

KakaoBank Corp.

Financial Statements

December 31, 2020 and 2019

(With Independent Auditors' Report Thereon)

KakaoBank Corp.
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December 31, 2020 and 2019

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Independent Auditors' Report
(Based on a report originally issued in Korean)

To the Board of Directors and Shareholders of
KakaoBank Corp.

Opinion

We have audited the financial statements of KakaoBank Corp. ("the Company"), which comprise the statement of financial position as of December 31, 2020, the statements of comprehensive income, changes in equity and cash flows for the year then ended, and notes, comprising significant accounting policies and other explanatory information.

In our opinion, the accompanying financial statements present fairly, in all material respects, the financial position of the Company as at December 31, 2020, and its financial performance and its cash flows for the year then ended in accordance with Korean International Financial Reporting Standards ("K-IFRS").

Basis for Opinion

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

Other Matters

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

The financial statements of the Company as of and for the year ended December 31, 2019 were audited by another auditor who expressed an unmodified opinion on those statements on February 25, 2020.

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

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

In preparing the financial statements, management is responsible for assessing the Company'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 Company or to cease operations, or has no realistic alternative but to do so.

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

Auditor's Responsibilities for the Audit of the Financial Statements

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

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

- Identify and assess the risks of material misstatement of the 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 Company's internal control.
- Evaluate the appropriateness of accounting policies used in the preparation of the financial statements and the reasonableness of accounting estimates and related disclosures made by management.

- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditors' report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditors' report. However, future events or conditions may cause the Company to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

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

KPMG Samjong Accounting Corp.

Seoul, Korea

March 5, 2021

This report is effective as of March 5, 2021, 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 financial statements and notes thereto. Accordingly, the readers of the audit report should understand that the above audit report has not been updated to reflect the impact of such subsequent events or circumstances, if any.

KakaoBank Corp.
Statements of Financial Position
December 31, 2020 and 2019

<i>(in Korean won)</i>	Notes	2020	2019
Assets			
Cash and due from financial institutions	4, 23, 25	₩ 1,195,937,282,311	₩ 226,048,155,698
Financial assets at fair value through profit or loss	5, 23, 25	250,093,130,763	-
Financial investments	6, 23, 25	4,011,277,263,877	2,877,131,961,605
Loans	7, 23, 25	20,662,808,751,465	19,193,788,892,299
Property and equipment	8, 28	46,157,354,455	47,119,296,074
Intangible assets	9	44,878,296,572	56,394,341,068
Current tax assets	24	-	4,852,578,260
Net defined benefit assets	13	996,535,624	317,924,821
Other assets	10, 23, 25	437,841,851,523	318,454,590,059
Total assets		<u>₩ 26,649,990,466,590</u>	<u>₩ 22,724,107,739,884</u>
Liabilities			
Deposits	12, 23, 25	₩ 23,539,282,308,324	₩ 20,711,907,725,432
Provisions	14	22,415,152,584	14,395,855,717
Current tax liabilities	24	3,612,878,690	-
Other liabilities	15, 23, 25, 28	287,717,609,143	319,083,335,356
Total liabilities		<u>23,853,027,948,741</u>	<u>21,045,386,916,505</u>
Equity			
Share capital	16	2,038,265,185,000	1,825,482,210,000
Capital surplus	16	759,805,332,030	-
Capital adjustments	16, 17	4,920,906,870	(22,073,503,130)
Accumulated other comprehensive income	16	7,794,211,628	2,771,223,245
Accumulated deficit	16, 31	(13,823,117,679)	(127,459,106,736)
(Provision of regulatory reserve for credit losses 2020 : ₩ nil, 2019 : ₩ nil)			
(Provision of unearned reserve for credit losses 2020 : ₩ (-)125,593,139,071, 2019 : ₩ (-)72,581,343,231)			
(Amount required to reserve for credit losses 2020 : ₩ (-)52,838,663,217, 2019 : ₩ (-)53,011,795,840)			
(Amounts estimated to be appropriated 2020 : ₩ nil, 2019 : ₩ nil)			
Total equity		<u>2,796,962,517,849</u>	<u>1,678,720,823,379</u>
Total liabilities and equity		<u>₩ 26,649,990,466,590</u>	<u>₩ 22,724,107,739,884</u>

The above statements of financial position should be read in conjunction with the accompanying notes.

KakaoBank Corp.
Statements of Comprehensive Income
Years Ended December 31, 2020 and 2019

<i>(in Korean won)</i>	Notes	2020	2019
Operating income			
Interest income	18, 23	₩ 599,389,606,312	₩ 494,597,729,803
Fee and commission income	19, 23	184,887,067,050	118,419,944,082
Gain related to financial assets at fair value through profit or loss	23	14,115,754,515	40,449,930,066
Gain related to financial investments	23	96,960,409	8,289,019,476
Other operating income	21	5,667,934,837	3,183,664,167
		<u>804,157,323,123</u>	<u>664,940,287,594</u>
Operating expenses			
Interest expenses	18, 23	191,360,300,396	247,035,950,863
Fee and commission expenses	19, 23	178,047,750,329	172,610,982,869
Selling and administrative expenses	20	200,584,861,678	162,447,269,594
Other operating expenses	21	50,720,530,034	33,153,875,417
		<u>620,713,442,437</u>	<u>615,248,078,743</u>
Provision for credit losses on financial assets	7, 10, 23, 25	<u>60,892,634,053</u>	<u>36,437,672,262</u>
Operating profit		122,551,246,633	13,254,536,589
Non-operating income	22	134,534,629	48,760,014
Non-operating expenses	22	354,055,390	136,469,038
Profit before income tax		122,331,725,872	13,166,827,565
Income tax benefit (expense)	24	(8,695,736,815)	566,102,821
Profit for the year	16, 31	<u>₩ 113,635,989,057</u>	<u>₩ 13,732,930,386</u>
(Adjusted profit (loss) after provision of regulatory reserve for credit losses 2020 : ₩ 60,797,325,840 2019 : ₩ (-)39,278,865,454)			
Other comprehensive income			
<i>Items that may be subsequently reclassified to profit or loss</i>			
Gain on valuation of financial assets at fair value through other comprehensive income	16, 23	6,503,808,345	3,648,252,745
<i>Items that will not be reclassified to profit or loss</i>			
Remeasurements of net defined benefit asset	13, 16	(1,480,819,962)	(1,215,560,877)
Other comprehensive income for the year, net of tax	23	<u>5,022,988,383</u>	<u>2,432,691,868</u>
Total comprehensive income for the year		<u>₩ 118,658,977,440</u>	<u>₩ 16,165,622,254</u>
Earnings per share			
Basic and diluted earnings per share	27	₩ 309	₩ 50

The above statements of comprehensive income should be read in conjunction with the accompanying notes.

KakaoBank Corp.
Statements of Changes in Equity
Years Ended December 31, 2020 and 2019

(in Korean won)

	Share Capital	Capital Surplus	Capital Adjustments	Accumulated Other Comprehensive Income	Accumulated Deficit	Total
Balance at January 1, 2019	₩ 1,300,000,000,000	₩ -	₩ (18,738,752,740)	₩ 338,531,377	₩ (141,192,037,122)	₩ 1,140,407,741,515
Total comprehensive income (loss)						
Profit for the year	-	-	-	-	13,732,930,386	13,732,930,386
Other comprehensive income (loss)						
Gain on valuation of financial assets						
at fair value through other comprehensive income	-	-	-	3,648,252,745	-	3,648,252,745
Remeasurements of net defined benefit asset	-	-	-	(1,215,560,877)	-	(1,215,560,877)
Transactions with owners						
Issuance of shares	525,482,210,000	-	(5,679,979,890)	-	-	519,802,230,110
Share options	-	-	2,345,229,500	-	-	2,345,229,500
Balance at December 31, 2019	<u>₩ 1,825,482,210,000</u>	<u>₩ -</u>	<u>₩ (22,073,503,130)</u>	<u>₩ 2,771,223,245</u>	<u>₩ (127,459,106,736)</u>	<u>₩ 1,678,720,823,379</u>
Balance at January 1, 2020	₩ 1,825,482,210,000	₩ -	₩ (22,073,503,130)	₩ 2,771,223,245	₩ (127,459,106,736)	₩ 1,678,720,823,379
Total comprehensive income (loss)						
Profit for the year	-	-	-	-	113,635,989,057	113,635,989,057
Other comprehensive income (loss)						
Gain on valuation of financial assets						
at fair value through other comprehensive income	-	-	-	6,503,808,345	-	6,503,808,345
Remeasurements of net defined benefit asset	-	-	-	(1,480,819,962)	-	(1,480,819,962)
Transactions with owners						
Issuance of shares	212,782,975,000	759,805,332,030	24,418,732,630	-	-	997,007,039,660
Share options	-	-	2,575,677,370	-	-	2,575,677,370
Balance at December 31, 2020	<u>₩ 2,038,265,185,000</u>	<u>₩ 759,805,332,030</u>	<u>₩ 4,920,906,870</u>	<u>₩ 7,794,211,628</u>	<u>₩ (13,823,117,679)</u>	<u>₩ 2,796,962,517,849</u>

The above statements of changes in equity should be read in conjunction with the accompanying notes.

KakaoBank Corp.
Statements of Cash Flows
Years Ended December 31, 2020 and 2019

<i>(in Korean won)</i>	Note	2020	2019
Cash flows from operating activities			
Profit for the year	₩	113,635,989,057	₩ 13,732,930,386
Adjustment of profit (loss) items			
Interest income		(599,389,606,312)	(494,597,729,803)
Interest expenses		191,360,300,396	247,035,950,863
		<u>(408,029,305,916)</u>	<u>(247,561,778,940)</u>
Adjustment for non-cash items			
Provision for credit losses on financial assets		60,892,634,053	36,437,672,262
Gain related to financial assets at fair value through profit or loss		(93,130,763)	-
Gain related to financial investments		(96,960,409)	(8,289,019,476)
Depreciation		24,383,611,762	15,876,427,038
Amortization		18,715,082,324	17,097,120,777
Income tax expense (benefit)		8,695,736,815	(566,102,821)
Post-employment benefits		5,545,945,875	3,795,899,741
Share-based payment expenses		2,575,677,370	4,241,105,910
Unwinding of discount for asset retirement obligation		40,541,357	41,652,542
Long-term employee benefits		2,661,744,578	4,689,494,139
Net gain on relating to leases		(605,083)	-
Provisions (reversal) for unused loan commitments		4,068,143,712	1,394,941,044
Net loss on foreign currency translation		3,518,942	-
		<u>127,391,940,533</u>	<u>74,719,191,156</u>
Change in operating assets and liabilities			
Decrease (increase) in due from financial institutions		(969,423,769,931)	1,418,471,001,859
Increase in financial assets at fair value through profit or loss		(250,000,000,000)	-
Increase in loans		(1,568,023,557,128)	(10,177,764,893,564)
Increase in net defined benefit assets		(8,254,816,651)	(6,264,387,798)
Increase in other assets		(102,735,965,098)	(77,223,714,043)
Increase in deposits		2,827,374,582,892	9,900,279,890,159
Decrease in long-term employee benefits		(100,000,000)	(90,000,000)
Increase in other liabilities		29,829,745,365	59,019,989,448
		<u>(41,333,780,551)</u>	<u>1,116,427,886,061</u>
Income taxes paid		(1,937,042,260)	(2,726,174,530)
Interest received		626,310,217,010	478,492,860,713
Interest paid		(247,074,162,207)	(166,402,576,601)
Net cash inflow from operating activities		<u>168,963,855,666</u>	<u>1,266,682,338,245</u>
Cash flows from investing activities			
Disposal of financial investments		1,288,469,030,236	4,252,781,534,075
Acquisition of financial investments		(2,418,776,984,370)	(6,007,197,399,632)
Acquisition of property and equipment		(17,342,362,968)	(10,434,908,357)
Acquisition of intangible assets		(4,260,011,348)	(5,831,650,327)
Decrease in leasehold deposits provided		1,760,000,000	-
Increase in leasehold deposits provided		(2,416,238,614)	(431,944,488)
Increase in advance payments		(4,755,055,004)	(3,731,203,680)
Net cash outflow from investing activities		<u>(1,157,321,622,068)</u>	<u>(1,774,845,572,409)</u>
Cash flows from financing activities			
Increase in borrowings		2,440,000,000,000	-
Decrease in borrowings		(2,440,000,000,000)	-
Decrease in lease liabilities		(8,180,397,634)	(5,695,488,536)
Proceeds from issuance of shares		997,007,039,660	517,906,353,700
Net cash inflow from financing activities		<u>988,826,642,026</u>	<u>512,210,865,164</u>
Effect of exchange rate fluctuations on cash and cash equivalents held			
		(3,518,942)	-
Net increase in cash and cash equivalents		465,356,682	4,047,631,000
Cash and cash equivalents at the beginning of the year	4	5,893,142,000	1,845,511,000
Cash and cash equivalents at the end of the year	4	<u>₩ 6,358,498,682</u>	<u>₩ 5,893,142,000</u>

The above statements of cash flows should be read in conjunction with the accompanying notes.

KakaoBank Corp.
Notes to the Financial Statements
December 31, 2020 and 2019

1. The Company

KakaoBank Corp.(the "Company") is an internet-only bank that provides non-face-to-face banking services through electronic financial transaction method. The Company provides innovative customer service combining finance and IT technology, which is differentiated from common commercial banking service. The Company's headquarters is located at 231, Pangyoyeok-ro, Bundang-Gu, Seongnam-si, Gyeonggi-do, Korea. The Company operates two mobile banking centers and three data processing centers to provide customer services to the customers.

The Company was established on January 22, 2016. The Company launched for the service on July 27, 2017, after obtaining an approval of internet-only bank business on April 5, 2017. The Company changed its name from KakaoBank of Korea Corp. to KakaoBank Corp. on June 1, 2020.

The initial capital of the Company is amounted to ₩900 million and as at December 31, 2020, the Company's capital has increased to ₩2,038,265 million through issuance of shares. Shareholders as at December 31, 2020, are as follows:

	Number of ordinary shares (in shares)	Percentage of ownership (%)
Kakao Corp.	129,533,725	31.78
Korea Value Asset Management Co., Ltd.	110,484,081	27.10
Korea Investment Holdings Co., Ltd.	19,049,643	4.67
Kookmin Bank	38,097,959	9.35
Netmarble Corporation	15,239,183	3.74
Seoul Guarantee Insurance Co., Ltd.	15,239,183	3.74
Korea Post	15,239,183	3.74
eBay Korea Co., Ltd.	15,239,183	3.74
YES24 Co., Ltd	7,619,593	1.87
Skyblue Luxury Investment Pte.Ltd.	15,239,183	3.74
Keto Holdings, L.P.	10,640,000	2.61
IPB Ltd.	10,640,000	2.61
Others ¹	5,392,121	1.31
	407,653,037	100.00

¹ Includes employee shares ownership association and other minority shareholders.

KakaoBank Corp.
Notes to the Financial Statements
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2. Basis of Preparation

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

The financial statements of the Company have been prepared in accordance with K-IFRS. K-IFRS is 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 financial statements 2020 were approved for issue by the Board of Directors on February 3, 2021 and are subject to the approval of shareholders at their Annual General Meeting on March 30, 2021.

2.1 Measurement Basis

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

- Derivative financial instruments are measured at fair value
- Financial assets at fair value through profit or loss are measured at fair value
- Financial assets at fair value through other comprehensive income are measured at fair value
- Share-based payments are measured at fair value
- Net defined benefit liabilities (assets) are recognized at the net of total the present value of net defined benefit obligations less fair value of plan assets.

2.2 Functional and Presentation Currency

The financial statements of the Company are prepared in functional currency of the primary economic environment in which the Company operates. The financial statements are presented in Korean won, which is the Company's functional and presentation currency.

KakaoBank Corp.
Notes to the Financial Statements
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2.3 Use of Estimates and Judgment

The preparation of the financial statements in conformity with K-IFRS requires management to make judgments, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, income and expenses. Management's estimates of outcomes may differ from actual outcomes if management's estimates and assumptions based on management's best judgment at the end of the reporting date are different from the actual environment.

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

Information about critical judgments of management in applying accounting policies that have the most significant effect on the amounts recognized in the financial statements and assumptions and estimation uncertainties that have a significant risk of resulting in a material adjustment within the next financial period is as follows:

Provisions for Credit Losses (allowances for loan losses and provisions for unused loan commitments)

The Company determines and recognizes allowances for losses on financial assets at amortized cost and fair value through other comprehensive income through impairment test and recognizes provisions for unused loan commitments. The provisions for credit losses are determined by the methodology and assumptions used for estimating collectively assessed allowances for groups of loans and unused loan commitments.

The spread of COVID-19 in 2020 is having a significant impact on the domestic and international economy. As a result, the Company considered the negative impact on its financial position and financial performance, and calculated the forward-looking information by reflecting the impact from the spread of COVID-19 on economic factors.

Net defined benefit liability (asset)

Net defined benefit liability (asset) depends on numerous factors, especially variation in discount rate that are determined based on an actuarial basis.

KakaoBank Corp.
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3. Significant Accounting Policies

The significant accounting policies applied in the preparation of these financial statements are set out below. The significant accounting policies applied in the preparation of these financial statements are the same as those that applied to the financial statements for the year ended December 31, 2019, except for the new and amended standards and interpretations for the first time for their annual reporting period commenced January 1, 2020 as explained in Note 3.17.

3.1 Foreign Currency Translation

Foreign currency transactions are translated into the functional currency using the exchange rates at the dates of the transactions or at the year-end if they are subject to remeasurements. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation of monetary assets and liabilities are recognized in profit or loss.

Non-monetary items that are measured at fair value in a foreign currency are translated using the exchange rates at the date when the fair value was determined. Translation differences on assets and liabilities carried at fair value are reported as part of the fair value gain or loss. For example, translation differences on non-monetary assets and liabilities such as financial instruments at fair value through profit or loss are recognized in profit or loss as part of the fair value gain or loss and translation differences on non-monetary assets such as financial instruments at fair value through other comprehensive income are recognized in other comprehensive income.

3.2 Cash and Cash Equivalents

The Company classifies an investment as cash and cash equivalents only when it has a maturity of three months or less. Equity investments are excluded from cash equivalents unless they are, in substance, cash equivalents, for example in the case of preferred shares acquired within a short period of their maturity and with a specified redemption date.

KakaoBank Corp.
Notes to the Financial Statements
December 31, 2020 and 2019

3.3 Financial Assets

The Company recognizes financial assets in the statement of financial position when the Company becomes a party to the contractual provisions of the instrument. Regular way purchases and sales of financial assets (i.e. a purchase or sale of a financial asset under a contract whose terms require delivery of the asset within the time frame established generally by regulation or convention in the marketplace concerned) are recognized on trade-date, the date on which the Company commits to purchase or sell the asset.

3.3.1 Classification

The Company classifies its financial assets in the following measurement categories:

- those to be measured subsequently at fair value (either through other comprehensive income, or through profit or loss), and
- those to be measured at amortized cost.

The classification depends on the Company's business model for managing the financial assets and the contractual terms of the cash flows.

For financial assets measured at fair value, gains and losses will either be recorded in profit or loss or other comprehensive income. For investments in debt instruments, this will depend on the business model in which the investment is held. The Company reclassifies debt investments when, and only when its business model for managing those assets changes.

For investments in equity instruments that are not held for trading, this will depend on whether the Company has made an irrevocable election at the time of initial recognition to account for the equity investment at fair value through other comprehensive income. Gains or losses arising from a change in the fair value for investments in equity instruments that are not designated for fair value through other comprehensive income are recognized in profit or loss.

3.3.2 Measurement

At initial recognition, the Company measures a financial asset at its fair value plus, in the case of a financial asset not at fair value through profit or loss, transaction costs that are directly attributable to the acquisition of the financial asset or the issuance of the financial liabilities. Transaction costs of financial assets carried at fair value through profit or loss are expensed in profit or loss.

Financial assets with embedded derivatives are considered in their entirety when determining whether their cash flows are solely payment of principal and interest.

KakaoBank Corp.
Notes to the Financial Statements
December 31, 2020 and 2019

A. *Debt instruments*

Subsequent measurement of debt instruments depends on the Company's business model for managing the asset and the cash flow characteristics of the asset. The Company classifies its debt instruments into one of the following three measurement categories:

- Financial assets at amortized cost: Assets that are held for collection of contractual cash flows where those cash flows represent solely payments of principal and interest are measured at amortized cost. A gain or loss on a debt investment that is subsequently measured at amortized cost and is not part of a hedging relationship is recognized in profit or loss when the asset is derecognized or impaired. Interest income from these financial assets is included in 'interest income' in the statements of comprehensive income using the effective interest rate method.

Carrying amount of financial assets at amortized cost is calculated as net of allowances and measurement of allowances is explained in Note 3.3.5.

- Financial assets at fair value through other comprehensive income: Assets that are held for collection of contractual cash flows and for selling the financial assets, where the assets' cash flows represent solely payments of principal and interest, are measured at fair value through other comprehensive income. Movements in the carrying amount are taken through other comprehensive income, except for the recognition of impairment loss (reversal of impairment loss), interest income and foreign exchange gains and losses which are recognized in profit or loss. When the financial asset is derecognized, the cumulative gain or loss previously recognized in other comprehensive income is reclassified from equity to profit or loss. Interest income from these financial assets using the effective interest rate method is included in 'interest income' in the statements of comprehensive income.

The measurement of allowances of financial assets at fair value through other comprehensive income is explained in Note 3.3.5.

