions and others
	Sub-total	675,951	
Due from banks in foreign currencies:			
Due from banks on demand	The BOK and others	128,492	Reserve deposits under the BOK Act and others
Foreign currency deposits on time	National Bank Cambodia	237	Reserve deposits and others
Others	Korea Investment & Securities and others	1,502,474	Overseas futures and options trade deposits and others
	Sub-total	1,631,203	
	Total	2,307,154	

(4) Changes in the loss allowance and gross carrying amount of due from banks are as follows (Unit: Korean Won in millions):

1) Allowance for credit losses

	For the year ended December 31, 2022			
	Stage 1	Stage 2	Stage 3	Total
Beginning balance	(6,034)	-	-	(6,034)
Transfer to 12-month expected credit losses	-	-	-	-
Transfer to lifetime expected credit losses	-	-	-	-
Transfer to credit-impaired financial assets	-	-	-	-
Provision for allowance for credit loss	(7,702)	-	-	(7,702)
Others (*)	1,419	-	-	1,419
Ending balance	(12,317)	-	-	(12,317)

(\*) Changes due to foreign currencies translation, etc.

	For the year ended December 31, 2021			
	Stage 1	Stage 2	Stage 3	Total
Beginning balance	(4,366)	-	-	(4,366)
Transfer to 12-month expected credit losses	-	-	-	-
Transfer to lifetime expected credit losses	-	-	-	-
Transfer to credit-impaired financial assets	-	-	-	-
Provision for allowance for credit loss	(1,477)	-	-	(1,477)
Others (*)	(191)	-	-	(191)
Ending balance	(6,034)	-	-	(6,034)

(\*) Changes due to foreign currencies translation, etc.

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2) Gross carrying amount

	For the year ended December 31, 2022			
	Stage 1	Stage 2	Stage 3	Total
Beginning balance	2,872,918	-	-	2,872,918
Transfer to 12-month expected credit losses	-	-	-	-
Transfer to lifetime expected credit losses	-	-	-	-
Transfer to credit-impaired financial assets	-	-	-	-
Net decrease	166,693	-	-	166,693
Others (*)	(32,622)	-	-	(32,622)
Ending balance	3,006,989	-	-	3,006,989

(\*) Changes due to foreign currencies translation, etc.

	For the year ended December 31, 2021			
	Stage 1	Stage 2	Stage 3	Total
Beginning balance	2,515,273	-	-	2,515,273
Transfer to 12-month expected credit losses	-	-	-	-
Transfer to lifetime expected credit losses	-	-	-	-
Transfer to credit-impaired financial assets	-	-	-	-
Net decrease	282,987	-	-	282,987
Others (*)	74,658	-	-	74,658
Ending balance	2,872,918	-	-	2,872,918

(\*) Changes due to foreign currencies translation, etc.

(5) Details of loans are as follows (Unit: Korean Won in millions):

	December 31, 2022	December 31, 2021
Loans in local currency	282,686,620	273,283,542
Loans in foreign currencies	26,988,360	24,508,250
Domestic banker's usance	2,877,079	3,403,021
Credit card accounts	10,370,362	9,757,115
Bills bought in foreign currencies	3,650,792	5,310,080
Bills bought in local currency	533,879	265,275
Factoring receivables	25,469	17,406
Advances for customers on guarantees	25,698	26,766
Private placement bonds	485,519	519,150
Securitized loans	2,990,937	2,874,480
Call loans	3,626,226	3,481,219
Bonds purchased under resale agreements	6,849,038	10,332,858
Financial lease receivables	1,467,858	1,173,751
Installment financial bond	2,832,972	2,882,396
Others	140	159
Loan origination costs and fees	852,002	858,051
Discounted present value	(10,238)	(7,299)
Allowance for credit losses	(2,334,153)	(1,886,710)
Total	343,918,560	336,799,510

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(6) Changes in the loss allowance of loans are as follows (Unit: Korean Won in millions):

	For the year ended December 31, 2022						Credit impairment model
	Consumers			Corporates			
	Stage 1	Stage 2	Stage 3	Stage 1	Stage 2	Stage 3	
Beginning balance	(136,520)	(97,604)	(206,617)	(362,766)	(576,740)	(251,233)	-
Transfer to 12-month expected credit losses	(21,684)	21,210	474	(74,402)	68,546	5,856	-
Transfer to lifetime expected credit losses	10,211	(11,568)	1,357	18,678	(21,502)	2,824	-
Transfer to credit-impaired financial assets	3,960	8,975	(12,935)	2,217	12,769	(14,986)	-
Net reversal(provision) of allowance for credit losses	(734)	(49,398)	(156,286)	(22,646)	(303,198)	(107,038)	(27)
Recovery	-	-	(70,077)	-	-	(55,743)	-
Charge-off	-	-	161,850	-	-	140,744	-
Disposal	-	62	21,862	280	128	37,722	-
Interest income from impaired loans	-	-	11,805	-	-	9,576	-
Others	(4,350)	(495)	(948)	(479)	(84)	(97)	-
Changes due to business combinations	1,241	729	7,573	(14,503)	1,847	(9,090)	-
Ending balance	<u>(147,876)</u>	<u>(128,089)</u>	<u>(241,942)</u>	<u>(453,621)</u>	<u>(818,234)</u>	<u>(241,465)</u>	<u>(27)</u>

	For the year ended December 31, 2022						Credit impairment model
	Credit card accounts			Total			
	Stage 1	Stage 2	Stage 3	Stage 1	Stage 2	Stage 3	
Beginning balance	(68,814)	(115,489)	(70,927)	(568,100)	(789,833)	(528,777)	-
Transfer to 12-month expected credit losses	(31,360)	31,284	76	(127,446)	121,040	6,406	-
Transfer to lifetime expected credit losses	7,576	(7,694)	118	36,465	(40,764)	4,299	-
Transfer to credit-impaired financial assets	642	2,190	(2,832)	6,819	23,934	(30,753)	-
Net reversal(provision) of allowance for credit losses	20,820	(38,105)	(204,569)	(2,560)	(390,701)	(467,893)	(27)
Recovery	-	-	(53,988)	-	-	(179,808)	-
Charge-off	-	-	220,280	-	-	522,874	-
Disposal	-	-	7,896	-	190	67,480	-
Interest income from impaired loans	-	-	-	-	-	21,381	-
Others	-	-	-	(4,829)	(579)	(1,045)	-
Changes due to business combinations	(3)	-	-	(13,265)	2,576	(1,517)	-
Ending balance	<u>(71,139)</u>	<u>(127,814)</u>	<u>(103,946)</u>	<u>(672,636)</u>	<u>(1,074,137)</u>	<u>(587,353)</u>	<u>(27)</u>

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	For the year ended December 31, 2021					
	Consumers			Corporates		
	Stage 1	Stage 2	Stage 3	Stage 1	Stage 2	Stage 3
Beginning balance	(121,527)	(84,463)	(205,693)	(327,460)	(521,907)	(388,744)
Transfer to 12-month expected credit losses	(23,328)	19,736	3,592	(80,803)	49,902	30,901
Transfer to lifetime expected credit losses	9,201	(11,466)	2,265	14,106	(35,706)	21,600
Transfer to credit-impaired financial assets	2,752	9,918	(12,670)	1,562	18,741	(20,303)
Net reversal(provision) of loss allowance	(4,456)	(32,764)	(130,424)	49,562	(91,981)	(168,323)
Recovery	-	-	(75,058)	-	-	(55,108)
Charge-off	-	-	174,012	-	-	233,507
Disposal	-	-	14,890	-	-	64,078
Interest income from impaired loans	-	-	13,743	-	-	12,672
Others	838	1,435	8,726	(19,733)	4,211	18,487
Ending balance	<u>(136,520)</u>	<u>(97,604)</u>	<u>(206,617)</u>	<u>(362,766)</u>	<u>(576,740)</u>	<u>(251,233)</u>

	For the year ended December 31, 2021					
	Credit card accounts			Total		
	Stage 1	Stage 2	Stage 3	Stage 1	Stage 2	Stage 3
Beginning balance	(62,712)	(90,481)	(105,537)	(511,699)	(696,851)	(699,974)
Transfer to 12-month expected credit losses	(26,846)	26,581	265	(130,977)	96,219	34,758
Transfer to lifetime expected credit losses	7,497	(8,151)	654	30,804	(55,323)	24,519
Transfer to credit-impaired financial assets	356	925	(1,281)	4,670	29,584	(34,254)
Net reversal(provision) of loss allowance	12,894	(44,363)	(145,336)	58,000	(169,108)	(444,083)
Recovery	-	-	(65,620)	-	-	(195,786)
Charge-off	-	-	220,352	-	-	627,871
Disposal	-	-	25,576	-	-	104,544
Interest income from impaired loans	-	-	-	-	-	26,415
Others	(3)	-	-	(18,898)	5,646	27,213
Ending balance	<u>(68,814)</u>	<u>(115,489)</u>	<u>(70,927)</u>	<u>(568,100)</u>	<u>(789,833)</u>	<u>(528,777)</u>

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(7) Changes in the gross carrying amount of loans are as follows (Unit: Korean Won in millions):

	For the year ended December 31, 2022						
	Consumers			Corporates			Credit impairment model
	Stage 1	Stage 2	Stage 3	Stage 1	Stage 2	Stage 3	
Beginning balance	135,139,685	13,500,783	499,969	170,795,255	8,458,279	541,732	-
Transfer to 12-month expected credit losses	4,651,157	(4,637,460)	(13,697)	1,784,684	(1,768,655)	(16,029)	-
Transfer to lifetime expected credit losses	(6,284,951)	6,303,526	(18,575)	(3,773,713)	3,792,473	(18,760)	-
Transfer to credit-impaired financial assets	(157,808)	(102,097)	259,905	(242,421)	(123,225)	365,646	-
Charge-off	-	-	(161,850)	-	-	(140,744)	-
Disposal	-	(259)	(57,052)	(48,472)	(391)	(134,732)	-
Net increase(decrease)	(2,082,449)	(1,046,885)	47,727	11,005,551	(873,200)	28,198	313,717
Changes due to business combinations	57,743	2,974	7,630	31,551	1,016	687	-
Ending balance	131,323,377	14,020,582	564,057	179,552,435	9,486,297	625,998	313,717

	For the year ended December 31, 2022						
	Credit card accounts			Total			Credit impairment model
	Stage 1	Stage 2	Stage 3	Stage 1	Stage 2	Stage 3	
Beginning balance	8,239,303	1,395,139	116,075	314,174,243	23,354,201	1,157,776	-
Transfer to 12-month expected credit losses	542,021	(541,913)	(108)	6,977,862	(6,948,028)	(29,834)	-
Transfer to lifetime expected credit losses	(403,398)	403,598	(200)	(10,462,062)	10,499,597	(37,535)	-
Transfer to credit-impaired financial assets	(31,780)	(21,244)	53,024	(432,009)	(246,566)	678,575	-
Charge-off	-	-	(220,280)	-	-	(522,874)	-
Disposal	-	-	(17,082)	(48,472)	(650)	(208,866)	-
Net increase(decrease)	769,314	(169,200)	247,981	9,697,416	(2,089,285)	323,906	313,717
Changes due to business combinations	-	-	-	89,294	3,990	8,317	-
Ending balance	9,115,460	1,066,380	179,410	319,996,272	24,573,259	1,369,465	313,717

	For the year ended December 31, 2021						
	Consumers			Corporates			Credit impairment model
	Stage 1	Stage 2	Stage 3	Stage 1	Stage 2	Stage 3	
Beginning balance	125,990,038	12,016,711	537,106	149,574,932	7,328,741	717,909	-
Transfer to 12-month expected credit losses	4,377,247	(4,357,347)	(19,900)	1,610,541	(1,575,157)	(35,384)	-
Transfer to lifetime expected credit losses	(6,104,417)	6,127,477	(23,060)	(3,627,800)	3,670,808	(43,008)	-
Transfer to credit-impaired financial assets	(108,717)	(79,746)	188,463	(244,236)	(132,986)	377,222	-
Charge-off	-	-	(174,012)	-	-	(233,507)	-
Disposal	-	-	(48,795)	-	-	(187,571)	-
Net increase (decrease)	10,985,534	(206,312)	40,167	23,481,818	(833,127)	(53,929)	-
Ending balance	135,139,685	13,500,783	499,969	170,795,255	8,458,279	541,732	-

	For the year ended December 31, 2021						
	Credit card accounts			Total			Credit impairment model
	Stage 1	Stage 2	Stage 3	Stage 1	Stage 2	Stage 3	
Beginning balance	7,278,975	1,078,220	180,074	282,843,945	20,423,672	1,435,089	-
Transfer to 12-month expected credit losses	359,101	(358,776)	(325)	6,346,889	(6,291,280)	(55,609)	-
Transfer to lifetime expected credit losses	(513,635)	514,369	(734)	(10,245,852)	10,312,654	(66,802)	-
Transfer to credit-impaired financial assets	(17,416)	(9,253)	26,669	(370,369)	(221,985)	592,354	-
Charge-off	-	-	(220,352)	-	-	(627,871)	-
Disposal	-	-	(56,520)	-	-	(292,886)	-
Net increase (decrease)	1,132,278	170,579	187,263	35,599,630	(868,860)	173,501	-
Ending balance	8,239,303	1,395,139	116,075	314,174,243	23,354,201	1,157,776	-

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(8) Details of other financial assets are as follows (Unit: Korean Won in millions):

	December 31, 2022	December 31, 2021
Cash Management Account asset (CMA asset)	157,000	140,000
Receivables	5,438,469	6,852,139
Accrued income	1,667,397	1,049,857
Telex and telephone subscription rights and refundable deposits	801,536	870,707
Domestic exchange settlement debit	577,919	82,555
Other assets (*)	344,356	290,746
Allowance for credit losses	(139,180)	(66,781)
Total	<u>8,847,497</u>	<u>9,219,223</u>

(\*) The Group became aware of employee embezzlement incidents that occurred before the end of April 2022, and the Financial Supervisory Service conducted on-site inspections from April 28 to May 30, 2022. An accusation of embezzlement and provisional seizure of found property were made, and an investigation by an investigative agency is currently underway. The related amount included in other assets amounted to 63,354 million Won, which was treated as a loss in its entirety because its recoverability was uncertain.

(9) Changes in the allowances for credit losses on other financial assets are as follows (Unit: Korean Won in millions):

	For the year ended December 31, 2022			
	Stage 1	Stage 2	Stage 3	Total
Beginning balance	(3,675)	(5,580)	(57,526)	(66,781)
Transfer to 12-month expected credit losses	(261)	246	15	-
Transfer to lifetime expected credit losses	209	(225)	16	-
Transfer to credit-impaired financial assets	981	1,134	(2,115)	-
Reversal (provision) of loss allowance	(1,749)	(4,707)	(6,329)	(12,785)
Charge-off	-	-	2,223	2,223
Disposal	-	-	751	751
Others	317	(1)	(62,904)	(62,588)
Ending balance	<u>(4,178)</u>	<u>(9,133)</u>	<u>(125,869)</u>	<u>(139,180)</u>

  

	For the year ended December 31, 2021			
	Stage 1	Stage 2	Stage 3	Total
Beginning balance	(3,666)	(5,450)	(74,179)	(83,295)
Transfer to 12-month expected credit losses	(228)	217	11	-
Transfer to lifetime expected credit losses	147	(174)	27	-
Transfer to credit-impaired financial assets	167	288	(455)	-
Reversal (provision) of loss allowance	511	(464)	4,664	4,711
Charge-off	-	-	9,965	9,965
Disposal	-	-	1,400	1,400
Others	(606)	3	1,041	438
Ending balance	<u>(3,675)</u>	<u>(5,580)</u>	<u>(57,526)</u>	<u>(66,781)</u>

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(10) Changes in the gross carrying amount of other financial assets are as follows (Unit: Korean Won in millions):

	For the year ended December 31, 2022			
	Stage 1	Stage 2	Stage 3	Total
Beginning balance	9,004,539	106,597	174,868	9,286,004
Transfer to 12-month expected credit losses	9,765	(9,749)	(16)	-
Transfer to lifetime expected credit losses	(38,248)	38,265	(17)	-
Transfer to credit-impaired financial assets	(1,484)	(2,824)	4,308	-
Charge-off	-	-	24	24
Disposal	(5)	-	(917)	(922)
Net increase (decrease)	(88,214)	(110,835)	(99,748)	(298,797)
Changes due to business combinations	368	-	-	368
Ending balance	<u>8,886,721</u>	<u>21,454</u>	<u>78,502</u>	<u>8,986,677</u>

  

	For the year ended December 31, 2021			
	Stage 1	Stage 2	Stage 3	Total
Beginning balance	7,267,426	76,418	188,187	7,532,031
Transfer to 12-month expected credit losses	8,909	(8,894)	(15)	-
Transfer to lifetime expected credit losses	(27,369)	27,399	(30)	-
Transfer to credit-impaired financial assets	(1,877)	(1,638)	3,515	-
Charge-off	-	-	(9,965)	(9,965)
Disposal	-	-	(1,716)	(1,716)
Net increase (decrease)	1,757,450	13,312	(5,108)	1,765,654
Ending balance	<u>9,004,539</u>	<u>106,597</u>	<u>174,868</u>	<u>9,286,004</u>

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**11. FAIR VALUE OF FINANCIAL ASSETS AND LIABILITIES**

(1) The fair value hierarchy

The fair value hierarchy for financial instruments is determined by the amount of observable market data. The specific financial instruments characteristics and market condition such as the existence of the transactions among market participants and transparency are reflected to the market observable inputs. The fair value hierarchy gives the highest priority to quoted prices (unadjusted) in active markets for identical assets or liabilities. The Group maximizes the use of observable inputs and minimizes the use of unobservable inputs when measuring fair value of its financial assets and financial liabilities. Fair value is measured based on the perspective of a market participant. As such, even when market assumptions are not readily available, the Group's own assumptions reflect those that market participants would use for measuring the assets or liabilities at the measurement date.

The fair value measurement is described in the one of the following three levels used to classify fair value measurements:

- Level 1 - fair value measurements are those derived from quoted prices (unadjusted) in active markets for identical assets or liabilities. The types of financial assets or liabilities generally included in Level 1 are publicly traded equity securities, derivatives, and debt securities issued by governmental bodies.
- Level 2 - fair value measurements are those derived from inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (i.e. prices) or indirectly (i.e. derived from prices). The types of financial assets or liabilities generally included in Level 2 are debt securities not traded in active markets and derivatives traded in OTC but not required significant judgment.
- Level 3 - fair value measurements are those derived from valuation technique that include inputs for the assets or liabilities that are not based on observable market data (unobservable inputs). The types of financial assets or liabilities generally included in Level 3 are non-public securities and derivatives and debt securities of which valuation techniques require significant judgments and subjectivity.

The inputs used to measure fair value may fall into different levels of the fair value hierarchy. In such cases, the level within the fair value hierarchy is based on the lowest level of input that is significant to the fair value measurement. The Group's assessment of the significance of a particular input to a fair value measurement in its entirety requires judgment and consideration of inherent factors of the asset or liability.

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- (2) Fair value hierarchy of financial assets and liabilities measured at fair value are as follows (Unit: Korean Won in millions):

	December 31, 2022			
	Level 1 (*)	Level 2 (*)	Level 3	Total
Financial assets:				
Financial assets at FVTPL				
Deposits	34,995	-	-	34,995
Debt securities	2,580,563	1,654,591	1,078	4,236,232
Equity securities	76,007	25	307,851	383,883
Capital contributions	-	-	1,976,474	1,976,474
Beneficiary certificates	45,394	2,398,592	1,458,776	3,902,762
Loans	-	794,723	104,505	899,228
Derivative assets	69,316	8,042,895	93,970	8,206,181
Other financial assets in foreign currency	-	-	41,679	41,679
Others	34,299	-	144,840	179,139
Sub-total	2,840,574	12,890,826	4,129,173	19,860,573
Financial assets at FVTOCI				
Debt securities	9,895,456	22,250,302	-	32,145,758
Equity securities	382,257	-	557,065	939,322
Sub-total	10,277,713	22,250,302	557,065	33,085,080
Derivative assets (designated for hedging)	-	37,786	-	37,786
Total	13,118,287	35,178,914	4,686,238	52,983,439
Financial liabilities:				
Financial liabilities at FVTPL				
Deposits due to customers	35,161	-	-	35,161
Derivative liabilities	11,700	8,883,976	9,449	8,905,125
Securities sold	12,113	-	-	12,113
Sub-total	58,974	8,883,976	9,449	8,952,399
Derivative liabilities (designated for hedging)	-	202,911	-	202,911
Total	58,974	9,086,887	9,449	9,155,310

- (\*) Among financial assets and financial liabilities measured at fair value, the amount transferred from Level 2 to Level 1 is 2,835,187 million Won. The Group recognizes transfers among levels at the end of reporting period in which events have occurred or conditions have changed. A change in the judgement of the active market where the financial product was traded resulted the transfer between levels.

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	December 31, 2021			
	Level 1 (*)	Level 2 (*)	Level 3	Total
Financial assets:				
Financial assets at FVTPL				
Deposits	65,072	-	-	65,072
Debt securities	817,584	1,923,538	2,117	2,743,239
Equity securities	25,879	-	303,985	329,864
Capital contributions	-	-	1,287,723	1,287,723
Beneficiary certificates	74,271	2,326,202	1,104,074	3,504,547
Loans	-	453,832	213,635	667,467
Derivative assets	10,911	4,762,872	29,348	4,803,131
Others	-	-	96,191	96,191
Sub-total	993,717	9,466,444	3,037,073	13,497,234
Financial assets at FVTOCI				
Debt securities	5,578,455	32,548,522	-	38,126,977
Equity securities	411,357	-	581,455	992,812
Sub-total	5,989,812	32,548,522	581,455	39,119,789
Derivative assets (Designated for hedging)	-	106,764	-	106,764
Total	6,983,529	42,121,730	3,618,528	52,723,787
Financial liabilities:				
Financial liabilities at FVTPL				
Deposits due to customers	65,016	-	-	65,016
Derivative liabilities	10,259	4,552,368	4,641	4,567,268
Securities sold	211,408	29,766	-	241,174
Sub-total	286,683	4,582,134	4,641	4,873,458
Derivative liabilities (Designated for hedging)	-	27,584	-	27,584
Total	286,683	4,609,718	4,641	4,901,042

(\*) There were no transfers between Level 1 and Level 2 of financial assets and liabilities measured at fair value. The Group recognizes transfers among levels at the end of reporting period in which events have occurred or conditions have changed.

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Financial assets and liabilities at FVTPL, financial liabilities at FVTPL designated as upon initial recognition, financial assets at FVTOCI, and derivative assets and liabilities are recognized at fair value. Fair value is the amount that would be received to sell an asset, or paid to transfer a liability, in an orderly transaction between market participants at the measurement date.

Financial instruments are measured at fair value using a quoted market price in active markets. If there is no active market for a financial instrument, the Group determines the fair value using valuation methods. Valuation methods and input variables for each type of financial instruments are as follows:

- 1) Valuation methods and input variables for each type of financial instrument classified into level 2 in December 31, 2022 and 2021 are as follows:

	Valuation methods	Input variables
Debt securities	Fair value is measured by discounting the future cash flows of debt securities applying the risk-free market rate with credit spread.	Risk-free market rate and credit spread
Beneficiary certificates	The beneficiary certificates classified as Level 2 are MMF and are measured at the standard price.	Values of underlying assets such as bond
Derivatives	Fair value is measured by models such as option model (Closed form), DCF model, FDM and Monte Carlo Simulation.	Discount rate, values of underlying assets such as foreign exchange rate and stock prices, volatility, risk-free market rate, forward rate, etc.
Loans	The future cash flows of debt instruments are measured at a discount by applying the market interest rate applied to entities with similar creditworthiness to the debtor.	Risk-free market rate and credit spread

- 2) Valuation methods and input variables for each type of financial instrument classified into level 3 in December 31, 2022 and 2021 are as follows:

	Valuation methods	Input variables
Loans	Fair value is calculated by using Binomial Tree, LSMC and Discounted Cash Flow Model which is a valuation technique commonly used in the market taking into account value of underlying assets, volatility, discount rate.	Value of underlying assets, Volatility, Discount rate
Debt securities	The future cash flows of debt instruments are measured at a discount by applying the market interest rate applied to entities with similar creditworthiness to debt securities issuers. Fair value is measured by models such as LSMC(Least-Squares Monte Carlo), Hull-white.	Risk-free market rate, credit spread, discount rate originated credit grade, volatility of stock price, volatility of interest rate
Equity securities, capital contributions and Beneficiary certificates	Among DCF (Discounted Cash Flow) Model, FCFE (Free Cash Flow to Equity) Model, Comparable Company Analysis, Dividend Discount Model, Risk-adjusted Rate of Return Method, Net Asset Value Method, LSMC, and Binomial Tree, Imputed Market Value Model more than one method is used given the characteristic of the subject of fair value measurement.	Risk-free market rate, market risk premium, corporate Beta, discount rate originated credit grade, stock prices, volatility of underlying asset, net asset value, volatility of stock price, volatility of interest rate, Capital increase amount, Fluctuation rate of real estate sale price, etc
Derivatives	Fair value is measured by models such as option model (Closed form), DCF model, FDM and Monte Carlo Simulation.	Discount rate, values of underlying assets such as foreign exchange rate and stock prices, volatility, etc.
Others	The fair value of the underlying asset, after calculating the fair value using the DCF model, etc., considering the price and volatility of the calculated underlying asset, is calculated using the binomial tree and least-squares Monte Carlo simulation (LSMC), which are commonly used valuation techniques in the market.	Stock prices, volatility of underlying assets, etc.

