

# **KakaoBank of Korea Corp.**

**Financial Statements**

**December 31, 2019 and 2018**

**KakaoBank of Korea Corp.**  
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**December 31, 2019 and 2018**

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## **Independent Auditor's Report**

(English Translation of a Report Originally Issued in Korean)

To the Board of Directors and Shareholders of  
KakaoBank of Korea Corp.

### **Opinion**

We have audited the accompanying financial statements of KakaoBank of Korea Corp. (the Company), which comprise the statements of financial position as at December 31, 2019 and 2018, and the statements of comprehensive income, statements of changes in equity and statements of cash flows for the years then ended, and notes to the financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying financial statements present fairly, in all material respects, the financial position of KakaoBank of Korea Corp. as at December 31, 2019 and 2018, and its financial performance and its cash flows for the years then ended in accordance with International Financial Reporting Standards as adopted by the Republic of Korea (Korean IFRS).

### **Basis for Opinion**

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

### **Other Matter**

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

## **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 Korean 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.

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

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

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.

- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the 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 auditor's 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 auditor's 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.

Seoul, Korea

February 25, 2020

<p>This report is effective as of February 25, 2020, 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 there is a possibility that the above audit report may have to be revised to reflect the impact of such subsequent events or circumstances, if any.</p>
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**KakaoBank of Korea Corp.**  
**Statements of Financial Position**  
**December 31, 2019 and 2018**

<i>(in Korean won)</i>	<b>Notes</b>	<b>2019</b>	<b>2018</b>
<b>Assets</b>			
Cash and due from financial institutions	4, 22, 24	₩ 226,048,155,698	₩ 1,640,471,526,557
Financial investments	5, 22, 24	2,877,131,961,605	1,099,702,226,411
Loans	6, 22, 24	19,193,788,892,299	9,082,098,248,613
Property and equipment	7, 26	47,119,296,074	32,020,635,875
Intangible assets	8	56,394,341,068	64,176,461,518
Current tax assets	23	4,852,578,260	2,246,444,770
Net defined benefit assets	12	317,924,821	-
Other assets	9, 22, 24	318,454,590,059	206,007,269,359
<b>Total assets</b>		<u>₩ 22,724,107,739,884</u>	<u>₩ 12,126,722,813,103</u>
<b>Liabilities</b>			
Deposits	11, 22, 24	20,711,907,725,432	10,811,627,835,273
Net defined benefit liabilities	12	-	592,151,856
Provisions	13	14,395,855,717	8,086,994,520
Other liabilities	14, 22, 24, 26	319,083,335,356	166,008,089,939
<b>Total liabilities</b>		<u>21,045,386,916,505</u>	<u>10,986,315,071,588</u>
<b>Equity</b>			
Share capital	15	1,825,482,210,000	1,300,000,000,000
Capital adjustments	15, 16	(22,073,503,130)	(18,738,752,740)
Accumulated other comprehensive income	15	2,771,223,245	338,531,377
Accumulated deficit	15, 29	(127,459,106,736)	(141,192,037,122)
(Provision of regulatory reserve for credit losses 2019 : ₩ nil, 2018 : ₩ nil)			
(Provision of unearned reserve for credit losses 2019 : ₩ (-)72,581,343,231, 2018 : ₩ (-)30,361,373,502)			
(Amount required to reserve for credit losses 2019 : ₩ (-)53,011,795,840, 2018 : ₩ (-)42,219,969,729)			
(Amounts estimated to be appropriated 2019 : ₩ nil, 2018 : ₩ nil)			
<b>Total equity</b>		<u>1,678,720,823,379</u>	<u>1,140,407,741,515</u>
<b>Total liabilities and equity</b>		<u>₩ 22,724,107,739,884</u>	<u>₩ 12,126,722,813,103</u>

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

**KakaoBank of Korea Corp.**  
**Statements of Comprehensive Income**  
**Years Ended December 31, 2019 and 2018**

<i>(in Korean won)</i>	<b>Notes</b>	<b>2019</b>	<b>2018</b>
<b>Operating income</b>			
Interest income	17, 22	₩ 494,597,729,803	₩ 293,932,284,419
Fee and commission income	18, 22	118,419,944,082	67,926,349,479
Gain on sale of financial assets at fair value through profit or loss	22	40,449,930,066	10,077,424,249
Gain on sale of financial investments	22	8,289,019,476	746,518,227
Other operating income	20	3,183,664,167	2,898,933,152
		<u>664,940,287,594</u>	<u>375,581,509,526</u>
<b>Operating expense</b>			
Interest expenses	17, 22	247,035,950,863	110,538,557,846
Fee and commission expenses	18, 22	172,610,982,869	127,621,960,703
Selling and administrative expenses	19	162,447,269,594	129,807,900,073
Other operating expenses	20	33,153,875,417	14,021,308,722
		<u>615,248,078,743</u>	<u>381,989,727,344</u>
<b>Provision for credit losses on financial assets</b>	6, 9, 22, 24	<u>36,437,672,262</u>	<u>14,800,499,883</u>
<b>Operating profit (loss)</b>		<u>13,254,536,589</u>	<u>(21,208,717,701)</u>
Non-operating income	21	48,760,014	14,692,184
Non-operating expenses	21	<u>136,469,038</u>	<u>86,212,950</u>
Profit (loss) before income tax		13,166,827,565	(21,280,238,467)
Income tax benefit	23	<u>566,102,821</u>	<u>325,672,684</u>
<b>Profit (loss) for the period</b>	29	<u>₩ 13,732,930,386</u>	<u>₩ (20,954,565,783)</u>
(Adjusted loss after provision of regulatory reserve for credit losses			
2019 : ₩ (-)39,278,865,454			
2018 : ₩ (-)63,174,535,512)			
<b>Other comprehensive income</b>			
<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	15, 22	3,648,252,745	2,072,697,652
<i>Items that will not be reclassified to profit or loss</i>			
Remeasurements of net defined benefit liability (asset)	12, 15	<u>(1,215,560,877)</u>	<u>(918,039,950)</u>
<b>Other comprehensive income for the period, net of tax</b>	22	<u>2,432,691,868</u>	<u>1,154,657,702</u>
<b>Total comprehensive income (loss) for the period</b>		<u>₩ 16,165,622,254</u>	<u>₩ (19,799,908,081)</u>

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

**KakaoBank of Korea Corp.**  
**Statements of Changes in Equity**  
**Years Ended December 31, 2019 and 2018**

(in Korean won)

	Share Capital	Capital Adjustments	Accumulated Other Comprehensive Income	Accumulated Deficit	Total
<b>Balance at January 1, 2018</b>	₩ 800,000,000,000	₩ (11,534,296,500)	₩ (816,126,325)	₩ (119,792,802,456)	₩ 667,856,774,719
<b>The effect of changes in accounting policies</b>	-	-	-	(444,668,883)	(444,668,883)
<b>Balance after reflecting the change of accounting policies</b>	800,000,000,000	(11,534,296,500)	(816,126,325)	(120,237,471,339)	667,412,105,836
<b>Total comprehensive income (loss)</b>					
Loss for the period	-	-	-	(20,954,565,783)	(20,954,565,783)
Other comprehensive income (loss)					
Gain on valuation of financial assets					
at fair value through other comprehensive income	-	-	2,072,697,652	-	2,072,697,652
Remeasurements of net defined benefit liability (asset)	-	-	(918,039,950)	-	(918,039,950)
<b>Transactions with owners</b>					
Issuance of shares	500,000,000,000	(7,204,456,240)	-	-	492,795,543,760
<b>Balance at December 31, 2018</b>	₩ 1,300,000,000,000	₩ (18,738,752,740)	₩ 338,531,377	₩ (141,192,037,122)	₩ 1,140,407,741,515
<b>Balance at January 1, 2019</b>	₩ 1,300,000,000,000	₩ (18,738,752,740)	₩ 338,531,377	₩ (141,192,037,122)	₩ 1,140,407,741,515
<b>Total comprehensive income(loss)</b>					
Profit for the period	-	-	-	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 liability (asset)	-	-	(1,215,560,877)	-	(1,215,560,877)
<b>Transactions with owners</b>					
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
<b>Balance at December 31, 2019</b>	₩ 1,825,482,210,000	₩ (22,073,503,130)	₩ 2,771,223,245	₩ (127,459,106,736)	₩ 1,678,720,823,379

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



**KakaoBank of Korea Corp.**  
**Statements of Cash Flows**  
**Years Ended December 31, 2019 and 2018**

<i>(in Korean won)</i>	Note	2019	2018
<b>Cash flows from operating activities</b>			
Profit (loss) for the period	₩	13,732,930,386	₩ (20,954,565,783)
Adjustment of profit (loss) items			
Interest income		(494,597,729,803)	(293,932,284,419)
Interest expenses		247,035,950,863	110,538,557,846
		<u>(247,561,778,940)</u>	<u>(183,393,726,573)</u>
Adjustment for non-cash items			
Provision for credit losses on financial assets		36,437,672,262	14,800,499,883
Gain on sale of financial investments		(8,289,019,476)	(746,518,227)
Depreciation		15,876,427,038	7,934,864,115
Amortization		17,097,120,777	16,016,013,493
Income tax benefit		(566,102,821)	(325,672,684)
Post-employment benefits		3,795,899,741	1,897,394,040
Share-based payment expenses		4,241,105,910	-
Unwinding of discount for asset retirement obligation		41,652,542	56,382,044
Long-term employee benefits		4,689,494,139	1,821,419,597
Provisions (reversal) for unused loan commitments		1,394,941,044	(921,201,347)
		<u>74,719,191,156</u>	<u>40,533,180,914</u>
Change in operating assets and liabilities			
Increase (decrease) in due from financial institutions		1,418,471,001,859	(1,216,274,855,682)
Increase in loans		(10,177,764,893,564)	(4,506,141,404,421)
Increase in plan assets		(6,264,387,798)	(2,091,481,866)
Increase in other assets		(77,223,714,043)	(23,041,446,794)
Increase in deposits		9,900,279,890,159	5,763,328,134,516
Decrease in long-term employee benefits		(90,000,000)	(50,000,000)
Increase in other liabilities		59,019,989,448	5,233,001,258
		<u>1,116,427,886,061</u>	<u>20,961,947,011</u>
Income taxes paid		(2,726,174,530)	(1,869,967,990)
Interest received		478,492,860,713	304,769,046,984
Interest paid		(166,402,576,601)	(68,958,884,915)
<b>Net cash inflow from operating activities</b>		<u>1,266,682,338,245</u>	<u>91,087,029,648</u>
<b>Cash flows from investing activities</b>			
Disposal of financial investments		4,252,781,534,075	465,382,080,719
Acquisition of financial investments		(6,007,197,399,632)	(1,037,093,795,489)
Acquisition of property and equipment		(10,434,908,357)	(7,116,652,489)
Acquisition of intangible assets		(5,831,650,327)	(1,994,517,581)
Increase in leasehold deposits provided		(431,944,488)	(720,369,668)
Increase in advance payments		(3,731,203,680)	(1,496,239,300)
<b>Net cash outflow from investing activities</b>		<u>(1,774,845,572,409)</u>	<u>(583,039,493,808)</u>
<b>Cash flows from financing activities</b>			
Decrease in lease liabilities		(5,695,488,536)	-
Proceeds from issuance of shares		517,906,353,700	492,795,543,760
<b>Net cash inflow from financing activities</b>		<u>512,210,865,164</u>	<u>492,795,543,760</u>
<b>Net increase in cash and cash equivalents</b>		4,047,631,000	843,079,600
Cash and cash equivalents at the beginning of the year	4	1,845,511,000	1,002,431,400
<b>Cash and cash equivalents at the end of the year</b>	4	<u>₩ 5,893,142,000</u>	<u>₩ 1,845,511,000</u>

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

# KakaoBank of Korea Corp.

## Notes to the Financial Statements

### December 31, 2019 and 2018

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#### 1. The Company

KakaoBank of Korea Corp.(the "Company") is an internet-only bank that provides non-face-to-face banking service 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. And, the Company operates two mobile banking centers and three data processing centers to provide better 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 initial capital of the Company is amounted to ₩ 900 million and as at December 31, 2019, the Company's capital has been increased to ₩ 1,825,482 million through issuance of shares. Shareholders as at December 31, 2019, are as follows:

	Number of ordinary shares (in shares)	Percentage of ownership (%)
Kakao Corp.	122,400,000	33.54
Korea Value Asset Management Co.,Ltd.	104,400,000	28.60
Kookmin Bank	36,000,000	9.86
Korea Investment Holdings Co., Ltd.	17,999,999	4.93
Netmarble Corporation	14,400,000	3.94
Seoul Guarantee Insurance Co., Ltd.	14,400,000	3.94
Korea Post	14,400,000	3.94
eBay Korea Co., Ltd.	14,400,000	3.94
Skyblue Luxury Investment Pte.Ltd. <sup>1</sup>	14,400,000	3.94
YES24 Co.,Ltd	7,200,001	1.97
Others <sup>2</sup>	5,096,442	1.40
	<u>365,096,442</u>	<u>100.00</u>

<sup>1</sup> Skyblue Luxury Investment Pte.Ltd. is a wholly-owned subsidiary of Tencent, a leading provider of internet value added services in China.

<sup>2</sup> New shares were issued pursuant to the exercise of stock options by the employee share ownership association of KakaoBank.

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**2. Basis of Preparation**

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

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

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

The financial statements 2019 were approved for issue by the Board of Directors on January 30, 2020 and are subject to the approval of shareholders at their Annual General Meeting on March 27, 2020.

**2.1 Measurement Basis**

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

- Derivative financial instruments 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 less costs to sell.

**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.

**2.3 Use of Estimates and Judgment**

The preparation of the financial statements in conformity with Korean 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

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management's best judgment at the end of the reporting date are different from the actual environment.