- Financial assets at fair value through profit or loss: Assets that do not meet the criteria for amortized cost or fair value through other comprehensive income are measured at fair value through profit or loss. A gain or loss on a debt investment that is subsequently measured at fair value through profit or loss and is not part of a hedging relationship is recognized in profit or loss and presented net in the statement of comprehensive income within 'gain or loss related to financial assets at fair value through profit or loss' in the year in which it arises.

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B. Equity instruments

The Company subsequently measures all equity investments at fair value. Where the Company's management has elected to present fair value gains and losses on equity investments in other comprehensive income, there is no subsequent reclassification of fair value gains and losses to profit or loss following the derecognition of the investment. Dividend income from such investments continue to be recognized in profit or loss when the right to receive payments is established.

Changes in the fair value of financial assets at fair value through profit or loss are recognized in 'gain (loss) related to financial assets at fair value through profit or loss' in the statement of comprehensive income as applicable. Impairment loss (reversal of impairment loss) on equity investments measured at fair value through other comprehensive income are not recognized separately from other changes in fair value.

3.3.3 Derecognition of financial assets

Financial assets are derecognized when the contractual rights to the cash flows from the financial assets expire or the rights to receive the contractual cash flows have been transferred from the financial assets as well as substantially all the risks and rewards of ownership of the financial assets are also transferred, or all the risks and rewards of ownership of the financial assets are neither substantially transferred nor retained and the Company has not retained control. If the Company retains control of financial assets, the Company continues to recognize the financial asset to the extent of its continuing involvement in the financial asset and recognized as a separate asset or liability.

If the Company transfers the contractual rights to receive the cash flows of the financial asset, but retains substantially all the risks and rewards of ownership of the financial asset, the Company continues to recognize the transferred asset in its entirety and recognize a financial liability for the consideration received.

The Company writes off the loan instruments and debt securities in its entirety or to a portion thereof when the principal and interest are determined to be no longer recoverable. In general, the Company considers write-off when it is determined that the debtor does not have sufficient resources or income to cover the principal and interest, and this write-off decision is made in accordance with internal policy, if necessary, approved by external regulators. After the write-off, the Company has a right to collect the written-off loans continuously according to the internal policy.

3.3.4 Offsetting of financial assets and liabilities

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

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3.3.5 Expected credit loss of financial assets

The Company measures expected credit loss and recognizes loss allowance at the end of the reporting period for financial assets at amortized cost and fair value through other comprehensive income with the exception of financial assets at fair value through profit or loss.

Expected credit losses are estimated at present value of probability-weighted amount that is determined by evaluating a range of possible outcomes. The Company measures expected credit losses by reflecting reasonable and supportable information that is reasonably available at the reporting date without undue cost or effort, including information about past events, current conditions and forecasts of future economic conditions.

The approaches of measuring expected credit losses in accordance with K-IFRS are as follows:

- General approach: for financial assets not subject to the below approach and unused loan commitments on off-balance sheet
- Credit-impaired approach: for financial assets that are credit-impaired at the time of acquisition

Application of general approach is differentiated depending on whether credit risk has increased significantly after initial recognition. After initial recognition, loss allowances for the assets without significant increase in credit risk are measured at the amount of 12 month expected credit losses, whereas the loss allowances for the assets with significant increase in credit risk are measured at the amount of lifetime expected credit losses. Lifetime is presumed to be a period to the contractual maturity date of financial assets (the expected life of financial assets).

The Company determines, but are not limited to, whether the credit risk has increased significantly using the following.

- More than 30 days past due
- Classification of precautionary or below in accordance with Regulations on Supervision of Banking Business
- Indicators of bad credit determined using the delinquency information and credit information of borrowers
- Seizure of deposits held by the borrower

After initial recognition, if estimated future cash flows of financial assets are affected a result of one or more of the following items, the Company deemed financial assets impaired:

- 90 days or more past due
- Financial assets classified as unprofitable loans
- Write-off or sales of financial assets resulting from deterioration of credit
- Decrease in debt due to debt restructuring
- Borrowers took bankruptcy or similar procedures to avoid, or postpone payments of loans
- Registration of borrowers on the overdue and bankruptcy information management list according to the general credit information management regulations of Credit Information Service

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- Death of Borrowers

A. Forward-looking information

The Company reflects forward-looking information using information related to future economic conditions, when it measures the expected credit losses.

The Company assumes the risk component has a correlation with the economic cycle and calculates the expected credit loss by reflecting information related to the macroeconomic fluctuations on the risk components.

The correlation between major macroeconomic variables and expected credit losses is as follows:

Major macroeconomic variables	Correlation
Rate of fluctuations in the price of housing (%)	Negative (-) correlation
Growth rate of GDP (%)	Negative (-) correlation
Rate of fluctuations in private consumption expenditure (%)	Negative (-) correlation

Macroeconomic variables used in calculation of expected credit loss are estimated in consideration of a variety of factors including adverse economic scenarios, statistics and forecasts of macroeconomic variables obtained from external institutions and others.

B. Measuring expected credit losses on financial assets at amortized cost

The expected credit losses on financial assets at amortized cost are measured as the difference between the asset's contractual terms of cash flow and the present value of estimated future cash flows discounted at the financial asset's original effective interest rate. The Company estimates expected future cash flows for financial assets that are individually significant (individual assessment of impairment).

For financial assets that are not individually significant, the Company collectively estimates expected credit loss by grouping loans with homogeneous credit risk profile (collective assessment of impairment).

Individual assessment of impairment

Individual assessment of impairment losses is calculated by discounting the expected future cash flows of a loan at its original effective interest rate and comparing the resultant present value with the loan's current carrying amount. This process normally encompasses management's best estimate, such as operating cash flow of the borrower and net realizable value of any collateral held.

Collective assessment of impairment

A methodology based on historical loss experience is used to estimate inherent incurred loss on

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groups of assets for collective assessment of impairment. Such methodology incorporates factors such as type of collateral, product and borrowers, credit rating, size or portfolio, loss period, recovery period and applies probability of default on a group of assets and loss given default by type of recovery method. Also, consistent assumptions are applied to form a formula-based model in estimating inherent loss and to determine factors on the basis of historical loss experience and current condition. The methodology and assumptions used for collective assessment of impairment are reviewed regularly to reduce any differences between loss estimates and actual loss experience.

Lifetime expected credit loss as at the end of the reporting period is calculated by product of carrying amount net of expected repayment, probability of default (PD) for each period and loss given default (LGD) adjusted by change in carrying amount.

C. Measuring expected credit losses on financial assets at fair value through other comprehensive income

A method of measurement of expected credit losses on financial assets at fair value through other comprehensive income is equal to the method of financial assets at amortized cost, except for changes in loss allowances that are recognized as other comprehensive income. Upon disposal or repayment of financial assets at fair value through other comprehensive income, the amount of loss allowances is reclassified from other comprehensive income to profit or loss.

3.4 Property and Equipment

Property and equipment are stated at historical cost less accumulated depreciation and accumulated impairment losses. Historical cost includes expenditure that is directly attributable to the acquisition of the items.

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

	Estimated useful lives
Tools and equipment	5 years
Right-of-use assets ¹	2 ~ 5 years
Others	5 years

¹ Considering the lease contract period, the estimated useful life of right-of-use assets is determined from the commencement date of the lease to the earliest date of the end of the right-of-use assets' useful life or the end of the lease term.

The residual value, the useful life and the depreciation method applied to an asset are reviewed at least at each financial year end and, if expectations differ from previous estimates or if there has

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been a significant change in the expected pattern of consumption of the future economic benefits embodied in the asset, the changes are accounted for as a change in an accounting estimate.

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3.5 Intangible Assets

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

Intangible assets are amortized using the straight-line method with no residual value over their estimated useful economic life from when the asset is available for use.

	Estimated useful lives
Software	5 years
Development costs	5 years
Others	5 ~ 7 years

The amortization period and the amortization method for intangible assets with a finite useful life are reviewed at least at each financial year end. Where an intangible asset is not being amortized because its useful life is considered to be indefinite, the Company carries out a review in each accounting period to confirm whether or not events and circumstances still support the assumption of an indefinite useful life. If they do not, the change from the indefinite to finite useful life is accounted for as a change in an accounting estimate.

Expenditures on research activities or the research phase of an internal project are recognized in profit or loss as incurred. Development expenditures are capitalized only if the Company can demonstrate the technical feasibility of completing the intangible asset, its intention and ability to complete the intangible asset and use or sell it, the availability of adequate resources and probable future economic benefits, and the expenditure attributable to the intangible asset during its development can be measured reliably. Other development expenditures are recognized in profit or loss as incurred.

3.6 Impairment of Non-financial Assets

Goodwill, intangible assets that have an indefinite useful life, or intangible assets not yet available for use are tested annually for impairment. Non-financial assets, except for non-financial assets such as (i) deferred income tax assets, (ii) assets arising from employee benefits and (iii) non-current assets classified as held for sale, are tested for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognized for the amount by which the asset's carrying amount exceeds its recoverable amount (the recoverable amount is the higher of an asset's fair value less costs of disposal and value in use. Value in use is estimated by discounting the future cash flows expected to be derived from an asset or cash generating unit at a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the asset for which the future cash flow estimates have not been adjusted). The Company assesses whether there is any indication that an impairment loss recognized in prior periods for non-financial assets, other than goodwill, may no longer exist or may have decreased, and an impairment loss recognized in prior periods shall be reversed if, and only

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if, there has been a change in the estimates used to determine the asset's recoverable amount since the last impairment loss was recognized. The increased carrying amount of the assets other than goodwill attributable to a reversal of an impairment loss cannot exceed the carrying amount that would have been determined (net of amortization or depreciation) had no impairment loss been recognized for the asset in prior years. An impairment loss recognized for goodwill is not reversed in a subsequent period.

3.7 Financial Liabilities

In accordance with the substance of the contractual arrangement and the definitions of financial liabilities, the Company recognizes financial liabilities in the statement of financial position when the Company becomes a party to the contractual provisions of the financial liability. Transaction costs of financial liabilities at fair value through profit or loss are recognized in profit or loss.

3.7.1 Financial liabilities designated at fair value through profit or loss

The Company irrevocably designates certain financial liabilities upon initial recognition as at fair value through profit or loss when the designation eliminates or significantly reduces a measurement or recognition inconsistency (sometimes referred to as 'an accounting mismatch') that would otherwise arise from measuring assets or liabilities or recognizing the gains and losses on them on different bases, or a group of financial liabilities or financial assets is managed and its performance is evaluated on a fair value basis, in accordance with a documented risk management or investment strategy. The amount of the change in the fair value of financial liabilities at fair value through profit or loss that is attributable to changes in its own credit risk is recognized in other comprehensive income.

3.7.2 Financial liabilities at fair value through profit or loss

After initial recognition, financial liabilities at fair value through profit or loss are measured at fair value, and changes therein are recognized in profit or loss related to financial instrument at fair value through profit or loss.

3.7.3 Other financial liabilities

Non-derivative financial liabilities other than financial liabilities at fair value through profit or loss are classified as other financial liabilities. Other financial liabilities include deposits, debts, debentures and others. Upon of initial recognition, other financial liabilities are measured at fair value minus transaction costs that are directly attributable to the acquisition. Subsequent to initial recognition, other financial liabilities are measured at amortized cost using the effective interest method, and the interest expenses are recognized by applying the effective interest method.

3.7.4 Derecognition of financial liabilities

Financial liabilities are derecognized from the statement of financial position when the obligation specified in contract is discharged, cancelled or expired.

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3.8 Share Capital

Ordinary share and preferred share are classified as equity and the incremental costs arising directly attributable to the equity transactions less their tax effects are deducted from equity.

3.9 Leases

The Company leases various offices, office supplies, computer operation equipment cars and others. Lease contracts are typically made for fixed periods of 2 to 5 years, but may have extension options. Lease terms are negotiated on an individual basis and contain a wide range of different terms and conditions. The lease contracts do not impose any other covenants, but leased assets may not be used as collateral for borrowing purposes.

For a contract that is, or contains, a lease, the Company accounts for each lease component within the contract as a lease separately from non-lease components of the contract. As a practical expedient, the lessee may elect, by class of underlying asset, not to separate non-lease components from lease components, and instead account for each lease component and any associated non-lease components as a single lease component.

Leases are recognized as a right-of-use asset and a corresponding liability at the commencement date at which the leased asset is available for use by the Company. Each lease payment is apportioned between the finance cost and the reduction of the outstanding liability. The finance cost is recognized in profit or loss over the lease period so as to produce a constant periodic rate of interest on the remaining balance of the liability for each period. The right-of-use asset is depreciated over the shorter of the asset's useful life and the lease term.

Assets and liabilities arising from a lease are initially measured on a present value basis. Lease liabilities include the net present value of the following lease payments:

- Fixed payments (including in-substance fixed payments), less any lease incentives receivable
- Variable lease payments that depend on an index or a rate
- 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, and
- Payments of penalties for terminating the lease, if the lease term reflects the lessee exercising that option

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The lease payments are discounted using the interest rate implicit in the lease if that rate can be readily determined. If that rate cannot be readily determined, the lessee's incremental borrowing rate is used, being the rate that the lessee would have to pay to borrow the funds necessary to obtain an asset of similar value in a similar economic environment with similar terms and collaterals.

Right-of-use assets are measured at cost comprising the following:

- the amount of the initial measurement of lease liability
- any lease payments made at or before the commencement date less any lease incentives received
- any initial direct costs incurred by the lessee, and
- estimated restoration costs

Payments associated with short-term leases and leases of low-value assets (e.g. underlying assets of \$ 5,000 or below) are recognized on a straight-line basis as an expense in profit or loss. Short-term leases are leases with a lease term of 12 months or less. Low-value assets comprise IT-equipment and small items of office furniture.

3.10 Employee Compensation and Benefits

3.10.1 Short-term employee benefits

Short-term employee benefits are employee benefits (other than termination benefits) that are due to be settled within 12 months after the end of the period in which the employees render the related service. The undiscounted amount of short-term employee benefits expected to be paid in exchange for that service is recognized in profit or loss when an employee has rendered service to the Company.

The expected costs of profit-sharing and bonus payments are recognized as liabilities when the Company has a present legal or constructive obligation to make such payments as a result of past events rendered by employees and a reliable estimate of the obligation can be made.

3.10.2 Other long-term employee benefits

The Company provides long-term employee benefits, which are entitled to employees who have been employed for longer than or equal to three years. The expected costs of these benefits are accrued over the period of employment using the same accounting methodology as used for defined benefit pension plans. The Company recognizes service cost, net interest on other long-term employee benefits and remeasurements as profit or loss for the year. These liabilities are measured annually by independent qualified actuaries.

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3.10.3 Post-employment Benefits: Net defined benefit plan

Generally, post-employment benefits are payable after the completion of employment, and the benefit amount depended on the employee's age, periods of service or salary levels. The liability recognized in the statement of financial position in respect of net defined benefit plans is the present value of the net defined benefit obligation at the end of the reporting period less the fair value of plan assets. The net defined benefit obligation is calculated annually by independent actuaries using the projected unit credit method. The present value of the net defined benefit obligation is determined by discounting the estimated future cash outflows using interest rates of high-quality corporate bonds that are denominated in the currency in which the benefits will be paid, and that have terms approximating to the terms of the related obligation. Remeasurement gains and losses arising from experience adjustments and changes in actuarial assumptions are recognized in the period in which they occur, directly in other comprehensive income. Changes in the present value of the net defined benefit obligation resulting from plan amendments, curtailments or settlements are recognized immediately in profit or loss as past service costs.

3.10.4 Post-employment Benefits: Defined contribution plan

For defined contribution plan, when an employee has rendered service to the Company during a period, the Company recognizes the contribution payable to a defined contribution plan in exchange for that service as profit or loss except in the case of their inclusion in the cost of an asset.

3.11 Share-based Payments

For equity-settled share-based payment transactions, if the fair value of the goods or services received cannot be measured reliably, the Company measures their value indirectly, by reference to the fair value of the equity instruments granted and recognizes these as employee benefits and equity over the vesting period. If the vesting condition of share options is other than service condition or market condition, the employee benefits recognized are adjusted to be determined based on the actual number of shares of that is vested.

For cash-settled share-based payment transactions, the Company measures the goods or services acquired and the liability incurred at the fair value and recognizes these as employee benefits and liabilities over the vesting period. Until the liability is settled, the Company remeasures the fair value of the liability at the end of each reporting period and at the date of settlement, with any changes in fair value recognized in employee benefits.

Share-based payment transactions with an option for the parties to choose between cash and equity settlement are accounted for based on the substance of the transaction. The Company determines that it has not present obligation to settle in cash. Therefore, the Company accounts for the transactions in accordance with an equity-settled share-based payment transaction.

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3.12 Provisions

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

The risks and uncertainties that inevitably surround many events and circumstances are taken into account in reaching the best estimate of a provision. Where the effect of the time value of money is material, provisions are determined at the present value of the expected future cash flows.

Provisions on unused credit lines of consumer and corporate loans are measured using a valuation model that applies the credit conversion factor, probability of default, loss given default and others.

Where some or all of the expenditures required to settle a provision are expected to be reimbursed by another party, the reimbursement shall be recognized when, and only when, it is virtually certain that reimbursement will be received if the entity settles the obligation. The reimbursement shall be treated as a separate asset.

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

3.13 Revenue Recognition

The Company recognizes revenues in accordance with the following steps determined in accordance with K-IFRS 1115 *Revenue from Contracts with Customers*.

- Step 1: Identify the contract with a customer.
- Step 2: Identify the performance obligations in the contract.
- Step 3: Determine the transaction price.
- Step 4: Allocate the transaction price to the performance obligations in the contract.
- Step 5: Recognize revenue when (or as) the entity satisfies a performance obligation.

3.13.1 Interest income and expenses

Interest income and expense are recognized using the effective interest method in the statements of comprehensive income. The effective interest method is a method of calculating the amortized cost of a financial asset or a financial liability and of allocating the interest income or interest expense over the relevant period.

The effective interest rate is the rate that exactly discounts estimated future cash receipts or payments through the expected life of the financial instrument or, where appropriate, a shorter period, to the net carrying amount of the financial asset or financial liability. When calculating the effective

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interest rate, the Company estimates cash flows considering all contractual terms of the financial instrument but does not consider future credit losses. The calculation includes all fees and points paid or received between parties to the contract that are an integral part of the effective interest rate, transaction costs, and all other premiums or discounts. In those rare cases when it is not possible to estimate reliably the cash flows or the expected life of a financial instrument (or group of financial instruments), the Company uses the contractual cash flows over the full contractual term of the financial instrument (or group of financial instruments).

Interest on impaired financial assets is recognized using the rate of interest used to discount the future cash flows for the purpose of measuring the impairment loss.

3.13.2 Fee and commission Income

The Company recognizes financial service fees in accordance with the purpose of charging the fees and the accounting standard of the financial instrument related to the fees earned.

Fees that are a part of the effective interest of a financial instrument

The fees that are a part of the effective interest of a financial instrument include compensation for activities such as evaluating the borrower's financial condition, evaluating and recording guarantees, collateral and other security arrangements, negotiating the terms of the instrument, preparing and processing documents and closing the transaction, and origination fees received on issuing financial liabilities at amortized cost. Such fees are generally treated as adjustments of effective interest. However, fees relating to the creation or acquisition of a financial instrument at fair value through profit or loss are recognized as revenue immediately.

Fees related to performance obligations in the contract satisfied over time

As control over related goods and services of fees and commission income of performance obligation contracts transfer over time, commission income is recognized over the period of performance obligations. Fees and commission income, including asset management fees and commission fees are recognized as the related services are rendered.

Fees earned at a point in time

Fees earned at a point in time are recognized when a customer obtains controls of a promised asset and the Company satisfies a performance obligation. Commission on negotiation or participation in negotiation for the third party such as trading stocks or other securities, arranging transfer and acquisition of business is recognized as revenue when the transaction has been completed.

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3.13.3 Net gains/losses on financial instruments at fair value through profit or loss

Net gains/losses on financial instruments at fair value through profit or loss include profit or loss (including changes in fair value, dividends, and gain/loss from foreign currency translation) from following financial instruments:

- Gain or loss from financial instruments at fair value through profit or loss, excluding interest income calculated by the effective interest rate
- Gain or loss from derivatives for trading, including derivatives for hedging that does not meet the criteria for hedge accounting

3.13.4 Dividend income

Dividend income is recognized in profit or loss when the right to receive payment is established.

3.14 Income Tax Expenses

The tax expense for the period consists of current and deferred tax. Current and deferred tax is recognized in profit or loss, except to the extent that it relates to items recognized in other comprehensive income or directly in equity. In this case, the tax is also recognized in other comprehensive income or directly in equity, respectively. The tax expense is measured at the amount expected to be paid to the taxation authorities, using the tax rates (and tax laws) that have been enacted or substantively enacted by the end of the reporting period.

Deferred income tax is recognized as the tax consequences when recovery or settlement of the carrying amount of assets and liabilities arise, on temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the financial statements. However, deferred income tax is not accounted for if it arises from initial recognition of goodwill, or initial recognition of an asset or liability in a transaction other than a business combination that at the time of the transaction affects neither accounting nor taxable profit or loss.

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

Deferred tax assets and liabilities are offset when there is a legally enforceable right to offset current tax assets and liabilities and when the deferred tax balances relate to the same taxation authority. Current tax assets and tax liabilities are offset where the entity has a legally enforceable right to offset and intends either to settle on a net basis.

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3.15 Earnings Per Share

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

3.16 Operating Segments

According to K-IFRS 1108 *Operating Segments*, the Company omitted disclosure for operating segment as the Company has a single segment. The chief operating decision-maker is responsible for allocating resources and assessing performance of the operating segments and the Board of Directors that makes strategic decisions is considered as the chief operating decision-maker.