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Valuation methods of financial assets and liabilities measured at fair value and classified into Level 3 and significant but unobservable inputs are as follows:

	Fair value measurement technique	Type	Significant unobservable inputs	Range(%)	Impact of changes in significant unobservable inputs on fair value measurement
Loans	Binomial Tree		Stock prices	46.53%	Variation of fair value increases as volatility of underlying asset and stock price increases.
	DCF model		Discount rate	1.98%~2.18%	Fair value decreases as discount rate increases.
Derivative assets	Option valuation model and others	Equity related	Correlation coefficient	0.21~0.67	Variation of fair value increases as correlation coefficient increases.
Derivative liabilities	Option valuation model and others	Equity related	Correlation coefficient	0.21~0.67	Variation of fair value increases as correlation coefficient increases.
			Volatility of underlying asset	11.74% ~ 97.16%	Variation of fair value increases as volatility of underlying assets increases.
Equity securities, capital contributions, and beneficiary certificates	Binomial Tree DCF model and others		Stock prices, Volatility of underlying asset	28.40%	Variation of fair value increases as volatility of underlying asset and stock price increases.
			Discount rate	0.00%~19.14%	Fair value increases as discount rate decreases.
			Terminal growth rate	0.00%, 1.00%	Fair value increases as terminal growth rate increases.
			Liquidation value	0.00%	Fair value increases as liquidation value increases.
Others	Binomial Tree		Stock prices, Volatility of underlying asset	20.15%~36.19%	Variation of fair value increases as volatility of underlying asset and stock price increases.

Fair value of financial assets and liabilities classified into Level 3 is measured by the Group using its own valuation methods or using external specialists. Unobservable inputs used in the fair value measurements are produced by the internal system of the Group and the appropriateness of inputs is reviewed regularly.

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- (3) Changes in financial assets and liabilities measured at fair value classified into Level 3 are as follows  
(Unit: Korean Won in millions):

	For the year ended December 31, 2022						
	Beginning balance	Net income (loss) (*1)	Other comprehensive income	Purchases/ issuances	Disposals / settlements	Transfer to or out of Level 3 (*2)	Ending balance
Financial assets:							
Financial assets at FVTPL							
Debt securities	2,117	(40)	-	-	(999)	-	1,078
Equity securities	303,985	697	-	20,175	(16,974)	(32)	307,851
Capital contributions	1,287,723	103,376	-	703,160	(117,785)	-	1,976,474
Beneficiary certificates	1,104,074	(2,922)	-	98,420	259,204	-	1,458,776
Loans	213,635	17,544	-	802,092	(928,766)	-	104,506
Derivative assets	29,348	64,359	-	582	(319)	-	93,970
Other foreign currency financial assets	-	-	-	41,679	-	-	41,679
Others	96,191	16,744	-	40,836	(8,931)	-	144,840
Sub-total	3,037,073	199,758	-	1,706,944	(814,570)	(32)	4,129,173
Financial assets at FVTOCI							
Equity securities	581,455	-	2,084	2,357	(28,831)	-	557,065
Total	3,618,528	199,758	2,084	1,709,301	(843,401)	(32)	4,686,238
Financial liabilities:							
Financial liabilities at FVTPL							
Derivative liabilities	4,641	8,058	-	(351)	(2,899)	-	9,449
Total	4,641	8,058	-	(351)	(2,899)	-	9,449

(\*1) For financial liabilities, positive numbers represent losses that increase balance and negative numbers represent gains that decrease balance. The gain amounting to 2,770 million Won for the year ended December 31, 2022, which is from financial assets and liabilities that the Group holds as at the end of the year.

(\*2) There were transfers between levels as the availability of observable market data for these financial instruments changed. The Group recognizes transfers among levels at the end of reporting period in which events have occurred or conditions have changed.

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	For the year ended December 31, 2021						Ending balance
	Beginning balance	Net income (loss) (*1)	Other comprehensive income	Purchases/ issuances	Disposals / settlements	Transfer to or out of Level 3 (*2)	
<b>Financial assets:</b>							
<b>Financial assets at FVTPL</b>							
Debt securities	4,618	(431)	-	1,000	(4,070)	1,000	2,117
Equity securities	450,371	(24,501)	-	33,570	(154,455)	(1,000)	303,985
Capital contributions	865,685	82,596	-	575,643	(236,201)	-	1,287,723
Beneficiary certificates	1,917,811	10,347	-	86,224	(910,308)	-	1,104,074
Loans	209,062	16,975	-	761,045	(773,447)	-	213,635
Derivative assets	7,872	22,256	-	5,058	-	(5,838)	29,348
Others	84,979	12,245	-	14,982	(16,548)	533	96,191
Sub-total	<u>3,540,398</u>	<u>119,487</u>	<u>-</u>	<u>1,477,522</u>	<u>(2,095,029)</u>	<u>(5,305)</u>	<u>3,037,073</u>
<b>Financial assets at FVTOCI</b>							
Equity securities	570,715	-	11,362	645	(1,267)	-	581,455
Total	<u>4,111,113</u>	<u>119,487</u>	<u>11,362</u>	<u>1,478,167</u>	<u>(2,096,296)</u>	<u>(5,305)</u>	<u>3,618,528</u>
<b>Financial liabilities:</b>							
<b>Financial liabilities at FVTPL</b>							
Derivative liabilities	20,136	4,926	-	(3,979)	(10,188)	(6,254)	4,641
<b>Financial liabilities at FVTPL designated as upon initial recognition</b>							
Equity-linked securities	19,630	(102)	-	-	(19,528)	-	-
Total	<u>39,766</u>	<u>4,824</u>	<u>-</u>	<u>(3,979)</u>	<u>(29,716)</u>	<u>(6,254)</u>	<u>4,641</u>

(\*1) For financial liabilities, positive numbers represent losses that increase balance and negative numbers represent gains that decrease balance. The gain amounting to 2,634 million Won for the year ended December 31, 2021, which is from financial assets and liabilities that the Group holds as at the end of the year.

(\*2) There were transfers between levels as the availability of observable market data for these financial instruments changed. The Group recognizes transfers among levels at the end of reporting period in which events have occurred or conditions have changed.

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- (4) Sensitivity analysis results on reasonable fluctuation of the significant unobservable input variables for the fair value of Level 3 financial instruments are as follows.

The sensitivity analysis of the financial instruments has been performed by classifying with favorable and unfavorable changes based on how changes in unobservable assumptions would have effects on the fluctuations of financial instruments' value. When the fair value of a financial instrument is affected by more than one unobservable assumption, the below table reflects the most favorable or the most unfavorable changes which resulted from varying the assumptions individually. The sensitivity analysis was performed for two types of level 3 financial instruments: (1) interest rate related derivatives, currency related derivatives, equity related derivatives, equity-linked securities beneficiary certificates and loans of which fair value changes are recognized as net income; (2) equity securities of which fair value changes are recognized as other comprehensive income.

Meanwhile, among the financial instruments that are classified as Level 3 amounting to 4,695,688 million won and 3,623,168 million won as of December 31, 2022 and 2021 respectively, equity instruments of 3,196,703 million won and 3,030,775 million won whose carrying amount are considered to represent the reasonable approximation of fair value are excluded from the sensitivity analysis.

The sensitivity on fluctuation of input variables by financial instruments as of December 31, 2022 and 2021 is as follows (Unit: Korean Won in millions):

	December 31, 2022			
	Net income (loss)		Other comprehensive income (loss)	
	Favorable	Unfavorable	Favorable	Unfavorable
Financial assets:				
Financial assets at FVTPL				
Derivative assets (*1)	2,453	(1,993)	-	-
Loans (*2)	203	(200)	-	-
Debt securities	1	-	-	-
Equity securities (*2) (*3) (*4)	10,146	(8,079)	-	-
Beneficiary certificates (*4)	737	(737)	-	-
Others (*2)	2,860	(2,790)	-	-
Financial assets at FVTOCI	-	-	-	-
Equity securities (*3) (*4)	-	-	24,370	(17,579)
Total	16,400	(13,799)	24,370	(17,579)
Financial liabilities:				
Financial liabilities at FVTPL				
Derivative liabilities (*1)	41	(39)	-	-
Total	41	(39)	-	-

- (\*1) Fair value changes of equity related derivatives assets and liabilities and equity-linked securities are calculated by increasing or decreasing historical volatility of the stock price and correlation, which are major unobservable variables, by 10%, respectively. In the case of interest rate related derivative assets and liabilities, fair value changes are calculated by increasing or decreasing the volatility of interest rate, which are major unobservable variables, by 10%.
- (\*2) Fair value changes of equity securities are calculated by increasing or decreasing stock prices (-10%~10%) and volatility (-10~10%). The stock prices and volatility are major unobservable variables.
- (\*3) Fair value changes of equity securities are calculated by increasing or decreasing terminal growth rate (-0.5%~0.5%) and discount rate (-1~1%) or liquidation value (-1~1%). The growth rate, discount rate, and liquidation value are major unobservable variables.
- (\*4) Even if the sensitivity analysis of the capital contributions and beneficiary certificates is not possible in practice, fair value changes of beneficiary certificates and other securities whose major unobservable variables are composed of the real estate are calculated by increasing or decreasing price fluctuation rate of real estate which is underlying assets and discount rate by 1%.

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	December 31, 2021			
	Net income (loss)		Other comprehensive income (loss)	
	Favorable	Unfavorable	Favorable	Unfavorable
Financial assets:				
Financial assets at FVTPL				
Derivative assets (*1)	1,668	(1,191)	-	-
Loans (*2)	682	(671)	-	-
Debt securities	13	(12)	-	-
Equity securities (*2) (*3) (*4)	6,348	(5,331)	-	-
Beneficiary certificates (*4)	1,305	(1,171)	-	-
Others (*2)	921	(876)	-	-
Financial assets at FVTOCI				
Equity securities (*3) (*4)	-	-	30,391	(23,865)
Total	<u>10,937</u>	<u>(9,252)</u>	<u>30,391</u>	<u>(23,865)</u>
Financial liabilities:				
Financial liabilities at FVTPL				
Derivative liabilities (*1)	205	(264)	-	-
Total	<u>205</u>	<u>(264)</u>	<u>-</u>	<u>-</u>

- (\*1) Fair value changes of equity related derivatives assets and liabilities and equity-linked securities are calculated by increasing or decreasing historical volatility of the stock price and correlation, which are major unobservable variables, by 10%, respectively. In the case of interest rate related derivative assets and liabilities, fair value changes are calculated by increasing or decreasing the volatility of interest rate, which are major unobservable variables, by 10%.
- (\*2) Fair value changes of equity securities are calculated by increasing or decreasing stock prices (-10%~10%) and volatility (-10~10%). The stock prices and volatility are major unobservable variables.
- (\*3) Fair value changes of equity securities are calculated by increasing or decreasing terminal growth rate (-0.5%~0.5%) and discount rate (-1~1%) or liquidation value (-1~1%). The growth rate, discount rate, and liquidation value are major unobservable variables.
- (\*4) Even if the sensitivity analysis of the capital contributions and beneficiary certificates is not possible in practice, fair value changes of beneficiary certificates and other securities whose major unobservable variables are composed of the real estate are calculated by increasing or decreasing price fluctuation rate of real estate which is underlying assets and discount rate by 1%.

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- (5) Fair value and carrying amount of financial assets and liabilities that are recorded at amortized cost are as follows (Unit: Korean Won in millions):

	December 31, 2022				Carrying amount
	Fair value			Total	
	Level 1	Level 2	Level 3		
Financial assets:					
Securities at amortized cost	2,652,449	24,623,369	-	27,275,818	28,268,516
Loans and other financial assets at amortized cost	-	6,238,724	345,952,544	352,191,268	355,760,730
Financial liabilities:					
Deposits due to customers	-	343,931,576	-	343,931,576	342,105,209
Borrowings	-	26,063,256	2,135,047	28,198,303	28,429,603
Debentures	-	42,918,411	-	42,918,411	44,198,486
Other financial liabilities	-	21,244,664	536,209	21,780,873	22,492,705
	December 31, 2021				Carrying amount
	Fair value			Total	
	Level 1	Level 2	Level 3		
Financial assets:					
Securities at amortized cost	2,122,401	14,921,119	-	17,043,520	17,086,274
Loans and other financial assets at amortized cost	-	3	346,871,245	346,871,248	348,885,617
Financial liabilities:					
Deposits due to customers	-	318,070,829	-	318,070,829	317,899,871
Borrowings	-	23,393,520	1,270,305	24,663,825	24,755,459
Debentures	-	44,500,963	-	44,500,963	44,653,864
Other financial liabilities	-	23,154,733	379,534	23,534,267	23,827,821

The fair values of financial instruments are measured using quoted market price in active markets. In case there is no active market for financial instruments, the Group determines the fair value by using valuation methods. Valuation methods and input variables for financial assets and liabilities that are measured at amortized cost are given as follows:

	Valuation methods	Input variables
Securities at amortized cost	The fair value is measured by discounting the projected cash flows of debt securities by applying risk-free market rate with credit spread.	Risk-free market rate and credit spread
Loans and other financial assets at amortized cost	The fair value is measured by discounting the projected cash flows of loan products by applying the market discount rate that has been applied to a proxy company that has similar credit rating to the debtor.	Risk-free market rate, credit spread and prepayment rate
Deposits due to customers, borrowings, debentures and other financial liabilities	The fair value is measured by discounting the projected cash flows of debt products by applying the market discount rate that is reflecting credit rating of the Group.	Risk-free market rate, credit spread and forward rate

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(6) Financial instruments by category

Carrying amounts of financial assets and liabilities by each category are as follows (Unit: Korean Won in millions):

Financial assets	December 31, 2022				Total
	Financial asset at FVTPL	Financial assets at FVTOCI	Financial assets at amortized cost	Derivatives assets (designated for hedging)	
Deposits	34,995	-	2,994,672	-	3,029,667
Securities	10,676,985	33,085,080	28,268,516	-	72,030,581
Loans	899,228	-	343,918,560	-	344,817,788
Derivative assets	8,206,181	-	-	37,786	8,243,967
Other financial assets	43,184	-	8,847,497	-	8,890,681
<b>Total</b>	<b>19,860,573</b>	<b>33,085,080</b>	<b>384,029,245</b>	<b>37,786</b>	<b>437,012,684</b>

Financial liabilities	December 31, 2022				Total
	Financial liabilities at FVTPL	Financial liabilities at amortized cost	Derivatives liabilities (designated for hedging)		
Deposits due to customers	35,161	342,105,209	-		342,140,370
Borrowings	12,113	28,429,603	-		28,441,716
Debentures	-	44,198,486	-		44,198,486
Derivative liabilities	8,905,125	-	202,911		9,108,036
Other financial liabilities	-	22,492,707	-		22,492,707
<b>Total</b>	<b>8,952,399</b>	<b>437,226,005</b>	<b>202,911</b>		<b>446,381,315</b>

Financial assets	December 31, 2021				Total
	Financial asset at FVTPL	Financial assets at FVTOCI	Financial assets at amortized cost	Derivatives assets (designated for hedging)	
Deposits	65,072	-	2,866,884	-	2,931,956
Securities	7,960,046	39,119,789	17,086,274	-	64,166,109
Loans	667,467	-	336,799,510	-	337,466,977
Derivative assets	4,803,131	-	-	106,764	4,909,895
Other financial assets	1,518	-	9,219,223	-	9,220,741
<b>Total</b>	<b>13,497,234</b>	<b>39,119,789</b>	<b>365,971,891</b>	<b>106,764</b>	<b>418,695,678</b>

Financial liabilities	December 31, 2021				Total
	Financial liabilities at FVTPL	Financial liabilities at amortized cost	Derivatives liabilities (designated for hedging)		
Deposits due to customers	65,016	317,899,871	-		317,964,887
Borrowings	241,174	24,755,459	-		24,996,633
Debentures	-	44,653,864	-		44,653,864
Derivative liabilities	4,567,268	-	27,584		4,594,852
Other financial liabilities	-	23,827,821	-		23,827,821
<b>Total</b>	<b>4,873,458</b>	<b>411,137,015</b>	<b>27,584</b>		<b>416,038,057</b>

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(7) Income or expense from financial instruments by category

Income or expense from financial assets and liabilities by each category during the years ended December 31, 2022 and 2021 are as follows (Unit: Korean Won in millions):

	For the year ended December 31, 2022					
	Interest Income (expense)	Fees and Commissions Income (expense)	Reversal (provision) of credit loss	Gain or loss on transactions and valuation	Dividends, etc.	Total
Financial assets at FVTPL	106,698	(134)	-	238,502	136,136	481,202
Financial assets at FVTOCI	632,615	1,606	827	(21,498)	23,846	637,396
Securities at amortized cost	515,246	-	(3,151)	-	-	512,095
Loans and other financial assets at amortized cost	13,399,990	600,902	(881,668)	74,204	-	13,193,428
Financial liabilities at amortized cost	(5,950,277)	2,094	-	-	-	(5,948,183)
Net derivatives (designated for hedging)	-	-	-	78,822	-	78,822
Total	<u>8,704,272</u>	<u>604,468</u>	<u>(883,992)</u>	<u>370,030</u>	<u>159,982</u>	<u>8,954,760</u>
	For the year ended December 31, 2021					
	Interest Income (expense)	Fees and Commissions Income (expense)	Reversal (provision) of credit loss	Gain or loss on transactions and valuation	Dividends, etc.	Total
Financial assets at FVTPL	45,803	(156)	-	325,751	284,683	656,081
Financial assets at FVTOCI	381,814	1,343	(4,909)	32,624	24,528	435,400
Securities at amortized cost	324,920	-	(664)	-	-	324,256
Loans and other financial assets at amortized cost	9,142,212	494,296	(551,957)	107,317	-	9,191,868
Financial liabilities at amortized cost	(2,901,592)	2,205	-	-	-	(2,899,387)
Net derivatives (designated for hedging)	-	-	-	72,493	-	72,493
Total	<u>6,993,157</u>	<u>497,688</u>	<u>(557,530)</u>	<u>538,185</u>	<u>309,211</u>	<u>7,780,711</u>

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**12. DERECOGNITION AND OFFSET OF FINANCIAL INSTRUMENTS**

(1) Derecognition of financial instruments

Transferred financial assets that do not meet the condition of derecognition in their entirety.

1) Bonds sold under repurchase agreements

The financial instruments that were disposed but the Group agreed to repurchase at the fixed amounts at the same time, so that they did not meet the conditions of derecognition, are as follows (Unit: Korean Won in millions):

		December 31, 2022	December 31, 2021
Assets transferred	Financial assets at FVTPL	214,577	248,009
	Financial assets at FVTOCI	583,198	127,065
	Securities at amortized cost	1,171,300	38,995
	Total	<u>1,969,075</u>	<u>414,069</u>
Related liabilities	Bonds sold under repurchase agreements	<u>1,898,744</u>	<u>749,976</u>

2) Securities loaned

When the Group loans its securities to outside parties, the legal ownerships of the securities are transferred; however, they should be returned at the end of lending period. Therefore, the Group does not derecognize them from the consolidated financial statements as it owns majority of risks and benefits from the securities continuously, regardless of the transfer of legal ownership. The carrying amount of the securities loaned are as follows (Unit: Korean Won in millions):

		December 31, 2022	December 31, 2021	Loaned to Korea Securities Finance Corporation
Financial assets at FVTOCI	Korean treasury and government bonds	98,027	98,535	

3) Liquidity of financial assets

As of December 31, 2022 and 2021, the consolidated structured companies issued asset-backed securities with loans and corporate bonds held by the Group as liquid assets, and the Group bear related risks through the purchase agreements or credit contributions. The transaction details of the transfer of the financial instrument are as follows:

		December 31, 2022 Carrying amount (*)	December 31, 2021 Carrying amount (*)
Assets transferred	Financial assets at FVPL	49,808	151,930
	Loans at amortized cost	4,640,182	4,682,882
	Asset-backed borrowings	231,800	2,424,080
Related liabilities	Asset-backed bonds	1,209,364	978,274

(\*) The carrying amount is the amount before the allowance for bad debts.

On the other hand, the details of transferred financial assets that have not been removed, such as bonds sold under the repurchase agreement and loan securities, are also described in Note 18. The Group does not have financial instruments that are continuously involved.

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(2) The offset of financial assets and liabilities

The Group possesses both the uncollected domestic exchange receivables and the unpaid domestic exchange payable, which satisfy offsetting criteria of K-IFRS 1032. Therefore, the total number of uncollected domestic exchange receivables has been offset with a part of unpaid domestic exchange payables, and they have been disclosed in loans at amortized cost and other financial assets and other financial liabilities of the Group's statements of financial position, respectively.

The Group possesses the derivative assets, derivative liabilities, receivable spot exchange and payable spot exchange that do not satisfy the offsetting criteria of K-IFRS 1032, but provide the Group under the circumstances of the trading party's defaults, insolvency or bankruptcy, with the right of offsetting. Items such as cash collateral cannot satisfy the offsetting criteria of K-IFRS 1032, but in accordance with the collateral arrangements and under the circumstances of the trading party's default, insolvency or bankruptcy, the net amount of derivative assets and derivative liabilities, receivable spot exchange and payable spot exchange can be offset.

The Group has entered into a resale and repurchase agreement and accounted it as a collateralized borrowing. The Group has also entered into a resale and purchase agreement and accounted it as a secured loans. The Group under the repurchase agreements has an offsetting right only upon the counterparty's default, insolvency or bankruptcy; thus, the repurchase agreements are applied by the TBMA/ISMA Global Master Repurchase Agreement, which does not satisfy the offsetting criteria of K-IFRS 1032. The Group disclosed bonds sold under repurchase agreements as borrowings and bonds purchased under resale agreements as loan at amortized cost and other financial assets.

As of December 31, 2022 and 2021, the financial instruments to be offset and may be covered by master netting agreements and similar agreements are as follows (Unit: Korean Won in millions):

	December 31, 2022					
	Gross amounts of recognized financial assets	Gross amounts of recognized financial assets setoff	Net amounts of consolidated financial assets presented	Related amounts not setoff in the consolidated statement of financial position		
				Netting agreements and others	Cash collateral received and others	Net amounts
Financial assets:						
Derivative assets (*1)	7,032,465	-	7,032,465			
Receivable spot exchange (*2)	4,508,711	-	4,508,711	9,175,416	748,981	1,616,779
Bonds purchased under resale agreements (*2)	6,793,938	-	6,793,938	6,793,938	-	-
Domestic exchange settlement debits (*2) (*5)	39,787,371	39,209,452	577,919	-	-	577,919
Total	<u>58,122,485</u>	<u>39,209,452</u>	<u>18,913,033</u>	<u>15,969,354</u>	<u>748,981</u>	<u>2,194,698</u>
Financial liabilities:						
Derivative liabilities (*1)	7,652,440	-	7,652,440			
Payable spot exchange (*3)	4,508,615	-	4,508,615	10,043,092	145,268	1,972,695
Bonds sold under repurchase agreements (*4)	2,313,044	-	2,313,044	2,313,044	-	-
Domestic exchange settlement credits (*3) (*5)	43,841,373	39,209,452	4,631,921	2,504,062	-	2,127,859
Total	<u>58,315,472</u>	<u>39,209,452</u>	<u>19,106,020</u>	<u>14,860,198</u>	<u>145,268</u>	<u>4,100,554</u>

(\*1) The items include derivative assets and liabilities held for trading and designated for hedging.

(\*2) The items are included in loan at amortized cost and other financial assets.

(\*3) The items are included in other financial liabilities.

(\*4) The items are included in borrowings.

(\*5) Certain financial assets and liabilities are presented as net amounts.

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	December 31, 2021					
	Gross amounts of recognized financial assets	Gross amounts of recognized financial assets setoff	Net amounts of consolidated financial assets presented	Related amounts not setoff in the consolidated statement of financial position		
				Netting agreements and others	Cash collateral received and others	Net amounts
<b>Financial assets:</b>						
Derivative assets (*1)	4,172,737	-	4,172,737			
Receivable spot exchange (*2)	5,915,304	-	5,915,304	8,260,784	552,071	1,275,186
Bonds purchased under resale agreements (*2)	10,332,858	-	10,332,858	10,332,858	-	-
Domestic exchange settlement debits (*2) (*5)	42,358,138	42,275,583	82,555	-	-	82,555
Total	<u>62,779,037</u>	<u>42,275,583</u>	<u>20,503,454</u>	<u>18,593,642</u>	<u>552,071</u>	<u>1,357,741</u>
<b>Financial liabilities:</b>						
Derivative liabilities (*1)	3,708,263	-	3,708,263			
Payable spot exchange (*3)	5,916,800	-	5,916,800	8,755,492	114,716	754,855
Bonds sold under repurchase agreements (*4)	749,976	-	749,976	749,976	-	-
Domestic exchange settlement credits (*3) (*5)	48,982,056	42,275,583	6,706,473	3,401,251	-	3,305,222
Total	<u>59,357,095</u>	<u>42,275,583</u>	<u>17,081,512</u>	<u>12,906,719</u>	<u>114,716</u>	<u>4,060,077</u>

(\*1) The items include derivative assets and liabilities held for trading and designated for hedging.

(\*2) The items are included in loan at amortized cost and other financial assets.

(\*3) The items are included in other financial liabilities.

(\*4) The items are included in borrowings.

(\*5) Certain financial assets and liabilities are presented as net amounts.