Estimates and assumptions are continually evaluated and any change in an accounting estimate is recognized prospectively by including it in profit or loss in the period of the change, if the change affects that period only. Alternatively if the change in accounting estimate affects both the period of change and future periods, that change is recognized in the profit or loss of all those periods.

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:

*Income taxes*

The Company recorded, based on its best estimate, current taxes and deferred taxes that the Company will be liable in the future for the operating results as at the financial year end. However, the final tax outcome in the future may be different from the amounts that were initially recorded. Such differences will impact the current and deferred tax assets and liabilities in the period in which such determination is made.

*Provisions for Credit Losses (allowances for loan losses, 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.

*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.

*Fair value of financial instruments*

The fair value of financial instruments that are not traded in an active market is determined by using valuation techniques. The Company uses its judgment to select a variety of methods and make assumptions that are mainly based on market conditions existing at the end of each reporting period.

*Share-based payments*

For share-based payments, the Company measures the fair value of goods or services acquired

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indirectly by referring the fair value of the equity instruments granted and recognizes the amount as expenses and equity over the vesting period.

**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 period ended December 31, 2018, except for the new and amended standards and interpretations for the first time for their annual reporting period commencing January 1, 2019 as explained in Note 3.16.

**3.1 Foreign Currency Translation**

Foreign currency transactions are translated into the functional currency using the exchange rates at the dates of the transactions. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation of monetary assets and liabilities denominated in foreign currencies at year end exchange rates are generally 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.

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### **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 elected 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.

##### **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

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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 profit or loss 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 is included in 'finance income' using the effective interest rate method. Foreign exchange gains and losses are presented in 'interest income' in the statements of profit or loss.

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 profit or loss within 'gain or loss related to financial assets at fair value through profit or loss' in the year in which it arises.

*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.

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

**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 asset 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



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s 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 Korean 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 below precautionary 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
- 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

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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:

<b>Major macroeconomic variables</b>	<b>Correlation</b>
Rate of fluctuations in the price of housing	Negative (-) correlation
Rate of fluctuations in unemployment rate	Positive (+) correlation
Yield rate of government bond (3 years)	Positive (+) 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 are 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 groups of assets for collective assessment of impairment. Such methodology incorporates factors such as type of collateral, product and borrowers, credit rating, 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

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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, PD for each period and 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:

	<b>Estimated useful lives</b>
Tools and equipment	5 years
Others	5 years
Right-of-use assets <sup>1</sup>	2 ~ 5 years

<sup>1</sup> Considering the lease contract period, the estimated useful life of right-of-use assets is determined from the commencement date to the earlier of the end of the useful life of the right-of-use assets 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 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 since the asset is available for use.

	<b>Estimated useful lives</b>
Software	5 years
Development costs	5 years
Other intangible assets	5 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,

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and only 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 and financial liabilities 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 the 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.

#### **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 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 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

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

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obtain an asset of similar value in a similar economic environment with similar terms and conditions.

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
- restoration costs

Payments associated with short-term leases and leases of low-value assets (e.g. underlying assets below \$ 5,000) 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 cost 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.

#### **3.10.3 Post-employment Benefits: Net defined benefit plan**

Generally, post-employment benefits are payable after the completion of employment, and the

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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 or curtailments 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.



### **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 Korean 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

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period, to the net carrying amount of the financial asset or financial liability. When calculating the effective 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.

### 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

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(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 provided in full, using the liability method, 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 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 temporary differences and losses.

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.

### 3.15 Operating Segments

According to Korean 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.

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**3.16 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 commencing January 1, 2019.

**3.16.1 Enactment of Korean IFRS 1116 *Leases***

Korean IFRS 1116 *Leases* replaced Korean IFRS 1017 *Leases*. Under the new standard, with implementation of a single lease model, lessee is required to recognize assets and liabilities for all lease which lease term is over 12 months and underlying assets are not low value assets. A lessee is required to recognize a right-of-use asset and a lease liability representing its obligation to make lease payments.

With implementation of Korean IFRS 1116 *Lease*, the Company has changed accounting policy. The Company has adopted Korean IFRS 1116 retrospectively, as permitted under the specific transitional provisions in the standard, and recognized the cumulative impact of initially applying the standard as at January 1, 2019, the date of initial application. The Company has not restated comparatives for the 2018 reporting period. The impact of the adoption of the leasing standard and the new accounting policies are disclosed in Note 30.

**3.16.2 Amendment to Korean IFRS 1109 Financial Instruments**

The narrow-scope amendments made to Korean IFRS 1109 *Financial Instruments* enable entities to measure certain prepayable financial assets with negative compensation at amortized cost. When a modification of a financial liability measured at amortized cost that does not result in the derecognition, a modification gain or loss shall be recognized in profit or loss. The amendment does not have a significant impact on the financial statements.

**3.16.3 Amendments to Korean IFRS 1019 *Employee Benefits***

The amendments require that an entity shall calculate current service cost and net interest for the remainder of the reporting period after a plan amendment, curtailment or settlement based on updated actuarial assumptions from the date of the change. The amendments also require that a reduction in a surplus must be recognized in profit or loss even if that surplus was not previously recognized because of the impact of the asset ceiling. The amendment does not have a significant impact on the financial statements.

**3.16.4 Amendments to Korean IFRS 1028 Investments in Associates and Joint Ventures**

The amendments clarify that an entity shall apply Korean IFRS 1109 to financial instruments in an associate or joint venture to which the equity method is not applied. These include long-term interests that, in substance, form part of the entity's net investment in an associate or joint venture. The amendment does not have a significant impact on the financial statements.

**3.16.5 Enactment to Interpretation of Korean IFRS 2123 *Uncertainty over Income Tax Treatments***

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The Interpretation explains how to recognize and measure deferred and current income tax assets and liabilities where there is uncertainty over a tax treatment, and includes guidance on how to determine whether each uncertain tax treatment is considered separately or together. It also presents examples of circumstances where a judgement or estimate is required to be reassessed. The amendment does not have a significant impact on the financial statements.

**3.16.6 Annual Improvements to Korean IFRS 2015 – 2017 Cycle:**

- Amendments to Korean IFRS 1103 *Business Combination*

The amendments clarify that when a party to a joint arrangement obtains control of a business that is a joint operation, and had rights to the assets and obligations for the liabilities relating to that joint operation immediately before the acquisition date, the transaction is a business combination achieved in stages. In such cases, the acquirer shall remeasure its entire previously held interest in the joint operation. The amendment does not have a significant impact on the financial statements.

- Amendments to Korean IFRS 1111 *Joint Agreements*

The amendments clarify that when a party that participates in, but does not have joint control of, a joint operation might obtain joint control of the joint operation in which the activity of the joint operation constitutes a business. In such cases, previously held interests in the joint operation are not remeasured. The amendment does not have a significant impact on the financial statements.

- Amendments to Paragraph 57A of Korean IFRS 1012 *Income Tax*

The amendment is applied to all the income tax consequences of dividends and requires an entity to recognize the income tax consequences of dividends in profit or loss, other comprehensive income or equity according to where the entity originally recognized those past transactions or events. The amendment does not have a significant impact on the financial statements.

- Korean IFRS 1023 *Borrowing Costs*

The amendments clarify that if a specific borrowing remains outstanding after the related qualifying asset is ready for its intended use (or sale), it becomes part of general borrowings. The amendment does not have a significant impact on the financial statements.

**3.17 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, 2019 reporting periods and have not been early adopted by the Company.

**3.17.1 Amendments to Korean IFRS 1001 *Presentation of Financial Statements* and Korean IFRS 1008 *Accounting policies, changes in accounting estimates and errors***

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The amendments clarify the explanation of the definition of material and amended Korean IFRS 1001 and Korean IFRS 1008 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. These amendments should be applied for annual periods beginning on or after January 1, 2020, and earlier application of permitted. The Company does not expect that these amendments have a significant impact on the financial statements.

**3.17.2 Amendments to Korean IFRS 1103 *Business Combination***

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. An entity can apply a concentration test, an optional test, where substantially all of the fair value of gross assets acquired is concentrated in a single asset or a group of similar assets, the assets acquired would not represent a business. These amendments should be applied for annual periods beginning on or after January 1, 2020, and earlier application of permitted. The Company does not expect that these amendments have a significant impact on the financial statements.

**4. Cash and Due from Financial Institutions**

Details of cash and due from financial institutions as at December 31, 2019 and 2018, are as follows:

<i>(in Korean won)</i>	<b>2019</b>		<b>2018</b>	
Cash and cash equivalents				
Cash	₩	5,893,142,000	₩	1,845,511,000
Due from financial institutions in Korean won				
Time deposits		805,949,458		767,381,970
Reserve deposits		219,349,064,240		1,636,358,633,587
Other deposits		-		1,500,000,000
		<u>220,155,013,698</u>		<u>1,638,626,015,557</u>
	₩	<u>226,048,155,698</u>	₩	<u>1,640,471,526,557</u>

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Restricted deposits as at December 31, 2019 and 2018, are as follows:

<i>(in Korean won)</i>	<b>Financial Institutions</b>	<b>2019</b>	<b>2018</b>	<b>Reason for restriction</b>
Due from financial institutions in Korean won				
Time deposits	Woori Bank	₩ 805,949,458	₩ 767,381,970	Pledged as head office rental deposit
Reserve deposits	Bank of Korea	219,349,064,240	1,636,358,633,587	Settlement risk of Bank of Korea
Other deposits	Kyongnam Bank	-	1,500,000,000	Settlement collateral for local tax collection in Seoul
		<u>₩ 220,155,013,698</u>	<u>₩ 1,638,626,015,557</u>	

## 5. Financial Investments

Details of financial investments as at December 31, 2019 and 2018, are as follows:

<i>(in Korean won)</i>	<b>2019</b>	<b>2018</b>
<b>Financial assets at fair value through other comprehensive income</b>		
Debt securities		
Government bonds	₩ 797,889,242,103	₩ 173,999,208,327
Financial bonds	752,371,897,816	230,065,883,560
Corporate bonds	176,113,972,790	29,975,097,459
	<u>1,726,375,112,709</u>	<u>434,040,189,346</u>
<b>Financial assets at amortized cost</b>		
Debt securities		
Government bonds	790,112,218,111	425,796,123,336
Financial bonds	-	10,000,350,448
Corporate bonds	360,644,630,785	229,865,563,281
	<u>1,150,756,848,896</u>	<u>665,662,037,065</u>
	<u>₩ 2,877,131,961,605</u>	<u>₩ 1,099,702,226,411</u>

There is no impairment loss on financial investments for the periods ended December 31, 2019 and 2018.

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**6. Loans**

Details of loans as at December 31, 2019 and 2018, are as follows:

<i>(in Korean won)</i>	<b>2019</b>	<b>2018</b>
Loans	₩ 19,211,559,561,764	₩ 9,082,589,669,163
Deferred loan origination fees and costs	39,363,000,739	31,718,726,758
	19,250,922,562,503	9,114,308,395,921
Less: Allowances for loan losses	(57,133,670,204)	(32,210,147,308)
	<u>₩ 19,193,788,892,299</u>	<u>₩ 9,082,098,248,613</u>

Changes in the allowances for loan losses for the periods ended December 31, 2019 and 2018, are as follows:

<i>(in Korean won)</i>	<b>2019</b>	<b>2018</b>
Beginning balance	₩ 32,210,147,308	₩ 18,266,920,344
Amounts restated through beginning balance of retained earnings <sup>1</sup>	-	367,275,141
Provision	36,404,704,367	14,771,252,746
Written-off	(11,819,936,610)	(1,127,581,017)
Unwinding Effect	(103,092,828)	(77,343,147)
Others	441,847,967	9,623,241
Ending balance	<u>₩ 57,133,670,204</u>	<u>₩ 32,210,147,308</u>

<sup>1</sup>The effects of adoption of Korean IFRS 1109

Changes in the deferred loan origination fees and costs for the periods ended December 31, 2019 and 2018, are as follows:

<i>(in Korean won)</i>	<b>2019</b>	<b>2018</b>
Beginning balance	₩ 31,718,726,758	₩ 18,091,415,358
Increase	57,060,583,790	44,265,318,640
Decrease	(49,416,309,809)	(30,638,007,240)
Ending balance	<u>₩ 39,363,000,739</u>	<u>₩ 31,718,726,758</u>



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**7. Property and Equipment**

Details of property and equipment as at December 31, 2019 and 2018, are as follows:

(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
Others	4,517,891,720	(1,935,922,639)	2,581,969,081
Right-of-use assets	20,683,305,930	(6,354,978,081)	14,328,327,849
	₩ 74,211,696,333	₩ (27,092,400,259)	₩ 47,119,296,074

(in Korean won)

	2018		
	Acquisition cost	Accumulated depreciation	Carrying amount
Tools and equipment	₩ 38,641,912,546	₩ (10,095,065,675)	₩ 28,546,846,871
Others	5,122,612,617	(1,648,823,613)	3,473,789,004
	₩ 43,764,525,163	₩ (11,743,889,288)	₩ 32,020,635,875

Changes in property and equipment for the periods ended December 31, 2019 and 2018, are as follows:

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

<sup>1</sup>The effects of adoption of Korean IFRS 1116

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

(in Korean won)

	2018				
	Beginning balance	Acquisitions	Depreciation	Others <sup>1</sup>	Ending balance
Tools and equipment	₩ 28,955,212,459	₩ 6,594,253,489	₩ (7,002,619,077)	₩ -	₩ 28,546,846,871
Others	3,709,563,968	522,399,000	(932,245,038)	174,071,074	3,473,789,004

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₩ 32,664,776,427	₩ 7,116,652,489	₩ (7,934,864,115)	₩ 174,071,074	₩ 32,020,635,875
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<sup>1</sup>Increase due to changes in provision for asset retirement obligation and changes in the discount rate.

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. There are no contractual amounts as at December 31, 2018.