3.17 New and amended standards and interpretation adopted by the Company

The Company has applied the following standards and amendments for the first time for their annual reporting period commenced January 1, 2020.

3.17.1 Amendments to K-IFRS 1001 ‘Presentation of financial statements’ and K-IFRS 1008 ‘Accounting policies, changes in accounting estimates and errors’ – Definition of material

The amendments clarify the explanation of the definition of material and K-IFRS 1001 and K-IFRS 1008 were amended in accordance with the clarified definitions. Materiality is assessed by reference to omission or misstatement of material information as well as effects of immaterial information, and to the nature of the users when determining the information to be disclosed by the Company. The amendments do not have a significant impact on the Company’s financial statements.

3.17.2 Amendments to K-IFRS 1103 ‘Business combination’ – Definition of business

To consider the integration of the required activities and assets as a business, the amended definition of a business requires an acquisition to include an input and a substantive process that together significantly contribute to the ability to create outputs and excludes economic benefits from the lower costs. If all of the fair value of gross assets acquired is substantially concentrated in a single asset or a group of similar assets, an entity may elect to apply a concentration test, an optional test, to permit a simplified assessment of whether an acquired asset of activities and assets is not a business. The amendments do not have a significant impact on the Company’s financial statements.

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3.17.3 Amendments to K-IFRS 1109 '*Financial Instruments*' and K-IFRS 1107 '*Financial Instruments: Disclosures*' – Interest rate indicator reform

The revised K-IFRS requires exceptions to the analysis of future information in relation to the application of hedge accounting, while uncertainty exists due to movements of the interest rate indicator reform. The exception assumes that when assessing whether the expected cash flows that comply with existing interest rate indicators are highly probable, whether there is an economic relationship between the hedged item and the hedging instrument, and whether there is a high hedge effectiveness between the hedged item and the hedging instrument, the interest rate indicators that are based on the hedged item do not change due to the effect of the interest rate index reform. The amendments do not have a significant impact on the Company's financial statements.

3.18 New standards and interpretations not yet adopted by the Company

The following new accounting standards and interpretations have been published that are not mandatory for December 31, 2020 reporting periods and have not been early adopted by the Company.

3.18.1 Amendments to K-IFRS No.1116 '*Lease*' - The practical expedient for the exemption, discount or deferral of rent related to COVID-19

As a practical expedient, a lessee may elect not to assess whether a rent concession occurring as a direct consequence of the COVID-19 pandemic is a lease modification. A lessee that makes this election shall account for any change in lease payments resulting from the rent concession the same way it would account for the change applying this Standard if the change were not a lease modification. These amendments should be applied for annual periods beginning on or after June 1, 2020, and earlier application is permitted. The Company does not expect that these amendments have a significant impact on the financial statements.

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4. Cash and Due from Financial Institutions

Details of cash and due from financial institutions as at December 31, 2020 and 2019, are as follows:

<i>(in Korean won)</i>	<u>2020</u>	<u>2019</u>
Cash and cash equivalents		
Cash	₩ 6,245,169,000	₩ 5,893,142,000
Demand deposits	113,329,682	-
	<u>6,358,498,682</u>	<u>5,893,142,000</u>
Due from financial institutions in Korean won		
Time deposits	825,613,621	805,949,458
Reserve deposits	1,188,753,170,008	219,349,064,240
	<u>1,189,578,783,629</u>	<u>220,155,013,698</u>
	<u>₩ 1,195,937,282,311</u>	<u>₩ 226,048,155,698</u>

Restricted deposits as at December 31, 2020 and 2019, are as follows:

<i>(in Korean won)</i>	Financial Institutions	<u>2020</u>	<u>2019</u>	Reason for restriction
Due from financial institutions in Korean won				
Time deposits	Shinhan Bank	₩ 825,613,621	₩ -	Pledged as head office rental deposit
Time deposits	Woori Bank	-	805,949,458	Pledged as head office rental deposit
Reserve deposits	Bank of Korea	1,188,753,170,008	219,349,064,240	Bank of Korea Act
		<u>₩ 1,189,578,783,629</u>	<u>₩ 220,155,013,698</u>	

5. Financial assets at fair value through profit or loss

Details of financial assets at fair value through profit or loss as at December 31, 2020 and 2019, are as follows:

<i>(in Korean won)</i>	<u>2020</u>	<u>2019</u>
Financial assets at fair value through profit or loss		
Debt securities		
Beneficiary certificates	₩ 250,093,130,763	₩ -
	<u>₩ 250,093,130,763</u>	<u>₩ -</u>

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6. Financial Investments

Details of financial investments as at December 31, 2020 and 2019, are as follows:

<i>(in Korean won)</i>	<u>2020</u>	<u>2019</u>
Financial assets at fair value through other comprehensive income		
Debt securities		
Government bonds	₩ 1,548,849,386,360	₩ 797,889,242,103
Financial bonds	592,239,130,370	752,371,897,816
Corporate bonds	529,524,370,643	176,113,972,790
	<u>2,670,612,887,373</u>	<u>1,726,375,112,709</u>
Financial assets at amortized cost		
Debt securities		
Government bonds	900,193,949,410	790,112,218,111
Corporate bonds	440,470,427,094	360,644,630,785
	<u>1,340,664,376,504</u>	<u>1,150,756,848,896</u>
	<u>₩ 4,011,277,263,877</u>	<u>₩ 2,877,131,961,605</u>

There is no impairment loss on financial investments for the years ended December 31, 2020 and 2019.

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7. Loans

Details of loans as at December 31, 2020 and 2019, are as follows:

<i>(in Korean won)</i>	<u>2020</u>	<u>2019</u>
Loans	₩ 20,709,596,816,512	₩ 19,211,559,561,764
Deferred loan origination fees and costs	43,717,180,011	39,363,000,739
	<u>20,753,313,996,523</u>	<u>19,250,922,562,503</u>
Less: Allowances for loan losses	(90,505,245,058)	(57,133,670,204)
	<u>₩ 20,662,808,751,465</u>	<u>₩ 19,193,788,892,299</u>

Changes in the allowances for loan losses for the years ended December 31, 2020 and 2019, are as follows:

<i>(in Korean won)</i>	<u>2020</u>	<u>2019</u>
Beginning balance	₩ 57,133,670,204	₩ 32,210,147,308
Provision	60,839,656,785	36,404,704,367
Written-off	(29,204,847,548)	(11,819,936,610)
Unwinding Effect	(163,643,691)	(103,092,828)
Recoveries of amounts previously written-off	1,900,409,308	441,847,967
Ending balance	<u>₩ 90,505,245,058</u>	<u>₩ 57,133,670,204</u>

Changes in the deferred loan origination fees and costs for the years ended December 31, 2020 and 2019, are as follows:

<i>(in Korean won)</i>	<u>2020</u>	<u>2019</u>
Beginning balance	₩ 39,363,000,739	₩ 31,718,726,758
Increase	70,786,234,460	57,060,583,790
Decrease	(66,432,055,188)	(49,416,309,809)
Ending balance	<u>₩ 43,717,180,011</u>	<u>₩ 39,363,000,739</u>

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8. Property and Equipment

Details of property and equipment as at December 31, 2020 and 2019, are as follows:

(in Korean won)

	2020		
	Acquisition cost	Accumulated depreciation	Carrying amount
Tools and equipment	₩ 65,666,177,351	₩ (30,479,756,998)	₩ 35,186,420,353
Right-of-use assets	24,561,955,797	(14,977,120,869)	9,584,834,928
Others	7,291,224,220	(5,905,125,046)	1,386,099,174
	<u>₩ 97,519,357,368</u>	<u>₩ (51,362,002,913)</u>	<u>₩ 46,157,354,455</u>

(in Korean won)

	2019		
	Acquisition cost	Accumulated depreciation	Carrying amount
Tools and equipment	₩ 49,010,498,683	₩ (18,801,499,539)	₩ 30,208,999,144
Right-of-use assets	20,683,305,930	(6,354,978,081)	14,328,327,849
Others	4,517,891,720	(1,935,922,639)	2,581,969,081
	<u>₩ 74,211,696,333</u>	<u>₩ (27,092,400,259)</u>	<u>₩ 47,119,296,074</u>

Changes in property and equipment for the years ended December 31, 2020 and 2019, are as follows:

(in Korean won)

	2020				
	Beginning balance	Acquisitions	Depreciation	Others¹	Ending balance
Tools and equipment	₩ 30,208,999,144	₩ 16,655,678,668	₩ (11,678,257,459)	₩ -	₩ 35,186,420,353
Right-of-use assets	14,328,327,849	2,932,774,957	(8,736,151,896)	1,059,884,018	9,584,834,928
Others	2,581,969,081	2,773,332,500	(3,969,202,407)	-	1,386,099,174
	<u>₩ 47,119,296,074</u>	<u>₩ 22,361,786,125</u>	<u>₩ (24,383,611,762)</u>	<u>₩ 1,059,884,018</u>	<u>₩ 46,157,354,455</u>

¹Increase due to changes in provision for asset retirement obligation and changes in the discount rate.

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(In Korean won)	2019					
	Beginning balance	Effect of transition ¹	Acquisitions	Depreciation	Others ²	Ending balance
Tools and equipment	₩ 28,546,846,871	₩ -	₩ 10,368,586,137	₩ (8,706,433,864)	₩ -	₩ 30,208,999,144
Right-of-use assets	-	15,674,709,633	4,735,822,825	(6,354,978,081)	272,773,472	14,328,327,849
Others	3,473,789,004	(1,053,394,830)	976,590,000	(815,015,093)	-	2,581,969,081
	<u>₩ 32,020,635,875</u>	<u>₩ 14,621,314,803</u>	<u>₩ 16,080,998,962</u>	<u>₩ (15,876,427,038)</u>	<u>₩ 272,773,472</u>	<u>₩ 47,119,296,074</u>

¹The effects of adoption of K-IFRS 1116

²Increase due to changes in provision for asset retirement obligation and changes in the discount rate.

There are no contractual amounts as at December 31, 2020. The contractual amount for acquisition of property and equipment as at December 31, 2019, is ₩730,000,000, of which ₩219,000,000 was paid and ₩511,000,000 is to be paid.

9. Intangible Assets

Details of intangible assets as at December 31, 2020 and 2019, are as follows:

(in Korean won)	2020		
	Acquisition cost	Accumulated amortization	Carrying amount
Development costs	₩ 68,506,337,202	₩ (44,433,216,601)	₩ 24,073,120,601
Software	27,493,999,102	(15,010,809,139)	12,483,189,963
Others ¹	8,345,709,190	(23,723,182)	8,321,986,008
	<u>₩ 104,346,045,494</u>	<u>₩ (59,467,748,922)</u>	<u>₩ 44,878,296,572</u>

¹ Intangible assets of ₩8,293,173,880 which are not subject to amortization due to its indefinite useful life are included, because there is no foreseeable limit to the period over which the assets are expected to be utilized.

(in Korean won)	2019		
	Acquisition cost	Accumulated amortization	Carrying amount
Development costs	₩ 67,198,291,202	₩ (30,817,272,240)	₩ 36,381,018,962
Software	23,380,617,754	(9,918,535,136)	13,462,082,618
Others ¹	6,568,098,710	(16,859,222)	6,551,239,488
	<u>₩ 97,147,007,666</u>	<u>₩ (40,752,666,598)</u>	<u>₩ 56,394,341,068</u>

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¹ Intangible assets of ₩6,540,000,000 which are not subject to amortization due to its indefinite useful life are included, because there is no foreseeable limit to the period over which the assets are expected to be utilized.

Changes in intangible assets for the years ended December 31, 2020 and 2019, are as follows:

(in Korean won)

	2020			
	Beginning balance	Acquisitions	Amortization	Ending balance
Development costs	₩ 36,381,018,962	₩ 1,308,046,000	₩ (13,615,944,361)	₩ 24,073,120,601
Software	13,462,082,618	4,113,381,348	(5,092,274,003)	12,483,189,963
Others	6,551,239,488	1,777,610,480	(6,863,960)	8,321,986,008
	<u>₩ 56,394,341,068</u>	<u>₩ 7,199,037,828</u>	<u>₩ (18,715,082,324)</u>	<u>₩ 44,878,296,572</u>

(in Korean won)

	2019			
	Beginning balance	Acquisitions	Amortization	Ending balance
Development costs	₩ 45,971,013,877	₩ 3,426,590,000	₩ (13,016,584,915)	₩ 36,381,018,962
Software	11,648,588,409	5,888,410,327	(4,074,916,118)	13,462,082,618
Others	6,556,859,232	-	(5,619,744)	6,551,239,488
	<u>₩ 64,176,461,518</u>	<u>₩ 9,315,000,327</u>	<u>₩ (17,097,120,777)</u>	<u>₩ 56,394,341,068</u>

The contractual amount for acquisition of intangible assets as at December 31, 2020 and 2019, is ₩678,972,100 and ₩1,019,709,000, respectively. The amounts paid and payable are ₩393,505,000 (2019: ₩614,825,200) and ₩285,467,100 (2019: ₩404,883,800), respectively, as at December 31, 2020.

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10. Other Assets

Details of other assets as at December 31, 2020 and 2019, are as follows:

<i>(in Korean won)</i>	<u>2020</u>	<u>2019</u>
Other financial assets		
Other receivables	₩ 531,524,546	₩ 184,392,211
Accrued income	82,209,809,773	65,911,035,364
Guarantee deposits	4,746,881,172	3,881,095,558
Domestic exchange settlement debits	342,076,995,394	243,117,780,949
Financial suspense payments	91,594,001	8,043,489
Security deposits	34,300,000	25,500,000
Less: Allowances for loan losses	(130,124,489)	(91,893,427)
Present value discount	(79,925,356)	(99,805,643)
	<u>429,481,055,041</u>	<u>312,936,148,501</u>
Other assets		
Prepaid expenses	4,681,419,958	2,742,446,298
Others	3,679,376,524	2,775,995,260
	<u>8,360,796,482</u>	<u>5,518,441,558</u>
	<u>₩ 437,841,851,523</u>	<u>₩ 318,454,590,059</u>

Changes in allowances for losses on other assets for the years ended December 31, 2020 and 2019, are as follows:

<i>(in Korean won)</i>	<u>2020</u>	<u>2019</u>
Beginning balance	₩ 91,893,427	₩ 67,320,279
Provisions	52,977,268	32,967,895
Written-off	(18,378,116)	(8,783,141)
Recoveries of amounts previously written-off	3,631,910	388,394
Ending balance	<u>₩ 130,124,489</u>	<u>₩ 91,893,427</u>

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11. Assets Pledged as Collateral and Provided as Collateral

Details of assets pledged as collateral as at December 31, 2020 and 2019, are as follows:

<i>(in Korean won)</i>	<u>2020</u>	<u>2019</u>	Reason for the pledge
Securities			
Financial assets at amortized cost	₩ 519,105,114,711	₩ 327,068,487,525	Settlement risk of Bank of Korea

The fair values of collateral available to sell or repledge, regardless of debtor's default, as at December 31, 2020 and 2019, are as follows:

<i>(in Korean won)</i>	<u>2020</u>		<u>2019</u>	
	Fair value of collateral	Fair value of collateral sold or repledged	Fair value of collateral	Fair value of collateral sold or repledged
Securities	₩ 407,070,057,653	-	₩ 4,552,805,850,220	-

12. Deposits

Details of deposits as at December 31, 2020 and 2019, are as follows:

<i>(in Korean won)</i>	<u>2020</u>	<u>2019</u>
Demand deposits		
Demand deposits in Korean won	₩ 13,009,420,575,234	₩ 7,980,695,656,984
Time deposits		
Time deposits in Korean won	10,529,861,733,090	12,731,212,068,448
	<u>₩ 23,539,282,308,324</u>	<u>₩ 20,711,907,725,432</u>

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13. Net Defined Benefit Assets and Liabilities

The Company operates net defined benefit plans based on the service period of employees.

Details of net defined benefit liabilities (assets) recognized in the statements of financial position as at December 31, 2020 and 2019, are as follows:

<i>(in Korean won)</i>	<u>2020</u>	<u>2019</u>
Present value of defined benefit obligations	₩ 17,376,751,491	₩ 10,403,993,875
Fair value of plan assets	<u>(18,373,287,115)</u>	<u>(10,721,918,696)</u>
Net defined benefit assets ¹	<u>₩ (996,535,624)</u>	<u>₩ (317,924,821)</u>

¹ The amount of the surplus of plan asset is similar to the expected value of economic benefit available of surplus, the asset ceiling is not recognized.

Changes in the defined benefit obligations for the years ended December 31, 2020 and 2019, are as follows:

<i>(in Korean won)</i>	<u>2020</u>	<u>2019</u>
Beginning balance	₩ 10,403,993,875	₩ 5,149,179,017
Current service cost	5,555,886,543	3,776,967,005
Interest expense	319,967,352	155,940,792
Remeasurements:		
Actuarial loss from change in demographic assumptions	402,842,054	404,326,584
Actuarial loss from change in financial assumptions	862,548,350	1,065,340,745
Actuarial loss from experience adjustments	680,719,131	58,448,108
Payments	<u>(849,205,814)</u>	<u>(206,208,376)</u>
Ending balance	<u>₩ 17,376,751,491</u>	<u>₩ 10,403,993,875</u>

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Changes in the fair value of plan assets for the years ended December 31, 2020 and 2019, are as follows:

<i>(in Korean won)</i>	2020	2019
Beginning balance	₩ 10,721,918,696	₩ 4,557,027,161
Interest income	329,908,020	137,008,056
Remeasurements:		
Return on plan assets (excluding amounts included in interest income)	(84,150,438)	(30,295,943)
Contributions of employer	8,200,000,000	6,310,000,000
Payments	(794,389,163)	(251,820,578)
Ending balance	₩ 18,373,287,115	₩ 10,721,918,696

Plan assets as at December 31, 2020 and 2019, consist of:

<i>(in Korean won)</i>	2020		2019	
	Assets quoted in an active market	Assets not quoted in an active market	Assets quoted in an active market	Assets not quoted in an active market
ELB of Shinhan Investment Corp.	₩ -	₩ 10,172,568,649	₩ -	₩ -
ELB of Mirae Asset Daewoo Co., Ltd.	-	3,400,442,000	-	-
DLB of Korea Investment & Securities Co., Ltd.	-	1,800,084,600	-	-
GIC of Prudential Life Insurance Company of Korea	-	3,000,186,906	-	-
ELB of Hana Financial Investment Co., Ltd.	-	-	-	10,721,909,478
Cash equivalents	-	4,960	-	9,218
	₩ -	₩ 18,373,287,115	₩ -	₩ 10,721,918,696

The significant actuarial assumptions as at December 31, 2020 and 2019, are as follows:

<i>(in percentage, %)</i>	2020	2019
Discount rate (expected yield)	3.34	3.13 High-grade corporate bonds
Salary growth rate	2.00	2.00

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The sensitivity of the present value of defined benefit obligation to changes in the principal assumptions is:

<i>(in Korean won)</i>	2020	2019
Discount rate		
1% point increase	₩ (2,634,542,498)	₩ (1,419,667,975)
1% point decrease	3,261,675,651	1,732,019,067
 <i>(in Korean won)</i>	2020	2019
Salary growth rate		
1% point increase	₩ 3,274,474,967	₩ 1,735,313,881
1% point decrease	(2,689,820,541)	(1,447,269,881)

Expected maturity analysis of undiscounted pension benefits as at December 31, 2020 and 2019, is as follows:

<i>(in Korean won)</i>	2020					
	Less than 1 year	Between 1-2 years	Between 2-5 years	Between 5-10 years	Over 10 years	Total
Salary payments	₩ 519,365,193	₩ 715,049,691	₩ 2,764,094,557	₩ 7,855,832,639	₩ 273,652,534,597	₩ 285,506,876,677
 <i>(in Korean won)</i>	2019					
	Less than 1 year	Between 1-2 years	Between 2-5 years	Between 5-10 years	Over 10 years	Total
Salary payments	₩ 350,638,324	₩ 507,119,762	₩ 2,372,338,152	₩ 7,682,836,514	₩ 166,004,911,139	₩ 176,917,843,891

The weighted average duration of the defined benefit obligation for the years ended December 31, 2020 and 2019 is 17.39 years and 15.50 years, respectively.

Expected contributions to plan assets for the year beginning on January 1, 2021, is estimated to be approximately ₩5,746,105,148.