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**13. INVESTMENTS IN JOINT VENTURES AND ASSOCIATES**

(1) Investments in associates accounted for using the equity method of accounting are as follows:

Joint ventures and associates (*4)	Main business	Percentage of ownership (%)		Location	Financial statements as of
		December 31, 2022	December 31, 2021		
Woori Bank					
W Service Networks Co., Ltd. (*1)	Freight & staffing services	4.9	4.9	Korea	2022.11.30(*5)
Korea Credit Bureau Co., Ltd. (*2)	Credit information	9.9	9.9	Korea	2022.12.31
Korea Finance Security Co., Ltd. (*1)	Security service	15.0	15.0	Korea	2022.11.30(*5)
Wongwang Co., Ltd. (*3)	Wholesale and real estate	29.0	29.0	Korea	-
Sejin Construction Co., Ltd. (*3)	Construction	29.6	29.6	Korea	-
ARES-TECH Co., Ltd. (*3)	Electronic component manufacturing	23.4	23.4	Korea	-
Reading Doctors Co., Ltd. (*3)(*11)	Other services	-	35.4	Korea	-
Cultizm Korea LTD Co., Ltd. (*3) (*11)	Wholesale and retail sales	-	31.3	Korea	-
NK Eng Co., Ltd. (*3)	Manufacturing	23.1	23.1	Korea	-
Beomgyo.,Ltd. (*3)	Telecommunication equipment retail sales	23.1	23.1	Korea	-
Woori Growth Partnerships New Technology Private Equity Fund	Other financial services	23.1	23.1	Korea	2022.12.31
2016KIF-IMM Woori Bank Technology Venture Fund	Other financial services	20.0	20.0	Korea	2022.12.31
K BANK Co., Ltd. (*2)	Finance	12.6	12.6	Korea	2022.12.31
Woori Bank-Company K Korea Movie Asset Fund (*9)	Other financial services	25.0	25.0	Korea	2022.12.31
Partner One Value Up I Private Equity Fund	Other financial services	23.3	23.3	Korea	2022.12.31
IBK KIP Seongjang Dideemdol 1st Private Investment Limited Partnership	Other financial services	20.0	20.0	Korea	2022.12.31
Crevisse Raim Impact 1st Startup Venture Specialist Private Equity Fund	Other financial services	25.0	25.0	Korea	2022.12.31
LOTTE CARD Co., Ltd.	Credit card and installment financing	20.0	20.0	Korea	2022.9.30(*5)
Together-Korea Government Private Pool Private Securities Investment Trust No. 3	Other financial services	100.0	100.0	Korea	2022.12.31
Genesis Environmental Energy Company 1st Private Equity Fund(*8)	Trust and collective investment	-	24.8	Korea	-
Union Technology Finance Investment Association	Trust and collective investment	29.7	29.7	Korea	2022.12.31
Dicustody Co., Ltd.(*2)	Other information technology and computer operation related services	1.0	1.0	Korea	2022.12.31
Orient Shipyard Co., Ltd.(*3)	Manufacture of sections for ships	22.7	-	Korea	2022.12.31
Joongang Network Solution Co.,Ltd.(*3)	Other information technology and computer operation related services	25.3	-	Korea	-

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Joint ventures and associates (*4)	Main business	Percentage of ownership (%)		Location	Financial statements as of
		December 31, 2022	December 31, 2021		
BTS 2nd Private Equity Fund	Other financial services	20.0	-	Korea	2022.12.31
STASSETS FUND III	Other financial services	28.3	-	Korea	2022.12.31
Woori Bank (*6)					
Japanese Hotel Real Estate Private Equity Fund No.2	Other financial services	19.9	19.9	Korea	2022.12.31
Woori Seoul Beltway Private Special Asset Fund No.1	Trust and collective investment	25.0	25.0	Korea	2022.12.31
Woori Multi-Return Securities Investment Trust 3 (Balanced Bond) (*8)	Collective investment business	-	20.0	Korea	-
Woori Short-term Bond Securities Investment Trust(Bond) ClassC-F	Collective investment business	27.9	14.5	Korea	2022.12.31
Woori Safe Plus General Type Private Investment Trust S-8(Bond)	Collective investment business	9.2	-	Korea	2022.12.31
Woori Financial Capital Co., Ltd.					
WOORI TAERIM 1st Fund	Other financial services	25.6	25.6	Korea	2022.12.31
Portone-Cape Fund No.1	Other financial services	20.0	20.0	Korea	2022.12.31
KIWOOM WOORI Financial 1st Fund (*7)	Other financial services	9.1	9.1	Korea	2022.12.31
DeepDive WOORI 2021-1 Financial Investment Fund (*7)	Other financial services	11.9	11.9	Korea	2022.12.31
Darwin Green Packaging Private Equity Fund	Other financial services	20.4	20.4	Korea	2022.12.31
DS Power Semicon Private Equity Fund	Other financial services	21.0	-	Korea	2022.12.31
Koreawide partners 2nd Private Equity Fund	Other financial services	26.7	-	Korea	2022.12.31
Woori Investment Bank Co., Ltd. (*6)					
Woori FirstValue Private Real Estate Fund No.2	Real estate business	12.0	12.0	Korea	2022.12.31
WooriG Real Infrastructure Blind General Type Private Placement Investment Trust	Investment trust and discretionary investment business	0.1	0.3	Korea	2022.12.31
Woori Asset Management Co. Ltd.					
Woori BIG2 Plus Securities Investment Trust(Balanced Bond)(*12)	Collective investment business	23.1	-	Korea	2022.12.31
Woori Together TDF 2025(*12)	Collective investment business	23.6	-	Korea	2022.12.31
Woori Together TDF 2030(*12)	Collective investment business	23.8	-	Korea	2022.12.31
Woori Star50 feeder fund(H) (*12)	Collective investment business	17.9	-	Korea	2022.12.31
Woori Private Equity Asset Management Co., Ltd.					
Woori Hanhwa Eureka Private Equity Fund (*10)	Other financial services	-	0.8	Korea	-
Aarden Woori Apparel 1st Private Equity Fund (*2)	Other financial services	0.5	0.5	Korea	2022.12.31

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Joint ventures and associates (*4)	Main business	Percentage of ownership (%)		Location	Financial statements as of
		December 31, 2022	December 31, 2021		
Woori Dyno 1st Private Equity Fund (*2)	Other financial services	19.6	-	Korea	2022.12.31
Australia Green Energy 1st PEF(*2)	Other financial services	4.0	-	Korea	2022.12.31
Japanese Hotel Real Estate Private Equity Fund 1 Godo Kaisha Oceanos 1	Other financial services	47.8	47.8	Japan	2022.10.31(*5)
Woori G Japan Private Placement Real Estate Master Investment Trust No.2 Woori Zip 1	Other financial services	64.0	63.9	Japan	2022.9.30(*5)
Woori Zip 2	Other financial services	64.0	63.8	Japan	2022.9.30(*5)
Woori bank and Woori card Co., Ltd. (*6)					
Dongwoo C & C Co., Ltd. (*3)	Construction	24.5	24.5	Korea	-
SJCO Co., Ltd. (*3)	Aggregate transportation and wholesale	29.8	29.7	Korea	-
G2 Collection Co., Ltd. (*3)	Wholesale and retail sales	29.2	29.2	Korea	-
The Base Enterprise Co., Ltd. (*3) (*11)	Manufacturing	-	48.4	Korea	-
Kyesan Engineering Co., Ltd. (*3)	Construction	23.3	23.3	Korea	-
Good Software Lap Co., Ltd. (*3)	Service	29.4	29.4	Korea	-
QTS Shipping Co., Ltd. (*3)(*11)	Complex transportation brokerage	-	49.8	Korea	-
DAEA SNC Co., Ltd. (*3)	Wholesale and retail sales	25.5	25.5	Korea	-
Force TEC Co., Ltd.	Manufacturing	24.5	24.5	Korea	2022.9.30(*5)
PREXCO Co., Ltd. (*3)	Manufacturing	28.1	28.1	Korea	-
JiWon Plating Co., Ltd. (*3)	Plating	20.8	20.8	Korea	-
Youngdong Sea Food Co., Ltd. (*3)	Processed sea food manufacturing	24.5	24.5	Korea	-
KUM HWA Co., Ltd.	Telecommunication equipment retail sales	20.1	20.1	Korea	2022.09.30(*5)
Jinmyung Plus Co., Ltd.	Manufacturing	21.3	21.3	Korea	2022.09.30(*5)
Woori bank and Woori Financial Capital Co., Ltd. (*6)					
JC Assurance No.2 Private Equity Fund	Other financial services	23.5	24.4	Korea	2022.09.30(*5)
Dream Company Growth no.1 PEF	Other financial services	27.8	27.8	Korea	2022.12.31
HMS-Oriens 1st Fund	Other financial services	22.8	22.8	Korea	2022.12.31
Woori G Senior Loan Private Placement Investment Trust No.1	Collective investment business	21.7	21.7	Korea	2022.12.31
Genesis Eco No.1 Private Equity Fund	Other financial services	29.0	29.0	Korea	2022.12.31
Paratus Woori Material Component Equipment joint venture company	Other financial services	29.9	29.9	Korea	2022.12.31

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Joint ventures and associates (*4)	Main business	Percentage of ownership (%)		Location	Financial statements as of
		December 31, 2022	December 31, 2021		
Midas No. 8 Private Equity Joint Venture Company	Other financial services	28.5	28.5	Korea	2022.12.31
Orchestra Private Equity Fund IV	Other financial services	28.2	-	Korea	2022.12.31
Synaptic Green No.1 PEF	Other financial services	21.1	-	Korea	2022.12.31
IGEN2022No. 1 Private Equity Fund	Other financial services	24.8	-	Korea	2022.12.31
Woori Bank and Woori Investment Bank Co., Ltd. (*6)					
PCC-Woori LP Secondary Fund	Other financial services	38.8	38.8	Korea	2022.12.31
Woori bank and Woori Asset Management Co., Ltd. (*6)					
Woori High Plus Short-term High Graded ESG Bond Sec Feeder Inv Trust 1(*10)	Collective investment business	-	27.5	Korea	-
Woori Bank and Woori Private Equity Asset Management Co., Ltd. (*6)					
Woori-Q Corporate Restructuring Private Equity Fund	Other financial services	35.6	38.1	Korea	2022.12.31
Woori Bank, Woori Financial Capital Co., Ltd., Woori Investment Bank Co., Ltd. and Woori Private Equity Asset Management Co., Ltd. (*6)					
Woori-Shinyoung Growth-Cap Private Equity Fund I	Other financial services	35.0	35.0	Korea	2022.12.31

- (\*1) Most of the significant business transactions of associates are with the Group as of December 31, 2022 and 2021.
- (\*2) The Group can participate in decision-making body and exercise significant influence over financial policies and operational policies decision making of the associates.
- (\*3) There is no investment balance as of December 31, 2022 and 2021.
- (\*4) Woori G Oncorp Corporate support of Major Industry General Type Private Placement Investment Trust (Type 2) and other 13 joint ventures and associates can exercise significant influence but was classified as an item measured at fair value through profit or loss.
- (\*5) The equity method was applied using the most recent financial statements available from the settlement date because no financial statements were available at the end of the reporting period and the significant transactions or events that occurred between the end of the reporting period of the associate and the end of the reporting period of the subsidiary were duly reflected.
- (\*6) Two or more subsidiaries may invest or operate to exert significant influence on the decision-making process for activities related to the investee.
- (\*7) The Group can participate as a co-operator to exert significant influence.
- (\*8) It was excluded due to liquidation.
- (\*9) It was dissolved and will be liquidated.
- (\*10) It was excluded from associates during the period.
- (\*11) It was excluded as Woori Bank sold its shares during the period.
- (\*12) It was reclassified to associate from subsidiary resulted from the loss of control along with the changes in percentage of ownership.

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(2) Changes in the carrying value of investments in associates accounted for using the equity method of accounting are as follows (Unit: Korean Won in millions):

	For the year ended December 31, 2022							
	Acquisition cost	January 1, 2022	Share of profits(losses) and others	Acquisition	Disposal/ Reclassification	Dividends	Change in capital	December 31, 2022
W Service Networks Co., Ltd.	108	183	29	-	-	(4)	-	208
Korea Credit Bureau Co., Ltd.	3,313	9,423	(3,714)	-	-	-	-	5,709
Korea Finance Security Co., Ltd.	3,267	3,101	(727)	-	-	-	-	2,374
Woori Growth Partnerships New Technology Private Equity Fund	12,942	12,448	490	-	(2,049)	-	-	10,889
2016KIF-IMM Woori Bank Technology Venture Fund	7,594	12,630	(1,619)	-	(801)	(736)	-	9,474
K BANK Co., Ltd.	236,232	239,493	11,854	-	-	-	(3,558)	247,789
Woori Bank-Company K Korea Movie Asset Fund	-	345	71	-	-	(177)	-	239
Partner One Value Up I Private Equity Fund	5,039	6,576	(2,298)	-	-	-	-	4,278
IBK KIP Seongjang Dideemdol 1st Private Investment Limited Partnership	7,556	11,153	1,312	-	(2,180)	-	-	10,285
Crevisse Raim Impact 1st Startup Venture Specialist Private Equity Fund	4,355	4,254	1	100	-	-	-	4,355
LOTTE CARD Co.,Ltd.	346,810	458,295	58,400	-	-	(12,960)	10,396	514,131
Together-Korea Government Private Pool Private Securities Investment Trust No. 3	10,000	10,070	173	-	-	-	-	10,243
Genesis Environmental Energy Company 1st Private Equity Fund	-	4,126	(41)	-	(3,738)	(347)	-	-
Union Technology Finance Investment Association	14,637	12,388	187	2,250	(363)	-	-	14,462
Dicustody Co., Ltd.	1	1	-	-	-	-	-	1
Orient Shipyard Co., Ltd.	-	-	-	-	-	-	-	-
BTS 2nd Private Equity Fund	3,026	-	(145)	3,026	-	-	-	2,881
STASSETS FUND III	1,500	-	(270)	1,500	-	-	-	1,230
Japanese Hotel Real Estate Private Equity Fund No.2	3,174	3,196	194	-	-	(299)	(236)	2,855
Woori Seoul Beltway Private Special Asset Fund No.1	9,791	7,551	246	2,312	-	(235)	-	9,874
Woori Multi-Return Securities Investment Trust 3 (Balanced Bond)	-	10,023	-	-	(9,950)	(73)	-	-
Woori Short-term Bond Securities Investment Trust(Bond) ClassC-F	110,000	151,822	2,312	50,000	(90,137)	(1,972)	-	112,025
Woori Safe Plus General Type Private Investment Trust S-8(Bond)	10,000	-	230	10,000	-	(48)	-	10,182
WOORI TAERIM 1st Fund	1,100	991	(3)	-	-	-	-	988
Portone-Cape Fund No.1	340	489	(25)	-	-	-	-	464
KIWOOM WOORI Financial 1st Investment Fund	1,000	973	(20)	-	-	-	-	953
DeepDive WOORI 2021-1 Financial Investment Fund	900	993	(12)	-	(100)	(3)	-	878
Darwin Green Packaging Private Equity Fund	4,000	3,957	388	-	-	(400)	-	3,945
DS Power Semicon Private Equity Fund	3,000	-	245	3,000	-	(269)	-	2,976

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	Acquisition cost	January 1, 2022	Share of profits(losses) and others	Acquisition	Disposal/ Reclassification	Dividends	Change in capital	December 31, 2022
Koreawide partners 2nd Private Equity Fund	20,000	-	-	20,000	-	-	-	20,000
Woori FirstValue Private Real Estate Fund No.2	9,000	763	(6)	-	(199)	-	-	558
WooriG Real Infrastructure Blind General Type Private Placement Investment Trust	100	100	2	-	-	-	-	102
Woori BIG2 Plus Securities Investment Trust(Balanced Bond)	1,200	-	(161)	-	1,235	-	-	1,074
Woori Together TDF 2025	2,000	-	(202)	-	2,192	-	-	1,990
Woori Together TDF 2030	2,000	-	(214)	-	2,247	-	-	2,033
WOORI Star50 feeder fund(H)	200	-	(5)	-	131	-	-	126
Woori Hanhwa Eureka Private Equity Fund	-	327	(48)	-	(164)	(115)	-	-
Aarden Woori Apparel 1st Private Equity Fund	100	99	(2)	-	-	-	-	97
Woori Dyno 1st Private Equity Fund	2,000	-	(6)	2,000	-	-	-	1,994
Australia Green Energy 1st PEF	4,913	-	(55)	4,913	-	-	-	4,858
Godo Kaisha Oceanos 1	10,800	9,905	84	-	-	(1,049)	(152)	8,788
Woori Zip 1	9,254	10,496	(138)	-	(873)	-	(795)	8,690
Woori Zip 2	12,928	14,732	(127)	-	(1,309)	-	(1,116)	12,180
Force TEC Co., Ltd. (*)	-	-	56	-	-	-	(56)	-
KUM HWA Co., Ltd. (*)	-	-	-	-	-	-	-	-
Jinmyung Plus Co., Ltd.	-	-	10	-	-	-	-	10
JC Assurance No.2 Private Equity Fund	29,349	17,728	(17,728)	-	-	-	-	-
Dream Company Growth no.1 PEF	7,412	7,914	418	-	-	(471)	-	7,861
HMS-Oriens 1st Fund	12,000	12,007	1,245	-	-	-	-	13,252
WooriG Senior Loan General Type Private Investment Trust No.1	80,268	88,029	3,788	14,073	(20,322)	(3,707)	-	81,861
Genesis Eco No.1 Private Equity Fund	12,000	11,120	(99)	195	-	-	-	11,216
Paratus Woori Material Component Equipment joint venture company	17,700	17,493	(243)	-	-	-	-	17,250
Midas No. 8 Private Equity Joint Venture Company	18,735	18,968	275	-	-	(530)	-	18,713
Orchestra Private Equity Fund IV	9,878	-	197	10,000	(122)	(377)	-	9,698
Synaptic Green No.1 PEF	8,000	-	(207)	8,000	-	-	-	7,793
IGEN2022No. 1 Private Equity Fund	7,822	-	650	8,000	(475)	(165)	-	8,010
PCC-Woori LP Secondary Fund	10,440	12,350	674	3,440	(3,480)	-	-	12,984
Woori High Plus Short-term High Graded ESG Bond Sec Feeder Inv Trust 1	-	73,787	-	-	(73,598)	(189)	-	-
Woori-Q Corporate Restructuring Private Equity Fund	27,063	46,155	(288)	536	(18,867)	-	-	27,536
Woori-Shinyoung Growth-Cap Private Equity Fund I	17,018	28,713	14,561	-	-	-	-	43,274
	<u>1,131,865</u>	<u>1,335,167</u>	<u>69,689</u>	<u>143,345</u>	<u>(222,922)</u>	<u>(24,126)</u>	<u>4,483</u>	<u>1,305,636</u>

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(\*) As a result of discontinuation of the equity method, related companies' losses amount not recognized is 665 million Won for Force TEC Co., Ltd. 3,743 million Won for Orient Shipyard Co., Ltd. and 0.2 million Won for KUM HWA Co., Ltd. and cumulated amount is 1,462 million Won for Force TEC Co., Ltd. 3,743 million Won for Orient Shipyard Co., Ltd. and 2 million Won for KUM HWA Co., Ltd.

	For the year ended December 31, 2021							
	Acquisition cost	January 1, 2021	Share of profits(losses) and others	Acquisition	Disposal/ Reclassification	Dividends	Change in capital	December 31, 2021
W Service Networks Co., Ltd.	108	191	(4)	-	-	(4)	-	183
Korea Credit Bureau Co., Ltd.	3,313	8,125	1,388	-	-	(90)	-	9,423
Korea Finance Security Co., Ltd.	3,267	3,066	35	-	-	-	-	3,101
Woori Growth Partnerships New Technology Private Equity Fund	14,991	15,032	(637)	-	(1,947)	-	-	12,448
2016KIF-IMM Woori Bank Technology Venture Fund	8,396	13,238	3,520	-	(3,497)	(631)	-	12,630
K BANK Co., Ltd. (*1)	236,232	174,097	67,553	-	-	-	(2,157)	239,493
Smart Private Equity Fund No.2	-	1,481	(797)	-	(684)	-	-	-
Woori Bank-Company K Korea Movie Asset Fund	-	2,788	137	-	(2,100)	(480)	-	345
Partner One Value Up I Private Equity Fund	5,039	9,816	2,521	-	(4,961)	(800)	-	6,576
IBK KIP Seongjang Dideemdol 1st Private Investment Limited Partnership	9,736	9,756	1,417	5,040	(5,060)	-	-	11,153
Crevisse Raim Impact 1st Startup Venture Specialist Private Equity Fund	4,255	4,129	-	125	-	-	-	4,254
LOTTE CARD Co.,Ltd.	346,810	422,832	39,301	-	-	(10,374)	6,536	458,295
Together-Korea Government Private Pool Private Securities Investment Trust No. 3	10,000	10,023	47	-	-	-	-	10,070
Genesis Environmental Energy Company 1st Private Equity Fund	3,738	3,979	147	-	-	-	-	4,126
Union Technology Finance Investment Association	12,750	4,485	(347)	8,250	-	-	-	12,388
Dicustody Co., Ltd.	1	-	-	1	-	-	-	1
Japanese Hotel Real Estate Private Equity Fund No.2	3,291	3,234	237	-	-	(201)	(74)	3,196
Woori G Clean Energy No.1	-	1,024	-	1,462	(2,338)	(148)	-	-
Woori Goseong Power EBL Private Special Asset Fund	-	15,118	227	-	(15,118)	(370)	143	-
Woori Seoul Beltway Private Special Asset Fund No.1	7,513	5,613	124	1,935	-	(121)	-	7,551
Woori Corporate Private Securities Fund 1 (Bond)	-	-	-	10,000	(10,000)	-	-	-
Woori G Star Private Placement Investment Trust No.33 [FI]	-	-	-	20,000	(20,000)	-	-	-
Woori Multi-Return Securities Investment Trust 3 (Balanced Bond)	10,000	-	23	10,000	-	-	-	10,023
Woori Short-term Bond Securities Investment Trust(Bond) ClassC-F	150,000	-	1,822	150,000	-	-	-	151,822
WOORI TAERIM 1st Fund	1,100	283	708	-	-	-	-	991
Portone-Cape Fund No.1	340	960	189	-	(660)	-	-	489
KIWOOM WOORI Financial 1st Investment Fund	1,000	994	(21)	-	-	-	-	973

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	For the year ended December 31, 2021							
	Acquisition cost	January 1, 2021	Share of profits(losses) and others	Acquisition	Disposal/Reclassification	Dividends	Change in capital	December 31, 2021
DeepDive WOORI 2021-1 Financial Investment Fund	1,000	-	(7)	1,000	-	-	-	993
Darwin Green Packaging Private Equity Fund	4,000	-	(43)	4,000	-	-	-	3,957
Woori FirstValue Private Real Estate Fund No.2	9,000	2,130	(637)	-	-	(730)	-	763
WooriG Real Infrastructure Blind General Type Private Placement Investment Trust	100	-	-	100	-	-	-	100
Woori High plus G.B. Securities Feeder Fund1(G.B.)	-	6,076	-	-	(6,076)	-	-	-
Woori Star50 Master Fund ClassC-F	-	184	(4)	-	(180)	-	-	-
Woori Hanhwa Eureka Private Equity Fund	164	403	138	-	(214)	-	-	327
Aarden Woori Apparel 1st Private Equity Fund	100	-	(1)	100	-	-	-	99
Godo Kaisha Oceanos 1	10,800	10,193	127	-	-	(370)	(45)	9,905
Woori Zip 1	10,143	-	(26)	16,380	(6,237)	-	379	10,496
Woori Zip 2	14,254	-	(50)	22,883	(8,628)	-	527	14,732
Force TEC Co., Ltd. (*2)	-	393	(393)	-	-	-	-	-
KUM HWA Co., Ltd. (*2)	-	-	-	-	-	-	-	-
Jimmyung Plus Co., Ltd.	-	-	-	-	-	-	-	-
JC Assurance No.2 Private Equity Fund	29,349	29,050	(11,621)	299	-	-	-	17,728
Dream Company Growth no.1 PEF	7,706	7,705	680	-	-	(471)	-	7,914
HMS-Oriens 1st Fund	12,000	12,000	7	-	-	-	-	12,007
WooriG Senior Loan General Type Private Investment Trust No.1	87,382	52,045	2,959	38,757	(3,060)	(2,672)	-	88,029
Genesis Eco No.1 Private Equity Fund	11,805	-	(685)	11,805	-	-	-	11,120
Paratus Woori Material Component Equipment joint venture company	17,700	-	(207)	17,700	-	-	-	17,493
Midas No. 8 Private Equity Joint Venture Company	19,000	-	(32)	19,000	-	-	-	18,968
PCC-Woori LP Secondary Fund	10,100	8,128	1,697	2,525	-	-	-	12,350
Woori High Plus Short-term High Graded ESG Bond Sec Feeder Inv Trust 1	70,988	93,474	921	20,765	(38,870)	(2,503)	-	73,787
Woori-Q Corporate Restructuring Private Equity Fund	45,394	22,904	1,002	25,246	(2,997)	-	-	46,155
Woori-Shinyoung Growth-Cap Private Equity Fund I	17,218	38,342	20,813	12,799	(32,415)	(10,826)	-	28,713
	<u>1,210,083</u>	<u>993,291</u>	<u>132,228</u>	<u>400,172</u>	<u>(165,042)</u>	<u>(30,791)</u>	<u>5,309</u>	<u>1,335,167</u>

(\*1) Included 70,120 million won of deemed gain on disposal in accordance with the decrease in percentage of ownership from disproportionate contribution for the year ended December 31, 2021.

(\*2) As a result of discontinuation of the equity method, related companies' losses amount not recognized is 797 million Won for Force TEC Co., Ltd. and 2 million won for KUM HWA Co., Ltd.