## 8. Intangible Assets

Details of intangible assets as at December 31, 2019 and 2018, are as follows:

(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
Other intangible assets <sup>1</sup>	6,568,098,710	(16,859,222)	6,551,239,488
	₩ 97,147,007,666	₩ (40,752,666,598)	₩ 56,394,341,068

<sup>1</sup> 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.

(in Korean won)

	2018		
	Acquisition cost	Accumulated amortization	Carrying amount
Development costs	₩ 63,771,701,202	₩ (17,800,687,325)	₩ 45,971,013,877
Software	17,492,207,427	(5,843,619,018)	11,648,588,409
Other intangible assets <sup>1</sup>	6,568,098,710	(11,239,478)	6,556,859,232
	₩ 87,832,007,339	₩ (23,655,545,821)	₩ 64,176,461,518

<sup>1</sup> 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.

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Changes in intangible assets for the periods ended December 31, 2019 and 2018, are as follows:

(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
Other intangible assets	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>

  

(in Korean won)	2018			
	Beginning balance	Acquisitions	Amortization	Ending balance
Development costs	₩ 57,061,259,215	₩ 1,588,776,538	₩ (12,679,021,876)	₩ 45,971,013,877
Software	13,738,219,239	1,241,741,043	(3,331,371,873)	11,648,588,409
Other intangible assets	6,562,478,976	-	(5,619,744)	6,556,859,232
	<u>₩ 77,361,957,430</u>	<u>₩ 2,830,517,581</u>	<u>₩ (16,016,013,493)</u>	<u>₩ 64,176,461,518</u>

The contractual amount for acquisition of intangible assets as at December 31, 2019 and 2018, is ₩ 1,019,709,000 and ₩ 3,443,761,000, respectively. The amounts paid and payable are ₩ 614,825,200 (2018: ₩1,496,239,300) and ₩ 404,883,800 (2018: ₩1,947,521,700), respectively, as at December 31, 2019.

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**9. Other Assets**

Details of other assets as at December 31, 2019 and 2018, are as follows:

<i>(in Korean won)</i>	<b>2019</b>	<b>2018</b>
Other financial assets		
Other receivables	₩ 184,392,211	₩ 102,777,783
Accrued income	65,911,035,364	30,204,144,517
Guarantee deposits	3,881,095,558	3,449,322,870
Domestic exchange settlement debits	243,117,780,949	166,953,518,817
Financial suspense payments	8,043,489	9,292,610
Security deposits	25,500,000	5,500,000
Less: Allowances for loan losses	(91,893,427)	(67,320,279)
Present value discount	(99,805,643)	(141,513,621)
	<u>312,936,148,501</u>	<u>200,515,722,697</u>
Other assets		
Prepaid expenses	2,742,446,298	2,518,716,837
Others	2,775,995,260	2,972,829,825
	<u>5,518,441,558</u>	<u>5,491,546,662</u>
	<u>₩ 318,454,590,059</u>	<u>₩ 206,007,269,359</u>

Changes in allowances for losses on other assets for the periods ended December 31, 2019 and 2018, are as follows:

<i>(in Korean won)</i>	<b>2019</b>	<b>2018</b>
Beginning balance	₩ 67,320,279	₩ 38,873,863
Amounts restated through beginning balance of retained earnings <sup>1</sup>	-	849,568
Provisions	32,967,895	29,247,137
Written-off	(8,783,141)	(1,650,289)
Others	388,394	-
Ending balance	<u>₩ 91,893,427</u>	<u>₩ 67,320,279</u>

<sup>1</sup>The effects of adoption of Korean IFRS 1109

**KakaoBank of Korea Corp.**  
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**10. Assets Pledged as Collateral and Provided as Collateral**

Details of assets pledged as collateral as at December 31, 2019 and 2018, are as follows:

<i>(in Korean won)</i>	<b>2019</b>	<b>2018</b>	<b>Reason for the pledged</b>
Securities			
Financial assets at amortized cost	₩ 327,068,487,525	₩ 245,627,261,412	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, 2019 and 2018, are as follows:

<i>(in Korean won)</i>	<b>2019</b>		<b>2018</b>	
	<b>Fair value of collateral</b>	<b>Fair value of collateral sold or repledged</b>	<b>Fair value of collateral</b>	<b>Fair value of collateral sold or repledged</b>
Securities	₩ 4,552,805,850,220	-	-	-

**11. Deposits**

Details of deposits as at December 31, 2019 and 2018, are as follows:

<i>(in Korean won)</i>	<b>2019</b>	<b>2018</b>
Demand deposits		
Demand deposits in Korean won	₩ 7,980,695,656,984	₩ 3,564,430,653,871
Time deposits		
Time deposits in Korean won	12,731,212,068,448	7,247,197,181,402
	<u>₩ 20,711,907,725,432</u>	<u>₩ 10,811,627,835,273</u>

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**12. 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, 2019 and 2018, are as follows:

<i>(in Korean won)</i>	<b>2019</b>	<b>2018</b>
Present value of defined benefit obligations	₩ 10,403,993,875	₩ 5,149,179,017
Fair value of plan assets	(10,721,918,696)	(4,557,027,161)
Net defined benefit liabilities (assets) <sup>1</sup>	<u>₩ (317,924,821)</u>	<u>₩ 592,151,856</u>

<sup>1</sup> 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 periods ended December 31, 2019 and 2018, are as follows:

<i>(in Korean won)</i>	<b>2019</b>	<b>2018</b>
Beginning balance	₩ 5,149,179,017	₩ 2,223,088,595
Current service cost	3,776,967,005	1,912,097,952
Interest expense	155,940,792	78,604,152
Remeasurements:		
Actuarial loss from change in demographic assumptions	404,326,584	-
Actuarial loss from change in financial assumptions	1,065,340,745	254,977,393
Actuarial loss from experience adjustments	58,448,108	883,643,572
Payments	<u>(206,208,376)</u>	<u>(203,232,647)</u>
Ending balance	<u>₩ 10,403,993,875</u>	<u>₩ 5,149,179,017</u>

Changes in the fair value of plan assets for the periods ended December 31, 2019 and 2018, are as follows:

<i>(in Korean won)</i>	<b>2019</b>	<b>2018</b>
Beginning balance	₩ 4,557,027,161	₩ 2,613,823,209
Interest income	137,008,056	93,308,064
Remeasurements:		
Return on plan assets (excluding amounts included in interest income)	(30,295,943)	(38,353,331)

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Contributions of employer	6,310,000,000	2,060,000,000
Payments	(251,820,578)	(171,750,781)
Ending balance	<u>₩ 10,721,918,696</u>	<u>₩ 4,557,027,161</u>

Plan assets as at December 31, 2019 and 2018, consist of:

<i>(in Korean won)</i>	<b>2019</b>		<b>2018</b>	
	<b>Assets quoted in an active market</b>	<b>Assets not quoted in an active market</b>	<b>Assets quoted in an active market</b>	<b>Assets not quoted in an active market</b>
ELB of Hana Financial Investment Co., Ltd.	₩ -	₩ 10,721,909,478	₩ -	₩ -
ELB of NH Investment & Securities Co., Ltd.	-	-	-	4,557,018,181
Cash equivalents	-	9,218	-	8,980
	<u>₩ -</u>	<u>₩ 10,721,918,696</u>	<u>₩ -</u>	<u>₩ 4,557,027,161</u>

The significant actuarial assumptions as at December 31, 2019 and 2018, are as follows:

<i>(in percentage, %)</i>	<b>2019</b>	<b>2018</b>	
Discount rate (expected yield)	3.13	3.20	High-quality corporate bonds
Salary growth rate	2.00	2.00	Standard rate announced by Korea Insurance Development Institute

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

<i>(in Korean won)</i>	<b>2019</b>	<b>2018</b>
<b>Discount rate</b>		
1% point increase	₩ (1,419,667,975)	₩ (435,758,398)
1% point decrease	1,732,019,067	506,729,753
<b>Salary growth rate</b>		
1% point increase	₩ 1,735,313,881	₩ 508,284,431
1% point decrease	(1,447,269,881)	(444,873,824)

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Expected maturity analysis of undiscounted pension benefits as at December 31, 2019 and 2018, is as follows:

	2019					
	Less than 1 year	Between 1-2 years	Between 2-5 years	Between 5-10 years	Over 10 years	Total
Pension benefits	₩ 350,638,324	₩ 507,119,762	₩ 2,372,338,152	₩ 7,682,836,514	₩ 166,004,911,139	₩ 176,917,843,891

	2018					
	Less than 1 year	Between 1-2 years	Between 2-5 years	Between 5-10 years	Over 10 years	Total
Pension benefits	₩ 541,911,949	₩ 801,942,543	₩ 3,450,726,904	₩ 8,568,021,476	₩ 45,214,024,959	₩ 58,576,627,831

The weighted average duration of the defined benefit obligation for the periods ended December 31, 2019 and 2018 is 15.50 years and 9.40 years, respectively.

Expected contributions to plan assets for the period after December 31, 2019, is estimated to be approximately ₩ 4,772,604,167.

### 13. Provisions

Details of provisions as at December 31, 2019 and 2018, are as follows:

(in Korean won)	2019	2018
Provisions for asset retirement obligation	₩ 1,994,387,240	₩ 1,679,961,226
Provisions for unused loan commitments	4,396,636,619	3,001,695,575
Long-term employee benefits	8,004,831,858	3,405,337,719
	<u>₩ 14,395,855,717</u>	<u>₩ 8,086,994,520</u>

Changes in provisions for the periods ended December 31, 2019 and 2018, are as follows:

	2019			
	Provisions for asset retirement obligation <sup>1</sup>	Provisions for unused loan commitments	Long-term employee benefits	Total
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)



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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>

(in Korean won)

	2018			
	Provisions for asset retirement obligation <sup>1</sup>	Provisions for unused loan commitments	Long-term employee benefits	Total
Beginning balance	₩ 1,449,508,108	₩ 3,846,352,748	₩ 1,633,918,122	₩ 6,929,778,978
Amounts restated through beginning balance of retained earnings <sup>2</sup>	-	76,544,174	-	76,544,174
Unwinding of discount	56,382,044	-	-	56,382,044
Effect of changes in discount rate	52,731,571	-	-	52,731,571
Provisions	121,339,503	-	1,821,419,597	1,942,759,100
Reversal	-	(921,201,347)	-	(921,201,347)
Used during year	-	-	(50,000,000)	(50,000,000)
Ending balance	<u>₩ 1,679,961,226</u>	<u>₩ 3,001,695,575</u>	<u>₩ 3,405,337,719</u>	<u>₩ 8,086,994,520</u>

<sup>1</sup> 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.

<sup>2</sup> The effects of adoption of Korean IFRS 1109

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**14. Other Liabilities**

Details of other liabilities as at December 31, 2019 and 2018, are as follows:

<i>(in Korean won)</i>	<b>2019</b>		<b>2018</b>	
Other financial liabilities				
Other payables	₩	113,757,246,495	₩	83,120,965,134
Accrued expenses		137,074,845,815		56,441,471,553
Domestic exchange settlement credits		42,407,705,896		22,141,937,901
Liabilities incurred from agency relationship		5,436,886,764		1,985,028,476
Lease liabilities		13,859,250,117		-
Others		18,602,517		38,861
		<u>312,554,537,604</u>		<u>163,689,441,925</u>
Other liabilities				
Unearned revenue		185,323,642		144,358,029
Withholding taxes		6,335,003,720		2,163,828,285
Others		8,470,390		10,461,700
		<u>6,528,797,752</u>		<u>2,318,648,014</u>
	₩	<u>319,083,335,356</u>	₩	<u>166,008,089,939</u>

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**15. Equity**

Details of equity as at December 31, 2019 and 2018, are as follows:

<i>(in Korean won)</i>	<b>2019</b>	<b>2018</b>
Share capital		
Ordinary shares	₩ 1,825,482,210,000	₩ 1,000,000,000,000
Preferred shares	-	300,000,000,000
Capital adjustments		
Discount on share issuance	(24,418,732,630)	(18,738,752,740)
Share options	2,345,229,500	-
Accumulated other comprehensive income		
Gain on valuation of financial assets at fair value through other comprehensive income	4,831,738,524	1,183,485,779
Remeasurements of net defined benefit liability (asset)	(2,060,515,279)	(844,954,402)
Accumulated deficit		
Accumulated deficit before appropriation	(127,459,106,736)	(141,192,037,122)
	<u>₩ 1,678,720,823,379</u>	<u>₩ 1,140,407,741,515</u>

Details of share capital as at December 31, 2019 and 2018, are as follows:

<i>(in Korean won, in shares)</i>	<b>2019</b>		<b>2018</b>	
	<b>Ordinary shares</b>	<b>Preferred shares<sup>1</sup></b>	<b>Ordinary shares</b>	<b>Preferred shares</b>
Number of shares authorized	800,000,000		800,000,000	
Par value	₩ 5,000		₩ 5,000	
Number of shares issued	365,096,442	-	200,000,000	60,000,000
Share capital	<u>₩ 1,825,482,210,000</u>	<u>₩ -</u>	<u>₩ 1,000,000,000,000</u>	<u>₩ 300,000,000,000</u>

<sup>1</sup> Convertible preferred shares were converted into ordinary shares due to completion of conversion request as at September 30, 2019.

