As filed with the Securities and Exchange Commission on April 29, 2020

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

Form 20-F

(Mark One)

☐ **REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR 12(g) OF THE SECURITIES EXCHANGE ACT OF 1934**

OR

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended December 31, 2019

OR

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from __________ to __________

OR

☐ **SHELL COMPANY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

Date of event requiring this shell company report

Commission File Number: 001-31798

Shinhan Financial Group Co., Ltd.
(Exact name of registrant as specified in its charter)

N/A **(Translation of registrant's name into English)**	**The Republic of Korea** **(Jurisdiction of incorporation or organization)**

20, Sejong-daero 9-gil, Jung-gu
Seoul 04513, Korea
(Address of principal executive offices)

Park Cheolwoo, +822 6360 3129 (T), cheol.park@shinhan.com, +822 6360 3098 (F), 20, Sejong-daero 9-gil, Jung-gu, Seoul 04513, Korea
(Name, Telephone, E-mail and/or Facsimile number and Address of Company Contact Person)

Securities registered or to be registered pursuant to Section 12(b) of the Act:

Title of Each Class:	Trading Symbol(s):	Name of Each Exchange on Which Registered:
Common stock, par value Won 5,000 per share	**SHG**	**New York Stock Exchange***
American depositary shares	**SHG**	**New York Stock Exchange**

* Not for trading, but only in connection with the listing of American depositary shares on the New York Stock Exchange, pursuant to the requirements of the Securities and Exchange Commission.

Securities registered or to be registered pursuant to Section 12(g) of the Act:

None

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act:

None

Indicate the number of outstanding shares of each of Shinhan Financial Group's classes of capital or common stock as of the close of the last full fiscal year covered by this Annual Report: 460,317,525 shares of common stock, par value of Won 5,000 per share.

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act: Yes ☒ No ☐

If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934: Yes ☐ No ☒

Note—Checking the box above will not relieve any registrant required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 from their obligations under those Sections.

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically, if any, every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	☒	Accelerated filer	☐
Non-accelerated filer	☐	Emerging growth company	☐

If an emerging growth company that prepares its financial statements in accordance with U.S. GAAP, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards† provided pursuant to Section 13(a) of the Exchange Act. ☐

† The term "new or revised financial accounting standard" refers to any update issued by the Financial Accounting Standards Board to its Accounting Standards Codification after April 5, 2012.

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. Yes ☒ No ☐

Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing:

U.S. GAAP ☐	International Financial Reporting Standards as issued by the International Accounting Standards Board ☒	Other ☐

If "Other" has been checked in response to the previous question, indicate by check mark which financial statement item the registrant has elected to follow: Item 17 ☐ Item 18 ☐

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act): Yes ☐ No ☒

(APPLICABLE ONLY TO ISSUERS INVOLVED IN BANKRUPTCY PROCEEDINGS DURING THE PAST FIVE YEARS)

Indicate by check mark whether the registrant has filed all documents and reports required to be filed by Section 12, 13 or 15(d) of the Securities Exchange Act of 1934 subsequent to the distribution of securities under a plan confirmed by a court: Yes ☐ No ☐

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CERTAIN DEFINED TERMS, CONVENTIONS AND CURRENCY OF PRESENTATION

Unless otherwise specified or the context otherwise requires:

- the terms "we," "us," "our," "Shinhan Financial Group," "SFG" and the "Group" mean Shinhan Financial Group Co., Ltd. and its consolidated subsidiaries;
- the terms "Shinhan Financial Group Co., Ltd.," "our company" and "our holding company" mean Shinhan Financial Group Co., Ltd.; and
- "Shinhan Card" refers to Shinhan Card Co., Ltd., "Shinhan Life Insurance" refers to Shinhan Life Insurance Co., Ltd., "Shinhan Investment" refers to Shinhan Investment Corp. and "Orange Life Insurance" refers to Orange Life Insurance, Ltd.

All references to "Korea" or the "Republic" contained in this annual report are to the Republic of Korea. All references to the "Government" are to the government of the Republic of Korea. References to the "Financial Services Commission" are to the Financial Services Commission of Korea, and references to the "Financial Supervisory Service" are to the Financial Supervisory Service of Korea, the executive body of the Financial Services Commission.

The fiscal year for us and our subsidiaries ends on December 31 of each year. Unless otherwise specified or the context otherwise requires, all references to a particular year are to the year ended December 31 of that year.

The currency of the primary economic environment in which we operate is Korean Won.

In this annual report, unless otherwise indicated, all references to "Korean Won", "Won" or " ₩ " are to the currency of the Republic of Korea, and all references to "U.S. Dollars," "Dollars," "$" or "US$" are to the currency of the United States of America. Unless otherwise indicated, all translations from Won to Dollars were made at ₩1,155.5 to US$1.00, which was the noon buying rate in the City of New York on December 31, 2019 for cable transfers according to the H.10 statistical release of the Federal Reserve Board (the "Noon Buying Rate"). On April 17, 2020, the Noon Buying Rate was ₩1,217.8 to US$1.00. The Noon Buying Rate has been volatile recently and the U.S. Dollar amounts referred to in this report should not be relied upon as an accurate reflection of our results of operations. We expect this volatility to continue in the near future. No representation is made that the Won or U.S. Dollar amounts referred to in this report could have been or could be converted into Dollars or Won, as the case may be, at any particular rate or at all.

Unless otherwise indicated, the financial information presented in this annual report has been prepared on a consolidated basis in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB").

Any discrepancies in the tables included herein between totals and sums of the amounts listed are due to rounding.

FORWARD LOOKING STATEMENTS

This annual report includes "forward-looking statements," as defined in Section 27A of the U.S. Securities Act, as amended, and Section 21E of the U.S. Securities Exchange Act of 1934, as amended (the "Exchange Act"), including statements regarding our expectations and projections for future operating performance and business prospects. The words "believe," "expect," "anticipate," "estimate," "project" and similar words used in connection with any discussion of our future operating or financial performance identify forward-looking statements. In addition, all statements other than statements of historical facts included in this annual report are forward-looking statements.

Although we believe that the expectations reflected in the forward-looking statements are reasonable, we can give no assurance that such expectations will prove to be correct. All forward-looking statements are management's present expectations of future events and are subject to a number of factors and uncertainties that could cause actual results to differ materially from those described in the forward-looking statements. This annual report discloses, under the caption "Item 3.D. Risk Factors" and elsewhere, important factors that could cause actual results to differ materially from our expectations ("Cautionary Statements"). Included among the factors discussed under the caption "Item 3.D. Risk Factors" are the followings risks related to our business, which could cause actual results to differ materially from those described in the forward-looking statements: the risk of adverse impacts from an economic downturn; increased competition; market volatility in securities and derivatives markets, interest or foreign exchange rates or indices; other factors impacting our operational plans; or legislative and/or regulatory developments. We caution you not to place undue reliance on the forward-looking statements, which speak only as of the date of this annual report. All subsequent written and oral forward-looking statements attributable to us or persons acting on our behalf are expressly qualified in their entirety by the Cautionary Statements.

ITEM 1. *IDENTITY OF DIRECTORS, SENIOR MANAGEMENT AND ADVISERS*

Not applicable.

ITEM 2. *OFFER STATISTICS AND EXPECTED TIMETABLE*

Not applicable.

ITEM 3. *KEY INFORMATION*

ITEM 3.A. Selected Financial Data

The selected consolidated income statement and balance sheet data set forth below for the years ended December 31, 2015, 2016, 2017, 2018 and 2019 have been derived from our consolidated financial statements which have been prepared in accordance with IFRS as issued by the IASB. Our consolidated financial statements as of and for the years ended December 31, 2015, 2016, 2017, 2018 and 2019 have been audited by independent registered public accounting firm KPMG Samjong Accounting Corp.

Beginning on January 1, 2019, we have adopted IFRS 16, 'Leases'. On January 1, 2019, the date of initial application, right-of-use assets were measured by taking an amount equal to the lease liability and adjusting by the amount of prepaid or unpaid lease payments in relation to leases recognized in the consolidated statement of financial position, and therefore we did not recognize any cumulative effect of initial application. As restatement of prior periods is not required, comparative financial information for prior periods, which have been prepared applying IAS 17, have not been restated. Accordingly, certain of our historical financial information as of and for the years ended December 31, 2017 and 2018 is not directly comparable against that of our financial information after January 1, 2019. For further information regarding the adoption of IFRS 16, see "Item 5.A. Operating Results — Critical Accounting Policies — Recently Adopted Standards and Interpretations — IFRS 16, 'Leases.'" Beginning on January 1, 2018, we have adopted IFRS 9, 'Financial Instruments', and IFRS 15, 'Revenue from Contracts with Customers'. In accordance with the guidance in IFRS 9 and IFRS 15, an entity that adopts the classification and measurement requirements of these standards need not restate prior periods. As the restatement of prior periods is not required, certain of our historical financial information as of and for the years ended December 31, 2016 and 2017 is not directly comparable against that of our financial information after January 1, 2018. For further information regarding the adoption of IFRS 9 and IFRS 15, see "Item 5.A. Operating Results — Critical Accounting Policies." For further details regarding these changes and the transition effects of the adoption of these new standards, see Note 51 of the notes to our consolidated financial statements included in this annual report.

You should read the following data with the more detailed information contained in "Item 5. Operating and Financial Review and Prospects" and our consolidated financial statements included in "Item 18. Financial Statements." Historical results are not necessarily indicative of future results.

Consolidated Income Statement Data

	Year Ended December 31,					
	2015	2016	2017	2018	2019	2019[(1)]
	(In billions of Won and millions of US$, except per common share data)					
Interest income	₩11,130	₩11,236	₩11,799	₩13,572	₩15,707	$13,594
Interest expense	(4,437)	(4,031)	(3,956)	(4,992)	(5,969)	(5,166)
Net interest income	**6,693**	**7,205**	**7,843**	**8,580**	**9,738**	**8,428**
Fees and commission income	3,897	3,804	4,045	3,295	3,557	3,078
Fees and commission expense	(2,276)	(2,238)	(2,334)	(1,356)	(1,416)	(1,226)
Net fees and commission income	**1,621**	**1,566**	**1,711**	**1,939**	**2,141**	**1,852**
Net insurance loss	(432)	(419)	(460)	(472)	(497)	(430)
Dividend income	308	282	257	88	82	71
Net gain on financial instruments at fair value through profit or loss	—	—	—	420	1,385	1,199
Net gain (loss) on financial instruments at fair value through profit or loss (overlay approach)	—	—	—	75	(247)	(214)
Net trading income (loss)	(344)	370	963	—	—	—
Net loss on financial instruments designated at fair value through profit or loss (IFRS 9)	—	—	—	(27)	(846)	(732)
Net gain (loss) on financial instruments designated at fair value through profit or loss (IAS 39)	460	(502)	(1,060)	—	—	—
Net foreign currency transaction gain	78	462	364	194	441	382
Net gain on disposal of financial asset at fair value through other comprehensive income	—	—	—	21	152	132
Net gain on disposal of available-for-sale financial assets	772	648	499	—	—	—
Provision for credit loss allowance	—	—	—	(748)	(981)	(849)
Impairment loss on financial assets	(1,264)	(1,196)	(1,014)	—	—	—
General and administrative expense	(4,475)	(4,509)	(4,811)	(4,742)	(5,135)	(4,444)
Net other operating expenses	(444)	(798)	(462)	(829)	(1,187)	(1,028)
Operating income	**2,973**	**3,109**	**3,830**	**4,499**	**5,046**	**4,367**
Equity method income	21	10	20	17	53	46
Other non-operating income (expense), net	147	52	(53)	(50)	(188)	(163)
Profit before income taxes	**3,141**	**3,171**	**3,797**	**4,466**	**4,911**	**4,250**
Income tax expense	(695)	(346)	(848)	(1,268)	(1,269)	(1,098)
Profit for the year	**₩ 2,446**	**₩ 2,825**	**₩ 2,949**	**₩ 3,198**	**₩ 3,642**	**$ 3,152**
Other comprehensive income (loss) for the year, net of income tax						
Items that are or may be reclassified to profit or loss:						
Gain on financial asset at fair value through other comprehensive income	₩ —	₩ —	₩ —	₩ 161	₩ 352	$ 305
Gain (loss) on financial instruments at fair value through profit or loss (overlay approach)	—	—	—	(54)	163	141
Loss on available-for-sale financial assets	(266)	(434)	(323)	—	—	—
Equity in other comprehensive income (loss) of associates	12	3	(23)	7	3	3
Foreign currency translation adjustments for foreign operations	(6)	12	(194)	20	106	92

	Year Ended December 31,					
	2015	2016	2017	2018	2019	2019[1]
	(In billions of Won and millions of US$, except per common share data)					
Net change in unrealized fair value of cash flow hedges	3	(1)	16	(20)	(19)	(16)
Other comprehensive income (loss) of separate account	2	(4)	(9)	9	11	8
	(255)	(424)	(533)	123	616	533
Items that will never be reclassified to profit or loss:						
Remeasurements of the defined benefit liability	(82)	15	103	(93)	(55)	(47)
Equity in other comprehensive income of associates	—	—	1	—	—	—
Valuation gain on financial asset at fair value through other comprehensive income	—	—	—	23	19	16
Loss on disposal of financial asset at fair value through other comprehensive income	—	—	—	(3)	(6)	(5)
Changes in own credit risk on financial liabilities designated at fair value through profit of loss	—	—	—	2	(8)	(7)
	(82)	15	104	(71)	(50)	(43)
Total other comprehensive income (loss), net of income tax	(337)	(409)	(429)	52	566	490
Total comprehensive income for the year	**₩ 2,109**	**₩ 2,416**	**₩ 2,520**	**₩ 3,250**	**₩ 4,208**	**$ 3,642**
Profit for the year attributable to:						
Equity holders of the Group	₩ 2,367	₩ 2,775	₩ 2,919	₩ 3,156	₩ 3,403	$ 2,945
Non-controlling interest	79	50	30	42	239	207
Total comprehensive income attributable to:						
Equity holders of the Group	2,034	2,367	2,491	3,208	3,891	3,367
Non-controlling interest	75	49	29	42	317	275
Earnings per share:						
Basic earnings per share in Won and US$[2]	4,789	5,736	6,118	6,579	7,000	6.06
Dilutive earnings per share in Won and US$[3]	4,789	5,736	6,118	6,579	7,000	6.06

Notes:

(1) Won amounts are expressed in U.S. Dollar at the rate of ₩1,155.5 to US$1.00, the Noon Buying Rate in effect on December 31, 2019 for the convenience of readers. No representation is made that the Won or U.S. Dollar amounts referred to above could have been or could be converted into U.S. Dollars or Won, as the case may be, at any particular rate or at all.

(2) Basic earnings per share are calculated by dividing profit for the year available to holders of our common shares by the weighted average number of common shares issued and outstanding for the relevant period.

(3) Dilutive earnings per share are calculated in a manner consistent with basic earnings per share, while giving effect to the potential dilution that could occur if convertible securities, options or other contracts to issue common shares were converted into or exercised for common shares. Common shares issuable upon conversion of redeemable convertible preferred shares are potentially dilutive.

Consolidated Balance Sheet Data

	As of December 31,					
	2015	2016	2017	2018	2019	2019(1)
	(In billions of Won and millions of US$, except per common share data)					
Assets						
Cash and due from banks at amortized cost	₩ —	₩ —	₩ —	₩ 17,349	₩ 28,424	$ 24,599
Cash and due from banks	22,024	19,181	22,669	—	—	—
Financial assets at fair value through profit or loss	—	—	—	43,535	53,163	46,009
Trading assets	22,638	26,696	28,464	—	—	—
Financial assets designated at fair value through profit or loss (IAS 39)	3,244	3,416	3,579	—	—	—
Derivative assets	1,995	3,003	3,400	1,794	2,829	2,449
Securities at fair value through other comprehensive income	—	—	—	38,314	59,381	51,390
Available-for-sale financial assets	33,966	37,663	42,117	—	—	—
Securities at amortized cost	—	—	—	28,478	45,582	39,448
Held-to-maturity financial assets	16,192	19,805	24,991	—	—	—
Loans at amortized cost	—	—	—	299,609	323,245	279,745
Loans	246,441	259,011	275,566	—	—	—
Property and equipment	3,055	3,146	3,022	3,004	4,083	3,534
Intangible assets	4,266	4,227	4,273	4,320	5,559	4,811
Investments in associates	393	354	631	671	1,453	1,257
Current tax receivable	10	13	25	45	88	77
Deferred tax assets	164	641	592	427	218	189
Investment property	209	353	418	475	489	423
Asset for defined benefit obligations	—	—	—	—	2	1
Other assets	15,947	18,167	16,552	21,572	27,879	24,124
Assets held for sale	4	4	8	8	25	22
Total assets	**₩370,548**	**₩395,680**	**₩426,307**	**₩459,601**	**₩552,420**	**$478,078**
Liabilities						
Deposits	₩217,676	₩235,138	₩249,419	₩265,000	₩294,874	$255,192
Financial liabilities at fair value through profit or loss	—	—	—	1,420	1,632	1,413
Trading liabilities	2,135	1,977	1,848	—	—	—
Financial liabilities designated at fair value through profit or loss (IFRS 9)	—	—	—	8,536	9,409	8,143
Financial liabilities designated at fair value through profit or loss (IAS 39)	8,916	9,234	8,298	—	—	—
Derivative liabilities	2,599	3,528	3,488	2,440	2,303	1,993
Borrowings	21,734	25,294	27,587	29,819	34,863	30,171
Debt securities issued	41,221	44,327	51,341	63,228	75,363	65,221
Liability for defined benefit obligations	226	131	7	127	121	105
Provisions	699	729	429	508	557	482

	As of December 31,					
	2015	2016	2017	2018	2019	2019(1)
	(In billions of Won and millions of US$, except per common share data)					
Current tax payable	142	273	349	430	513	444
Deferred tax liabilities	16	11	10	22	452	391
Liabilities under insurance contracts	20,058	22,377	24,515	26,219	52,164	45,144
Other liabilities	23,313	20,916	25,312	25,200	38,238	33,092
Total liabilities	**₩338,735**	**₩363,935**	**₩392,603**	**₩422,949**	**₩510,489**	**$441,791**
Equity						
Capital stock	₩ 2,645	₩ 2,645	₩ 2,645	₩ 2,645	₩ 2,732	$ 2,365
Hybrid bonds	737	498	424	1,532	1,731	1,498
Capital surplus	9,887	9,887	9,887	9,896	10,565	9,144
Capital adjustments	(424)	(458)	(398)	(553)	(1,117)	(966)
Accumulated other comprehensive income(loss)	305	(102)	(530)	(753)	(258)	(225)
Retained earnings	17,690	18,640	20,792	22,959	25,526	22,090
Total equity attributable to equity holders of the Group	30,840	31,110	32,820	35,726	39,179	33,906
Non-controlling interests	973	635	884	926	2,752	2,381
Total equity	**₩ 31,813**	**₩ 31,745**	**₩ 33,704**	**₩ 36,652**	**₩ 41,931**	**$ 36,287**
Total liabilities and equity	**₩370,548**	**₩395,680**	**₩426,307**	**₩459,601**	**₩552,420**	**$478,078**

Note:

(1) Won amounts are expressed in U.S. Dollar at the rate of ₩1,155.5 to US$1.00, the Noon Buying Rate in effect on December 31, 2019 for the convenience of readers. No representation is made that the Won or U.S. Dollar amounts referred to above could have been or could be converted into U.S. Dollars or Won, as the case may be, at any particular rate or at all.

Dividends

	Year Ended December 31,				
	2015	2016	2017	2018	2019
	(In Won and US$)				
Cash dividends per share of common stock:					
In Korean Won	₩1,200	₩1,450	₩1,450	₩1,600	₩1,850
In U.S. Dollars(1)	$ 1.03	$ 1.20	$ 1.36	$ 1.44	$ 1.60
Cash dividends per share of preferred stock:					
In Korean Won	₩5,580	₩ N/A	₩ N/A	₩ N/A	₩1,850
In U.S. Dollars(1)	$ 4.77	$ N/A	$ N/A	$ N/A	$ 1.60

N/A = not available

Note:

(1) Won amounts for 2015, 2016, 2017, 2018 and 2019 are expressed in U.S. Dollar at the rate of ₩1,169.3, ₩1,203.7, ₩1,067.4, ₩1,112.9 and ₩1,155.5, respectively, to US$1.00, the Noon Buying Rate in effect on December 31, 2015, 2016, 2017, 2018 and 2019, respectively, for the convenience of readers. No representation is made that the Won or U.S. Dollar amounts referred to above could have been or could be converted into U.S. Dollars or Won, as the case may be, at any particular rate or at all.

Selected Statistical Information

Profitability Ratios and Other Data

	Year Ended December 31,				
	2015	2016	2017	2018	2019
	(Percentages)				
Net income attributable to the Group as a percentage of:					
Average total assets[(1)]	0.69%	0.73%	0.72%	0.72%	0.69%
Average total Group stockholders' equity[(1)]	7.87	8.97	8.94	9.23	9.02
Dividend payout ratio[(2)]	27.21	25.62	23.92	24.81	25.97
Net interest spread[(3)]	1.78	1.83	1.94	1.91	1.77
Net interest margin[(4)]	2.08	2.06	2.13	2.14	2.07
Efficiency ratio[(5)]	88.15	88.73	89.04	85.36	87.11
Cost-to-income ratio[(6)]	52.74	51.34	52.39	47.51	46.13
Cost-to-average assets ratio[(1)(7)]	6.56	6.45	7.48	5.84	6.30
Equity to average asset ratio[(1)(8)]	8.72	8.14	8.00	7.77	7.66

Notes:

(1) Average total assets (including average interest-earning assets), liabilities (including average interest-bearing liabilities) and stockholder's equity are based on (a) daily balances for Shinhan Bank and (b) quarterly balances for other subsidiaries.

(2) Represents the ratio of total dividends declared on common and preferred stock and hybrid bonds as a percentage of net income attributable to the Group.

(3) Represents the difference between the yield on average interest-earning assets and the cost of average interest-bearing liabilities.

(4) Represents the ratio of net interest income to average interest-earning assets.

(5) Represents the ratio of non-interest expense to the sum of net interest income and non-interest income. Efficiency ratio is used as a measure of efficiency for banks and financial institutions. Efficiency ratio may be reconciled to comparable line items in our income statements for the periods indicated as follows:

	Year Ended December 31,				
	2015	2016	2017	2018	2019
	(In billions of Won, except percentages)				
Non-interest expense (A)	₩23,368	₩24,957	₩30,831	₩26,042	₩33,203
Divided by					
The sum of net interest income and non-interest income (B)	26,509	28,127	34,627	30,508	38,114
Net interest income	6,693	7,205	7,843	8,580	9,738
Non-interest income	19,816	20,922	26,784	21,928	28,376
Efficiency ratio ((A) as a percentage of (B))	88.15%	88.73%	89.04%	85.36%	87.11%

(6) Represents the ratio of general and administrative expenses to the sum of net interest income, net fee and commission income, net gain on financial assets and liabilities at fair value through profit or loss and net other operating income.

(7) Represents the ratio of non-interest expense to average total assets.

(8) Represents the ratio of average stockholders' equity to average total assets.

Asset Quality Ratios

	As of December 31,				
	2015	2016	2017	2018	2019
	(In billions of Won, except percentages)				
Total gross loans	₩248,429	₩261,004	₩277,489	₩303,070	₩327,578
Total allowance for credit losses on loans	₩ 2,318	₩ 2,361	₩ 2,311	₩ 2,725	₩ 2,685
Allowance for credit losses on loans as a percentage of total loans	0.93%	0.90%	0.83%	0.90%	0.82%
Impaired loans[1]	₩ 1,902	₩ 1,804	₩ 1,793	₩ 1,697	₩ 1,878
Impaired loans as a percentage of total loans	0.77%	0.69%	0.65%	0.56%	0.57%
Allowance as a percentage of impaired loans	121.87%	130.88%	128.89%	160.58%	142.97%
Total non-performing loans[2]	₩ 1,333	₩ 1,174	₩ 1,075	₩ 1,090	₩ 1,325
Non-performing loans as a percentage of total loans	0.54%	0.45%	0.39%	0.36%	0.40%
Allowance as a percentage of total assets	0.63%	0.60%	0.54%	0.59%	0.49%

Notes:

(1) Impaired loans include (i) loans for which the borrower has defaulted under Basel standards applicable during the relevant period and (ii) loans that qualify as "troubled debt restructurings" applicable during the relevant period.

(2) Non-performing loans are defined as loans, whether corporate or retail, that are past due more than 90 days.

Capital Ratios

	As of December 31,				
	2015	2016	2017	2018	2019
	(Percentages)				
Group BIS ratio[1]	13.39%	15.00%	14.78%	14.87%	13.90%
Total capital adequacy ratio of Shinhan Bank	14.75	15.70	15.59	16.03	15.91
Adjusted equity capital ratio of Shinhan Card[2]	28.88	26.23	24.52	21.69	20.08
Solvency ratio for Shinhan Life Insurance[3]	204.19	178.28	175.41	238.67	227.86
Solvency ratio for Orange Life Insurance[3]	324.88	319.20	455.32	425.03	393.91

Notes:

(1) Under the guidelines of the Financial Services Commission applicable to financial holding companies, the minimum requisite capital ratio applicable to us is the Bank for International Settlement ("BIS") ratio of 8%. This computation is based on our consolidated financial statements in accordance with IFRS. See "Item 4.B. Business Overview — Supervision and Regulation — Principal Regulations Applicable to Financial Holding Companies — Capital Adequacy."

(2) Represents the ratio of total adjusted shareholders' equity to total adjusted assets and is computed in accordance with the guidelines issued by the Financial Services Commission for credit card companies. Under these guidelines, a credit card company is required to maintain a minimum adjusted equity capital ratio of 8%. This computation is based on the consolidated financial statements of the credit card company prepared in accordance with IFRS. See "Item 4.B. Business Overview — Supervision and Regulation — Principal Regulations Applicable to Credit Card Companies — Capital Adequacy."

(3) Solvency ratio is the ratio of the solvency margin to the standard amount of solvency margin as defined and computed in accordance with the guidelines issued by the Financial Services Commission for life insurance companies. Under these guidelines, Shinhan Life Insurance and Orange Life Insurance are required to maintain a minimum solvency ratio of 100%. See "Item 4.B. Business Overview — Supervision and Regulation — Principal Regulations Applicable to Insurance Companies — Capital Adequacy."

The Financial Services Commission regulations require that capital ratios be computed based on our consolidated financial statements under IFRS and regulatory guidelines. The following table sets forth our capital ratios computed on the basis of our consolidated financial statements under IFRS and the regulatory guidelines of the Financial Services Commission.

	As of December 31,		
	2017	2018	2019
	(In millions of Won, except percentages)		
Risk-weighted assets	₩207,768,636	₩228,678,105	₩256,891,664
Total risk-adjusted capital	₩ 30,713,464	₩ 33,993,061	₩ 35,714,570
Tier I capital	₩ 27,672,891	₩ 30,677,876	₩ 31,699,830
Tier I common equity capital	₩ 26,756,509	₩ 28,696,267	₩ 28,561,567
Capital adequacy ratio (%)	14.78%	14.87%	13.90%
Tier I capital adequacy ratio (%)	13.32%	13.42%	12.34%
Common equity capital adequacy ratio (%)	12.88%	12.55%	11.12%

Exchange Rates

The following table sets forth, for the periods and dates indicated, certain information concerning the Noon Buying Rate in Won per US$1.00.

Year Ended December 31,	At End of Period	Average[(1)]	High	Low
		(Won per US$1.00)		
2015	1,169.3	1,133.7	1,196.4	1,063.0
2016	1,203.7	1,160.5	1,242.6	1,090.3
2017	1,067.4	1,141.6	1,207.2	1,067.4
2018	1,112.9	1,099.3	1,141.7	1,054.6
2019	1,155.5	1,165.8	1,220.7	1,111.8
October	1,169.1	1,183.4	1,205.5	1,163.0
November	1,181.3	1,167.3	1,181.3	1,154.4
December	1,155.5	1,174.7	1,194.5	1,155.5
2020 (through April 17)	1,217.8	1,198.9	1,267.3	1,156.3
January	1,191.3	1,167.5	1,191.9	1,156.3
February	1,214.9	1,195.3	1,218.5	1,179.0
March	1,218.9	1,218.2	1,267.3	1,181.1
April (through April 17)	1,217.8	1,222.5	1,230.6	1,211.7

Source: Federal Reserve Board
Note:

(1) The average rate for annual and interim periods were calculated by taking the simple average of the Noon Buying Rates on the last day of each month during the relevant period. The average rates for the monthly periods (or portion thereof) were calculated by taking the simple average of the daily Noon Buying Rates during the relevant month (or portion thereof).

We have translated certain amounts in Korean Won, which appear in this annual report, into U.S. Dollars for convenience. This does not mean that the Won amounts referred to could have been, or could be, converted into U.S. Dollars at any particular rate, the rates stated above, or at all. Unless otherwise stated, translations of Won amounts to U.S. Dollars are based on the Noon Buying Rate in effect on December 31, 2019, which was ₩1,155.5 to US$1.00. On April 17, 2020, the Noon Buying Rate in effect was ₩1,217.8 to US$1.00.

ITEM 3.B. Capitalization and Indebtedness

Not applicable.

ITEM 3.C. Reasons for the Offer and Use of Proceeds

Not applicable.

ITEM 3.D. Risk Factors

An investment in the American depositary shares representing our common shares involves a number of risks. You should carefully consider the following information about the risks we face, together with the other information contained in this annual report, in evaluating us and our business.

Risks Relating to Our Overall Business

Difficult conditions and turbulence in the Korean and global economy and financial markets may adversely affect our business, asset quality, capital adequacy and earnings.

Most of our assets are located in, and we generate most of our income from, Korea. Accordingly, our business and profitability are largely dependent on the general economic and social conditions in Korea, including interest rates, inflation, exports, personal expenditures and consumption, unemployment, demand for business products and services, debt service burden of households and businesses, the general availability of credit, the asset value of real estate and securities and other factors affecting the financial well-being of our corporate and retail customers.