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14. Provisions

Details of provisions as at December 31, 2020 and 2019, are as follows:

<i>(in Korean won)</i>	<u>2020</u>	<u>2019</u>
Provisions for asset retirement obligation	₩ 3,383,795,817	₩ 1,994,387,240
Provisions for unused loan commitments	8,464,780,331	4,396,636,619
Long-term employee benefits	10,566,576,436	8,004,831,858
	<u>₩ 22,415,152,584</u>	<u>₩ 14,395,855,717</u>

Changes in provisions for the years ended December 31, 2020 and 2019, are as follows:

<i>(in Korean won)</i>	<u>2020</u>			
	<u>Provisions for asset retirement obligation ¹</u>	<u>Provisions for unused loan commitments</u>	<u>Long-term employee benefits</u>	<u>Total</u>
Beginning balance	₩ 1,994,387,240	₩ 4,396,636,619	₩ 8,004,831,858	₩ 14,395,855,717
Unwinding of discount	40,541,357	-	-	40,541,357
Effect of changes in discount rate	1,113,509,869	-	-	1,113,509,869
Provisions	235,357,351	4,068,143,712	2,661,744,578	6,965,245,641
Used during year	-	-	(100,000,000)	(100,000,000)
Ending balance	<u>₩ 3,383,795,817</u>	<u>₩ 8,464,780,331</u>	<u>₩ 10,566,576,436</u>	<u>₩ 22,415,152,584</u>

<i>(in Korean won)</i>	<u>2019</u>			
	<u>Provisions for asset retirement obligation ¹</u>	<u>Provisions for unused loan commitments</u>	<u>Long-term employee benefits</u>	<u>Total</u>
Beginning balance	₩ 1,679,961,226	₩ 3,001,695,575	₩ 3,405,337,719	₩ 8,086,994,520
Unwinding of discount	41,652,542	-	-	41,652,542
Effect of changes in discount rate	(87,830,996)	-	-	(87,830,996)
Provisions	360,604,468	1,394,941,044	4,689,494,139	6,445,039,651
Used during year	-	-	(90,000,000)	(90,000,000)
Ending balance	<u>₩ 1,994,387,240</u>	<u>₩ 4,396,636,619</u>	<u>₩ 8,004,831,858</u>	<u>₩ 14,395,855,717</u>

¹ Provisions for asset retirement obligation are present value of estimated costs to be incurred for asset retirement obligation of the leased properties. Actual expenses are expected to be incurred at the end of each lease contract and two to five years of depreciation period of leased properties are used as discount period.

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15. Other Liabilities

Details of other liabilities as at December 31, 2020 and 2019, are as follows:

<i>(in Korean won)</i>	2020	2019
Other financial liabilities		
Other payables	₩ 113,361,627,993	₩ 113,757,246,495
Accrued expenses	81,092,555,878	137,074,845,815
Domestic exchange settlement credits	62,550,049,675	42,407,705,896
Liabilities incurred from agency relationship	5,921,835,521	5,436,886,764
Lease liabilities	8,496,320,763	13,859,250,117
Prepaid cards	11,081,319,879	-
Others	63,861,664	18,602,517
	<u>282,567,571,373</u>	<u>312,554,537,604</u>
Other liabilities		
Unearned revenue	294,529,998	185,323,642
Withholding taxes	4,848,611,740	6,335,003,720
Others	6,896,032	8,470,390
	<u>5,150,037,770</u>	<u>6,528,797,752</u>
	<u>₩ 287,717,609,143</u>	<u>₩ 319,083,335,356</u>

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16. Equity

Details of equity as at December 31, 2020 and 2019, are as follows:

<i>(in Korean won)</i>	<u>2020</u>	<u>2019</u>
Share capital		
Ordinary shares	₩ 2,038,265,185,000	₩ 1,825,482,210,000
Capital surplus		
Share premium	759,805,332,030	-
Capital adjustments		
Discount on share issuance	-	(24,418,732,630)
Share options	4,920,906,870	2,345,229,500
Accumulated other comprehensive income		
Gain on valuation of financial assets at fair value through other comprehensive income	11,335,546,869	4,831,738,524
Remeasurements of net defined benefit liability (asset)	(3,541,335,241)	(2,060,515,279)
Accumulated deficit		
Accumulated deficit before appropriation	(13,823,117,679)	(127,459,106,736)
	<u>₩ 2,796,962,517,849</u>	<u>₩ 1,678,720,823,379</u>

Details of share capital as at December 31, 2020 and 2019, are as follows:

<i>(in Korean won, in shares)</i>	<u>2020</u>		<u>2019</u>	
	Ordinary shares		Ordinary shares	
Number of shares authorized		800,000,000		800,000,000
Par value	₩	5,000	₩	5,000
Number of shares issued		407,653,037		356,096,442
Share capital	₩	2,038,265,185,000	₩	1,825,482,210,000

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Changes in number of shares issued for the years ended December 31, 2020 and 2019, are as follows:

<i>(in shares)</i>	2020		2019	
	Ordinary shares	Preferred shares	Ordinary shares	Preferred shares
Beginning	365,096,442	-	200,000,000	60,000,000
Conversion of convertible preferred shares	-	-	60,000,000	(60,000,000)
Issuance of shares	42,556,595	-	100,000,000	-
Share options exercised	-	-	5,096,442	-
Ending	<u>407,653,037</u>	<u>-</u>	<u>365,096,442</u>	<u>-</u>

Changes in accumulated other comprehensive income for the years ended December 31, 2020 and 2019, are as follows:

<i>(in Korean won)</i>	2020		2019	
	Gain (loss) on valuation of financial assets at fair value through other comprehensive income	Remeasurements of net defined benefit liability (asset)	Gain (loss) on valuation of financial assets at fair value through other comprehensive income	Remeasurements of net defined benefit liability (asset)
Beginning balance	₩ 4,831,738,524	₩ (2,060,515,279)	₩ 1,183,485,779	₩ (844,954,402)
Increase (decrease) due to fair value measurement	9,080,823,191	(2,030,259,973)	6,172,250,119	(1,558,411,380)
Adjustments for reclassification				
Increase (decrease) due to disposal	(320,812,440)	-	(1,495,003,010)	-
Tax effect	(2,256,202,406)	549,440,011	(1,028,994,364)	342,850,503
Ending balance	<u>₩ 11,335,546,869</u>	<u>₩ (3,541,335,241)</u>	<u>₩ 4,831,738,524</u>	<u>₩ (2,060,515,279)</u>

The disposition of accumulated deficit for the year ended December 31, 2020, is expected to be disposed at the shareholders' meeting on March 30, 2021. The disposition date for the year ended December 31, 2019, was March 30, 2020.

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The disposition of accumulated deficit for the years ended December 31, 2020 and 2019, is as follows:

<i>(in Korean won)</i>	2020	2019
Undisposed accumulated deficit carried over from prior year	₩ (127,459,106,736)	₩ (141,192,037,122)
Profit for the year	113,635,989,057	13,732,930,386
Disposition of accumulated deficit	-	-
Undisposed accumulated deficit to be carried forward	₩ (13,823,117,679)	₩ (127,459,106,736)

17. Share-based Payments

Details of share-based payment arrangements that existed for the year ended December 31, 2020, are as follows:

	Series 1-01	Series 1-02	Series 1-03
Grant date	March 25, 2019	March 25, 2019	March 25, 2019
Number of granted shares	550,000	2,890,000	1,760,000
Granted type ¹	Share-based payment with an option	Share-based payment with an option	Share-based payment with an option
Exercise price (in Korean won)	₩5,000	₩5,000	₩5,000
Exercisable period	March 25, 2021 ~ March 25, 2026	1 st (50%): March 25, 2021 ~ March 25, 2026 2 nd (50%): March 26, 2022 ~ March 25, 2026	1 st (30%): March 25, 2021 ~ March 25, 2026 2 nd (30%): March 26, 2022 ~ March 25, 2026 3 rd (40%): March 26, 2023 ~ March 25, 2026
Vesting conditions ²	Services fulfillment: 2 years	Services fulfillment: 2~3 years	Services fulfillment: 2~4 years

¹ The Company's share-based payment arrangements are share-based payment transactions with an option in which the Company can choose among issuance of new shares or treasury shares or cash for the difference amount between the exercise price and market price. The arrangements are accounted for equity-settled share-based payment transactions because there is no obligation to settle in cash at the grant date.

² Vesting conditions for type of series 1-03 include the Company's performance condition.

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The changes in the number of share options for the years ended December 31, 2020 and 2019, are as follows:

<i>(in shares)</i>	2020		
	Series 1-01	Series 1-02	Series 1-03
Beginning	550,000	2,890,000	1,760,000
Grant	-	-	-
Lost the right	(10,000)	-	(520,000)
Exercised	-	-	-
Forfeited at maturity	-	-	-
Ending	<u>540,000</u>	<u>2,890,000</u>	<u>1,240,000</u>
Number of exercisable shares	-	-	-
Exercise price (in Korean won)	₩ 5,000	₩ 5,000	₩ 5,000

<i>(in shares)</i>	2019			
	Series 1-01	Series 1-02	Series 1-03	Union 1st
Beginning	-	-	-	-
Grant	550,000	2,890,000	1,760,000	5,200,000
Lost the right	-	-	-	(103,558)
Exercised	-	-	-	(5,096,442)
Forfeited at maturity	-	-	-	-
Ending	<u>550,000</u>	<u>2,890,000</u>	<u>1,760,000</u>	<u>-</u>
Number of exercisable shares	-	-	-	-
Exercise price (in Korean won)	₩ 5,000	₩ 5,000	₩ 5,000	₩ 5,000

The weighted average remaining contractual maturity of share options outstanding at the end of the reporting period is 5.23 years.

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The valuation model, assumptions and variables to measure the cost of the share options granted for the year ended December 31, 2020 are as follows:

<i>(in Korean won)</i>	<u>Series 1-01</u>	<u>Series 1-02</u>	<u>Series 1-03</u>
Option pricing model	A binominal model	A binominal model	A binominal model
Fair value of share option	₩ 1,451	₩ 1,451	₩ 1,451
Fair value of shares ¹	₩ 5,022	₩ 5,022	₩ 5,022
Exercise price	₩ 5,000	₩ 5,000	₩ 5,000
Risk-free interest rate ²	1.86%	1.86%	1.86%
Volatility ³	22.61%	22.61%	22.61%

¹ Shareholder's surplus cash flow model from income approach is used in valuation of shares.

² Yield rate of government bonds corresponding to remaining contractual maturity (days) is used.

³ Annualized average price of daily volatility over the past one year of similar company is used.

The cost of the share options granted incurred during the periods ended December 31, 2020 and 2019, is as follows:

<i>(in Korean won)</i>	<u>2020</u>	<u>2019</u>
The cost of the share options granted	₩ 2,575,677,370	₩ 4,241,105,910

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18. Net Interest Income and Expenses

Details of interest income and expenses for the years ended December 31, 2020 and 2019, are as follows:

<i>(in Korean won)</i>	2020	2019
Interest income		
Due from financial institutions	₩ 334,185,603	₩ 2,492,537,500
Loans	539,263,902,148	438,641,832,179
Financial investments	58,790,879,620	52,037,280,475
Others	1,000,638,941	1,426,079,649
	<u>599,389,606,312</u>	<u>494,597,729,803</u>
Interest expenses		
Deposits	190,876,838,289	246,668,460,489
Debts	122,257,527	7,068,493
Others	361,204,580	360,421,881
	<u>191,360,300,396</u>	<u>247,035,950,863</u>
	<u>₩ 408,029,305,916</u>	<u>₩ 247,561,778,940</u>

KakaoBank Corp.
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19. Fee and Commission Income and Expenses

Fee and commission income and expenses for the years ended December 31, 2020 and 2019, are as follows:

<i>(in Korean won)</i>	<u>2020</u>	<u>2019</u>
Fee and commission income		
Remittance related fees	₩ 2,477,943,228	₩ 2,447,114,242
Card related fees	122,729,903,778	93,134,146,236
Electronic finance related fees	4,251,592,114	3,149,577,497
Firm banking related fees	8,711,158,680	7,655,813,625
Loan-linked related fees	20,744,015,635	5,958,728,790
Accounts-linked related fees	16,365,033,000	5,198,474,000
Others	9,607,420,615	876,089,692
	<u>184,887,067,050</u>	<u>118,419,944,082</u>
Fee and commission expenses		
Lending activity related fees	8,178,102,975	6,602,367,750
Card activity related fees	91,078,241,361	102,244,042,456
Deposit activity related fees	1,176,472,752	19,140,000
Foreign currency activity related fees	119,622,913	-
Electronic finance related fees	852,847,700	834,849,800
CD/ATM fees	51,939,330,300	43,139,979,700
Stamp taxes	4,629,235,100	4,141,873,200
Others	20,073,897,228	15,628,729,963
	<u>178,047,750,329</u>	<u>172,610,982,869</u>
	<u>₩ 6,839,316,721</u>	<u>₩ (54,191,038,787)</u>

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20. Selling and Administrative Expenses

Details of selling and administrative expenses for the years ended December 31, 2020 and 2019, are as follows:

<i>(in Korean won)</i>	<u>2020</u>	<u>2019</u>
Employee benefits		
Short-term employee benefits	₩ 67,096,340,817	₩ 51,694,532,259
Long-term employee benefits	2,661,744,578	4,689,494,139
Post-employment benefits - defined benefit plan	5,545,945,875	3,795,899,741
Post-employment benefits - defined contribution plan	270,389,887	210,838,726
Share-based payment expenses	2,575,677,370	4,241,105,910
	<u>78,150,098,527</u>	<u>64,631,870,775</u>
Depreciation	24,383,611,762	15,876,427,038
Amortization	18,715,082,324	17,097,120,777
Other administrative expenses		
Welfare expenses	15,029,963,421	11,705,219,584
Rental expenses	5,316,134,360	2,695,483,198
Advertising expenses	5,307,015,997	7,285,097,289
Computer operation expenses	21,198,395,201	17,442,596,813
Taxes and dues	7,872,525,060	6,012,939,178
Travel expenses	198,728,559	349,161,482
Communication expenses	2,575,811,762	1,785,581,121
Supplies expenses	1,054,128,158	559,730,740
Service contract expenses	19,283,516,318	14,929,693,014
Others	1,499,850,229	2,076,348,585
	<u>79,336,069,065</u>	<u>64,841,851,004</u>
	<u>₩ 200,584,861,678</u>	<u>₩ 162,447,269,594</u>

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21. Other Operating Income and Expenses

Details of other operating income and expenses for the years ended December 31, 2020 and 2019, are as follows:

<i>(in Korean won)</i>	<u>2020</u>	<u>2019</u>
Other operating income		
Gain on foreign exchange transactions	₩ 3,555,701,077	₩ 3,143,372,775
Gain on sales of loan	2,037,985,000	-
Others	74,248,760	40,291,392
	<u>₩ 5,667,934,837</u>	<u>₩ 3,183,664,167</u>
Other operating expenses		
Foreign currency transaction loss	₩ 4,093,930	-
Deposit insurance expenses	39,043,796,000	28,125,181,000
Provisions for unused loan commitments	4,068,143,712	1,394,941,044
Others	7,604,496,392	3,633,753,373
	<u>₩ 50,720,530,034</u>	<u>₩ 33,153,875,417</u>

22. Non-operating Income and Expenses

Details of non-operating income and expenses for the years ended December 31, 2020 and 2019, are as follows:

<i>(in Korean won)</i>	<u>2020</u>	<u>2019</u>
Non-operating income		
Others	₩ 134,534,629	₩ 48,760,014
Non-operating expenses		
Donation	₩ 329,019,400	₩ 115,100,000
Others	25,035,990	21,369,038
	<u>₩ 354,055,390</u>	<u>₩ 136,469,038</u>

KakaoBank Corp.
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23. Financial Instruments by Category

Carrying amounts of financial assets and liabilities by category as at December 31, 2020 and 2019, are as follows:

(in Korean won)

		2020				
		Financial assets at fair value through profit or loss	Financial assets at fair value through other comprehensive income	Financial assets at amortized cost	Financial liabilities at amortized cost	Total
Financial assets						
Cash and due from financial institutions	₩	-	₩	-	₩ 1,195,937,282,311	₩ 1,195,937,282,311
Financial assets at fair value through profit or loss		250,093,130,763	-	-	-	250,093,130,763
Financial investments		-	2,670,612,887,373	1,340,664,376,504	-	4,011,277,263,877
Loans		-	-	20,662,808,751,465	-	20,662,808,751,465
Other financial assets		-	-	429,481,055,041	-	429,481,055,041
		<u>₩ 250,093,130,763</u>	<u>₩ 2,670,612,887,373</u>	<u>₩ 23,628,891,465,321</u>	<u>₩ -</u>	<u>₩ 26,549,597,483,457</u>
Financial liabilities						
Deposits	₩	-	₩	-	₩ 23,539,282,308,324	₩ 23,539,282,308,324
Other financial liabilities		-	-	-	274,071,250,610	274,071,250,610
		<u>₩ -</u>	<u>₩ -</u>	<u>₩ -</u>	<u>₩ 23,813,353,558,934</u>	<u>₩ 23,813,353,558,934</u>

(in Korean won)

		2019				
		Financial assets at fair value through other comprehensive income	Financial assets at amortized cost	Financial liabilities at amortized cost	Total	
Financial assets						
Cash and due from financial institutions	₩	-	₩ 226,048,155,698	₩	-	₩ 226,048,155,698
Financial investments		1,726,375,112,709	1,150,756,848,896	-	-	2,877,131,961,605
Loans		-	19,193,788,892,299	-	-	19,193,788,892,299
Other financial assets		-	312,936,148,501	-	-	312,936,148,501
		<u>₩ 1,726,375,112,709</u>	<u>₩ 20,883,530,045,394</u>	<u>₩ -</u>	<u>₩ -</u>	<u>₩ 22,609,905,158,103</u>
Financial liabilities						
Deposits	₩	-	₩	-	₩ 20,711,907,725,432	₩ 20,711,907,725,432
Other financial liabilities		-	-	298,695,287,487	-	298,695,287,487
		<u>₩ -</u>	<u>₩ -</u>	<u>₩ 21,010,603,012,919</u>	<u>₩ -</u>	<u>₩ 21,010,603,012,919</u>

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Net gains or losses on each category of financial instruments for the years ended December 31, 2020 and 2019, are as follows:

(in Korean won)

		2020										
		Net interest income (expense)	Net fee and commission income (expense)	Provision for credit losses	Others	Total	Other comprehensive income					
Financial assets												
Financial assets at fair value through profit or loss	₩	-	₩	-	₩	14,115,754,515	₩	14,115,754,515	₩	-		
Financial assets at fair value through other comprehensive income		33,545,111,813		-		96,960,409		33,642,072,222		6,503,808,345		
Financial assets at amortized cost		565,844,494,499		(1,576,723,409)		(60,892,634,053)		2,037,985,000		505,413,122,037		
	₩	599,389,606,312	₩	(1,576,723,409)	₩	(60,892,634,053)	₩	16,250,699,924	₩	553,170,948,774	₩	6,503,808,345

Financial liabilities										
Financial liabilities at amortized cost	₩	(191,091,872,270)	₩	(1,106,110,992)	₩	-	₩	(192,197,983,262)	₩	-

(in Korean won)

		2019										
		Net interest income (expense)	Net fee and commission income (expense)	Provision for credit losses	Others	Total	Other comprehensive income					
Financial assets												
Financial assets at fair value through profit or loss	₩	-	₩	-	₩	40,449,930,066	₩	40,449,930,066	₩	-		
Financial assets at fair value through other comprehensive income		32,098,364,793		-		8,289,019,476		40,387,384,269		3,648,252,745		
Financial assets at amortized cost		462,499,365,010		(937,764,246)		(36,437,672,262)		-		425,123,928,502		
	₩	494,597,729,803	₩	(937,764,246)	₩	(36,437,672,262)	₩	48,738,949,542	₩	505,961,242,837	₩	3,648,252,745

Financial liabilities										
Financial liabilities at amortized cost	₩	(246,697,493,060)	₩	(1,295,883,200)	₩	-	₩	(247,993,376,260)	₩	-

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24. Income Tax Expense and Deferred Tax

Income tax expense (benefit) for the years ended December 31, 2020 and 2019, consists of:

<i>(in Korean won)</i>	2020	2019
Current tax	₩ 10,402,499,210	₩ 120,041,040
Changes in deferred tax due to temporary differences ¹	-	-
Income tax recognized directly in equity	(1,706,762,395)	(686,143,861)
Income tax expense (benefit)	₩ 8,695,736,815	₩ (566,102,821)

¹ No deferred tax assets have been recognized, due to the uncertainty of realization.

An analysis of the net profit before income tax and income tax expense (benefit) for the years ended December 31, 2020 and 2019, is as follows:

<i>(in Korean won)</i>	2020	2019
Profit before income tax expense	₩ 122,331,725,872	₩ 13,166,827,565
Tax at the applicable tax rate ¹	29,142,277,661	2,874,702,055
Non-taxable income	(4,734)	-
Non-deductible expense	65,383,132	506,398,127
Other adjustments	(20,511,919,244)	(3,947,203,003)
Unrecognized deferred tax asset	(20,317,729,393)	(3,800,840,401)
Effect of tax rate and others	(194,189,851)	(146,362,602)
Income tax expense (benefit)	₩ 8,695,736,815	₩ (566,102,821)
Average effective tax rate (%)	7.11%	-

¹ Applicable tax rate for ₩200 million and below is 11%, for over ₩200 million to ₩20 billion is 22%, and for over ₩20 billion is 24.2%.