Changes in number of shares issued for the periods ended December 31, 2019 and 2018, are as follows:

<i>(in shares)</i>	<b>2019</b>		<b>2018</b>	
	<b>Ordinary shares</b>	<b>Preferred shares</b>	<b>Ordinary shares</b>	<b>Preferred shares</b>
Beginning	200,000,000	60,000,000	160,000,000	-

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Conversion of convertible preferred share	60,000,000	(60,000,000)	-	-
Issuance of shares	100,000,000	-	40,000,000	60,000,000
Share options exercised	5,096,442	-	-	-
Ending	<u>365,096,442</u>	<u>-</u>	<u>200,000,000</u>	<u>60,000,000</u>

Changes in accumulated other comprehensive income for the periods ended December 31, 2019 and 2018, are as follows:

(in Korean won)	2019		2018	
	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	₩ 1,183,485,779	₩ (844,954,402)	₩ (889,211,873)	₩ 73,085,548
Increase (decrease) due to fair value measurement	6,172,250,119	(1,558,411,380)	2,563,934,738	(1,176,974,296)
Adjustments for reclassification				
Increase (decrease) due to disposal	(1,495,003,010)	-	93,369,944	-
Tax effect	(1,028,994,364)	342,850,503	(584,607,030)	258,934,346
Ending balance	<u>₩ 4,831,738,524</u>	<u>₩ (2,060,515,279)</u>	<u>₩ 1,183,485,779</u>	<u>₩ (844,954,402)</u>

The disposition of accumulated deficit for the year ended December 31, 2019, is expected to be disposed at the shareholders' meeting on March 27, 2020. The disposition date for the year ended December 31, 2018, was March 25, 2019.

The disposition of accumulated deficit for the periods ended December 31, 2019 and 2018, is as follows:

(in Korean won)	2019	2018
Undisposed accumulated deficit carried over from prior year	₩ (141,192,037,122)	₩ (119,792,802,456)
Profit (loss) for the period	13,732,930,386	(20,954,565,783)
Effects of changes in accounting policies	-	(444,668,883)
Disposition of accumulated deficit	-	-
Undisposed accumulated deficit to be carried forward	<u>₩ (127,459,106,736)</u>	<u>₩ (141,192,037,122)</u>

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**16. Share-based Payments**

Details of share-based payment arrangements that existed for the year ended December 31, 2019, are as follows:

	<b>Series 1-01</b>		<b>Series 1-02</b>		<b>Series 1-03</b>		<b>Union 1st</b>	
Grant date	March 25, 2019		March 25, 2019		March 25, 2019		April 23, 2019	
Number of granted shares	550,000		2,890,000		1,760,000		5,200,000	
Granted type <sup>1</sup>	Share-based payment with an option		Share-based payment with an option		Share-based payment with an option		Equity-settled share-based payments	
Exercise price (in Korean won)	₩	5,000	₩	5,000	₩	5,000	₩	5,000
Exercisable period	March 25, 2021 ~ March 25, 2026		1 <sup>st</sup> (50%): March 25, 2021 ~ March 25, 2026 2 <sup>nd</sup> (50%): March 26, 2022 ~ March 25, 2026		1 <sup>st</sup> (30%): March 25, 2021 ~ March 25, 2026 2 <sup>nd</sup> (30%): March 26, 2022 ~ March 25, 2026 3 <sup>rd</sup> (40%): March 26, 2023 ~ March 25, 2026		November 22, 2019 ~ November 28, 2019	
Vesting conditions <sup>2</sup>	Services fulfillment: 2 years		Services fulfillment: 2~3 years		Services fulfillment: 2~4 years		Services fulfillment: 6 months	

<sup>1</sup> The Company's share-based payment arrangements, excluding Union 1st, 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 are no obligation to settle in cash at the grant date.

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

The changes in the number of share options, are as follows:

<i>(in shares)</i>	<b>Series 1-01</b>		<b>Series 1-02</b>		<b>Series 1-03</b>		<b>Union 1st</b>	
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	550,000		2,890,000		1,760,000		-	
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 6.24 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, 2019 are as follows:

<i>(in Korean won)</i>	<b>Series 1-01</b>		<b>Series 1-02</b>		<b>Series 1-03</b>		<b>Union 1st</b>
Option pricing model	A binominal model		A binominal model		A binominal model		A binominal model
Fair value of share option	₩	1,451	₩	1,451	₩	1,451	₩ 372
Fair value of shares <sup>1</sup>	₩	5,022	₩	5,022	₩	5,022	₩ 5,022
Exercise price	₩	5,000	₩	5,000	₩	5,000	₩ 5,000
Risk-free interest rate <sup>2</sup>		1.86%		1.86%		1.86%	1.76%
Volatility <sup>3</sup>		22.61%		22.61%		22.61%	21.64%

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

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

<sup>3</sup> Annualized average price of daily volatility over the past one year (145 business day in case of union 1st) of similar company is used.

The cost of the share options granted incurred during the periods ended December 31, 2019 and 2018, is as follows:

<i>(in Korean won)</i>	<b>2019</b>	<b>2018</b>
The cost of the share options granted	₩ 4,241,105,910	₩ -

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**17. Net Interest Income and Expenses**

Details of interest income and expenses for the periods ended December 31, 2019 and 2018, are as follows:

<i>(in Korean won)</i>	<b>2019</b>	<b>2018</b>
Interest income		
Due from financial institutions	₩ 2,492,537,500	₩ 643,130,689
Loans	438,641,832,179	271,281,940,134
Financial investments	52,037,280,475	21,282,473,166
Others	1,426,079,649	724,740,430
	<u>494,597,729,803</u>	<u>293,932,284,419</u>
Interest expenses		
Deposits	246,668,460,489	110,415,175,788
Debts	7,068,493	50,994,514
Others	360,421,881	72,387,544
	<u>247,035,950,863</u>	<u>110,538,557,846</u>
	<u>₩ 247,561,778,940</u>	<u>₩ 183,393,726,573</u>

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**18. Fee and Commission Income and Expenses**

Fee and commission income and expenses for the periods ended December 31, 2019 and 2018, are as follows:

<i>(in Korean won)</i>	<b>2019</b>	<b>2018</b>
Fee and commission income		
Remittance related fees	₩ 2,447,114,242	₩ 1,649,898,400
Card related fees	93,134,146,236	62,327,806,102
Electronic finance related fees	3,149,577,497	1,946,843,796
Firm banking related fees	7,655,813,625	1,772,901,231
Loan-linked related fees	5,958,728,790	-
Accounts-linked related fees	5,198,474,000	-
Others	876,089,692	228,899,950
	<u>118,419,944,082</u>	<u>67,926,349,479</u>
Fee and commission expenses		
Lending activity related fees	6,602,367,750	5,036,776,635
Card activity related fees	102,244,042,456	79,004,011,473
Deposit activity related fees	19,140,000	11,979,000
Electronic finance related fees	834,849,800	869,045,600
CD/ATM fees	43,139,979,700	31,829,680,110
Stamp taxes	4,141,873,200	1,922,426,200
Others	15,628,729,963	8,948,041,685
	<u>172,610,982,869</u>	<u>127,621,960,703</u>
	<u>₩ (54,191,038,787)</u>	<u>₩ (59,695,611,224)</u>



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**19. Selling and Administrative Expenses**

Details of selling and administrative expenses for the periods ended December 31, 2019 and 2018, are as follows:

<i>(in Korean won)</i>	<b>2019</b>	<b>2018</b>
Employee benefits		
Short-term employee benefits	₩ 51,694,532,259	₩ 37,444,032,856
Long-term employee benefits	4,689,494,139	1,821,419,597
Post-employment benefits- defined benefit plan	3,795,899,741	1,897,394,040
Post-employment benefits- defined contribution plan	210,838,726	146,250,000
Share-based payment expenses	4,241,105,910	-
	<u>64,631,870,775</u>	<u>41,309,096,493</u>
Depreciation	15,876,427,038	7,934,864,115
Amortization	17,097,120,777	16,016,013,493
Other administrative expenses		
Welfare expenses	11,705,219,584	7,818,838,927
Rental expenses	2,695,483,198	6,543,769,686
Advertising expenses	7,285,097,289	15,355,909,362
Computer operation expenses	17,442,596,813	14,234,323,924
Taxes and dues	6,012,939,178	3,805,634,700
Travel expenses	349,161,482	262,031,786
Communication expenses	1,785,581,121	1,519,483,820
Supplies expenses	559,730,740	560,984,599
Service contract expenses	14,929,693,014	13,009,958,778
Others	2,076,348,585	1,436,990,390
	<u>64,841,851,004</u>	<u>64,547,925,972</u>
	<u>₩ 162,447,269,594</u>	<u>₩ 129,807,900,073</u>

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**20. Other Operating Income and Expenses**

Details of other operating income and expenses for the periods ended December 31, 2019 and 2018, are as follows:

<i>(in Korean won)</i>	<b>2019</b>		<b>2018</b>	
Other operating income				
Gain on foreign exchange transactions	₩	3,143,372,775	₩	1,972,393,256
Reversal of provisions for unused loan commitments		-		921,201,347
Others		40,291,392		5,338,549
	₩	<u>3,183,664,167</u>	₩	<u>2,898,933,152</u>
Other operating expenses				
Deposit insurance expenses	₩	28,125,181,000	₩	13,282,752,000
Provisions for unused loan commitments		1,394,941,044		-
Others		3,633,753,373		738,556,722
	₩	<u>33,153,875,417</u>	₩	<u>14,021,308,722</u>

**21. Non-operating Income and Expenses**

Details of non-operating income and expenses for the periods ended December 31, 2019 and 2018, are as follows:

<i>(in Korean won)</i>	<b>2019</b>		<b>2018</b>	
Non-operating income				
Others	₩	48,760,014	₩	14,692,184
Non-operating expenses				
Donation	₩	115,100,000	₩	61,410,000
Others		21,369,038		24,802,950
	₩	<u>136,469,038</u>	₩	<u>86,212,950</u>

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**22. Financial Instruments by Category**

Carrying amounts of financial assets and liabilities by category as at December 31, 2019 and 2018, are as follows:

(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
	₩	1,726,375,112,709	₩ 20,883,530,045,394	₩ -	₩ 22,609,905,158,103
Financial liabilities					
Deposits	₩	-	₩ -	₩ 20,711,907,725,432	₩ 20,711,907,725,432
Other financial liabilities		-	-	298,695,287,487	298,695,287,487
	₩	-	₩ -	₩ 21,010,603,012,919	₩ 21,010,603,012,919

(in Korean won)

		2018			
		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	₩	-	₩ 1,640,471,526,557	₩ -	₩ 1,640,471,526,557
Financial investments		434,040,189,346	665,662,037,065	-	1,099,702,226,411
Loans		-	9,082,098,248,613	-	9,082,098,248,613
Other financial assets		-	200,515,722,697	-	200,515,722,697
	₩	434,040,189,346	₩ 11,588,747,534,932	₩ -	₩ 12,022,787,724,278
Financial liabilities					
Deposits	₩	-	₩ -	₩ 10,811,627,835,273	₩ 10,811,627,835,273
Other financial liabilities		-	-	163,689,441,925	163,689,441,925
	₩	-	₩ -	₩ 10,975,317,277,198	₩ 10,975,317,277,198

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Net gains or losses on each category of financial instruments for the periods ended December 31, 2019 and 2018, are as follows:

(in Korean won)

		2019					
		Net interest income (expense)	Net fee and commission income (expense)	Provision for credit losses	Others	Total	Other comprehensive income(loss)
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)	₩

(in Korean won)

		2018					
		Net interest income (expense)	Net fee and commission income (expense)	Provision for credit losses	Others	Total	Other comprehensive income(loss)
Financial assets							
Financial assets at fair value through profit or loss	₩	-	₩	-	₩ 10,077,424,249	₩ 10,077,424,249	₩
Financial assets at fair value through other comprehensive income		9,383,637,091	-	-	746,518,227	10,130,155,318	2,072,697,652
Financial assets at amortized cost		284,548,647,328	(507,093,799)	(14,800,499,883)	-	269,241,053,646	-
	₩	293,932,284,419	₩ (507,093,799)	₩ (14,800,499,883)	₩ 10,823,942,476	₩ 289,448,633,213	₩ 2,072,697,652
Financial liabilities							
Financial liabilities at amortized cost	₩	(110,482,175,802)	₩ (746,560,200)	₩	-	₩ (111,228,736,002)	₩

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**23. Tax Expense and Deferred Tax**

Income tax expense for the periods ended December 31, 2019 and 2018, consists of:

<i>(in Korean won)</i>	<b>2019</b>	<b>2018</b>
Current tax	₩ 120,041,040	₩ -
Changes in deferred tax due to temporary differences <sup>1</sup>	-	-
Income tax recognized directly in equity	(686,143,861)	(325,672,684)
Income tax expense(revenue)	<u>₩ (566,102,821)</u>	<u>₩ (325,672,684)</u>

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

An analysis of the net profit(loss) before income tax and income tax expense(revenue) for the periods ended December 31, 2019 and 2018, is as follows:

<i>(in Korean won)</i>	<b>2019</b>	<b>2018</b>
Profit (loss) before income tax expense	₩ 13,166,827,565	₩ (21,280,238,467)
Tax at the applicable tax rate <sup>1</sup>	2,874,702,055	(4,687,817,709)
Non-taxable income	-	(97,827,405)
Non-deductible expense	506,398,127	60,162,290
Other adjustments	(3,947,203,003)	4,399,810,140
Unrecognized deferred tax asset	(3,800,840,401)	4,488,634,422
Effect of tax rate and others	(146,362,602)	(88,824,282)
Income tax expense(revenue)	<u>₩ (566,102,821)</u>	<u>₩ (325,672,684)</u>
Average effective tax rate (%)	-	-

<sup>1</sup> 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 periods ended and as at December 31, 2019 and 2018, are as follows:

(in Korean won)

	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
	(690,992,025)	(2,933,260,912)	(686,143,861)	26,962,239	(4,283,434,559)
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
	31,327,456,891	(181,435,628)	-	(31,490,644)	31,114,530,619
	₩ 30,636,464,866	₩ (3,114,696,540)	₩ (686,143,861)	₩ (4,528,405)	₩ 26,831,096,060
Amount excluded in recognition of deferred tax assets (liabilities) <sup>1</sup>	₩ 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)	₩ -	₩ -