The Korean economy is closely integrated with, and is significantly affected by, developments in the global economy. In light of the ongoing general uncertainty about economic and political conditions in Europe (particularly amidst Brexit), signs of cooling economy for China, the continuing geopolitical and social instability in various parts of the Middle East, including Iraq, Syria and Yemen, as well as in the former republics of the Soviet Union, including Russia and Ukraine, potential escalation of ongoing trade wars between major economies including the U.S. and China and the recent coronavirus (COVID-19) outbreak, among others, significant uncertainty remains as to the global economic prospects in general and has adversely affected, and may continue to adversely affect, the Korean economy. In addition, as the Korean economy matures, it is increasingly exposed to the risk of a "scissor effect," namely being pursued by competitors in less advanced economies while not having fully caught up with competitors in advanced economies, which risk is amplified by the fact that Korean economy is heavily dependent on exports. The Korean economy also continues to face other difficulties, including sluggishness in domestic consumption and investment, volatility in the real estate market, rising household debt, potential declines in productivity due to aging demographics and low birth rates, and a rise in youth unemployment. Any future deterioration of the global and Korean economies could adversely affect our business, financial condition and results of operations.

In particular, difficulties in financial and economic conditions could result in significant deterioration in the quality of our assets and accumulation of higher provisioning, allowance for credit losses on loans and charge-offs as an increasing number of our corporate and retail customers declare bankruptcy or insolvency or otherwise face increasing difficulties in meeting their debt obligations. For example, in 2011 and 2012, the continuing slump in the real estate market and the shipbuilding industry led to increased delinquency among our corporate borrowers, including some Korean commercial conglomerates knowns as "*chaebol*s," in such industries, and in certain cases, even insolvency, workouts, recovery proceedings and/or voluntary arrangements with creditors. During the same period, the sustained slump in the real estate market also led to increased delinquency among our retail borrowers, and in particular, borrowers with collective loans for pre-sale of newly constructed apartment units. Accordingly, Shinhan Bank's delinquency ratio (based on delinquency of one or more months past due and after charge-offs and loan sales) increased from 0.48% as of December 31, 2010 to 0.60% as of December 31, 2011 and 0.61% as of December 31, 2012. However, primarily due to a modest rebound in the housing market and Shinhan Bank's active efforts to reduce its exposure to such troubled industries and other at-risk borrowers through preemptive risk management policies and increased lending to borrowers with high-quality credit profiles as part of Shinhan Bank's strategic initiative to improve its asset quality, Shinhan Bank's delinquency ratio has steadily decreased or remained stable since then, to 0.39% as of December 31, 2013, 0.31% as of December 31, 2014, 0.33% as of December 31, 2015, 0.28% as of December 31, 2016, 0.23% as of December 31, 2017, 0.25% as of December 31, 2018 and 0.26% as of December 31, 2019. Shinhan Bank's delinquency ratio has remained stable during the past few years mainly due to Shinhan Bank's efforts to increase asset quality for both its retail and corporate loans and reduce exposures in certain industries such as IT, manufacturing and construction. There is no assurance, however, that Shinhan Bank will not experience further credit losses on loans from borrowers, particularly those in troubled industries, since the quality of loans to such borrowers may further deteriorate due to a continued slump in volatile industries amid sluggish economic situation or for other reasons. In addition, the recent coronavirus (COVID-19) outbreak is expected to have a direct impact on global and domestic consumption, most notably in the transportation, tourism, retail, lodging, catering, industrial production and construction industries, and particularly small- and medium-sized enterprises and retail customers may face significant difficulties in making timely interest and principal payments, which may lead to an increase in delinquency and adversely affect Shinhan Bank's asset quality.

Moreover, as was the case during the global financial crisis of 2008-2009, depending on the nature of the difficulties in the financial markets and general economy, we may be forced to scale back certain of our core lending activities and other operations and/or borrow money at a higher funding cost or face a tightening in the net interest spread, any of which may have a negative impact on our earnings and profitability. Furthermore, while we and our principal subsidiaries currently maintain a capital adequacy ratio at a level higher than the required regulatory minimum, there is no guarantee that an even higher capital requirement will not be imposed by the Government in case of a renewed economic crisis.

In addition, given the highly integrated nature of financial systems and economic relationships worldwide, there may be other unanticipated systemic or other risks that may not be presently predictable. Any of these risks, if materialized, may have a material adverse effect on our business, liquidity, financial condition and results of operations.

Competition in the Korean financial services industry is intense, and may further intensify.

Competition in the Korean financial services industry is, and is likely to remain, intense, including as a result of the sustained low interest rate environment (which narrows opportunities to make profit based on the spread between lending rates and funding rates), the continuing sluggishness in the general economy, the growing maturation and saturation of the industry as a whole, the entry of new market participants and deregulation, among others.

In the banking sector, Shinhan Bank competes principally with other national commercial banks in Korea, but also faces competition from a number of additional banking institutions, including branches and subsidiaries of foreign banks operating in Korea, regional banks, Internet-only banks, government-owned development banks and Korea's specialized banks, such as Korea Development Bank, Industrial Bank of Korea and the National Federation of Fisheries Cooperatives, as well as various other types of financial service providers, including savings institutions (such as mutual savings and finance companies, credit unions and credit cooperatives), investment companies (such as securities brokerage firms, merchant banking corporations and asset management companies) and life insurance companies. As of December 31, 2019, Korea had six major nationwide domestic commercial banks (including Citibank Korea Inc. and Standard Chartered Bank Korea Limited, both of which are domestic commercial banks acquired by global financial institutions), six regional commercial banks, two Internet-only banks and branches and subsidiaries of 36 foreign banks. Foreign financial institutions, many of which have greater experiences and resources than we do, may continue to enter the Korean market and compete with us in providing financial products and services either by themselves or in partnership with existing Korean financial institutions.

In the small- and medium-sized enterprise and retail banking segments, which have been Shinhan Bank's traditional core businesses, competition is expected to increase further. In recent years, Korean banks, including

Shinhan Bank, have increasingly focused on stable asset growth based on quality credit, such as corporate borrowers with high credit ratings, loans to "small office, home office" ("SOHO") with high levels of collateralization, and mortgage and home equity loans within the limits of the prescribed loan-to-value ratios and debt-to-income ratios. This common shift in focus toward stable growth based on less risky assets has intensified competition as banks compete for the same limited pool of quality credit by engaging in price competition or by other means although Shinhan Bank has traditionally focused, and will continue to focus, on enhancing profitability rather than increasing asset size or market share, and has avoided, to the extent practicable, engaging in price competition by way of lowering lending rates. In addition, such competition may result in lower net interest margin and reduced overall profitability, especially if the low interest rate environment were to continue for a significant period of time. Shinhan Bank's net interest margin (on a separate basis) declined slightly to 1.54% in 2019 from 1.62% in 2018 due to, at least partly, decreases in base interest rate by the Bank of Korea from 1.75% to 1.50% in July 2019 and from 1.50% to 1.25% in October 2019 and may decline further as the Bank of Korea has reduced the base interest rate from 1.25% to 0.75% in March 2020 and if the base interest rate is decreased again during 2020. Even if interest rates were to increase, the effect on Shinhan Bank's results of operations may not be as beneficial as expected, or at all, due to factors such as increased volatility of market interest rates and tighter regulations regarding SOHO loans, including the implementation of additional credit review guidelines for individual businesses. Further, if competing financial institutions seek to expand market share by lowering their lending rates, Shinhan Bank may suffer customer loss, especially among customers who select their lenders principally on the basis of lending rates. In response thereto or for other strategic reasons, Shinhan Bank may subsequently lower its lending rates to stay competitive, which could lead to a further decrease in its net interest margins and outweigh any potential positive impact on the net interest margin from a general rise in market interest rates. Any future decline in Shinhan Bank's customer base or its net interest margins could have an adverse effect on our results of operations and financial condition.

In the credit card sector, Shinhan Card competes principally with existing "monoline" credit card companies, credit card divisions of commercial banks, consumer finance companies, other financial institutions and, recently, credit card service providers allied with mobile telecommunications service providers in Korea. Competition has been historically intense in this sector and the market has shown signs of saturation as existing and new credit card service providers make significant investments and engage in aggressive marketing campaigns and promotions to acquire new customers and target customers with high credit quality. While competition has subsided somewhat recently due to stricter government regulations, such as curbs on excessive marketing expenses, competition remains intense and credit card issuers may continue to compete with Shinhan Card for customers by offering lower interest rates and fees, higher credit limits, more attractive promotions and incentives and alternative products such as credit card reward points, gift cards and low-interest consumer loan products. As a result, Shinhan Card may lose customers or service opportunities to competing credit card issuers and/or incur higher marketing expenses. Also, over the years, the Government has implemented regulations lowering certain merchant fees chargeable by credit card companies. In 2012, the Government adopted regulations mandating lower merchant fees chargeable to small- and medium-sized enterprises, and beginning January 31, 2016, a further reduction in the merchant fees chargeable to small- and medium-sized enterprises went into effect. The Enforcement Decree of the Specialized Credit Finance Business Act was amended in July 2017 and January 2019 to further expand the range of small- and medium-sized enterprises subject to lower merchant fees, and additional amendments to regulations requiring further downward adjustments to merchant fees may come into force in the future. For further details on the Government's regulations on merchant fees chargeable by credit card companies, See "— Risks Relating to Our Credit Card Business — Future changes in market conditions as well as other factors, such as stricter regulation, may lead to reduced revenues and deterioration in the asset quality of credit card receivables." In addition, since the implementation of the Improper Solicitation and Graft Act in September 2016, revenue growth for corporate cards and service related industries such as dining, floral and entertainment have shown signs of decline, and additional regulations on loans reducing maximum interest rates chargeable from 27.9% to 24% came into effect in February 2018. These developments have put further downward pressure on the results of operations for credit card companies, including Shinhan Card. Furthermore, the Government's recent guidelines to bolster consumer protection and protect customers' personal data in the aftermath of data leaks at certain credit companies (not including Shinhan

Card) may result in additional compliance costs for Shinhan Card. Customer attrition, together with any further lowering of fees or reduction in base and market interest rates and/or additional expenses from more extensive marketing and promotional campaigns that Shinhan Card might implement to acquire and retain customers, could reduce its revenues and earnings. Furthermore, the average credit quality of Shinhan Card's customers may deteriorate if customers with higher credit quality borrow from our competitors rather than Shinhan Card and it may become more difficult for Shinhan Card to attract and maintain quality customers. In general, the growth, market share and profitability of Shinhan Card's operations may decline or become negative as a result of market saturation in this sector, interest rate competition, pressure to lower fee rates and incur higher marketing expenses, as well as Government regulation and social and economic developments in Korea that are beyond our control, such as changes in consumer confidence levels, spending patterns or public perception of credit card usage and consumer debt. If Shinhan Card fails to maintain or attract new cardholders or increase the card usage by existing customers or experiences deterioration in its asset quality and a rise in delinquency, our business, financial condition and results of operations may be adversely affected.

In other financial services sectors, our other subsidiaries also compete in a highly fragmented market. Some of our competitors, particularly major global financial institutions, have greater experience and resources than we do.

Consolidation among our rival institutions and the Government's privatization efforts may also add competition in the markets in which we and our subsidiaries conduct business. A number of significant mergers and acquisitions in the industry have taken place in Korea recently, including Hana Financial Group's acquisition of Korea Exchange Bank in 2012 and the resulting merger of Hana Bank and Korea Exchange Bank in September 2015. Moreover, in 2014, pursuant to the implementation of the Government's privatization plan with respect to Woori Finance Holdings (now merged into Woori Bank) and its former subsidiaries, Woori Financial, Woori Asset Management and Woori F&I were acquired by KB Financial Group, Kiwoom Securities and Daishin Securities, respectively, and Woori Investment & Securities, Woori Aviva Life Insurance and Woori FG Savings Bank were acquired by NongHyup Financial Group. In addition, in October 2014, the Government's ownership interests in the holding companies of Kwangju Bank and Kyongnam Bank were acquired by JB Financial Group and BS Financial Group (now BNK Financial Group), respectively. In 2015, the Government decided to sell a 30% to 40% interest in Woori Bank to multiple investors in separate blocks ranging from 4% to 10% each. Since December 2016, Korea Deposit Insurance Corporation has consummated sales transactions with seven institutional investors including Kiwoom Securities, Korea Investment and Securities, Hanwha Life Insurance, Tongyang Life Insurance, Eugene Asset Management, Mirae Asset Global Investments and IMM Private Equity for the sale of an aggregate 29.7% interest in Woori Bank in separate blocks. In the securities brokerage sector, Mirae Asset acquired KDB Daewoo Securities in 2016, creating the largest brokerage company in Korea by assets, and on June 1, 2016, KB Financial Group completed its acquisition of Hyundai Securities and merged it with its existing brokerage unit, KB Investment & Securities Co, creating the fifth largest brokerage company in Korea by assets. In the asset management business sector, Woori Financial Group acquired two asset management companies, Tongyang Asset Management and ABL Global Asset Management (former Allianz Global Investors). Any of these developments may place us at a competitive disadvantage and outweigh any potential benefit to us in the form of opportunities to acquire new customers who are displeased with the level of services at the newly reorganized entities or to provide credit facilities to corporate customers who wish to maintain relationships with a wide range of banks in order to diversify their sources of funding. In September 2018, we announced the acquisition of a 59.15% interest in Orange Life Insurance, the former Korean unit of ING Life Insurance, as part of our efforts to diversify and enhance our non-banking businesses and closed on February 1, 2019. On January 28, 2020, we acquired the remaining interests in Orange Life Insurance by effecting a comprehensive stock exchange under Articles 360-2 of the Korean Commercial Code whereby holders (other than us) of Orange Life Insurance's common stock transferred all of their shares to us and in return receive shares of our common stock, and hence Orange Life Insurance has become our wholly owned subsidiary as of such date. We expect that such consolidation and other structural changes in the financial industry will continue. Other financial institutions may seek to acquire or merge with other entities, and the financial institutions resulting from such consolidation may, by virtue of their increased size and business scope, provide greater competition for us. Increased competition and continuing consolidation may lead to decreased margins, resulting in a material adverse impact on our future profitability.

Regulatory reforms and the general modernization of business practices in Korea have also led to increased competition among financial institutions in Korea. Since July 2015, the Financial Services Commission has provided, through the Korea Financial Telecommunications and Clearings Institute, the integrated automatic payment transfer management service, which allows account holders to search for, terminate or modify automatic payments they have set up with financial institutions participating in such service (currently including banks, securities companies and other financial institutions such as The Post Office, Korean Federation of Community Credit Cooperatives, National Credit Union Federation of Korea, Mutual Savings Bank and National Forestry Cooperative Federation). In addition, the Financial Services Commission began providing the integrated account management service from December 2016, which allows account holders to search for detailed information of their bank accounts opened in banks participating in such service, close small-sum inactive accounts (i.e., accounts with no transaction activity during the previous one year period and with a balance of less than ₩500,000) and transfer the balance in such accounts to other accounts. Moreover, in December 2017, the Financial Services Commission introduced the "my account at a glance" system, which enables consumers to view their key financial account information online, including information on banks, insurances, mutual finance, loan and card issuances on one page. The "my account at a glance" system became available on mobile channels in February 2016 and expanded its scope of services to include savings banks and securities companies. Since their introduction, the integrated automatic payment transfer management service, integrated account management service and "my account at a glance" system have gained widespread acceptance. As the reform of the financial sector continues, competition may become more intense among existing banks, insurance companies, securities companies and other financial organizations, and may lead to significant changes in the current Korean financial market. Moreover, the Regulation on the Supervision of the Banking Business was amended on July 12, 2018 to provide that, beginning on January 1, 2020, in calculating loan to deposit ratio, retail loans and corporate loans are weighed differently, with retail loans subject to a multiple of 115% and corporate loans (excluding loans to SOHOs) subject to a multiple of 85%, thereby increasing the impact of retail loans and reducing the impact of corporate loans in calculating such ratio. This may further intensify competition for corporate loans and deposits among commercial banks and, as a result, Shinhan Bank may face difficulties in increasing or retaining its corporate loans and deposits, which in turn may result in an increase in its cost of funding.

Furthermore, as the Korean economy further develops and new business opportunities arise, more competitors may enter the financial services industry. For example, as online service providers and technology companies with large-scale user networks, such as Kakao Corp., NAVER and Samsung Electronics, recently make significant inroads in providing virtual payment services through a system based on a growing convergence of financial services and technology commonly referred to as "fintech," competition for online customers is growing not just among commercial banks, but also from online and mobile payment service providers. Also, widespread consumer acceptance of mobile phone payment services in lieu of credit card services could add to the competitive threat faced by existing credit card service providers, including our credit card subsidiary. In 2015, the Government announced its plans to allow Internet-only banks to operate in Korea. KT consortium's K-Bank and Kakao consortium's Kakao Bank commenced operations in April 2017 and July 2017, respectively, and Viva Republica consortium's Toss Bank has recently obtained preliminary business authorization from the Financial Services Commission on December 16, 2019. Internet-only banks may have advantages over traditional banks as the former can pass savings in labor and overhead costs to their customers by offering higher interest rates on deposit accounts, lower loan costs and reduced service fees. Accordingly, commercial banks will likely face increasing pressure to upgrade their service platforms to attract and maintain online users, which represents a growing customer base compared to traditional customers who have primarily conducted banking in-person at physical banking branches.

As part of the Government's financial policies to promote innovative digital finance, 10 commercial banks, including Shinhan Bank, began offering a preliminary open banking service in October 2019. More local banks and fintech companies joined in December 2019, when the open banking service was fully and officially launched. Open banking service allows each fintech company and bank to provide banking services, such as checking balances and making withdrawals and transfers, with regards to customers' accounts at other banks. Using open banking service, customers can easily access accounts, products and services across multiple banks, instead of being limited to the accounts, products and services available at the particular bank that they deal with. In addition, on January 9, 2020, the Korean National Assembly passed amendments to three major data privacy laws (the Personal Information Protection Act, the Act on the Promotion of Information and Communications Network Utilization and Information Protection and the Act on the Use and Protection of Credit Information). These amendments introduced the MyData service, allowing and requiring (upon the customer's request and subject to compliance requirements) financial institutions that have been approved by the Financial Service Commission as a MyData service provider access and sharing of customers' personal information, credit information and transaction data. If and when fintech companies receive authorization as MyData service providers, we expect competition for customers among banks and fintech firms such as Kakao Pay, Toss and Bank Salad to intensify.

Recently, following the global financial crisis, the Government has subjected Korean financial institutions to stricter regulatory requirements and guidelines in areas of asset quality, capital adequacy, liquidity and residential and other lending practices (including a requirement to maintain a certain ratio of core capital to total risk exposure, which was introduced in January 2018 in order to control excessive leverage), which has had a dampening effect on competition. The Financial Services Commission implemented the capital requirements of Basel III, whose minimum requirements were phased in sequentially from December 1, 2013 through full implementation by January 1, 2015, based on the guidelines set forth in the amended Regulation on the Supervision of the Banking Business and the Detailed Regulation on the Supervision of the Banking Business. In addition, the Financial Services Commission has implemented the Basel III requirements relating to liquidity coverage ratio and capital conservation buffer, each of which have been fully phased in as of January 1, 2019. As of January 1, 2016, the Financial Services Commission implemented Basel III requirements relating to accumulation of additional capital for systemically important banks and bank holding companies and countercyclical capital buffer requirements. Each year, the Financial Services Commission may designate banks with significant influence (based on size and connectivity with other financial institutions) on the domestic financial system as a domestic systemically important bank and require the accumulation of additional capital in accordance with the highest of: (i) ratio of common equity capital to risk-weighted assets, ranging from 0.0% to 2.0%, depending on the systematic importance evaluation score, (ii) if the bank's holding company is a domestic systemically important bank holding company, the capital ratio corresponding to the additional capital required for the bank holding company under the Financial Holding Company Supervision Regulations, or (iii) if the bank is also a global systemically important bank, as defined by the Basel Committee on Banking Supervision (the "Basel Committee"), the capital ratio as required by the Basel Committee. According to the instructions of the Financial Services Commission, domestic systematically important banks including Shinhan Bank have been required to maintain an additional capital buffer of 0.25% since January 1, 2016, with such buffer increased by 0.25% annually to reach 1.00% as of January 1, 2019. The Financial Services Commission may also, upon quarterly review, determine and require banks to accumulate a required level of countercyclical capital buffer within the range of 0% to 2.5% of risk-weighted assets, taking into account factors such as the degree of increase in credit relative to the gross domestic product. However, there is no assurance that these measures will have the effect of curbing competition or that the Government will not reverse or reduce such measures or introduce other deregulatory measures, which may further intensify competition in the Korean financial services industry. For further details on the capital requirements applicable to us, see "Item 4.B. Business Overview — Supervision and Regulation — Principal Regulations Applicable to Financial Holding Companies — Capital Adequacy."

If, despite our efforts to adapt to the changing macroeconomic environment and comply with new regulations, we are unable to compete effectively in the changing business and regulatory environment, our profit margin and market share may erode and our future growth opportunities may become limited, which could adversely affect our business, financial condition and results of operations.

We and our subsidiaries need to maintain our capital ratios above minimum required levels, and the failure to so maintain could result in the suspension of some or all of our operations.

We and our subsidiaries in Korea are required to maintain specified capital adequacy ratios. For example, since January 1, 2015, we and our banking subsidiaries in Korea are required to maintain a minimum common equity Tier I capital adequacy ratio of 4.5%, a Tier I capital adequacy ratio of 6.0% and a total capital (BIS) ratio of 8.0%. These ratios measure the respective regulatory capital as a percentage of risk-weighted assets on a consolidated basis and are determined based on guidelines of the Financial Services Commission. In addition, as further described below, Shinhan Bank is also required to maintain a capital conservation buffer and additional capital as a domestic systemically important bank and may be required to maintain a countercyclical capital buffer. Also, our subsidiaries Shinhan Card, Shinhan Life Insurance, Orange Life Insurance and Shinhan Investment are each required to maintain a consolidated adjusted equity capital ratio of 8.0%, a solvency ratio of 100% and a net capital ratio of 100%, respectively.

While we and our subsidiaries currently maintain capital adequacy ratios in excess of the respective required regulatory minimum levels, we or our subsidiaries may not be able to continue to satisfy the capital adequacy requirements for a number of reasons, including an increase in risky assets and provisioning expenses, substitution costs related to the disposal of problem loans, declines in the value of securities portfolios, adverse changes in foreign currency exchange rates, changes in the capital ratio requirements, the guidelines regarding the computation of capital ratios, or the framework set by the Basel Committee upon which the guidelines of the Financial Services Commission are based, or other adverse developments affecting our asset quality or equity capital.

In December 2010, the Basel Committee issued final rules in respect of (i) a global regulatory framework for more resilient banks and banking systems and (ii) an international framework for liquidity risk measurement, standards and monitoring, which together are commonly referred to as “Basel III.” Under Basel III, Tier I capital is defined to include common equity Tier I and additional Tier I capital. Common equity Tier I capital is a new category of capital primarily consisting of common stock, capital surplus, retained earnings and other comprehensive income (progressively phased into the capital ratio calculation over several years). The new minimum capital requirements, including the minimum common equity Tier I requirement of 4.5% and additional mandatory capital conservation buffer requirement of 2.5%, have been fully implemented as of January 1, 2019. Additional discretionary countercyclical capital buffer requirements are also expected to be phased in, which will range at the discretion of national regulators between 0% and 2.5% of risk-weighted assets. Basel III also introduces a minimum leverage ratio requirement. On December 7, 2017, the Basel Committee finalized several key methodologies for measuring risk-weighted assets. The revisions include a standardized approach for credit risk, a standardized approach for operational risk, revisions to the credit valuation adjustment (CVA) risk framework and constraints on the use of internal models. The Basel Committee had also previously finalized a revised standardized model for counterparty credit risk, revisions to the securitization framework and its fundamental review of the trading book, which updates both modeled and standardized approaches for market risk measurement. The revisions also include an output floor set at 72.5% of total risk-weighted assets based on the revised standardized approaches to limit the extent to which banks can reduce risk-weighted asset levels through the use of internal models. The Basel Committee has recommended that banks implement the 2017 reforms by January 2022 with respect to the revised standardized approach for credit and operational risk, revised CVA framework, and revised market risk framework. The 72.5% capital floor is subject to a six-year phase-in period, beginning at 50% in January 2020 and increasing to 72.5% by January 2027. Upon implementation, banks in jurisdictions that permit reference to external credit ratings will be able to take into account external credit ratings in determining the risk weights for certain exposure classes, and different mortgage risk weights will apply depending on the loan-to-value ratio of the mortgage. In addition, the 2017 reforms remove the option to use internal ratings-based approaches for measurement of equity exposures, thus requiring use of the standardized approach. Banks will also need to reflect internal loss data in evaluating operational risk and comply with the principles for sound management of operational risk.

In order to implement the capital requirements under Basel III in Korea, the Regulation on the Supervision of the Banking Business was amended, effective December 1, 2013. Under the amended Regulation on the Supervision of the Banking Business, effective from January 1, 2015, commercial banks in Korea are required to maintain a minimum common equity Tier I ratio of 4.5%, a minimum Tier I capital ratio of 6.0% and a minimum total capital (BIS) ratio of 8.0%. The Regulation on the Supervision of the Banking Business was further amended on December 26, 2014, to implement the liquidity coverage ratio requirements under Basel III in increments of 5% annually, from 80% as of January 1, 2015 to 100% as of January 1, 2019. Capital conservation buffer requirements have also been phased in from January 1, 2016 in increments of 0.625% annually, to the effect that commercial banks in Korea are required to maintain a capital conservation buffer of 2.5% as of January 1, 2019. If a commercial bank fails to maintain such capital conservation buffer requirements, such bank will be subject to certain restrictions relating to its use of income, such as distributing dividends and purchasing treasury stock. As of January 1, 2016, the Financial Services Commission implemented Basel III requirements relating to accumulation of additional capital for systemically important banks and bank holding companies and countercyclical capital buffer requirements. Each year, the Financial Services Commission may designate banks with significant influence (based on size and connectivity with other financial institutions) on the domestic financial system as a domestic systemically important bank and require the accumulation of additional capital in accordance with the highest of: (i) ratio of common equity capital to risk-weighted assets, ranging from 0.0% to 2.0%, depending on the systematic importance evaluation score, (ii) if the bank's holding company is a domestic systemically important bank holding company, the capital ratio corresponding to the additional capital required for the bank holding company under the Financial Holding Company Supervision Regulations, or (iii) if the bank is also a global systemically important bank, as defined by the Basel Committee, the capital ratio as required by the Basel Committee. Shinhan Financial Group, Shinhan Bank and Jeju Bank were selected as a domestic systemically important bank holding company and domestic systemically important bank, respectively, from 2016 through 2020. According to the instructions of the Financial Services Commission, domestic systematically important banks including Shinhan Bank have been required to maintain an additional capital buffer of 0.25% since January 1, 2016, with such buffer increased by 0.25% annually to reach 1.00% as of January 1, 2019. The Financial Services Commission may also, upon quarterly review, determine and require banks to accumulate a required level of countercyclical capital buffer within the range of 0% to 2.5% of risk-weighted assets, taking into account factors such as the degree of increase in credit relative to the gross domestic product. Since March 2016, the Financial Services Commission has maintained countercyclical capital buffer requirements at 0%, and the Financial Supervisory Service has maintained the countercyclical capital buffer requirement at 0% for the first quarter of 2020. In addition, the Regulation on the Supervision of the Banking Business is expected to be amended during 2020 to introduce an additional countercyclical capital buffer requirement that specifically addresses the increase of credit in the retail sector. This is in addition to and separate from the existing general countercyclical capital buffer requirements that take into account the degree of increase in credit generally relative to the gross domestic product. The Detailed Regulation on the Supervision of the Banking Business was also amended on June 30, 2018 to add "concentration of risk in the retail sector" as an additional criterion when the Financial Supervisory Service evaluates the risk management systems of Korean banks.

We and our banking subsidiaries are currently, and have been, in full compliance with Basel III requirements as implemented in Korea since its introduction in December 2013. However, there is no assurance that we will continue to be able to be in compliance with Basel III requirements. New requirements under Basel III may require an increase in the credit risk capital requirements in the future, which may require us or our subsidiaries to either improve asset quality or raise additional capital. In addition, if the capital adequacy ratios of us or our subsidiaries were to fall below the required levels, the Financial Services Commission might impose penalties ranging from a warning to suspension or revocation of our or our subsidiaries' business licenses. In order to maintain the capital adequacy ratios above the required levels, we or our subsidiaries may be required to raise additional capital through equity financing, but there is no assurance that we or our subsidiaries will be able to do so on commercially favorable terms or at all and, even if successful, any such capital raising may have a dilutive effect on our shareholders with respect to their interest in us or on us with respect to our interest in our subsidiaries.

Liquidity, funding management and credit ratings are critical to our ongoing performance.

Liquidity is essential to our business as a financial intermediary, and we may seek additional funding in the near future to satisfy liquidity needs, meet regulatory requirements, enhance our capital levels or fund the growth of our operations as opportunities arise.

For example, Basel III includes an international framework for liquidity risk measurement, standards and monitoring, as noted above, including a new minimum liquidity standard, known as the liquidity coverage ratio, which is designed to ensure that banks have an adequate stock of unencumbered high quality liquid assets ("HQLA") that can be easily and speedily converted into cash in the private marketplace to survive a significant stress scenario lasting 30 calendar days. The liquidity coverage ratio is computed as (a) the value of a banking organization's HQLA, divided by (b) its total expected net cash outflows over the next 30 calendar days under stress scenarios. The minimum liquidity coverage ratio is 100%. In January 2013, the Basel Committee released a revised formulation of the liquidity coverage ratio, one of two quantitative liquidity measures approved in December 2010 as part of Basel III. The Basel Committee extended the timetable for full phase-in of the liquidity coverage ratio to the effect that the minimum liquidity coverage ratio was set at 60% as of January 1, 2015 and thereafter was increased in annual increments of 10% so that the minimum liquidity coverage ratio is 100% as of January 1, 2019. In December 2014, the Financial Services Commission promulgated regulations to implement the liquidity requirements of Basel III, including raising the minimum liquidity coverage ratio to 80% as of January 1, 2015 and thereafter by annual increments of 5% so that the minimum liquidity coverage ratio for commercial banks in Korea is 100% since January 1, 2019.

A substantial part of the liquidity and funding requirements for our banking subsidiaries is met through short-term customer deposits, which typically roll over upon maturity. While the volume of our customer deposits has generally been stable over time, customer deposits have from time to time declined substantially due to the popularity of other, higher-yielding investment opportunities, namely stocks and mutual funds, for example, during times of bullish stock markets. During such times, our banking subsidiaries were required to obtain alternative funding at higher costs. There is no assurance that a similar development will not occur in the future. In addition, in recent years, we have faced increasing pricing competition from our competitors with respect to our deposit products. If we do not continue to offer competitive interest rates to our deposit customers, we may lose their business, which has traditionally provided a stable and low-cost source of funding. In addition, even if we are able to match our competitors' pricing, doing so may result in an increase in our funding costs, which may have an adverse impact on our results of operations.