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The movements of temporary differences and deferred tax assets (liabilities) for the years ended and as at December 31, 2020 and 2019, are as follows:

(in Korean won)

	2020				
	Beginning balance	Profit or loss	Other comprehensive income (capital adjustments)	Others	Ending balance
Temporary differences					
Provisions for asset retirement obligation	₩ 234,949,246	₩ 171,421,719	₩ -	₩ 23,494,924	₩ 429,865,889
Post-employment pension	(69,943,462)	(713,663,826)	549,440,011	(6,994,346)	(241,161,623)
Accrued interest	(5,906,392,046)	(4,784,992,821)	-	(590,639,205)	(11,282,024,072)
Leasehold guarantee deposits	21,957,241	(4,811,030)	-	2,195,725	19,341,936
Unsettled provision	2,728,323,065	1,604,432,966	-	272,832,307	4,605,588,338
Financial assets at fair value through profit or loss (gain (loss) on valuation)	-	(22,537,645)	-	-	(22,537,645)
Financial assets at fair value through other comprehensive income (gain (loss) on valuation)	(1,362,798,045)	136,279,805	(2,256,202,406)	(136,279,805)	(3,619,000,451)
Financial assets at fair value through other comprehensive income (interest amortization)	205,599,212	513,521,409	-	20,559,921	739,680,542
Financial assets at amortized cost (interest amortization)	(916,858,730)	(285,770,677)	-	(91,685,874)	(1,294,315,281)
Unused annual leave	177,828,337	194,647,416	-	17,782,834	390,258,587
Reversal of regular welfare expense	227,004	437,626	-	22,701	687,331
Legal fiction of instant depreciation	5,519,249	665,496,786	-	551,925	671,567,960
Deferred incentive bonuses for executive	63,020,870	90,662,071	-	6,302,087	159,985,028
Deferred loan origination costs	(132,803,368)	(27,005,130)	-	(13,280,337)	(173,088,835)
Right-of-use assets	(2,948,416,179)	1,312,740,444	-	(294,841,619)	(1,930,517,354)
Lease liabilities	3,049,035,026	(1,297,828,903)	-	304,903,502	2,056,109,625
Lawsuit expenses	3,982,000	4,222,416	-	398,200	8,602,616
Bad debt expense	42,291,989	-	-	4,229,199	46,521,188
Car for business use	5,093,542	5,683,520	-	509,355	11,286,417
Share option	515,950,490	623,313,924	-	51,595,049	1,190,859,463
	<u>(4,283,434,559)</u>	<u>(1,813,749,930)</u>	<u>(1,706,762,395)</u>	<u>(428,343,457)</u>	<u>(8,232,290,341)</u>
Tax losses	30,730,803,546	(16,714,419,672)	-	3,073,078,231	17,089,462,105
Unused tax credit, etc.	383,727,073	(82,797,396)	-	(73,848,022)	227,081,655
	<u>31,114,530,619</u>	<u>(16,797,217,068)</u>	<u>-</u>	<u>2,999,230,209</u>	<u>17,316,543,760</u>
	<u>₩ 26,831,096,060</u>	<u>₩ (18,610,966,998)</u>	<u>₩ (1,706,762,395)</u>	<u>₩ 2,570,886,752</u>	<u>₩ 9,084,253,419</u>
Amount excluded in recognition of deferred tax assets (liabilities) ¹	₩ 26,831,096,060	₩ (20,317,729,393)	₩ -	₩ 2,570,886,752	₩ 9,084,253,419
Amount included in recognition of deferred tax assets (liabilities)	₩ -	₩ 1,706,762,395	₩ (1,706,762,395)	₩ -	₩ -

¹ No deferred tax assets have been recognized, due to the uncertainty of realization.

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	2019				
	Beginning balance	Profit or loss	Other comprehensive income (capital adjustments)	Others	Ending balance
Temporary differences					
Provisions for asset retirement obligation	₩ 137,844,607	₩ 97,104,639	₩ -	₩ -	₩ 234,949,246
Post-employment pension	130,273,408	(543,067,373)	342,850,503	-	(69,943,462)
Accrued interest	(1,827,869,629)	(4,078,522,417)	-	-	(5,906,392,046)
Leasehold guarantee deposits	31,132,997	(9,175,756)	-	-	21,957,241
Prepaid rent	(31,132,997)	31,132,997	-	-	-
Unsettled provision	1,409,547,325	1,318,775,740	-	-	2,728,323,065
Financial assets at fair value through other comprehensive income (gain (loss) on valuation)	(333,803,681)	-	(1,028,994,364)	-	(1,362,798,045)
Financial assets at fair value through other comprehensive income (interest amortization)	84,168,299	121,430,913	-	-	205,599,212
Financial assets at amortized cost (interest amortization)	(389,120,132)	(527,738,598)	-	-	(916,858,730)
Unused annual leave	76,795,677	65,618,676	-	35,413,984	177,828,337
Accrued expenses (service contract expenses)	-	2,823,333	-	(2,823,333)	-
Reversal of regular welfare expense	177,591	49,413	-	-	227,004
Legal fiction of instant depreciation	13,282,942	2,297,511	-	(10,061,204)	5,519,249
Deferred incentive bonuses for executive	67,138,500	(4,117,630)	-	-	63,020,870
Deferred loan origination costs	(59,426,932)	(73,376,436)	-	-	(132,803,368)
Right-of-use assets	-	(2,948,416,179)	-	-	(2,948,416,179)
Lease liabilities	-	3,049,035,026	-	-	3,049,035,026
Lawsuit expenses	-	3,982,000	-	-	3,982,000
Bad debt expense	-	42,291,989	-	-	42,291,989
Car for business use	-	660,750	-	4,432,792	5,093,542
Share option	-	515,950,490	-	-	515,950,490
	<u>(690,992,025)</u>	<u>(2,933,260,912)</u>	<u>(686,143,861)</u>	<u>26,962,239</u>	<u>(4,283,434,559)</u>
Tax losses	31,059,330,957	(297,096,767)	-	(31,430,644)	30,730,803,546
Unused tax credit, etc.	268,125,934	115,661,139	-	(60,000)	383,727,073
	<u>31,327,456,891</u>	<u>(181,435,628)</u>	<u>-</u>	<u>(31,490,644)</u>	<u>31,114,530,619</u>
	<u>₩ 30,636,464,866</u>	<u>₩ (3,114,696,540)</u>	<u>₩ (686,143,861)</u>	<u>₩ (4,528,405)</u>	<u>₩ 26,831,096,060</u>
Amount excluded in recognition of deferred tax assets (liabilities) ¹	₩ 30,636,464,866	₩ (3,800,840,401)	₩ -	₩ (4,528,405)	₩ 26,831,096,060
Amount included in recognition of deferred tax assets (liabilities)	₩ -	₩ 686,143,861	₩ (686,143,861)	₩ -	₩ -

¹ No deferred tax assets have been recognized, due to the uncertainty of realization.

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The deferred tax relating to items that are charged or credited directly to equity for the years ended December 31, 2020 and 2019, is as follows:

<i>(in Korean won)</i>	2020		2019		Increase (decrease) in tax effect
	Amount before income tax	Tax effect	Amount before income tax	Tax effect	
Financial assets at fair value through other comprehensive income (gain (loss) on valuation)	₩ 14,954,547,320	₩ (3,619,000,451)	₩ 6,194,536,569	₩ (1,362,798,045)	₩ (2,256,202,406)
Remeasurements of net defined benefit liability (asset)	(4,671,946,228)	1,130,610,987	(2,641,686,255)	581,170,976	549,440,011

<i>(in Korean won)</i>	2019		2018		Increase (decrease) in tax effect
	Amount before income tax	Tax effect	Amount before income tax	Tax effect	
Financial assets at fair value through other comprehensive income (gain (loss) on valuation)	₩ 6,194,536,569	₩ (1,362,798,045)	₩ 1,517,289,460	₩ (333,803,681)	₩ (1,028,994,364)
Remeasurements of net defined benefit liability (asset)	(2,641,686,255)	581,170,976	(1,083,274,875)	238,320,473	342,850,503

Details of unrecognized deductible temporary differences, tax losses and unused tax credit as at December 31, 2020 and 2019, are as follows:

<i>(in Korean won)</i>	2020	2019
Deductible temporary differences	₩ -	₩ -
Tax losses ¹	70,617,612,006	139,685,470,664
Tax credit ¹	97,930,756	338,701,433
Deduction of donation ¹	533,681,400	204,662,000
	<u>₩ 71,249,224,162</u>	<u>₩ 140,228,834,097</u>

¹ The maturity of unused tax losses, tax credit, and deduction of donation is as follows:

<i>(in Korean won)</i>	2020	2019
2021	₩ -	₩ -
2022	-	83,363,443
2023	-	94,969,528
2024	-	160,368,462

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2025	-	-
2026	1,428,933	11,438,966,728
2027	43,033,574,349	100,571,762,446
2028	27,767,593,018	27,764,303,490
2029	117,608,462	115,100,000
2030	329,019,400	-
	₩ 71,249,224,162	₩ 140,228,834,097

25. Financial Instruments Risk Management

25-1. Overview of Risk Management

25-1.1 Risk Management

The financial risks that the Company is exposed to are credit risk, liquidity risk, market risk, operational risk and others. The Company manages risk by type, nature, size, and complexity of the risk.

This note regarding financial risk management provides information about the risks that the Company is exposed to, including the objectives, policies and processes for managing the risks, the methods used to measure the risks, and capital management. Additional quantitative information is disclosed throughout the financial statements.

25-1.2 Risk Management Organization

Board of Directors

The Board of Directors is the ultimate decision-making authority that appoints and dismisses risk management committee, reviews and resolves matters of the Board Risk Committee subject to resolution.

Board Risk Committee

The Board Risk Committee establishes comprehensive risk management policies such as the recognition, measurement and control of all the risks faced by the Company, including the basic policies and strategies for risk management and setting risk limit of internal capital by risk category. They are monitoring compliance.

Executive Risk Committee

The Executive Risk Committee is a consultative group which reviews matters delegated by the Board Risk Committee. The Executive Risk Committee is responsible for organizing and managing the risks that may arise in the Company management, as well as supporting the Board of Directors (including the Committee) and management.

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Risk Management Group

The Risk Management Group is responsible for managing specific policies, procedures and work processes relating to the Company's risk management.

25-2. Credit Risk

25-2.1 Overview of Credit Risk

Credit risk is the risk of financial loss to the Company if a counterparty to a financial instrument fails to meet its contractual obligations, and arises from the on- and off-balance sheet items such as loans and investment debt securities.

25-2.2 Credit Risk Management

To measure the probability of default on the counterparty, the Company uses the credit rating system developed in a statistical method to give a credit rating to the borrower and measures the Credit risk by considering exposure at default and the loss given default. The credit rating system is used not only to give credit rating to new borrowers, but also to monitor the changes in credit rating of existing borrowers periodically to roll over the loan automatically, reserve for provide allowance for bad debts, and select symptoms of bad credit.

For loan products which need to mitigate credit risk, the Company has concluded insurance contract payment agreements with Seoul Guarantee Insurance Co., Ltd., and has a guarantee agreement with Korea Housing Finance Corporation and National Happiness Fund. The Company is preparing to launch various loan products including residential mortgage loans for portfolio diversification.

The Company has organized a credit risk management group that focuses on credit risk management in accordance with the Company's credit risk management policy. The Company's credit group which are independent from the operating department, are responsible for establishing risk management rules and guideline, developing and monitoring credit evaluation models, measuring the credit risk, reviewing credit, measuring the credit risk internal capital, adjusting credit limits, managing operating risk and others.

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25-2.3 Maximum Exposure to Credit Risk

The maximum exposure to credit risk of financial assets is the carrying amount after considering the provision for credit losses, which represents the uncertainty that the net value of financial assets varies according to the variation of the specific risk factor prior to considering the collateral held or other credit reinforcement.

The Company's maximum exposures of financial instruments, excluding equity securities, to credit risk without consideration of collateral values as at December 31, 2020 and 2019, are as follows:

<i>(in Korean won)</i>	<u>2020</u>	<u>2019</u>
On-balance sheet items		
Due from financial institutions	₩ 1,189,692,113,311	₩ 220,155,013,698
Loans	20,662,808,751,465	19,193,788,892,299
Financial assets at fair value through profit or loss	250,093,130,763	-
Financial investments	4,011,277,263,877	2,877,131,961,605
Other financial assets	429,481,055,041	312,936,148,501
	<u>26,543,352,314,457</u>	<u>22,604,012,016,103</u>
Off-balance sheet items		
Unused loan commitment	8,148,712,456,362	5,850,839,456,995
	<u>₩ 34,692,064,770,819</u>	<u>₩ 28,454,851,473,098</u>

25-2.4 Credit Risk of Loans

The Company maintains an allowance for loan losses associated with credit risk on loans to manage its credit risk.

Loans are categorized as at December 31, 2020 and 2019, are as follows:

<i>(in Korean won)</i>	<u>2020</u>		<u>2019</u>	
	Amount	%	Amount	%
Neither past due nor impaired	₩ 20,689,375,061,533	99.69	₩ 19,205,106,934,263	99.77
Past due but not impaired	9,850,189,759	0.05	12,380,898,823	0.06
Impaired	54,088,745,231	0.26	33,434,729,417	0.17
	<u>20,753,313,996,523</u>	<u>100.00</u>	<u>19,250,922,562,503</u>	<u>100.00</u>
Allowance	(90,505,245,058)		(57,133,670,204)	
Carrying amount	<u>₩ 20,662,808,751,465</u>		<u>₩ 19,193,788,892,299</u>	

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Past-due represents a situation where counterparty cannot pay principal and interest on the payment date as stated in the contract. Impairments losses are incurred if there is an objective evidence of impairment and that loss event has an impact on the estimated future cash flows that can be reliably estimated. The Company considers that there is an objective evidence of impairment if overdue of payments for 90 and more than 90 days and trouble debt restructuring.

Credit qualities of loans that are past due but not impaired as at December 31, 2020 and 2019, are as follows:

<i>(in Korean won)</i>	2020		2019	
1~29 days	₩	6,633,131,578	₩	8,675,336,405
30~59 days		2,029,643,792		2,254,986,316
60~89 days		1,187,414,389		1,450,576,102
	₩	<u>9,850,189,759</u>	₩	<u>12,380,898,823</u>

Impaired loans as at December 31, 2020 and 2019, are as follows:

<i>(in Korean won)</i>	2020		2019	
Loans	₩	54,088,745,231	₩	33,434,729,417
Allowance				
Collectively assessed allowance		(32,357,213,396)		(20,537,881,481)
	₩	<u>21,731,531,835</u>	₩	<u>12,896,847,936</u>

A quantification of the extent to which collateral and other credit enhancements mitigate credit risk as at December 31, 2020 and 2019, are as follows:

<i>(in Korean won)</i>	2020		
	12-month expected credit losses (stage 1)	Non-impaired assets (stage 2)	Impaired assets (stage 3)
Guarantee insurance securities of Seoul Guarantee Insurance Co., Ltd.	₩ 2,198,371,770,309	₩ 25,170,884,438	₩ 7,593,295,297
Guarantee insurance securities of Korea Housing Finance Corporation	4,133,397,935,169	6,951,547,993	3,775,698,706
Credit Guarantee of National Happiness Fund	13,860,825,417	1,988,308,704	13,701,701

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<i>(in Korean won)</i>	2019		
	12-month expected credit losses (stage 1)	Non-impaired assets (stage 2)	Impaired assets (stage 3)
Guarantee insurance securities of Seoul Guarantee Insurance Co., Ltd.	₩ 1,673,178,877,019	₩ 19,164,569,979	₩ 6,781,947,004
Guarantee insurance securities of Korea Housing Finance Corporation	2,174,515,173,422	1,295,100,000	338,217,300

25-2.5 Credit risk concentration by region

As the Company has only domestic operating activities, the regional information is not presented.

25-2.6 Details of debt securities

Debt securities that are neither past due nor impaired as at December 31, 2020 and 2019, are as follows:

<i>(in Korean won)</i>	2020	2019
Financial investments	₩ 4,011,277,263,877	₩ 2,877,131,961,605

25-2.7 Details of debt securities categorized by the credit ratings

Details of securities categorized by the credit rating as at December 31, 2020 and 2019 are as follows:

<i>(in Korean won)</i>	2020		
	Financial assets at fair value through other comprehensive income	Financial assets at amortized cost	Total
AAA	₩ 549,719,395,861	₩ 440,470,427,094	₩ 990,189,822,955
No rating			
Government bonds	1,548,849,386,360	900,193,949,410	2,449,043,335,770
Monetary stabilization bonds	572,044,105,152	-	572,044,105,152
	₩ 2,670,612,887,373	₩ 1,340,664,376,504	₩ 4,011,277,263,877

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	2019		
	Financial assets at fair value through other comprehensive income	Financial assets at amortized cost	Total
AAA	W 176,113,972,790	W 360,644,630,785	W 536,758,603,575
No rating			
Government bonds	797,889,242,103	790,112,218,111	1,588,001,460,214
Monetary stabilization bonds	752,371,897,816	-	752,371,897,816
	<u>W 1,726,375,112,709</u>	<u>W 1,150,756,848,896</u>	<u>W 2,877,131,961,605</u>

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25-2.8 Changes in provision for credit losses

Changes in provision for credit losses for the years ended December 31, 2020 and 2019, are as follows:

(in Korean won)

	2020			
	12-month expected credit losses (stage 1)	Expected lifetime credit losses		Total
		Non-impaired assets (stage 2)	Impaired assets (stage 3)	
Loans				
Beginning	₩ 34,010,653,278	₩ 2,585,135,445	₩ 20,537,881,481	₩ 57,133,670,204
Transfer to allowance stages				
Transfer to stage 2	(516,269,556)	561,062,009	(44,792,453)	-
Transfer to stage 3	(1,096,691,070)	(1,786,558,692)	2,883,249,762	-
Transfer to stage 1	392,385,786	(312,815,571)	(79,570,215)	-
Others	-	-	(27,468,081,931)	(27,468,081,931)
Provision of allowance	19,288,076,830	5,023,053,203	36,528,526,752	60,839,656,785
Ending	₩ 52,078,155,268	₩ 6,069,876,394	₩ 32,357,213,396	₩ 90,505,245,058
Other financial assets				
Beginning	₩ 64,228,628	₩ 22,034,744	₩ 5,630,055	₩ 91,893,427
Transfer to allowance stages				
Transfer to stage 2	(1,287,964)	1,318,505	(30,541)	-
Transfer to stage 3	(3,396,183)	(17,345,121)	20,741,304	-
Transfer to stage 1	1,020,460	(999,642)	(20,818)	-
Others	-	-	(14,746,206)	(14,746,206)
Provision of allowance	25,213,809	25,544,196	2,219,263	52,977,268
Ending	₩ 85,778,750	₩ 30,552,682	₩ 13,793,057	₩ 130,124,489
Unused loan commitments				
Beginning	₩ 4,383,712,760	₩ 12,923,859	₩ -	₩ 4,396,636,619
Transfer to allowance stages				
Transfer to stage 2	(14,299,690)	14,299,690	-	-
Transfer to stage 3	(17,594,273)	(1,496,352)	19,090,625	-
Transfer to stage 1	5,900,844	(5,900,844)	-	-
Provision (reversal) of allowance	4,031,690,090	55,446,744	(18,993,122)	4,068,143,712
Ending	₩ 8,389,409,731	₩ 75,273,097	₩ 97,503	₩ 8,464,780,331

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(in Korean won)

	2019			
	12-month expected credit losses (stage 1)	Expected lifetime credit losses		Total
		Non-impaired assets (stage 2)	Impaired assets (stage 3)	
Loans				
Beginning	₩ 23,382,535,069	₩ 1,568,277,969	₩ 7,259,334,270	₩ 32,210,147,308
Transfer to allowance stages				
Transfer to stage 2	(308,889,742)	331,405,450	(22,515,708)	-
Transfer to stage 3	(609,177,462)	(1,081,491,127)	1,690,668,589	-
Transfer to stage 1	241,030,536	(184,635,428)	(56,395,108)	-
Others	-	-	(11,481,181,471)	(11,481,181,471)
Provision of allowance	11,305,154,877	1,951,578,581	23,147,970,909	36,404,704,367
Ending	₩ 34,010,653,278	₩ 2,585,135,445	₩ 20,537,881,481	₩ 57,133,670,204
Other financial assets				
Beginning	₩ 48,435,248	₩ 12,848,552	₩ 6,036,479	₩ 67,320,279
Transfer to allowance stages				
Transfer to stage 2	(819,882)	833,053	(13,171)	-
Transfer to stage 3	(1,908,384)	(10,508,824)	12,417,208	-
Transfer to stage 1	636,239	(627,376)	(8,863)	-
Others	-	-	(8,394,747)	(8,394,747)
Provision (reversal) of allowance	17,885,407	19,489,339	(4,406,851)	32,967,895
Ending	₩ 64,228,628	₩ 22,034,744	₩ 5,630,055	₩ 91,893,427
Unused loan commitments				
Beginning	₩ 2,986,658,570	₩ 15,037,005	-	₩ 3,001,695,575
Transfer to allowance stages				
Transfer to stage 2	(7,821,429)	7,821,429	-	-
Transfer to stage 3	(8,884,660)	(928,783)	9,813,443	-
Transfer to stage 1	5,630,314	(5,630,314)	-	-
Provision (reversal) of allowance	1,408,129,965	(3,375,478)	(9,813,443)	1,394,941,044
Ending	₩ 4,383,712,760	₩ 12,923,859	-	₩ 4,396,636,619

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25-2.9 Changes in gross carrying amount

Changes in gross carrying amount for the years ended December 31, 2020 and 2019, are as follows:

(in Korean won)