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

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	2018			
	Beginning balance	Profit or loss	Other comprehensive income (capital adjustments)	Ending balance
Temporary differences				
Provisions for asset retirement obligation	₩ 61,891,868	₩ 75,952,739	₩ -	₩ 137,844,607
Post-employment pension	(85,961,615)	(42,699,323)	258,934,346	130,273,408
Accrued interest	(471,402,066)	(1,356,467,563)	-	(1,827,869,629)
Leasehold guarantee deposits	26,135,615	4,997,382	-	31,132,997
Prepaid rent	(26,135,615)	(4,997,382)	-	(31,132,997)
Unsettled provision	1,205,659,591	203,887,734	-	1,409,547,325
Financial assets at fair value through other comprehensive income (gain (loss) on valuation)	250,803,349	-	(584,607,030)	(333,803,681)
Financial assets at fair value through other comprehensive income (Interest amortization)	57,629,015	26,539,284	-	84,168,299
Financial assets at amortized cost (Interest amortization)	9,194,167	(398,314,299)	-	(389,120,132)
Unused annual leave	35,413,984	41,381,693	-	76,795,677
Accrued expenses (service contract expenses)	(19,515,096)	19,515,096	-	-
Reversal of regular welfare expense	116,405	61,186	-	177,591
Legal fiction of instant depreciation	4,213,042	9,069,900	-	13,282,942
Deferred incentive bonuses for executive	-	67,138,500	-	67,138,500
Deferred loan origination costs	-	(59,426,932)	-	(59,426,932)
	<u>1,048,042,644</u>	<u>(1,413,361,985)</u>	<u>(325,672,684)</u>	<u>(690,992,025)</u>
Tax losses	24,940,161,594	6,119,169,363	-	31,059,330,957
Unused tax credit, etc	159,626,206	108,499,728	-	268,125,934
	<u>25,099,787,800</u>	<u>6,227,669,091</u>	<u>-</u>	<u>31,327,456,891</u>
	<u>₩ 26,147,830,444</u>	<u>₩ 4,814,307,106</u>	<u>₩ (325,672,684)</u>	<u>₩ 30,636,464,866</u>
Amount excluded in recognition of deferred tax assets (liabilities) <sup>1</sup>	₩ 26,147,830,444	₩ 4,488,634,422	₩ -	₩ 30,636,464,866
Amount included in recognition of deferred tax assets (liabilities)	₩ -	₩ 325,672,684	₩ (325,672,684)	₩ -

<sup>1</sup> 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, 2019 and 2018, is as follows:

(in Korean won)	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

(in Korean won)	2018		2017		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)	₩ 1,517,289,460	₩ (333,803,681)	₩ (1,140,015,222)	₩ 250,803,349	₩ (584,607,030)
Remeasurements of net defined benefit liability (asset)	(1,083,274,875)	238,320,473	93,699,421	(20,613,873)	258,934,346

Details of unrecognized deductible temporary differences, tax losses and unused tax credit as at December 31, 2019 and 2018, are as follows:

(in Korean won)	2019	2018
Deductible temporary differences	₩ -	₩ -
Tax losses <sup>1</sup>	139,685,470,664	141,178,777,078
Tax credit <sup>1</sup>	338,701,433	248,422,294
Deduction of donation <sup>1</sup>	204,662,000	89,562,000
	<u>₩ 140,228,834,097</u>	<u>₩ 141,516,761,372</u>

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

(in Korean won)	2019	2018
2021	₩ -	₩ 1,448,933
2022	83,363,443	151,983,833
2023	94,969,528	94,989,528
2024	160,368,462	-



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2026	11,438,966,728	12,789,406,581
2027	100,571,762,446	100,603,116,303
2028	27,764,303,490	27,875,816,194
2029	115,100,000	-
	<u>₩ 140,228,834,097</u>	<u>₩ 141,516,761,372</u>

## **24. Financial Instruments Risk Management**

### **24-1. Overview of Risk Management**

#### **24-1.1 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.

#### **24-1.2 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.

**24-2. Credit Risk**

**24-2.1 Overview of Credit Risk**

Credit risk represents the possibility of financial losses incurred when the counterparty fails to fulfill its contractual obligations. The range of credit risk includes on- and off-balance sheet items (such as loans and securities) related risks.

**24-2.2 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. 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.

**24-2.3 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, 2019 and 2018, are as follows:

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<i>(in Korean won)</i>	2019	2018
<b>On-balance sheet items</b>		
Due from financial institutions	₩ 220,155,013,698	₩ 1,638,626,015,557
Loans	19,193,788,892,299	9,082,098,248,613
Financial investments	2,877,131,961,605	1,099,702,226,411
Other financial assets	312,936,148,501	200,515,722,697
	<u>22,604,012,016,103</u>	<u>12,020,942,213,278</u>
<b>Off-balance sheet items</b>		
Unused loan commitment	5,855,236,093,614	3,742,578,896,451
	<u>₩ 28,459,248,109,717</u>	<u>₩ 15,763,521,109,729</u>

**24-2.4 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, 2019 and 2018, are as follows:

<i>(in Korean won)</i>	2019		2018	
	Amount	%	Amount	%
Neither past due nor impaired	₩ 19,205,106,934,263	99.77	₩ 9,095,486,403,766	99.79
Past due but not impaired	12,380,898,823	0.06	6,460,913,041	0.07
Impaired	33,434,729,417	0.17	12,361,079,114	0.14
	<u>19,250,922,562,503</u>	<u>100.00</u>	<u>9,114,308,395,921</u>	<u>100.00</u>
Allowance	<u>(57,133,670,204)</u>		<u>(32,210,147,308)</u>	
Carrying amount	<u>₩ 19,193,788,892,299</u>		<u>₩ 9,082,098,248,613</u>	

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.

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Credit qualities of loans that are past due but not impaired as at December 31, 2019 and 2018, are as follows:

<i>(in Korean won)</i>	<b>2019</b>		<b>2018</b>	
1~29 days	₩	8,675,336,405	₩	4,455,923,335
30~59 days		2,254,986,316		1,435,132,298
60~89 days		1,450,576,102		569,857,408
	₩	<u>12,380,898,823</u>	₩	<u>6,460,913,041</u>

Impaired loans as at December 31, 2019 and 2018, are as follows:

<i>(in Korean won)</i>	<b>2019</b>		<b>2018</b>	
Loans	₩	33,434,729,417	₩	12,361,079,114
Allowance				
Collectively assessed allowance		(20,537,881,481)		(7,259,334,270)
	₩	<u>12,896,847,936</u>	₩	<u>5,101,744,844</u>

A quantification of the extent to which collateral and other credit enhancements mitigate credit risk as at December 31, 2019 and 2018, are as follows:

<i>(in Korean won)</i>	<b>2019</b>		<b>2018</b>	
	<b>Impaired Loans</b>	<b>Non-impaired Loans</b>	<b>Impaired Loans</b>	<b>Non-impaired Loans</b>
Guarantee insurance securities of Seoul Guarantee Insurance Co., Ltd.	₩ 6,781,947,004	₩ 1,692,343,446,998	₩ 3,181,625,288	₩ 1,169,561,332,742
Guarantee insurance securities of Korea Housing Finance Corporation	338,217,300	2,175,810,273,422	-	757,162,747,144

#### **24-2.5 Credit risk concentration by region**

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

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**24-2.6 Details of debt securities**

Debt securities that are neither past due nor impaired as at December 31, 2019 and 2018, are as follows:

<i>(in Korean won)</i>	<b>2019</b>	<b>2018</b>
Financial investments	₩ 2,877,131,961,605	₩ 1,099,702,226,411

**24-2.7 Details of debt securities categorized by the credit ratings**

Details of securities categorized by the credit rating as at December 31, 2019 and 2018 are as follows:

<i>(in Korean won)</i>	<b>2019</b>		
	<b>Financial assets at fair value through other comprehensive income</b>	<b>Financial assets at amortized cost</b>	<b>Total</b>
<b>AAA</b>	₩ 176,113,972,790	₩ 360,644,630,785	₩ 536,758,603,575
<b>No rating</b>			
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
	₩ 1,726,375,112,709	₩ 1,150,756,848,896	₩ 2,877,131,961,605

<i>(in Korean won)</i>	<b>2018</b>		
	<b>Financial assets at fair value through other comprehensive income</b>	<b>Financial assets at amortized cost</b>	<b>Total</b>
<b>AAA</b>	₩ 49,974,766,155	₩ 229,865,563,281	₩ 279,840,329,436
<b>No rating</b>			
Government bonds	173,999,208,327	425,796,123,336	599,795,331,663
Monetary stabilization bonds	210,066,214,864	10,000,350,448	220,066,565,312
	₩ 434,040,189,346	₩ 665,662,037,065	₩ 1,099,702,226,411

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**24-2.8 Changes in provision for credit losses**

Changes in provision for credit losses for the periods ended December 31, 2019 and 2018, are as follows:

(in Korean won)	2019							
	12-month expected credit losses (1 stage)		Expected lifetime credit losses			Total		
			Non-impaired assets (2 stage)	Impaired assets (3 stage)				
<b>Loans</b>								
Beginning	₩	23,382,535,069	₩	1,568,277,969	₩	7,259,334,270	₩	32,210,147,308
Transfer to allowance stages								
Transfer to 2 stage		(308,889,742)		331,405,450		(22,515,708)		-
Transfer to 3 stage		(609,177,462)		(1,081,491,127)		1,690,668,589		-
Transfer to 1 stage		241,030,536		(184,635,428)		(56,395,108)		-
Others		-		-		(11,481,181,471)		(11,481,181,471)
Provision (reversal) 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
<b>Other financial assets</b>								
Beginning	₩	48,435,248	₩	12,848,552	₩	6,036,479	₩	67,320,279
Transfer to allowance stages								
Transfer to 2 stage		(819,882)		833,053		(13,171)		-
Transfer to 3 stage		(1,908,384)		(10,508,824)		12,417,208		-
Transfer to 1 stage		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
<b>Unused loan commitment</b>								
Beginning	₩	2,986,658,570	₩	15,037,005	₩	-	₩	3,001,695,575
Transfer to allowance stages								
Transfer to 2 stage		(7,821,429)		7,821,429		-		-
Transfer to 3 stage		(8,884,660)		(928,783)		9,813,443		-
Transfer to 1 stage		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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(in Korean won)	2018							
	12-month expected credit losses (1 stage)		Expected lifetime credit losses			Total		
			Non-impaired assets (2 stage)		Impaired assets (3 stage)			
<b>Loans</b>								
Beginning <sup>1</sup>	₩	17,976,390,256	₩	232,994,721	₩	424,810,508	₩	18,634,195,485
Transfer to allowance stages								
Transfer to 2 stage		(178,448,557)		181,509,704		(3,061,147)		-
Transfer to 3 stage		(956,083,489)		(57,465,560)		1,013,549,049		-
Transfer to 1 stage		87,742,020		(85,736,092)		(2,005,928)		-
Others		-		-		(1,195,300,923)		(1,195,300,923)
Provision (reversal) of allowance		6,452,934,839		1,296,975,196		7,021,342,711		14,771,252,746
Ending	₩	23,382,535,069	₩	1,568,277,969	₩	7,259,334,270	₩	32,210,147,308
<b>Other financial assets</b>								
Beginning <sup>1</sup>	₩	37,456,389	₩	1,649,506	₩	617,536	₩	39,723,431
Transfer to allowance stages								
Transfer to 2 stage		(558,435)		567,318		(8,883)		-
Transfer to 3 stage		(561,802)		(753,158)		1,314,960		-
Transfer to 1 stage		387,114		(381,598)		(5,516)		-
Others		-		-		(1,650,289)		(1,650,289)
Provision (reversal) of allowance		11,711,982		11,766,484		5,768,671		29,247,137
Ending	₩	48,435,248	₩	12,848,552	₩	6,036,479	₩	67,320,279
<b>Unused loan commitment</b>								
Beginning <sup>1</sup>	₩	3,914,344,318	₩	8,552,604	₩	-	₩	3,922,896,922
Transfer to allowance stages								
Transfer to 2 stage		(8,143,817)		8,143,817		-		-
Transfer to 3 stage		(2,729,015)		(42,889)		2,771,904		-
Transfer to 1 stage		4,355,469		(4,355,469)		-		-
Provision (reversal) of allowance		(921,168,385)		2,738,942		(2,771,904)		(921,201,347)
Ending	₩	2,986,658,570	₩	15,037,005	₩	-	₩	3,001,695,575

<sup>1</sup>Restated based on Korean IFRS 1109.