We and our subsidiaries also raise funds in capital markets and borrow from other financial institutions, the cost of which depends on market rates and the general availability of credit and the terms of which may limit our ability to pay dividends, make acquisitions or subject us to other restrictive covenants. While we and our subsidiaries are not currently facing liquidity difficulties in any material respect, if we or our subsidiaries are unable to obtain the funding we need on terms commercially acceptable to us for an extended period of time for whatever reason, we may not be able to ensure our financial viability, meet regulatory requirements, implement our strategies or compete effectively.

Credit ratings affect the cost and other terms upon which we and our subsidiaries are able to obtain funding. Domestic and international rating agencies regularly evaluate us and our subsidiaries, and their ratings of our and our subsidiaries' long-term debt are based on a number of factors, including our financial strength as well as conditions affecting the financial services industry and the Korean economy in general. There can be no assurance that the rating agencies will maintain our current ratings or outlooks. There is no assurance that Shinhan Bank, Shinhan Card, any of our other major subsidiaries or our holding company will not experience a downgrade in their respective credit ratings and outlooks for reasons related to the general Korean economy or reasons specific to such entity. Any downgrades in the credit ratings and outlooks of us and our subsidiaries will likely increase our cost of funding, limit our access to capital markets and other borrowings, or require us to provide additional credit enhancement in financial transactions, any of which could adversely affect our liquidity, net interest margins and profitability, and in turn, our business, financial condition and results of operations.

Changes in interest rates, foreign exchange rates, bond and equity prices, and other market factors have affected and will continue to affect our business, results of operations and financial condition.

The most significant market risks we face are interest rate, foreign exchange and bond and equity price risks. Changes in interest rate levels, yield curves and spreads may affect the interest rate margin realized between lending and borrowing costs. Changes in foreign currency exchange rates, particularly in the Korean Won to U.S. Dollar exchange rates, affect the value of our assets and liabilities denominated in foreign currencies, the reported earnings of our non-Korean subsidiaries and income from foreign exchange dealings, and substantial and rapid fluctuations in exchange rates may cause difficulty in obtaining foreign currency-denominated financing in the international financial markets on commercial terms acceptable to us or at all. The performance of financial markets may affect bond and equity prices and, therefore, cause changes in the value of our investment and trading portfolios. While we have implemented risk management systems and risk thresholds to mitigate and control these and other market risks to which we are exposed, it is difficult to predict with accuracy changes in economic or market conditions and to anticipate the effects that such changes could have on our business, financial condition and results of operations.

Of particular importance is the change in the base and market interest rates. Since 2009, Korea, like many other countries, has experienced a low interest rate environment despite some marginal fluctuations, in part due to the Government's policy to stimulate the economy through active rate-lowering measures. Between 2009 and 2014, the base interest rate set by the Bank of Korea remained within the band between 2.00% and 3.25%. In an effort to support Korea's economy in light of the recent slowdown in Korea's growth and uncertain global economic prospects, the Bank of Korea reduced the base interest rate to 1.75% in March 2015, 1.50% in June 2015, and further reduced such rate to the historic low of 1.25% in June 2016. In November 2017, the Bank of Korea raised the base interest rate to 1.50%, marking the first time it increased the base interest rate since 2011, and further raised such rate to 1.75% in November 2018. The Bank of Korea reduced the base interest rate from 1.75% to 1.50% in July 2019, from 1.50% to 1.25% in October 2019 and from 1.25% to 0.75% in March 2020. Interest rate movements, in terms of magnitude and timing as well as their relative impact on our assets and liabilities, have a significant impact on our net interest margin and profitability, particularly with respect to our financial products that are sensitive to such movements. For example, if the interest rates applicable to our loans (which are recorded as assets) increase at a slower pace or by a thinner margin than the interest rates applicable to our deposits (which are recorded as liabilities), our net interest margin will shrink and our profitability will be negatively affected. In addition, the relative size and composition of our variable rate loans and deposits (as compared to our fixed rate loans and deposits) may also impact our net interest margin. Furthermore, the difference in the average repricing frequency of our interest-earning assets (primarily loans) compared to our interest-bearing liabilities (primarily deposits) may also impact our net interest margin. For example, since our deposits tend to have longer terms, on average, than those of our loans, our deposits are on average less sensitive to movements in the base interest rates on which our deposits and loans tend to be pegged, and therefore, a decrease in the base interest rates tends to decrease our net interest margin while an increase in the base interest rates tends to have the opposite effect. While we continually manage our assets and liabilities to minimize our exposure to interest rate volatility, such efforts by us may not mitigate the impact of interest rate volatility in a timely or effective manner, and our net interest margin, and in turn our financial condition and results of operations, could suffer significantly.

We cannot assure you when and to what extent the Bank of Korea will in the future adjust the base interest rate, to which the market interest rate correlates. A decision to adjust the base interest rate is subject to many policy considerations as well as market factors, including the general economic cycle, inflationary levels, interest rates in other economies and foreign currency exchange rates, among others. In general, a decrease in interest rates adversely affects our interest income due to the different maturity structure for our assets and liabilities as discussed above. In contrast, if there were to be a significant or sustained increase in interest rates, all else being equal, such movement would lead to a decline in the value of traded debt securities and could also raise our funding costs, while reducing loan demand, especially among retail customers. Rising interest rates may therefore require us to re-balance our assets and liabilities in order to minimize the risk of potential mismatches in our asset liability management and to maintain our profitability. In addition, rising interest rates may adversely affect the Korean economy and the financial condition of our corporate and retail borrowers, including holders of our credit cards, which in turn may lead to deterioration of asset quality for our credit portfolio. Since most of our retail and corporate loans bear interest at rates that adjust periodically based on prevailing market rates, a sustained increase in interest rates will increase the funding costs of our borrowers and may adversely affect their ability to make payments on their outstanding loans. See “Item 5.A. Operating Results — Interest Rates.”

We may incur losses associated with our counterparty exposures.

We face the risk that counterparties will be unable to honor contractual obligations to us or our subsidiaries. These parties may default on their obligations to us or our subsidiaries due to bankruptcy, lack of liquidity, operational failure or other reasons. This risk may arise, for example, from entering into swaps or other derivative contracts under which counterparties have obligations to make payments to us or our subsidiaries or in executing currency or other trades that fail to settle at the required time due to non-delivery by the counterparty or systems failure by clearing agents, exchanges, clearing houses or other financial intermediaries. Any realization of counterparty risk may adversely affect our business, operations and financial condition.

The extent to which the recent coronavirus (COVID-19) outbreak impacts our business, results of operations and financial condition will depend on future developments, which are highly uncertain and cannot be predicted.

The rapid and diffuse spread of the recent coronavirus (COVID-19) and global health concerns relating to this outbreak, which was declared a “pandemic” by the World Health Organization in March 2020, have had severe negative impact on, among other things, financial markets, liquidity, economic conditions and trade and could continue to do so or could worsen for an unknown period of time, which could in turn have a material adverse impact on our business, results of operations and financial condition, including liquidity, asset quality and growth. The extent to which the COVID-19 outbreak impacts our business, results of operations and financial condition will depend on future developments, including the timeliness and effectiveness of actions taken or not taken to contain and mitigate the effects of COVID-19 both in Korea and internationally by governments, central banks, healthcare providers, health system participants, other businesses and individuals, which are highly uncertain and cannot be predicted. In particular, a number of governments and organizations have revised GDP growth forecasts for 2020 downward in response to the economic slowdown caused by the spread of COVID-19, and it is possible that the COVID-19 outbreak will cause a prolonged global economic crisis or recession. Also, if any of our employees or customers are suspected to have been infected or identified as a possible source of COVID-19, we may be required to quarantine the employees as well as any others that had come into contact with them and may also be required to disinfect the affected bank branches or other offices and therefore suffer a temporary suspension of business operations. Any of these factors could have a material adverse effect on our results of operations and financial condition, including liquidity, asset quality and growth.

Risks Relating to Our Banking Business

We have significant exposure to small- and medium-sized enterprises, and financial difficulties experienced by such enterprises may result in a deterioration of our asset quality.

Our banking activities are conducted primarily through our wholly-owned subsidiary, Shinhan Bank. One of our core banking businesses has historically been and continues to be lending to small- and medium-sized enterprises (as defined in “Item 4.B. Business Overview — Our Principal Activities — Corporate Banking Services — Small- and Medium-sized Enterprises Banking”). Shinhan Bank’s loans (before allowance for credit losses on loans and deferred loan origination costs and fees) to such enterprises amounted to ₩78,556 billion as of December 31, 2017, ₩84,972 billion as of December 31, 2018 and ₩91,162 billion as of December 31, 2019, representing 28.3%, 28.0% and 27.8%, respectively, of our total loan portfolio as of such dates.

Compared to loans to large corporations, which tend to be better capitalized and better able to weather business downturns, or loans to individuals and households, which tend to be secured with homes and with respect to which the borrowers are therefore less willing to default, loans to small- and medium-sized enterprises have historically had a relatively higher delinquency ratio. Many small- and medium-sized enterprises represent sole proprietorships or small businesses dependent on a relatively limited number of suppliers or customers and tend to be affected to a greater extent than large corporate borrowers by fluctuations in the Korean and global economy. In addition, small- and medium-sized enterprises often maintain less sophisticated financial records than large corporate borrowers. Therefore, it is generally more difficult for banks to judge the level of risk inherent in lending to such enterprises, as compared to large corporations. In addition, many small- and medium-sized enterprises are dependent on business relationships with large corporations in Korea, primarily as suppliers. Any difficulties encountered by those large corporations would likely hurt the liquidity and financial condition of related small- and medium-sized enterprises, including those to which we have exposure, also resulting in an impairment of their ability to repay loans. As large Korean corporations continue to expand into China, Southeast Asia and other countries with lower labor costs and other expenses by relocating their production plants and facilities to such countries, such development may have a material adverse impact on such small- and medium-sized enterprises.

Financial difficulties experienced by small- and medium-sized enterprises as a result of, among other things, recent economic difficulties in Korea and globally and aggressive marketing and intense competition among banks to lend to this segment in recent years, coupled with our efforts to counter asset quality deterioration through conservative lending policy, have led to a fluctuation in the asset quality of our loans to this segment. As of December 31, 2017, 2018 and 2019, Shinhan Bank's delinquent loans to small- and medium-sized enterprises were ₩303 billion, ₩299 billion and ₩346 billion, respectively, representing delinquency ratios (net of charge-offs and loan sales) of 0.39%, 0.35% and 0.38%, respectively. If the ongoing difficulties in the Korean or global economy were to continue or aggravate, the delinquency ratio for our loans to small- and medium-sized enterprises may rise.

Of particular concern is our exposure to enterprises in the real estate and leasing and construction industries. As of December 31, 2019, Shinhan Bank had outstanding loans (before allowance for credit losses on loans and deferred loan origination costs and fees) to enterprises in the real estate and leasing and construction industries (many of which are small- and medium-sized enterprises) of ₩28,868 billion and ₩3,172 billion, respectively, representing 10.7% and 1.2%, respectively, of its total loan portfolio as of such date. We also have other exposure to borrowers in these sectors of the Korean economy, including extending guarantees for the benefit of such companies and holding debt and equity securities issued by such companies. In addition, Shinhan Bank has exposure to borrowers in the shipbuilding and shipping industries, which have yet to stage a meaningful turnaround.

The enterprises in the real estate development and construction industries in Korea, which are heavily concentrated in the housing market, have recently seen modest growth backed by the housing market which has remained strong over the recent few years. However, the Government's policy measures to stabilize the real estate market, oversupply of residential property, ongoing economic sluggishness in Korea and globally and demographic changes in the Korean population may result in difficulties to the housing market in general as well as these enterprises. We also have limited exposure to real estate project financing, particularly by construction companies that have built residential units in provinces outside the metropolitan Seoul area, which have experienced a relatively low rate of pre-sales, the proceeds from which the construction companies primarily rely on as a key source for liquidity and cash flow.

Any of the foregoing developments may result in deterioration in the asset quality of our banking subsidiaries. See "Item 4.B. Business Overview — Description of Assets and Liabilities — Credit Exposures to Companies in Workout and Recovery Proceedings." We have been taking active steps to curtail delinquency among our small- and medium-sized enterprise customers, including by way of strengthening loan application review processes and closely monitoring borrowers in troubled sectors. Despite such efforts, there is no assurance that the delinquency ratio for our loans to small- and medium-sized enterprises will not rise in the future, especially if the Korean economy were to face renewed difficulties and, as a result, the liquidity and cash flow of these borrowers deteriorate. A significant rise in the delinquency ratios among these borrowers would lead to increased charge-offs and higher provisioning and reduced interest and fee income, which would have a material adverse effect on our business, financial condition and results of operations.

A decline in the value of the collateral securing our loans or our inability to fully realize the collateral value may adversely affect our credit portfolio.

Most of our mortgage and home equity loans are secured by borrowers' homes, other real estate, other securities and guarantees (which are principally provided by the Government and other financial institutions), and a substantial portion of our corporate loans are also secured, including by real estate. As of December 31, 2019, the secured portion of Shinhan Bank's loans (before allowance for credit losses on loans and deferred loan origination costs and fees) amounted to ₩121,944 billion, representing 49.1% of its total loans. No assurance can be given that the collateral value will not materially decline in the future. Shinhan Bank's general policy for mortgage and home equity loans is to lend up to 45% to 82% of the appraised value of the collateral, but subject to the maximum loan-to-value ratio, debt-to-income ratio and debt service ratio requirements for mortgage loans implemented by the Government, and to periodically re-appraise such collateral. In order to mitigate our loss in the event of a decrease in the value of collateral, we have made effort to increase the proportion of installment principal repayment-based loans and manage the loan-to-value ratio of loans. As of December 31, 2019, installment principal repayment-based housing loans accounted for 49.6% of the housing loans extended by Shinhan Bank, and the loan-to-value ratio of mortgage and home equity loans of Shinhan Bank was 49.6%. Despite these efforts however, if the real estate market in Korea experiences a downturn, the value of the collateral may fall below the outstanding principal balance of the underlying mortgage loans. Borrowers of such under-collateralized mortgages or loans may be forced to pay back all or a portion of such mortgage loans or, if unable to meet the collateral requirement through such repayment, sell the underlying collateral, which sales may lead to a further decline in the price of real estate in general and set off a chain reaction for other borrowers due to the further decline in the value of collateral. Declines in real estate prices reduce the value of the collateral securing our mortgage and home equity loans, and such reduction in the value of collateral may result in our inability to cover the uncollectible portion of our secured loans. A decline in the value of the real estate or other collateral securing our loans, or our inability to obtain additional collateral in the event of such decline, may result in the deterioration of our asset quality and require us to make additional loan loss provisions. In Korea, foreclosure on collateral generally requires a written petition to a Korean court. Foreclosure procedures in Korea generally take 10 to 14 months from initiation to collection depending on the nature of the collateral, and foreclosure applications may be subject to delays and administrative requirements, which may result in a decrease in the recovery value of such collateral. No assurance can be given that we will be able to realize the full value of collateral as a result of, among others, delays in foreclosure proceedings, defects in the perfection of collateral and general declines in collateral value. Our failure to recover the expected value of collateral could expose us to significant losses.

Guarantees received in connection with our real estate financing may not provide sufficient coverage.

Primarily through Shinhan Bank, we, alone or together with other financial institutions, provide financing to real estate development projects, which are concentrated largely in the construction of residential complexes. Developers in Korea commonly use project financing to acquire land and pay for related project development costs. As a market practice, lenders in project financing, including Shinhan Bank, generally receive from general contractors a performance guarantee for the completion of projects by the developers as well as a payment guarantee for the loans raised by a special purpose financing vehicle established by the developers in order to procure the construction orders, as the developers tend to be small and highly leveraged. Shinhan Bank has actively managed and reduced its real estate project financing-related exposure, particularly during sustained downturns in the Korean real estate market. As of December 31, 2019, the total outstanding amount of Shinhan Bank's real estate project financing-related exposure was ₩3.7 trillion. However, if defaults were to significantly increase under our existing loans to real estate development projects and the general contractors fail to pay the guaranteed amount necessary to cover the amount of our financings, this may have an adverse effect on our business, financial condition and results of operations.

A limited portion of our credit exposure is concentrated in a relatively small number of large corporate borrowers, and future financial difficulties experienced by them may have an adverse impact on us.

Of Shinhan Bank's 10 largest corporate exposures as of December 31, 2019, two were companies for which Shinhan Bank was a main creditor bank. All of the 10 companies are or were members of the main debtor groups as identified by the Governor of the Financial Supervisory Service, which are mostly comprised of the largest Korean commercial conglomerates known as *"chaebols."* As of such date, the total amount of Shinhan Bank's exposures to the 10 companies was ₩18,325 billion, or 9.8%, of its total exposures. As of that date, Shinhan Bank's single largest outstanding exposure to a main debtor group amounted to ₩3,797 billion, or 2.0%, of its total exposures. Largely due to the continued stagnation in the shipbuilding industry, current and former member companies of the STX Group, one of the leading conglomerates in Korea, entered into voluntary arrangements in 2013 with their creditors (including Shinhan Bank) to improve their credit situation, and STX Offshore & Shipbuilding and STX Heavy Industries, two of the STX Group's member companies, recently filed for court receivership in May 2016 and July 2016, respectively. Due to stagnation in the construction industry, Keangnam Enterprises Co., Ltd., a large construction company in Korea, also entered into workout proceedings in 2013 and subsequently filed for recovery proceedings in March 2015. Dongbu Steel Co., Ltd. and Sambu Construction Co., Ltd. also experienced significant hardship and entered into workout or recovery proceedings in 2015. Additionally, in October 2015, creditors of Daewoo Shipbuilding & Marine Engineering Co., Ltd., led by Korea Development Bank, announced a restructuring plan that included cash injection and additional loans totaling ₩4.2 trillion and extensive streamlining measures, and in November 2016, Korea Development Bank agreed to swap ₩1.8 trillion of debt to equity and the Export-Import Bank of Korea agreed to issue ₩1 trillion of perpetual bonds. Amid continued deterioration of Daewoo Shipbuilding & Marine Engineering Co., Ltd.'s financial conditions, in March 2017, Korea Development Bank and the Export-Import Bank of Korea further agreed to provide an additional ₩2.9 trillion in loans and swap ₩1.6 trillion of debt to equity, provided that other creditors and bondholders agree to certain debt-to-equity swaps and extension of maturities. In January 2016, Hanjin Heavy Industries & Construction Co., Ltd. entered into voluntary restructuring agreements with its creditors due to liquidity shortage in the wake of prolonged industry slowdown. Partly as a result of its active past efforts to reduce exposure to the shipbuilding and construction sectors, Shinhan Bank currently has limited exposure to the aforementioned troubled companies. However, if the credit quality of Shinhan Bank's exposure to large corporations, including those in the main debtor groups, declines, Shinhan Bank may be required to record additional loan loss provisions in respect of loans and impairment losses in respect of securities, which would adversely affect its financial condition, results of operations and capital adequacy. No assurance can be given that the allowances it has established against these exposures will be sufficient to cover all future losses arising from such exposures, especially in the case of a prolonged or renewed economic downturn.

A limited number of the main debtor groups to which Shinhan Bank has credit exposure are subject to restructuring programs or are otherwise making significant efforts to improve their financial conditions, such as by obtaining intragroup loans and entering into agreements to further improve their capital structures. No assurance can be given that there will not be future restructuring with Shinhan Bank's major corporate customers or that such restructuring will not result in significant losses to Shinhan Bank with less than full recovery. In addition, if the Government decides to pursue an aggressive restructuring policy with respect to distressed companies, Korean commercial banks, including Shinhan Bank, may face a temporary rise in delinquencies and intensified pressure for additional provisioning. Furthermore, bankruptcies or financial difficulties of large corporations, including *chaebol* groups, may have an adverse ripple effect of triggering delinquencies and impairment of Shinhan Bank's loans to small- and medium-sized enterprises that supply parts or labor to such corporations. If Shinhan Bank experiences future losses from its exposure to large corporations, including *chaebol* groups, it may have a material adverse effect on Shinhan Bank's business, financial condition and results of operations. See "Item 4.B. Business Overview — Description of Assets and Liabilities — Loans — Loan Portfolio — Exposure to Main Debtor Groups."

The asset quality of our retail loan portfolio may deteriorate.

In recent years, consumer debt, including lending to households and small unincorporated businesses, has continued to increase in Korea. Shinhan Bank's portfolio of retail loans is comprised of two principal product types, namely secured retail loans (which are primarily comprised of mortgage and home equity loans secured by real estate) and general purpose loans (which are unsecured loans and tend to carry a higher credit risk). As of December 31, 2019, Shinhan Bank's retail loan portfolio (before allowance for credit losses on loans and deferred loan origination costs and fees and excluding credit card loans) was ₩123,219 billion, representing 45.6% of its total loans outstanding. As of December 31, 2017, 2018 and 2019, Shinhan Bank's non-performing retail loans (excluding credit card loans) were ₩215 billion, ₩238 billion and ₩271 billion, respectively, representing non-performing loan ratios (net of charge-offs and loan sales) of 0.21%, 0.21% and 0.22%, respectively.

Our large exposure to consumer debt means that we are exposed to changes in economic conditions affecting Korean consumers. For example, a rise in unemployment, an increase in interest rates or a decline in housing prices in Korea could adversely affect the ability of consumers to make payments and increase the likelihood of potential defaults. Economic difficulties in Korea that hurt consumers could result in increasing delinquencies and a decline in the asset quality of our household loan portfolio, which may in turn require us to record higher provisions for credit loss and charge-offs and may materially and adversely affect our financial condition and results of operations.

Any deterioration in the asset quality of our guarantees and acceptances will likely have a material adverse effect on our financial condition and results of operations.

In the normal course of banking activities, we make various commitments and incur certain contingent liabilities in the form of guarantees and acceptances. Financial guarantees, which are contracts that require us to make specified payments to reimburse the beneficiary of the guarantee for a loss such beneficiary incurs because the debtor in respect of which the guarantee is given fails to make payments when due in accordance with the terms of the relevant debt instrument, are recognized initially at fair value, and such initial fair value is amortized over the life of the financial guarantee. Other guarantees are recorded as off-balance sheet items in the notes to our financial statements and those guarantees that we have confirmed to make payments are recorded on the statements of financial position. As of December 31, 2019, we had aggregate guarantees and acceptances of ₩14,893 billion, for which we provided allowances for losses of ₩91.1 billion. If there is significant deterioration in the quality of assets underlying our guarantees and acceptances, our allowances may be insufficient to cover actual losses resulting in respect of these liabilities.

Risks Relating to Our Credit Card Business

Future changes in market conditions as well as other factors, such as stricter regulation, may lead to reduced revenues and deterioration in the asset quality of credit card receivables.

As of December 31, 2017, 2018 and 2019, Shinhan Card's interest-earning credit card assets amounted to ₩25,250 billion, ₩28,311 billion and ₩30,597 billion, respectively. Our large exposure to credit card and other consumer debt means that we are exposed to changes in economic conditions affecting Korean consumers in general. For example, a rise in unemployment, an increase in interest rates, a downturn in the real estate market, or a general contraction or other difficulties affecting the Korean economy may lead Korean consumers to reduce spending (a substantial portion of which is conducted through credit card transactions), which in turn leads to reduced earnings for our credit card business, as well as to higher default rates on credit card loans, deterioration in the quality of our credit card assets and increased difficulties in recovering written-off assets from which a significant portion of Shinhan Card's revenues is derived. Any of these developments could have a material adverse effect on our business, financial condition and results of operations.

Increasing consumer and corporate spending and borrowing on our card products and growth in card lending balances depend in part on Shinhan Card's ability to develop and issue new or enhanced card and prepaid products and increase revenue from such products and services, as well as the level of discretionary income among our cardholders, which is largely affected by macroeconomic factors beyond our control. In addition, credit card companies in Korea, including Shinhan Card, may not be able to enjoy any rapid growth in revenue over the long term due to the maturing nature of the credit card industry, in part due to oversaturation of credit card service providers. Shinhan Card's future earnings and profitability also depend on its ability to attract new cardholders, reduce cardholder attrition, increase merchant coverage and capture a greater share of customers' total credit card spending in Korea and overseas. Shinhan Card may not be able to manage and expand cardholder benefits in a cost-effective manner or contain the growth of marketing, promotion and reward expenses to a commercially reasonable level. If Shinhan Card is not successful in increasing customer spending, maintaining or expanding its market position and asset growth, or containing costs or cardholder benefits, its financial condition, results of operations and cash flow could be negatively affected.

Internet-only banks, as well as non-financial institutions and fintech companies, are becoming major competitors to Shinhan Card in various business areas, particularly in the mid-term interest loan, and mid-range credit loan and installment financing markets. KT consortium's K-Bank and Kakao consortium's Kakao Bank commenced operations in April 2017 and July 2017, respectively. In addition, with the rapid growth of online service providers and technology companies providing virtual payment services, more competitors are entering the financial payments industry, creating a new paradigm in the payments market and changing the competitive landscape. New competitors, including Kakao Corp., NAVER and Samsung Electronics, have introduced new payment methods which are now competing with Shinhan Card's payment model AppCard. In 2018, Kakao Bank launched its own credit card business, expanding its mid-range interest rate loan offerings and competing with the existing credit card service providers. Shinhan Card is currently making efforts to enhance its AppCard payment model and cooperating with other credit card service providers to promote its joint NFC (near field communication) payment network. With the introduction of the MyData service and increased sharing of customers' personal information, credit information and transaction data among various digital platforms, we expect competition for customers to intensify.

In addition, Government policies and regulations aimed at protecting small- and medium-sized enterprises, such as the reduction of fees chargeable to small- and medium-sized merchants, may have a material adverse effect on our revenues from Shinhan Card. In January 2012, the Government expanded the definition of a small- and medium-sized merchant to include those with annual sales of up to ₩200 million and, effective September 2012, lowered fees chargeable to such merchants from 1.8% to 1.5% with respect to credit cards. In January 2015, the Government further expanded the definition of a small- and medium-sized merchant to include those with annual sales of more than ₩200 million and up to ₩300 million, and imposed a cap on fees chargeable to such merchants at 2.0% with respect to credit cards. In November 2015, the Government announced a further reduction in the merchant fees chargeable to small- and medium-sized enterprises with respect to credit cards, effective January 31, 2016, from 2.0% to 1.3% for merchants with annual sales of more than ₩200 million and up to ₩300 million, and from 1.5% to 0.8% for merchants with annual sales of up to ₩200 million. In July 2017, the Enforcement Decree of the Specialized Credit Finance Business Act was amended to expand the range of small- and medium-sized enterprises subject to lower merchant fees. Upon the amendment, merchants with annual sales of more than ₩300 million and up to ₩500 million are subject to merchant fees chargeable with respect to credit cards of 1.3%, and merchants with annual sales of up to ₩300 million are subject to merchant fees chargeable with respect to credit cards of 0.8%. In January 2019, the government further expanded the definition of a small- and medium-sized merchant to include those with annual sales of more than ₩500 million and up to ₩3 billion. Upon the amendment, merchants with annual sales of less than ₩500 million are subject to merchant fees chargeable with respect to credit cards of 0.8%, merchants with annual sales of more than ₩500 million and up to ₩1 billion are subject to merchant fees chargeable with respect to credit cards of 1.4%, and merchants with annual sales of more than ₩1 billion and up to ₩3 billion are subject to merchant fees chargeable with respect to credit cards of 1.6%. Pursuant to the Specialized Credit Financial Business Act, the rates of fees chargeable to merchants are subject to review and revision every three years, starting from 2012, and the rates of fees chargeable may be further adjusted due to changes in relevant regulations or Government policy. Additionally, during 2018, the Seoul metropolitan and other regional governments have launched "Zero Pay", a government sponsored QR code-based mobile payment platform charging little to no transaction fees (up to 0.5% depending on volume of sales) and aimed at reducing transaction fees small businesses pay to credit card companies. The Financial Services Commission also announced its plans to establish an open banking system that would provide fintech firms access to banks' payment systems at lower costs. Additional amendments to regulations requiring further downward adjustments to merchant fees or Government policies aimed at reducing transaction fees paid to credit card companies may be implemented in the future, placing further downward pressure on the results of operations for credit card companies, including Shinhan Card.

In 2013, the Government also implemented measures regulating marketing costs in order to control excessive marketing campaigns and curtail undue marketing expenses, which had the effect of impeding revenue growth for credit card companies but also reduced or slowed the growth in their marketing expenses. Effective December 2013, the Government also introduced guidelines to curb the interest rates that credit card companies, including Shinhan Card, may charge on card loans and cash advances. Furthermore, the Government also provides tax incentives, among others, for the use of check cards (where the amounts paid with check cards are instantly debited from the customer's bank accounts) to encourage the use of check cards in lieu of credit cards in an attempt to preempt a potential rise in delinquency among credit card users, and if check cards are widely used in lieu of credit cards, this would reduce interest income from credit cards, which generally have a longer repayment period than that of check cards, and may have an adverse impact on Shinhan Card's revenues and results of operations. On November 26, 2018, the Financial Services Commission introduced additional guidelines aimed at curtailing excessive marketing expenses for credit card companies, for example by limiting the benefits credit card companies may offer to large corporate credit card clients or merchants as well as requiring a reasonable level of annual service fees for credit card holders. Although these and similar Government initiatives and measures may result in a reduction in marketing expenses, which in turn may help reduce the overall expenses of our credit card business, there is no assurance that Government measures will achieve their intended results, and such measures may result in a decline in the volume of credit card transactions or otherwise adversely affect our business, financial condition and results of operations.

Risks Relating to Our Other Businesses

We may experience significant losses from our investments and, to a lesser extent, trading activities due to market fluctuations.

We enter into and maintain large investment positions in fixed income products, primarily through our treasury and investment operations. These activities are described in "Item 4.B. Business Overview — Our Principal Activities — Other Banking Services." We also maintain smaller trading positions, including equity and equity-linked securities and derivative financial instruments as part of our operations. Taking these positions entails making assessments about financial market conditions and trends. The revenues and profits we derive from many of these positions and related transactions are dependent on market prices, which are beyond our control. When we own assets such as debt or equity securities, a decline in market prices, for example, as a result of fluctuating market interest rates or stock market indices, can expose us to trading and valuation losses. If market prices move in a way that we have not anticipated, we may experience losses. In addition, when markets are volatile and subject to rapid changes in price directions, actual market prices may be contrary to our assessments and lead to lower than anticipated revenues or profits, or even result in losses, with respect to the related transactions and positions.