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(3) Summary financial information relating to investments in associates accounted for using the equity method of accounting is as follows (Unit: Korean Won in millions):

	December 31, 2022					
	Assets	Liabilities	Operating revenue	Net income (loss)	Other comprehensive income(loss)	Total comprehensive income(loss)
W Service Networks Co., Ltd.	7,052	2,825	19,697	1,215	-	1,215
Korea Credit Bureau Co., Ltd.	155,165	100,065	144,907	13,809	-	13,809
Korea Finance Security Co., Ltd.	28,792	12,964	47,043	(3,856)	-	(3,856)
Woori Growth Partnerships New Technology Private Equity Fund	47,394	208	2,978	2,185	-	2,185
2016KIF-IMM Woori Bank Technology Venture Fund	47,979	609	665	(7,839)	-	(7,839)
K BANK Co., Ltd.	16,694,289	14,896,426	491,880	91,059	(32,156)	58,903
Woori Bank-Company K Korea Movie Asset Fund (*1)	989	33	462	324	-	324
Partner One Value Up I Private Equity Fund	18,395	-	(9,431)	(9,831)	-	(9,831)
IBK KIP Seongjang Dideemdol 1st Private Investment Limited Partnership	51,804	385	8,092	7,288	-	7,288
Crevisse Raim Impact 1st Startup Venture Specialist Private Equity Fund	15,811	95	1	(383)	-	(383)
LOTTE CARD Co., Ltd. (*2)	19,983,059	17,179,093	1,925,577	268,096	43,162	311,258
Together-Korea Government Private Pool Private Securities Investment Trust No. 3	10,246	1	218	170	-	170
Union Technology Finance Investment Association	48,991	299	2,300	632	-	632
Dicustody Co., Ltd.	95	-	-	(3)	-	(3)
Orient Shipyard Co., Ltd.	10,832	27,225	-	(16,467)	-	(16,467)
BTS 2nd Private Equity Fund	15,012	608	1	(725)	-	(725)
STASSETS FUND III	4,660	313	37	(953)	-	(953)
Japanese Hotel Real Estate Private Equity Fund 2	14,387	13	1,050	968	(1,186)	(218)
Woori Seoul Beltway Private Special Asset Fund No.1	39,497	2	1,028	984	-	984
Woori Short-term Bond Securities Investment Trust(Bond) ClassC-F	468,357	67,022	14,189	11,804	-	11,804
Woori Safe Plus General Type Private Investment Trust S-8(Bond)	115,781	4,508	1,899	1,763	-	1,763
WOORI TAERIM 1st Fund	4,047	185	-	(13)	-	(13)
Portone-Cape Fund No.1	2,344	26	-	(129)	-	(129)
KIWOOM WOORI Financial 1st Investment Fund	10,597	111	1	(222)	-	(222)
DeepDive WOORI 2021-1 Financial Investment Fund	7,412	37	57	(103)	-	(103)
Darwin Green Packaging Private Equity Fund	19,332	-	2,215	1,904	-	1,904
DS Power Semicon Private Equity Fund	14,230	44	1,185	937	-	937
Koreawide partners 2nd Private Equity Fund	77,039	2,038	3,020	1	-	1
Woori FirstValue Private Real Estate Fund No.2	67,005	62,357	3	(54)	-	(54)
WooriG Real Infrastructure Blind General Type Private Placement Investment Trust	73,064	56	3,140	2,874	-	2,874
Woori BIG2 Plus Securities Investment Trust(Balanced Bond)	4,667	12	389	(636)	-	(636)
Woori Together TDF 2025	8,513	16	1,287	(1,018)	-	(1,018)
Woori Together TDF 2030	8,615	-	1,352	(1,108)	-	(1,108)
WOORI Star50 feeder fund(H)	709	-	48	(480)	-	(480)
Aarden Woori Apparel 1st Private Equity Fund	20,750	89	8	(325)	-	(325)
Woori Dyno 1st Private Equity Fund	10,212	43	200	(31)	-	(31)
Australia Green Energy 1st PEF	122,634	14	30	(1,380)	-	(1,380)
Godo Kaisha Oceanos 1	63,741	45,358	2,942	176	-	176
Woori Zip 1	48,309	34,346	2,085	(215)	-	(215)
Woori Zip 2	68,388	48,927	3,069	(198)	-	(198)

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	December 31, 2022					
	Assets	Liabilities	Operating revenue	Net income (loss)	Other comprehensive income(loss)	Total comprehensive income(loss)
Force TEC Co., Ltd.	10,489	24,804	25,182	(2,664)	-	(2,664)
KUM HWA Co., Ltd.	4	159	-	(8)	-	(8)
Jinmyung Plus Co.,Ltd.	696	649	177	(9)	-	(9)
JC Assurance No.2 Private Equity Fund	122,015	3	-	(929)	-	(929)
Dream Company Growth no.1 PEF	28,351	50	1,695	1,506	-	1,506
HMS-Oriens 1st Fund	58,095	6	3,829	3,279	-	3,279
Woori G Senior Loan Private Placement Investment Trust No.1	378,145	23	18,584	17,496	-	17,496
Genesis Eco No.1 Private Equity Fund	38,700	5	48	(593)	-	(593)
Paratus Woori Material Component Equipment joint venture company	58,311	617	7	(812)	-	(812)
Midas No. 8 Private Equity Joint Venture Company	65,936	242	1,928	977	-	977
Orchestra Private Equity Fund IV	34,427	-	1,580	878	-	878
Synaptic Green No.1 PEF	37,017	-	4	(983)	-	(983)
IGEN2022No. 1 Private Equity Fund	32,362	122	3,166	2,616	-	2,616
PCC-Woori LP Secondary Fund	33,591	168	6,127	1,152	-	1,152
Woori-Q Corporate Restructuring Private Equity Fund	75,973	418	3,019	(4,696)	-	(4,696)
Woori-Shinyoung Growth-Cap Private Equity Fund I	123,824	312	41,780	40,544	-	40,544

(\*1) It was dissolved for the year ended December 31,2021 and will be liquidated.

(\*2) The amount is after reflecting the fair value adjustment that occurred when acquiring the shares and the adjustments that occurred by difference of accounting policies with the Group.

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	December 31, 2021					
	Assets	Liabilities	Operating revenue	Net income (loss)	Other comprehensive income(loss)	Total comprehensive income(loss)
W Service Networks Co., Ltd.	6,208	2,504	17,019	840	-	840
Korea Credit Bureau Co., Ltd.	113,859	21,284	127,751	20,486	-	20,486
Korea Finance Security Co., Ltd.	34,957	14,286	57,462	249	-	249
Woori Growth Partnerships New Technology Private Equity Fund	54,173	231	3,807	(2,228)	-	(2,228)
2016KIF-IMM Woori Bank Technology Venture Fund	63,983	837	23,010	21,119	-	21,119
K BANK Co., Ltd.	14,021,789	12,291,131	250,502	19,348	(32,072)	(12,724)
Woori Bank-Company K Korea Movie Asset Fund	1,383	2	1,075	543	-	543
Partner One Value Up I Private Equity Fund	28,273	-	11,972	10,914	-	10,914
IBK KIP Seongjang Dideemdol 1st Private Investment Limited Partnership	56,363	597	11,422	10,077	-	10,077
Crevisse Raim Impact 1st Startup Venture Specialist Private Equity Fund	15,799	5	-	(332)	-	(332)
LOTTE CARD Co.,Ltd (*)	15,980,312	13,460,156	1,499,867	184,919	25,612	210,531
Together-Korea Government Private Pool Private Securities Investment Trust No. 3	10,073	1	41	37	-	37
Genesis Environmental Energy Company 1st Private Equity Fund	20,610	3,941	11,347	694	-	694
Union Technology Finance Investment Association	41,996	290	13	(1,168)	-	(1,168)
Dicustody Co., Ltd.	98	-	-	(2)	-	(2)
Japanese Hotel Real Estate Private Equity Fund 2	16,104	14	911	1,196	(373)	823
Woori Seoul Beltway Private Special Asset Fund No.1	30,206	1	536	500	-	500
Woori Multi-Return Securities Investment Trust 3 (Balanced Bond)	101,644	51,530	5	2	-	2
Woori Short-term Bond Securities Investment Trust(Bond) ClassC-F	1,209,228	158,524	89	79	-	79
WOORI TAERIM 1st Fund	4,047	172	-	2,770	-	2,770
Portone-Cape Fund No.1	2,447	-	1,050	947	-	947
KIWOOM WOORI Financial 1st Investment Fund	10,818	111	1	(221)	-	(221)
DeepDive WOORI 2021-1 Financial Investment Fund	8,340	-	-	(60)	-	(60)
Darwin Green Packaging Private Equity Fund	19,387	-	-	(213)	-	(213)
Woori FirstValue Private Real Estate Fund No.2	69,672	63,309	-	(5,303)	-	(5,303)
WooriG Real Infrastructure Blind General Type Private Placement Investment Trust	35,796	1	(34)	(35)	-	(35)
Woori Hanhwa Eureka Private Equity Fund	40,817	133	20,193	19,821	-	19,821
Aarden Woori Apparel 1st Private Equity Fund	21,075	89	-	(214)	-	(214)
Godo Kaisha Oceanos 1	66,087	45,367	3,141	267	-	267
Woori Zip 1	52,259	35,833	1,106	(26)	-	(26)
Woori Zip 2	74,033	50,951	1,536	(50)	-	(50)
Force TEC Co., Ltd.	11,904	23,508	20,941	(9,188)	-	(9,188)
KUM HWA Co., Ltd.	20	176	58	(10)	-	(10)
Jinmyung Plus Co.,Ltd.	568	445	209	5	-	5
JC Assurance No.2 Private Equity Fund	118,397	-	-	(1,040)	-	(1,040)
Dream Company Growth no.1 PEF	28,533	44	-	1,500	-	1,500
HMS-Oriens 1st Fund	52,659	28	2,750	2,179	-	2,179
Woori G Senior Loan Private Placement Investment Trust No.1	406,634	25	14,553	13,669	-	13,669
Genesis Eco No.1 Private Equity Fund	38,369	4	308	(377)	-	(377)
Paratus Woori Material Component Equipment joint venture company	58,507	-	7	(693)	-	(693)
Midas No. 8 Private Equity Joint Venture Company	66,699	112	1	(113)	-	(113)

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	December 31, 2021					
	Assets	Liabilities	Operating revenue	Net income (loss)	Other comprehensive income(loss)	Total comprehensive income(loss)
PCC-Woori LP Secondary Fund	31,585	-	5,720	4,162	-	4,162
Woori High Plus Short-term High Graded ESG Bond Sec Feeder Inv Trust 1	257,891	-	3,239	3,239	-	3,239
Woori-Q Corporate Restructuring Private Equity Fund	121,057	555	327	(1,547)	-	(1,547)
Woori-Shinyoung Growth-Cap Private Equity Fund I	82,087	314	83,143	81,550	-	81,550

(\*) The amount is after reflecting the fair value adjustment that occurred when acquiring the shares and the adjustments that occurred by difference of accounting policies with the Group.

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- (4) The entities that the Group has not applied equity method of accounting although the Group's ownership interest is more than 20% as of December 31, 2022 and 2021 are as follows:

Associate (*)	December 31, 2022	
	Number of shares owned	Ownership (%)
CL Tech Co., Ltd.	10,191	28.6

- (\*) Although the Group's ownership interest of the entity is more than 20%, the Group does not have significant influence over the entity since it is going through work-out process under receivership, accordingly it is excluded from the investment in joint ventures and associates.

Associate (*)	December 31, 2021	
	Number of shares owned	Ownership (%)
Orient Shipyard Co., Ltd.	464,812	21.4
Yuil PESC Co., Ltd.	8,642	24.0
CL Tech Co., Ltd.	13,759	38.6
S.WIN Co., Ltd.	20,301	20.0

- (\*) Although the Group's ownership interest of the entity is more than 20%, the Group does not have significant influence over the entity since it is going through work-out process under receivership, accordingly it is excluded from the investment in joint ventures and associates.

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- (5) As of December 31, 2022 and 2021, the reconciliations from the net assets of the associates to the carrying amount of the shares of the investment in joint ventures and associates are as follows (Unit: Korean Won in millions except for ownership):

	December 31, 2022						
	Total net asset	Ownership (%)	Ownership portion of net assets	Basis difference	Impairment	Intercompany transaction	Book value
W Service Networks Co., Ltd.	4,227	4.9	209	-	-	(1)	208
Korea Credit Bureau Co., Ltd.	55,100	9.9	5,462	246	-	1	5,709
Korea Finance Security Co., Ltd.	15,828	15.0	2,374	-	-	-	2,374
Woori Growth Partnerships New Technology Private Equity Fund	47,185	23.1	10,889	-	-	-	10,889
2016KIF-IMM Woori Bank Technology Venture Fund	47,370	20.0	9,474	-	-	-	9,474
K BANK Co., Ltd. (*)	1,796,269	12.6	225,894	21,894	-	1	247,789
Woori Bank-Company K Korea Movie Asset Fund	957	25.0	239	-	-	-	239
Partner One Value Up Ist Private Equity Fund	18,395	23.3	4,278	-	-	-	4,278
IBK KIP Seongjang Dideemdol 1st Private Investment Limited Partnership	51,419	20.0	10,284	-	-	1	10,285
Crevisse Raim Impact 1st Startup Venture Specialist Private Equity Fund	15,716	25.0	3,929	-	-	426	4,355
LOTTE CARD Co., Ltd. (*)	2,570,656	20.0	514,131	-	-	-	514,131
Together-Korea Government Private Pool Private Securities Investment Trust No.3	10,245	100.0	10,244	-	-	(1)	10,243
Union Technology Finance Investment Association	48,692	29.7	14,463	-	-	(1)	14,462
Dicustody Co., Ltd.	95	1.0	1	-	-	-	1
Orient Shipyard Co., Ltd.	(16,393)	22.7	(3,721)	-	-	3,721	-
BTS 2nd Private Equity Fund	14,405	20.0	2,881	-	-	-	2,881
STASSETS FUND III	4,347	28.3	1,230	-	-	-	1,230
Japanese Hotel Real Estate Private Equity Fund No.2	14,374	19.9	2,855	-	-	-	2,855
Woori Seoul Beltway Private Special Asset Fund No.1	39,495	25.0	9,874	-	-	-	9,874
Woori Short-term Bond Securities Investment Trust (Bond) ClassC-F	401,335	27.9	112,025	-	-	-	112,025
Woori Safe Plus General Type Private Investment Trust S-8(Bond)	111,273	9.2	10,182	-	-	-	10,182
WOORI TAERIM 1st Fund	3,862	25.6	988	-	-	-	988
Portone-Cape Fund No.1	2,318	20.0	464	-	-	-	464
KIWOOM WOORI Financial 1st Investment Fund	10,486	9.1	953	-	-	-	953
DeepDive WOORI 2021-1 Financial Investment Fund	7,375	11.9	878	-	-	-	878
Darwin Green Packaging Private Equity Fund	19,332	20.4	3,945	-	-	-	3,945
DS Power Semicon Private Equity Fund	14,186	21.0	2,976	-	-	-	2,976
Koreawide partners 2nd Private Equity Fund	75,001	26.7	20,000	-	-	-	20,000
Woori FirstValue Private Real Estate Fund No.2	4,648	12.0	558	-	-	-	558

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	December 31, 2022						
	Total net asset	Ownership (%)	Ownership portion of net assets	Basis difference	Impairment	Intercompany transaction	Book value
Woori G Real Infrastructure Blind General Type Private Placement Investment Trust	73,008	0.1	102	-	-	-	102
Woori BIG2 Plus Securities Investment Trust(Balanced Bond)	4,655	23.1	1,074	-	-	-	1,074
Woori Together TDF 2025	8,497	23.6	1,990	-	-	-	1,990
Woori Together TDF 2030	8,615	23.8	2,033	-	-	-	2,033
WOORI Star50 feeder fund(H)	709	17.9	126	-	-	-	126
Aarden Woori Apparel 1st Private Equity Fund	20,661	0.5	97	-	-	-	97
Woori Dyno 1st Private Equity Fund	10,169	19.6	1,994	-	-	-	1,994
Australia Green Energy 1st PEF	122,620	4.0	4,858	-	-	-	4,858
Godo Kaisha Oceanos 1	18,383	47.8	8,788	-	-	-	8,788
Woori Zip 1	13,963	64.0	8,690	-	-	-	8,690
Woori Zip 2	19,461	64.0	12,180	-	-	-	12,180
Force TEC	(14,315)	24.5	(3,513)	-	-	3,513	-
KUM HWA Co., Ltd.	(155)	20.1	(31)	-	-	31	-
Jinmyung Plus Co.,Ltd.	47	21.3	10	-	-	-	10
JC Assurance No.2 Private Equity Fund	122,012	23.5	17,728	-	(17,728)	-	-
Dream Company Growth no.1 PEF	28,301	27.8	7,861	-	-	-	7,861
HMS-Oriens 1st Fund	58,089	22.8	13,252	-	-	-	13,252
Woori G Senior Loan General Type Private Investment Trust No.1	378,122	21.7	81,861	-	-	-	81,861
Genesis Eco No.1 Private Equity Fund	38,695	29.0	11,216	-	-	-	11,216
Paratus Woori Material Component Equipment joint venture company	57,694	29.9	17,250	-	-	-	17,250
Midas No. 8 Private Equity Joint Venture Company	65,694	28.5	18,713	-	-	-	18,713
Orchestra Private Equity Fund IV	34,427	28.2	9,698	-	-	-	9,698
Synaptic Green No.1 PEF	37,017	21.1	7,793	-	-	-	7,793
IGEN2022No. 1 Private Equity Fund	32,240	24.8	8,010	-	-	-	8,010
PCC-Woori LP Secondary Fund	33,423	38.8	12,984	-	-	-	12,984
Woori-Q Corporate Restructuring Private Equity Fund	75,555	35.6	27,536	-	-	-	27,536
Woori-Shinyoung Growth-Cap Private Equity Fund I	123,512	35.0	43,274	-	-	-	43,274

(\*) The net asset equity amount is after the debt-for-equity swap, non-controlling etc.

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	Total net asset	Ownership (%)	Ownership portion of net assets	Basis difference	Impairment	Intercompany transaction	Book value
W Service Networks Co., Ltd.	3,704	4.9	183	-	-	-	183
Korea Credit Bureau Co., Ltd.	92,575	9.9	9,177	246	-	-	9,423
Korea Finance Security Co., Ltd.	20,671	15.0	3,101	-	-	-	3,101
Woori Growth Partnerships New Technology Private Equity Fund	53,942	23.1	12,448	-	-	-	12,448
2016KIF-IMM Woori Bank Technology Venture Fund	63,146	20.0	12,630	-	-	-	12,630
K BANK Co., Ltd. (*)	1,730,307	12.6	217,599	21,894	-	-	239,493
Woori Bank-Company K Korea Movie Asset Fund	1,381	25.0	345	-	-	-	345
Partner One Value Up Ist Private Equity Fund	28,273	23.3	6,576	-	-	-	6,576
IBK KIP Seongjang Dideemdol 1st Private Investment Limited Partnership	55,767	20.0	11,153	-	-	-	11,153
Crevisse Raim Impact 1st Startup Venture Specialist Private Equity Fund	15,794	25.0	3,949	-	-	305	4,254
LOTTE CARD Co., Ltd (*1)	2,291,474	20.0	458,295	-	-	-	458,295
Together-Korea Government Private Pool Private Securities Investment Trust No.3	10,071	100.0	10,070	-	-	-	10,070
Genesis Environmental Energy Company 1st Private Equity Fund	16,669	24.8	4,126	-	-	-	4,126
Union Technology Finance Investment Association	41,706	29.7	12,388	-	-	-	12,388
Dicustody Co., Ltd.	98	1.0	1	-	-	-	1
Japanese Hotel Real Estate Private Equity Fund No.2	16,090	19.9	3,196	-	-	-	3,196
Woori Seoul Beltway Private Special Asset Fund No.1	30,205	25.0	7,551	-	-	-	7,551
Woori Multi Return Private Securities Investment Trust 3(Balanced Bond)	50,114	20.0	10,023	-	-	-	10,023
Woori Short-term Bond Securities Investment Trust (Bond) ClassC-F	1,050,704	14.5	151,822	-	-	-	151,822
WOORI TAERIM 1st Fund	3,875	25.6	991	-	-	-	991
Portone-Cape Fund No.1	2,447	20.0	489	-	-	-	489
KIWOOM WOORI Financial 1st Investment Fund	10,707	9.1	973	-	-	-	973

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	December 31, 2021						
	Total net asset	Ownership (%)	Ownership portion of net assets	Basis difference	Impairment	Intercompany transaction	Book value
DeepDive WOORI 2021-1 Financial Investment Fund	8,340	11.9	993	-	-	-	993
Darwin Green Packaging Private Equity Fund	19,387	20.4	3,957	-	-	-	3,957
Woori FirstValue Private Real Estate Fund No.2	6,363	12.0	763	-	-	-	763
WooriG Real Infrastructure Blind General Type Private Placement Investment Trust	35,795	0.3	100	-	-	-	100
Woori Hanhwa Eureka Private Equity Fund	40,684	0.8	327	-	-	-	327
Aarden Woori Apparel 1st Private Equity Fund	20,986	0.5	99	-	-	-	99
Godo Kaisha Oceanos 1	20,720	47.8	9,905	-	-	-	9,905
Woori Zip 1	16,426	63.9	10,496	-	-	-	10,496
Woori Zip 2	23,082	63.8	14,732	-	-	-	14,732
Force TEC	(11,604)	24.5	(2,843)	-	-	2,843	-
KUM HWA Co., Ltd.	(156)	20.1	(31)	-	-	31	-
Jinmyung Plus Co.,Ltd.	123	21.3	25	-	-	(25)	-
JC Assurance No.2 Private Equity Fund	118,397	24.4	29,349	-	(11,621)	-	17,728
Dream Company Growth no.1 PEF	28,489	27.8	7,914	-	-	-	7,914
HMS-Oriens 1st Fund	52,631	22.8	12,007	-	-	-	12,007
WooriG Senior Loan General Type Private Investment Trust No.1	406,609	21.7	88,029	-	-	-	88,029
Genesis Eco No.1 Private Equity Fund	38,365	29.0	11,120	-	-	-	11,120
Paratus Woori Material Component Equipment joint venture company	58,507	29.9	17,493	-	-	-	17,493
Midas No. 8 Private Equity Joint Venture Company	66,587	28.5	18,968	-	-	-	18,968
PCC-Woori LP Secondary Fund	31,585	38.8	12,350	-	-	-	12,350
Woori High Plus Short-term High Graded ESG Bond Sec Feeder Inv Trust 1	257,891	27.5	73,787	-	-	-	73,787
Woori-Q Corporate Restructuring Private Equity Fund	120,502	38.1	46,155	-	-	-	46,155
Woori-Shinyoung Growth-Cap Private Equity Fund I	81,773	35.0	28,713	-	-	-	28,713

(\*) The net asset equity amount is after the debt-for-equity swap, non-controlling etc.

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**14. INVESTMENT PROPERTIES**

(1) Details of investment properties are as follows (Unit: Korean Won in millions):

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Acquisition cost	418,775	415,163
Accumulated depreciation	(30,982)	(25,582)
Accumulated impairment losses	(86)	(86)
Net carrying value	<u>387,707</u>	<u>389,495</u>

(2) Changes in investment properties are as follows (Unit: Korean Won in millions):

	<u>For the years ended December 31</u>	
	<u>2022</u>	<u>2021</u>
Beginning balance	389,495	387,464
Disposal	(1,206)	-
Depreciation	(3,925)	(2,809)
Transfer	7,153	6,095
Foreign currencies translation adjustments	(3,810)	(1,255)
Ending balance	<u>387,707</u>	<u>389,495</u>

(3) Fair value of investment properties amounted to 647,072 million won and 665,710 million won as of December 31, 2022 and 2021, respectively. The fair value of investment properties has been assessed on the basis of recent similar real estate market price and officially assessed land price in the area of the investment properties, is classified as level 3 on the fair value hierarchy.

(4) Rental fee earned from investment properties is amounting to 22,798 million won and 15,056 million won for the years ended December 31, 2022 and 2021, respectively. Operating expenses directly related to the investment properties where rental fee was earned is amounting to 4,093 million won and 2,941 million won.