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**24-2.9 Changes in gross carrying amount**

Changes in gross carrying amount for the periods ended December 31, 2019 and 2018, are as follows:

(in Korean won)

	2019			
	12-month expected credit losses (1 stage)	Expected lifetime credit losses		Total
		Non-impaired assets (2 stage)	Impaired assets (3 stage)	
<b>Due from financial institutions</b>				
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
<b>Loans</b>				
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 2 stage	(28,296,258,614)	28,457,467,249	(161,208,635)	-
Transfer to 3 stage	(37,313,770,286)	(6,295,763,262)	43,609,533,548	-
Transfer to 1 stage	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
<b>Debt securities at amortized cost</b>				
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
<b>Debt securities at fair value through other comprehensive income</b>				
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
Ending	₩ 1,726,375,112,709	₩ -	₩ -	₩ 1,726,375,112,709
<b>Other financial assets</b>				
Beginning	₩ 200,603,549,150	₩ 108,679,093	₩ 12,328,354	₩ 200,724,556,597
Transfer to allowance stages				
Transfer to 2 stage	(65,941,784)	66,014,577	(72,793)	-
Transfer to 3 stage	(86,065,238)	(37,066,231)	123,131,469	-
Transfer to 1 stage	30,708,509	(30,651,906)	(56,603)	-
Net increase (decrease)	112,483,262,249	40,371,817	(111,559,951)	112,412,074,115



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(recognition, collection and others)					
Written-off	-	-	(8,783,141)	(8,783,141)	
Ending	₩ 312,965,512,886	₩ 147,347,350	₩ 14,987,335	₩ 313,127,847,571	
<b>Unused loan commitment</b>					
Beginning	₩ 3,739,893,070,514	₩ 2,685,825,937	₩ -	₩ 3,742,578,896,451	
Transfer to allowance stages					
Transfer to 2 stage	(2,334,992,344)	2,334,992,344	-	-	
Transfer to 3 stage	(1,996,768,145)	(93,474,339)	2,090,242,484	-	
Transfer to 1 stage	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	
<i>(in Korean won)</i>					
	<b>2018</b>				
	<b>Expected lifetime credit losses</b>				
	<b>12-month expected credit losses (1 stage)</b>	<b>Non-impaired assets (2 stage)</b>	<b>Impaired assets (3 stage)</b>	<b>Total</b>	
<b>Due from financial institutions</b>					
Beginning	₩ 422,353,591,275	₩ -	₩ -	₩ 422,353,591,275	
Net increase (recognition, collection and others)	1,216,272,424,282	-	-	1,216,272,424,282	
Ending	₩ 1,638,626,015,557	₩ -	₩ -	₩ 1,638,626,015,557	
<b>Loans</b>					
Beginning <sup>1</sup>	₩ 4,631,895,796,962	₩ 7,151,645,665	₩ 875,513,889	₩ 4,639,922,956,516	
Transfer to allowance stages					
Transfer to 2 stage	(16,140,930,646)	16,162,229,632	(21,298,986)	-	
Transfer to 3 stage	(12,862,175,303)	(402,556,083)	13,264,731,386	-	
Transfer to 1 stage	3,469,401,428	(3,455,104,447)	(14,296,981)	-	
Net increase (decrease) (recognition, collection and others)	4,465,519,539,487	10,609,470,112	(615,989,177)	4,475,513,020,422	
Written-off	-	-	(1,127,581,017)	(1,127,581,017)	
Ending	₩ 9,071,881,631,928	₩ 30,065,684,879	₩ 12,361,079,114	₩ 9,114,308,395,921	
<b>Debt securities at amortized cost</b>					
Beginning	₩ 214,704,380,106	₩ -	₩ -	₩ 214,704,380,106	
Net increase (recognition, collection and others)	450,957,656,959	-	-	450,957,656,959	
Ending	₩ 665,662,037,065	₩ -	₩ -	₩ 665,662,037,065	
<b>Debt securities at fair value through other comprehensive income</b>					
Beginning	₩ 308,944,443,539	₩ -	₩ -	₩ 308,944,443,539	

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Net increase (recognition, collection and others)		125,095,745,807		-		-		125,095,745,807
Ending	₩	434,040,189,346	₩	-	₩	-	₩	434,040,189,346
<b>Other financial assets</b>								
Beginning <sup>1</sup>	₩	158,070,509,459	₩	27,157,833	₩	1,457,145	₩	158,099,124,437
Transfer to allowance stages								
Transfer to 2 stage		(42,655,826)		42,711,896		(56,070)		-
Transfer to 3 stage		(27,717,416)		(2,582,266)		30,299,682		-
Transfer to 1 stage		9,485,026		(9,447,861)		(37,165)		-
Net increase (decrease) (recognition, collection and others)		42,593,927,907		50,839,491		(17,684,949)		42,627,082,449
Written-off		-		-		(1,650,289)		(1,650,289)
Ending	₩	200,603,549,150	₩	108,679,093	₩	12,328,354	₩	200,724,556,597
<b>Unused loan commitment</b>								
Beginning	₩	2,812,519,647,864	₩	1,297,635,400	₩	222,037,638	₩	2,814,039,320,902
Transfer to allowance stages								
Transfer to 2 stage		(2,178,623,372)		2,181,882,668		(3,259,296)		-
Transfer to 3 stage		(718,417,193)		(3,917,643)		722,334,836		-
Transfer to 1 stage		953,800,017		(952,671,653)		(1,128,364)		-
Net increase (decrease) (recognition, collection and others)		929,316,663,198		162,897,165		(939,984,814)		928,539,575,549
Ending	₩	3,739,893,070,514	₩	2,685,825,937	₩	-	₩	3,742,578,896,451

<sup>1</sup>Restated based on Korean IFRS 1109

**24-2.10 Exposure by credit risk rating**

Details of exposure by credit risk rating as at December 31, 2019 and 2018, are as follows:

(in Korean won)		2019						
		Expected lifetime credit losses			Total			
	12-month expected credit losses (1 stage)		Non-impaired assets (2 stage)			Impaired assets (3 stage)		
<b>Due from financial institutions<sup>1</sup></b>								
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
<b>Loans<sup>2</sup></b>								
Grade 1	₩	12,557,073,212,906	₩	5,056,956,603	₩	-	₩	12,562,130,169,509

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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 <sup>3</sup>	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
<b>Debt securities at amortized cost<sup>1</sup></b>				
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
<b>Debt securities at fair value through other comprehensive income<sup>1</sup></b>				
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
<b>Other financial assets<sup>4</sup></b>				
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	249,359,726,384	-	-	249,359,726,384
	312,965,512,886	147,347,350	14,987,335	313,127,847,571
Provision for credit losses	(64,228,628)	(22,034,744)	(5,630,055)	(91,893,427)
Carrying amount	₩ 312,901,284,258	₩ 125,312,606	₩ 9,357,280	₩ 313,035,954,144
<b>Unused loan commitment<sup>2</sup></b>				
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
	5,852,960,117,893	2,275,975,721	-	5,855,236,093,614
Provision for credit losses	(4,383,712,760)	(12,923,859)	-	(4,396,636,619)
Carrying amount	₩ 5,848,576,405,133	₩ 2,263,051,862	₩ -	₩ 5,850,839,456,995

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(in Korean won)

		2018			
		Expected lifetime credit losses			
	12-month expected credit losses (1 stage)	Non-impaired assets (2 stage)	Impaired assets (3 stage)	Total	
Due from financial institutions <sup>1</sup>					
Grade 1	₩ 1,637,126,015,557	₩ -	₩ -	₩ 1,637,126,015,557	
Grade 2	1,500,000,000	-	-	1,500,000,000	
Grade 3	-	-	-	-	
	1,638,626,015,557	-	-	1,638,626,015,557	
Provision for credit losses	-	-	-	-	
Carrying amount	₩ 1,638,626,015,557	₩ -	₩ -	₩ 1,638,626,015,557	
Loans <sup>2</sup>					
Grade 1	₩ 7,474,942,751,755	₩ 5,273,155,304	₩ -	₩ 7,480,215,907,059	
Grade 2	584,666,710,284	874,707,138	-	585,541,417,422	
Grade 3	859,064,474,295	9,195,218,159	-	868,259,692,454	
Grade 4	120,829,704,805	4,638,982,652	-	125,468,687,457	
Grade 5	32,377,990,789	10,083,621,626	12,361,079,114	54,822,691,529	
	9,071,881,631,928	30,065,684,879	12,361,079,114	9,114,308,395,921	
Provision for credit losses	(23,382,535,069)	(1,568,277,969)	(7,259,334,270)	(32,210,147,308)	
Carrying amount	₩ 9,048,499,096,859	₩ 28,497,406,910	₩ 5,101,744,844	₩ 9,082,098,248,613	
Debt securities at amortized cost <sup>1</sup>					
Grade 1	₩ 665,662,037,065	₩ -	₩ -	₩ 665,662,037,065	
	665,662,037,065	-	-	665,662,037,065	
Provision for credit losses	-	-	-	-	
Carrying amount	₩ 665,662,037,065	₩ -	₩ -	₩ 665,662,037,065	
Debt securities at fair value through other comprehensive income <sup>1</sup>					
Grade 1	₩ 434,040,189,346	₩ -	₩ -	₩ 434,040,189,346	
	434,040,189,346	-	-	434,040,189,346	
Provision for credit losses	-	-	-	-	
Carrying amount	₩ 434,040,189,346	₩ -	₩ -	₩ 434,040,189,346	
Other financial assets <sup>4</sup>					
Grade 1	₩ 26,471,262,171	₩ 8,184,701	₩ -	₩ 26,479,446,872	
Grade 2	1,104,627,497	2,081,611	-	1,106,709,108	
Grade 3	2,057,632,462	25,504,717	-	2,083,137,179	
Grade 4	355,446,288	15,607,974	-	371,054,262	
Grade 5	103,461,262	57,300,090	12,328,354	173,089,706	
No rating	170,511,119,470	-	-	170,511,119,470	
	200,603,549,150	108,679,093	12,328,354	200,724,556,597	

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Provision for credit losses	(48,435,248)	(12,848,552)	(6,036,479)	(67,320,279)
Carrying amount	₩ 200,555,113,902	₩ 95,830,541	₩ 6,291,875	₩ 200,657,236,318
<b>Unused loan commitment<sup>2</sup></b>				
Grade 1	₩ 3,438,260,849,285	₩ 1,113,683,429	₩ -	₩ 3,439,374,532,714
Grade 2	136,830,798,315	112,543,225	-	136,943,341,540
Grade 3	137,885,426,624	616,027,692	-	138,501,454,316
Grade 4	24,463,051,082	491,073,607	-	24,954,124,689
Grade 5	2,452,945,208	352,497,984	-	2,805,443,192
	3,739,893,070,514	2,685,825,937	-	3,742,578,896,451
Provision for credit losses	(2,986,658,570)	(15,037,005)	-	(3,001,695,575)
Carrying amount	₩ 3,736,906,411,944	₩ 2,670,788,932	₩ -	₩ 3,739,577,200,876

<sup>1</sup> 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

<sup>2</sup> 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 10% of probability of default

<sup>3</sup> 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.

<sup>4</sup> Among other financial assets, the Company classified GRADE of accrued interest of loans and su

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spense credit receivable according to the information in the original accounts, and other items are classified as no rating.

**24-2.11 Exposure by counterparty**

Details of exposure by counterparty as at December 31, 2019 and 2018, are as follows:

(in Korean won)	2019		
	Gross carrying amount	Provision for credit losses	Carrying amount
<b>Due from financial institutions</b>			
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>
<b>Loans</b>			
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>
<b>Debt securities at amortized cost</b>			
Government and public institution	₩ 1,150,756,848,896	₩ -	₩ 1,150,756,848,896
<b>Debt securities at fair value through other comprehensive income</b>			
Government and public institution	₩ 1,726,375,112,709	₩ -	₩ 1,726,375,112,709
<b>Other financial assets</b>			
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	4,087,787,099	-	4,087,787,099
Retail	19,267,275,093	(91,893,427)	19,175,381,666
	<u>313,127,847,571</u>	<u>(91,893,427)</u>	<u>313,035,954,144</u>
<b>Unused loan commitment</b>			
Retail	₩ 5,855,236,093,614	₩ (4,396,636,619)	₩ 5,850,839,456,995

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(in Korean won)	2018		
	Gross carrying amount	Provision for credit losses	Carrying amount
<b>Due from financial institutions</b>			
Government and public institution	₩ 1,636,358,633,587	₩ -	₩ 1,636,358,633,587
Banks	2,267,381,970	-	2,267,381,970
	<u>1,638,626,015,557</u>	<u>-</u>	<u>1,638,626,015,557</u>
<b>Loans</b>			
Retail	₩ 9,114,308,395,921	₩ (32,210,147,308)	₩ 9,082,098,248,613
<b>Debt securities at amortized cost</b>			
Government and public institution	₩ 665,662,037,065	₩ -	₩ 665,662,037,065
<b>Debt securities at fair value through other comprehensive income</b>			
Government and public institution	₩ 434,040,189,346	₩ -	₩ 434,040,189,346
<b>Other financial assets</b>			
Government and public institution	₩ 16,242,063,482	₩ -	₩ 16,242,063,482
Banks	18,171,340,025	-	18,171,340,025
Other financial institutions	148,794,863,131	-	148,794,863,131
Corporate and others	3,557,600,653	-	3,557,600,653
Retail	13,958,689,306	(67,320,279)	13,891,369,027
	<u>200,724,556,597</u>	<u>(67,320,279)</u>	<u>200,657,236,318</u>
<b>Unused loan commitment</b>			
Retail	₩ 3,742,578,896,451	₩ (3,001,695,575)	₩ 3,739,577,200,876

Details of financial assets by industry as at December 31, 2019 and 2018, are as follows:

(in Korean won)	2019 <sup>1</sup>				
	Financial institutions & Insurance	Government & Public institution	Individuals	Others	Total
Due from financial institutions	₩ 805,949,458	₩ 219,349,064,240	₩ -	₩ -	₩ 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

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Other financial assets	245,281,406,209	44,491,379,170	19,175,381,666	4,087,787,099	313,035,954,144
	₩ 4,577,387,355,667	₩ 3,140,972,405,015	₩ 14,881,664,273,965	₩ 4,087,787,099	₩ 22,604,111,821,746

(in Korean won)	2018 <sup>1</sup>				
	Financial institutions & Insurance	Government & Public institution	Individuals	Others	Total
Due from financial institutions	₩ 2,267,381,970	₩ 1,636,358,633,587	₩ -	₩ -	₩ 1,638,626,015,557
Loans	-	-	9,082,098,248,613	-	9,082,098,248,613
Debt securities at amortized cost	-	665,662,037,065	-	-	665,662,037,065
Debt securities at fair value through other comprehensive income	-	434,040,189,346	-	-	434,040,189,346
Other financial assets	166,966,203,156	16,242,063,482	13,891,369,027	3,557,600,653	200,657,236,318
	₩ 169,233,585,126	₩ 2,752,302,923,480	₩ 9,095,989,617,640	₩ 3,557,600,653	₩ 12,021,083,726,899

<sup>1</sup>Net carrying amount after deducting unamortized balance and allowances



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**24-3. Liquidity Risk**

**24-3.1 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.

**24-3.2 Liquidity Risk Management**

The liquidity coverage ratio (LCR), the management guidance rate of the Financial Supervisory Service, is 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 are 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, 2019 and 2018, are as follows:

	<b>2019</b>					
	<b>Financial liabilities</b>			<b>Off-balance sheet items</b>		
	<b>Deposits</b>	<b>Others</b>	<b>Total</b>	<b>Unused loan commitment</b>		
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		

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(in Korean won)

**2018**

	<b>Financial liabilities</b>			<b>Off-balance sheet items</b>
	<b>Deposits</b>	<b>Others</b>	<b>Total</b>	<b>Unused loan commitment</b>
Up to 1 month	₩ 4,572,905,144,975	₩ 107,247,970,372	₩ 4,680,153,115,347	₩ 3,742,578,896,451
1~3 months	1,253,076,713,778	-	1,253,076,713,778	-
3~6 months	1,190,210,096,933	-	1,190,210,096,933	-
6~12 months	3,378,772,601,858	-	3,378,772,601,858	-
1~5 years	566,081,937,615	-	566,081,937,615	-
Over 5 years	-	-	-	-
	<u>₩ 10,961,046,495,159</u>	<u>₩ 107,247,970,372</u>	<u>₩ 11,068,294,465,531</u>	<u>₩ 3,742,578,896,451</u>

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.