We may generate losses from our brokerage and other commission- and fee-based business.

We, through our investment and other subsidiaries, currently provide, and seek to expand the offerings of, brokerage and other commission- and fee-based services. Downturns in stock markets typically lead to a decline in the volume of transactions that we execute for our customers and, therefore, a decline in our non-interest revenues. In addition, because the fees that we charge for managing our clients' portfolios are often based on the size of the assets under management, a downturn in the stock market, which has the effect of reducing the value of our clients' portfolios or increasing the amount of withdrawals, also generally reduces the fees we receive from our securities brokerage, trust account management and other asset management services. Even in the absence of a market downturn, below-market performance by our securities, trust account or asset management subsidiaries may result in increased withdrawals and reduced cash inflows, which would reduce the revenue we receive from these businesses. In addition, protracted declines in asset prices can reduce liquidity for assets held by us and lead to material losses if we cannot close out or otherwise dispose of deteriorating positions in a timely way or at commercially reasonable prices. In July 2019, we made a capital contribution of ₩660 billion by subscribing for new shares of common stock of Shinhan Investment, enabling Shinhan Investment to satisfy the ₩4 trillion capitalization requirement required to apply to the Financial Services Commission for designation as a mega-investment bank ("**mega-IB**"). Upon designation as a mega-IB, Shinhan Investment will be able to issue debt securities up to 200% of its capitalization amount and would be able to utilize such proceeds for corporate lending and other businesses. This capital contribution was made in line with our strategic initiative to strengthen our non-banking businesses and capital market activities. However, we cannot assure you that this capital contribution, any designation of Shinhan Investment as a mega-IB or any resulting developments will not have a negative effect on our business, financial condition and results of operations that outweigh any potential benefits, and we may not be successful in furthering our strategic initiative.

Prolonged periods of declining or low interest rates may reduce or turn negative our investment margin on savings insurance products and result in an increase in the valuation of our liabilities associated with these products.

We, principally through Shinhan Life Insurance, offer fixed rate insurance policies such as savings insurance products that include guaranteed benefits. These products expose us to the risk that changes in interest rates will reduce our investment margin, which is the difference between the amounts that we are required to pay under the contracts and the rate of return we earn on investments intended to support obligations under such contracts. During periods of declining or low interest rates, we may have to invest insurance cash flows and reinvest the cash flows we received as interest or return of principal on our investments in lower yielding instruments. In addition, during periods of declining or low interest rates, fixed rate policies may become relatively more attractive investments to consumers. This could result in an increase in payments we are required to pay on such products and higher percentage of such products remaining in-force from year to year, during a period when our new investments carry lower returns. During periods of sustained lower interest rates, our reserves for policy liabilities may not be sufficient to meet future policy obligations and may need to be strengthened.

Significantly lower or negative investment margins may cause us to accelerate amortization, thereby reducing net income in the affected reporting period and potentially negatively affecting our credit instrument covenants or rating agency assessment of our financial condition. In addition, under IFRS 17, which is expected to become effective beginning 2023, insurance contract liabilities will be calculated in terms of market value (as the present value of future insurance cash flows with a provision for risk) instead of book value. As the discount rate will reflect current interest rates rather than book yields, we may have a significantly higher debt balance under IFRS 17 due to higher insurance liabilities, thereby resulting in a decrease in our risk-based capital.

We may fail to realize the anticipated benefits of and encounter significant risks in connection with mergers and acquisitions.

We continue to seek and evaluate opportunities for diversification and growth of our business, including through strategic acquisitions, and have experienced substantial growth through several mergers and acquisitions. Most notably, our acquisition of Chohung Bank in 2003 has enabled us to have the second largest banking operations in Korea. In addition, our acquisition in March 2007 of LG Card, the then largest credit card company in Korea, has enabled us to have the largest credit card operations in Korea and significantly expand our non-banking business capacity so as to achieve a balanced business portfolio. In September 2018, we announced the acquisition of a 59.15% interest in Orange Life Insurance, the former Korean unit of ING Life Insurance, as part of our efforts to diversify and enhance our non-banking businesses and closed on February 1, 2019. On January 28, 2020, we acquired the remaining interests in Orange Life Insurance by effecting a comprehensive stock exchange under Articles 360-2 of the Korean Commercial Code whereby holders (other than us) of Orange Life Insurance's common stock transferred all of their shares to us and in return receive shares of our common stock, and hence Orange Life Insurance has become our wholly owned subsidiary as of such date. On October 31, 2018, we agreed to acquire Asia Trust Co., Ltd. in order to expand our real estate business capacity and have also acquired certain small-sized overseas financial service companies and asset management companies. We expect to integrate these and any future acquisitions with our existing businesses and generate synergies and expand our business capabilities. However, we may encounter significant risks, including difficulty in successfully integrating acquired businesses, increased expenses such as working capital requirements or capital expenditures, regulatory risks and financial risks such as potential liabilities of the businesses we acquire. In addition, evaluating potential acquisitions may require us to incur significant expenses or divert management's attention away from other business issues. As such, no assurance can be given that any completed or contemplated acquisitions will not have a negative effect on our business, financial condition and results of operations that outweigh any potential benefits.

Other Risks Relating to Us as the Holding Company

Our ability to continue to pay dividends and service debt will depend on the level of profits and cash flows of our subsidiaries.

We are a financial holding company with minimal operating assets other than the shares of our subsidiaries. Our primary source of funding and cash flow is dividends from, or disposition of our interests in, our subsidiaries or our cash resources, most of which are currently the result of borrowings. Since our principal assets are the outstanding capital stock of our subsidiaries, our ability to pay dividends on our common and preferred shares and service debt will mainly depend on the dividend payments from our subsidiaries.

Companies in Korea are subject to certain legal and regulatory restrictions with respect to payment of dividends. For example, under the Korean Commercial Code, dividends may only be paid out of distributable income, which is calculated by subtracting the aggregate amount of a company's paid-in capital and certain mandatory legal reserves from its net assets, in each case as of the end of the prior fiscal year. In addition, financial companies in Korea, including banks, credit card companies, securities companies and life insurers, such as our subsidiaries, must meet minimum capital requirements and capital adequacy ratios applicable to their respective industries before dividends can be paid. For example, under the Banking Act of 1950, as amended (the "Banking Act"), a bank is required to credit at least 10% of its net profit to a legal reserve each time it pays dividends on distributable income until such time when this reserve equals the amount of its total paid-in capital, and under the Banking Act, the Specialized Credit Financial Business Act and the regulations promulgated by the Financial Services Commission, if a bank or a credit card company fails to meet its required capital adequacy ratio or is otherwise subject to the management improvement measures imposed by the Financial Services Commission, then the Financial Services Commission may restrict the declaration and payment of dividend by such a bank or credit card company. In addition, if our or our subsidiaries' capital adequacy ratios fall below the required levels, our ability to pay dividends may be restricted by the Financial Services Commission.

Damage to our reputation could harm our business.

We are one of the largest and most influential financial institutions in Korea by virtue of our financial track records, market share and the size of our operations and customer base. Our reputation is critical to maintaining our relationships with clients, investors, regulators and the general public. Our reputation can be damaged in numerous ways, including, among others, employee misconduct (including embezzlement), cyber or other security breaches, litigation, compliance failures, corporate governance issues, failure to properly address potential conflicts of interest, the activities of customers and counterparties over which we have limited or no control, prolonged or exacting scrutiny from regulatory authorities and customers regarding our trade practices, or uncertainty about our financial soundness and our reliability. If we are unable to prevent or properly address these concerns, we could lose our existing or prospective customers and investors, which could adversely affect our business, financial condition and results of operations. For details of the claims, disputes, legal proceedings and government investigations we are subject to, see "Item 8.A. Consolidated Statements and Other Financial Information — Legal Proceedings."

Our risk management policies and procedures may not be fully effective at all times.

In the course of our operations, we must manage a number of risks, such as credit risks, market risks and operational risks. We seek to monitor and manage our risk exposures through a comprehensive risk management platform, encompassing centralized risk management organization and credit evaluation systems, reporting and monitoring systems, early warning systems and other risk management infrastructure, using a variety of risk management strategies and techniques. See "Item 4.B. Business Overview — Risk Management." Although we devote significant resources to developing and improving our risk management policies and procedures and expect to continue to do so in the future, our risk management practices may not be fully effective at all times in eliminating or mitigating risk exposures in all market environments or against all types of risk, including risks that are unidentified or unanticipated. For example, in the past, a limited number of our and our subsidiaries' personnel engaged in embezzlement of substantial amounts for an extended period of time before such activities were detected by our risk management systems. In response to these incidents, we have strengthened our internal control procedures by, among others, implementing a real-time monitoring system, but there is no assurance that such measures will be sufficient to prevent similar employee misconducts in the future. Management of credit, market and operational risk requires, among others, policies and procedures to record properly and verify a large number of transactions and events, and we cannot assure you that these policies and procedures will prove to be fully effective at all times against all the risks we face.

We may experience disruptions, delays and other difficulties relating to our information technology systems.

We rely on our information technology systems to seamlessly provide our wide-ranging financial services as well as for our daily operations, including billing, online and offline financial transactions settlement and record keeping. We continually upgrade, and make substantial expenditures to upgrade, our group-wide information technology system, including in relation to customer data-sharing and other customer relations management systems, particularly in light of the heightened cyber security risks from advances in technology. Despite our best efforts, however, we may experience disruptions, delays, cyber or other security breaches or other difficulties relating to our information technology systems, and may not timely upgrade our systems as currently planned. Any of these developments may have an adverse effect on our business, particularly if our customers perceive us to not be providing the best-in-class cyber security systems and failing to timely and fully rectify any glitches in our information technology systems.

Our activities are subject to cyber security risk.

Our activities have been, and will continue to be, subject to an increasing risk of cyber-attacks, the nature of which is continually evolving. Cyber security risks include unauthorized access, through system-wide "hacking" or other means, to privileged and sensitive customer information, including passwords and account information, and illegal use thereof. Cyber security risk is generally on the rise as a growing number of our customers increasingly rely on our Internet- and mobile phone-based banking services for various types of financial transactions. While we vigilantly protect customer data through encryption and other security programs and have made substantial investments to build and upgrade our systems and defenses to address the growing threats from cyber-attacks, there is no assurance that such data will not be subject to future security breaches. In addition, there can be no assurance that we will not experience a leakage of customer information or other security breaches as a result of illegal activities by our employees, outside consultants or hackers, or otherwise.

For example, in March 2013, we experienced a temporary interruption in providing online financial services due to large-scale cyber-attacks by unidentified sources on the security systems of major broadcasting networks and financial institutions in Korea. The interruption of our online financial services lasted approximately 90 minutes, after which our online system resumed without further malfunction. The Financial Supervisory Service conducted an investigation into the incident and found that Shinhan Bank and Jeju Bank had not properly maintained their information technology administrator accounts and vaccine servers. As a result, in December 2013, the Financial Supervisory Service notified Shinhan Bank and Jeju Bank of an institutional caution (which does not give rise to significant sanctions unlike in the case of repeated institutional warnings) and imposed disciplinary actions against five of Shinhan Bank's employees and three of Jeju Bank's employees. We do not believe such incident resulted in any material loss or leakage of customer information or other sensitive data.

Major financial institutions in Korea and around the world have also fallen victim to large-scale data leakage in the past. In December 2013, it was reported that there was a leakage of personal information of approximately 130,000 customers of Standard Chartered Bank and Citibank in Korea, which leakage was attributed to a third party sub-contractor in the case of Standard Chartered Bank, and an employee in the case of Citibank. In addition, in January 2014, it was reported that there was a leakage of personal information of approximately 100 million customers of NH Card, Lotte Card and KB Card in Korea due to illegal access to such information by an employee of a third party credit information company in the course of developing information technology programs for these three credit card companies. In 2017, Equifax Inc., a U.S. credit reporting company, was reported to have suffered a breach of personal information of over 143 million people.

Other than the cyber security attack in March 2013 as discussed above, we have not experienced any material security breaches in the past, including any similar large scale leakage of customer information. In order to minimize the risk of security breaches related to customer and our other proprietary information, we have taken a series of group-wide preventive measures, such as the adoption and implementation of a best-in-class information security system and reinforcement of internal control measures. We are fully committed to maintaining the highest standards of cyber security and consumer protection measures and upgrading them continually. We have implemented the ISO 27001-certified security management system for us and all our subsidiaries, and we have obtained the Information Security Management System certification for most of our subsidiaries. We believe such certifications represent third-party validations that we are in compliance with best-in-class international standards on matters of information security. Our Integrated Security Control Center's security management system enables us to continuously monitor for signs of potential cyber-attacks and provides us with advance warnings that will allow us to promptly respond to such attacks. Our security management system continuously monitors for signs of potential cyber-attacks and is designed to provide early warning alerts to enable prompt action by us. In order to prevent intentional and accidental security issues by our employees, we have created a violation monitoring system, reinforcing our security measures by preemptively identifying various scenarios of threats and by collecting and analyzing different types of data that allows us to quickly identify any potential security violations. Moreover, we established a new information security lab to build a continuous security research and development system to respond to hacking and other cyber threats. Through these measures, we are developing technical capabilities necessary to respond to the latest security threats. We also provide intensive employee training to our information technology staff and other employees on cyber security and have adopted advanced security infrastructure (including through hiring a highly competent team of information security experts) for online financial services such as mandatory website certification and keyboard security functions. In addition, reviews of our system are conducted, across all of our subsidiaries, through periodic audits and simulation reviews by external experts. In addition, in compliance with applicable regulations we currently carry insurance to cover cyber security breaches up to ₩10 billion in relation to our banking business and up to ₩3 billion in the aggregate and up to ₩1 billion per incident for our securities investment business and have set aside a reserve of ₩1 billion for our credit card business. In addition, in light of the growing use of mobile devices to access financial services, we have implemented security measures (including encryptions and service terminal monitoring) to provide a secure mobile banking service as well as to prevent illegal leakage or sharing of customer data and otherwise enhance customer privacy. We are also keenly aware of the litigation and regulatory sanctions risks that may arise from security breaches and are aggressively reinforcing a group-wide culture that stresses safety and good custodianship as among our highest priorities. Furthermore, we are actively taking steps to implement preventive and other steps recommended or required by the regulatory authorities in relation to actual and potential financial scams. However, given the unpredictable and continually evolving nature of cyber security threats due to advances in technology or other reasons, there is no assurance that, notwithstanding our best efforts at maintaining the best-in-class cyber security systems, we will not be vulnerable to major cyber security attacks in the future.

The public is developing heightened awareness about the importance of keeping their personal data private, and the financial regulators are placing greater emphasis on data protection by financial service providers. For example, under the Personal Information Protection Act, as last amended in October 2017, financial institutions, as personal information manager, may not collect, store, maintain, utilize or provide resident registration numbers of their customers, unless other laws or regulations specifically request or permit the management of resident registration numbers. Further, under the Use and Protection of Credit Information Act, as last amended in December 2018, a financial institution has a higher duty to protect credit information, meaning information necessary to assess the creditworthiness of the counterparty to financial transactions and other commercial transactions. Such regulations have considerably restricted a financial institution’s ability to transfer or provide the information to its affiliate or holding company, and treble damages can be imposed on a financial institution for a leakage of such information. In addition, under the Electronic Financial Transaction Act, as last amended in April 2017 with effect from October 2017, a financial institution is primarily responsible for compensating its customers harmed by the financial institution’s cyber security breach, even if the breach is not directly attributable to the financial institution. Recently, on January 9, 2020, the Korean National Assembly passed amendments to three major data privacy laws (the Personal Information Protection Act, the Act on the Promotion of Information and Communications Network Utilization and Information Protection and the Act on the Use and Protection of Credit Information), expanding the scope of personal information that may be shared among financial institutions. With this, we expect cyber security and ensuring confidentiality of customers’ information to become more important than ever for financial institutions. We maintain an integrated system that closely monitors customer information to ensure compliance with data protection laws and regulations as well as our internal policies.

If a cyber or other security breach were to happen with respect to us or any of our subsidiaries, it may result in litigation by affected customers or other third parties (including class actions), compensation for any losses suffered by victims of cyber security attacks, reputational damage, loss of customers, heightened regulatory scrutiny and related sanctions, more stringent compliance with the present and future regulatory restrictions, and other costs related to damage control, reparation and reinforcement of information security systems, any of which may have a material adverse effect on our business, results of operations and financial condition.

Our customers may become victims to “voice phishing” or other financial scams, for which we may be required to make monetary compensation and suffer damage to our business and reputation.

In recent years, financial scams known as voice phishing have been on the rise in Korea. While voice phishing takes many forms and has evolved over time in terms of sophistication, it typically involves the scammer making a phone call to a victim under false pretenses (for example, the scammer pretending to be a member of law enforcement, an employee of a financial institution or even an abductor of the victim’s child) and luring the victim to transfer money to an untraceable account controlled by the scammer. More recently, voice phishing has increasingly taken the form of the scammer “hacking” or otherwise wrongfully obtaining personal financial information of the victim (such as credit card numbers or Internet banking login information) over the telephone or other means and illegally using such information to obtain credit card loans or cash advances through automated telephone banking or Internet banking. Reportedly, a substantial number of such scammers belong to international criminal syndicates with bases overseas, such as China, with operatives in Korea.

In response to the growing incidents of voice phishing, regulatory authorities have undertaken a number of steps to protect consumers against voice phishing and other financial scams. There is no assurance, however, that the regulatory activities will have the desired effect of substantially eradicating or even containing the incidents of voice phishing or other financial scams. For example, following an investigation in November and December

2011 of major credit card companies, including Shinhan Card, as to their compliance with regulations on card loan-related voice phishing and the scope of damage suffered by customers as a result of voice phishing, the Financial Supervisory Service issued a number of guidelines for credit companies to comply with in order to minimize damage from voice phishing, including, among others, (i) strengthening identity verification procedures for card loan applications that are made online or through the automated response system, (ii) delaying the timing of loan payout by a few hours following the approval of card loan application, and (iii) giving an option to customers to block card loan applications. In May 2012, Shinhan Card completed all necessary steps to fully comply with these additional guidelines and has been in full compliance since then.

Although the financial institutions are often not legally at fault for the damage suffered by victims of voice phishing, the compensation scheme was adopted largely in consideration of social responsibility among financial institutions and that the financial institutions were not required to, and therefore in many instances did not, confirm the personal identity of the card loan or cash advance applicants prior to the adoption of such scheme. On December 8, 2011, Shinhan Card began implementing a mandatory outcall procedure to verify the personal identity of applicants for card loans and cash advances if not requested in person. In January 2012, financial institutions, the Financial Supervisory Service, the police and other related institutions formed a joint committee to prevent voice phishing incidents and implemented preventive measures such as enforcing a 10 minute delay for withdrawal of credit card loans of ₩3 million or more from an automated teller machine. In addition, Shinhan Card and our other subsidiaries have established a fraud detection system that identifies any questionable transactions based on deviations from a customer’s conventional transaction patterns.

Partly as a result of these efforts, Shinhan Card did not receive any claims in 2019 in relation to voice phishing. Accordingly, we do not believe that any currently outstanding claims in relation to voice phishing will have a material adverse impact on our business, financial condition or results of operations. Additionally, other than voice phishing incidents and the recent cyber security attacks as discussed above, we have not experienced any material security breaches in the past. However, given continual advances in technology and the increasing sophistication of the financial scammers, there is no assurance that we will be able to prevent future financial scams or that the frequency and scope of financial scams will not rise. If financial scams involving us and our subsidiaries were to continue or to become more prevalent, it may result in compensation for any losses suffered by victims thereof, reputational damage, loss of customers, heightened regulatory scrutiny and related sanctions, compliance with the present and future regulatory restrictions, and other costs related to damage control, reparation and reinforcement of our preventive measures, any of which may have a material adverse effect on our business, results of operations and financial condition.

Legal claims and regulatory risks arise in the conduct of our business.

In the ordinary course of our business, we are subject to regulatory oversight and potential legal and administrative liability risk. We are also subject to a variety of other claims, disputes, legal proceedings and government investigations in Korea and other jurisdictions where we are active. See “Item 8.A. Consolidated Statements and Other Financial Information — Legal Proceedings.” These types of proceedings may expose us to substantial monetary and/or reputational damages and legal defense costs, injunctive relief, criminal and civil penalties and the potential for regulatory restrictions on our businesses. The outcome of these matters cannot be predicted and they could adversely affect our future business.

While we plan to rigorously defend our positions in the lawsuits or other regulatory proceedings against us, it is difficult to predict the final outcome of such cases. The total amount in dispute may increase during the course of litigation and other lawsuits may be brought against us based on similar allegations. Accordingly, these lawsuits and other proceedings may have a material adverse effect on our business, financial condition and results of operations.

Risks Relating to Law, Regulation and Government Policy

We are a heavily regulated entity and operate in a legal and regulatory environment that is subject to change, and violations could result in penalties and other regulatory actions.

As a financial services provider, we are subject to a number of regulations that are designed to maintain the safety and soundness of Korea's financial system, to ensure our compliance with economic and other obligations and to limit our risk exposure. These regulations may limit our activities, and changes in these regulations may increase our costs of doing business. Regulatory agencies frequently review regulations relating to our business and implement new regulatory measures, including increasing the minimum required provisioning levels or capital adequacy ratios applicable to us and our subsidiaries from time to time. We expect the regulatory environment in which we operate to continue to change. Changes in regulations applicable to us, our subsidiaries and our or their business or changes in the implementation or interpretation of such regulations could affect us and our subsidiaries in unpredictable ways and could adversely affect our business, results of operations and financial condition.

Upon implementation of the Government-proposed Financial Consumer Protection Act (currently pending at the National Assembly's subcommittee for review of the bill), banks as financial instrument distributors will be subject to heightened investor and consumer protection measures, including stricter distribution guidelines, improved financial dispute resolution system, increased liability for damages borne by direct financial instrument distributors and newly imposed penalty surcharges. We may also become subject to other restrictions on our operations as a result of future changes in laws and regulations, including more stringent liquidity and capital requirements under Basel III, which are being adopted in phases in Korea in consideration of, among others, the pace and scope of international adoption of such requirements. Any of these regulatory developments may have a material adverse effect on our ability to expand operations or adequately manage our risks and liabilities. For further details on the principal laws and regulations applicable to us as a holding company and our principal subsidiaries, see "Item 4.B. Business Overview — Supervision and Regulation."

In addition, violations of law and regulations could expose us to significant liabilities and sanctions. For example, the Financial Supervisory Service conducts periodic audits on us and, from time to time, we have received institutional warnings from the Financial Supervisory Service. If the Financial Supervisory Service determines as part of such audit or otherwise that our financial condition, including the financial conditions of our operating subsidiaries, is unsound or that we have violated applicable law or regulations, including Financial Services Commission orders, or if we or our operating subsidiaries fail to meet the applicable requisite capital ratio or the capital adequacy ratio, as the case may be, set forth under Korean law, the Financial Supervisory Service may ask the Financial Services Commission to order, among other things, cancellations of authorization, permission or registration of the business, suspensions of a part or all of the business, closures of branch offices, recommendations for dismissal of officers or suspensions of officers from performing their duties, or may order, among other things, institutional warnings, institutional cautions, reprimanding warnings on officers, cautionary warnings on officers or cautions on officers. From time to time, our subsidiaries, including Shinhan Bank and Shinhan Card, have been subject to investigations and/or sanctions from the Financial Supervisory Service. See "Item 8.A. Consolidated Statements and Other Financial Information — Legal Proceedings." If any such measures are imposed on us or our subsidiaries as a result of unsound financial condition or failure to comply with minimum capital adequacy requirements or for other reasons, it will have a material adverse effect on us and our subsidiaries' business, financial condition and results of operations.

The Government may encourage targeted lending to certain sectors in furtherance of policy objectives, and we may take this factor into account.

The Government has encouraged and may in the future encourage targeted lending to certain types of enterprises and individuals in furtherance of government initiatives. The Government, through its regulatory bodies such as the Financial Services Commission, from time to time announces lending policies to encourage Korean banks and financial institutions, including us and our subsidiaries, to lend to particular industries, business groups or customer segments, and, in certain cases, has provided lower cost funding through loans made by the Bank of Korea for further lending to specific customer segments.

For example, the Government has taken and is taking various initiatives to support small- and medium-sized enterprises and low-income individuals, who were disproportionately affected by the downturn in the Korean and global economy in the late 2000s and have yet to fully recover. As part of these initiatives, the Financial Supervisory Service has recently encouraged banks in Korea to increase lending to small- and medium-sized enterprises in order to ease the financial burden on such enterprises amid sluggish economic recovery, and in February 2016, the Bank of Korea announced that it would increase support for loans to small- and medium-sized enterprises in anticipation of growing liquidity difficulties among such enterprises in light of the sustained sluggishness of the general economy and to stimulate trade exports, infrastructure investments and entrepreneurial efforts. The financial regulators have also adopted several measures designed to improve certain lending practices of the commercial banks which practices were perceived as having an unduly prohibitive effect on extending loans to small- to medium-sized enterprises. Moreover, in response to the threat posed to the economy by the recent coronavirus (COVID-19) outbreak, the Government has implemented various emergency aid initiatives involving Korean banks, including Shinhan Bank, to provide liquidity assistance to small- and medium-sized enterprises. Such initiatives include extending new loans to borrowers with low credit ratings, extending maturity dates on existing loans and deferring interest payment obligations on certain loans. Our participation in such Government initiatives may lead us to extend credit to small- and medium-sized enterprises that we would not otherwise extend, or offer terms on such credit that we would not otherwise offer, in the absence of such initiatives. There is no guarantee that the financial condition and liquidity of the small- and medium-sized enterprises benefiting from such initiatives will improve sufficiently for them to service their debt on a timely basis or at all. Accordingly, an increase in our exposure to small- and medium-sized enterprise borrowers resulting from such Government initiatives may have a material adverse effect on our financial condition and results of operations.

In addition, as a way of supporting the Government's initiative to assist promising startups, in February 2015, the financial regulators announced that they would encourage the banks in Korea to increase lending to technology companies in the small- to medium-sized enterprise segment and to enhance technology-related credit review capabilities. Pursuant to these initiatives, Shinhan Bank has reinforced its credit review process with increased staff and developed a technology-related credit assessment system, resulting in a Level 4 designation for 2019, the highest among Korean commercial banks, by the Financial Services Commission in terms of technology evaluation capability. According to the Korea Federation of Banks, the aggregate balance of loans to technology companies in the small- to medium-sized enterprise segment reached ₩127.7 trillion, ₩163.8 trillion and ₩191.7 trillion as of December 31, 2017, 2018 and September 2019, respectively. Shinhan Bank's total lending to technology companies extended during the year ended December 31, 2017, 2018 and 2019 was ₩14.5 trillion, ₩18.1 trillion and ₩21.7 trillion, respectively, and the total balance of outstanding loans to technology companies as of December 31, 2019 was ₩26.4 trillion.

Furthermore, in response to an increasing level of consumer debt and amid concerns over the debt-servicing capacity of retail borrowers if interest rates were to rise, the Financial Services Commission announced in February 2014 that it plans to increase the proportion of fixed interest rate loans and installment principal repayment-based loans within the total housing loans extended by commercial banks (which loans have historically been, for the most part, variable interest rate loans with the entire principal being repaid at maturity, which is usually rolled over on an annual basis). According to this plan, the target proportion for fixed interest rate loans was set at 35%, 37.5% and 40% and the target proportion for installment principal repayment-based housing loans was set at 35%, 40% and 45%, each by the end of 2015, 2016 and 2017, respectively. Amid concerns about increasing household debt, in May 2016 the target proportion for fixed interest rate loans and installment principal repayment-based housing loans for 2016 were increased to 40% and 45%, respectively, and in February 2017 the target proportion for fixed interest rate loans and installment principal repayment-based housing loans for 2017 were increased to 45% and 55%, respectively. The target proportions for fixed interest rate loans for 2018 and 2019 were subsequently increased to 47.5% and 48%, respectively, while the target proportion for installment principal repayment-based housing loans remained at 55% for 2018 and 2019. In April 2020, the Financial Services Commission announced that the target proportion for fixed interest rate loans for 2020 would be set at 50%. In addition, an expanded tax deduction limit for interest repayment is granted for loans with maturity of 10 years or more (compared to 15 years or more prior to this plan). The Financial Services Commission announced that it would examine whether banks meet their targets on an annual basis.

In furtherance of the policy to expand the proportion of fixed rate housing loans, the Financial Services Commission implemented "Relief Debt Conversion" program from March 24 to March 27, 2015 and from March 30 to April 3, 2015, respectively, under which borrowers of eligible housing loans (namely, loans that have been in existence for one year or more since the original loan date, with no delinquency in the past six months, with principal amounts of ₩500 million or less and for houses valued at ₩900 million or less that are on a floating rate basis and/or an interest payment only basis) might convert such loans to new fixed rate loans in respect of which the borrowers would be required to repay the principal and interest in installment for a term of 10, 15, 20 or 30 years without a grace period, provided that the new loans pass the maximum loan-to-value ratio of 70% (irrespective of the location of the property) and the maximum debt-to-income ratio of 60% (only in respect of apartment units located in the greater Seoul metropolitan area, subject to certain exceptions). The borrowers were allowed to convert the original loans only at the banks that extended such loans. According to the Financial Services Commission, under this program, approximately 327,000 borrowers converted loans in the aggregate amount of ₩31.7 trillion to fixed rate loans, of which Shinhan Bank accounted for approximately 13.5%. Due in large part to such initiatives, fixed interest rate loans and installment principal repayment-based loans accounted for 44.2% and 51.0%, respectively, of the total housing loans extended by commercial banks in Korea as of June 30, 2018, according to data published by the Government in December 2018. Fixed interest rate and installment principal repayment-based housing loans accounted for 45.8% and 49.6%, respectively, of the housing loans extended by Shinhan Bank as of December 31, 2019.