(5) The lease payments expected to be received in the future under lease contracts relating to investment properties as of December 31, 2022 and 2021 are as follows (Unit: Korean Won in millions):

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Lease payments:		
Within a year	12,368	13,769
More than 1 year and within 2 years	8,481	10,770
More than 2 years and within 3 years	5,320	7,743
More than 3 years and within 4 years	3,201	5,009
More than 4 years and within 5 years	2,634	2,953
More than 5 years	2,568	2,603
Total	<u>34,572</u>	<u>42,847</u>

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**15. PREMISES AND EQUIPMENT**

- (1) Details of premises and equipment as of December 31, 2022 and 2021 are as follows (Unit: Korean Won in millions):

	December 31, 2022						Total
	Land	Building	Equipment and vehicles	Leasehold improvement	Construction in progress	Structures	
Premises and equipment (owned)	1,695,357	730,676	261,278	58,352	32,184	-	2,777,847
Right-of-use asset	-	349,494	15,589	-	-	-	365,083
Carrying value	1,695,357	1,080,170	276,867	58,352	32,184	-	3,142,930

  

	December 31, 2021						Total
	Land	Building	Equipment and vehicles	Leasehold improvement	Construction in progress	Structures	
Premises and equipment (owned)	1,719,325	756,964	258,361	51,354	3,171	1	2,789,176
Right-of-use asset	-	367,480	18,064	-	-	-	385,544
Carrying value	1,719,325	1,124,444	276,425	51,354	3,171	1	3,174,720

- (2) Details of premises and equipment (owned) as of December 31, 2022 and 2021 are as follows (Unit: Korean Won in millions):

	December 31, 2022						Total
	Land	Building	Equipment and vehicles	Leasehold improvement	Construction in progress	Structures	
Acquisition cost	1,696,017	1,078,385	1,179,928	470,513	32,184	20	4,457,047
Accumulated depreciation	-	(347,709)	(918,650)	(412,161)	-	(20)	(1,678,540)
Accumulated impairment losses	(660)	-	-	-	-	-	(660)
Net carrying value	1,695,357	730,676	261,278	58,352	32,184	-	2,777,847

  

	December 31, 2021						Total
	Land	Building	Equipment and vehicles	Leasehold improvement	Construction in progress	Structures	
Acquisition cost	1,719,985	1,076,091	1,156,479	475,195	3,171	20	4,430,941
Accumulated depreciation	-	(319,127)	(898,118)	(423,841)	-	(19)	(1,641,105)
Accumulated impairment losses	(660)	-	-	-	-	-	(660)
Net carrying value	1,719,325	756,964	258,361	51,354	3,171	1	2,789,176

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(3) Details of changes in premises and equipment (owned) are as follows (Unit: Korean Won in millions):

	For the year ended December 31, 2022						
	Land	Building	Equipment and vehicles	Leasehold improvement	Construction in progress	Structures	Total
Beginning balance	1,719,325	756,964	258,361	51,354	3,171	1	2,789,176
Acquisitions	24	14,524	98,620	28,178	31,810	-	173,156
Disposals	(20,024)	(788)	(1,003)	(656)	-	-	(22,471)
Depreciation	-	(32,290)	(97,600)	(21,185)	-	(1)	(151,076)
Classification of assets held for sale	(6,405)	(6,704)	-	-	-	-	(13,109)
Transfer	(3,040)	(4,113)	-	-	-	-	(7,153)
Foreign currencies translation adjustments	(855)	(428)	392	549	225	-	(117)
Business combination	5,917	3,523	2,586	-	-	-	12,026
Others	415	(12)	(78)	112	(3,022)	-	(2,585)
Ending balance	<u>1,695,357</u>	<u>730,676</u>	<u>261,278</u>	<u>58,352</u>	<u>32,184</u>	<u>-</u>	<u>2,777,847</u>

  

	For the year ended December 31, 2021						
	Land	Building	Equipment and vehicles	Leasehold improvement	Construction in progress	Structures	Total
Beginning balance	1,726,045	787,040	268,225	50,085	8,246	2	2,839,643
Acquisitions	-	15,750	68,069	23,347	11,637	-	118,803
Disposals	-	(1,994)	(1,663)	(979)	-	-	(4,636)
Depreciation	-	(33,523)	(93,921)	(22,293)	-	(1)	(149,738)
Classification of assets held for sale	(7,157)	(5,695)	-	-	-	-	(12,852)
Transfer	(3,649)	(2,446)	15,399	-	(15,399)	-	(6,095)
Foreign currencies translation adjustments	991	712	2,868	1,580	153	-	6,304
Others	3,095	(2,880)	(616)	(386)	(1,466)	-	(2,253)
Ending balance	<u>1,719,325</u>	<u>756,964</u>	<u>258,361</u>	<u>51,354</u>	<u>3,171</u>	<u>1</u>	<u>2,789,176</u>

(4) Details of right-of-use assets as of December 31, 2022 and 2021 are as follows (Unit: Korean Won in millions):

	December 31, 2022		
	Building	Equipment and vehicles	Total
Acquisition cost	643,484	32,700	676,184
Accumulated depreciation	(293,990)	(17,111)	(311,101)
Net carrying value	<u>349,494</u>	<u>15,589</u>	<u>365,083</u>

  

	December 31, 2021		
	Building	Equipment and vehicles	Total
Acquisition cost	650,906	30,559	681,465
Accumulated depreciation	(283,426)	(12,495)	(295,921)
Net carrying value	<u>367,480</u>	<u>18,064</u>	<u>385,544</u>

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- (5) Details of changes in right-of-use assets for the years ended December 31, 2022 and 2021 are as follows  
(Unit: Korean Won in millions):

	For the year ended December 31, 2022		
	Building	Equipment and vehicles	Total
Beginning balance	367,480	18,064	385,544
New contracts	225,396	9,819	235,215
Changes in contract	3,514	(26)	3,488
Termination	(43,597)	(870)	(44,467)
Depreciation	(211,175)	(11,406)	(222,581)
Business combination	819	-	819
Others	7,057	8	7,065
Ending balance	349,494	15,589	365,083

  

	For the year ended December 31, 2021		
	Building	Equipment and vehicles	Total
Beginning balance	435,132	12,423	447,555
New contracts	172,812	16,848	189,660
Changes in contract	9,064	225	9,289
Termination	(46,563)	(1,742)	(48,305)
Depreciation	(228,403)	(10,665)	(239,068)
Business combination	-	-	-
Others	25,438	975	26,413
Ending balance	367,480	18,064	385,544

**16. INTANGIBLE ASSETS**

- (1) Details of intangible assets are as follows (Unit: Korean Won in millions):

	December 31, 2022						Total
	Goodwill	Industrial property rights	Development cost	Other intangible assets	Membership deposit	Construction in progress	
Acquisition cost	397,527	2,219	754,031	1,244,516	46,231	3,027	2,447,551
Accumulated amortization	-	(1,576)	(541,404)	(1,018,591)	-	-	(1,561,571)
Accumulated impairment losses	-	-	-	(33,552)	(3,314)	-	(36,866)
Net carrying value	397,527	643	212,627	192,373	42,917	3,027	849,114

  

	December 31, 2021						Total
	Goodwill	Industrial property rights	Development cost	Other intangible assets	Membership deposit	Construction in progress	
Acquisition cost	345,449	2,057	661,959	1,174,565	40,955	717	2,225,702
Accumulated amortization	-	(1,334)	(454,251)	(947,830)	-	-	(1,403,415)
Accumulated impairment losses	-	-	-	(33,553)	(3,348)	-	(36,901)
Net carrying value	345,449	723	207,708	193,182	37,607	717	785,386

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(2) Details of changes in intangible assets are as follows (Unit: Korean Won in millions):

	For the year ended December 31, 2022						
	Goodwill	Industrial property rights	Development cost	Other intangible assets	Membership deposit	Construction in progress	Total
Beginning balance	345,449	723	207,708	193,182	37,607	717	785,386
Acquisitions	-	162	91,992	62,073	6,571	2,421	163,219
Disposal	-	-	-	(2)	(1,295)	-	(1,297)
Amortization (*)	-	(242)	(87,294)	(75,299)	-	-	(162,835)
Impairment losses	-	-	-	-	88	-	88
Transfer	-	-	300	182	-	(482)	-
Business combination	57,670	-	-	7,795	-	-	65,465
Foreign currencies translation adjustments	(5,592)	-	(5)	(865)	(42)	(53)	(6,557)
Others	-	-	(74)	5,307	(12)	424	5,645
Ending balance	<u>397,527</u>	<u>643</u>	<u>212,627</u>	<u>192,373</u>	<u>42,917</u>	<u>3,027</u>	<u>849,114</u>

(\*) Amortization of other intangible assets amounting to 14,664 million won is included in other operating expenses.

	For the year ended December 31, 2021						
	Goodwill	Industrial property rights	Development cost	Other intangible assets	Membership deposit	Construction in progress	Total
Beginning balance	334,290	709	208,873	205,445	36,091	6,669	792,077
Acquisitions	-	247	74,444	49,137	2,437	977	127,242
Disposal	-	-	-	-	(347)	-	(347)
Amortization (*)	-	(233)	(80,128)	(68,950)	-	-	(149,311)
Impairment losses	-	-	-	(18)	(93)	-	(111)
Transfer	-	-	4,518	2,946	-	(7,464)	-
Foreign currencies translation adjustments	11,159	-	-	2,952	232	-	14,343
Others	-	-	1	1,670	(713)	535	1,493
Ending balance	<u>345,449</u>	<u>723</u>	<u>207,708</u>	<u>193,182</u>	<u>37,607</u>	<u>717</u>	<u>785,386</u>

(\*) Amortization of other intangible assets amounting to 13,963 million won is included in other operating expenses.

(3) Goodwill

1) Details of allocated goodwill based on each cash-generating unit as of December 31, 2022 and 2021 are as follows (Unit: Korean won in million):

Cash-generating unit (*1)	December 31, 2022	December 31, 2021
Woori Asset Management Corp.	43,036	43,036
Woori Global Asset Management Co., Ltd.	2,030	2,030
Woori Asset Trust Co., Ltd.	141,780	141,780
PT Bank Woori Saudara Indonesia 1906 Tbk (*2)	97,029	99,667
WOORI BANK (CAMBODIA) PLC (*3)	55,570	52,082
PT Woori Finance Indonesia Tbk.	51,382	-
Others	6,700	6,854
Total	<u>397,527</u>	<u>345,449</u>

(\*1) Allocated to the cash-generating unit that will benefit from the synergy effect of the business combination, and the cash-generating unit is generally comprised of the operating segment or sub-sectors.

(\*2) The Group has acquired Saudara Bank to expand retail sales in Indonesia, and recognized the goodwill as it is expected to strengthen the competitiveness by securing a local sales network in Indonesia.

(\*3) The Group has acquired VisionFund Cambodia to expand Cambodian retail sales, and recognized goodwill based on the economies of scale and acquired customer base.

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2) Impairment test

The recoverable amount of the cash-generating unit is measured at larger amount among the fair value less costs to sell or the value to use.

The net fair value is calculated by deducting costs of disposal from the amount received from the sale of the cash-generating unit in an arm's length transaction between the parties with reasonable judgment and willingness to negotiate. In case of difficulty in measuring this amount, the sale amount of a similar cash-generating unit in the past market is calculated by reflecting the characteristics of the cash-generating unit. If reliable information related to fair value less costs to sell is not available, value in use is considered as recoverable amount. Value in use is the present value of future cash flows expected to be generated by the cash-generating unit. Future cash flows are estimated based on the latest financial budget approved by the management, with an estimated period of up to five years. The Group applied 0.0% - 1.0% growth rate to estimate future cash flow for the period over five years. The main assumptions used to estimate cash flows are about the size of the market and the share of the group. The appropriate discount rate for discounting future cash flows is the pre-tax discount rate, including assumptions about risk-free interest rates, market risk premium, and systemic risk of cash-generating units. The impairment test, which compares the carrying amount and recoverable amount of the cash-generating unit to which goodwill has been allocated, is conducted every year and every time an impairment sign occurs.

Category	Woori Asset Trust Co., Ltd.	Woori Asset Management Corp.	Woori Global Asset Management Co., Ltd	PT Bank Woori Saudara Indonesia 1906 Tbk	WB Finance Co., Ltd
Discount rate (%)	14.55	13.36	13.47	15.98	16.88
Terminal growth rate (%)	1.0	1.0	1.0	0.00	0.00
Recoverable amount.	431,777	162,772	42,083	784,787	544,693
Carrying amount	300,023	134,073	29,917	739,878	499,823

As a result of the impairment test on goodwill, it is determined that the carrying amount of the cash-generating unit to which the goodwill has been allocated will not exceed the recoverable amount.

3) Sensitivity analysis

The sensitivity of the fair value measurement to changes in significant but unobservable inputs used in measuring fair value is as follows (Unit: Korean Won in millions):

Category	Woori Asset Trust Co., Ltd.	Woori Asset Management Corp.	Woori Global Asset Management Co., Ltd.	PT Bank Woori Saudara Indonesia 1906 Tbk	WB Finance Co., Ltd.
Discount rate (%)					
Increase by 1.0% point	(39,501)	(8,680)	(2,553)	(61,030)	(38,845)
Decrease by 1.0% point	48,345	10,686	3,169	71,658	45,066
Terminal growth rate (%)					
Increase by 1.0% point	30,344	6,699	2,034	43,855	26,515
Decrease by 1.0% point(*)	(25,010)	(5,464)	(1,650)	-	-

(\*) In the case of PT Bank Woori Saudara Indonesia 1906 Tbk and WOORI BANK (CAMBODIA) PLC, declining cases are excluded from the analysis as the permanent growth rate was assumed to be 0%.

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**17. ASSETS HELD FOR SALE**

Assets held for distribution (sale) are as follows (Unit: Korean Won in millions):

Assets (*)	December 31, 2022	December 31, 2021
Premises and equipment	9,589	8,900
Investments of associates	-	11,472
Others	4,183	5,955
Total	<u>13,772</u>	<u>26,327</u>

(\*) The Group classifies assets as held for sale that are highly likely to be sold within one year from December 31, 2022 and December 31, 2021.

The Group measured assets held for sale at the lower of their net fair value or carrying amount.

The Group has decided to sell some of the premises and equipment through internal consultation during the current year and classifies the premises as non-current assets held for sale. The asset is expected to be sold within 12 months, and the premises and equipment that was scheduled to be sold at the end of the prior year has been sold and removed. On the other hand, other assets that are expected to be sold as of the end of the current year are classified as assets that are expected to be sold within one year due to the possibility of being sold as buildings and land acquired through auction.

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**18. ASSETS SUBJECT TO LIEN AND ASSETS ACQUIRED THROUGH FORECLOSURES**

(1) Assets subjected to lien are as follows (Unit: Korean Won in millions):

		December 31, 2022		
		Collateral given to	Amount	Reason for collateral
Financial assets at FVTPL	Korean treasury and government bonds, etc.	KOREA SECURITIES FINANCE CORPORATION, etc.	198,377	Related to bonds sold under repurchase agreements (*1)
		Korea Securities Depository	659,050	Securities borrowing collateral
	Korean treasury and government bonds, etc.	SHINHAN SECURITIES CO, etc.	6,939	Future trading collateral
		SC FIRST BANK KOREA, SEOUL, etc.	245,876	Variable margin deposit for CSA, etc.
	Korean financial institutions' debt securities, etc.	SHINHAN ASSET MANAGEMENT, etc.	16,200	Related to bonds sold under repurchase agreements (*1)
	Korean capital contributions, etc.	Korea Software Financial Cooperative	104	Bid guarantee, etc.
	Financial assets at FVTOCI	Korean treasury and government bonds	Korea Securities Depository	460
The BOK, etc.			6,394,890	Settlement risk, etc.
Debt securities in foreign currencies		BNP-PARIBAS, etc.	1,060,120	Variable margin deposit for CSA, etc.
Debt securities in foreign currencies		SC BANK, H.K, etc.	582,738	Related to bonds sold under repurchase agreements (*1)
Securities at amortized cost	Korean treasury and government bonds	Korea Securities Depository	1,100,351	Related to bonds sold under repurchase agreements (*1)
		The BOK, etc.	10,820,136	Settlement risk, etc.
	Debt securities in foreign currencies	NATIXIS, etc.	70,949	Related to bonds sold under repurchase agreements (*1)
	Debt securities in foreign currencies	FHLB ADVANCE, etc.	10,570	Related to the borrowing limit
Loan at amortized cost and other financial assets	Due from banks in local currency	Daishin AMC Co.,Ltd. and others	1,500	Right of pledge
	Other due from banks in local currency	The Korea Exchange, etc.	133,539	Margin deposit for CCP
	Other due from banks in foreign currency	Korea Investment & Securities, etc.	1,142,784	Overseas futures option deposit, etc.
Premises and equipment	Mortgage loan	Public offering	1,892,723	Related to covered bonds
	Land and building	Gakorea Co., Ltd , etc.	1,851	Right to collateral and others (*2)
Investment properties	Land and building	Gakorea Co., Ltd., etc.	5,365	Right to collateral and others (*2)
Total			<u>24,344,522</u>	

(\*1) The Group has the agreements to repurchase the sold assets at the predetermined price or the price that includes the rate of return and to provide the guarantee on the assets. The transferee has the right to sell or to provide as guarantee. Therefore, the Group does not derecognize the assets, but recognizes the relevant amounts as liability (bonds sold under repurchase agreements). The asset is equivalent to a mortgage-backed debt security.

(\*2) The maximum pledge amount is 522 million Won.

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		December 31, 2021		
		Collateral given to	Amount	Reason for collateral
Financial assets at FVTPL	Korean treasury and government bonds, etc	Nonghyup bank and others	248,009	Related to bonds sold under repurchase agreements (*)
	Korean treasury and government bonds, etc	Korea Securities Depository	179,079	Securities borrowing collateral
	Korean treasury and government bonds, etc	VI Investment, etc.	3,008	Future trading collateral
	Korean financial institutions' debt securities, etc	Korea Securities Depository	205,783	Securities borrowing collateral
	Korean financial institutions' debt securities, etc	KOREA SECURITIES FINANCE CORPORATION	54,419	Collateral for securities lending purposes
	Korean financial institutions' debt securities, etc	Shinhan Investment Corp.	5,352	Collateral for futures transaction
	Korean corporate bonds	Korea Securities Depository	299,161	Securities borrowing collateral
	Korean capital contributions	Korea Software Financial Cooperative	101	Bid guarantee, etc.
Financial assets at FVTOCI	Korean treasury and government bonds	Korea Securities Depository	470	Related to bonds sold under repurchase agreements (*)
	Korean financial institutions' debt securities, etc	The BOK and others	3,666,849	Settlement risk and others
	Foreign financial institutions' debt securities	STANDARD BANKLONDON LTD	126,595	Related to bonds sold under repurchase agreements (*)
Securities at amortized cost	Korean treasury and government bonds	The BOK and others	8,977,748	Settlement risk and others
	Foreign financial institutions' debt securities	NATIXIS and others	38,995	Related to bonds sold under repurchase agreements (*)
	Foreign financial institutions' debt securities	FHLB ADVANCE and others	10,375	Related to the borrowing limit
Loan at amortized cost and other financial assets	Due from banks in local currency	Daishin AMC Co.,Ltd. and others	1,500	Right of pledge
	Other due from banks in local currency	Samsung Securities Co., Ltd. and others	25,338	Margin deposit for futures or option
	Other due from banks in foreign currency	Yuanta Securities Korea Co., Ltd., etc.	1,051,006	Overseas futures option deposit, etc.
	Mortgage loan	Public offering	2,494,333	Related to covered bonds
Premises and equipment	Land and building	Credit Counselling & Recovery Service and others	1,910	Right to collateral and others
Investment properties	Land and building	Credit Counselling & Recovery Service and others	5,520	Right to collateral and others
Total			<u>17,395,551</u>	

(\*) The Group has the agreements to repurchase the sold assets at the predetermined price or the price that includes the rate of return and to provide the guarantee on the assets. The transferee has the right to sell or to provide as guarantee. Therefore, the Group does not derecognize the assets, but recognizes the relevant amounts as liability (bonds sold under repurchase agreements). The asset is equivalent to a mortgage-backed debt security.

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(2) As of December 31, 2022 and 2021 there is no asset acquired through foreclosures.

	December 31, 2022	December 31, 2021
Investment properties		
Land	6,404	2,185
Building	165	181
Sub-total	6,569	2,366
Other assets		
Land for non-business use	21,302	21,156
Building for non-business use (*1)	3,049	1,526
Movables for non-business use (*2)	165	120
Real estate assessment provision for non-business use	(1,176)	(1,129)
Sub-total	23,340	21,673
Assets held for sale		
Land	2,351	2,980
Building	1,832	2,557
Others	-	418
Sub-total	4,183	5,955
Total	34,092	29,994

(\*1) The cumulative depreciation amount as of December 31, 2022 and 2021 is 1,055 million Won and 716 million Won, respectively.

(\*2) The cumulative depreciation amount as of December 31, 2022 and 2021 is 882 million Won and 907 million Won, respectively.

(3) Securities loaned are as follows (Unit: Korean Won in millions):

		December 31, 2022	December 31, 2021	
Financial assets at FVTOCI	Korean treasury and government bonds	98,027	98,535	Loaned to Korea Securities Finance Corporation

Securities loaned are lending of specific securities to borrowers who agree to return the same amount of the same security at the end of lending period. As the Group does not derecognize these securities.

(4) Collaterals held that can be disposed and re-subjected to lien regardless of defaults of counterparties

Fair values of collaterals held that can be disposed and re-subjected to lien regardless of defaults of counterparties as of December 31, 2022 and 2021 are as follows (Unit: Korean Won in millions):

	December 31, 2022	
	Fair values of collaterals	Fair values of collaterals were disposed or re-subjected to lien
Securities	7,109,933	-
	December 31, 2021	
	Fair values of collaterals	Fair values of collaterals were disposed or re-subjected to lien
Securities	10,785,412	-

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**19. OTHER ASSETS**

Details of other assets are as follows (Unit: Korean Won in millions):

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Lease assets	2,593,578	1,782,887
Prepaid expenses	287,323	189,808
Advance payments	99,772	61,042
Non-operational assets	23,340	16,248
Others	57,539	38,965
Total	<u>3,061,552</u>	<u>2,088,950</u>

**20. FINANCIAL LIABILITIES AT FVTPL**

(1) Financial liabilities at FVTPL are as follows (Unit: Korean Won in millions):

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Financial instruments at fair value through profit or loss measured at fair value	8,952,399	4,873,458
Total	<u>8,952,399</u>	<u>4,873,458</u>

(2) Financial liabilities at fair value through profit or loss measured at fair value are as follows (Unit: Korean Won in millions):

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Deposits		
Gold banking liabilities	35,161	65,016
Borrowings		
Securities sold	12,113	241,174
Derivative liabilities	8,905,125	4,567,268
Total	<u>8,952,399</u>	<u>4,873,458</u>

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**21. DEPOSITS DUE TO CUSTOMERS**

Details of deposits due to customers by type are as follows (Unit: Korean Won in millions):

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Deposits in local currency:		
Deposits on demand	15,627,300	18,029,136
Deposits at termination	270,092,855	254,319,473
Mutual installment	22,995	24,620
Deposits on notes payables	3,675,596	2,954,066
Deposits on CMA	60,079	92,360
Certificate of deposits	5,255,889	3,586,423
Other deposits	1,196,486	1,286,719
Sub-total	<u>295,931,200</u>	<u>280,292,797</u>
Deposits in foreign currencies:		
Deposits in foreign currencies	46,263,943	37,643,900
Present value discount	(92,352)	(36,826)
Sub-total	<u>46,171,591</u>	<u>37,607,074</u>
Customers' deposits for beneficiary	2,418	-
Total	<u><u>342,105,209</u></u>	<u><u>317,899,871</u></u>

**22. BORROWINGS AND DEBENTURES**

(1) Details of borrowings are as follows (Unit: Korean Won in millions):

	<u>December 31, 2022</u>		
	<u>Lenders</u>	<u>Interest rate (%)</u>	<u>Amount</u>
Borrowings in local currency:			
Borrowings from The BOK	The BOK	0.3 ~ 1.8	3,040,877
Borrowings from government funds	Small Enterprise and Market Service and others	0.0 ~ 3.5	2,021,049
Others	The Korea Development Bank and others	0.0 ~ 6.7	<u>9,562,082</u>
Sub-total			<u>14,624,008</u>
Borrowings in foreign currencies:			
Borrowings in foreign currencies	The Export-Import Bank of Korea and others	(0.1) ~ 10.6	11,161,294
Bills sold	Others	0.0 ~ 2.4	7,308
Call money	Bank and others	1.6 ~ 5.5	400,071
Bonds sold under repurchase agreements	Other financial institutions	0.2 ~ 6.4	2,313,044
Present value discount			<u>(76,122)</u>
Total			<u><u>28,429,603</u></u>

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	December 31, 2021		
	Lenders	Interest rate (%)	Amount
Borrowings in local currency:			
Borrowings from The BOK	The BOK	0.3	3,144,897
Borrowings from government funds	Small Enterprise and Market Service and others	0.0 ~ 2.4	2,053,611
Others	The Korea Development Bank and others	0.0 ~ 3.1	9,984,518
Sub-total			<u>15,183,026</u>
Borrowings in foreign currencies:			
Borrowings in foreign currencies	JPMorgan Chase & Co. and others	(0.5) ~ 7.3	8,545,077
Bills sold	Others	0.0 ~ 1.3	9,111
Call money	Bank and others	(0.5) ~ 2.6	317,961
Bonds sold under repurchase agreements	Other financial institutions	(0.5) ~ 10.6	749,976
Present value discount			(49,692)
Total			<u>24,755,459</u>

(\*) As of December 31, 2021, foreign currency borrowings subject to fair value hedges were included in the amount of 35,694 million Won.

(2) Details of debentures are as follows (Unit: Korean Won in millions):

	December 31, 2022		December 31, 2021	
	Interest rate (%)	Amount	Interest rate (%)	Amount
Face value of bond (*):				
Ordinary bonds	0.8 ~ 7.5	37,132,334	0.7 ~ 3.6	37,004,942
Subordinated bonds	1.9 ~ 5.1	5,835,325	1.9 ~ 5.1	6,767,442
Other bonds	0.8 ~ 17.0	1,271,364	0.8 ~ 17.0	911,190
Sub-total		<u>44,239,023</u>		<u>44,683,574</u>
Discounts on bonds		(40,537)		(29,710)
Total		<u>44,198,486</u>		<u>44,653,864</u>

(\*) Included debentures under fair value hedge amounting to 3,076,983 million won and 2,366,724 million won as of December 31, 2022 and 2021 respectively. Also, debentures under cash flow hedge amounting to 1,324,812 million won and 819,298 million won are included as of December 31, 2022 and 2021 respectively.

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**23. PROVISIONS**

(1) Details of provisions are as follows (Unit: Korean Won in millions):

	December 31, 2022	December 31, 2021
Asset retirement obligation	82,717	80,777
Provisions for guarantees (*1)	76,508	74,866
Provisions for unused loan commitments	106,033	112,296
Other provisions (*2)	280,607	308,195
Total	<u>545,865</u>	<u>576,134</u>

(\*1) Provisions for guarantees includes provision for financial guarantee of 47,969 million won and 53,321 million won as of December 31, 2022 and 2021, respectively.

(\*2) Other provisions consist of provision for litigation, loss compensation and others.

(2) Changes in provisions for guarantees and unused loan commitments are as follows (Unit: Korean Won in millions):

1) Provisions for guarantees

	For the year ended December 31, 2022			
	Stage1	Stage2	Stage3	Total
Beginning balance	52,830	15,269	6,767	74,866
Transfer to 12-month expected credit loss	1,206	(1,206)	-	-
Transfer to expected credit loss for the entire period	(119)	119	-	-
Transfer to credit-impaired financial assets	(3)	(338)	341	-
Provisions used	-	-	-	-
Net provision (reversal) of unused amount	(3,449)	10,483	577	7,611
Others (*)	(5,969)	-	-	(5,969)
Ending balance	<u>44,496</u>	<u>24,327</u>	<u>7,685</u>	<u>76,508</u>

(\*) Recognized as a result of new financial guarantee contract valued at initial fair value.

	For the year ended December 31, 2021			
	Stage1	Stage2	Stage3	Total
Beginning balance	64,804	16,745	8,043	89,592
Transfer to 12-month expected credit loss	2,146	(2,144)	(2)	-
Transfer to expected credit loss for the entire period	(162)	193	(31)	-
Transfer to credit-impaired financial assets	(3)	(162)	165	-
Provisions used	(6,964)	-	-	(6,964)
Net provision (reversal) of unused amount	(9,929)	636	(1,408)	(10,701)
Others (*)	2,938	1	-	2,939
Ending balance	<u>52,830</u>	<u>15,269</u>	<u>6,767</u>	<u>74,866</u>

(\*) Recognized as a result of new financial guarantee contract valued at initial fair value.