#### **24-4. Market Risk**

##### **24-4.1 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.

##### **24-4.2 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

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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 at the reporting date, there is no market risk management position held by the Company.

*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  $\Delta$ EVE (Change in Economic Value of Equity) that represents fluctuation in net asset value resulted from interest rate shock scenarios and  $\Delta$ 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, 2019, are as follows:

<i>(in Korean won)</i>		2019
$\Delta$ EVE	₩	86,766,281,295
$\Delta$ NII		40,655,598,623

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<sup>1</sup> "Standard for Calculation of Interest Rate Risk" (Appendix 9-1) of the "Detailed Regulations on Supervision of Banking Business" was revised on November 29, 2019, and therefore the measurement result of risk as at December 31, 2018, was not calculated.

#### **24-5. Operating Risk**

##### **24-5.1 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.

##### **24-5.2 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.

#### **24-6. Capital Risk**

The Company complies with the capital adequacy standard established by the Financial Services Commission. Capital adequacy standards are applied in line with global standards, such as those recommended by the Basel Committee on Banking Supervision in the Bank for International Settlements. However, different levels of regulations are applied in consideration of the business style according to the type of authorization and size of the bank. Accordingly, the Company complies the minimum capital ratio of risk-weighted assets based on Basel I standards by 2019 and plans to comply the minimum capital ratio based on the Basel III standard from 2020.

The capital ratio is calculated by dividing the amount of equity capital based on the financial statements by the total amount of risk-weighted assets. As at December 31, 2019, the Company is required to maintain the minimum capital ratio of at least 8.0%.

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Details of the Company's capital adequacy ratio in line with Basel I requirements as at December 31, 2019 and 2018, are as follows:

<i>(in Korean won)</i>	<b>2019</b>	<b>2018</b>
Equity Capital		
Tier I Capital	₩ 1,656,318,611,352	₩ 1,101,529,999,005
Tier II Capital	1,613,897,891,777	1,073,498,393,060
	<u>42,420,719,575</u>	<u>28,031,605,945</u>
Risk-weighted assets <sup>1</sup>	12,286,793,450,797	7,955,383,936,242
Equity Capital (%)	13.48%	13.85%
Tier I Capital (%)	13.14%	13.49%

<sup>1</sup>Risk 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.

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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**24-7. 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.

**24-7.1 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, 2019 and 2018, are as follows:

(in Korean won)

(in Korean won)

		2019					
		Carrying amount					
	Balance	Unamortized balance <sup>1</sup>	Allowance	Total	Fair value		
<b>Assets</b>							
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	
	226,048,155,698	-	-	226,048,155,698		226,048,155,698	
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	
	₩ 20,901,492,413,929	₩ 39,263,195,096	₩ (57,225,563,631)	₩ 20,883,530,045,394	₩	20,901,262,599,995	
<b>Liabilities</b>							
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	
	₩ 21,024,462,263,036	₩ -	₩ -	₩ 21,024,462,263,036	₩	21,032,547,516,688	

(in Korean won)

(in Korean won)		2018								
		Carrying amount								
		Balance	Unamortized balance <sup>1</sup>	Allowance	Total	Fair value				
<b>Assets</b>										
Cash and due from financial institutions										
Cash and cash equivalents	₩	1,845,511,000	₩	-	₩	-	₩	1,845,511,000	₩	1,845,511,000
Due from financial institutions		1,638,626,015,557		-		-		1,638,626,015,557		1,638,626,015,557
		1,640,471,526,557		-		-		1,640,471,526,557		1,640,471,526,557
Financial investments		665,662,037,065		-		-		665,662,037,065		674,337,987,172
Loans		9,082,589,669,163		31,718,726,758		(32,210,147,308)		9,082,098,248,613		9,074,744,235,776
Other financial assets		200,724,556,597		(141,513,621)		(67,320,279)		200,515,722,697		200,515,722,697

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	₩ 11,589,447,789,382	₩ 31,577,213,137	₩ (32,277,467,587)	₩ 11,588,747,534,932	₩ 11,590,069,472,202
<b>Liabilities</b>					
Deposits	₩ 10,811,627,835,273	₩ -	₩ -	₩ 10,811,627,835,273	₩ 10,812,973,697,675
Other financial liabilities	163,689,441,925	-	-	163,689,441,925	163,689,441,925
	₩ 10,975,317,277,198	₩ -	₩ -	₩ 10,975,317,277,198	₩ 10,976,663,139,600

<sup>1</sup>Unamortized balance consist of deferred loan origination costs and present value discount.

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, 2019 and 2018, are as follows:

(in Korean won)

**2019**

	Level 1	Level 2	Level 3	Total
<b>Assets</b>				
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
	5,893,142,000	220,155,013,698	-	226,048,155,698
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
	-	-	19,198,366,990,475	19,198,366,990,475
Other financial assets	-	-	312,936,148,501	312,936,148,501
	₩ 805,932,024,064	₩ 584,027,436,955	₩ 19,511,303,138,976	₩ 20,901,262,599,995
<b>Liabilities</b>				
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
	₩ -	₩ 7,980,695,656,984	₩ 13,051,851,859,704	₩ 21,032,547,516,688

(in Korean won)

**2018**

	Level 1	Level 2	Level 3	Total
<b>Assets</b>				
Cash and due from financial institutions				
Cash and cash equivalents	₩ 1,845,511,000	₩ -	₩ -	₩ 1,845,511,000
Due from financial institutions	-	1,638,626,015,557	-	1,638,626,015,557
	1,845,511,000	1,638,626,015,557	-	1,640,471,526,557
Financial investments				
Debt securities	442,545,469,281	231,792,517,891	-	674,337,987,172
Loans				
Retails	-	-	9,074,744,235,776	9,074,744,235,776
Other financial assets	-	-	200,515,722,697	200,515,722,697



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	₩ 444,390,980,281	₩ 1,870,418,533,448	₩ 9,275,259,958,473	₩ 11,590,069,472,202
<b>Liabilities</b>				
Deposits	₩ -	₩ 3,564,430,653,871	₩ 7,248,543,043,804	₩ 10,812,973,697,675
Other financial liabilities	-	-	163,689,441,925	163,689,441,925
	₩ -	₩ 3,564,430,653,871	₩ 7,412,232,485,729	₩ 10,976,663,139,600

Valuation techniques and inputs used in the fair value measurements as at December 31, 2019 and 2018, are as follows:

(in Korean won)	Level	2019	2018	Valuation techniques	Inputs
<b>Assets</b>					
Due from financial institutions <sup>1</sup>	Level 2	₩ 220,155,013,698	₩ 1,638,626,015,557	-	-
Debt securities at amortized cost	Level 2	363,872,423,257	231,792,517,891	Discounted cash flow	Discount rate
Retail loans	Level 3	14,867,066,990,475	9,074,744,235,776	Discounted cash flow	Credit spreads, Other spreads, Interest rate
Reverse repurchase agreements <sup>1</sup>	Level 3	4,331,300,000,000	-	-	-
Other financial assets <sup>1</sup>	Level 3	312,936,148,501	200,515,722,697	-	-
		₩ 20,095,330,575,931	₩ 11,145,678,491,921		
<b>Liabilities</b>					
Deposits <sup>1</sup>	Level 2	₩ 7,980,695,656,984	₩ 3,564,430,653,871	-	-
Deposits	Level 2	12,739,297,322,100	7,248,543,043,804	Discounted cash flow	Other spreads, Interest rate
Other financial liabilities <sup>1</sup>	Level 3	312,554,537,604	163,689,441,925	-	-
		₩ 21,032,547,516,688	₩ 10,976,663,139,600		

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

**KakaoBank of Korea Corp.**  
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**24-7.2 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, 2019 and 2018, are as follows:

(in Korean won)	2019			
	Level 1	Level 2	Level 3	Total
<b>Financial assets</b>				
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

(in Korean won)	2018			
	Level 1	Level 2	Level 3	Total
<b>Financial assets</b>				
Financial assets at fair value through other comprehensive income				
Debt securities	₩ 384,065,423,191	₩ 49,974,766,155	₩ -	₩ 434,040,189,346

There are no transfer between levels 1 and 2 of financial asset measured at fair value for the periods ended December 31, 2019 and 2018.

*Valuation techniques and the inputs*

Valuation techniques and inputs used in levels 2 fair value measurements as at December 31, 2019 and 2018, are as follows:

(in Korean won)	Valuation techniques	2019	2018	Inputs
Debt securities at fair value through other comprehensive income	Discounted cash flow	₩ 176,113,972,790	₩ 49,974,766,155	Discount rate

There are no financial instruments classified as level 3 as at December 31, 2019 and 2018.

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**24-8. 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, 2019 and 2018.

(in Korean won)

(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

(in Korean won)

(in Korean won)		2018					
		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	₩	565,259,904,377	₩ (398,306,385,560)	₩ 166,953,518,817	₩ -	₩ -	₩ 166,953,518,817

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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, 2019 and 2018.

(in Korean won)

(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)	₩ -	₩

(in Korean won)

(in Korean won)		2018					
		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		₩ 420,448,323,461	₩ (398,306,385,560)	₩ 22,141,937,901	₩ (22,141,937,901)	₩	- ₩

## 25. Contingencies and Commitments

As at December 31, 2019, the Company has filed a lawsuit (affirmation of loans) as a plaintiff, involving aggregate claim of ₩ 14,100,000, and faces 12 lawsuits (affirmation of loans), as a defendant, involving aggregate damages of ₩ 473,600,479.

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, 2019 and 2018.

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**26. Leases**

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

(in Korean won)

	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.

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

(In Korean won)

	2019					
	Beginning balance	Effect of transition <sup>1</sup>	Acquisitions	Depreciation	Others <sup>2</sup>	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>

<sup>1</sup>The effects of adoption of Korean IFRS 1116

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

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

(in Korean won)

	2019
Buildings	₩ 13,681,567,123
Vehicles	177,682,994
	<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 year ended December 31, 2019, are as follows:

(In Korean won)	2019					
	Beginning balance	Effect of transition <sup>1</sup>	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
	₩ -	₩ 14,541,288,904	₩ 4,716,644,488	₩ (5,695,488,536)	₩ 296,805,261	₩ 13,859,250,117

<sup>1</sup>The effects of adoption of Korean IFRS 1116

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

(in Korean won)	2019
Up to 1 month	₩ 639,794,016
1~3 months	1,345,093,509
3~6 months	1,872,895,008
6~12 months	3,549,513,717
1~5 years	6,753,692,550
Over 5 years	-
	₩ 14,160,988,800

Expense relating to leases of low-value assets amounts to ₩ 327,525,774 during 2019.

Expense relating to short-term leases amounts to ₩ 8,596,000 during 2019.

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 ₩ 803,696,439 during 2019. The relative size of variable lease payments against the fixed lease payments is approximately 103.59%.

IFRS Interpretation Committee published its interpretation of 'Lease term and leasehold improvements' useful lives' as at December 16, 2019. The Company is analyzing the effects of the interpretation on the financial statements.

**KakaoBank of Korea Corp.**  
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**27. Supplemental Cash Flow Information**

Significant non-cash transactions for the periods ended December 31, 2019 and 2018, are as follows:

<i>(in Korean won)</i>	<b>2019</b>	<b>2018</b>
Transfer of beginning balance of retained earnings due to changes in accounting policy	₩ -	₩ (444,668,883)
Gain on valuation of financial assets at fair value through other comprehensive income	4,677,247,109	2,657,304,682
Remeasurements of net defined benefit liability (asset)	(1,558,411,380)	(1,176,974,296)
Reclassification from advance payments to property and equipment	910,267,780	-
Reclassification from advance payments to intangible assets	3,483,350,000	836,000,000
Written-off of loans	(11,819,936,610)	(1,127,581,017)
Acquisition of right-of-use assets	4,735,822,825	-

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

<i>(in Korean won)</i>	<b>Lease liabilities</b>
At January 1, 2019	₩ -
Effect of transition <sup>1</sup>	14,541,288,904
Cash flows	(5,695,488,536)
Acquisitions	4,716,644,488
Amortization	296,805,261
At December 31, 2019	₩ 13,859,250,117

<sup>1</sup>The effects of adoption of Korean IFRS 1116

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**28. Related Party Transactions**

Details of related parties are as follows:

Type	2019
Significant influence on the Company	Kakao Corp. Korea Investment Holdings Co., Ltd.
Other related parties	Korea Value Asset Management Co., Ltd. Korea Investment & Securities Co., Ltd Korea Investment Savings Bank Kakaopay Corp. DK techin Corp. Kakaofriends Corp. Kakao Page Corp. Kakao Mobility Corp. KakaO VX Corp. Kakao Commerce Corp.
Other <sup>1</sup>	Hasys Co., Ltd

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

Details of receivables and payables arising from related party transactions as at December 31, 2019 and 2018, are as follows:

(in Korean won)

Type	Name of entity	Receivables / Payables	2019	2018
Significant influence on the Company	Kakao Corp.	Other assets <sup>1</sup>	₩ 73,161,080	₩ -
		Lease liabilities <sup>2</sup>	153,690,535	-
Other related parties	Korea Investment & Securities Co., Ltd	Deposits	217,740,606	-
		Other liabilities	19,373,252	12,540,240
Key management		Deposits	61,370,974	375,045,056
		Other liabilities	344,858	2,174,703
			<u>₩ 525,681,305</u>	<u>₩ 389,759,999</u>

<sup>1</sup> Net carrying amount after deducting present value discount of leasehold deposits

<sup>2</sup> Initially measured right-of-use assets relating to lease transactions amount to ₩ 283,468,911 during 2019.