On August 26, 2019, the Financial Services Commission announced that it will implement an additional round of the program for up to ₩20 trillion. Despite tighter thresholds for eligibility, including newly adopted restrictions on annual income, and the imposition of prepayment penalties, the newly implemented program is expected to be substantively similar to the mortgage refinancing program implemented in 2015. Similar to the 2015 program, banks holding newly converted fixed rate loans will be required to sell such loans to Korea Housing Finance Corporation, which will then securitize such loans and issue mortgage-backed securities (backed by such loans) to be purchased by the banks who sold the loans in proportion to the amounts of the loans sold. The amount of loans Shinhan Bank will need to transfer to Korea Housing Finance Corporation is ₩1.7 trillion, but the amount of mortgage-backed securities Shinhan Bank will need to purchase from Korea Housing Finance Corporation has yet to be determined. Similar to the 2015 program, in the event that market interest rates increase from those applicable during this program's implementation, we may experience valuation or realization losses on the mortgage-backed securities to be held by Shinhan Bank. Further, Shinhan Bank will be required to hold mortgage-backed securities it purchases from Korea Housing Finance Corporation under the program for a period of one year, and Shinhan Bank also may not be able to sell or otherwise dispose of the mortgage backed securities in the market or otherwise in amounts or at prices commercially reasonable due to the prevailing interest rate environment and/or other market conditions. As a result of this program, we may incur additional costs from recalibrating our asset portfolio and asset-liability management policy. Any of these developments could adversely affect our results of operations and financial condition.

We, on a voluntary basis, may factor the existence of the Government's policies and encouragements into consideration in making loans although the ultimate decision whether to make loans remains with us and is made based on our internal credit approval procedures and risk management systems independently of Government policies. In addition, in tandem with providing additional loans to small- and medium-sized enterprises and low-income individuals, Shinhan Bank takes active steps to mitigate the potential adverse impacts from making bad loans to enterprises or individuals with high risk profiles as a result of such arrangement, such as by strengthening its loan review and post-lending monitoring processes. However, we cannot assure you that such arrangement did not or will not, or similar or other government-led initiatives in the future will not, result in a suboptimal allocation of our loan portfolio from a risk-reward perspective compared to what we would have allocated based on purely commercial decisions in the absence of such initiatives. The Government may implement similar or other initiatives in the future to spur the overall economy or encourage the growth of targeted industries or relief to certain segments of the population. Specifically, the Government may introduce lending-related initiatives or enforce existing ones in a heightened fashion during times when small- and medium-sized enterprises or low-income households on average are facing an increased level of financial distress or vulnerability due to an economic downturn, which makes lending to them in the volume and the manner suggested by the Government even riskier and less commercially desirable. Accordingly, such policy-driven lending may create enhanced difficulties for us in terms of risk management, deterioration of our asset quality and reduced earnings, compared to what would have been in the absence of such initiatives, which may have an adverse effect on our business, financial condition and results of operations.

The Government may also encourage investments in certain institutions in furtherance of policy objectives, and we may not recoup our investments therein in a timely or otherwise commercially reasonable manner.

In addition to targeted lending, the Government may from time to time encourage or request the financial institutions in Korea, including us and our subsidiaries, to make investments in, or provide other forms of financial support to, certain institutions in furtherance of the Government's policy objectives. In response thereto, we have made and will continue to make the ultimate decision on whether, how and to what extent we will comply with such encouragements or requests based on our internal risk assessment and in accordance with our risk management systems and policies. At the same time, as a leading member of the financial service industry in Korea and as a responsible corporate citizen we will also fully give due consideration to such encouragements or requests from the Government, especially in relation to the long-term benefit arising from furthering the policy objective of maintaining a sound financial system, even if complying with such requests may involve additional short-term costs and risks to a limited extent.

For example, to deal with a growing number of non-performing loans in the wake of the global financial crisis of 2008-2009, the Government sponsored the establishment of United Asset Management Company Ltd. ("UAMCO") in October 2009 through capital contributions from six major policy and commercial banks, namely Shinhan Bank, Kookmin Bank, KEB Hana Bank, Industrial Bank of Korea, Woori Bank and Nonghyup Bank. The Government originally planned to dispose of UAMCO during 2015 and establish a new company that specializes in corporate restructuring, but the Government scrapped such plans and instead decided to reorganize UAMCO and expand its restructuring business. As part of an effort to strengthen its balance sheet, UAMCO received additional capital contributions in May 2016 from two new shareholders, Korea Development Bank and the Export-Import Bank of Korea, and two of its existing shareholders, Woori Bank and Nonghyup Bank. Shinhan Bank has committed to contribute ₩175 billion of capital to UAMCO, of which ₩85.1 billion has been contributed to date. As of the date hereof, Shinhan Bank holds a 14% equity interest in UAMCO, while seven other policy and commercial banks each hold interests ranging from 2% to 14%.

UAMCO seeks to achieve financial improvement of struggling companies through a wide range of restructuring programs, including debt restructuring, capital injection, asset sales, corporate reorganization, workouts and liquidation and bankruptcy proceedings and is the largest purchaser in Korea of non-performing financial assets generally. Shinhan Bank sold non-performing assets to UAMCO in the amount of ₩118.2 billion, ₩131.7 billion and ₩110.4 billion, in 2017, 2018 and 2019, respectively. With an enlarged capital base following the recent capital contributions mentioned above, it is expected that UAMCO will play a more active role in the restructuring of the Korean corporate sector. The Government is also considering an amendment of the Financial Investment Services and Capital Markets Act of Korea to facilitate the business activities of UAMCO.

If UAMCO is successful in its expanded restructuring activities, it is anticipated that financial institutions including us will be able to further enhance their financial soundness by transferring more non-performing loans to UAMCO rather than directly engaging in the restructuring activities of the troubled borrowers. However, Shinhan Bank or other banks may be requested by the Government to make additional capital contributions or loans to UAMCO, which may entail unanticipated costs. Additionally, given the generally poor quality of our non-performing assets, there is no assurance that we will be able to sell such assets held by us to UAMCO on commercially reasonable terms and on a timely basis. Furthermore, there is no assurance that in furtherance of similar or other policy objectives, the Government may not request or otherwise encourage us or our subsidiaries to provide similar or other investments or provide other financial support for which we are not duly compensated or otherwise take up additional risk that we would not normally have undertaken, which may have an adverse effect on our business, financial condition and results of operations.

The level and scope of government oversight of our retail lending business, particularly regarding mortgage and home equity loans, may change depending on the economic or political climate.

Real estate comprises the most significant asset for a substantial number of households in Korea, and movements of housing prices have generally had a significant impact on the domestic economy. Accordingly, regulating housing prices, either in terms of attempting to stem actual or anticipated excessive speculation during times of a suspected housing price bubble and spur the pricing and/or volume of real estate transactions during times of a depressed real estate market by way of tax subsidy, guidelines to lending institutions or otherwise, has been a key policy initiative for the Government.

For example, during the early to mid-2000s, the Government adopted several regulatory measures, including in relation to retail banking, to stem a rise in speculation in real estate investments generally and in select areas. Some of the measures undertaken in the past include requiring financial institutions to impose stricter debt-to-income ratio and loan-to-value ratio requirements for mortgage loans for real property located in areas deemed to have engaged in a high level of speculation, raising property tax on real estate transactions for owners of multiple residential units, adopting a ceiling on the sale price of newly constructed housing units and recommending that commercial banks restrain from making further mortgage and home equity lending, among others. In addition, amid a prolonged slump in the housing market in Korea, in April 2013, the Government announced a real estate comprehensive countermeasure, which provides, among other things, for (i) reduced capital gains tax and (ii) exemption of acquisition tax for first-time homebuyers. In addition, in November 2013, the Government announced a permanent reduction in acquisition tax, with retrospective application from August 2013. Prior to such reduction, acquisition tax was assessed on a differentiated scale based on whether the homebuyer was purchasing a primary home or a secondary home, with the former being assessed an acquisition tax of 2% for the purchase of homes under ₩900 million and 4% for homes exceeding ₩900 million, and the latter being assessed an acquisition tax of 4% regardless of the price of the home. Under the new regulatory structure, the differentiated tax scale for primary homes and secondary homes is eliminated, and all homebuyers are assessed an acquisition tax of 1% for the purchase of homes under ₩600 million, 2% for homes exceeding ₩600 million but less than ₩900 million and 3% for homes exceeding ₩900 million. Furthermore, in February 2014, the Financial Services Commission announced plans to increase the proportion of fixed interest rate loans and installment principal repayment-based loans within the total housing loans extended by commercial banks. See "— The Government may encourage targeted lending to certain sectors in furtherance of policy objectives, and we may take this factor into account." In addition, in order to rationalize the regulations on the housing loans, the Financial Services Commission and the Financial Supervisory Service provided administrative instructions in July 2014 with effect from August 1, 2014, which have been extended and amended several times, that all financial institutions including banks under the Banking Act were subject to the maximum loan-to-value ratio of 70% (irrespective of the location of the property, subject to certain exceptions) and the maximum debt-to-income ratio of 60% (only in respect of apartment units located in the greater Seoul metropolitan area, subject to certain exceptions). The above administrative instructions have been replaced by the Regulation on the Supervision of the Banking Business and the Detailed Regulation on the Supervision of the Banking Business reflecting the tightened measures as discussed below. Furthermore, in December 2014, the National Assembly also passed several bills that were designed to stimulate the real estate market. In November 2016, amid concerns about increasing household debt, the Government announced another real estate comprehensive countermeasure requiring property buyers in Seoul to retain ownership for a longer period of time and increasing down payments to be made on the property. In January 2017, in order to modernize credit review methods and stabilize the management of household debt, the Financial Services Commission announced the planned introduction of a debt service ratio and a new debt-to-income ratio. The new debt-to-income ratio, which has been implemented beginning January 31, 2018 reflects (i) both principal and interest payments on the applicable mortgage and home equity loan and existing mortgage and home equity loans and (ii) interest payments on other loans. Previously, debt-to-income ratio had only reflected (i) both principal and interest payments on the applicable mortgage and home equity loan and (ii) interest payments on existing mortgage and home equity loans. Debt service ratios reflect principal and interest payments on both the applicable loan and other loans and have been fully implemented since October 2018. The new debt-to-income ratios are used as the primary reference index in the evaluation and approval process for mortgage and home equity loans, and debt service ratios are generally used as a supplementary reference index providing additional limits on mortgage and home equity loans. Since October 2018, loans to rental businesses are subject to a rent-to-interest ratio (calculated as the borrower's aggregate annual rental income from rental properties over its aggregate annual payment amount of interest on loans secured by such rental properties) of at least 1.25 for residential rental businesses and at least 1.50 for non-residential rental businesses.

Since June 2017, the Government led by President Moon Jae-in has announced and implemented a series of robust polices aimed at taming speculation and deterring the rise of housing prices including, among others, the designation of "speculative districts" (comprised of fifteen districts in Seoul and Sejong Special Self-Governing City as of February 21, 2020), "overheated speculative districts" (comprised of Seoul, Gwacheon City, Bundang District in Seongnam City, Gwangmyeong City, Hanam City respectively in Gyeonggi Province, Suseong District in Daegu Metropolitan City and Sejong Special Self-Governing City as of February 21, 2020) and "adjustment targeted areas" (comprised of Seoul, 25 cities, districts or other areas in Gyeonggi Province and Sejong Special Self-Governing City as of February 21, 2020) (the "speculative districts", "overheated speculative districts" and "adjustment targeted areas" are hereinafter referred to as the "regulated areas"), and the application of reduced loan-to-value ratios and debt-to-income ratios to those buying homes in the regulated areas.

For example, recently, on December 16, 2019, the Government unveiled a tighter set of measures aimed at the housing market. According to these new measures, which became effective from December 17, 2019, no mortgage or home equity loans can be provided to purchase a new home located in any of the regulated areas to a household that already owns two or more housing units. For a household that already owns one housing unit, such loans can only be provided under very limited circumstances. Furthermore, the "speculative districts" and "overheated speculative districts" are further restricted by tighter loan-to-value ratios. If the market value of a home located in any of the "speculative districts" or "overheated speculative districts" being acquired is greater than ₩1.5 billion, no mortgage or home equity loans may be provided. For homes located in any of the "speculative districts" or "overheated speculative districts" with a market value equal or less than ₩1.5 billion but greater than ₩900 million, the loans can only cover 40% of the market value up to ₩900 million and 20% of any remaining value between ₩1.5 billion and ₩900 million. In addition to the foregoing restrictions, no mortgage loan applicant buying a home in any of the "speculative districts" or "overheated speculative districts" may incur a loan that will exceed 40% of his/her debt service ratio for homes with market values exceeding ₩900 million. Furthermore, on February 20, 2020, the Government announced additional countermeasures to curb housing prices in the "adjustment targeted areas", under which if the market value of a home located in any of the "adjustment targeted areas" being acquired is greater than ₩900 million, the loans can only cover 50% of the market value up to ₩900 million and 30% of any remaining value exceeding ₩900 million. These renewed measures are expected to lead to a decline in the overall volume of home mortgage loans but may result in an increase in long-term deposit loans required for house rentals and lending to borrowers with high credit profiles.

Pursuant to the Regulation on the Supervision of the Banking Business, Shinhan Bank must maintain a loan to deposit ratio of no more than 100%. Currently, in calculating the loan to deposit ratio, there is no differentiation between retail loans and corporate loans. However, the Regulation on the Supervision of the Banking Business was amended on July 12, 2018 to provide that, beginning from January 1, 2020, in calculating such loan to deposit ratio, retail loans and corporate loans are weighed differently, with retail loans subject to a multiple of 115% and corporate loans (excluding loans to SOHOs) subject to a multiple of 85%, thereby increasing the impact of retail loans and reducing the impact of corporate loans in calculating such ratio. Additionally, the Detailed Regulation on the Supervision of the Banking Business was amended on June 30, 2018 to provide for a weighted multiple to be applied to mortgage and home equity loans where the loan-to-value ratio exceeds 60% in determining required minimum total capital (BIS) ratio. Further, the Regulation on the Supervision of the Banking Business is expected to be amended during 2020 such that the countercyclical capital buffer requirement also takes into account the increase of credit in the retail sector. The Detailed Regulation on the Supervision of the Banking Business was also amended on June 30, 2018 to add "concentration of risk in the retail sector" as an additional criterion when the Financial Supervisory Service evaluates the risk management systems of Korean banks.

There is no assurance that Government measures will achieve their intended results. While any Government measure that is designed to stimulate growth in the real estate sector may result in growth of, and improved profitability for, our retail lending business (particularly with respect to mortgage and home equity loans) at least for the short term, such measure could also result in unintended consequences, including potentially excessive speculation resulting in a "bubble" for the Korean real estate market and a subsequent market crash. In contrast, any Government measure changing the direction of its stimulative measures (for example, in order to preemptively curtail an actual or anticipated bubble in the real estate market) may result in a contraction of the real estate market, a decline in real estate prices and consequently, a reduction in the growth of, and profitability for, our retail and/or other lending businesses, as well as otherwise have an adverse effect on our business, financial condition and results of operations or profitability. See "— Risks Relating to Our Banking Business — A decline in the value of the collateral securing our loans or our inability to fully realize the collateral value may adversely affect our credit portfolio."

We engage in limited settlement transactions involving Iran which may subject us to legal or reputational risks.

The U.S. Department of the Treasury's Office of Foreign Assets Control ("OFAC") administers and enforces certain laws and regulations ("OFAC Sanctions") that impose restrictions upon dealings with or related to certain countries, governments, entities and individuals that are the subject of OFAC Sanctions, including Iran, and maintains a list of specially designated nationals (the "SDN List"), whose assets are blocked and with whom U.S. persons are generally prohibited from dealing. Some OFAC Sanctions require a U.S. nexus in order to apply ("Primary Sanctions") while other OFAC Sanctions on certain dealings with or related to Iran, North Korea, and Russia apply even in the absence of a U.S. nexus ("Secondary Sanctions"). Non-U.S. persons are subject to Secondary Sanctions and can also be held liable for violations of Primary Sanctions on various legal grounds, such as causing violations by U.S. persons by engaging in transactions completed in part in the United States. The European Union also enforces certain laws and regulations that impose restrictions upon nationals and entities of, and business conducted in, member states with respect to activities or transactions with certain countries, governments, entities and individuals that are the subject of such laws and regulations. The United Nations Security Council and other governmental entities also impose similar sanctions.

In August 2016, the government of Korea authorized Shinhan Bank to act as a settlement bank for Euro-denominated transactions between Korean and Iranian businesses. Prior to the granting of this permission, payments for business activities were settled only in Korean Won and we did not participate in such settlements. From August 2016 through August 2017, Shinhan Bank processed ten such transactions that resulted in a minimal amount of revenue. Since August 2017, Shinhan Bank has ceased processing any such transactions and has no intention to process any such transactions in the future. We are committed to engaging only in lawful activities and in obeying all relevant OFAC Sanctions and European Union sanctions but cannot guarantee that actions taken by our employees will not violate such sanctions. On May 8, 2018, U.S. President Donald Trump announced his decision to terminate the participation of the United States in the Joint Comprehensive Plan of Action (the "JCPOA"), pursuant to which certain relief of OFAC Sanctions relating to Iran had been provided. Following two wind down periods, one that ended on August 6, 2018 and one that ended on November 4, 2018, all Iran-related Secondary Sanctions that had been waived pursuant to the JCPOA were re-imposed and non-U.S. persons now face risk of Secondary Sanctions for dealing with certain key sectors of the Iranian economy or for providing associated services related to the targeted activities. As such, any Iran-related activities may subject us to OFAC Sanctions and to potential legal or reputational risks.

The implementation of IFRS 9 with effect from January 1, 2018 renders certain of our historical financial information as of and for the years ended December 31, 2015, 2016 and 2017 not directly comparable with that of our financial information after January 1, 2018.

With effect from January 1, 2018, IFRS 9 'Financial Instruments' has replaced in entirety previous guidance in IAS 39. Following the adoption of IFRS 9, we are required to re-classify and re-measure (including impairment measurement) certain of our financial instruments from January 1, 2018 without requiring any restatement of the corresponding figures of the prior period. Based on the method of adoption allowed under IFRS 9, we are permitted to adjust our shareholder equity from January 1, 2018 without requiring any restatement of the corresponding figures of the prior period where the difference between the new carrying amount and original carrying amount recognized in retained earnings. The difference between the new carrying amount and original carrying amount amounted to ₩344 billion as of January 1, 2018. As we are not required to restate affected financial figures with the implementation of IFRS 9, certain of our historical financial information as of and for the years ended December 31, 2015, 2016 and 2017 is not directly comparable against that of our financial information after January 1, 2018. Investors must therefore exercise caution when making comparisons of any financial figures after January 1, 2018 against our historical financial figures prior to January 1, 2018 and when evaluating our financial condition, results of operations and results. For further information regarding the adoption of IFRS 9, see "Item 5.A. Operating Results — Critical Accounting Policies" and Note 51 of the notes to our consolidated financial statements included in this annual report.

The implementation of IFRS 9 has caused us to increase our allowance for impairment losses to cover expected credit loss on our loan portfolio and other financial instruments and may increase volatility in our profit or loss.

Following the adoption of IFRS 9, the "incurred loss" model under the previous guidance for loans, debt instruments, lease receivables, contractual assets and financial guarantee contracts has been replaced with a forward-looking "expected credit loss" model, and therefore impairment losses are likely to be recognized earlier, on a more forward-looking basis and on a broader scope of financial instruments than using the incurred loss model under the previous guidance. Accordingly, as of January 1, 2018, we increased our credit loss allowance from ₩2,579 billion to ₩3,226 billion as a result of adopting IFRS 9. IFRS 9 also introduces additional requirements for a financial asset to be measured at amortized costs or fair value through other comprehensive income compared to the previous guidance and therefore would potentially increase the proportion of financial assets that are measured at fair value through profit or loss, thereby increasing volatility in our profit or loss. For further information regarding the adoption of IFRS 9, see "Item 5.A. Operating Results — Critical Accounting Policies" and Note 51 of the notes to our consolidated financial statements included in this annual report.

Risks Relating to Korea

Unfavorable financial and economic conditions in Korea and globally may have a material adverse impact on our asset quality, liquidity and financial performance.

We are incorporated in Korea, where most of our assets are located and most of our income is generated. As a result, we are subject to political, economic, legal and regulatory risks specific to Korea, and our business, results of operations and financial condition are substantially dependent on developments relating to the Korean economy. As Korea's economy is highly dependent on the health and direction of the global economy, and investors' reactions to developments in one country can have adverse effects on the securities price of companies in other countries, we are also subject to the fluctuations of the global economy and financial markets. Factors that determine economic and business cycles in the Korean or global economy are for the most part beyond our control and inherently uncertain. In addition to discussions of recent developments regarding the global economic and market uncertainties and the risks relating to us as provided elsewhere in this section, factors that could have an adverse impact on Korea's economy in the future include, among others:

- continued volatility or deterioration in Korea's credit and capital markets;
- difficulties in the financial sectors in Europe, China and elsewhere and increased sovereign default risks in select countries and the resulting adverse effects on the global financial markets;
- declines in consumer confidence and a slowdown in consumer spending and corporate investments;
- adverse changes or volatility in foreign currency reserve levels, commodity prices (including oil prices), exchange rates (including fluctuation of the U.S. Dollar, the Euro or the Japanese Yen exchange rates or revaluation of the Chinese Renminbi and the overall impact of the United Kingdom's exit from the European Union on January 31, 2020 ("Brexit") on the value of the Korean Won), interest rates, inflation rates or stock markets;
- increasing levels of household debt;
- increasing delinquencies and credit defaults by retail and small- and medium-sized enterprise borrowers;
- continuing adverse conditions in the economies of countries and regions that are important export markets for Korea, such as the United States, Europe, Japan and China, or in emerging market economies in Asia or elsewhere, as well as increased uncertainty in the wake of Brexit;
- the economic impact of any pending or future free trade agreements;
- potential escalation of the ongoing trade war between the U.S. and China as each country introduces tariffs on goods traded with the other;
- social and labor unrest;
- decreases in the market prices of Korean real estate;
- a decrease in tax revenue and a substantial increase in the Government's expenditures for fiscal stimulus measures, unemployment compensation and other economic and social programs that, together, would lead to an increased government budget deficit;
- financial problems or lack of progress in the restructuring of Korean business groups, other large troubled companies, their suppliers or the financial sector;
- loss of investor confidence arising from corporate accounting irregularities and corporate governance issues concerning certain Korean business groups;
- increases in social expenditures to support an aging population in Korea or decreases in economic productivity due to the declining population size in Korea;
- geopolitical uncertainty and risk of further attacks by terrorist groups around the world, including the actions of the so-called "Islamic State";
- the occurrence of severe health epidemics in Korea and other parts of the world, including the recent coronavirus (COVID-19) outbreak, as well as the Ebola, Middle East Respiratory Syndrome (MERS) and Zika virus outbreaks;
- deterioration in economic or diplomatic relations between Korea and its trading partners or allies, including deterioration resulting from territorial or trade disputes or disagreements in foreign policy such as the recent diplomatic tension between Korea and China with respect to the deployment of the Terminal High Altitude Area Defense (THAAD) system in Korea and trade disputes between Korea and the United States with respect to the imposition of anti-dumping duties on Korean steel, washing machines, transformers and solar panels;

- political uncertainty, or increasing strife among or within political parties in Korea, and political gridlock within the government or in the legislature, which prevents or disrupts timely and effective policy making;
- hostilities or political or social tensions involving oil-producing countries in the Middle East and North Africa and any material disruption in the global supply of oil or sudden increase in the price of oil;
- political or social tensions involving Russia and any resulting adverse effects on the global supply of oil or the global financial markets;
- the occurrence of natural or man-made disasters in Korea (such as the sinking of the Sewol ferry in April 2014, which significantly dampened consumer sentiment in Korea for months) and other parts of the world, particularly in trading partners of Korea; and
- an increase in the level of tensions or an outbreak of hostilities between North Korea and Korea or the United States.

Any future deterioration of the Korean economy could have an adverse effect on our business, financial condition and results of operations.

Tensions with North Korea could have an adverse effect on us, the price of our common shares and our American depositary shares.

Relations between Korea and North Korea have been tense throughout Korea's modern history. The level of tension between Korea and North Korea has fluctuated and may increase abruptly as a result of current and future events. In particular, there continues to be heightened security tension in the region stemming from North Korea's hostile military and diplomatic actions, including in respect of its nuclear weapons and long-range missile programs. Some examples from recent years include the following:

- North Korea renounced its obligations under the Nuclear Non-Proliferation Treaty in January 2003 and conducted six rounds of nuclear tests since October 2006, including claimed detonations of hydrogen bombs, which are more powerful than plutonium bombs, and warheads that can be mounted on ballistic missiles. Over the years, North Korea has also conducted a series of ballistic missile tests, including missiles launched from submarines and intercontinental ballistic missiles that it claims can reach the United States mainland. In response, the Government has repeatedly condemned the provocations and flagrant violations of relevant United Nations Security Council resolutions. Internationally, the United Nations Security Council has passed a series of resolutions condemning North Korea's actions and significantly expanding the scope of sanctions applicable to North Korea, most recently in December 2017 in response to North Korea's intercontinental ballistic missile test in November 2017. Over the years, the United States and the European Union have also expanded their sanctions applicable to North Korea.
- In August 2015, two Korean soldiers were injured in a landmine explosion while on routine patrol of the southern side of the demilitarized zone. Claiming the landmines were set by North Koreans, the Korean army re-initiated its propaganda program toward North Korea utilizing loudspeakers near the demilitarized zone. In retaliation, the North Korean army fired artillery rounds on the loudspeakers, resulting in the highest level of military readiness for both sides. High-ranking officials from North Korea and Korea subsequently met for discussions intending to diffuse military tensions and released a joint statement whereby, among other things, North Korea expressed regret over the landmine explosions that wounded the Korean soldiers.
- In February 2016, in retaliation of North Korea's launch of a long-range rocket, Korea announced that it would halt its operations of the Kaesong Industrial Complex, an industrial complex in the border city of Kaesong, to impede North Korea's utilization of funds from the industrial complex to finance its nuclear and missile programs. In response, North Korea announced that it would expel all Korean

employees from the industrial complex and freeze all Korean assets in the complex. All 280 Korean workers present at Kaesong left hours after the announcement by North Korea, and the complex remains closed as of the date hereof.

- In March 2013, North Korea stated that it had entered "a state of war" with Korea, declaring the 1953 armistice invalid, and put its artillery at the highest level of combat readiness to protest the Korea-United States allies' military drills and additional sanctions imposed on North Korea for its missile and nuclear tests.

North Korea's economy also faces severe challenges, including severe inflation and food shortages, which may further aggravate social and political tensions within North Korea. In addition, reunification of Korea and North Korea could occur in the future, which would entail significant economic commitment and expenditure by Korea that may outweigh any resulting economic benefits of reunification.

In April, May and September 2018, President Moon Jae-in met Kim Jong-un in a series of summit meetings to discuss, among other matters, denuclearization of the Korean peninsula. In June 2018, U.S. President Donald Trump and Kim Jong-un in turn had an official summit in Singapore, the first ever meeting between leaders of the United States and North Korea. Subsequent to the Singapore summit, they signed a joint statement, which stated, among others, new peaceful relations and the denuclearization of the Korean peninsula. A second official summit between U.S. President Donald Trump and Kim Jong-un was held in Vietnam in February 2019 but ended abruptly and without an agreement. In June 2019, U.S. President Donald Trump and Kim Jong-un had another summit at the Korean Demilitarized Zone, following which both sides announced a resumption of denuclearization talks. However, in December 2019, North Korea announced its intention to resume missile testing, heightening tensions.

In the aftermath of these developments, there remains significant uncertainty regarding peace talks and the denuclearization of the Korean peninsula. As such, there can be no assurance that the level of tension on the Korean peninsula will not escalate in the future or that the political regime in North Korea may not suddenly collapse. Any further increase in tension or uncertainty relating to the military, political or economic stability in the Korean peninsula, including a breakdown of diplomatic negotiations over the North Korean nuclear program, occurrence of military hostilities, heightened concerns about the stability of North Korea's political leadership or its actual collapse, a leadership crisis, a breakdown of high-level contacts or accelerated reunification could have a material adverse effect on our business, financial condition and results of operations, as well as the price of our common shares and our American depositary shares.

Risks Relating to Our American Depositary Shares

There are restrictions on withdrawal and deposit of common shares under the depositary facility.

Under the deposit agreement, holders of shares of our common stock may deposit those shares with the depositary bank's custodian in Korea and obtain American depositary shares, and holders of American depositary shares may surrender American depositary shares to the depositary bank and receive shares of our common stock. However, under current Korean laws and regulations, the depositary bank is required to obtain our prior consent for the number of shares to be deposited in any given proposed deposit which exceeds the difference between (1) the aggregate number of shares deposited by us for the issuance of American depositary shares (including deposits in connection with the initial and all subsequent offerings of American depositary shares and stock dividends or other distributions related to these American depositary shares) and (2) the number of shares on deposit with the depositary bank at the time of such proposed deposit. We have consented to the deposit of outstanding shares of common stock as long as the number of American depositary shares outstanding at any time does not exceed 40,432,628. As a result, if you surrender American depositary shares and withdraw shares of common stock, you may not be able to deposit the shares again to obtain American depositary shares.

Ownership of our shares is restricted under Korean law.

Under the Financial Holding Companies Act, any single shareholder (together with certain persons in a special relationship with such shareholder) may acquire beneficial ownership of up to 10% of the total issued and outstanding shares with voting rights of a bank holding company controlling national banks such as us. In addition, any person, except for a "non-financial business group company" (as defined below), may acquire in excess of 10% of the total voting shares issued and outstanding of a financial holding company which controls a national bank, provided that a prior approval from the Financial Services Commission is obtained each time such person's aggregate holdings exceed 10% (or 15% in the case of a financial holding company controlling regional banks only), 25% or 33% of the total voting shares issued and outstanding of such financial holding company. The Government and the Korea Deposit Insurance Corporation are exempt from this limit. Furthermore, certain non-financial business group companies (i.e., (i) any same shareholder group with aggregate net assets of all non-financial business companies belonging to such group of not less than 25% of the aggregate net assets of all members of such group; (ii) any same shareholder group with aggregate assets of all non-financial business companies belonging to such group of not less than ₩2 trillion; or (iii) any mutual fund in which the same shareholder group identified in (i) or (ii) above owns more than 4% of the total shares issued and outstanding of such mutual fund) may not acquire beneficial ownership in us in excess of 4% of our outstanding voting shares, provided that such non-financial business group companies may acquire beneficial ownership of up to 10% of our outstanding voting shares with the approval of the Financial Services Commission under the condition that such non-financial business group companies will not exercise voting rights in respect of such shares in excess of the 4% limit. See "Item 4.B. Business Overview — Supervision and Regulation — Principal Regulations Applicable to Financial Holding Companies — Restrictions on Financial Holding Company Ownership." To the extent that the total number of shares of our common stock that you and your affiliates own together exceeds these limits, you will not be entitled to exercise the voting rights for the excess shares, and the Financial Services Commission may order you to dispose of the excess shares within a period of up to six months. Failure to comply with such an order would result in a fine of up to ₩50 million, plus an additional charge of up to 0.03% of the book value of such shares per day until the date of disposal.