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2) Provisions for unused loan commitment

	For the year ended December 31, 2022			
	Stage1	Stage2	Stage3	Total
Beginning balance	67,440	44,536	320	112,296
Transfer to 12-month expected credit loss	14,349	(14,217)	(132)	-
Transfer to expected credit loss for the entire period	(2,619)	2,648	(29)	-
Transfer to credit-impaired financial assets	(197)	(306)	503	-
Net provision (reversal) of unused amount	(11,402)	5,527	(457)	(6,332)
Others	69	-	-	69
Ending balance	67,640	38,188	205	106,033

	For the year ended December 31, 2021			
	Stage1	Stage2	Stage3	Total
Beginning balance	63,240	55,726	3,189	122,155
Transfer to 12-month expected credit loss	15,522	(14,965)	(557)	-
Transfer to expected credit loss for the entire period	(2,338)	3,129	(791)	-
Transfer to credit-impaired financial assets	(110)	(226)	336	-
Net provision (reversal) of unused amount	(9,005)	871	(1,857)	(9,991)
Others	131	1	-	132
Ending balance	67,440	44,536	320	112,296

(3) Changes in asset retirement obligation for the years ended December 31, 2022 and 2021, are as follows  
(Unit: Korean Won in millions):

	For the years ended December 31	
	2022	2021
Beginning balance	80,777	68,402
Provisions provided	4,082	3,235
Provisions used	(7,400)	(5,066)
Reversal of provisions unused	(21)	(947)
Unwinding of discount	909	495
Increase (decrease) of restoration expense, etc.	4,370	14,658
Ending balance	82,717	80,777

The amount of the asset retirement obligation is the present value of the best estimate of future expected expenditure to settle the obligation – arising from leased premises as of December 31, 2022, discounted by appropriate discount rate. The restoration cost is expected to occur by the end of each premise's lease period, and the Group has used average lease period of each category of leases terminated during the past years in order to rationally estimate the lease period. In addition, the Group used average amount of actual recovery cost for the past 3 years and the inflation rate for last year in order to estimate future recovery cost.

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- (4) Changes in other provisions for the years ended December 31, 2022 and 2021, are as follows (Unit: Korean Won in millions):

	For the years ended	
	December 31	
	2022	2021
Beginning balance	308,195	221,494
Provisions provided	36,284	85,706
Provisions used	(8,540)	(10,375)
Reversal of provisions unused (*)	(54,893)	(718)
Foreign currencies translation adjustments	(621)	11,957
Others	182	131
Ending balance	280,607	308,195

(\*) The Group provided Korean won settlement services for trading transaction settlement between Korea and Iran, investigated by U.S. prosecutors (federal prosecutors, New York state prosecutors) and New York State Department of Financial Services for violations of U.S. sanctions against Iran, Sudan, Syria and Cuba. In this regard, the Office of Foreign Assets Control concluded its investigation in December 2020 urging the bank's attention without taking any additional sanctions, and New York State Department of Financial Services concluded its investigation in February 2022 without taking any additional sanctions. Meanwhile, in June 2022, the Group reversed the provision related to the investigation of the U.S. Prosecutors, which have not been completed yet, in consideration of the opinion of an independent legal expert that the probability of sanctions by the U.S. Prosecutors in this case is low.

(5) Others

- 1) The Group recognized the provision of the estimated compensation amount related to the miss-selling of the Derivative Linked Fund (DLF) incurred during 2019 and a fine expected to be imposed by the Financial Supervisory Service as the best estimate for the expenditure required to meet its obligations at the end of the reporting period.
- 2) For the year ended December 31, 2020, the Group recognized the provisions as the best estimate due to the expected losses of clients arising from the delay in the redemption of funds by Lime Asset Management and the dispute settlement by the Financial Supervisory Service. As of December 31, 2022, the provision for this case is 122.1 billion won.
- 3) On October 22, 2021, the Group made a resolution to pay in advance for Platform Asia funds, etc., which are delayed in redemption at the Board of Directors Meeting of Woori Bank, the subsidiary. Provisions for estimated compensation amounts related to the prepayment was recognized as the best estimate of the expenditure. As of December 31, 2022, the sales revenue for Platform Asia, Heritage DLS, and Gen2 DLS sold 85 billion won, 22.3 billion won, and 90.2 billion won, respectively, and provisions is 35.7 billion won, 22.3 billion won, and 12.6 billion won, respectively.

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**24. NET DEFINED BENEFIT LIABILITY(ASSET)**

The Group's pension plan is based on the defined benefit retirement pension plan. Employees and directors with one or more years of service are entitled to receive a payment upon termination of their employment, based on their length of service and rate of salary at the time of termination. The assets of the plans are measured at their fair value at the end of reporting date. The plan liabilities are measured using the projected unit method, which takes account of projected earnings increases, using actuarial assumptions that give the best estimate of the future cash flows that will arise under the plan liabilities.

The Group is exposed to various risks through defined benefit retirement pension plan, and the most significant risks are as follows:

Volatility of asset	The defined benefit obligation was estimated with an interest rate calculated based on blue chip corporate bonds earnings. A deficit may occur if the rate of return of plan assets falls short of the interest rate.
Decrease in profitability of blue-chip bonds	A decrease in profitability of blue-chip bonds will be offset by some increase in the value of debt securities that the employee benefit plan owns but will bring an increase in the defined benefit obligation.
Risk of inflation	Defined benefit obligations are related to inflation rate; the higher the inflation rate is, the higher the level of liabilities. Therefore, deficit occurs in the system if an inflation rate increases.

(1) Details of net defined benefit liability are as follows (Unit: Korean Won in millions):

	December 31, 2022	December 31, 2021
Present value of defined benefit obligation	1,377,545	1,618,098
Fair value of plan assets	(1,661,623)	(1,591,458)
Net defined benefit liabilities (*)	<u>(284,078)</u>	<u>26,640</u>

(\*) Net defined benefit assets of 284,078 million won as of December 31, 2022 are the subtracted amount of the net defined benefit liability of 35,202 million won from the net defined benefit assets of 319,280. Net defined benefit liability of 26,640 million won as of December 31, 2021 are the subtracted amount of the net defined benefit asset of 21,346 million won from the net defined benefit liability of 47,986.

(2) Changes in the carrying value of defined benefit obligation are as follows (Unit: Korean Won in millions):

	For the years ended December 31	
	2022	2021
Beginning balance	1,618,098	1,610,680
Current service cost	166,741	178,416
Interest cost	48,238	39,814
Remeasurements	(356,344)	(92,367)
Financial assumption	(9)	(251)
Demographic assumptions	(3,838)	(12,155)
Experience adjustments	(92,914)	(106,050)
Retirement benefit paid	(69)	165
Foreign currencies translation adjustments	(2,358)	(154)
Others	<u>1,377,545</u>	<u>1,618,098</u>
Ending balance	<u>1,377,545</u>	<u>1,618,098</u>

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(3) Changes in the plan assets are as follows (Unit: Korean Won in millions):

	For the years ended December 31	
	2022	2021
Beginning balance	1,591,458	1,564,101
Interest income	49,916	40,927
Remeasurements	(18,095)	(15,022)
Employer's contributions	127,979	103,251
Retirement benefit paid	(87,472)	(99,523)
Others	(2,163)	(2,276)
Ending balance	1,661,623	1,591,458

(4) The fair value of the plan assets by composition is as follows as of December 31, 2022 and 2021.

	December 31, 2022	December 31, 2021
Cash and due from banks	1,661,623	1,591,458

Meanwhile, among plan assets, realized returns on plan assets amount to 31,821 million won and 25,905 million won for the years ended December 31, 2022 and 2021, respectively. The contribution expected to be paid in the next accounting year amounts to 123,043 million won.

(5) Amounts related to the defined benefit plan that are recognized in the consolidated statements of comprehensive income are as follows (Unit: Korean Won in millions):

	For the years ended December 31	
	2022	2021
Current service cost	166,741	178,416
Net interest expense	(1,678)	(1,113)
Cost recognized in net income	165,063	177,303
Remeasurements (*)	(342,096)	(89,751)
Cost recognized in total comprehensive income	(177,033)	87,552

(\*) Amount before tax

Retirement benefits related to defined contribution plans recognized as expenses are 4,240 million won, and 4,494 million won for the years ended December 31, 2022 and 2021, respectively.

(6) Key actuarial assumptions used in net defined benefit liability measurement are as follows:

	December 31, 2022	December 31, 2021
Discount rate	5.25% ~ 5.99%	2.40% ~ 3.49%
Future wage growth rate	2.1% ~ 5.84%	2.03% ~ 5.56%
Mortality rate	Issued by Korea Insurance Development Institute	Issued by Korea Insurance Development Institute
Retirement rate	Experience rate for each employment classification	Experience rate for each employment classification

The weighted average maturity of defined benefit liability is a minimum of 5.38 to a maximum 10.71 years.

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(7) The sensitivity to actuarial assumptions used in the assessment of defined benefit obligation is as follows (Unit: Korean Won in millions):

		<u>December 31, 2022</u>	<u>December 31, 2021</u>
Discount rate	Increase by 1% point	(146,319)	(161,428)
	Decrease by 1% point	170,529	189,630
Future wage growth rate	Increase by 1% point	174,546	188,392
	Decrease by 1% point	(153,712)	(163,431)

**25. OTHER FINANCIAL LIABILITIES AND OTHER LIABILITIES**

Other financial liabilities and other liabilities are as follows (Unit: Korean Won in millions):

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Other financial liabilities:		
Accounts payable	6,001,858	6,969,170
Accrued expenses	3,219,349	2,070,639
Borrowings from trust accounts	3,475,118	3,107,456
Agency business revenue	213,845	433,041
Foreign exchange payables	822,446	782,176
Domestic exchange settlement credits	4,631,921	6,708,220
Lease liabilities	319,161	343,213
Other miscellaneous financial liabilities	4,148,621	3,772,437
Present value discount	(20,451)	(15,322)
Sub-total	<u>22,811,868</u>	<u>24,171,030</u>
Other liabilities:		
Unearned income	351,633	291,147
Other miscellaneous liabilities	338,524	265,706
Sub-total	<u>690,157</u>	<u>556,853</u>
Total	<u><u>23,502,025</u></u>	<u><u>24,727,883</u></u>



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(2) Overview of the Group's hedge accounting

The hedging relationships the entity applies fair value hedge accounting and cash flow hedge accounting to are affected by interest rate which is related with Interest Rate Benchmark Reform. The interest rates to which the hedging relationships are exposed are USD 3M LIBOR, Compounding SOFR, AUD 3M BBSW, and CD 3M. The nominal amounts of hedging instruments related to USD 3M LIBOR, Compounding SOFR, AUD 3M BBSW, and CD 3M in the hedging relationships of the Group are USD 2,120,000,000, USD 525,000,000, AUD 150,000,000, and 150,000 million Won, respectively. The entity pays close attention to discussions in the market and industry regarding the applicable alternative benchmark interest rates for the exposed interest rate. The entity judges related uncertainty is expected to be no longer present when the exposed interest rates are replaced by the applicable benchmark interest rates.

1) Fair value hedge

As of December 31, 2022, the Group has applied fair value hedge on fixed interest rate foreign currency denominated debentures amounting to 2,928,127 million Won, and foreign currency loans amounting to 148,856 million Won. The purpose of the hedging is to avoid fair value volatility risk of fixed interest rate foreign currency denominated debentures derived from fluctuations of market interest rate, and as such the Group entered into interest rate swap agreements designated as hedging instruments.

Pursuant to the interest rate swap agreement, by swapping the calculated difference between the fixed interest rate and floating interest rate applied to the nominal value, the fair value fluctuation risk is hedged as the foreign currency denominated debentures fixed interest rate terms are converted to floating interest rate. Pursuant to the interest rate swap agreement, hedge ratio is determined by matching the nominal value of hedging instrument to the face value of the hedged item.

In this hedging relationship, only the market interest rate fluctuation, which is the most significant part of the fair value change of the hedged item, is designated as the hedged risk, and other risk factors including credit risk are not included in the hedged risk. Therefore, the ineffective portion of the hedge could arise from fluctuations in the timing of the cash flow of the hedged item, price margin set by counterparty of hedging instrument, and unilateral change in credit risk of any party of hedging instrument.

The interest rate swap agreements and the hedged items are subject to fluctuations in the underlying market rate of interest and the Group expects the fair value of the interest rate swap contract and the value of the hedged item to generally change in the opposite direction.

The fair value of the interest rate swap at the end of the reporting period is determined by discounting future cash flows estimated by using the yield curve at the end of the reporting period and the credit risk embedded in the contract and the average interest rate is determined based on the outstanding balance at the end of the reporting period. The variable interest rate applied to the interest rate swap is USD Libor 3M plus spread, AUD BBSW 3M plus spread and EURIBOR 3M plus spread. In accordance with the terms of each interest rate swap contract designated as a hedging instrument, the Group receives interest at a fixed interest rate and pays interest at a variable interest rate.

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2) Cash Flow Hedge

As of the December 31, 2022, the Group has applied cash flow hedge on local currency denominated debentures amounting to 229,892 million won and debentures on foreign currency amounting to 1,094,920 million won. The Group's hedging strategies are to ① Mitigate risks of cash flow fluctuation from variable interest rate debentures on local currency due to changes in market interest rate by entering into an interest rate swap contract and thereby designating it as hedging instrument; ② Mitigate the risks of cash flow fluctuation from principal and interest of variable interest rate debentures denominated in foreign currency due to changes in foreign exchange rates and interest rates by entering into a currency swap contract and thereby designating it as hedging instrument; ③ Mitigate the risks of cash flow fluctuation from principal and interest of fixed interest rate debentures denominated in foreign currency due to changes in foreign exchange rates by entering into a currency swap contract and thereby designating it as hedging instrument.

This means exchanging a predetermined nominal amount as set forth in the interest rate swap contract adjusted by the differences between the fixed and variable interest rates, which results in the conversion of interest rates of debentures in local currency from variable interest into fixed interest, eliminating the cash flow fluctuation risk.

In addition, this also means a payment of predetermined principal amount as set forth in the currency swap adjusted by fixed interest rate, an exchange of an amount calculated by applying variable interest rate to USD or applying fixed interest rate to SGD, and an exchange of the principal denominated in KRW and principal denominated in foreign currency at maturity eliminating cash flow fluctuation risk on principal and interest.

The hedge ratio is determined by matching the nominal amount of the hedging instrument to the face amount of the hedged item in accordance with interest rate swap and currency swap.

Only interest rate and foreign exchange rate fluctuation risk, which is the most significant factor in the cash flow fluctuation of the hedged item, is addressed in this hedging relationship, and other risk factors such as credit risk are not subject to hedging.

Thus, there could be hedge ineffectiveness arising from price margin set by the counterparty of hedging instruments and unilateral change in credit risk of any party in the transaction.

The interest rate swap, currency swap contract and the hedged item are all affected by the changes in market interest rate and foreign exchange rates which are basic factors of the derivative. The Group expects that the value of interest rate swap contract, currency swap contract and value of the hedged item will generally fluctuate in opposite direction.

3) Hedges of Net Investment in Foreign Operations

Foreign currency exposure arises from the Group's net investments in Woori America Bank, Woori Cambodia Bank and Hong Kong Woori Investment Bank, and overseas branches, which use USD as their functional currency. The risk arises from fluctuations in the spot exchange rate between USD and KRW. This may result in different net investment amounts.

The risk hedged in the net investment hedging is the weakness of KRW against USD, which may reduce the carrying amount of the Group's net investments in Woori America Bank, Woori Cambodia Bank and Hong Kong Woori Investment Bank.

A portion of the Group's net investments in Woori America Bank, Woori Cambodia Bank and Hong Kong Woori Investment Bank are hedged in USD denominated foreign currency bonds (Carrying amount as of December 31, 2022: USD 864,390,437) and mitigate foreign exchange risk arising from the net assets of subsidiaries.

The bonds were designated as a hedging instrument for changes in the value of net investment resulting from fluctuations in the USD/KRW spot exchange rate.

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To assess the effectiveness of the hedging instrument, the Group determines the economic relationship between the hedging instrument and the hedged item by comparing (offsetting) changes in the carrying amount of the liability due to changes in the spot exchange rate with changes. The Group's policy is to hedge the net investment only within the principal range of the liability.

- (3) The nominal amounts of the hedging instrument are as follows (Unit: USD, AUD, EUR, and Korean Won in millions):

	December 31, 2022			Total
	1 year or less	1 year to 5 years	More than 5 years	
Fair value hedge				
Interest rate risk				
Interest rate swap (USD)	-	2,075,000,000	300,000,000	2,375,000,000
Interest rate swap (AUD)	150,000,000	-	-	150,000,000
Interest rate swap (KRW)	150,000	-	-	150,000
Cash flow hedge				
Interest rate risk				
Interest rate swap (KRW)	50,000	140,000	-	190,000
Foreign currencies translation risk and interest rate risk				
Currency swap (USD)	-	270,000,000	-	270,000,000
Foreign currencies translation risk				
Currency swap (USD)	80,000,000	100,000,000	-	180,000,000
Currency swap (EUR)	-	194,780,000	-	194,780,000
Hedges of net investment in foreign operations				
Exchange risk				
Foreign currency bond (USD)	272,390,437	592,000,000	-	864,390,437
	December 31, 2021			
	1 year or less	1 year to 5 years	More than 5 years	Total
Fair value hedge				
Interest rate risk				
Interest rate swap (USD)	-	1,550,000,000	300,000,000	1,850,000,000
Interest rate swap (AUD)	-	150,000,000	-	150,000,000
Interest rate swap (EUR)	-	26,591,163	-	26,591,163
Cash flow hedge				
Interest rate risk				
Interest rate swap (KRW)	-	50,000	-	50,000
Foreign currencies translation risk and interest rate risk				
Currency swap (USD)	200,000,000	270,000,000	-	470,000,000
Foreign currencies translation risk				
Currency swap (USD)	-	180,000,000	-	180,000,000

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- (4) The average interest rate and average currency rate of the hedging instrument as of December 31, 2022 and 2021 are as follows:

	December 31, 2022
	Average interest rate and average exchange rate
Fair value hedge	
Interest rate risk	
Interest rate swap (USD)	Fixed 3.62% receipt and Libor 3M+1.45% floating paid
Interest rate swap (USD)	Fixed 2.05% receipt and (C.SOFR)+0.65% paid
Interest rate swap (AUD)	Fixed 0.84% receipt and BBSW 3M+0.72% paid
Interest rate swap (KRW)	Fixed 3.13% receipt and CD 3M paid
Cash flow hedge	
Interest rate risk	
Interest rate swap (KRW)	KRW CMS 5Y+0.46% receipt, 3.65% paid
Interest rate swap (KRW)	KRW CD+0.33% receipt, 1.68% paid
Foreign currencies translation risk and interest rate risk	
Currency swap (USD)	USD 1M Libor+0.79% receipt, KRW 0.80% paid, KRW/USD = 1,226.29
Foreign currencies translation risk	
Currency swap (USD)	USD 1.50% receipt, KRW 1.57% paid, KRW/USD = 1,140.50
Currency swap (EUR)	EUR 1.98% receipt, KRW 3.68% paid, KRW/EUR = 1,344.08
Hedges of net investment	
Exchanging rate risk	
Foreign currency denominated debentures(KRW/USD)	1,344.37
	December 31, 2021
	Average interest rate and average exchange rate
Fair value hedge	
Interest rate risk	
Interest rate swap (USD)	Fixed 3.62% receipt and Libor 3M + 1.45% floating paid
Interest rate swap (AUD)	Fixed 0.84% receipt and BBSW 3M+0.72% paid
Interest rate swap (EUR)	EURIBOR 3M + 0.09% receipt and 1.5% fixed paid
Cash flow hedge	
Interest rate risk	
Interest rate swap (KRW)	KRW CD+0.33% receipt, 1.68% paid
Foreign currencies translation risk and interest rate risk	
Currency swap (USD)	USD 1M Libor+0.70% receipt, KRW 0.93% paid, KRW/USD = 1,206.60
Foreign currencies translation risk	
Currency swap (USD)	USD 1.50% receipt, KRW 1.57% paid, KRW/USD = 1,140.50



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- (6) Details of carrying amount to hedge and amount due to hedge accounting are as follows (Unit: Korean Won in millions):

	December 31, 2022						
	Carrying amount of the hedged item		Accumulated amount of fair value hedge adjustments on the hedged item included in the carrying amount of the hedged item		Line item in the statement of financial position in which the hedged item is included	Changing in fair value used for calculating hedge ineffectiveness	Cash flow hedge reserve (*)
	Assets	Liabilities	Assets	Liabilities			
Fair value hedge							
Interest rate risk							
Debentures	-	3,076,983	-	(199,804)	Debentures	257,911	-
Cash flow hedge							
Interest rate risk							
Debentures	-	229,892	-	-	Debentures	(3,742)	2,531
Foreign currencies translation risk and interest rate risk							
Debentures	-	342,019	-	-	Debentures	(23,296)	8,648
Foreign currencies translation risk							
Debentures	-	752,901	-	-	Debentures	11,256	(24,600)
Hedges of net investment in foreign operations							
Exchange rate risk							
Foreign operations net asset	-	1,095,442	-	-	Foreign operations net asset	28,553	(38,797)

(\*) After tax amount

	December 31, 2021						
	Carrying amount of the hedged item		Accumulated amount of fair value hedge adjustments on the hedged item included in the carrying amount of the hedged item		Line item in the statement of financial position in which the hedged item is included	Changing in fair value used for calculating hedge ineffectiveness	Cash flow hedge reserve (*)
	Assets	Liabilities	Assets	Liabilities			
Fair value hedge							
Interest rate risk							
Debentures	-	2,366,724	-	53,160	Debentures	100,343	-
Foreign currency borrowing							
Foreign currency borrowing	-	35,694	-	-	Foreign currency borrowings	(17)	(17)
Cash flow hedge							
Interest rate risk							
Debentures	-	49,977	-	-	Debentures	(1,760)	281
Foreign currencies translation risk and interest rate risk							
Debentures	-	556,607	-	-	Debentures	(53,832)	5,859
Foreign currencies translation risk							
Debentures	-	212,715	-	-	Debentures	(7,609)	(305)

(\*) After tax amount

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- (7) Amounts recognized in profit or loss due to the ineffective portion of fair value hedges during the current period are as follows (Unit: Korean Won in millions):

		For the year ended December 31, 2022	
		Hedge ineffectiveness recognized in profit or loss	Line item in the profit or loss that includes hedge ineffectiveness
Fair value hedge	Interest rate risk	10,146	Other net operating income(expense)

  

		For the year ended December 31, 2021	
		Hedge ineffectiveness recognized in profit or loss	Line item in the profit or loss that includes hedge ineffectiveness
Fair value hedge	Interest rate risk	16,522	Other net operating income(expense)

- (8) Reclassification of profit or loss from other comprehensive income and equity related to cash flow hedges are as follows (Unit: Korean Won in millions):

		For the year ended December 31, 2022					
		Changes in the value of hedging instruments recognized in OCI	Hedge ineffectiveness recognized in profit or loss	Changes in the value of foreign basis spread recognized in OCI	Line item recognized in the profit or loss	Amounts reclassified from cash flow hedge reserve to profit or loss	Line item affected in profit or loss due to reclassification
Cash flow hedge	Interest rate risk	1,653	37	-	Other net operating income (expense)	220	Other net operating income (expense)
	Foreign currencies translation risk and interest rate risk	58,253	-	(1,721)	Other net operating income (expense)	(53,743)	Other net operating income (expense)
	Foreign currencies translation risk	(969)	-	2,046	Other net operating income (expense)	(16,111)	Other net operating income (expense)

  

		For the year ended December 31, 2021					
		Changes in the value of hedging instruments recognized in OCI	Hedge ineffectiveness recognized in profit or loss	Changes in the value of foreign basis spread recognized in OCI	Line item recognized in the profit or loss	Amounts reclassified from cash flow hedge reserve to profit or loss	Line item affected in profit or loss due to reclassification
Cash flow hedge	Interest rate risk	1,641	256	-	Other net operating income (expense)	-	Other net operating income (expense)
	Foreign currencies translation risk and interest rate risk	60,394	169	(2,300)	Other net operating income (expense)	(52,126)	Other net operating income (expense)
	Foreign currencies translation risk	8,476	(258)	416	Other net operating income (expense)	(9,045)	Other net operating income (expense)

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(9) The amounts recognized in profit or loss and other comprehensive income related to the hedging of net investments in foreign operations are as follows (Unit: Korean Won in millions):

		<u>For the year ended December 31, 2022</u>		
		<u>Profit or loss recognized in OCI</u>	<u>Hedge ineffectiveness recognized in profit or loss</u>	<u>Line item which recognized the hedge ineffectiveness</u>
Hedges of net investment in foreign operation	Exchange rate risk	(38,797)	-	-

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**27. DEFERRED DAY 1 PROFITS OR LOSSES**

Changes in deferred day 1 profits or losses are as follows (Unit: Korean Won in millions):

	For the years ended December 31	
	2022	2021
Beginning balance	29,111	6,939
New transactions	21,656	49,523
Amounts recognized in losses	(32,803)	(27,351)
Ending balance	17,964	29,111

In case some variables to measure fair values of financial instruments are not observable in the market, valuation techniques are utilized to evaluate such financial instruments. Those financial instruments are recorded the transaction price as at the time of acquisition, even though there are difference noted between the transaction price and the fair value. The table above presents the difference yet to be realized as profit or losses as of December 31, 2022 and 2021.

**28. EQUITY**

(1) Details of equity as of December 31, 2022 and 2021 are as follows (Unit: Korean Won in millions):

	December 31, 2022	December 31, 2021
Capital		
Common stock capital	3,640,303	3,640,303
Hybrid securities	3,112,449	2,294,381
Capital surplus		
Paid in capital in excess of par	643,544	643,544
Others	38,841	38,841
Sub-total	682,385	682,385
Capital adjustments		
Treasury stocks	(3,819)	(3,819)
Other adjustments (*1)	(1,780,367)	(1,747,242)
Sub-total	(1,784,186)	(1,751,061)
Accumulated other comprehensive income		
Financial assets at FVTOCI	(645,731)	(162,522)
Changes in capital due to equity method	475	(138)
Gain (loss) on foreign currency translation of foreign operations	(24,202)	(63,781)
Gain (loss) on hedges of net investment in foreign operations	(20,701)	-
Remeasurements of defined benefit plan	55,235	(195,944)
Gain (loss) on valuation of cash flow hedge	(4,282)	5,553
Capital related to non-current assets held for sale	-	279
Sub-total	(639,206)	(416,553)
Retained earnings (*2) (*3)	23,750,152	21,392,564
Non-controlling interest (*4)	2,865,445	3,008,176
Total	31,627,342	28,850,195

(\*1) Included 178,060 million Won in capital transaction gains and losses recognized by Woori Bank and (formerly) Woori Financial Group in 2014 and 2,238,228 million Won due to the spin-off of Gyeongnam Bank and Gwangju Bank.