	2020			
	12-month expected credit losses (stage 1)	Expected lifetime credit losses		Total
		Non-impaired assets (stage 2)	Impaired assets (stage 3)	
Due from financial institutions				
Beginning	₩ 220,155,013,698	₩ -	₩ -	₩ 220,155,013,698
Net decrease (recognition, collection and others)	969,537,099,613	-	-	969,537,099,613
Ending	₩ 1,189,692,113,311	₩ -	₩ -	₩ 1,189,692,113,311
Loans				
Beginning	₩ 19,178,151,335,787	₩ 39,336,497,299	₩ 33,434,729,417	₩ 19,250,922,562,503
Transfer to allowance stages				
Transfer to stage 2	(42,069,026,282)	42,319,804,914	(250,778,632)	-
Transfer to stage 3	(61,213,132,952)	(11,414,306,703)	72,627,439,655	-
Transfer to stage 1	16,210,721,191	(15,992,127,203)	(218,593,988)	-
Net increase (decrease) (recognition, collection and others)	1,549,024,119,645	4,871,365,596	(22,299,203,673)	1,531,596,281,568
Written-off	-	-	(29,204,847,548)	(29,204,847,548)
Ending	₩ 20,640,104,017,389	₩ 59,121,233,903	₩ 54,088,745,231	₩ 20,753,313,996,523
Debt securities at amortized cost				
Beginning	₩ 1,150,756,848,896	₩ -	₩ -	₩ 1,150,756,848,896
Net increase (recognition, collection and others)	189,907,527,608	-	-	189,907,527,608
Ending	₩ 1,340,664,376,504	₩ -	₩ -	₩ 1,340,664,376,504
Debt securities at fair value through other comprehensive income				
Beginning	₩ 1,726,375,112,709	₩ -	₩ -	₩ 1,726,375,112,709
Net increase (recognition, collection and others)	944,237,774,664	-	-	944,237,774,664
Ending	₩ 2,670,612,887,373	₩ -	₩ -	₩ 2,670,612,887,373
Other financial assets				
Beginning	₩ 312,965,512,886	₩ 147,347,350	₩ 14,987,335	₩ 313,127,847,571
Transfer to allowance stages				
Transfer to stage 2	(94,236,571)	94,414,402	(177,831)	-
Transfer to stage 3	(137,889,754)	(64,532,282)	202,422,036	-
Transfer to stage 1	39,484,004	(39,363,540)	(120,464)	-
Net increase (decrease) (recognition, collection and others)	116,695,051,501	54,754,231	(168,170,301)	116,581,635,431

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Written-off	-	-	(18,378,116)	(18,378,116)
Ending	₩ 429,467,922,066	₩ 192,620,161	₩ 30,562,659	₩ 429,691,104,886
Unused loan commitments				
Beginning	₩ 5,852,960,117,893	₩ 2,275,975,721	₩ -	₩ 5,855,236,093,614
Transfer to allowance stages				
Transfer to stage 2	(3,590,942,989)	3,590,942,989	-	-
Transfer to stage 3	(4,102,983,460)	(156,778,255)	4,259,761,715	-
Transfer to stage 1	1,254,958,185	(1,254,958,185)	-	-
Net increase (decrease) (recognition, collection and others)	2,307,584,213,453	(1,383,436,565)	(4,259,633,809)	2,301,941,143,079
Ending	₩ 8,154,105,363,082	₩ 3,071,745,705	₩ 127,906	₩ 8,157,177,236,693

(in Korean won)

2019

	12-month expected credit losses (stage 1)	Expected lifetime credit losses		Total
		Non-impaired assets (stage 2)	Impaired assets (stage 3)	
Due from financial institutions				
Beginning	₩ 1,638,626,015,557	₩ -	₩ -	₩ 1,638,626,015,557
Net decrease (recognition, collection and others)	(1,418,471,001,859)	-	-	(1,418,471,001,859)
Ending	₩ 220,155,013,698	₩ -	₩ -	₩ 220,155,013,698
Loans				
Beginning	₩ 9,071,881,631,928	₩ 30,065,684,879	₩ 12,361,079,114	₩ 9,114,308,395,921
Transfer to allowance stages				
Transfer to stage 2	(28,296,258,614)	28,457,467,249	(161,208,635)	-
Transfer to stage 3	(37,313,770,286)	(6,295,763,262)	43,609,533,548	-
Transfer to stage 1	12,422,463,153	(12,311,955,246)	(110,507,907)	-
Net increase (decrease) (recognition, collection and others)	10,159,457,269,606	(578,936,321)	(10,444,230,093)	10,148,434,103,192
Written-off	-	-	(11,819,936,610)	(11,819,936,610)
Ending	₩ 19,178,151,335,787	₩ 39,336,497,299	₩ 33,434,729,417	₩ 19,250,922,562,503
Debt securities at amortized cost				
Beginning	₩ 665,662,037,065	₩ -	₩ -	₩ 665,662,037,065
Net increase (recognition, collection and others)	485,094,811,831	-	-	485,094,811,831
Ending	₩ 1,150,756,848,896	₩ -	₩ -	₩ 1,150,756,848,896
Debt securities at fair value through other comprehensive income				
Beginning	₩ 434,040,189,346	₩ -	₩ -	₩ 434,040,189,346
Net increase (recognition, collection and others)	1,292,334,923,363	-	-	1,292,334,923,363

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Ending	₩	1,726,375,112,709	₩	-	₩	-	₩	1,726,375,112,709
Other financial assets								
Beginning	₩	200,603,549,150	₩	108,679,093	₩	12,328,354	₩	200,724,556,597
Transfer to allowance stages								
Transfer to stage 2		(65,941,784)		66,014,577		(72,793)		-
Transfer to stage 3		(86,065,238)		(37,066,231)		123,131,469		-
Transfer to stage 1		30,708,509		(30,651,906)		(56,603)		-
Net increase (decrease) (recognition, collection and others)		112,483,262,249		40,371,817		(111,559,951)		112,412,074,115
Written-off		-		-		(8,783,141)		(8,783,141)
Ending	₩	312,965,512,886	₩	147,347,350	₩	14,987,335	₩	313,127,847,571
Unused loan commitments								
Beginning	₩	3,739,893,070,514	₩	2,685,825,937	₩	-	₩	3,742,578,896,451
Transfer to allowance stages								
Transfer to stage 2		(2,334,992,344)		2,334,992,344		-		-
Transfer to stage 3		(1,996,768,145)		(93,474,339)		2,090,242,484		-
Transfer to stage 1		1,408,622,893		(1,408,622,893)		-		-
Net increase (decrease) (recognition, collection and others)		2,115,990,184,975		(1,242,745,328)		(2,090,242,484)		2,112,657,197,163
Ending	₩	5,852,960,117,893	₩	2,275,975,721	₩	-	₩	5,855,236,093,614

25-2.10 Exposure by credit risk rating

Details of exposure by credit risk rating as at December 31, 2020 and 2019, are as follows:

(in Korean won)

	2020			
	12-month expected credit losses (stage 1)	Expected lifetime credit losses		Total
		Non-impaired assets (stage 2)	Impaired assets (stage 3)	
Due from financial institutions¹				
Grade 1	₩ 1,189,578,783,629	₩ -	₩ -	₩ 1,189,578,783,629
Grade 2	113,329,682	-	-	113,329,682
	1,189,692,113,311	-	-	1,189,692,113,311
Provision for credit losses	-	-	-	-
Carrying amount	₩ 1,189,692,113,311	₩ -	₩ -	₩ 1,189,692,113,311
Loans²				
Grade 1	₩ 17,466,786,083,759	₩ 3,609,655,146	₩ -	₩ 17,470,395,738,905
Grade 2	1,203,241,105,387	2,553,343,631	-	1,205,794,449,018

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Grade 3	1,078,652,718,025	6,332,220,968	-	1,084,984,938,993
Grade 4	398,191,951,895	11,642,114,156	-	409,834,066,051
Grade 5	96,932,158,323	34,983,900,002	54,088,745,231	186,004,803,556
No rating ³	396,300,000,000	-	-	396,300,000,000
	<u>20,640,104,017,389</u>	<u>59,121,233,903</u>	<u>54,088,745,231</u>	<u>20,753,313,996,523</u>
Provision for credit losses	<u>(52,078,155,268)</u>	<u>(6,069,876,394)</u>	<u>(32,357,213,396)</u>	<u>(90,505,245,058)</u>
Carrying amount	₩ <u>20,588,025,862,121</u>	₩ <u>53,051,357,509</u>	₩ <u>21,731,531,835</u>	₩ <u>20,662,808,751,465</u>
Debt securities at amortized cost¹				
Grade 1	₩ <u>1,340,664,376,504</u>	₩ -	₩ -	₩ <u>1,340,664,376,504</u>
	<u>1,340,664,376,504</u>	-	-	<u>1,340,664,376,504</u>
Provision for credit losses	-	-	-	-
Carrying amount	₩ <u>1,340,664,376,504</u>	₩ -	₩ -	₩ <u>1,340,664,376,504</u>
Debt securities at fair value through other comprehensive income¹				
Grade 1	₩ <u>2,670,612,887,373</u>	₩ -	₩ -	₩ <u>2,670,612,887,373</u>
	<u>2,670,612,887,373</u>	-	-	<u>2,670,612,887,373</u>
Provision for credit losses	-	-	-	-
Carrying amount	₩ <u>2,670,612,887,373</u>	₩ -	₩ -	₩ <u>2,670,612,887,373</u>
Other financial assets⁴				
Grade 1	₩ <u>77,490,572,338</u>	₩ <u>5,919,108</u>	₩ -	₩ <u>77,496,491,446</u>
Grade 2	<u>1,978,261,180</u>	<u>5,015,998</u>	-	<u>1,983,277,178</u>
Grade 3	<u>1,708,415,787</u>	<u>15,221,736</u>	-	<u>1,723,637,523</u>
Grade 4	<u>646,457,378</u>	<u>30,847,616</u>	-	<u>677,304,994</u>
Grade 5	<u>177,223,097</u>	<u>135,615,703</u>	<u>30,562,659</u>	<u>343,401,459</u>
No rating	<u>347,387,066,930</u>	-	-	<u>347,387,066,930</u>
	<u>429,387,996,710</u>	<u>192,620,161</u>	<u>30,562,659</u>	<u>429,611,179,530</u>
Provision for credit losses	<u>(85,778,750)</u>	<u>(30,552,682)</u>	<u>(13,793,057)</u>	<u>(130,124,489)</u>
Carrying amount	₩ <u>429,302,217,960</u>	₩ <u>162,067,479</u>	₩ <u>16,769,602</u>	₩ <u>429,481,055,041</u>
Unused loan commitments²				
Grade 1	₩ <u>7,826,972,321,067</u>	₩ <u>510,102,007</u>	₩ -	₩ <u>7,827,482,423,074</u>
Grade 2	<u>194,752,360,812</u>	<u>344,815,724</u>	-	<u>195,097,176,536</u>
Grade 3	<u>120,690,996,166</u>	<u>587,877,351</u>	-	<u>121,278,873,517</u>
Grade 4	<u>10,072,340,219</u>	<u>632,195,274</u>	-	<u>10,704,535,493</u>
Grade 5	<u>1,617,344,818</u>	<u>996,755,349</u>	<u>127,906</u>	<u>2,614,228,073</u>
	<u>8,154,105,363,082</u>	<u>3,071,745,705</u>	<u>127,906</u>	<u>8,157,177,236,693</u>
Provision for credit losses	<u>(8,389,409,731)</u>	<u>(75,273,097)</u>	<u>(97,503)</u>	<u>(8,464,780,331)</u>
Carrying amount	₩ <u>8,145,715,953,351</u>	₩ <u>2,996,472,608</u>	₩ <u>30,403</u>	₩ <u>8,148,712,456,362</u>

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	2019			
	12-month expected credit losses (stage 1)	Expected lifetime credit losses		Total
		Non-impaired assets (stage 2)	Impaired assets (stage 3)	
Due from financial institutions¹				
Grade 1	₩ 220,155,013,698	₩ -	₩ -	₩ 220,155,013,698
	220,155,013,698	-	-	220,155,013,698
Provision for credit losses	-	-	-	-
Carrying amount	₩ 220,155,013,698	₩ -	₩ -	₩ 220,155,013,698
Loans²				
Grade 1	₩ 12,557,073,212,906	₩ 5,056,956,603	₩ -	₩ 12,562,130,169,509
Grade 2	867,108,877,889	1,201,572,142	-	868,310,450,031
Grade 3	1,268,992,633,720	14,562,658,145	-	1,283,555,291,865
Grade 4	117,700,297,255	5,176,137,541	-	122,876,434,796
Grade 5	35,976,314,017	13,339,172,868	33,434,729,417	82,750,216,302
No rating ³	4,331,300,000,000	-	-	4,331,300,000,000
	19,178,151,335,787	39,336,497,299	33,434,729,417	19,250,922,562,503
Provision for credit losses	(34,010,653,278)	(2,585,135,445)	(20,537,881,481)	(57,133,670,204)
Carrying amount	₩ 19,144,140,682,509	₩ 36,751,361,854	₩ 12,896,847,936	₩ 19,193,788,892,299
Debt securities at amortized cost¹				
Grade 1	₩ 1,150,756,848,896	₩ -	₩ -	₩ 1,150,756,848,896
	1,150,756,848,896	-	-	1,150,756,848,896
Provision for credit losses	-	-	-	-
Carrying amount	₩ 1,150,756,848,896	₩ -	₩ -	₩ 1,150,756,848,896
Debt securities at fair value through other comprehensive income¹				
Grade 1	₩ 1,726,375,112,709	₩ -	₩ -	₩ 1,726,375,112,709
	1,726,375,112,709	-	-	1,726,375,112,709
Provision for credit losses	-	-	-	-
Carrying amount	₩ 1,726,375,112,709	₩ -	₩ -	₩ 1,726,375,112,709
Other financial assets⁴				
Grade 1	₩ 58,868,518,022	₩ 7,244,977	₩ -	₩ 58,875,762,999
Grade 2	1,510,848,437	2,399,160	-	1,513,247,597
Grade 3	2,797,794,883	36,507,045	-	2,834,301,928
Grade 4	319,410,505	17,154,546	-	336,565,051
Grade 5	109,214,655	84,041,622	14,987,335	208,243,612
No rating	249,259,920,741	-	-	249,259,920,741
	312,865,707,243	147,347,350	14,987,335	313,028,041,928
Provision for credit losses	(64,228,628)	(22,034,744)	(5,630,055)	(91,893,427)

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Carrying amount	₩	312,801,478,615	₩	125,312,606	₩	9,357,280	₩	312,936,148,501
Unused loan commitment²								
Grade 1	₩	5,415,180,084,822	₩	935,319,691	₩	-	₩	5,416,115,404,513
Grade 2		215,275,179,150		128,535,819		-		215,403,714,969
Grade 3		191,921,192,574		493,103,092		-		192,414,295,666
Grade 4		28,421,775,673		435,485,735		-		28,857,261,408
Grade 5		2,161,885,674		283,531,384		-		2,445,417,058
		<u>5,852,960,117,893</u>		<u>2,275,975,721</u>		-		<u>5,855,236,093,614</u>
Provision for credit losses		(4,383,712,760)		(12,923,859)		-		(4,396,636,619)
Carrying amount	₩	<u>5,848,576,405,133</u>	₩	<u>2,263,051,862</u>	₩	-	₩	<u>5,850,839,456,995</u>

¹ Criteria of GRADE of due from financial institutions and securities are as follows:

Grade 1	External credit rating AAA Government and public bonds/Debt securities guaranteed by Government or loss-compensated, and due from Bank of Korea
Grade 2	External credit rating AA
Grade 3	External credit rating A
Grade 4	External credit rating BBB
Grade 5	External credit rating BB
Grade 6	External credit rating B
Grade 7	External credit rating CCC
Grade 8	External credit rating CC
Grade 9	External credit rating C
Grade 10	External credit rating D

² Criteria of GRADE of loans and unused loan commitment are as follows:

Grade 1	0.75% and less than 0.75% of probability of default
Grade 2	1.35% and less than 1.35% of probability of default
Grade 3	5% and less than 5% of probability of default
Grade 4	10% and less than 10% of probability of default
Grade 5	Over 100% of probability of default

³ For reverse repurchase agreements, the Company does not recognize provisions because the Company decided that there is no practical default risk. As a result, these are considered to have extremely low credit risk and classified as no rating.

⁴ Among other financial assets, the Company classified Grade of accrued interest of loans and suspense credit receivable according to the information in the original accounts, and other items are classified as no rating.

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25-2.11 Exposure by counterparty

Details of exposure by counterparty as at December 31, 2020 and 2019, are as follows:

(in Korean won)

	2020		
	Gross carrying amount	Provision for credit losses	Carrying amount
Due from financial institutions			
Government and public institution	₩ 1,188,753,170,008	₩ -	₩ 1,188,753,170,008
Banks	938,943,303	-	938,943,303
	<u>1,189,692,113,311</u>	<u>-</u>	<u>1,189,692,113,311</u>
Loans			
Government and public institution	₩ 140,000,000,000	₩ -	₩ 140,000,000,000
Other financial institutions	256,300,000,000	-	256,300,000,000
Retail	20,357,013,996,523	(90,505,245,058)	20,266,508,751,465
	<u>20,753,313,996,523</u>	<u>(90,505,245,058)</u>	<u>20,662,808,751,465</u>
Debt securities at fair value through profit or loss			
Other financial institutions	₩ 250,093,130,763	₩ -	₩ 250,093,130,763
Debt securities at amortized cost			
Government and public institution	₩ 1,340,664,376,504	₩ -	₩ 1,340,664,376,504
Debt securities at fair value through other comprehensive income			
Government and public institution	₩ 2,670,612,887,373	₩ -	₩ 2,670,612,887,373
Other financial assets			
Government and public institution	₩ 59,759,146,505	₩ -	₩ 59,759,146,505
Banks	35,897,924,701	-	35,897,924,701
Other financial institutions	306,193,975,130	-	306,193,975,130
Corporate and others	5,303,205,519	-	5,303,205,519
Retail	22,456,927,675	(130,124,489)	22,326,803,186
	<u>429,611,179,530</u>	<u>(130,124,489)</u>	<u>429,481,055,041</u>
Unused loan commitments			
Retail	₩ 8,157,177,236,693	₩ (8,464,780,331)	₩ 8,148,712,456,362

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	2019		
	Gross carrying amount	Provision for credit losses	Carrying amount
Due from financial institutions			
Government and public institution	₩ 219,349,064,240	₩ -	₩ 219,349,064,240
Banks	805,949,458	-	805,949,458
	<u>220,155,013,698</u>	<u>-</u>	<u>220,155,013,698</u>
Loans			
Other financial institutions	₩ 4,331,300,000,000	₩ -	₩ 4,331,300,000,000
Retail	14,919,622,562,503	(57,133,670,204)	14,862,488,892,299
	<u>19,250,922,562,503</u>	<u>(57,133,670,204)</u>	<u>19,193,788,892,299</u>
Debt securities at amortized cost			
Government and public institution	₩ 1,150,756,848,896	₩ -	₩ 1,150,756,848,896
Debt securities at fair value through other comprehensive income			
Government and public institution	₩ 1,726,375,112,709	₩ -	₩ 1,726,375,112,709
Other financial assets			
Government and public institution	₩ 44,491,379,170	₩ -	₩ 44,491,379,170
Banks	23,866,115,469	-	23,866,115,469
Other financial institutions	221,415,290,740	-	221,415,290,740
Corporate and others	3,987,981,456	-	3,987,981,456
Retail	19,267,275,093	(91,893,427)	19,175,381,666
	<u>313,028,041,928</u>	<u>(91,893,427)</u>	<u>312,936,148,501</u>
Unused loan commitments			
Retail	₩ 5,855,236,093,614	₩ (4,396,636,619)	₩ 5,850,839,456,995

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Details of financial assets by industry as at December 31, 2020 and 2019, are as follows:

(in Korean won)	2020 ¹				
	Government & Public institution	Financial institutions & Insurance	Individuals	Others	Total
Due from financial institutions	₩ 1,188,753,170,008	₩ 938,943,303	₩ -	₩ -	₩ 1,189,692,113,311
Loans	140,000,000,000	256,300,000,000	20,266,508,751,465	-	20,662,808,751,465
Debt Securities at fair value through profit or loss	-	250,093,130,763	-	-	250,093,130,763
Debt securities at amortized cost	1,340,664,376,504	-	-	-	1,340,664,376,504
Debt securities at fair value through other comprehensive income	2,670,612,887,373	-	-	-	2,670,612,887,373
Other financial assets	59,759,146,505	342,091,899,831	22,326,803,186	5,383,130,875	429,560,980,397
	<u>₩ 5,399,789,580,390</u>	<u>₩ 849,423,973,897</u>	<u>₩ 20,288,835,554,651</u>	<u>₩ 5,383,130,875</u>	<u>₩ 26,543,432,239,813</u>
(in Korean won)	2019 ¹				
	Government & Public institution	Financial institutions & Insurance	Individuals	Others	Total
Due from financial institutions	₩ 219,349,064,240	₩ 805,949,458	₩ -	₩ -	₩ 220,155,013,698
Loans	-	4,331,300,000,000	14,862,488,892,299	-	19,193,788,892,299
Debt securities at amortized cost	1,150,756,848,896	-	-	-	1,150,756,848,896
Debt securities at fair value through other comprehensive income	1,726,375,112,709	-	-	-	1,726,375,112,709
Other financial assets	44,491,379,170	245,281,406,209	19,175,381,666	4,087,787,099	313,035,954,144
	<u>₩ 3,140,972,405,015</u>	<u>₩ 4,577,387,355,667</u>	<u>₩ 14,881,664,273,965</u>	<u>₩ 4,087,787,099</u>	<u>₩ 22,604,111,821,746</u>

¹Net carrying amount after deducting unamortized balance and allowances

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25-3. Liquidity Risk

25-3.1 Overview of Liquidity Risk

Liquidity risk is the risk of insolvency due to a disparity of contract maturity between assets and liabilities, the risk of loss in the cash flow of bank assets due to market price reduction following market crisis.

25-3.2 Liquidity Risk Management

The liquidity coverage ratio (LCR), the management guidance rate of the Financial Supervisory Service, and the net stable funding ration (NSFR) are calculated and managed by the ALM Risk Management System and also calculated and monitored daily. For internal management, the Board Risk Committee sets and manages a limit on liquidity risks separately from the regulatory levels of the supervisory authorities, and reports their compliance to the Executive Risk Committee every month. Depending on the scenarios resulting from the liquidity crisis situation, the analysis is reported to the Executive Risk Committee on a quarterly basis and the plan for the crisis are reported also at least annually. The Company also establish and monitor early alarm indicators, report their results to the Executive Risk Committee on a monthly basis, and establish contingency funding plan for liquidity crisis.