Holders of our ADSs will not have preemptive rights in certain circumstances.

The Korean Commercial Code and our articles of incorporation require us, with some exceptions, to offer shareholders the right to subscribe for new shares in proportion to their existing ownership percentage whenever new shares are issued. If we offer any rights to subscribe for additional shares of our common stock or any rights of any other nature, the depositary bank, after consultation with us, may make the rights available to you or use reasonable efforts to dispose of the rights on your behalf and make the net proceeds available to you. The depositary bank, however, is not required to make available to you any rights to purchase any additional shares unless it deems that doing so is lawful and feasible and:

- a registration statement filed by us under the U.S. Securities Act of 1933, as amended, is in effect with respect to those shares; or
- the offering and sale of those shares is exempt from or is not subject to the registration requirements of the U.S. Securities Act.

We are under no obligation to file any registration statement with the U.S. Securities and Exchange Commission. If a registration statement is required for you to exercise preemptive rights but is not filed by us, you will not be able to exercise your preemptive rights for additional shares and you will suffer dilution of your equity interest in us.

Holders of our ADSs will not be able to exercise dissent and appraisal rights unless they have withdrawn the underlying shares of our common stock and become our direct stockholders.

Under Korean law, in some limited circumstances, including the transfer of the whole or any significant part of our business and the merger or consolidation of us with another company, dissenting stockholders have the right to require us to purchase their shares under Korean law. However, under our deposit agreement, holders of our American depositary shares do not have, and may not instruct the depositary as to the exercise of, any dissenter's rights provided to the holders of our common shares under Korean law. Therefore, if holders of our American depositary shares wish to exercise dissenting rights, they must withdraw the underlying common stock from the American depositary shares facility (and incur charges relating to that withdrawal) and become our direct stockholders prior to the record date of the shareholders' meeting at which the relevant transaction is to be approved, in order to exercise dissent and appraisal rights.

The market value of your investment in our ADSs may fluctuate due to the volatility of the Korean securities market.

Our common stock is listed on the KRX KOSPI Division of the Korea Exchange, which has a smaller market capitalization and is more volatile than the securities markets in the United States and many European countries. The market value of ADSs may fluctuate in response to the fluctuation of the trading price of shares of our common stock on the Stock Market Division of the Korea Exchange. The Stock Market Division of the Korea Exchange has experienced substantial fluctuations in the prices and volumes of sales of listed securities and the Stock Market Division of the Korea Exchange has prescribed a fixed range in which share prices are permitted to move on a daily basis. Like other securities markets, including those in developed markets, the Korean securities market has experienced problems including market manipulation, insider trading and settlement failures. The recurrence of these or similar problems could have a material adverse effect on the market price and liquidity of the securities of Korean companies, including our common stock and ADSs, in both the domestic and the international markets.

The Government has the potential ability to exert substantial influence over many aspects of the private sector business community, and in the past has exerted that influence from time to time. For example, the Government has promoted mergers to reduce what it considers excess capacity in a particular industry and has also encouraged private companies to publicly offer their securities. Similar actions in the future could have the effect of depressing or boosting the Korean securities market, whether or not intended to do so. Accordingly, actions by the government, or the perception that such actions are taking place, may take place or has ceased, may cause sudden movements in the market prices of the securities of Korean companies in the future, which may affect the market price and liquidity of our common stock and ADSs.

Your dividend payments and the amount you may realize upon a sale of your ADSs will be affected by fluctuations in the exchange rate between the U.S. Dollar and the Won.

Investors who purchase the American depositary shares will be required to pay for them in U.S. Dollars. Our outstanding shares are listed on the Korea Exchange and are quoted and traded in Won. Cash dividends, if any, in respect of the shares represented by the American depositary shares will be paid to the depositary bank in Won and then converted by the depositary bank into U.S. Dollars, subject to certain conditions. Accordingly, fluctuations in the exchange rate between the Won and the U.S. Dollar will affect, among other things, the amounts a registered holder or beneficial owner of the American depositary shares will receive from the depositary bank in respect of dividends, the U.S. Dollar value of the proceeds which a holder or owner would receive upon sale in Korea of the shares obtained upon surrender of American depositary shares and the secondary market price of the American depositary shares.

If the Government deems that certain emergency circumstances are likely to occur, it may restrict the depositary bank from converting and remitting dividends in Dollars.

If the Government deems that certain emergency circumstances are likely to occur, it may impose restrictions such as requiring foreign investors to obtain prior Government approval for the acquisition of Korean securities or for the repatriation of interest or dividends arising from Korean securities or sales proceeds from disposition of such securities. These emergency circumstances include any or all of the following:

- sudden fluctuations in interest rates or exchange rates;
- extreme difficulty in stabilizing the balance of payments; and
- a substantial disturbance in the Korean financial and capital markets.

The depositary bank may not be able to secure such prior approval from the government for the payment of dividends to foreign investors when the Government deems that there are emergency circumstances in the Korean financial markets.

Other Risks

We are generally subject to Korean corporate governance and disclosure standards, which differ in significant respects from those in other countries.

Companies in Korea, including us, are subject to corporate governance standards applicable to Korean public companies which differ in many respects from standards applicable in other countries, including the United States. As a reporting company registered with the Securities and Exchange Commission and listed on the New York Stock Exchange, we are, and in the future will be, subject to certain corporate governance standards as mandated by the Sarbanes-Oxley Act of 2002. However, foreign private issuers, including us, are exempt from certain corporate governance requirements under the Sarbanes-Oxley Act or under the rules of the New York Stock Exchange. For significant differences, see "Item 16G. Corporate Governance." There may also be less publicly available information about Korean companies, such as us, than is regularly made available by public or non-public companies in other countries. Such differences in corporate governance standards and less public information could result in less than satisfactory corporate governance practices or disclosure to investors in certain countries.

You may not be able to enforce a judgment of a foreign court against us.

We are a corporation with limited liability organized under the laws of Korea. All or substantially all of our directors and officers and other persons named in this annual report reside in Korea, and all or a substantial portion of the assets of our directors and officers and other persons named in this annual report and substantially all of our assets are located in Korea. As a result, it may not be possible for holders of the American depository shares to effect service of process within the United States, or to enforce against them or us in the United States judgments obtained in United States courts based on the civil liability provisions of the federal securities laws of the United States. There is doubt as to the enforceability in Korea, either in original actions or in actions for enforcement of judgments of United States courts, of civil liabilities predicated on the United States federal securities laws.

We may become a passive foreign investment company ("PFIC"), which could result in adverse U.S. tax consequences to U.S. investors.

Based upon the past and projected composition of our income and assets and valuation of our assets, including goodwill, we do not believe that we were a PFIC for 2019, and we do not expect to be a PFIC in 2020 or to become one in the foreseeable future, although there can be no assurance in this regard. If, however, we become a PFIC, such characterization could result in adverse U.S. tax consequences to you if you are a U.S. investor. For example, if we become a PFIC, our U.S. investors may become subject to increased tax liabilities under U.S. tax laws and regulations and will become subject to burdensome reporting requirements. Our PFIC status is determined on an annual basis and depends on the composition of our income and assets. Specifically, we will be classified as a PFIC for U.S. tax purposes if either: (i) 75% or more of our gross income in a taxable year is passive income, or (ii) the average percentage of our assets by value in a taxable year which produce or are held for the production of passive income (which generally includes cash) is at least 50%. Special rules treat certain income earned by a non-U.S. corporation engaged in the active conduct of a banking business as non-passive income. See "Item 10.E. Taxation — Certain United States Federal Income Tax Consequences — Passive Foreign Investment Company Rules." We cannot assure you that we will not be a PFIC for 2020 or any future taxable year.

ITEM 4. *INFORMATION ON THE COMPANY*

ITEM 4.A. History and Development of the Company

Introduction

We are one of the leading financial institutions in Korea in terms of total assets, revenues, profitability and capital adequacy, among others. Incorporated on September 1, 2001, we are the first privately-held financial holding company to be established in Korea. Since inception, we have developed and introduced a wide range of financial products and services in Korea and aimed to deliver comprehensive financial solutions to clients through a convenient one-portal network. According to reports by the Financial Supervisory Service, we are the largest financial services provider in Korea (as measured by consolidated total assets as of September 30, 2019) and operate the second largest banking business (as measured by consolidated total bank assets as of September 30, 2019) and the largest credit card business (as measured by total credit purchase volume in 2019) in Korea.

We have experienced substantial growth through several mergers and acquisitions. Most notably, our acquisition of Chohung Bank in 2003 has enabled us to have the second largest banking operations in Korea. In addition, our acquisition in March 2007 of LG Card, the then largest credit card company in Korea, has enabled us to have the largest credit card operations in Korea and significantly expand our non-banking business capacity so as to achieve a balanced business portfolio. In September 2018, we announced the acquisition of a 59.15% interest in Orange Life Insurance, the former Korean unit of ING Life Insurance, as part of our efforts to diversify and enhance our non-banking businesses and closed on February 1, 2019. On January 28, 2020, we acquired the remaining interests in Orange Life Insurance by effecting a comprehensive stock exchange under Articles 360-2 of the Korean Commercial Code whereby holders (other than us) of Orange Life Insurance's common stock transferred all of their shares to us and in return receive shares of our common stock, and hence Orange Life Insurance has become our wholly owned subsidiary as of such date.

As of March 31, 2020, we have 17 direct and 27 indirect subsidiaries offering a wide range of financial products and services, including commercial banking, corporate banking, private banking, credit card, asset management, brokerage and insurance services. We believe that such breadth of services will help us to meet the diversified needs of our present and potential clients. We currently serve approximately 19 million active customers, which we believe is the largest customer base in Korea, through approximately 24,515 employees at approximately 1,383 network branches group-wide. While over 80% of our revenues have been historically derived from Korea, we aim to serve the needs of our customers through a global network of 219 offices in the United States, Canada, the United Kingdom, Japan, the People's Republic of China, Germany, India, Australia, Hong Kong, Vietnam, Cambodia, Kazakhstan, Singapore, Mexico, Uzbekistan, Myanmar, Poland, Indonesia, the Philippines and the United Arab Emirates.

Our registered office and corporate headquarters are located at 20, Sejong-daero 9-gil, Jung-gu, Seoul, Korea 04513 and our telephone number is +822 6360 3000.

Our Strategy

'2020 Smart Project' through 2020

Since our inception in 2001 we have strived to become Asia's leading financial group by establishing a foundation for sustainable growth. In furtherance of this goal, we implemented the "2020 SMART Project" in

2017, consisting of four strategic pillars — (1) balanced growth, (2) glocalization, (3) digital transformation and (4) upholding the Shinhan culture — to ensure a high level of consistency in the strategic directions the Group announces each year, to continuously upgrade the strategic tasks in furtherance of these directives and to maintain and improve upon the speed upon we undertake such initiatives.

We have also adopted the "One Shinhan (creating synergies within the Group)" strategy as an additional initiative on top of the 2020 SMART Project in order to efficiently utilize the entire range of the Group's resources and provide comprehensive financial solutions for our customers. Pursuant to the "One Shinhan" strategy, we continue to strengthen our matrix organizational structure, diversifying business lines and enhancing synergies with our existing businesses. Through the tireless execution of these initiatives, we continue to pursue our ultimate goal of implementing sustainable financial management and cultivating areas of continuous growth and earning potential, thereby maintaining and building upon a consistent strategic direction toward becoming Korea's leading brand and a world class financial group.

We have specifically focused on the following four strategic areas and have made significant progress through 2019.

A. Maximizing our value through balanced growth

We recorded total net income of ₩3,403 billion, the highest since our inception, through robust organic growth of our existing subsidiaries and inorganic growth, including through establishing new entities such as Shinhan REITs Management and acquiring businesses such as Orange Life Insurance and Asia Trust Co., Ltd. in an attempt to strengthen our non-banking business lines. We have tried to maintain a balanced business across our business portfolio without disproportionately focusing on certain companies, geographical regions or areas of business.

B. Accelerating glocalization

We aim for the simultaneous pursuit of both expansion of our global presence and localization based on tailored strategies for our global businesses, thereby strengthening the synergies from our matrix organizational structure. As part of our efforts, we acquired ANZ Bank (Vietnam) Limited's retail division in 2017 and Prudential Vietnam Finance Company Limited and PT Archipelago Asset Management, an Indonesian asset management firm, in 2018. We have also created a Global Business Group and adopted a country head system, enabling us to effectively coordinate the decision process across multiple subsidiaries within a country and allowing us to maximize synergy between our global businesses. In addition, we have focused on strengthening our local business capabilities through the development of products and services better tailored to meet the needs of local customers as well as through increasing the hiring of local personnel who are familiar with the local business environment. In part due to such efforts, we recorded the highest net profit from our overseas operations since our inception in 2019.

C. Upgrading to 'Digital Shinhan'

We have upgraded our digital platforms such as SOL and Shinhan PayFAN as part of a group-wide initiative to streamline our operations and create a digital-friendly business platform. Particularly in response to the changing competitive landscape, including virtual payment services and new mobile based payment methods introduced by competitors such as online service providers, technology companies and Internet-only banks, we have focused our efforts on creating a platform featuring new technology that is more customer oriented and user friendly. As a result of our consistent digital transformation efforts, the number of users of SOL and PayFAN have increased from approximately 8.3 million and 10.5 million respectively, as of December 31, 2018, to 10.8 million and 11.6 million, respectively, as of December 31, 2019. In order to effectively adapt to the new business environment and foster the digital ecosystem, we have also launched a program called Shinhan Future's Lab, which is dedicated to the "fintech" business by actively pursuing technology development, and formed strategic alliances with key partners as well as additional teams focusing on innovation and creating new sources of value for our clients through the development of promising future technologies such as artificial intelligence, block chain, open application programming interfaces and innovative digital platforms.

D. Promoting our corporate culture

We believe our culture emphasizing flexibility, productivity and creativity has allowed us to continue our growth as an organization. In addition to streamlining our internal decision making and approval processes and systems, we have emphasized a group-wide "S.A.Q. (speed, agility and quickness) transformation" in order to enhance our ability to swiftly adapt to the rapidly changing business environment. We have also continued our efforts for social sustainability, for example, through our "Society of Hope Project" carrying out social initiatives such as support for financially underprivileged families, career-discontinued women and households in crisis, our "ECO Transformation 2020" initiative emphasizing environment friendly business practices and co-implementing the Principles for Responsible Banking as promulgated by the UN Environment Finance Initiative with 28 other banks around the world.

'Excellent Shinhan' for 2020 and beyond

Beginning in 2020, we have set ourselves new aspirations and strategic priorities to achieve 'Excellent Shinhan,' our new mid- and long-term goal upgrading and in succession to the 2020 SMART Project and designed to address internal and external instability we may face and continue growing as a world-class financial group. We have developed a business philosophy, namely the 'Three Principles' that define our vision for the future, a unique growth directive known as 'F.R.E.S.H.' and seven strategic directions for 'Excellent Shihan.'

The Three Principles are trust, openness and progress. We value trust, since we believe our presence as a financial group can only exist because of our customers' trust in us. We believe the future growth of financial services lies beyond the current boundaries. Finally, we believe that innovation and progress are the foundation for achieving our mission to contribute to a better world through finance. By following the Three Principles, we strive to be recognized by our customers and the society as a world-class financial group and to achieve our goal of Excellent Shinhan.

Under the Three Principles, we aim to successfully complete the 2020 SMART Project and implement our unique business development approach summarized as 'F.R.E.S.H.' 'F.R.E.S.H.' stands for 'Fundamental' (stable fundamentals), 'Resilience' (ability to overcome crisis situations), 'Ecosystem' (online and offline platforms and digital ecosystem), 'Sustainability' (consistent group-wide effort to achieve sustainable growth) and 'Human-talent' (talented human resources leading the Fourth Industrial Revolution). Given continuously uncertain and unstable market conditions, we place particular importance on 'Resilience', i.e., our strength to strengthen and re-create our core capabilities amidst an uncertain and unstable market environment.

Seven Strategic Directions for 'Excellent Shinhan'

A. Pursuit of Efficient Growth

We plan to pursue quality focused growth by improving our return on assets through efficient capital management and strategic cost reduction, and we are aiming to invest in high added-value areas by utilizing the capital accrued from our existing business lines, accelerating our growth both organically and inorganically.

B. Global Connection and Expansion

Although our global business have mostly been limited to local channels, we plan to expand to cover global wealth management and asset management. We intend to increase our overseas investment and foreign asset management capabilities and provide further advanced global financial services for our clients, including export-import financing, global direct investment and structured product sourcing. Furthermore, we plan to establish a unique and competitive business model by strategically rebuilding our global business portfolio.

C. Conversion to Innovative and Open Digital Platforms

As part of our proactive preparation for the future, we aim to scale-up our group-wide digital capabilities, organization system, culture, and human resources by partnering and cooperating with major technology and fintech companies. Specifically, our future projects would include providing innovative customer experiences with diverse platforms, ramping up AI capabilities, establishing integrated big data and algorithm platforms, fostering a digital ecosystem and using digital means to enhance efficient task management and IT infrastructure.

D. High Performance in Environmental, Social and Governance (ESG) Management

We have received various distinctions from environmental, social and governance ("ESG") rating agencies, both domestic and abroad, for example inclusion in the DSJI World for seven consecutive years (ranked sixth worldwide and first in the Korean market) published by RobecoSAM and in the Global 100 (ranked within top 43 for eight consecutive years and ranked sixth among financial companies), for our market-leading ESG management, such as the establishment of the innovative finance committee and implementation of the "ECO Transformation 2020" initiative emphasizing environment-friendly business practices. We aim to further strengthen our ESG management capabilities to foster an environmentally friendly, inclusive and trust-based business management system. Furthermore, we plan to develop a business evaluation model to measure the value of a sustainable management and establish a system that can lead to tangible results.

E. Development of a Dynamic Organization System

To further efficient management on a group-wide basis, we plan to develop a dynamic group-wide portfolio system based on (i) creativity and balance and (ii) cooperation and promotion. In particular, we plan to strengthen the Group's role where efficient use of capital and human resources across various Group subsidiaries is required, there are overlapping customers or markets among Group subsidiaries and where we believe a synergy effect within the Group is possible. Additionally, we plan to flexibly allow our subsidiaries to take on roles within the Group where we believe such subsidiary's expertise and swift response to customers are required.

F. Convergent Human Resources Management

In order to recruit and retain talent, we plan to go beyond simply improving our human resources system by establishing an innovative human resource management platform. Our specific plans include fostering a healthy working environment, creating a flexible organization and culture by benchmarking start-up companies and recruiting talented professionals.

G. Proactive Risk Management

We plan to expand our risk management services for our customers beyond risk management related to credit, interest rates, and liquidity. We aim to reform our overall risk management system by strengthening internal controls as well as by improving our ability to read fundamental market changes.

Seven Strategies for 'Excellent Shinhan' 2022

For 2020, we have forecasted three-stage scenarios of business environments and have set response measures for each of the scenarios to address internal and external uncertainties and maintain high performance. We have also set management targets and risk management systems for each stage. We have established the following seven strategies for 2020, marking the first year of our new goal towards 'Excellent Shinhan' and the culmination of projects that we pursued since 2017 under the 2020 SMART Project initiatives. The following seven strategies are designed to align with the aforementioned F.R.E.S.H. directives and the seven strategic directions for the 'Excellent Shinhan.'

A. Strengthening the customer-centered "One Shinhan" value chain

We plan to establish a unique customer value creation system. In 2020, we plan to strengthen our asset management capabilities utilizing our matrix organizational structure to better adapt to the low-interest rate environment. We also plan to expand the group-wide offering of customer services and enhance customer value-add of the "One Shinhan" value chain.

B. Expanding the market-leading business model

We will work towards cultivating new markets and further solidifying our market-leading positions in key areas by utilizing our market-leading business model. We plan to identify new markets through detailed market segmentation and to strengthen a new growth engine through the Group's other well-performing business sectors, such as insurance, real estate and capital markets.

C. Pursuing advanced global growth strategies

We are pursuing quality focused growth and advanced global growth strategies, focusing on not just quantitative expansion but quality focused growth. We plan to establish a cooperative system among our overseas operations and to pursue specialized local strategies to diversify our global business model.

D. Driving innovative digital transformation

We plan to continue to upgrading our core digital competencies in technology, human resources, organization, platform and partnership and change management, while focusing on transforming our existing business model and developing innovative business models. We plan to promote these strategies with greater emphasis in 2020 through the establishment of customer-oriented platforms and achieve strategic cost reduction using digital platforms.

E. Fostering sustainable and innovative finance

We aim to foster innovative finance and to expand our performance while maintaining a balanced growth model, including climate finance (promoting environmentally sustainable development through financing of projects aimed at reducing carbon and greenhouse gas emissions) and social and inclusive finance (promoting financial inclusion through financing of projects for low-income and underprivileged sectors, such as financial support and education). We plan to establish a mid- to long-term global ESG management roadmap, including initiative compliance systems such as principles for responsible banking.

F. Differentiating our risk management capabilities in response to volatility

In response to the business environment with increased volatility, we plan to revamp our early risk detection system and risk management strategy. We plan to further support our businesses' performance in new growth areas based on our enhanced risk management capabilities. We also plan to continue to strengthen our ICT and information security system.

G. Establishing "Shinhan Value" as a leading company

"Shinhan Value" includes our corporate culture and employees, as well as our brand value. In line with such value, we will reestablish our culture as one of the leading companies and secure top class leaders and talented employees, while enhancing our brand value as loved and recognized by our customers and the society.

Our History and Development

On September 1, 2001, we were formed as a financial holding company under the Financial Holding Companies Act, as a result of acquiring all of the issued shares of the following four entities from their former shareholders in exchange for shares of our common stock: (i) Shinhan Bank, a nationwide commercial bank listed on the Korea Exchange, (ii) Shinhan Securities Co., Ltd., a securities brokerage company listed on the Korea Exchange, (iii) Shinhan Capital Co., Ltd., a leasing company listed on the Korea Exchange Korean Securities Dealers Automated Quotations ("KRX KOSDAQ"), and (iv) Shinhan Investment Trust Management Co., Ltd., a privately held investment trust management company. On September 10, 2001, the common stock of our holding company was listed on what is currently the KRX KOSPI Market.

Since our inception, we have expanded our operations, in large part, through strategic acquisitions, establishing subsidiaries or formation of joint ventures. Our key acquisitions, capital contributions and joint venture formations are described as below:

Date of Acquisition	Entity	Principal Activities	Method of Establishment
April 2002	Jeju Bank	Regional banking	Acquisition from Korea Deposit Insurance Corporation
July 2002	Shinhan Investment Corp.[1]	Securities and investment	Acquisition from the SsangYong Group
August 2002	Shinhan BNP Paribas Investment Trust Management Co., Ltd.[2]	Investment advisory	50:50 joint venture with BNP Paribas
August 2003	Chohung Bank	Commercial banking	Acquisition from creditors
December 2005	Shinhan Life Insurance	Life insurance services	Acquisition from shareholders
March 2007	LG Card	Credit card services	Acquisition from creditors
January 2012	Tomato Mutual Savings Bank[3]	Savings bank	Purchase and assumption of assets and liabilities from creditors
January 2013	Yehanbyoul Savings Bank[4]	Savings bank	Acquisition from Korea Deposit Insurance Corporation
October 2017	Shinhan REITs Management	Real estate asset management	Newly established
February 2019, January 2020	Orange Life Insurance[5]	Life insurance services	Acquisition from majority shareholders and subsequent comprehensive stock exchange
May 2019	Asia Trust Co. Ltd.[6]	Real estate trust business	Acquisition from majority shareholders
August 2019	Shinhan AI. Co., Ltd.	Investment advisory	Incorporated and joined as a wholly-owned subsidiary

Notes:

(1) Renamed as Shinhan Investment Corp. from Goodmorning Shinhan Securities Co., Ltd. effective August 2009.

(2) In January 2009, SH Asset Management Co., Ltd. and Shinhan BNP Paribas Investment Trust Management merged to form Shinhan BNP Paribas Asset Management Co., Ltd.

(3) Shinhan Hope Co., Ltd. was established on December 12, 2011, to purchase and assume certain assets and liabilities of Tomato Mutual Savings Bank. On December 28, 2011, Shinhan Hope Co., Ltd. obtained a savings bank license, changed its name to Shinhan Savings Bank and became our direct subsidiary.

(4) In January 2013, we entered into a share purchase agreement with Korea Deposit Insurance Corporation for the acquisition of Yehanbyoul Savings Bank, a savings bank located in Korea, for ₩45.3 billion, and received regulatory approval to merge Yehanbyoul Savings Bank into our existing subsidiary Shinhan Saving Bank. On April 1, 2013, Shinhan Savings Bank and Yehanbyoul Savings Bank merged into a single entity, with Yehanbyoul Savings Bank being the surviving entity and the newly merged bank being named Shinhan Savings Bank.

(5) On February 1, 2019, we acquired a 59.15% interest in Orange Life Insurance, the former Korean unit of ING Life Insurance, as part of our efforts to diversify and enhance our non-banking businesses. On January 28, 2020, we acquired the remaining interests in Orange Life Insurance by effecting a comprehensive stock exchange under Articles 360-2 of the Korean Commercial Code whereby holders (other than us) of Orange Life Insurance's common stock transferred all of their shares to us and in return receive shares of our common stock, and hence Orange Life Insurance has become our wholly owned subsidiary as of such date.

(6) In October 2018, we announced the acquisition of a 60.0% interest in Asia Trust Co. Ltd. According to the transaction agreement, we seek to complete the acquisition by acquiring the remaining 40.0% shares in Asia Trust Co. Ltd. by 2022. The acquisition was approved by the Financial Services Commission on February 17, 2019 and closed on May 2, 2019. Upon closing, Asia Trust Co. Ltd. became our direct subsidiary.

ITEM 4.B. Business Overview

Unless otherwise specifically mentioned, the following business overview is presented on a consolidated basis under IFRS.

Our Principal Activities

We provide comprehensive financial services, principally consisting of the following:

- commercial banking services, mainly consisting of:
    - retail banking, which primarily focuses on making loans to or receiving deposits from individual customers (including high net-worth individuals and families) and, to a lesser extent, not-for-profit institutions such as hospitals, airports and schools;
    - corporate banking, which primarily focuses on making loans to or receiving deposits from for-profit corporations, including small- and medium-sized enterprises, and providing investment banking services to corporate clients;
    - international banking, which primarily focuses on management of overseas subsidiaries and branch operations and other international businesses; and
    - other banking, which consists of treasury business (including internal asset and liability management and other non-deposit funding activities), securities investing and trading and derivatives trading, as well as administration of the overall banking operations.
- credit card services;
- securities brokerage services;

- life insurance services;
- asset management services, including brokerage and trading of various securities, related margin lending and deposit and trust services, and other asset management services; and
- other services, services, including leasing and equipment financing, savings banking services, loan collection and credit reporting, collective investment administrative services and financial system development services, real estate trust services, investment advisory services as well as engaging in alternative investments through formation of private equity funds on a private placement basis.

In addition to the above-mentioned business activities, we, at the holding company level, have the following business departments and planning offices, the primary functions of which are to support cross-divisional management with respect to these specific functional areas: group & global investment banking business department, global market & securities planning office, global business planning office, wealth management planning office and retirement pension planning office.

Our principal business activities are not subject to any material seasonal trends. Although we have a number of overseas branches and subsidiaries, substantially all of our assets are located, and substantially all of our revenues are generated, in Korea.

Deposit-Taking Activities

Principally through Shinhan Bank, we offer many deposit products that target different customer segments with features tailored to each segment's financial and other profiles. Our deposit products consist principally of the following:

- *Demand deposits.* Demand deposits do not accrue interest or accrue interest at a lower rate than time or savings deposits and allow the customer to deposit and withdraw funds at any time. If interest-bearing, demand deposits have interest accruing at a fixed or variable rate depending on the period and the amount of deposit. Demand deposits constituted 16.6%, 16.1% and 15.6% of our total deposits as of December 31, 2017, 2018 and 2019, respectively. Demand deposits paid average interest of 0.36%, 0.39% and 0.42% in 2017, 2018 and 2019, respectively.
- *Time and savings deposits.* Time deposits generally require the customer to maintain a deposit for a fixed term during which the deposit accrues interest at a fixed rate or a variable rate based on certain financial indexes, including the "cost of funds index," or COFIX, published by the Korean Federation of Banks. If the deposit is withdrawn prior to the end of the fixed term, the customer is paid a lower interest rate than that originally offered. The term typically ranges from one month to five years. Time deposits constituted 50.3%, 51.3% and 52.4% of our total deposits as of December 31, 2017, 2018 and 2019, respectively, and paid average interest of 1.55%, 1.81% and 1.92% in 2017, 2018 and 2019, respectively. Savings deposits allow the customer to deposit and withdraw funds at any time and accrue interest at an adjustable interest rate, which is typically lower than the rate applicable to time or installment deposits. Savings deposits constituted 30.1%, 29.1% and 28.7% of our total deposits as of December 31, 2017, 2018 and 2019, respectively, and paid average interest of 0.51%, 0.56% and 0.58% in 2017, 2018 and 2019, respectively.
- *Other deposits.* Other deposits consist mainly of certificates of deposit. Certificates of deposit typically have maturities from 30 days to two years. Interest rates on certificates of deposit are determined based on the length of the deposit and prevailing market interest rates. Certificates of deposit are sold at a discount to their face value, reflecting the interest payable on the certificates of deposit. Certificates of deposit constituted 3.0%, 3.5% and 3.3% of our total deposits as of December 31, 2017, 2018 and 2019, respectively and paid average interest of 1.57%, 1.96% and 2.07% in 2017, 2018 and 2019, respectively.

We also offer deposits which provide the customer with preferential rights to housing subscriptions under the Housing Law and Rules on Housing Supply (the "Housing Law"), and eligibility for mortgage and home equity loans. As a result of an amendment to the Housing Law in June 2015, new subscriptions to housing subscription savings accounts, housing subscription time deposits accounts and housing subscription installment savings accounts became no longer available after September 1, 2015. Instead, general housing subscription savings accounts (which combine all of the functions of the aforementioned three accounts) presently remain available to all. The contribution period is from the subscription date to the date on which the account holder is selected as the purchaser of a house, and the required monthly contribution amount is from a minimum of ₩20,000 to a maximum of ₩500,000. The interests accrued on general housing subscription savings accounts are paid in lump sum upon termination of the account, and such interests shall be calculated at the interest rate determined and announced by the Ministry of Land, Infrastructure and Transport. Those who have a general housing subscription savings account and meet certain other criteria are granted a preferential subscription right for the purchase of a house. In the case of privately funded houses, the aggregate amount of contributions made to the account must be at least the applicable deposit threshold amount for the location and area of the relevant house (from ₩2 million up to ₩15 million). It is impossible to change the account holder name of a general housing subscription savings account except in the case of inheritance by the death of the original account holder. For information on our deposits in Korean Won based on the principal types of deposit products we offer, see "— Description of Assets and Liabilities — Funding — Deposits."