(\*2) The regulatory reserve for credit losses in retained earnings amounted to 2,966,960 million Won and 2,568,367 million Won as of December 31, 2022 and 2021, respectively in accordance with the relevant article.

(\*3) The earned surplus reserve in retained earnings amounted to 181,860 million Won and 122,370 million Won as of December 31, 2022 and 2021 in accordance with the Article 53 of the Financial Holding Company Act.

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(\*4) The hybrid securities issued by Woori Bank amounting to 2,344,816 million Won and 2,555,166 million Won as of December 31, 2022 and 2021, respectively, are recognized as non-controlling interests. 113,995 million Won and 144,923 million Won of dividends for the hybrid securities issued by Woori Bank are allocated to net profit and loss of the non-controlling interests for the years ended December 31, 2022 and 2021, respectively.

(2) The number of authorized shares and others of the Group are as follows:

	December 31, 2022	December 31, 2021
Shares of common stock authorized	4,000,000,000 Shares	4,000,000,000 Shares
Par value	5,000 Won	5,000 Won
Shares of common stock issued	728,060,549 Shares	728,060,549 Shares
Capital stock	3,640,303 million Won	3,640,303 million Won

(3) Hybrid securities

The bond-type hybrid securities classified as owner's equity are as follows (Unit: Korean Won in millions):

	Issue date	Maturity	Interest rate (%)	December 31, 2022	December 31, 2021
Securities in local currency	2019-07-18	-	3.49	500,000	500,000
Securities in local currency	2019-10-11	-	3.32	500,000	500,000
Securities in local currency	2020-02-06	-	3.34	400,000	400,000
Securities in local currency	2020-06-12	-	3.23	300,000	300,000
Securities in local currency	2020-10-23	-	3.00	200,000	200,000
Securities in local currency	2021-04-08	-	3.15	200,000	200,000
Securities in local currency	2021-10-14	-	3.60	200,000	200,000
Securities in local currency	2022-02-17	-	4.10	300,000	-
Securities in local currency	2022-07-28	-	4.99	300,000	-
Securities in local currency	2022-10-25	-	5.97	220,000	-
	Issuance cost			(7,551)	(5,619)
	Total			<u>3,112,449</u>	<u>2,294,381</u>

The hybrid securities mentioned above do not have maturity date but are redeemable after 5 years from date of issuance.

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(4) Accumulated other comprehensive income

Changes in the accumulated other comprehensive income are as follows (Unit: Korean Won in millions):

	For the year ended December 31, 2022				
	Beginning balance	Increase (decrease) (*)	Reclassification adjustments	Income tax effect	Ending balance
Net gain (loss) on valuation of financial assets at FVTOCI	(162,522)	(659,906)	21,498	155,199	(645,731)
Changes in capital due to equity method	(138)	6,563	-	(5,950)	475
Gain (loss) on foreign currency translation of foreign operations	(63,781)	33,368	-	6,211	(24,202)
Gain (loss) on hedges of net investment in foreign operations	-	(28,553)	-	7,852	(20,701)
Remeasurement gain (loss) related to defined benefit plan	(195,944)	346,553	-	(95,374)	55,235
Gain (loss) on valuation of cash flow hedge	5,553	(10,373)	(220)	758	(4,282)
Capital related to non-current assets held for sale	279	(385)	-	106	-
Total	<u>(416,553)</u>	<u>(312,733)</u>	<u>21,278</u>	<u>68,802</u>	<u>(639,206)</u>

(\*) The increase(decrease) of financial asset valuation profit or loss at fair value through other comprehensive income and non-current assets held for sale are changes due to the period evaluation, and the reclassification adjustments amounting to (10,254) million Won and 279 million Won are due to disposal of equity securities and non-current assets held for sale, respectively during the period.

	For the year ended December 31, 2021				
	Beginning balance	Increase (decrease) (*)	Reclassification adjustments	Income tax effect	Ending balance
Net gain (loss) on valuation of financial assets at FVTOCI	(9,833)	(174,113)	(32,624)	54,048	(162,522)
Changes in capital due to equity method	(2,609)	3,885	-	(1,414)	(138)
Gain (loss) on foreign currency translation of foreign operations	(298,363)	239,614	-	(5,032)	(63,781)
Remeasurement gain (loss) related to defined benefit plan	(261,195)	90,337	-	(25,086)	(195,944)
Gain (loss) on valuation of derivatives designated as cash flow hedges	(1,386)	6,416	1,221	(698)	5,553
Capital related to noncurrent assets held for sale	1,226	(1,306)	-	359	279
Total	<u>(572,160)</u>	<u>164,833</u>	<u>(31,403)</u>	<u>22,177</u>	<u>(416,553)</u>

(\*) The increase(decrease) of financial asset valuation profit or loss at fair value through other comprehensive income and non-current assets held for sale are changes due to the period evaluation, and the reclassification adjustments amounting to (2,220) million Won, 946 million Won and (947) million Won are due to disposal of equity securities, equity method investments and non-current assets held for sale, respectively during the period.

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(5) Regulatory Reserve for Credit Loss

In accordance with Article 26 ~ 28 of the Financial holding company Supervision Regulations, the Group calculates and discloses the regulatory reserve for credit loss.

1) Balance of the regulatory reserve for credit loss

Balance of the planned regulatory reserve for credit loss is as follows (Unit: Korean Won in millions):

	December 31, 2022	December 31, 2021
Beginning balance	2,966,960	2,568,367
Planned provision of regulatory reserve (reversal) for credit loss	(127,485)	398,593
Ending balance	<u>2,839,475</u>	<u>2,966,960</u>

2) Provision of regulatory reserve for credit loss, adjusted income after the provision of regulatory reserve and others

Planned reserves provided, adjusted net income after the planned reserves provided and adjusted EPS after the planned reserves provided are as follows (Unit: Korean Won in millions, except for EPS amount):

	For the years ended December 31	
	2022	2021
Net income before regulatory reserve	3,323,982	2,807,371
Provision of regulatory reserve (reversal) for credit loss	(127,485)	398,593
Adjusted net income after the provision of regulatory reserve	3,451,467	2,408,778
Dividends to hybrid securities	(91,756)	(66,250)
Adjusted net income after regulatory reserve and dividends to hybrid securities	3,359,711	2,342,528
Adjusted EPS after regulatory reserve and the dividends to hybrid securities (Unit: Korean Won)	4,615	3,234

(6) Treasury stock

Details of treasury stocks are as follows (Unit: Shares, Korean Won in millions):

	December 31, 2022		December 31, 2021	
	Number of shares	Carrying amount	Number of shares	Carrying amount
Beginning balance	343,991	3,819	2	-
Acquisition	-	-	343,989	3,819
Ending balance	<u>343,991</u>	<u>3,819</u>	<u>343,991</u>	<u>3,819</u>

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**29. DIVIDENDS**

- (1) Dividends per share and the total dividends for the fiscal year ending December 31, 2021 were 750 Won and 546,044 million Won, respectively, and the dividends were approved at the regular general shareholders' meeting held on March 25, 2022 and were paid in April 2022.
- (2) On July 22, 2022, in accordance with a resolution of the Board of Directors, the Group declared the interim dividend of 150 Won per share (total dividend of 109,209 million Won) with June 30, 2022 as base date, and the dividends were paid in August 2022.
- (3) A dividend in respect of the year ended December 31, 2022, of 980 won per share, amounting to a total dividend of 713,497 million won, is to be proposed to shareholders at the annual general meeting on March 24, 2023. These financial statements do not include this dividend payable.

**30. NET INTEREST INCOME**

- (1) Interest income recognized is as follows (Unit: Korean Won in millions):

	For the years ended December 31	
	2022	2021
Financial assets at FVTPL	106,698	45,803
Financial assets at FVTOCI	632,615	381,814
Financial assets at amortized cost:		
Securities at amortized cost	515,246	324,920
Loans and other financial assets at amortized cost:		
Interest on due from banks	244,331	46,600
Interest on loans	13,109,022	9,065,074
Interest of other receivables	46,637	30,538
Subtotal	13,399,990	9,142,212
Total	14,654,549	9,894,749

- (2) Details of interest expense recognized are as follows (Unit: Korean Won in millions):

	For the years ended December 31	
	2022	2021
Interest on deposits due to customers	4,120,811	1,906,858
Interest on borrowings	598,185	219,994
Interest on debentures	1,036,191	727,093
Other interest expense	195,090	47,647
Interest on lease liabilities	7,693	7,436
Total	5,957,970	2,909,028

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**31. NET FEES AND COMMISSIONS INCOME**

(1) Details of fees and commissions income recognized are as follows (Unit: Korean Won in millions):

	For the years ended December 31	
	2022	2021
Fees and commission received for brokerage	185,545	182,794
Fees and commission received related to credit	189,856	197,125
Fees and commission received for electronic finance	130,712	131,941
Fees and commission received on foreign exchange handling	56,812	56,210
Fees and commission received on foreign exchange	96,713	73,894
Fees and commission received for guarantee	85,340	76,428
Fees and commission received on credit card	594,897	573,048
Fees and commission received on securities business	111,211	100,991
Fees and commission from trust management	266,447	216,203
Fees and commission received on credit information	10,190	10,220
Fees and commission received related to lease	572,563	374,900
Other fees	199,414	177,951
Total	2,499,700	2,171,705

(2) Details of fees and commissions expense incurred are as follows (Unit: Korean Won in millions):

	For the years ended December 31	
	2022	2021
Fees and commissions paid	325,536	261,734
Credit card commission	446,885	425,796
Securities business commission	1,414	1,605
Others	15,695	11,795
Total	789,530	700,930

**32. DIVIDEND INCOME**

(1) Details of dividend income recognized are as follows (Unit: Korean Won in millions):

	For the years ended December 31	
	2022	2021
Dividend income related to financial assets at FVTPL	136,136	284,683
Dividend income related to financial assets at FVTOCI	23,846	24,528
Total	159,982	309,211

(2) Details of dividends related to financial assets at FVTOCI are as follows (Unit: Korean Won in millions):

	For the years ended December 31	
	2022	2021
Dividend income recognized from assets held:		
Equity securities	23,846	24,528

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**33. NET GAIN OR LOSS ON FINANCIAL INSTRUMENTS AT FAIR VALUE THROUGH PROFIT OR LOSS MANDATORILY MEASURED AT FAIR VALUE**

- (1) Details of gains or losses related to net gain or loss on financial instruments at FVTPL are as follows (Unit: Korean Won in millions):

	For the years ended December 31	
	2022	2021
Gain on financial instruments at fair value through profit or loss measured at fair value	238,502	325,649
Gain on financial instruments at fair value through profit or loss designated as upon initial recognition	-	102
Total	238,502	325,751

- (2) Details of net gain or loss on financial instruments at fair value through profit or loss measured at fair value and financial instruments held for trading are as follows (Unit: Korean Won in millions):

			For the years ended December 31		
			2022	2021	
Financial assets at FVTPL	Securities	Gain on transactions and valuation	294,667	249,803	
		Loss on transactions and valuation	(553,093)	(197,172)	
		Sub-total	(258,426)	52,631	
	Loans	Gain on transactions and valuation	24,005	24,674	
		Loss on transactions and valuation	(2,219)	(6,770)	
		Sub-total	21,786	17,904	
	Other financial assets	Gain on transactions and valuation	21,602	17,034	
		Loss on transactions and valuation	(12,314)	(12,370)	
		Sub-total	9,288	4,664	
	Sub-total		(227,352)	75,199	
	Derivatives (Held for trading)	Interest rates derivatives	Gain on transactions and valuation	5,216,543	2,020,004
			Loss on transactions and valuation	(3,625,834)	(1,746,752)
Sub-total			1,590,709	273,252	
Currency derivatives		Gain on transactions and valuation	14,601,674	9,685,798	
		Loss on transactions and valuation	(15,713,074)	(9,715,260)	
		Sub-total	(1,111,400)	(29,462)	
Equity derivatives		Gain on transactions and valuation	2,836,843	1,754,671	
		Loss on transactions and valuation	(2,850,334)	(1,744,294)	
		Sub-total	(13,491)	10,377	
Other derivatives		Gain on transactions and valuation	49	64	
		Loss on transactions and valuation	(13)	(3,781)	
		Sub-total	36	(3,717)	
Sub-total		465,854	250,450		
Net, total		238,502	325,649		

- (3) Details of net gain (loss) on financial instruments at fair value through profit or loss designated as upon initial recognition are as follows (Unit: Korean Won in millions):

	For the years ended December 31	
	2022	2021
Gain (loss) on equity-linked securities	-	102

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**34. NET GAIN OR LOSS ON FINANCIAL ASSETS AT FVTOCI**

Details of net gain or loss on financial assets at FVTOCI recognized are as follows (Unit: Korean Won in millions) :

	For the years ended December 31	
	2022	2021
Gain (Loss) on redemption of securities	(7)	(23)
Gain (Loss) on transactions of securities	(21,491)	32,647
Total	<u>(21,498)</u>	<u>32,624</u>

**35. REVERSAL OF (PROVISION FOR) IMPAIRMENT LOSSES DUE TO CREDIT LOSS**

Reversal of (provision for) impairment losses due to credit loss are as follows (Unit: Korean Won in millions):

	For the years ended December 31	
	2022	2021
Reversal(provision) due to credit loss on financial assets measured at FVTOCI	827	(4,909)
Provision for impairment loss due to credit loss on securities at amortized cost	(3,151)	(664)
Provision for impairment loss due to credit loss on loan and other financial assets at amortized cost	(881,668)	(551,957)
Provision for(reversal of) provision on guarantee	(7,611)	10,701
Reversal of unused loan commitment	6,332	9,991
Total	<u>(885,271)</u>	<u>(536,838)</u>

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**36. GENERAL AND ADMINISTRATIVE EXPENSES AND OTHER NET OPERATING INCOME (EXPENSES)**

(1) Details of general and administrative expenses recognized are as follows (Unit: Korean Won in millions):

		For the years ended December 31	
		2022	2021
Employee benefits	Short-term employee benefits	1,980,363	1,775,018
	Salaries		
	Employee fringe benefits	590,255	545,534
	Share based payment	9,632	17,774
	Retirement benefit service costs	169,303	181,797
	Termination	162,019	180,872
	Subtotal	2,911,572	2,700,995
Depreciation and amortization		521,827	524,154
Other general and administrative expenses	Rent	80,130	83,879
	Taxes and public dues	157,905	135,015
	Service charges	233,495	231,852
	Computer and IT related	127,186	117,875
	Telephone and communication	84,204	79,145
	Operating promotion	53,733	44,248
	Advertising	160,464	101,384
	Printing	6,799	6,449
	Traveling	10,716	7,449
	Supplies	8,309	7,642
	Insurance premium	20,670	10,692
	Maintenance	23,266	20,808
	Water, light, and heating	16,165	14,520
	Vehicle maintenance	14,831	11,590
Others	98,618	49,714	
	Sub-total	1,096,491	922,262
	Total	4,529,890	4,147,411

(2) Details of other operating income recognized are as follows (Unit: Korean Won in millions):

		For the years ended December 31	
		2022	2021
Gain on transactions of foreign exchange		1,403,083	562,935
Gain related to derivatives (Designated for hedging)		71,179	61,271
Gain on fair value hedged items		257,910	106,253
Others		249,509	172,044
	Total	1,981,681	902,503

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(3) Details of other operating expenses recognized are as follows (Unit: Korean Won in millions):

	For the years ended December 31	
	2022	2021
Losses on transactions of foreign exchange	1,181,663	450,698
KDIC deposit insurance premium	423,834	406,276
Contribution to miscellaneous funds	402,057	367,961
Losses related to derivatives (Designated for hedging)	250,268	93,084
Losses on fair value hedged items	-	1,947
Others (*)	736,112	469,938
Total	<u>2,993,934</u>	<u>1,789,904</u>

(\*) Other expense includes 14,664 million Won and 13,963 million Won for intangible asset amortization cost and 388,895 million Won and 250,971 million Won for lease depreciation cost for the years ended December 31, 2022 and 2021, respectively.

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(4) Share-based payment

Details of performance condition share-based payment granted to executives as of December 31, 2022 and 2021 are as follows.

1) Performance condition share-based payment

Subject to		Shares granted for the year 2019
Type of payment		Cash-settled
Vesting period		January 1, 2019 ~ December 31, 2022
Date of payment		2023-01-01
Fair value (*1)		12,406 Won
Valuation method		Black-Scholes Model
Expected dividend rate		5.05%
Expected maturity date		-
Number of shares remaining	As of December 31, 2022	602,474 shares
	As of December 31, 2021	602,474 shares
Number of shares granted (*2)	As of December 31, 2022	602,474 shares
	As of December 31, 2021	602,474 shares
Subject to		Shares granted for the year 2020
Type of payment		Cash-settled
Vesting period		January 1, 2020 ~ December 31, 2023
Date of payment		2024-01-01
Fair value (*1)		11,796 Won
Valuation method		Black-Scholes Model
Expected dividend rate		5.05%
Expected maturity date		1 year
Number of shares remaining	As of December 31, 2022	944,343 shares
	As of December 31, 2021	944,343 shares
Number of shares granted (*2)	As of December 31, 2022	944,343 shares
	As of December 31, 2021	944,343 shares
Subject to		Shares granted for the year 2021
Type of payment		Cash-settled
Vesting period		January 1, 2021 ~ December 31, 2024
Date of payment		2025-01-01
Fair value (*1)		11,215 Won
Valuation method		Black-Scholes Model
Expected dividend rate		5.05%
Expected maturity date		2 years
Number of shares remaining	As of December 31, 2022	1,105,515 shares
	As of December 31, 2021	1,105,515 shares
Number of shares granted (*2)	As of December 31, 2022	1,105,515 shares
	As of December 31, 2021	1,105,515 shares
Subject to		Shares granted for the year 2022
Type of payment		Cash-settled
Vesting period		January 1, 2022 ~ December 31, 2025
Date of payment		2026-01-01
Fair value (*1)		10,662 Won
Valuation method		Black-Scholes Model
Expected dividend rate		5.05%
Expected maturity date		3 years
Number of shares remaining	As of December 31, 2022	968,119 shares
	As of December 31, 2021	-
Number of shares granted (*2)	As of December 31, 2022	968,119 shares
	As of December 31, 2021	-

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- (\*1) As the amount of payment varies according to the base price (the arithmetic average of the weighted average stock price of transactions in the past one week, the past one month, and the past two months) at the date of payment, the fair value is calculated to measure the liability according to the Black Scholes model based on the base price at the time of each settlement.
- (\*2) It is a system in which the amount of stock payable is determined at the beginning, and the payment rate is determined in accordance with the degree of achievement of the pre-set performance target. Performance is evaluated by long-term performance indicators such as relative shareholder return, net profit, return on equity (ROE), non-performing loan ratio, and job performance.
- 2) The Group accounts for performance condition share-based payments according to the cash-settled method and the fair value of the liabilities is reflected in the compensation costs by re-measuring every closing period. As of December 31, 2022 and 2021, the carrying amount of the liabilities related to the performance condition share-based payments recognized by the Group amounts to 41,334 million won and 31,597 million won, respectively, including the carrying amount of liabilities related to key management of 17,494 million Won and 13,319 million Won, respectively.

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**37. NON-OPERATING INCOME (EXPENSES)**

- (1) Details of gains or losses on valuation of investments in joint ventures and associates are as follows (Unit: Korean Won in millions):

	For the years ended December 31	
	2022	2021
Gains on valuation of investments in joint ventures and associates	98,858	80,268
Reversal of impairment losses of investments in joint ventures and associates	-	1,744
Losses on valuation of investments in joint ventures and associates	(11,133)	(7,405)
Impairment losses of investments in joint ventures and associates	(17,728)	(12,411)
Total	69,997	62,196

- (2) Details of other non-operating income and expenses recognized are as follows (Unit: Korean Won in millions):

	For the years ended December 31	
	2022	2021
Other non-operating incomes	158,778	188,129
Other non-operating expenses	(173,924)	(160,833)
Total	(15,146)	27,296

- (3) Details of other non-operating income recognized are as follows (Unit: Korean Won in millions):

	For the years ended December 31	
	2022	2021
Rental fee income	22,798	15,056
Gains on disposal of investments in joint ventures and associates	599	70,834
Gains on disposal of premises and equipment, intangible assets and other assets	55,852	51,083
Reversal of impairment loss of premises and equipment, intangible assets and other assets	310	166
Others (*)	79,219	50,990
Total	158,778	188,129

- (\*) 'Others' for the year ended December 31, 2022 include 46,536 million Won of other special gain related to other provisions.

- (4) Details of other non-operating expenses recognized are as follows (Unit: Korean Won in millions):

	For the years ended December 31	
	2022	2021
Depreciation on investment properties	3,925	2,809
Operating expenses on investment properties	1,448	1,174
Losses on disposal of investments in joint ventures and associates	3,690	174
Losses on disposal of premises and equipment, intangible assets and other assets	3,177	3,354
Impairment losses of premises and equipment, intangible assets and other assets	260	656
Donation	50,547	39,335
Others (*)	110,877	113,331
Total	173,924	160,833

- (\*) 'Others' for the year ended December 31, 2022 include 63,354 million Won of other special loss

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related to embezzlement incidents and 18,458 million Won of other special loss related to other provisions. 'Others' for the year ended December 31, 2021 include 75,921 million Won of other special loss related to other provisions.

**38. INCOME TAX EXPENSE**

(1) Details of income tax expenses are as follows (Unit: Korean Won in millions):

	For the years ended December 31	
	2022	2021
Current tax expense:		
Current tax expense with respect to the current period	1,332,636	884,843
Adjustments recognized in the current period in relation to the tax expense of prior periods	(13,982)	2,074
Income tax expense directly attributable to other equity	7,852	-
Sub-total	<u>1,326,506</u>	<u>886,917</u>
Deferred tax expense		
Change in deferred tax assets (liabilities) due to temporary differences	(234,909)	32,776
Income tax expense(income) directly attributable to equity	68,802	22,177
Others	993	-
Sub-total	<u>(165,114)</u>	<u>54,953</u>
Income tax expense	<u>1,161,392</u>	<u>941,870</u>

(2) Income tax expense reconciled to net income before income tax expense is as follows (Unit: Korean Won in millions):

	For the years ended December 31	
	2022	2021
Net income before income tax expense	4,485,374	3,749,241
Tax calculated at statutory tax rate (*)	1,154,285	960,095
Adjustments:		
Effect of income that is exempt from taxation	(73,488)	(41,335)
Effect of expenses that are not deductible in determining taxable income	26,793	18,933
Adjustments recognized in the current period in relation to the current tax of prior periods	(14,088)	3,078
Others	67,890	1,099
Sub-total	<u>7,107</u>	<u>(18,225)</u>
Income tax expense	<u>1,161,392</u>	<u>941,870</u>
Effective tax rate	25.90%	25.10%

(\*) The applicable income tax rate: % up to 200 million Won in tax basis, 22% over 200 million Won to 20 billion Won, 24.2% over 20 billion Won to 300 billion Won and 27.5% over 300 billion Won.

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(3) Changes in deferred tax assets and liabilities for the years ended December 31, 2022 and 2021, are as follows (Unit: Korean Won in millions):

	For the year ended December 31, 2022				
	Beginning balance	Business combination	Recognized as income (expense)	Recognized as other comprehensive income (expense)	Ending Balance
Gain (loss) on financial assets	273,356	-	(55,410)	155,199	373,145
Gain on valuation using the equity method of accounting	15,260	-	11,139	(5,844)	20,555
Gain (loss) on valuation of derivatives	(149,805)	-	159,664	758	10,617
Accrued income	(82,482)	-	(7,848)	-	(90,330)
Provision for loan losses	(34,625)	-	14,520	-	(20,105)
Loan and receivables written off	8,244	-	(318)	-	7,926
Loan origination costs and fees	(194,463)	-	25,370	-	(169,093)
Defined benefit liability	449,615	-	15,760	(95,590)	369,785
Deposits with employee retirement insurance trust	(432,001)	-	(18,437)	216	(450,222)
Provision for guarantee	7,424	-	904	-	8,328
Other provision	100,571	-	(13,342)	-	87,229
Others (*)	(116,907)	(1,473)	33,982	14,063	(70,335)
Net deferred tax assets	<u>(155,813)</u>	<u>(1,473)</u>	<u>165,984</u>	<u>68,802</u>	<u>77,500</u>

(\*) Among the deferred tax assets and liabilities classified as 'Others,' the deferred tax asset arising from unused tax losses amounts to 3,536 million won.

	For the year ended December 31, 2021			
	Beginning balance	Recognized as income (expense)	Recognized as other comprehensive income (expense)	Ending Balance
Gain (loss) on financial assets	276,495	(57,187)	54,048	273,356
Gain on valuation using the equity method of accounting	33,597	(17,282)	(1,055)	15,260
Gain (loss) on valuation of derivatives	(142,352)	(6,755)	(698)	(149,805)
Accrued income	(66,228)	(16,254)	-	(82,482)
Provision for loan losses	(46,495)	11,870	-	(34,625)
Loan and receivables written off	8,221	23	-	8,244
Loan origination costs and fees	(170,196)	(24,267)	-	(194,463)
Defined benefit liability	442,007	32,890	(25,282)	449,615
Deposits with employee retirement insurance trust	(424,906)	(7,291)	196	(432,001)
Provision for guarantee	9,485	(2,061)	-	7,424
Other provision	85,173	15,398	-	100,571
Others (*)	<u>(118,964)</u>	<u>7,089</u>	<u>(5,032)</u>	<u>(116,907)</u>
Net deferred tax assets	<u>(114,163)</u>	<u>(63,827)</u>	<u>22,177</u>	<u>(155,813)</u>

(\*) Among the deferred tax assets and liabilities classified as 'Others,' the deferred tax asset arising from unused tax losses amounts to 8,838 million won.

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(4) Unrealizable temporary differences are as follows (Unit: Korean Won in millions):

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Deductible temporary differences	330,376	303,067
Tax loss carry forward	49,405	63,908
Taxable temporary differences	<u>(8,898,834)</u>	<u>(8,025,672)</u>
Total	<u>(8,519,053)</u>	<u>(7,658,697)</u>

No deferred income tax asset has been recognized for the deductible temporary difference of 325,601 million Won associated with investments in subsidiaries as of December 31, 2022, because it is not probable that the temporary differences will be reversed in the foreseeable future 4,775 million won associated with others, respectively, as of December 31, 2022, due to the uncertainty that these will be realized in the future.