Details of remaining contractual maturity of financial liabilities as at December 31, 2020 and 2019, are as follows:

	2020			
	Financial liabilities			Off-balance sheet items
	Deposits	Others	Total	Unused loan commitments
Up to 1 month	₩ 14,634,471,365,236	₩ 194,051,793,690	₩ 14,828,523,158,926	₩ 8,157,177,236,693
1~3 months	2,484,038,969,785	1,046,705,214	2,485,085,674,999	-
3~6 months	2,149,206,630,043	1,892,384,646	2,151,099,014,689	-
6~12 months	3,286,165,879,352	2,639,526,422	3,288,805,405,774	-
1~5 years	1,137,787,788,419	1,966,124,581	1,139,753,913,000	-
Over 5 years	-	-	-	-
	₩ 23,691,670,632,835	₩ 201,596,534,553	₩ 23,893,267,167,388	₩ 8,157,177,236,693

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	Financial liabilities			Off-balance sheet items
	Deposits	Others	Total	Unused loan commitments
Up to 1 month	₩ 10,508,091,719,860	₩ 162,260,235,688	₩ 10,670,351,955,548	₩ 5,855,236,093,614
1~3 months	2,969,854,355,380	1,345,093,509	2,971,199,448,889	-
3~6 months	2,734,310,254,441	1,872,895,008	2,736,183,149,449	-
6~12 months	3,715,416,415,616	3,549,513,717	3,718,965,929,333	-
1~5 years	1,040,800,360,718	6,753,692,550	1,047,554,053,268	-
Over 5 years	-	-	-	-
	₩ 20,968,473,106,015	₩ 175,781,430,472	₩ 21,144,254,536,487	₩ 5,855,236,093,614

The time period classification above was subdivided based on the judgment of management. The amounts disclosed above include undiscounted contractual principal and interest to be paid and the Company classified the amounts as the earliest due date for our payment obligation.

25-4. Market Risk

25-4.1 Overview of Market Risk

Market risk is the risk of losses that may arise due to fluctuation in market price, such as interest rates, equity prices, and foreign exchange rates, and will affect the Company's income or the value of its trading portfolios. The Company may be exposed to market risks by possessing net foreign currency position, marketable securities, derivatives, and other financial instruments assets and liabilities with inherent market risks. The Company manages market risks by separating them into trading positions and non-trading positions, depending on the holding purpose and characteristics of financial instruments.

The purpose of managing market risks is to pursue profitability and stability simultaneously by determining the maximum possible loss in assets and liabilities exposed to fluctuation in market prices, such as interest rates, stock prices and exchange rates and managing the loss within the allowable limit of the Company.

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25-4.2 Management of Market Risk

Market risk Management for Trading Positions

A trading position is the position of a financial instrument held with the intention of trading or to reduce or eliminate the risk of other trading positions.

The Company measures and manages the market risk associated with our trading position by dividing it into general market risks and individual risks. General market risk refers to the risk of loss of target position due to changes in the general level of market prices such as interest rate, stock price, and exchange rate. Individual risk refers to the risk of loss of target position due to changes in credit risk of bonds and equity issuers as well as changes in general market prices. The Company measures the general market risk and individual risk using the standardized approach in accordance with the "Detailed Regulations on Supervision of Banking Business" <Appendix 3-2> "Standard for Calculation of Capital-to-Equity Ratio for Credit, Operating and Market Risk-Weighted Assets" as stipulated in Chapter 2, and reports it to the Executive Risk Committee.

The Company established the "Trading Book Procedure" and "Market Risk Management Procedure" as internal guidelines for market risk management in the Executive Risk Committee. The "Trading Policy Guideline" sets out the basic principles of the definition and characteristics of trading positions, the range of financial instruments to be controlled, the control procedure, and valuation. In the "Market Risk Management Procedure," the Company has established work flows and procedures for systematically and efficiently recognizing, measuring, reporting and managing market risks arising from holding trading positions.

The Company limits the range of financial instruments that can be treated as trading positions to interest rate risk positions (derivatives positions whose interest rates are based on the underlying assets). In the case of expanding the range of financial instruments subject to changes in business plans, the details of financial instruments, transaction departments, and management limits and others should be documented and approved by management.

As of the reporting date, the trading position for market risk management is the foreign currency denominated spot exchange position that occurred as the Company started trading foreign currency from the current period.

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The details of the currency conversion of financial instruments denominated in foreign currency as at December 31, 2020 are as follows:

<i>(in Korean won)</i>	<u>2020</u>	
Cash and due from financial institutions		
USD	₩	21,435,232
JPY		11,099,660
EUR		11,930,797
GBP		11,758,900
Other		57,105,093
	₩	<u>113,329,682</u>

Market risk Management for Non-trading Positions

The market risk for non-trading positions is the interest rate risk arising from the maturity mismatch between interest-bearing assets and interest-bearing debt due to interest rate fluctuations. The Company measures and manages interest rate risk using the standard method as stipulated in Chapter 2 of the "Detailed Regulations on Supervision of Banking Business" (Attachment 9-1) "Standard for Calculation of Interest Rate Risk.". Management indexes are Δ EVE (Change in Economic Value of Equity) that represents fluctuation in net asset value resulted from interest rate shock scenarios and Δ NII (Changes in Net Interest Income) that represents changes in net interest income resulted from interest rate shock scenarios and the Company calculates the indexes and reports their results to the Executive Risk Committee on a monthly basis.

The measurement results of risk as at December 31, 2020 and 2019, are as follows:

<i>(in Korean won)</i>	<u>2020</u>		<u>2019</u>	
Δ EVE	₩	117,367,172,488	₩	86,766,281,295
Δ NII		18,031,490,147		40,655,598,623

25-5. Operating Risk

25-5.1 Overview of Operating Risk

The Company defines operational risk as risk of loss resulting from inadequate or failed internal processes, people, systems and external events. Operation risks include legal risks, but do not include strategy and reputation risks. The legal risks include, but are not limited to, exposures to fines, penalties and punitive damages and personal agreements resulting from surveillance actions.

25-5.2 Management of Operating Risk

The Company manages loss data, Risk & Control Self Assessment (RCSA) and KRI (Key Risk Indicator) through the operational risk management system, and reports the related matters to the management (Executive Risk Committee) periodically.

25-6. Capital Risk

The Company shall comply with the capital adequacy standards set forth by the financial supervisory authorities. The capital adequacy standards for domestic banks are based on Basel III accord as presented by the Basel Committee on Banking Supervision in the Bank for International Settlements. The Company has been regulated by the minimum capital ratio under the Regulation on Supervision of Banking Business since January 1, 2020.

Pursuant to the regulation, the Company shall maintain the common equity capital ratio at 4.5% or above, Tier 1 capital ratio at 6.0% or above and total capital ratio at 8.0% or above. In addition, in order to enhance the ability to absorb losses of equity capital held, the Company needs to increase capital conservation buffer by 0.625% each year from 2020 to 2023. Taken together, in 2023 and after, the Company shall maintain the common equity capital ratio at 7.0% or above, Tier 1 capital ratio at 8.5% or above and total capital ratio at 10.5% or above.

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Details of the Company's capital ratio as at December 31, 2020 and 2019, are as follows:

<i>(in Korean won)</i>	<u>2020</u>
Equity Capital	
Tier I capital	₩ 2,751,087,685,653
Tier II capital	<u>66,777,776,737</u>
	<u>2,817,865,462,390</u>
Risk-weighted assets	
Credit risk-weighted assets	₩ 13,620,000,010,231
Operating risk-weighted assets	<u>449,548,011,265</u>
	<u>14,069,548,021,496</u>
Common equity Tier 1 capital ratio (%)	19.55%
Tier 1 capital ratio (%)	19.55%
Total capital ratio (%)	20.03%

<i>(in Korean won)</i>	<u>2019</u>
Equity Capital	
Tier I Capital	₩ 1,613,897,891,777
Tier II Capital	<u>42,420,719,575</u>
	<u>1,656,318,611,352</u>
Risk-weighted assets ¹	₩ 12,286,793,450,797
Equity Capital (%)	13.48%
Tier I Capital (%)	13.14%

¹Risk weighted assets are measured using the risk weighted calculation standard based on Basel I

In addition to the capital ratio, the Company conducts a capital adequacy assessment to assess whether the Company has adequate capital to manage the significant risks.

The assessment of the capital adequacy is conducted by calculating the amount of capital (internal capital) necessary to cover the important risks that the Company faces when taking into account its operating environment, business goals, crisis situation, etc. The assessment is to ensure that the available capital of the bank (substantially available capital to compensate for management losses) can be maintained at an appropriate level that exceeds the required capital.

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The Company determines internal capital limits(risk appetite) within the range of available capital in consideration of the size and quality of current and future available capital, level of risk tolerance, and business strategy and sets a limit for each type of risk (credit, market, operation, interest rate, etc.) by dividing the internal capital limit determined considering business strategy and characteristics by type of risk. Monthly monitoring is conducted to ensure that each risk type is managed within the limits set for each type of risk, and the results of the monitoring are reported to the Board Risk Committee and the Executive Risk Committee. In case of exceeding the limit of internal capital, the Company manages the adequacy of its capital by restricting the limits for each type of risk, resetting internal capital limits, establishing a risk reduction plan, and raising capital. Countermeasures of the risk are reviewed and approved by the Board Risk Committee and the Executive Risk Committee.

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25-7. Fair Value Disclosures

The fair value of financial instruments traded in active markets is based on quoted market prices at the end of the reporting period.

If the fair value of financial instruments that are not traded in an active market, fair value is measured by using a valuation obtained from independent third-party valuation service. The Company uses diverse valuation techniques using reasonable assumptions based on relative market conditions at the end of each reporting period.

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

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

25-7.1 Financial Instruments Measured at Amortized Cost

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

Measurement methods of fair value

Cash and due from financial institutions	The carrying amount is reasonable approximation of fair values and most deposits have floating interest rate or a short-term maturity. Therefore, the carrying amount is regarded as representative of fair value.
Loans	DCF(Discounted Cash Flow) Model is used to determine the fair value of loans.
Debt securities at amortized cost	The fair value is measured at the lower value of the unit prices of the recent trading days provided by FN Pricing and NICE Pricing & Information Inc. The fair value is determined by using DCF(Discounted Cash Flow) Model of independent third-party pricing services.
Deposits and debts	The carrying amount of demand deposits is regarded as representative of fair value because they are payable on demand. The fair value of other deposits and borrowings is measured by discounting the contractual cash flows at the market interest rate that takes into account the residual risk.

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Other financial assets and liabilities

The carrying amounts are reasonable approximation of fair values, without using the DCF(Discounted Cash Flow) Model. These financial instruments are temporary accounts derived from other various transactions and their maturities are relatively short or not defined.

Carrying amount and fair value of financial instruments at amortized cost as at December 31, 2020 and 2019, are as follows:

(in Korean won)

	2020				
	Carrying amount				Fair value
	Balance	Unamortized balance ¹	Allowance	Total	
Assets					
Cash and due from financial institutions					
Cash and cash equivalents	₩ 6,358,498,682	₩ -	₩ -	₩ 6,358,498,682	₩ 6,358,498,682
Due from financial institutions	1,189,578,783,629	-	-	1,189,578,783,629	1,189,578,783,629
	<u>1,195,937,282,311</u>	<u>-</u>	<u>-</u>	<u>1,195,937,282,311</u>	<u>1,195,937,282,311</u>
Financial investments	1,340,664,376,504	-	-	1,340,664,376,504	1,360,261,889,122
Loans	20,709,596,816,512	43,717,180,011	(90,505,245,058)	20,662,808,751,465	20,675,158,421,316
Other financial assets	429,691,104,886	(79,925,356)	(130,124,489)	429,481,055,041	429,481,055,041
	<u>₩ 23,675,889,580,213</u>	<u>₩ 43,637,254,655</u>	<u>₩ (90,635,369,547)</u>	<u>₩ 23,628,891,465,321</u>	<u>₩ 23,660,838,647,790</u>
Liabilities					
Deposits	₩ 23,539,282,308,324	₩ -	₩ -	₩ 23,539,282,308,324	₩ 23,551,177,105,742
Other financial liabilities	282,567,571,373	-	-	282,567,571,373	282,567,571,373
	<u>₩ 23,821,849,879,697</u>	<u>₩ -</u>	<u>₩ -</u>	<u>₩ 23,821,849,879,697</u>	<u>₩ 23,833,744,677,115</u>

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	2019				Fair value
	Carrying amount				
	Balance	Unamortized balance ¹	Allowance	Total	
Assets					
Cash and due from financial institutions					
Cash and cash equivalents	₩ 5,893,142,000	₩ -	₩ -	₩ 5,893,142,000	₩ 5,893,142,000
Due from financial institutions	220,155,013,698	-	-	220,155,013,698	220,155,013,698
	<u>226,048,155,698</u>	<u>-</u>	<u>-</u>	<u>226,048,155,698</u>	<u>226,048,155,698</u>
Financial investments	1,150,756,848,896	-	-	1,150,756,848,896	1,163,911,305,321
Loans	19,211,559,561,764	39,363,000,739	(57,133,670,204)	19,193,788,892,299	19,198,366,990,475
Other financial assets	313,127,847,571	(99,805,643)	(91,893,427)	312,936,148,501	312,936,148,501
	<u>₩ 20,901,492,413,929</u>	<u>₩ 39,263,195,096</u>	<u>₩ (57,225,563,631)</u>	<u>₩ 20,883,530,045,394</u>	<u>₩ 20,901,262,599,995</u>
Liabilities					
Deposits	₩ 20,711,907,725,432	₩ -	₩ -	₩ 20,711,907,725,432	₩ 20,719,992,979,084
Other financial liabilities	312,554,537,604	-	-	312,554,537,604	312,554,537,604
	<u>₩ 21,024,462,263,036</u>	<u>₩ -</u>	<u>₩ -</u>	<u>₩ 21,024,462,263,036</u>	<u>₩ 21,032,547,516,688</u>

¹Unamortized balance consist of deferred loan origination costs and present value discount.

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Fair value hierarchy classifications of the financial instruments not measured at fair value but for which the fair value is disclosed as at December 31, 2020 and 2019, are as follows:

(in Korean won)

	2020			
	Level 1	Level 2	Level 3	Total
Assets				
Cash and due from financial institutions				
Cash and cash equivalents	₩ 6,245,169,000	₩ 113,329,682	₩ -	₩ 6,358,498,682
Due from financial institutions	-	1,189,578,783,629	-	1,189,578,783,629
	<u>6,245,169,000</u>	<u>1,189,692,113,311</u>	<u>-</u>	<u>1,195,937,282,311</u>
Financial investments				
Debt securities	914,935,797,480	445,326,091,642	-	1,360,261,889,122
Loans				
Retails	-	-	20,278,858,421,316	20,278,858,421,316
Reverse repurchase agreements	-	-	396,300,000,000	396,300,000,000
	<u>-</u>	<u>-</u>	<u>20,675,158,421,316</u>	<u>20,675,158,421,316</u>
Other financial assets	-	-	429,481,055,041	429,481,055,041
	<u>₩ 921,180,966,480</u>	<u>₩ 1,635,018,204,953</u>	<u>₩ 21,104,639,476,357</u>	<u>₩ 23,660,838,647,790</u>
Liabilities				
Deposits	₩ -	₩ 13,060,830,879,076	₩ 10,490,346,226,666	₩ 23,551,177,105,742
Other financial liabilities	-	-	282,567,571,373	282,567,571,373
	<u>₩ -</u>	<u>₩ 13,060,830,879,076</u>	<u>₩ 10,772,913,798,039</u>	<u>₩ 23,833,744,677,115</u>

(in Korean won)

	2019			
	Level 1	Level 2	Level 3	Total
Assets				
Cash and due from financial institutions				
Cash and cash equivalents	₩ 5,893,142,000	₩ -	₩ -	₩ 5,893,142,000
Due from financial institutions	-	220,155,013,698	-	220,155,013,698
	<u>5,893,142,000</u>	<u>220,155,013,698</u>	<u>-</u>	<u>226,048,155,698</u>
Financial investments				
Debt securities	800,038,882,064	363,872,423,257	-	1,163,911,305,321
Loans				
Retails	-	-	14,867,066,990,475	14,867,066,990,475
Reverse repurchase agreements	-	-	4,331,300,000,000	4,331,300,000,000
	<u>-</u>	<u>-</u>	<u>19,198,366,990,475</u>	<u>19,198,366,990,475</u>
Other financial assets	-	-	312,936,148,501	312,936,148,501
	<u>₩ 805,932,024,064</u>	<u>₩ 584,027,436,955</u>	<u>₩ 19,511,303,138,976</u>	<u>₩ 20,901,262,599,995</u>
Liabilities				
Deposits	₩ -	₩ 7,980,695,656,984	₩ 12,739,297,322,100	₩ 20,719,992,979,084
Other financial liabilities	-	-	312,554,537,604	312,554,537,604
	<u>₩ -</u>	<u>₩ 7,980,695,656,984</u>	<u>₩ 13,051,851,859,704</u>	<u>₩ 21,032,547,516,688</u>

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Valuation techniques and inputs used in the fair value measurements as at December 31, 2020 and 2019, are as follows:

<i>(in Korean won)</i>	Level	2020	2019	Valuation techniques	Inputs
Assets					
Cash and cash equivalents ¹	Level 2	₩ 113,329,682	₩ -	-	-
Due from financial institutions ¹	Level 2	1,189,578,783,629	220,155,013,698	-	-
Debt securities at amortized cost	Level 2	445,326,091,642	363,872,423,257	Discounted cash flow	Discount rate
Retail loans	Level 3	20,378,858,421,316	14,867,066,990,475	Discounted cash flow	Credit spreads, Other spreads, Interest rate
Reverse repurchase agreements ¹	Level 3	396,300,000,000	4,331,300,000,000	-	-
Other financial assets ¹	Level 3	429,481,055,041	312,936,148,501	-	-
		<u>₩ 22,739,657,681,310</u>	<u>₩ 20,095,330,575,931</u>		
Liabilities					
Deposits ¹	Level 2	₩ 13,060,830,879,076	₩ 7,980,695,656,984	-	-
Deposits	Level 3	10,490,346,226,666	12,739,297,322,100	Discounted cash flow	Other spreads, Interest rate
Other financial liabilities ¹	Level 3	282,567,571,373	312,554,537,604	-	-
		<u>₩ 23,833,744,677,115</u>	<u>₩ 21,032,547,516,688</u>		

¹ Valuation techniques and inputs of the financial instruments whose carrying amount is a reasonable approximation of fair value, are not disclosed.

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25-7.2 Financial Instruments Measured at Fair Value

Fair value of financial instruments by fair value hierarchy

Fair value hierarchy of the financial instruments that are measured at fair value as at December 31, 2020 and 2019, are as follows:

(in Korean won)

	2020			
	Level 1	Level 2	Level 3	Total
Financial assets				
Financial assets at fair value through profit or loss				
Debt securities	₩	-	₩ 250,093,130,763	₩ 250,093,130,763
Financial assets at fair value through other comprehensive income				
Debt securities	2,120,893,491,512	549,719,395,861	-	2,670,612,887,373
	<u>₩ 2,120,893,491,512</u>	<u>₩ 799,812,526,624</u>	<u>₩</u>	<u>₩ 2,920,706,018,136</u>

(in Korean won)

	2019			
	Level 1	Level 2	Level 3	Total
Financial assets				
Financial assets at fair value through other comprehensive income				
Debt securities	₩ 1,550,261,139,919	₩ 176,113,972,790	₩	₩ 1,726,375,112,709

There is no transfer between levels 1 and 2 of financial asset measured at fair value for the years ended December 31, 2020 and 2019.

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Valuation techniques and the inputs

Valuation techniques and inputs used in levels 2 fair value measurements as at December 31, 2020 and 2019, are as follows:

<i>(in Korean won)</i>	Valuation techniques	<u>2020</u>	<u>2019</u>	Inputs
Financial Assets at fair value through profit or loss	Net asset value	₩ 250,093,130,763	₩ -	Price of underlying assets
Financial Assets at fair value through other comprehensive income	Discounted cash flow	<u>549,719,395,861</u>	<u>₩ 176,113,972,790</u>	Discount rate
		<u>₩ 799,812,526,624</u>	<u>₩ 176,113,972,790</u>	

There are no financial instruments classified as level 3 as at December 31, 2020 and 2019.

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25-8. Offsetting Financial Assets and Financial Liabilities

As the law allows for the right to offset and the contract settle it net in cash, domestic exchange settlement debits and domestic exchange settlement credits transactions are shown in its net settlement balance in the statement of financial position.

The following table presents the financial assets that are offset, or subject to enforceable master netting arrangements and other similar agreements as at December 31, 2020 and 2019.

(in Korean won)

	2020					
	Gross amounts of recognized financial assets	Gross amounts of recognized financial liabilities set off	Net amounts presented in the statement of financial position	Amounts not offset		Net amount
				Financial instruments	Cash collateral received	
Domestic exchange settlement debits	₩ 1,318,422,143,135	₩ (976,345,147,741)	₩ 342,076,995,394	₩ -	₩ -	₩ 342,076,995,394

(in Korean won)

	2019					
	Gross amounts of recognized financial assets	Gross amounts of recognized financial liabilities set off	Net amounts presented in the statement of financial position	Amounts not offset		Net amount
				Financial instruments	Cash collateral received	
Domestic exchange settlement debits	₩ 916,674,763,102	₩ (673,556,982,153)	₩ 243,117,780,949	₩ -	₩ -	₩ 243,117,780,949

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The following table presents the recognized financial liabilities that are offset, or subject to enforceable master netting arrangements and other similar agreements as at December 31, 2020 and 2019.