The rate of interest payable on our deposit products may vary significantly, depending on average funding costs, the rate of return on our interest-earning assets, prevailing market interest rates among financial institutions and other major financial indicators.

We also offer court deposit services for litigants in Korean courts, which involve providing effectively an escrow service for litigants involved in certain types of legal or other proceedings. Chohung Bank historically was a dominant provider of such services since 1958, and following the acquisition of Chohung Bank, we continue to hold a dominant market share in these services. Such deposits typically carry interest rates lower than the market rates (by approximately 0.5% per annum) and amounted to ₩5,639 billion, ₩5,645 billion and ₩6,015 billion as of December 31, 2017, 2018 and 2019, respectively.

The Monetary Policy Committee of the Bank of Korea imposes a reserve requirement on Won currency deposits at commercial banks at rates ranging from 0% to 7%, based generally on maturity and the type of deposit instrument. See "— Supervision and Regulation — Principal Regulations Applicable to Banks — Liquidity."

The Depositor Protection Act provides for a deposit insurance system under which the Korea Deposit Insurance Corporation guarantees repayment of eligible bank deposits to depositors up to ₩50 million per depositor and ₩50 million per insured under the defined contribution retirement pension per bank. See "— Supervision and Regulation — Principal Regulations Applicable to Banks — Deposit Insurance System."

Retail Banking Services

Overview

We provide retail banking services primarily through Shinhan Bank, and, to a significantly lesser extent, through Jeju Bank, a regional commercial bank. Our retail loans, before allowance for credit losses on loans and deferred loan origination costs and fees and excluding credit card receivables, amounted to ₩134,424 billion as of December 31, 2019.

Retail banking services include mortgage and home equity lending and retail lending as well as demand, savings and fixed deposit-taking, checking account services, electronic banking and automatic teller machines ("ATM") services, bill paying services, payroll and check-cashing services, currency exchange and wire fund transfer. We believe that providing modern and efficient retail banking services is important to maintaining our public profile and as a source of fee-based income. Accordingly, we believe that our retail banking services and products will become increasingly important in the coming years as the domestic banking sector further develops and becomes more complex.

Retail banking has been and will continue to remain one of our core businesses. Our strategy in retail banking is to provide prompt and comprehensive services to retail customers through increased automation and improved customer service, as well as a streamlined branch network focused on sales. The retail segment places an emphasis on targeting high net-worth individuals.

Retail Lending Activities

We offer various retail loan products, consisting principally of loans to individuals and households. Our retail loan products target different segments of the population with features tailored to each segment's financial profile and other characteristics, including customer's occupation, age, loan purpose, collateral requirements and the duration of the customer's relationship with Shinhan Bank. Our retail loans consist principally of the following:

- *Mortgage and home equity loans,* which are mostly comprised of mortgage loans that are used to finance home purchases and are generally secured by the housing unit being purchased; and
- *Other retail loans,* which are loans made to customers for any purpose other than mortgage and home equity loans and the terms of which vary based primarily upon the characteristics of the borrower and which are either unsecured or secured, or guaranteed by deposits or by a third party. Other retail loans also include advance loans extended on an unsecured basis to retail borrowers the use of proceeds for which is restricted to financing of home purchases prior to the completion of the construction.

As of December 31, 2019, our mortgage and home equity loans and other retail loans accounted for 50.6% and 49.4% of our total retail loans, respectively.

For secured loans, our policy is to lend up to 40% to 100% of the appraisal value of the collateral, after taking into account the value of any lien or other security interest that has priority over our security interest (other than petty claims). For mortgage and home equity loans, our general policy is to lend up to 45% to 82% of the appraisal value of the collateral, but subject to the maximum loan-to-value ratio, debt-to-income ratio and debt service ratio requirements for mortgage loans implemented by the Government. The loan-to-value ratio of secured loans, including mortgage and home equity loans, is updated on a monthly basis using the most recent appraisal value of the collateral, and maximum loan-to-value ratios are further adjusted based on factors such as the location of the secured property, nature and purpose of the loans and level of competition in the market. Since January 11, 2019, maximum loan-to-value ratios are determined and may be adjusted in increments of 1% (as opposed to increments of 5%, which was the case prior to January 11, 2019), allowing us to set more precise and tailored maximum loan-to-value ratios for our secured loans. As of December 31, 2019, the loan-to-value ratio of mortgage and home equity loans of Shinhan Bank was 49.6%. As of December 31, 2019, substantially all of its mortgage and home equity loans were secured by residential property.

Under the administrative instructions of the Financial Supervisory Commission and the Financial Supervisory Service effective August 1, 2014 (which have been extended and amended several times, but have been replaced by the Regulation on the Supervision of the Banking Business and the Detailed Regulation on the Supervision of the Banking Business reflecting the tightened measures as discussed below), our banking subsidiaries were subject to, when extending mortgage and home equity loans, to the maximum loan-to-value ratio of 70% (irrespective of the location of the property, subject to certain exceptions) and the maximum debt-to-income ratio of 60% (only in respect of apartment units located in the greater Seoul metropolitan area, subject to certain exceptions).

On January 31, 2018, the existing debt-to-income requirement was replaced by the new debt-to-income ratio requirement, which reflects (i) both principal and interest payments on the applicable mortgage and home equity loan and existing mortgage and home equity loans and (ii) interest payments on other loans. The previous debt-to-income requirement had only reflected (i) both principal and interest payments on the applicable mortgage and home equity loan and (ii) interest payments on existing mortgage and home equity loans.

Since June 2017, the Government led by President Moon Jae-in has announced and implemented a series of robust polices aimed at taming speculation and deterring the rise of housing prices including, among others, the designation of "speculative districts" (comprised of fifteen districts in Seoul and Sejong Special Self-Governing City as of February 21, 2020), "overheated speculative districts" (comprised of Seoul, Gwacheon City, Bundang District in Seongnam City, Gwangmyeong City, Hanam City respectively in Gyeonggi Province, Suseong District in Daegu Metropolitan City and Sejong Special Self-Governing City as of February 21, 2020) and "adjustment targeted areas" (comprised of Seoul, 25 cities, districts or other areas in Gyeonggi Province and Sejong Special Self-Governing City as of February 21, 2020) (the "speculative districts", "overheated speculative districts" and "adjustment targeted areas" are hereinafter referred to as the "regulated areas"), and the application of reduced loan-to-value ratios and debt-to-income ratios to those buying homes in the regulated areas.

For example, recently, on December 16, 2019, the Government unveiled a tighter set of measures aimed at the housing market. According to these new measures, which became effective from December 17, 2019, no mortgage or home equity loans can be provided to purchase a new home located in any of the regulated areas to a household that already owns two or more housing units. For a household that already owns one housing unit, such loans can only be provided under very limited circumstances. Furthermore, the "speculative districts" and "overheated speculative districts" are further restricted by tighter loan-to-value ratios. If the market value of a home located in any of the "speculative districts" or "overheated speculative districts" being acquired is greater than ₩1.5 billion, no mortgage or home equity loans may be provided. For homes located in any of the "speculative districts" or "overheated speculative districts" with a market value equal or less than ₩1.5 billion but greater than ₩900 million, the loans can only cover 40% of the market value up to ₩900 million and 20% of any remaining value between ₩1.5 billion and ₩900 million. In addition to the foregoing restrictions, no mortgage loan applicant buying a home in any of the "speculative districts" or "overheated speculative districts" may incur a loan that will exceed 40% of his/her debt service ratio for homes with market values exceeding ₩900 million. Furthermore, on February 20, 2020, the Government announced additional countermeasures to curb housing prices in the "adjustment targeted areas", under which if the market value of a home located in any of the "adjustment targeted areas" being acquired is greater than ₩900 million, the loans can only cover 50% of the market value up to ₩900 million and 30% of any remaining value exceeding ₩900 million. These renewed measures are expected to lead to a decline in the overall volume of home mortgage loans but may result in an increase in long-term deposit loans required for house rentals and lending to borrowers with high credit profiles.

In addition, the supervising authorities in Korea from time to time issue administrative instructions to Korean banks, which have the effect of regulating the access of borrowers to housing loans and, as such, demand for real estate properties. For example, the Financial Supervisory Service issued administrative instructions to financial institutions to (except in limited circumstances) verify the borrower's ability to repay based on proof of income prior to making a mortgage and home equity loan regardless of the type or value of the collateral or the location of the property, which has had the effect of practically barring the grant of any new mortgage and home equity loans to borrowers without verifiable income.

Our banking subsidiaries extend mortgage and home equity loans in compliance with the applicable regulations and administrative instructions by the relevant supervising authorities.

The following table sets forth a breakdown of our retail loans.

	As of December 31,		
	2017	2018	2019
	(In billions of Won, except percentages)		
Retail loans[1]			
Mortgage and home-equity loans	₩59,078	₩62,394	₩68,074
Other retail loans	52,512	58,438	66,350
Percentage of retail loans to total gross loans	40.2%	39.9%	41.0%

Note:

(1) Before allowance for credit losses on loans and deferred loan origination costs and fees and excludes credit card receivables.

The total mortgage and home equity loans amounted to ₩68,074 billion as of December 31, 2019, and as of such date, consisted of amortizing loans (whose principal is repaid by part of the installment payments) in the amount of ₩47,676 billion and non-amortizing loans in the amount of ₩20,398 billion. In addition, as of December 31, 2019, we also provided lines of credit in the aggregate outstanding amount of ₩915 billion for non-amortizing loans.

Pricing

The interest rates payable on Shinhan Bank's retail loans are either periodically adjusted floating rates (based on a base rate determined for three-month, six-month or twelve-month periods derived using an internal transfer price system, which reflects the market cost of funding, as adjusted to account for expenses related to lending and the profit margin of the relevant loan products) or fixed rates that reflect the market cost of funding, as adjusted to account for expenses related to lending and the profit margin. Fixed rate loans are offered only on a limited basis and at a premium to floating rate loans. For unsecured loans, which Shinhan Bank provides on a floating or fixed rate basis, interest rates thereon reflect a margin based on, among other things, the borrower's credit score as determined during its loan approval process. For secured loans, the credit limit is based on the type of collateral, priority with respect to the collateral and the loan-to-value ratio. Shinhan Bank may adjust the pricing of these loans to reflect the borrower's current and/or expected future contribution to Shinhan Bank's profitability. The interest rate on Shinhan Bank's loan products may become adjusted at the time the loan is extended. If a loan is repaid within three years following the date of the loan, the borrower is required to pay an early repayment fee, which is typically 0.7% to 1.4%, depending on types of loans and applicable interest rates, of the outstanding principal amount of and accrued and unpaid interest on the loan, multiplied by a fraction the numerator of which is the number of the remaining days on the loan until maturity and the denominator of which is the number of days comprising the term of the loan or three years, whichever is greater.

As of December 31, 2019, Shinhan Bank's three-month, six-month and twelve-month base rates were 1.53%, 1.52% and 1.51%, respectively. As of December 31, 2019, Shinhan Bank's fixed rates for mortgage and home equity loans with a maturity of five years was 2.85%. Shinhan Bank's fixed rates for other retail loans with a maturity of one year ranged from 2.41% to 14.00%, depending on the credit scores of its customers.

As of December 31, 2019, 92.4% of Shinhan Bank's total retail loans were floating rate loans and 7.6% were fixed rate loans. As of the same date, 92.9% of Shinhan Bank's retail loans with maturity of more than one year were floating rate loans and 7.1% were fixed rate loans.

The interest rate charged to customers by our banking subsidiaries is based, in part, on the "cost of funds index", or COFIX, which is published by the Korean Federation of Banks. COFIX is computed based on the weighted average interest of select funding products (including time deposits, housing and other installment savings deposits, repos, discounted bills and senior non-convertible financial debentures) of eight major Korean banks (comprised of Shinhan Bank, Kookmin Bank, Woori Bank, KEB Hana Bank, Nonghyup Bank, Industrial Bank of Korea, Citibank Korea Inc. and Standard Chartered Bank Korea Limited). Each bank then independently determines the interest rate applicable to its respective customers by adding a spread to the COFIX based on the difference between the COFIX and such bank's general funding costs, administration fees, the customer's credit score, the maturity of the loan and other customer-specific premiums and discounts based on the customer relationship with such bank. These interest rates are typically adjusted on a monthly basis. In January 2019, the Financial Services Commission announced plans to reflect rates for short term deposits such as demand deposits when computing the "cost of funds index," or COFIX, which is expected to result in lower interest rates for household loans compared to the previous COFIX rate.

Private Banking

Historically, we have focused on customers with high net-worth. Our retail banking services include providing private banking services to high net-worth customers who seek personal advice in complex financial matters. Our aim in private banking is to help enhance wealth accumulation by, and increase the financial sophistication of, our high net-worth clients by offering them customized wealth management solutions and comprehensive financial services including asset portfolio and fund management, tax consulting, real estate management and family office services, among others. Since the end of 2011, in order to preemptively respond to evolving customer needs and promote asset growth by inducing greater synergy between commercial banking and investment advisory services offered by Shinhan Investment, Shinhan Bank launched private wealth management centers which combine certain branches of Shinhan Bank with those of Shinhan Investment located in the same area. Shinhan Bank's strength in private banking has been widely recognized by a number of significant industry awards in recent years, including the grand prize at the Premium Brand Index by Korean Standards Association, Chosun Ilbo and Ministry of Trade, Industry and Energy (awarded 12 consecutive years), the Korea Prestige Brand Award by the Korea Economic Daily (awarded four consecutive years), the Star Brand Award by Maekyung Media Group (awarded three consecutive years), National Brand Award by Chosun Ilbo (awarded two consecutive years) in 2019.

As of December 31, 2019, Shinhan Bank operated 27 private wealth management service centers nationwide, including 18 in Seoul, three in the suburbs of Seoul and six in cities located in other regions in Korea. As of December 31, 2019, Shinhan Bank had approximately 15,677 private banking customers, who typically are required to have ₩500 million in deposits with the Bank to qualify for its private banking services.

Corporate Banking Services

Overview

We provide corporate banking services, primarily through Shinhan Bank, to small- and medium-sized enterprises, including enterprises known as SOHO (standing for "small office, home office"), which are small enterprises operated by individuals or households, and, to a lesser extent, to large corporations, including corporations that are affiliated with *chaebols*. We also lend to government-controlled enterprises.

The following table sets forth the balances and percentage of our total loans (before allowance for credit losses on loans and deferred loan origination costs and fees) attributable to each category of our corporate lending business as of the dates indicated.

	As of December 31,					
	2017		2018		2019	
	(In billions of Won, except percentages)					
Small- and medium-sized enterprises loans[1]	₩ 78,556	28.3%	₩ 84,972	28.0%	₩ 91,162	27.8%
Large corporate loans	35,664	12.9	35,428	11.7	34,466	10.5
Others[2]	31,038	11.1	39,390	13.0	43,502	13.3
Total corporate loans	₩145,258	52.3%	₩159,790	52.7%	₩169,130	51.6%

Notes:

(1) Represents the principal amount of loans extended to corporations meeting the definition of small- and medium-sized enterprises under the Basic Act on Small- and Medium-sized Enterprises and its Presidential Decree.

(2) Includes loans to governmental agencies, loans to banks and other corporate loans, including loans originated by subsidiaries other than Shinhan Bank which are classified as corporate loans for purposes of financial reporting.

Small- and Medium-sized Enterprises Banking

Under the Basic Act on Small- and Medium-sized Enterprises (the "SME Basic Act") and the related Presidential Decree, as amended and effective from January 27, 2016, in order to qualify as a small- and medium-sized enterprise, (i) the enterprise's total assets at the end of the immediately preceding fiscal year must be less than ₩500 billion, (ii) the enterprise must meet the standards prescribed by the Presidential Decree in relation to the average and total annual sales revenues applicable to the type of its main business, and (iii) the enterprise must meet the standards of management independence from ownership as prescribed by the Presidential Decree, including non-membership in a conglomerate as defined in the Monopoly Regulations and Fair Trade Act. Pursuant to an amendment to the SME Basic Act, which will become effective in June 2020, an enterprise shall not qualify as a small- and medium-sized enterprise if it is incorporated into, or is deemed to be incorporated into a business group subject to disclosure under the Monopoly Regulations and Fair Trade Act. Non-profit enterprises that satisfy certain requirements prescribed in the SME Basic Act and its Presidential Decree may qualify as a small- and medium-sized enterprise. Furthermore, cooperatives and federations of cooperatives as prescribed by the Presidential Decree are deemed as small- and medium-sized enterprises, effective from April 15, 2014. As of December 31, 2019, we made loans to 307,705 small- and medium-sized enterprises for an aggregate amount of ₩91,162 billion (before allowance for credit losses on loans and deferred loan origination costs and fees).

We believe that Shinhan Bank, whose traditional focus has been on small- and medium-sized enterprises lending, is well-positioned to succeed in the small- and medium-sized enterprises market in light of its marketing capabilities (which we believe have provided Shinhan Bank with significant customer loyalty) and its prudent risk management practices, including conservative credit rating systems for credit approval. To maintain or increase its market share of small- and medium-sized enterprises lending, Shinhan Bank:

- *has accumulated a market-leading expertise and familiarity with customers and products*. We believe Shinhan Bank has an in-depth understanding of the credit risks embedded in this market segment, allowing Shinhan Bank to develop loan and other products specifically tailored to the needs of this market segment;
- *operates a relationship management system to provide customer service that is tailored to small- and medium-sized enterprises*. Shinhan Bank currently has relationship management teams in 182 banking branches, of which 51 are corporate banking branches and 131 are hybrid banking branches designed to serve both retail customers and, to a limited extent, corporate customers. These relationship management teams market products, and review and approve smaller loans with less credit risks; and
- *continues to focus on cross-selling loan products with other products*. For example, when Shinhan Bank lends to small- and medium-sized enterprises, it also explores opportunities to cross-sell retail loans or deposit products to the employees of these enterprises or to provide financial advisory services.

Large Corporate Banking

Large corporate customers consist primarily of member companies of *chaebols* and financial institutions. Our large corporate loans amounted to ₩34,466 billion (before allowance for credit losses on loans and deferred loan origination costs and fees) as of December 31, 2019. Large corporate customers tend to have better credit profiles than small- and medium-sized enterprises, and accordingly, Shinhan Bank has expanded its focus on these customers as part of its risk management policy.

Shinhan Bank aims to be a one-stop financial solution provider that also partners with its corporate clients in their corporate expansion and growth endeavors. To that end, Shinhan Bank provides a wide range of corporate banking services, including investment banking, real estate financing, overseas real estate project financing, large development project financing, infrastructure financing, structured financing, equity investments/venture investments, mergers and acquisitions consulting, securitization and derivatives services, including securities and derivative products and foreign exchange trading. Shinhan Bank, through Shinhan Asia Limited, a subsidiary in Hong Kong, also arranges financing for, and offers consulting services to, Korean companies expanding their business overseas, particularly in Asia.

Electronic Corporate Banking

Shinhan Bank offers corporate customers a web-based total cash management service known as "Shinhan Bizbank." Shinhan Bizbank supports substantially all types of banking transactions ranging from basic transaction history inquiries and fund transfers to opening letters of credit, trade finance, payment management, collection management, sales settlement service, acquisition settlement service, business-to-business settlement service, sweeping, pooling, ERP interface service, host-to-host banking solutions, SWIFT SCORE service and global cash and liquidity management service. In addition, Shinhan Bank provides customers with integrated and advanced access to its financial services through its "Inside Bank" program, which combines Internet banking, capital management services and enterprise resource planning to better serve corporate customers. The Inside Bank program also seeks to provide customized financial services to meet the comprehensive needs of target corporate customers ranging from conglomerates to small enterprises in various industries, with the goal of enhancing convenience to our corporate customers in accessing our financial services as well as assisting them to strategically manage their funds. In line with Shinhan Bank's efforts to facilitate non-face-to-face online transactions for corporate transactions, in 2018, Shinhan Bank upgraded its virtual account-based corporate fund management service, known as "Shinhan Damoa Service", making it available on mobile channels. In addition, Shinhan Bank has made the fund transfers via phone number service (allowing customers to make fund transfers without the recipients' account number), which was previously only available for personal banking customers, available for corporate banking customers as well. As part of Shinhan Bank's effort to lower settlement fees for small business owners, in May 2019, Shinhan Bank launched "ZeroPay Biz Shinhan", an account-based mobile payment service enabling vendors to easily receive payments from customers' accounts by scanning the vendor's QR code with a smartphone.

Corporate Lending Activities

Our principal loan products for corporate customers are working capital loans and facilities loans. Working capital loans, which include discounted notes and trade financing, are generally loans used for general working capital purposes. Facilities loans are provided to finance the purchase of equipment and construction of manufacturing plants. As of December 31, 2019, working capital loans and facilities loans amounted to ₩56,074 billion and ₩56,534 billion, respectively, representing 48.2% and 48.6% of our total Won-denominated corporate loans. Working capital loans generally have a maturity of one year, but may be extended on an annual basis for an aggregate term of three years in the case of unsecured loans and five years in the case of secured loans. Facilities loans have a maximum maturity of 15 years, are typically repaid in semiannual installments per annum and may be entitled to a grace period not exceeding one-third of the loan term with respect to the first repayment; facilities loans with a term of three years or less may be paid in full at maturity.

Loans to corporations may be unsecured or secured by real estate, deposits or guaranty certificates. As of December 31, 2019, secured loans and guaranteed loans (including loans secured by guaranty certificates issued by credit guarantee insurance funds) accounted for 62.6% and 12.7%, respectively, of our Won-denominated loans to small- and medium-sized enterprises. As of December 31, 2019, 54.9% of the corporate loans were secured by real estate.

When evaluating whether to extend loans to corporate customers, Shinhan Bank reviews their creditworthiness, credit score, value of any collateral and/or third party guarantee. The value of collateral is computed using a formula that takes into account the appraised value of the collateral, any prior liens or other claims against the collateral and an adjustment factor based on a number of considerations including, with respect to property, the average value of any nearby property sold in a court-supervised auction during the previous year. Shinhan Bank revalues collateral when a secured loan is renewed or if a trigger event occurs with respect to the loan in question.

Pricing

Shinhan Bank determines the price for its corporate loan products based principally on their respective cost of funding and the expected loss rate based on the borrower's credit risk. As of December 31, 2019, 54.4% of Shinhan Bank's corporate loans with outstanding maturities of one year or more had variable interest rates as determined by the applicable market rates.

More specifically, interest rates on Shinhan Bank's corporate loans are generally determined as follows:

Interest rate = (Shinhan Bank's periodic market floating rate *or* reference rate) *plus* transaction cost *plus* credit spread *plus* risk premium *plus or minus* discretionary adjustment.

Depending on the market condition and the agreement with the borrower, Shinhan Bank may use either its periodic market floating rate or the reference rate as the base rate in determining the interest rate for the borrower. As of December 31, 2019, Shinhan Bank's periodic market floating rates (which are based on a base rate determined for a three-month, six-month, one-year, two-year, three-year or five-year period, as applicable, as derived using Shinhan Bank's market rate system) were 1.52% for three months, 1.51% for six months, 1.51% for one year, 1.52% for two years, 1.58% for three years and 1.67% for five years. As of the same date, Shinhan Bank's reference rate was 4.75%. The reference rate refers to the base lending rate used by Shinhan Bank and is determined annually by Shinhan Bank's Asset & Liability Management Committee based on, among others, Shinhan Bank's funding costs, cost efficiency ratio and discretionary margin.

Transaction cost reflects the standardized transaction cost assigned to each loan product and other miscellaneous costs, including contributions to the Credit Guarantee Fund, and education taxes. The Credit Guarantee Fund is a statutorily created entity that provides credit guarantees to loans made by commercial banks and is funded by mandatory contributions from commercial banks in the amount of approximately 0.23% of all loans (excluding certain loans such as facility loans) made by them.

The credit spread is added to the periodic floating rate to reflect the expected loss based on the borrower's credit rating and the value of any collateral or payment guarantee. In addition, Shinhan Bank adds a risk premium which takes into account the potential of unexpected loss that may exceed the expected loss from the credit rating assigned to a particular borrower.

A discretionary adjustment rate is added or subtracted to reflect the borrower's current and/or future contribution to Shinhan Bank's profitability. If additional credit is provided by way of a guarantee, the adjustment rate is subtracted to reflect such change in the credit spread. In addition, depending on the price and other terms set by competing banks for similar borrowers, Shinhan Bank may reduce the interest rate to compete more effectively with other banks.

International Business

Shinhan Bank also engages in treasury and investment activities in international capital markets, principally including foreign currency-denominated securities trading, foreign exchange trading and services, trade-related financial services, international factoring services and foreign banking operations through its overseas branches and subsidiaries. Shinhan Bank aims to become a leading bank in Asia and expand its international business by focusing on further bolstering its overseas network, localizing its overseas operations and diversifying its product offerings, particularly in terms of asset management, in order to meet the various financing needs of its current and potential customers overseas.

Other Banking Services

Other banking businesses carried on by Shinhan Bank include treasury business (including internal asset and liability management and other non-deposit funding activities), trading of, and investment in, debt securities and, to a lesser extent, equity securities for its own accounts, derivative trading activities, as well as managing back-office functions.

Treasury

Shinhan Bank's treasury division provides funds to all of Shinhan Bank's business operations and ensures the liquidity of its operation. To secure stable long-term funds, Shinhan Bank uses fixed and floating rate notes, debentures, structured financing and other advanced funding methods. As for overseas funding, Shinhan Bank closely monitors the feasibility of raising funds in currencies other than the U.S. Dollar, such as the Japanese Yen and the Euro. In addition, Shinhan Bank makes call loans and borrows call money in the short-term money market. Call loans are short-term lending among banks and financial institutions in either Korean Won or foreign currencies with a minimum transaction amount of ₩100 million and maturities of typically one day.

Securities Investment and Trading

Shinhan Bank invests in and trades securities for its own accounts in order to maintain adequate sources of liquidity and to generate interest income, dividend income and capital gains. Shinhan Bank's trading and investment portfolios consist primarily of Korean treasury securities and debt securities issued by Government agencies, local governments or certain government-invested enterprises, debt securities issued by financial institutions and equity securities listed on the KRX KOSPI Market and KRX KOSDAQ Market of the Korea Exchange. For a detailed description of our securities investment portfolio, see "— Description of Assets and Liabilities — Investment Portfolio."

Derivatives Trading

Shinhan Bank provides to its customers, and to a limited extent, trades for its proprietary accounts, a broad range of derivatives products, which include:

- interest rate swaps, options, and futures relating to Korean Won interest rate risks and LIBOR risks, respectively;
- cross-currency swaps, largely for Korean Won against U.S. Dollars, Japanese Yen and Euros;
- equity and equity-linked options;
- foreign currency forwards, options and swaps;
- commodity forwards, swaps and options;
- credit derivatives; and
- KOSPI 200 indexed equity options.

Shinhan Bank's outstanding derivatives commitments in terms of notional amount were ₩183,457 billion, ₩233,655 billion and ₩246,982 billion, in 2017, 2018 and 2019, respectively. Such derivative operations generally focus on addressing the needs of Shinhan Bank's corporate clients to enter into derivatives contracts to hedge their risk exposure and entering into back-to-back derivatives to hedge Shinhan Bank's risk exposure that results from such client contracts.

Shinhan Bank also enters into derivative contracts to hedge the interest rate and foreign currency risk exposures that arise from its own assets and liabilities. In addition, to a limited extent, Shinhan Bank engages in the proprietary trading of derivatives within its regulated open position limits. See "— Description of Assets and Liabilities — Derivatives."

Trust Account Management Services

Overview

Shinhan Bank's trust account management services involve management of trust accounts, primarily in the form of money trusts. Trust account customers are typically individuals seeking higher rates of return than those offered by bank account deposits. Because deposit reserve requirements do not apply to deposits held in trust accounts as opposed to deposits held in bank accounts, and regulations governing trust accounts tend to be less strict, Shinhan Bank is generally able to offer higher rates of return on trust account products than on bank deposit products. However, in recent years, due to the ongoing low interest environment, Shinhan Bank has not been able to offer attractive rates of return on its trust account products.

Trust account products generally require higher minimum deposit amounts than those required by comparable bank account deposit products. Unlike bank deposit products, deposits in trust accounts are invested primarily in securities (consisting principally of debt securities and beneficiary certificate for real estate financing) and, to a lesser extent, in loans, as the relative shortage of funding sources require that trust accounts be invested in a higher percentage of liquid assets.

Under the Banking Act, the Financial Investment Services and Capital Markets Act and the Trust Act, assets in trust accounts are required to be segregated from other assets of the trustee bank and are unavailable to satisfy the claims of the depositors or other creditors of such bank. Accordingly, trust accounts that are not guaranteed as to principal (or as to both principal and interest) are accounted for and reported separately from the bank accounts. See "— Supervision and Regulation." Trust accounts are regulated by the Trust Act and the Financial Investment Services and Capital Markets Act, and most national commercial banks offer similar trust account products. Shinhan Bank earns income from trust account management services, which is recorded as net trust management fees.

As of December 31, 2017, 2018 and 2019, Shinhan Bank had total trust assets of ₩58,536 billion, ₩76,161 billion and ₩93,127 billion, respectively, comprised principally of securities investments of ₩16,870 billion, ₩22,479 billion and ₩23,902 billion respectively; real property investments of ₩12,053 billion, ₩14,154 billion and ₩13,493 billion, respectively; and loans with an aggregate principal amount of ₩469 billion, ₩528 billion and ₩415 billion, respectively. Securities investments consisted of corporate bonds, government-related bonds and other securities, primarily commercial paper. As of December 31, 2017, 2018 and 2019, debt securities accounted for 27.3%, 28.5% and 24.9%, respectively, and equity securities constituted 1.5%, 1.1% and 0.8%, respectively, of Shinhan Bank's total trust assets. Loans made by trust accounts are similar in type to those made by bank accounts, except that they are made only in Korean Won. As of December 31, 2017, 2018 and 2019, 57.1%, 57.8% and 62.7%, respectively, of the amount of loans from the trust accounts were collateralized or guaranteed. In making investment from funds received for each trust account, each trust product maintains investment guidelines applicable to each such product which set forth, among other things, company-, industry- and security-specific limitations.