No deferred income tax liability has been recognized for the taxable temporary difference of 8,898,835 million won associated with investment in subsidiaries as of December 31, 2022, due to the following reasons:

- The Group is able to control the timing of the reversal of the temporary difference.
- It is probable that the temporary difference will not be reversed in the foreseeable future.

As of December 31, 2022, the expected extinctive date of tax loss carry forward that are not recognized as deferred tax assets are as follows (Unit: Korean Won in millions):

	<u>1 year or less</u>	<u>1 – 2 years</u>	<u>2 – 3 years</u>	<u>More than 3 years</u>
Tax loss carry forward	36,967	10,828	-	1,610

(5) Details of accumulated deferred tax charged directly to other equity are as follows (Unit: Korean Won in millions):

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Gain on valuation of financial assets at FVTOCI	213,876	58,677
Gain on valuation of equity method investments	(3,766)	2,078
Gain on foreign currency translation of foreign operations	9,938	5,689
Gain on valuation of hedge accounting of the net investment in foreign operations	9,815	-
Remeasurements of the net defined benefit liability	(20,584)	74,790
Gain on derivatives designated as cash flow hedge	<u>(86)</u>	<u>(843)</u>
Total	<u>209,193</u>	<u>140,391</u>

(6) Current tax assets and liabilities are as follows (Unit: Korean Won in millions):

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Current tax assets	53,274	22,598
Current tax liabilities	843,555	584,491

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**39. EARNINGS PER SHARE (“EPS”)**

- (1) Basic EPS is calculated by dividing net income attributable to common shareholders by weighted-average number of common shares outstanding (Unit: Korean Won in millions, except for EPS and number of shares):

	For the years ended December 31	
	2022	2021
Net income attributable to common shareholders	3,141,680	2,587,936
Dividends to hybrid securities	(91,756)	(66,250)
Net income attributable to common shareholders	3,049,924	2,521,686
Weighted average number of common shares outstanding (Unit: million shares)	728	724
Basic EPS (Unit: Korean Won)	4,191	3,481

- (2) The weighted average number of common shares outstanding is as follows (Unit: number of shares, days):

	For the year ended December 31, 2022			
	Period	Number of shares	Dates (Unit: Day)	Accumulated number of shares outstanding during period
Common shares issued at the beginning of the period	2022-01-01 ~ 2022-12-31	728,060,549	365	265,742,100,385
Treasury stocks	2022-01-01 ~ 2022-12-31	(343,991)	365	(125,556,715)
	Sub-total (①)			265,616,543,670
Weighted average number of common shares outstanding (②=(①/365))				727,716,558

	For the year ended December 31, 2021			
	Period	Number of shares	Dates (Unit: Day)	Accumulated number of shares outstanding during period
Common shares issued at the beginning of the period	2021-01-01 ~ 2021-12-31	722,267,683	365	263,627,704,295
Treasury stocks	2021-01-01 ~ 2021-12-31	(2)	365	(730)
Issuance of new shares (comprehensive share exchange)	2021-08-10 ~ 2021-12-31	5,792,866	144	834,172,704
Acquisition of treasury stocks	2021-08-10 ~ 2021-12-31	(343,989)	144	(49,534,416)
	Sub-total (①)			264,412,341,853
Weighted average number of common shares outstanding (②=(①/365))				724,417,375

Diluted EPS is equal to basic EPS because there is no dilution effect for the years ended December 31, 2022 and 2021.

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**40. CONTINGENT LIABILITIES AND COMMITMENTS**

(1) Details of guarantees are as follows (Unit: Korean Won in millions):

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Confirmed guarantees		
Guarantee for loans	39,684	38,897
Acceptances	501,921	622,758
Guarantees in acceptances of imported goods	97,920	111,195
Other confirmed guarantees	6,847,713	7,215,557
Sub-total	<u>7,487,238</u>	<u>7,988,407</u>
Unconfirmed guarantees		
Local letters of credit	150,075	243,072
Letters of credit	3,014,228	3,186,513
Other unconfirmed guarantees	1,144,498	778,088
Sub-total	<u>4,308,801</u>	<u>4,207,673</u>
Commercial paper purchase commitments and others	<u>125,547</u>	<u>791,729</u>
Total	<u><u>11,921,586</u></u>	<u><u>12,987,809</u></u>

(\*) Includes financial guarantees of 3,095,091 million won and 3,960,383 million won as of December 31, 2022 and 2021, respectively.

(2) Details of unused loan commitments and others are as follows (Unit: Korean Won in millions):

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Loan commitments	118,172,070	114,414,462
Other commitments (*)	7,107,828	5,652,557

(\*) As of December 31, 2022 and 2021, the amount of unsecured bills (purchase note sales) and discounts on electronic short-term bond sales (purchase) are 2,505,399 million won and 2,225,226 million won, respectively.

(3) Litigation case

Litigation case that the key Group is a defendant in a lawsuit pending (excluding fraud lawsuits and those lawsuits that are filed only to extend the statute of limitation, etc.) are 531 cases (litigation value of 577,128 million Won) and 475 cases (litigation value of 578,505 million Won) as of December 31, 2022 and 2021 respectively, and provisions for litigations are 33,877 million Won and 24,823 million Won.

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(4) Other commitments

- 1) The Group decided to enter into a stock sales agreement with a major shareholder of Woori Asset Trust Co., Ltd. (formerly, Kukje Asset Trust Co., Ltd.) to acquire 44.5% of interest (58.6% of voting rights) in July 2019, and to acquire additional 21.3% of interest (28.0% of voting rights) after a certain period. As a result, the Group acquired the interest of the first sales agreement in December 2019 and will acquire the second transaction stake at the end of March 2023. In regard to this acquisition, the Group recognized 174,780 million Won as other financial liabilities for the second sales agreement.
- 2) As of December 31, 2022, Woori Asset Trust Co., Ltd., a subsidiary, has agreed to carry out construction completion obligations for 87 constructions, which includes the construction of residential and commercial complexes in Busan (U-dong, Haeundae-gu). Land Trust responsible for Construction and Management is a trust that bears the obligation to fulfill the responsibility of the constructor and to compensate the loan financial institution for damages if the Group fails to fulfill the construction completion obligation. As of December 31, 2022, the total PF loan amount of PF loan institutions invested in the project of the Land Trust responsible for Construction and Management is 3,607,592 million Won. Although additional losses may occur in relation to the construction completion obligations, the financial statements as of December 31, 2022 do not reflect these effects since losses are unlikely and the amount cannot be estimated reliably.
- 3) Pursuant to some contracts related to asset securitization, the Group utilizes various prerequisites as triggering events causing early redemption, limiting risks that investors bear due to change in asset quality. Breach of such triggering clause leads to an early redemption of the securitized bonds.
- 4) As of December 31, 2022, Woori Asset Trust Co., Ltd, a subsidiary, is able to borrow part of its total business expense related to its 13 development trust contracts including Boutique Terrace Haeundae Hotel from trust accounts, and the maximum amount of additional loan amount (unused loan commitment) is 52,783 million Won. In relation to those projects, the Group's trust accounts loan is not unconditional payment obligation, and it would be judged by considering all related matters such as its own account and the fund balance plan for each trust projects.

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**41. RELATED PARTY TRANSACTIONS**

Related parties of the Group as of December 31, 2022 and 2021, and assets and liabilities recognized, guarantees and commitments, major transactions with related parties and compensation to key management for the years ended December 31, 2022 and 2021 are as follows. Please refer to Note 13 for the details of joint ventures and associates.

(1) Assets and liabilities from transactions with related parties are as follows (Unit: Korean Won in millions):

Related parties		Account title	December 31, 2022	December 31, 2021
Associates	W Service Networks Co., Ltd.	Loans	120	20
		Deposits due to customers	3,298	2,832
		Accrued expenses	7	6
		Other liabilities	109	425
	Korea Credit Bureau Co., Ltd.	Loans	2	2
		Deposits due to customers	4,450	1,557
		Other liabilities	40	-
	Korea Finance Security Co., Ltd.	Loans	3,433	3,425
		Loss allowance	(46)	(6)
		Deposits due to customers	1,764	1,887
		Other liabilities	6	2
	LOTTE CARD Co. Ltd.	Loans	50,000	3,750
		Account receivables	16	-
		Loss allowance	(30)	(39)
		Other assets	-	10
		Deposits due to customers	35,986	13,482
		Other liabilities	74	91
	K BANK Co., Ltd.	Loans	3	99
		Account receivables	31	29
		Other liabilities	108,156	84,935
Others (*1)	Loans	68,660	73,940	
	Loss allowance	(34)	(124)	
	Other assets	768	739	
	Deposits due to customers	3,622	1,063	
	Other liabilities	119	3	

(\*1) Others include IBK KIP Seongjang Dideemdol 1st Private Investment Limited Partnership, Woori Growth Partnerships New Technology Private Equity Fund, Partner One Value Up I Private Equity Fund, and etc., as of December 31, 2022 and 2021.

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(2) Gain or loss from transactions with related parties are as follows (Unit: Korean Won in millions):

	Related parties	Account title	For the year December 31	
			2022	2021
Associates	W Service Network Co., Ltd.	Other income	-	30
		Interest expenses	14	7
		Fees expenses	543	612
		Other expenses	1,907	1,878
	Korea Credit Bureau Co., Ltd.	Interest expenses	40	4
		Fees expenses	3,730	3,503
		Other expenses	139	68
	Korea Finance Security Co., Ltd.	Interest income	141	80
		Interest expenses	3	2
		Provision of impairment losses due to credit loss	44	1
		Other expenses	52	92
	LOTTE CARD Co., Ltd.	Interest income	83	196
		Fees income	7,701	10,248
		Interest expenses	1,902	462
		Reversal of impairment losses due to credit loss	27	59
	K BANK Co., Ltd.	Fees income	698	1,952
		Fees expenses	937	636
	Others (*)	Interest income	713	679
		Fees income	7,138	5,546
Interest expenses		10	17	
Reversal of impairment losses due to credit loss		92	2	
Provision of impairment losses due to credit loss		1	-	

(\*) Others include Woori Growth Partnerships New Technology Private Equity Fund, Partner One Value Up I Private Equity Fund, and etc., as of December 31, 2022 and 2021.

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(3) Major loan transactions with related parties for the years ended December 31, 2022 and 2021 are as follows (Unit: Korean Won in millions):

		For the year ended December 31, 2022				
Related parties		Beginning balance	Loan	Collection	Others	Ending balance (*)
Associates	W Service Network Co., Ltd.	20	352	252	-	120
	Korea Credit Bureau Co., Ltd.	2	15	15	-	2
	Korea Finance Security Co., Ltd.	3,425	2,407	2,399	-	3,433
	LOTTE CARD Co., Ltd.	3,750	50,000	3,750	-	50,000
	K BANK Co., Ltd.	99	315	411	-	3
	Godo Kaisha Oceanos 1	43,033	41,467	43,033	(1,653)	39,814
	Woori Zip 1	12,775	-	-	(956)	11,819
	Woori Zip 2	18,132	-	-	(1,356)	16,776
	Central Network Solutions Co., Ltd.	-	251	-	-	251

(\*) Payments that occurred for business reasons among related parties are excluded and net increase or decrease was used for limited credit loan.

		For the year ended December 31, 2021				
Related parties		Beginning balance	Loan	Collection	Others	Ending balance (*)
Associates	W Service Network Co., Ltd.	21	248	249	-	20
	Korea Credit Bureau Co., Ltd.	1	11	10	-	2
	Korea Finance Security Co., Ltd.	3,440	333	348	-	3,425
	LOTTE CARD Co., Ltd.	7,500	-	3,750	-	3,750
	K BANK Co., Ltd.	104	1,769	1,774	-	99
	Godo Kaisha Oceanos 1	44,036	-	-	(1,003)	43,033
	Woori Zip 1	-	13,121	-	(346)	12,775
	Woori Zip 2	-	18,624	-	(492)	18,132

(\*) Payments that occurred for business reasons among related parties are excluded and net increase or decrease was used for limited credit loan.

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- (4) Details of changes in major deposits due to customers with related parties for the years ended December 31, 2022 and 2021 are as follows (Unit: Korean Won in millions):

Related parties		For the year ended December 31, 2022			Ending balance (*)
		Beginning balance	Increase	Decrease	
Associates	W Service Networks Co., Ltd	1,180	1,200	1,180	1,200
	Partner One Value Up I Private Equity Fund	329	550	779	100
	Korea Credit Bureau Co., Ltd.	-	3,000	-	3,000

(\*) Details of payment between related parties, demand deposit due to customers and etc. are excluded.

Related parties		For the year ended December 31, 2021			Ending balance (*)
		Beginning balance	Increase	Decrease	
Associates	W Service Networks Co., Ltd	1,180	1,180	1,180	1,180
	Partner One Value Up I Private Equity Fund	863	637	1,171	329
	Korea Credit Bureau Co., Ltd.	1,000	-	1,000	-

(\*) Details of payment between related parties, demand deposit due to customers and etc. are excluded.

- (5) There are no major borrowing transactions with related parties for the years ended December 31, 2022 and 2021.

- (6) Guarantees provided to the related parties are as follows (Unit: Korean Won in millions):

Warrantee	December 31, 2022	December 31, 2021	Warranty
Korea Finance Security Co., Ltd.	627	835	Unused loan commitment
Korea Credit Bureau Co., Ltd.	33	33	Unused loan commitment
W Service Network Co., Ltd.	60	180	Unused loan commitment
K BANK Co., Ltd.	297	201	Unused loan commitment
LOTTE CARD Co. Ltd.	450,000	500,000	Unused loan commitment
D-Custody Co., Ltd.	10	-	Unused loan commitment

As of December 31, 2022 and 2021, the recognized payment guarantee provisions are 80 million won and 93 million won, respectively, in relation to the guarantees provided to the related parties above.

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(7) Amount of commitments with the related parties

Warrantee	December 31, 2022	December 31, 2021	Warranty
IBK KIP Seonggiang Dideemdol 1st Private Investment Limited Partnership	4,664	4,664	Securities purchase commitment
WooriG Senior Loan General Type Private Investment Trust No.1	-	14,284	Securities purchase commitment
Woori Seoul Beltway Private Special Asset Fund No.1	37,146	39,458	Securities purchase commitment
Woori-Q Corporate Restructuring Private Equity Fund	12,555	11,109	Securities purchase commitment
Union Technology Finance Investment Association	-	2,250	Securities purchase commitment
Genesis Eco No.1 Private Equity Fund	-	195	Securities purchase commitment
Genesis Environmental Energy Company 1st Private Equity Fund	-	916	Securities purchase commitment
JC Assurance No.2 Private Equity Fund	1,351	1,351	Securities purchase commitment
Crevisse Raim Impact 1st Startup Venture Specialist Private Equity Fund	325	425	Securities purchase commitment
WooriG Oncorp Corporate support of Major Industry General Type Private Investment Trust (Type 2)	39	669	Securities purchase commitment
BTS 2nd Private Equity Fund	6,974	-	Securities purchase commitment
STASSETS FUND III	13,500	-	Securities purchase commitment
Together Korea Government Private Securities Investment Trust No.3	990,000	-	Securities purchase commitment

(8) Major investment and Recovery transactions

The details of major investment and recovery transactions with related parties for the year ended December 31, 2022 and 2021 are as follows (Unit: Korean Won in millions):

Related parties	For the year ended December 31, 2022	
	Investment and others (*)	Recovery and others (*)
Woori High Plus Short-term High Graded ESG Bond Sec Feeder Inv Trust 1	-	21,606
Woori High Plus Bond Sec Feeder Inv Trust 3(USD)	-	1,052
Woori BANKPLUS IPO 10 FEEDER FUND 2(BALANCED BOND)	200	-
Woori Two-year Bond Securities Investment Trust 2(Bond)	-	213
Woori China Mainland Stock Securities Investment Trust H(Securities)	-	443
Woori Long-term government bond securities Investment Trust No.1	-	1,951
Woori Republic of Korea Treasury Bond Active ETF(Bond)	3,000	-
Woori K-New Opening Target Return Securities Investment Trust(Equity)	200	-
Woori 2023 Maturity Securities Investment Trust(Bond)	200	-
Woori 2024 Maturity Securities Investment Trust 1(Bond)	200	-
Woori BIG SATISFACTION SHINJONG MMF 3RD	320,000	-
Woori MULTI RETURN PRIVATE EQUITY 1	-	8,559
Woori 2024 December Maturity Securities Investment Trust 1(Bond)	200	-
Woori Two-year Bond Securities Investment Trust 3(Bond)	-	209
Woori G Oncorp Corporate support of Major Industry General Type Private Investment Trust (Type 2)	630	-

(\*) Investment and recovery transactions of associates are described in Note 13.(2)

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Related parties	For the year ended December 31, 2021	
	Investment and others (*)	Recovery and others (*)
Woori China Mainland Stock Securities Investment Trust	-	568
Woori Long-term government bond securities Investment Trust No.1	2,000	-
Woori New MMF No.3	-	20,105
Woori Multi-Return Securities Investment Trust 1	8,000	-
Woori Multi-Return Securities Investment Trust 2 (Balanced Bond)	8,000	-
Woori Short term Plus Securities Investment Trust	200	-
Woori Smart New Deal 30 Target Conversion Securities Investment trust No.3	200	-
Woori Smart Balance Securities Investment Trust (Stock)	500	-
Woori ACE Public Offering stock Alpha Securities Investment Trust (Bond Mixed)	200	-
WooriG Oncorp Corporate support of Major Industry General Type Private Investment Trust (Type 2)	831	-
WooriG Public Offering stock 10 securities Investment Trust [Bond mixed] C(F)	-	1,064
WooriG IGIS Securities Investment Trust [Bond] C(F)	-	1,306

(\*) Investment and recovery transactions of associates are described in Note 13.(2)

(9) Compensation for key management is as follows (Unit: Korean Won in millions):

	For the years ended December 31	
	2022	2021
Short-term employee salaries	21,990	20,742
Retirement benefit service costs	937	815
Share-based compensation	4,234	6,970
Total	27,161	28,527

Key management includes executives and directors of Woori Financial Group and major subsidiaries, and also includes CEO of other subsidiaries. Outstanding assets from transactions with key management amount to 3,620 million won and 3,821 million won, as of December 31, 2022 and 2021 respectively and with respect to the assets, the Group has not recognized any allowance nor related impairment loss due to credit losses. Also, liabilities from transaction with key management amount to 12,660 million won and 11,542 million won, respectively, as of December 31, 2022 and 2021.

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**42. TRUST ACCOUNTS**

(1) Trust accounts of the Woori Bank are as follows (Unit: Korean Won in millions):

	Total assets		Operating income	
			For the years ended December 31	
	December 31, 2022	December 31, 2021	2022	2021
Trust accounts	71,677,258	69,472,846	1,121,069	876,800

(2) Receivables and payables between the Woori Bank and trust accounts are as follows (Unit: Korean Won in millions):

	December 31, 2022	December 31, 2021
Receivables:		
Trust fees receivables	42,337	35,448
Payables:		
Deposits due to customers	170,417	234,136
Borrowings from trust accounts	1,804,847	1,621,209
Total	1,975,264	1,855,345

(3) Significant transactions between the Woori Bank and trust accounts are as follows (Unit: Korean Won in millions):

	For the years ended December 31	
	2022	2021
Revenue:		
Trust fees	131,656	117,459
Termination fees	1,158	10,599
Total	132,814	128,058
Expense:		
Interest expenses on deposits due to customers	619	503
Interest expenses on borrowings from trust accounts	38,583	11,391
Total	39,202	11,894

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(4) Principal guaranteed trusts and principal and interest guaranteed trusts are as follows;

1) The carrying amount of principal guaranteed trusts and principal and interest guaranteed trusts that Woori Bank provides are as follows (Unit: Korean Won in millions):

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Partial principal guaranteed trusts		
Personal trust	8,230	8,932
Corporate trust	446	627
Deposit purpose	1,551	1,558
Sub-total	<u>10,227</u>	<u>11,117</u>
Principal guaranteed trusts		
Old-age pension trusts	2,790	3,004
Personal pension trusts	460,839	486,203
Pension trusts	687,971	749,317
Retirement trusts	26,563	28,354
New personal pension trusts	6,792	7,282
New old-age pension trusts	950	1,076
Sub-total	<u>1,185,905</u>	<u>1,275,236</u>
Principal and interest guaranteed trusts		
Development trusts	19	19
Unspecified money trusts	335	348
Sub-total	<u>354</u>	<u>367</u>
Total	<u><u>1,196,486</u></u>	<u><u>1,286,720</u></u>

2) The amounts that the Woori Bank must pay by the operating results of the principal guaranteed trusts or the principal and interest guaranteed trusts are as follows (Unit: Korean Won in millions):

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Liabilities for the account (subsidy for Trust account adjustment)	-	2

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**43. LEASES**

(1) Lessor

1) Finance lease

- ① The total investment in finance lease and the present value of the minimum lease payments to be recovered are as follows (Unit: Korean Won in millions):

	December 31, 2022	
	Total investment in lease	Net investment in lease
Within one year	160,181	146,749
After one year but within two years	231,075	215,497
After two years but within three years	366,599	338,709
After three years but within four years	501,034	452,099
After four years but within five years	368,420	314,696
After five years	19	18
Total	1,627,328	1,467,768

	December 31, 2021	
	Total investment in lease	Net investment in lease
Within one year	70,740	69,030
After one year but within two years	133,398	124,904
After two years but within three years	239,895	218,911
After three years but within four years	367,991	331,685
After four years but within five years	486,490	429,034
After five years	2	1
Total	1,298,516	1,173,565

- ② The unrealized interest income of the finance lease is as follows. (Unit: Korean Won in millions)

	December 31, 2022	December 31, 2021
Total investment in lease	1,627,328	1,298,516
Net investment in lease	1,467,768	1,173,565
Present value of minimum lease payments	1,467,768	1,173,565
Present value of unguaranteed residual value	-	-
Unearned interest income	159,560	124,951

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2) Operating lease

① The details of operating lease assets are as follows (Unit: Korean Won in millions):

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Prepaid lease assets	3,121	4,579
Operating lease assets		
Acquisition cost	3,320,275	2,299,968
Accumulated depreciation	(729,818)	(521,660)
Net carrying value	<u>2,590,457</u>	<u>1,778,308</u>
Total	<u><u>2,593,578</u></u>	<u><u>1,782,887</u></u>

② The details of changes in operating lease assets as of December 31, 2022 are as follows and there is no details of changes in operating lease assets as of December 31, 2021 (Unit: Korean Won in millions)

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Beginning balance	1,778,308	1,116,175
Acquisition	1,321,251	984,093
Disposal	(138,189)	(93,138)
Depreciation	(388,895)	(250,971)
Others	17,982	22,149
Ending balance	<u><u>2,590,457</u></u>	<u><u>1,778,308</u></u>

③ The future lease payments to be received under the lease contracts are as follows (Unit: Korean Won in millions)

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Within one year	567,998	377,153
After one year but within two years	526,899	347,539
After two years but within three years	420,244	262,176
After three years but within four years	275,080	170,391
After four years but within five years	86,606	79,555
Total	<u><u>1,876,827</u></u>	<u><u>1,236,814</u></u>

④ There is no adjusted lease payments recognized as profit or loss for the years ended December 31, 2022 and 2021.

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(2) Lessee

- 1) The future lease payments under the lease contracts are as follows (Unit: Korean Won in millions):

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Lease payments		
Within one year	170,781	151,259
After one year but within five years	152,145	155,707
After five years	33,007	38,275
Total	<u>355,933</u>	<u>345,241</u>

- 2) Total cash outflows from lease are as follows (Unit: Korean Won in millions):

	<u>For the years ended</u> <u>December 31</u>	
	<u>2022</u>	<u>s2021</u>
Total cash outflows from lease	192,540	180,884

- 3) Details of lease payments that are not included in the measurement of lease liabilities due to the fact that they are short-term leases or leases for which the underlying asset is of low value are as follows (Unit: Korean Won in millions):

	<u>For the years ended</u> <u>December 31</u>	
	<u>2022</u>	<u>2021</u>
Lease payments for short-term leases	1,469	1,598
Lease payments for which the underlying asset is of low value	1,316	1,488
Total	<u>2,785</u>	<u>3,086</u>

Variable lease payments that were not included in the measurement of lease liabilities for the years ended December 31, 2022 were 5,470 million Won.

- (3) The Group uses a practical expedient that does not assess whether it is a lease change to the rent discount incurred directly as a result of COVID-19. Accordingly, the amount recognized in profit or loss during the reporting period is 15,880 million Won, to reflect changes in lease payments arising from the rent concession.

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**44. BUSINESS COMBINATION**

The Group acquired 2,193,552,006 shares, equivalent to 82.03% of the total issued shares of PT Batavia Prosperindo Finance Tbk, an Indonesian listed company, of 2,673,995,362 shares on August 31, 2022 as the acquisition date for the purpose of entering the local financial industry in Indonesia, and changed its name to PT Woori Finance Indonesia Tbk.

- 1) As of the acquisition date, the transfer price, acquisition assets, liabilities, and non-controlling interests related to the business combination are as follows (Unit: Korean Won in millions):

	<u>Amount</u>
Fair value of transfer price	
Cash	130,424
Amount recognized as assets and liabilities	
Cash and cash equivalents	5,607
Financial assets at amortized cost	95,587
Other assets	24,096
Borrowings	25,932
Other liabilities	10,150
Fair value of identifiable net assets	89,208
Non-controlling interests (*1)	16,454
Goodwill	57,670

(\*1) Represents amount of a proportionate interest of the fair value of identifiable net assets.

- 2) Assuming that the acquisition date of PT Woori Finance Indonesia Tbk by the Group is the commencement date of the financial statements, the consolidated income and consolidated net income are KRW 1,856,941 million and KRW 207,495 million, respectively.

**45. EVENTS AFTER THE REPORTING PERIOD**

On February 27, 2023, the Group signed a stock sale contract to acquire a 52% stake in Daol Investment Co., Ltd. and will be included into a subsidiary in March 2023.