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Profit and loss arising from transactions with related parties for the periods ended December 31, 2019 and 2018, are as follows:

(in Korean won)

Type	Name of entity	Details	2019	2018
Significant influence on the Company	Kakao Corp.	Interest income	₩ 723,131	₩ -
		Interest expenses	1,693,945	-
		Fee and commission expenses	1,205,753,750	-
		Selling and administrative expenses <sup>1</sup>	1,027,141,167	-
Other related parties	Korea Investment & Securities Co., Ltd	Fee and commission income	5,198,474,000	-
		Fee and commission expenses	22,541,252	15,180,240
	Korea Investment Savings Bank	Fee and commission income	2,470,934,405	-
		Fee and commission income	1,976,155,000	-
	DK techn Corp.	Selling and administrative expenses	793,157,112	-
		Fee and commission expenses	694,150,198	-
	Kakaofriends Corp.	Selling and administrative expenses	34,457,080	-
		Selling and administrative expenses	165,000,000	-
	Kakao Mobility Corp.	Fee and commission expenses	22,000,000	-
		Selling and administrative expenses	41,965,550	-
	Kakao VX Corp.	Selling and administrative expenses	4,815,000	-
		Fee and commission expenses	22,000,000	-
	Kakao Commerce Corp.	Selling and administrative expenses	38,412,200	-
		Selling and administrative expenses	53,140,000	-
Other	Hasys co.,Ltd			
Key management		Interest expenses	6,859,885	6,020,948
			₩ 13,779,373,675	₩ 21,201,188

<sup>1</sup> Lease payments deducted from lease liabilities amounting to ₩ 75,991,765 are excluded.

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## Notes to the Financial Statements

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Significant borrowing transactions with related parties for the periods ended December 31, 2019 and 2018, are as follows:

(in Korean won)			2019				
Type	Name of entity	Details	Beginning	Borrowing	Repayments	Others <sup>1</sup>	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 <sup>2</sup>	₩ 343,101,581	₩ 43,177,705	₩ (32,998,015)	₩ (329,657,000)	₩ 23,624,271
			₩ 343,101,581	₩ 271,166,060	₩ (108,989,780)	₩ (327,963,055)	₩ 177,314,806

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

<sup>2</sup> Transactions from deposits on demand are excluded.

(in Korean won)		2018			
Type	Details	Beginning	Borrowing	Repayments	Ending
Key management	Deposits <sup>1</sup>	₩ 338,110,000	₩ 548,637,581	₩ (543,646,000)	₩ 343,101,581

<sup>1</sup> Transactions from deposits on demand are excluded.

Details of transfers in accordance with financing agreements for the periods ended December 31, 2019 and 2018, are as follows:

(in Korean won)				2019	2018
Type	Name of entity	Details			
Significant influence on the Company	Kakao Corp.	Issuance of shares	₩	90,000,000,000	₩ 154,000,000,000
	Korea Investment Holdings Co., Ltd	Issuance of shares		250,000,000,000	186,000,000,000
			₩	340,000,000,000	₩ 340,000,000,000

Acceptances and guarantees and unused commitments provided to related parties as at December 31, 2019 and 2018, are as follows:

(in Korean won)		2019	2018
Key management	Loan commitment in Korean won	₩ -	₩ 2,000,000

The amounts of debt securities purchased through Korea Investment & Securities Co., Ltd are ₩ 346,501,250,000 and ₩ 199,339,650,000 for the periods ended December 31, 2019 and 2018, respectively, and there is no amount of debt securities sold to Korea Investment & Securities Co., Ltd for the year ended December 31, 2019 and the amount of debt securities sold through Korea

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Investment & Securities Co., Ltd is ₩ 40,117,000,000 for the year ended December 31, 2018.

The compensation to key management for the periods ended December 31, 2019 and 2018, consists of:

<i>(in Korean won)</i>	<b>2019</b>	<b>2018</b>
Salaries and short-term compensation	₩ 1,042,252,308	₩ 1,562,577,841
Post-employment benefits	190,850,000	146,250,000
Share-based payment expenses	541,931,070	-
	<u>₩ 1,775,033,378</u>	<u>₩ 1,708,827,841</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.

## **29. 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 periods ended December 31, 2019 and 2018.

<i>(in Korean won)</i>	<b>2019</b>	<b>2018</b>
Amount required to reserve for credit losses	₩ 53,011,795,840	₩ 42,219,969,729
Adjusted loss after provision of regulatory reserve for credit losses	(39,278,865,454)	(63,174,535,512)

## **30. Changes in Accounting Policies**

### **30.1 Application of Korean IFRS 1116 Leases**

As explained in Note 3, the Company has applied Korean IFRS 1116 *Leases* on January 1, 2019, the date of initial application. In accordance with the transitional provisions in Korean IFRS 1116, comparative figures for prior reporting period have not been restated. The reclassifications and the adjustments arising from the new lease standard are, therefore, recognized in the statement of financial position on January 1, 2019.

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*Recognized adjustments in accordance with the adoption of Korean IFRS 1116 Leases*

On adoption of Korean IFRS 1116, the Company recognized lease liabilities in relation to leases which had previously been classified as 'operating leases' under the principles of Korean IFRS 1017. These liabilities were measured at the present value of the remaining lease payments, discounted using the lessee's incremental borrowing rate as at January 1, 2019. The lessee's weighted average incremental borrowing rate applied to the lease liabilities on January 1, 2019 was 2.28%.

*(in Korean won)*

**2019**

Operating lease commitments disclosed as at December 31, 2018	₩	15,035,345,429
Discounted amount using the lessee's incremental borrowing rate of at the date of initial application		14,541,288,904
Add: finance lease liabilities recognized as at December 31, 2018		-
Less: expense recognized relating to short-term leases on a straight-line basis		-
Less: expense recognized relating to leases of low-value assets on a straight-line basis		-
Less: contracts reassessed as service contracts		-
Add(less): adjustments as a result of a different treatment of extension and termination options		-
Add(less): adjustments relating to changes in the index or rate affecting variable payments		-
<b>Lease liability recognized as at January 1, 2019</b>	<b>₩</b>	<b>14,541,288,904</b>

Right-of use assets were measured at the amount equal to the lease liability, adjusted by the amount of any prepaid or accrued lease payments relating to that lease recognized in the statement of financial position as at December 31, 2018. There were no onerous lease contracts that would have required an adjustment to the right-of-use assets at the date of initial application.

*Amounts recognized in the statement of financial position*

The statement of financial position shows the following amounts relating to leases:

<i>(in Korean won)</i>	<b>Note</b>	<b>December 31, 2019</b>	<b>January 1, 2019</b>
Right-of-use assets <sup>1</sup>			
Buildings	26	₩ 14,153,398,679	₩ 15,519,250,925
Vehicles	26	174,929,170	155,458,708
		<u>₩ 14,328,327,849</u>	<u>₩ 15,674,709,633</u>

<sup>1</sup> Included in 'property and equipment' in the statement of financial position.

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<i>(in Korean won)</i>	<b>Note</b>	<b>December 31, 2019</b>	<b>January 1, 2019</b>
Lease liabilities <sup>1</sup>			
Buildings	26	₩ 13,681,567,123	₩ 14,381,297,474
Vehicles	26	177,682,994	159,991,430
		<u>₩ 13,859,250,117</u>	<u>₩ 14,541,288,904</u>

<sup>1</sup> Included in 'other liabilities' in the statement of financial position.

*Amounts recognized in the statement of comprehensive income*

The statement of comprehensive income shows the following amounts relating to leases:

<i>(in Korean won)</i>	<b>Note</b>	<b>2019</b>	<b>2018</b>
Depreciation of right-of-use assets			
Buildings	26	₩ 6,287,638,423	₩ -
Vehicles	26	67,339,658	-
		<u>₩ 6,354,978,081</u>	<u>₩ -</u>
Interest expense relating to lease liabilities (included in interest expense)	26	₩ 296,805,261	₩ -
Expense relating to short-term leases (included in administrative expenses)	26	8,596,000	-
Expense relating to leases of low-value assets that are not short-term leases (included in administrative expenses)	26	327,525,774	-
Expense relating to variable lease payments not included in lease liabilities (included in administrative expenses)	26	803,696,439	-

The total cash outflow for leases in 2019 was ₩ 7,327,543,742.

The change in accounting policy affected the following items in the statement of financial position on January 1, 2019:

- other property and equipment: decrease by ₩ 1,053,394,830
- right-of-use assets: increase by ₩ 15,674,709,633
- prepaid employee benefits: decrease by ₩ 51,154,325
- prepaid rent: decrease by ₩ 90,359,296
- lease payment payables: decrease by ₩ 61,487,722

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- lease liabilities: increase by ₩ 14,541,288,904

There is no impact on retained earnings on January 1, 2019.

In applying Korean IFRS 1116 for the first time, the Company has used the following practical expedients permitted by the standard:

- reliance on previous assessments on whether leases are onerous as an alternative to performing an impairment review
- the accounting for operating leases with a remaining lease term of less than 12 months as at January 1, 2019, in the same way as short-term leases
- the exclusion of initial direct costs for the measurement of the right-of-use asset at the date of initial application, and
- the use of hindsight in determining the lease term where the contract contains options to extend or terminate the lease

The Company has also elected not to reassess whether a contract is, or contains a lease at the date of initial application. Instead, for contracts entered into before the transition date, the Company relied on its assessment made applying Korean IFRS 1017 and Interpretation 2104 *Determining whether an Arrangement contains a Lease*.

**Report on Independent Auditor's  
Review of Internal Control over Financial Reporting**

(English Translation of a Report Originally Issued in Korean)

To the President of  
KakaoBank of Korea Corp.

We have reviewed the accompanying management's report on the effectiveness of the Internal Control over Financial Reporting ("ICFR") of KakaoBank of Korea Corp. (the "Company") as of December 31, 2019. The Company's management is responsible for designing and operating ICFR and for its assessment of the effectiveness of ICFR. Our responsibility is to review the management's report on the effectiveness of the ICFR and issue a report based on our review. The management's report on the effectiveness of the ICFR of the Company states that "Based on the assessment results, President and ICFR Officer believe that no material weakness has been identified as at December 31, 2019, in all material respects, in conformity with the Best Practice Guideline."

Our review was conducted in accordance with the ICFR review standards established by the Korean Institute of Certified Public Accountants. Those standards require that we plan and perform, in all material respects, the review of management's report on the effectiveness of the ICFR to obtain a lower level of assurance than an audit. A review is to obtain an understanding of a company's ICFR and consists principally of inquiries of management and, when deemed necessary, a limited inspection of underlying documents, which is substantially less in scope than an audit.

A company's ICFR is a system to monitor and operate those policies and procedures designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with International Financial Reporting Standards as adopted by the Republic of Korea. Because of its inherent limitations, ICFR may not prevent or detect a material misstatement of the financial statements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Based on our review, nothing has come to our attention that causes us to believe that management's report on the effectiveness of the ICFR, referred to above, is not presented fairly, in all material respects, in accordance with the Best Practice Guideline.

Our review is based on the Company's ICFR as of December 31, 2019, and we did not review management's assessment of its ICFR subsequent to December 31, 2019. This report has been prepared pursuant to the Acts on External Audit for Stock Companies, etc. in Korea and may not be appropriate for other purposes or for other users.

Samil PricewaterhouseCoopers

February 25, 2020



**Report on the Effectiveness of  
the Internal Control over Financial Reporting**

(English Translation of a Report Originally Issued in Korean)

To the Shareholders, Board of Directors and Auditor (Audit Committee) of  
KakaoBank of Korea Corp.

We, as the President and the Internal Control over Financial Reporting(“ICFR”) Officer of KakaoBank of Korea Corp. (“the Company”), assessed the effectiveness of the design and operation of the Company’s Internal Control over Financial Reporting for the year ended December 31, 2019.

The Company’s management, including ourselves, is responsible for designing and operating ICFR. We assessed the design and operating effectiveness of the ICFR in the prevention and detection of an error or fraud which may cause material misstatements in the preparation and disclosure of reliable financial statements. We followed the ‘Best Practice Guideline’ which is established by the Operating Committee of Internal Control over Financial Reporting in Korea (the “ICFR Committee”) to evaluate the effectiveness of the ICFR design and operation.

Based on the assessment results, we believe that the Company’s ICFR, as at December 31, 2019, is designed and operating effectively, in all material respects, in conformity with the Best Practice Guideline.

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 cause material misunderstandings, and we have reviewed and verified this report with sufficient due care.

January 21, 2020

Lee Yongwoo, Co-President

Yoon Hyeong, Co-President

Yoo Hobeom, Internal Control over Financial Reporting Officer