(in Korean won)

		2020					
		Gross amounts of recognized financial liabilities	Gross amounts of recognized financial assets set off	Net amounts presented in the statement of financial position	Amounts not offset		Net amount
					Financial instruments	Cash collateral pledged	
Domestic exchange settlement credits	₩ 1,038,895,197,416	₩ (976,345,147,741)	₩ 62,550,049,675	₩ (62,550,049,675)	₩	-	₩ -

(in Korean won)

		2019					
		Gross amounts of recognized financial liabilities	Gross amounts of recognized financial assets set off	Net amounts presented in the statement of financial position	Amounts not offset		Net amount
					Financial instruments	Cash collateral pledged	
Domestic exchange settlement credits	₩ 715,964,688,049	₩ (673,556,982,153)	₩ 42,407,705,896	₩ (42,407,705,896)	₩	-	₩ -

26. Contingencies and Commitments

As at December 31, 2020, the Company has filed 8 lawsuits (affirmation of the existence of loans) as a plaintiff, involving aggregate claim of ₩399,867,723, and faces 13 lawsuits (affirmation of the non-existence of debts), as a defendant, involving aggregate damages of ₩819,450,754.

There are no purchase commitment and residual cash deficiency support agreement (excluding acquisition of assets and capital expenditure commitments) at the date of issuance as at December 31, 2020 and 2019.

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27. Earnings per share

Earnings per share for the years ended December 31, 2020 and 2019 were as follows:

<i>(in Korean won)</i>	2020		2019	
Profit for the year	₩	113,635,989,057	₩	13,732,930,386
Profit available for ordinary shares		113,635,989,057		13,732,930,386
Weighted average number of ordinary shares outstanding		367,334,893		272,668,764
Basic earnings per share in won	₩	309	₩	50

Considering that the Company had no dilutive potential common shares and that share options were not included in the calculation of diluted earnings per share because they were anti-dilutive for the reporting periods presented, diluted earnings per share equal to basic earnings per share for the years ended December 31, 2020 and 2019.

Weighted average number of ordinary shares outstanding for the years ended December 31, 2020 and 2019 were as follows:

<i>(in Shares)</i>		2020		
	Period	Number of shares	Day	Weight
Number of common shares outstanding	January 1, 2020 ~ December 31, 2020	365,096,442	366	133,625,297,772
Issuance of shares (6th)	November 13, 2020 ~ December 31, 2020	10,640,000	49	521,360,000
Issuance of shares (8th)	December 8, 2020 ~ December 31, 2020	10,640,000	24	255,360,000
Issuance of shares (7th)	December 30, 2020 ~ December 31, 2020	21,276,595	2	42,553,190
	Subtotal(①)			134,444,570,962
	Weighted average number of common shares outstanding(②=①/366)			367,334,893

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<i>(in Shares)</i>	2019			
	Period	Number of shares	Day	Weight
Number of common shares outstanding ¹	January 1, 2019 ~ December 31, 2019	260,000,000	365	94,900,000,000
Capital increase without consideration ²	January 1, 2019 ~ November 21, 2019	1,402,819	325	455,916,175
Issuance of shares (5th)	November 22, 2019 ~ December 31, 2019	100,000,000	40	4,000,000,000
Exercise of share options	November 29, 2019 ~ December 31, 2019	5,096,442	33	168,182,586
	Subtotal(①)			99,524,098,761
	Weighted average number of common shares outstanding(②=①/365)			272,668,764

¹ Includes 60,000,000 convertible preferred shares that should be converted to ordinary shares.

² It is a capital increase without consideration resulting from the issuance of shares (5th), and calculated by multiplying the number of ordinary shares before the issuance of new shares by the adjustment ratio.

28. Leases

Details of right-of-use assets as at December 31, 2020 and 2019, are as follows:

<i>(in Korean won)</i>	2020		
	Acquisition cost	Accumulated depreciation	Carrying amount
Buildings	₩ 24,307,130,333	₩ (14,834,552,650)	₩ 9,472,577,683
Vehicles	254,825,464	(142,568,219)	112,257,245
	<u>₩ 24,561,955,797</u>	<u>₩ (14,977,120,869)</u>	<u>₩ 9,584,834,928</u>

<i>(in Korean won)</i>	2019		
	Acquisition cost	Accumulated depreciation	Carrying amount
Buildings	₩ 20,441,037,102	₩ (6,287,638,423)	₩ 14,153,398,679
Vehicles	242,268,828	(67,339,658)	174,929,170
	<u>₩ 20,683,305,930</u>	<u>₩ (6,354,978,081)</u>	<u>₩ 14,328,327,849</u>

The above right-of-use assets are included in 'property and equipment' in the statements of financial position.

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Changes in right-of-use assets for the years ended December 31, 2020 and 2019, are as follows:

(In Korean won)	2020				
	Beginning balance	Acquisitions	Depreciation	Others ¹	Ending balance
Buildings	₩ 14,153,398,679	₩ 2,907,234,406	₩ (8,647,939,420)	₩ 1,059,884,018	₩ 9,472,577,683
Vehicles	174,929,170	25,540,551	(88,212,476)	-	112,257,245
	<u>₩ 14,328,327,849</u>	<u>₩ 2,932,774,957</u>	<u>₩ (8,736,151,896)</u>	<u>₩ 1,059,884,018</u>	<u>₩ 9,584,834,928</u>

¹Increase due to changes in provision for asset retirement obligation and changes in the discount rate.

(In Korean won)	2019					
	Beginning balance	Effect of transition ¹	Acquisitions	Depreciation	Others ²	Ending balance
Buildings	₩ -	₩ 15,519,250,925	₩ 4,649,012,705	₩ (6,287,638,423)	₩ 272,773,472	₩ 14,153,398,679
Vehicles	-	155,458,708	86,810,120	(67,339,658)	-	174,929,170
	<u>₩ -</u>	<u>₩ 15,674,709,633</u>	<u>₩ 4,735,822,825</u>	<u>₩ (6,354,978,081)</u>	<u>₩ 272,773,472</u>	<u>₩ 14,328,327,849</u>

¹The effects of adoption of K-IFRS 1116

²Increase due to changes in provision for asset retirement obligation and changes in the discount rate.

Details of lease liabilities as at December 31, 2020 and 2019, are as follows:

(In Korean won)	2020		2019	
Buildings	₩	8,375,541,445	₩	13,681,567,123
Vehicles		120,779,318		177,682,994
	<u>₩</u>	<u>8,496,320,763</u>	<u>₩</u>	<u>13,859,250,117</u>

The above lease liabilities are included in 'other liabilities' in the statements of financial position.

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Changes in lease liabilities for the years ended December 31, 2020 and 2019, are as follows:

(In Korean won)	2020					
	Beginning balance	Increase	Payments	Amortization	Others	Ending balance
Buildings	₩ 13,681,567,123	₩ 2,618,271,894	₩ (8,094,458,923)	₩ 224,392,285	₩ (54,230,934)	₩ 8,375,541,445
Vehicles	177,682,994	25,540,551	(85,938,711)	3,494,484	-	120,779,318
	<u>₩ 13,859,250,117</u>	<u>₩ 2,643,812,445</u>	<u>₩ (8,180,397,634)</u>	<u>₩ 227,886,769</u>	<u>₩ (54,230,934)</u>	<u>₩ 8,496,320,763</u>

(In Korean won)	2019					
	Beginning balance	Effect of transition ¹	Increase	Payments	Amortization	Ending balance
Buildings	₩ -	₩ 14,381,297,474	₩ 4,629,834,368	₩ (5,622,033,145)	₩ 292,468,426	₩ 13,681,567,123
Vehicles	-	159,991,430	86,810,120	(73,455,391)	4,336,835	177,682,994
	<u>₩ -</u>	<u>₩ 14,541,288,904</u>	<u>₩ 4,716,644,488</u>	<u>₩ (5,695,488,536)</u>	<u>₩ 296,805,261</u>	<u>₩ 13,859,250,117</u>

¹The effects of adoption of K-IFRS 1116

Details of remaining contractual maturity of lease liabilities as at December 31, 2020 and 2019, are as follows:

(In Korean won)	2020		2019	
Less than 1 month	₩	1,073,098,958	₩	639,794,016
1~3 months		1,046,705,214		1,345,093,509
3~6 months		1,892,384,646		1,872,895,008
6~12 months		2,639,526,422		3,549,513,717
1~5 years		1,966,124,581		6,753,692,550
5 years or more		-		-
	<u>₩</u>	<u>8,617,839,821</u>	<u>₩</u>	<u>14,160,988,800</u>

Expense relating to leases of low-value assets amounts to ₩394,199,548 and ₩327,525,774 during 2020 and 2019, respectively.

Expense relating to short-term leases amounts to ₩1,586,423,330 and ₩8,596,000 during 2020 and 2019, respectively.

Leases for data center contain variable payments terms that are linked to the white space usage (including computer equipment) in the center. Variable payment terms are used for minimizing costs paid for unused underlying assets. Variable lease payments that depend on usage are recognized in profit or loss in the period in which the condition that triggers those payments occurs.

Expense relating to variable lease payments not included in lease liabilities amounts to

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₩918,678,030 and ₩803,696,439 during 2020 and 2019, respectively. The relative size of variable lease payments against the fixed lease payments is approximately 84.58% and 103.59% during 2020 and 2019, respectively.

29. Supplemental Cash Flow Information

Significant non-cash transactions for the years ended December 31, 2020 and 2019, are as follows:

<i>(in Korean won)</i>	<u>2020</u>	<u>2019</u>
Gain on valuation of financial assets at fair value through other comprehensive income	₩ 8,760,010,751	₩ 4,677,247,109
Remeasurements of net defined benefit liability (asset)	(2,030,259,973)	(1,558,411,380)
Reclassification from advance payments to property and equipment	(2,086,648,200)	910,267,780
Reclassification from advance payments to intangible assets	(2,939,026,480)	3,483,350,000
Written-off of loans	(29,204,847,548)	(11,819,936,610)
Acquisition of right-of-use assets	2,932,774,957	4,735,822,825
Recognition of lease liabilities	2,643,812,445	4,716,644,488

Changes in liabilities arising from financial activities for the years ended December 31, 2020 and 2019, are as follows:

<i>(in Korean won)</i>	Lease liabilities	
	<u>2020</u>	<u>2019</u>
Beginning balance	₩ 13,859,250,117	₩ -
Effect of transition ¹	-	14,541,288,904
Cash flows	(8,180,397,634)	(5,695,488,536)
Acquisitions	2,643,812,445	4,716,644,488
Amortization	227,886,769	296,805,261
Others	(54,230,934)	-
Ending balance	<u>₩ 8,496,320,763</u>	<u>₩ 13,859,250,117</u>

¹The effects of adoption of K-IFRS 1116

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30. Related Party Transactions

Details of related parties are as follows:

Type	2020
Significant influence on the Company	Kakao Corp. Korea Investment Holdings Co., Ltd. Korea Value Asset Management Co.,Ltd.
Other related parties	Korea Investment & Securities Co., Ltd. Korea Investment Savings Bank Kakaopay Corp. Kakaopay securities Corp. DK techin Corp. Kakaospace Corp. Kakao Page Corp. Kakao Mobility Corp. Kakao VX Corp. Kakao Commerce Corp. Kakao Enterprise Corp.
Other ¹	Hasys Co., Ltd.

¹ Although the entity is not the related party of the Company in accordance with K-IFRS 1024, the entity belongs to the Large Enterprise Group in accordance with the Monopoly Regulation and Fair Trade Act.

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Details of significant receivables and payables arising from related party transactions as at December 31, 2020 and 2019, are as follows:

(in Korean won)

Type	Name of entity	Receivables /Payables	2020		2019	
			₩		₩	
Significant influence on the Company	Kakao Corp.	Other assets ¹	₩	903,269,447	₩	73,161,080
		Lease liabilities ²		85,398,183		153,690,535
		Other liabilities		461,797,430		-
Other related parties	Korea Investment & Securities Co., Ltd	Deposits		1,028,409,799		217,740,606
		Other liabilities		39,025,217		19,373,252
	Kakaopay Corp.	Other assets		52,537,921		-
	Kakaospace Corp.	Other liabilities		59,315,407		-
	Kakao Commerce Corp.	Other assets		11,090,411		-
	Kakao Enterprise Corp.	Other liabilities		19,174,870		-
	Key management		Deposits		485,938,098	
		Other liabilities		392,286,080		344,858

¹ Net carrying amount after deducting present value discount of leasehold deposits

² Initially measured right-of-use assets relating to lease transactions amount to ₩314,607,447 and ₩193,006,054 during 2020 and 2019, respectively.

Details of profit and loss arising from transactions with related parties for the years ended December 31, 2020 and 2019, are as follows:

(in Korean won)

Type	Name of entity	Profit/loss	2020		2019	
			₩		₩	
Significant influence on the Company	Kakao Corp.	Interest income	₩	4,325,505	₩	723,131
		Interest expenses		4,582,226		1,693,945
		Fee and commission expenses		2,654,163,120		1,205,753,750
		Selling and administrative expenses ¹		1,415,697,964		1,027,141,167
Other related parties	Korea Investment & Securities Co., Ltd	Fee and commission income		10,023,973,000		5,198,474,000
		Interest expenses		1,631,017		-
	Korea Investment Savings Bank	Fee and commission expenses		42,154,829		22,541,252
		Fee and commission income		3,595,307,150		2,470,934,405
	Kakaopay corp.	Fee and commission income		5,047,373,816		1,976,155,000

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	DK techn Corp.	Selling and administrative expenses	1,964,309,038	793,157,112
		Fee and commission expenses	1,112,107,249	694,150,198
	Kakaospace Corp.	Selling and administrative expenses	4,909,440	34,457,080
	Kakao Page Corp.	Selling and administrative expenses	-	165,000,000
		Fee and commission expenses	10,939,890	22,000,000
	Kakao Mobility Corp.	Selling and administrative expenses	-	41,965,550
	Kakao VX Corp.	Selling and administrative expenses	16,948,500	4,815,000
		Fee and commission expenses	21,849,479	22,000,000
	Kakao Commerce Corp.	Selling and administrative expenses	93,366,880	38,412,200
	Kakao Enterprise Corp.	Fee and commission expenses	76,645,745	-
Other		Fee and commission income	50,000,000	-
	Hasys Co., Ltd.	Selling and administrative expenses	-	53,140,000
Key management		Interest expenses	6,957,274	6,859,885

¹ Lease payments deducted from lease liabilities amounting to ₩551,884,547 and ₩75,991,765 during 2020 and 2019, respectively are excluded.

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Significant borrowing transactions with related parties for the years ended December 31, 2020 and 2019, are as follows:

(in Korean won)

Type	Name of entity	Details	2020				
			Beginning	Borrowing	Repayments	Others ¹	Ending
Significant influence on the Company	Kakao Corp.	Lease liabilities	₩ 153,690,535	₩ 479,009,969	₩ (551,884,547)	₩ 4,582,226	₩ 85,398,183
Key management		Deposits ²	23,424,271	1,469,660,691	(1,472,460,691)	371,975,729	392,800,000

¹ Others of deposits are effects resulted from changes in non-executive directors and others of lease liabilities are effects from amortization of lease liabilities.

² Transactions from deposits on demand are excluded.

(in Korean won)

Type	Name of entity	Details	2019				
			Beginning	Borrowing	Repayments	Others ¹	Ending
Significant influence on the Company	Kakao Corp.	Lease liabilities	₩ -	₩ 227,988,355	₩ (75,991,765)	₩ 1,693,945	₩ 153,690,535
Key management		Deposits ²	343,101,581	43,177,705	(32,998,015)	(329,657,000)	23,624,271

¹ Others of deposits are effects resulted from changes in non-executive directors and others of lease liabilities are effects from amortization of lease liabilities.

² Transactions from deposits on demand are excluded.

Details of transfers in accordance with financing agreements for the years ended December 31, 2020 and 2019, are as follows:

(in Korean won)

Type	Name of entity	Details	2020		2019	
			₩		₩	
Significant influence on the Company	Kakao Corp.	Issuance of shares	₩ 167,642,537,500		₩ 90,000,000,000	
	Korea Investment Holdings Co., Ltd	Issuance of shares	24,666,634,000		250,000,000,000	
	Korea Value Asset Management Co.,Ltd.	Issuance of shares	142,975,903,500			-
			₩ 335,285,075,000		₩ 340,000,000,000	

There are no acceptances and guarantees and unused commitments provided to related parties as at December 31, 2020 and 2019.

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There are no collaterals provided to the related parties and provided by the related parties as at December 31, 2020 and 2019.

Details of debt securities transaction through related parties for the years ended December 31, 2020 and 2019, are as follows:

(in Korean won)

Type	Name of entity	Details	<u>2020</u>	<u>2019</u>
Other related parties	Korea Investment & Securities Co., Ltd	Purchase of debt securities	₩ 272,829,000,000	₩ 346,501,250,000
	Kakaopay securities Corp.	Purchase of debt securities	440,733,250,000	-
		Sale of debt securities	30,226,500,000	-

The compensation to key management for the years ended December 31, 2020 and 2019, consists of:

(in Korean won)

	<u>2020</u>	<u>2019</u>
Salaries and short-term compensation	₩ 1,582,453,791	₩ 1,042,252,308
Post-employment benefits	110,784,408	190,850,000
Share-based payment expenses	418,342,040	541,931,070
	<u>₩ 2,111,580,239</u>	<u>₩ 1,775,033,378</u>

Key management consists of the directors (including non-executive directors) of the Company who have the rights and responsibilities over the Company's business planning, managing, and supervision.

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31. Regulatory Reserve for Credit Losses

Measurement and Disclosure of Regulatory Reserve for Credit Losses are required in accordance with Articles 29.1 through 29.2 of Regulation on Supervision of Banking Business.

The Company do not appropriate reserve for credit losses since the Company has undisposed accumulated deficit. The Company only discloses information of the amount required to reserve for credit losses and adjusted loss after provision of regulatory reserve for credit losses for the years ended December 31, 2020 and 2019.

<i>(in Korean won)</i>	<u>2020</u>	<u>2019</u>
Amount required to reserve for credit losses	₩ 52,838,663,217	₩ 53,011,795,840
Adjusted loss after provision of regulatory reserve for credit losses	60,797,325,840	(39,278,865,454)



Independent Auditors' Review Report on Internal Accounting Control System

(English Translation of a Report Originally Issued in Korean)

To the President of
KakaoBank Corp.

We have reviewed the accompanying Report on the Operational Status of Internal Accounting Control System ("IACS") of KakaoBank Corp. (the "Company") as of December 31, 2020. The Company's management is responsible for designing and maintaining effective IACS and for its assessment of the effectiveness of IACS. Our responsibility is to review management's assessment and issue a report based on our review. In the accompanying report of management's assessment of IACS, the Company's management stated: "Based on the assessment of the operational status of the IACS, we concluded that the Company's IACS is designed and operated effectively, as of December 31, 2020, in all material respects, in accordance with the IACS Framework issued by the Internal Accounting Control System Operation Committee."

We conducted our review in accordance with IACS Review Standards, issued by the Korean Institute of Certified Public Accountants. Those Standards require that we plan and perform the review to obtain assurance of a level less than that of an audit as to whether the Report on the Operational Status of IACS is free of material misstatement. Our review consists principally of obtaining an understanding of the Company's IACS, inquiries of company personnel about the details of the report, and tracing to related documents we considered necessary in the circumstances. We have not performed an audit and, accordingly, we do not express an audit opinion.

A company's IACS is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with Korean International Financial Reporting Standards. Because of its inherent limitations, however, IACS may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Based on our review, nothing has come to our attention that the Report on the Operational Status of Internal Accounting Control System as of December 31, 2020 is not prepared, in all material respects, in accordance with the IACS Framework issued by the Internal Accounting Control System Operation Committee.

This report applies to the Company's IACS in existence as of December 31, 2020. We did not review the Company's IACS subsequent to December 31, 2020. This report has been prepared for Korean regulatory purposes, pursuant to the Act on External Audit of Stock Companies, Etc. and may not be appropriate for other purposes or for other users.

KPMG Samjong Accounting Corp.

Seoul, Korea

March 5, 2021

Report on the Operations of Internal Accounting Control System

To the Shareholders, Board of Directors and Audit Committee of KakaoBank Corp.

We, as the President and the Internal Accounting Control Officer (“IACO”) of KakaoBank Corp. (“the Company”), assessed the status of the design and operation of the Company’s Internal Accounting Control System (“IACS”) for the year ended December 31, 2020.

The Company’s management, including ourselves, is responsible for the design and operation of IACS. We evaluated whether the Company effectively designed and operated its IACS to prevent and detect errors or frauds which may cause misstatements in the preparation and disclosure of reliable financial statements. We used the IACS Framework, established by the Internal Accounting Control System Operation Committee in Korea, as the criteria for the assessment of design and operation of the IACS.

Based on the assessment of the operational status of the IACS, we concluded that the Company’s IACS is designed and operated effectively as of December 31, 2020, in all material respects, in accordance with the IACS Framework issued by the Internal Accounting Control System Operation Committee.

We certify that this report does not contain any untrue statement of a fact, or omit to state a fact necessary to be presented herein. We also certify that this report does not contain or present any statement which might cause material misunderstanding, and we have reviewed and verified this report with sufficient care.

January 27, 2021

Yoon Hoyeong, *President*

Kim Gwangok, *Internal Accounting Control Officer*