Trust Products

In Korea, trust products typically take the form of money trusts, which are discretionary trusts over which (except in the case of a specified money trust) the trustees have investment discretion subject to applicable law and is commingled and managed jointly for each type of trust account. The specified money trusts are established on behalf of customers who give specific directions as to how their trust assets should be invested.

Money trusts managed by Shinhan Bank's trust account business amounted to ₩37,700 billion, ₩44,290 billion and ₩49,695 billion as of December 31, 2017, 2018 and 2019, respectively.

Shinhan Bank offers variable rate trust products through its retail branch network. As of December 31, 2017, 2018 and 2019, Shinhan Bank's variable rate trust accounts amounted to ₩33,720 billion, ₩40,270 billion and ₩45,627 billion, respectively, of which principal guaranteed variable rate trust accounts amounted to ₩3,979 billion, ₩4,019 billion and ₩4,067 billion, respectively. Variable rate trust accounts offer their holders variable rates of return on the principal amount of the deposits in the trust accounts and do not offer a guaranteed return on the principal of deposits, except in the limited cases of principal guaranteed variable rate trust accounts, for which payment of the principal amount is guaranteed. Shinhan Bank charges a lump sum or a fixed percentage of the assets held in such trusts as a management fee, and, depending on the trust products, is also entitled to additional fees in the event of early termination of the trusts by the customer. Korean banks, including Shinhan Bank, are currently allowed to guarantee the principal of the following types of variable rate trust account products: (i) existing individual pension trusts, (ii) new individual pension trusts, (iii) existing retirement pension trusts, (iv) new retirement pension trusts, (v) pension trusts and (vi) employee retirement benefit trusts. Shinhan Bank also offers an insignificant amount of guaranteed fixed rate trust products (amounting to ₩1.0 billion, ₩1.0 billion and ₩1.0 billion as of December 31, 2017, 2018 and 2019, respectively), which provide to its holders a guaranteed return of the principal as well as a guaranteed fixed rate of return. These products are carry-overs from past offerings, and Shinhan Bank no longer offers guaranteed fixed rate trust products.

Credit Card Services

Products and Services

We currently provide our credit card services principally through our credit card subsidiary, Shinhan Card, and to a limited extent, Jeju Bank.

Shinhan Card offers a wide range of credit card and other services, principally consisting of the following:

- *credit card services*, which involve providing cardholders with credit up to a preset limit to purchase products and services. Repayment for credit card purchases may be made either (i) on a lump-sum basis, namely, in full at the end of a monthly billing cycle or (ii) on a revolving basis subject to a minimum monthly payment. The minimum monthly payment for holders of credit cards issued before December 30, 2014 is the greater of (x) 5% to 20% of the amount outstanding (depending on the cardholder's credit) or (y) ₩30,000. The minimum monthly payment for holders of credit cards issued on or after December 30, 2014 is the greater of (x) 10% to 20% of the amount outstanding (depending on the cardholder's credit) or (y) ₩50,000. Currently, the outstanding credit card balance subject to the revolving basis payments generally accrues interest at the effective annual rates of approximately 5.4% to 23.9%.
- *cash advances*, which enable the cardholders to withdraw cash subject to a preset limit from an ATM or a bank branch. Repayments for cash advances may be made either on a lump-sum basis or, in the case of credit cards issued before December 30, 2014, on a revolving basis. Currently, the lump-sum cash advances generally accrue interest at the effective annual rates of approximately 6.1% to 23.9% and the revolving cash advances generally accrue interest at a minimum rate of 6.4% to 23.9% of the outstanding balance (depending on the cardholder's credit).
- *installment purchases*, which provide customers with an option to purchase products and services from select merchants on an installment basis for which repayments must be made in equal amounts over a fixed term generally ranging from two to 24 months, and for certain limited types of cards, up to 36 months. Currently, the outstanding installment purchase balances generally accrue interest at the effective annual rates of approximately 9.5% to 20.9%.
- *card loans*, which enable cardholders to receive, up to a preset limit, a loan which is generally unsecured. Repayment of card loans is made generally by (i) repaying principal and interest in equal amounts on an installment basis over a fixed term of two to 36 months, (ii) repaying the principal and interest amounts in full at maturity, or (iii) making interest-only payments during the initial grace period of either three months or six months and repaying the principal and interest amounts on a

monthly installment basis over the remaining period of typically two to 36 months. Currently, the outstanding card loan balances generally accrue interest at the effective annual rates of approximately 6.16% to 23.9%. Delinquent credit card receivables can also be restructured into loans, which we classify as card loans, and these loans generally accrue interest at the effective annual rates of approximately 11.9% to 19.5% over a fixed term whose maximum is 72 months.

Shinhan Card derives revenues from annual membership fees paid by credit cardholders, interest charged on credit card balances, fees and interest charged on cash advances and card loans, interest charged on late and deferred payments and merchant fees paid by retail and service establishments. Merchant fees and interest on cash advances constitute the largest source of revenue.

The annual membership fees for credit cards vary depending on the type of credit card and the benefits offered thereunder. For standard credit cards and most of the affinity and co-branded cards, Shinhan Card charges an annual membership fee ranging from ₩2,000 to ₩1,000,000 per credit card, depending on the type of the card and the cardholder profile. Certain government affinity cards have no annual membership fee. If Shinhan Card's customers make cash advances using ATMs of a financial institution other than Shinhan Card, Shinhan Card also charges a usage fee for such cash advances in an amount equivalent to the fees charged by such financial institution for the use of its ATM plus costs to cover Shinhan Card's related administration expenses.

Any accounts that are unpaid when due are deemed to be delinquent accounts, for which Shinhan Card levies a late charge in lieu of the interest rates applicable prior to default. The late charge rate currently ranges from 8.4% to 24.0% per annum. Since the first half of 2018, instead of levying a late charge in lieu of interest rates prior to default, Shinhan Card maintained the interest rates prior to default but added a late charge rate of 3% in addition to the interest rates prior to default.

Merchant discount fees, which are processing fees Shinhan Card charges to merchants, can be up to the regulatory limit of 2.3% of the purchased amount depending on the merchant used, with the average charge for credit cards being 1.54% in 2019. For small- and medium-sized merchants, the applicable regulations impose reduced fee rates of 0.8% (in the case of merchants with annual sales of ₩300 million or less) and 1.3% (in the case of merchants with annual sales of more than ₩300 million and up to ₩500 million), respectively, of the purchased amount.

Although making payments on a revolving basis is more common in many other countries, this payment method is still in its early stages of development in Korea. Cardholders in Korea are generally required to repay their purchases within approximately 14 to 44 days of purchase depending on their payment cycle, except in the case of installment purchases where the repayment term is typically three to six months. Accounts that remain unpaid after this period are deemed to be delinquent, and Shinhan Card levies late charges on and closely monitors such accounts. For purchases made on an installment basis, Shinhan Card charges interest on unpaid amounts at rates that vary according to the terms of repayment.

Cardholders are required to settle their outstanding balances in accordance with the terms of the credit cards they hold. Cardholders are required to select the monthly settlement date when they open the credit card account and may subsequently change the settlement date but no more than once every 60 days. Settlement dates at or around the end of each month are the most popular since salaries are typically paid at the end of the month.

In addition to credit card services, Shinhan Card also offers check cards, which are similar to debit cards in the United States and many other countries, to retail and corporate customers. A check card can be used at any of the merchants that accept credit cards issued by Shinhan Card and the amount charged to a check card is directly debited from the cardholder's designated bank account. Check cards have a low risk of default and involve minimal funding costs. Although Shinhan Card does not charge annual membership fees on check cards, merchants are charged fees on the amount purchased using check cards at a rate between 0.50% and 2.50%, depending on the type of business, which is lower than the corresponding fee charged for credit card use.

Recently, the Financial Services Commission has allowed certain financial institutions, including Shinhan Card, to test innovative financial services. Shinhan Card obtained approval from the Financial Services Commission to test five business: (i) peer-to-peer credit card payment services whereby individuals can make credit card payments to others directly, without a third-party platform, (ii) a credit scoring system that evaluates individual business owners' credit standing based on their revenue records and history of credit card use, (iii) small-scale investment using credit cards, (iv) face recognition system for payments and (v) monthly rent payments using credit cards. We expect to test the feasibility and potential of these businesses beginning in 2020.

Credit Card Products

Shinhan Card offers a wide range of credit card products tailored for credit cardholders' lives and to satisfy their preferences and needs. Credit card products offered by Shinhan Card include:

- cards that provide additional benefits such as frequent flyer miles and reward program points that can be redeemed by the customer for complementary services, prices or cash;
- platinum cards and other preferred membership cards, which have higher credit limits and provide additional services in return for higher annual membership fees;
- cards with additional features to preferred customers, such as revolving credit cards, travel services and insurance;
- cards with fraud detection and security systems to prevent the misuse of credit cards and to encourage the use of credit cards over the Internet;
- corporate and affinity cards that are issued to employees or members of particular companies or organizations; and
- mobile phone cards allowing customers to conduct wireless credit card transactions through their mobile phones.

Customers and Merchants

In addition to internal growth through cross-selling, we seek to enhance our market position by selectively targeting new customers with high net-worth and solid credit quality through the use of a sophisticated and market-oriented risk management system. Shinhan Card screens its credit card applicants and sets individualized credit limits for such applicants according to internal guidelines based on a comprehensive credit scoring system. We also seek to provide a wide variety of differentiated products and services tailored to our customers' individualized needs through precision analysis and customer segmentation based on the "big data" we have compiled on our approximately 22 million customers. We have also formed a team dedicated to the "fintech" business by actively pursuing technology developments and strategic alliances with key partners as well as additional teams focused on innovation and creating new sources of value for our clients through the development of big data and digital platforms and provision of big data-based consulting services. In 2019, utilizing an innovative platform based on big data analysis, Shinhan Card launched a "Super Personalization Service", aimed at providing our individual customers with tailored and personalized services that meet their individual needs.

The following table sets forth the number of customers of Shinhan Card and the number of merchants at which Shinhan Card can be used for purchases as of the dates indicated.

	As of December 31,		
	2017	2018	2019
	(In thousands, except percentages)		
Shinhan Card:			
Number of credit card holders[(1)]	12,424	12,701	12,843
Personal accounts	12,295	12,495	12,667
Corporate accounts	129	206	176
Active ratio[(2)]	96.3%	96.1%	96.05%
Number of merchants	2,724	2,810	2,909

Notes:

(1) Represents the number of cardholders whose card use is not subject to suspension or termination as of the relevant date.

(2) Represents the ratio of accounts used at least once within the last six months to the total accounts as of year-end.

Installment Finance

Shinhan Card provides installment finance services to customers to facilitate purchases of durable consumer goods such as new and used cars, appliances, computers and other home electronics products. Revenues from installment finance operations accounted for 3.43% of Shinhan Card's total operating revenue in 2019. Shinhan Card pays the merchants when Shinhan Card's customers purchase such goods, and the customers remit monthly installment payments to Shinhan Card over a number of months, generally up to 36 months (and, in the case of installment financings for automobile purchases, up to 72 months), as agreed with the customers. For installment finance products for new cars, Shinhan Card historically charged, in addition to interest, an initial financing fee of up to 9.9% of the purchase price, depending on the customer's credit score, the installment period and installment amount. Initial financing fees charged in connection with installment finance products for new cars, however, were abolished effective March 2, 2013 pursuant to the Financial Consumer Report (Automobile Financings) issued by the Financial Supervisory Service on January 29, 2013. Shinhan Card has installment financing arrangements with over 10,000 merchants in Korea, including major car dealers, manufacturers and large retailers with nationwide networks, such as electronics goods stores.

Shinhan Card promptly processes installment financing applications and, based on the extensive credit information it possesses or can access, it is able to offer flexible installment payment terms tailored to individual needs of the customers. Shinhan Card also devotes significant efforts to developing and maintaining its relationships with merchants, which are the most important source of referrals for installment finance customers. Shinhan Card makes prompt payments to merchants for goods purchased by the installment finance customers.

Auto Lease

Shinhan Card provides auto leasing financing to retail customers and corporations. Revenues from auto lease operations accounted for 1.39%, 3.37% and 4.83% of Shinhan Card's total operating revenue in 2017, 2018 and 2019, respectively.

Securities Brokerage Services

Overview

Through Shinhan Investment, we provide a wide range of financial investment services to our diversified customer base including corporations, institutional investors, governments and individuals. Financial investment services offered by Shinhan Investment range from securities brokerage services, investment advice and financial planning services, and investment banking services such as underwriting and mergers and acquisitions advisory services. Subject to market conditions, Shinhan Investment also engages in equity- and stock index-linked derivatives sales and brokerage, proprietary trading and brokerage services for futures involving interest rates, currency and commodities as well as foreign exchange margin trading.

As of December 31, 2019, according to internal data, Shinhan Investment's annual market share of Korean equity brokerage market was 5.61% (consisting of 2.34% in the retail segment, 0.74% in the institutional segment and 2.53% in the international segment) in terms of total brokerage volume, ranking eighth among securities firms in Korea. As of the same date, according to internal data, Shinhan Investment held the eighth largest annual market share in the options brokerage segment and the second largest annual market share in the futures segment of 6.26% and 18.79%, respectively, in terms of total brokerage volume with respect to these products.

Products and Services

Shinhan Investment provides principally the following services:

- *retail client services.* These services include equity and bond brokerage, investment advisory and financial planning services to retail customers, with a focus on high net-worth individuals. The fees generated include brokerage commissions for the purchase and sale of securities, asset management fees, interest income from credit extensions (including in the form of stock subscription loans), margin transaction loans and loans secured by deposited securities.
- *institutional client services*:
  - *brokerage services.* These services include brokerage of stocks, corporate bonds, futures and options provided to Shinhan Investment's institutional and international customers and sale of institutional financial products. These services are currently supported by a team of approximately 68 research analysts that specialize in equity, bonds and derivatives research.
  - *investment banking services.* These services include a wide array of investment banking services to Shinhan Investment's corporate customers, such as domestic and international initial public offerings, mergers and acquisitions advisory services, bond issuances, underwriting, capital increase, asset-backed securitizations, issuance of convertible bonds and bonds with warrants, structured financing, issuance of asset-backed commercial papers and project financings involving infrastructure, real estate and shipbuilding.

Shinhan Investment also engages, to a limited extent, in proprietary trading in equity and debt securities, derivative products and over-the-counter market products.

With respect to brokerage services, in the face of intense competition in the domestic brokerage industry, Shinhan Investment primarily focuses on strengthening profitability through service differentiation and efficient management of its distribution network rather than enlarging its market share indiscriminately through lowering fees and commissions. Shinhan Investment's service differentiation efforts include offering its customers opportunities to purchase stocks in a wide range of countries (currently more than 28 countries), leveraging synergy opportunities afforded by affiliation with other Shinhan entities such as offering brokerage accounts maintained at Shinhan Bank and Shinhan Capital.

With respect to investment banking services, Shinhan Investment concentrates on equity capital markets, debt capital markets, project finance and mergers and acquisitions. To a limited extent, Shinhan Investment also engages in private equity investments through formation of private equity funds by soliciting investors on a private placement basis. To better serve its international customers, Shinhan Investment has established four overseas service centers in Hong Kong, New York, Vietnam and Indonesia. In July 2015, we acquired a 100%

stake in Nam An Securities (subsequently launched as Shinhan Securities Vietnam Co., Ltd.), a Vietnamese securities services firm that provides investment banking and asset management services. In addition, in order to capitalize on the rapid growth opportunity and as part of its expansion efforts in Indonesia, Shinhan Investment acquired a 99% stake in PT Makinta Securities, an Indonesian investment banking firm in July 2016 and subsequently launched it as an overseas subsidiary offering investment banking and brokerage services under the name PT Shinhan Sekuritas Indonesia in December 2016. To further expand and stabilize our global businesses, we made further capital investments totaling US$62 million in December 2017 in our subsidiaries located in Hong Kong, New York, Vietnam and Indonesia. In 2018, we acquired PT Archipelago Asset Management, the first acquisition of an Indonesian asset management firm by a Korean financial group, which we believe will strengthen our business portfolio in Indonesia and enhance our competitiveness in the Asian financial markets.

Life Insurance Services

We provide life insurance products and services primarily through Shinhan Life Insurance and Orange Life Insurance. Shinhan Life Insurance and Orange Life Insurance provide services through diversified distribution channels consisting of financial planners, telemarketers, agency marketers and bancassurance specialists. Shinhan Life Insurance had total assets of ₩29,719 billion, ₩31,824 billion and ₩34,134 billion as of December 31, 2017, 2018 and 2019, respectively, and net profits of ₩121 billion, ₩131 billion and ₩124 billion for the years ended December 31, 2017, 2018 and 2019, respectively. Orange Life Insurance had total assets of ₩31,455 billion, ₩32,744 billion and ₩32,841 billion as of December 31, 2017, 2018 and 2019, respectively, and net profits of ₩340 billion, ₩311 billion and ₩271 billion for the years ended December 31, 2017, 2018 and 2019, respectively.

Other Services

Through our other subsidiaries, we also provide asset management, leasing and equipment financing, savings banking, loan collection and credit reporting, collective investment administration and financial system development services. Through Shinhan Alternative Investment Management (in addition to Shinhan Investment), we are also engaged in alternative investments through formation of private equity funds by soliciting investors on a private placement basis.

Asset Management Services

In addition to personalized wealth management services provided as part of our private banking and securities brokerage services, we also provide asset management services through Shinhan BNP Paribas Asset Management, a joint venture with BNP Paribas Asset Management Holding, of which we and BNP Paribas Asset Management Holding hold 65:35 interests, respectively. Shinhan BNP Paribas Asset Management ranked fifth among asset managers in Korea in terms of assets under management as of December 31, 2019, and provides a wide range of investment products, including traditional equity/fixed income funds as well as alternative investment products, to retail and institutional clients. As a joint venture with BNP Paribas Asset Management Holding, we believe Shinhan BNP Paribas Asset Management derives significant benefits from BNP Paribas's global network of investment professionals and expertise in the asset management industry. As of December 31, 2019, Shinhan BNP Paribas Asset Management had assets under management amounting to ₩50,309 billion. To a limited extent, Shinhan Investment also provides asset management services for discretionary accounts, see "—Securities Brokerage Services."

Leasing and Equipment Financing

We provide leasing and equipment financing services to our corporate customers mainly through Shinhan Capital. Shinhan Capital provides customers with leasing, installment financing and new technology financing, equipment leasing, and corporate credit financing. Shinhan Capital's strength has traditionally been in leasing of ships, printing machines, automobiles and other specialty items, but it also offers other leasing and financing services, such as corporate restructuring services for financially troubled companies, project financing for real estate and infrastructure development, corporate leasing and equipment financing.

Savings Banking

Through Shinhan Savings Bank, we provide savings banking services in accordance with the Mutual Savings Bank Act to customers that generally would not, due to their credit profile, qualify for our commercial banking services or who seek higher returns on their deposits than those offered by our commercial banking subsidiaries. Established in December 2011, Shinhan Savings Bank offers savings and other deposit products with relatively higher interest rates and loans (usually in relatively small amounts and on customer-tailored terms and including loans for which we receive credit support from the Government) primarily to small- to medium-sized enterprises and low income households who would not generally qualify for our commercial banking services. Shinhan Savings Bank has assumed the assets and liabilities of Tomato Savings Bank, which we acquired in January 2012, and has merged into Yehanbyoul Savings Bank, which we acquired in March 2013, with Yehanbyoul Savings Bank as the surviving entity with its name changed to Shinhan Savings Bank. Both Tomato Savings Bank and Yehanbyoul Savings Bank were facing liquidity troubles due to difficulties in the real estate project financing business as a result of the prolonged slump in the Korean real estate market at the time we acquired them. We closely monitor the business activities and product offerings of Shinhan Savings Bank to ensure its financial soundness.

Loan Collection and Credit Reporting

We centralize credit collection and credit reporting operations for our subsidiaries through Shinhan Credit Information Co. Ltd. ("Shinhan Credit Information"), which also provides similar services to third party customers. Shinhan Credit Information's services include debt collection, credit inquiries, credit reporting, civil application/petition services and process agent services, among others. Shinhan Credit Information also manages participants in credit recovery programs and provides support to the Kookmin Happy Fund, which is a Government-established fund that supports retail borrowers with low credit scores by purchasing defaulted loans from creditors or providing credit guarantees to enable such borrowers to refinance at lower rates.

Collective Investment Administration Services

We provide integrated collective investment administration services through Shinhan AITAS Co., Ltd. Shinhan AITAS provides general management service, asset management systems, accounting systems and trading systems to asset management companies and institutional investors. The target customers for these collective investment administration services are asset managers, investment advisors and institutional investors, and Shinhan AITAS seeks to provide a comprehensive service package including the computation of the reference value for funds, evaluation of fund performance, provision of trading systems and fund-related legal administrative services.

Alternative Investments

To a limited extent, through Shinhan Alternative Investment Management, we are also engaged in private equity investments through formation of private equity funds. The private equity funds receive funding from investors on a private placement basis, which funds are then invested in alternative assets and equity securities in companies for a variety of reasons, including management control, business turnaround or corporate governance improvements.

Financial System Development Services

We provide financial system development services through Shinhan DS, which offers system integration, system management, IT outsourcing, business process outsourcing and IT consulting services.

Real Estate Investment Trust (REIT) Asset Management

Through our wholly owned subsidiary, Shinhan REITs Management Co., Ltd., we provide real estate investment and management services to real estate investment trusts.

Real Estate Trust Services

Asia Trust Co., Ltd is a comprehensive real estate trust service provider, providing services including land development trust, management trust, proxy and agency businesses and consulting, etc.

Artificial Intelligence Based Investment Consulting

Shinhan AI. Co., Ltd. is an artificial intelligence-based investment consulting company established to enhance our competitiveness in the digital age and provide differentiated investment consulting services, with plans to expand business into the asset management sector.

Our Distribution Network

We offer a wide range of financial services to retail and corporate customers through a variety of distribution networks and channels established by our subsidiaries. The following table presents the geographical distribution of our distribution network based on the branch offices and other distribution channels of our principal subsidiaries, as of December 31, 2019.

Distribution Channels in Korea(1)	**Shinhan Bank**	**Jeju Bank**	**Shinhan Card**	**Shinhan Investment**	**Shinhan Life Insurance**	**Orange Life Insurance**	**Total**
Seoul metropolitan	363	1	8	59	37	80	548
Gyeonggi province	191	—	4	21	25	3	244
Six major cities:	167	1	8	25	41	18	260
Incheon	59	—	1	3	7	2	72
Busan	38	1	2	6	19	6	72
Gwangju	13	—	1	3	4	3	24
Daegu	24	—	1	7	5	4	41
Ulsan	15	—	1	3	2	1	22
Daejeon	18	—	2	3	4	2	29
Sub-total	721	2	20	105	103	101	1,052
Others	155	33	6	21	20	5	240
Total	876	35	26	126	123	106	1,292

Note:

(1) Includes our main office and those of our subsidiaries.

Banking Service Channels

Our banking services are primarily provided through an extensive branch network, specializing in retail and corporate banking services, as complemented by self-service terminals and electronic banking, as well as an overseas services network.

As of December 31, 2019, Shinhan Bank's branch network in Korea comprised of 876 service centers, consisting of our headquarters, 673 retail banking service centers, 13 large corporate banking service centers, 51 corporate banking services centers and 139 hybrid banking branches designed to serve retail as well as small-business corporate customers. Shinhan Bank's banking branches are designed to provide one-stop banking services tailored to their respective target customers. Recently, Shinhan Bank has been actively adopting digital technology to improve operational efficiency of its banking service channels. For example, Shinhan Bank introduced digital kiosks to banking branches, established 'Paperless Banking' by replacing paper applications with electronic documents, implemented a "robotic process automation system" for the automation of certain tasks and processes and increased the volume of client communications through non-face-to-face platforms.

Retail Banking Channels

In Korea, many retail transactions are conducted in cash or with credit cards, and conventional checking accounts are generally not offered or used as widely as in other countries such as the United States. An extensive retail branch network has traditionally played an important role as the main platform for a wide range of banking transactions. However, a growing number of customers are turning to other service channels to meet their banking needs, such as Internet banking, mobile banking and other forms of non-face-to-face platforms. In response to such changes, Shinhan Bank has recently focused on reorganizing its retail branch network, including shifting, merger or closure of certain branches that are considered redundant.

Recently, one of the key initiatives at Shinhan Bank has been to target high net-worth individuals through private banking. Our private banking services are provided principally through private banking relationship managers who, within target customer groups, assist clients in developing individual investment strategies. We believe that such relationship managers help us foster enduring relationships with our clients. Private banking customers also have access to Shinhan Bank's retail branch network and other general banking products Shinhan Bank offers through its retail banking operations.

Corporate Banking Channels

Shinhan Bank currently provides corporate banking services through corporate banking service centers primarily designed to serve large corporate customers and hybrid banking branches designed to serve retail as well as small-business corporate customers. Small- and medium-sized enterprises have traditionally been Shinhan Bank's core corporate customers and we plan to continue to maintain Shinhan Bank's strength vis-à-vis these customers.

Self-Service Terminals

In order to complement its banking branch network, Shinhan Bank maintains an extensive network of automated banking machines, which are located in branches and in unmanned outlets. These automated banking machines consist of ATMs, cash dispensers and passbook printers. In December 2015, Shinhan Bank introduced digital kiosks, a new generation of automated self-service machines in the Seoul metropolitan area featuring biometric authentication technology and the ability to perform a wide range of services that were not available through traditional ATMs, such as opening new accounts, issuance of debit and check cards, foreign currency exchange and overseas remittance of foreign currency. These digital kiosks are currently being operated at 44 branches in the Seoul metropolitan area. As of December 31, 2019, Shinhan Bank had 5,773 ATMs, 13 cash dispensers and 48 digital kiosks. Shinhan Bank has actively promoted the use of these distribution outlets in order to provide convenient service to customers, as well as to maximize the marketing and sales functions at the branch level, reduce employee costs and improve profitability. In 2019, automated banking machine transactions accounted for a substantial portion of total deposit and withdrawal transactions of Shinhan Bank in terms of the number of transactions and fee revenue generated, respectively.

Electronic Banking

Shinhan Bank's Internet banking services are more comprehensive than those available at the counter, including such services as 24 hour account balance posting, real-time account transfer, overseas remittance and loan requests. Shinhan Bank also offers mobile banking services in order to enable customers to make speedy, convenient and secure banking transactions using mobile phones. As of December 31, 2019, Shinhan Bank had 20,173,251 subscribers to its Internet banking services and 15,222,356 users of its smart banking apps, representing an increase of 9.8% and 8.8%, respectively, compared to December 31, 2018. Shinhan Bank continues to experience a rise in the number of online and mobile banking users. Shinhan Bank began offering online and mobile banking initially with a view to saving costs rather than increasing revenues, but is currently exploring ways to leverage the possibility of increase revenues through online and mobile banking given that these services offer customers with easier and more convenient access to banking services without limitations of time and space as well as offer tailored and customized service to each customer. In September 2017, Shinhan Bank launched "Shinhan Tong," a new mobile and web based platform that is more user friendly and easier to access than previous platforms and does not require additional applications or certifications. Shinhan Tong utilizes mobile identification and non-face-to-face identity authentication technology, which allows users to open new bank accounts, exchange currencies and use other services such as credit card application services without having to visit a physical bank branch. In February 2018, Shinhan Bank launched "SOL", a new mobile banking application integrating Shinhan Bank's six previously existing mobile applications such as the Shinhan S Bank and Sunny Bank applications. SOL is the cumulation of Shinhan Bank's efforts to provide a customer oriented and user friendly mobile banking platform and features, among others, easy-to-use biometric and non-face-to-face identity authentication technology. In addition to innovative features allowing customers to withdraw from their accounts at other banks using Shinhan Bank's ATMs and transfer funds with minimal time and effort (for example, with no need to log in or insert account numbers), Shinhan Bank began offering open banking service in October 2019, allowing customers to access accounts, products and services across multiple banks using only SOL. In November 2019, Shinhan Bank also launched "SOL Global", a mobile banking application for foreigners, allowing foreign customers to use open banking and various other financial services. Shinhan Bank continues to expand the scope of its mobile banking services by providing innovative offerings, including "SOL Land", a mobile application providing information on real estate prices and loan limits and "SOL Trip", a mobile application providing travel-related services such as foreign currency exchange and travel insurance services.

Overseas Distribution Network

The table below sets forth Shinhan Bank's overseas banking subsidiaries and branches as of December 31, 2019.

Business Unit	Location	Year Established or Acquired
Subsidiaries		
Shinhan Asia Ltd.	Hong Kong SAR, China	1982
Shinhan Bank Europe GmbH(1)	Frankfurt, Germany	1994
Shinhan Bank America	New York, U.S.A.	1990
Shinhan Bank (China) Limited	Beijing, China	2008
Shinhan Bank (Cambodia) PLC	Phnom Penh, Cambodia	2007
Shinhan Bank Kazakhstan Limited	Almaty, Kazakhstan	2008
Shinhan Bank Canada	Toronto, Canada	2009
Shinhan Bank Japan(2)	Tokyo, Japan	2009
Shinhan Bank Vietnam Ltd.(3)	Ho Chi Minh City, Vietnam	2011
Banco Shinhan de Mexico(4)	Mexico City, Mexico	2015
PT Bank Shinhan Indonesia(5)	Jakarta, Indonesia	2016
Branches		
New York	U.S.A.	1989
Singapore	Singapore	1990

Business Unit	Location	Year Established or Acquired
London	United Kingdom	1991
Mumbai	India	1996
Hong Kong	China	2006
New Delhi	India	2006
Kancheepuram	India	2010
Pune	India	2014
Manila	Philippines	2015
Dubai	United Arab Emirates	2015
Sydney	Australia	2016
Yangon	Myanmar	2016
Ahmedabad	India	2016
Ranga Reddy	India	2016
Representative Offices[(6)]		
Mexico	Mexico City, Mexico	2008
Uzbekistan	Tashkent, Uzbekistan	2009
Poland[(1)]	Wroclaw, Poland	2014

Notes:

(1) Shinhan Bank Europe GmbH established a representative office in Poland in 2014.
(2) While Shinhan Bank established the subsidiary in Japan in 2009, Shinhan Bank has provided banking services in Japan through a branch structure since 1986.
(3) Prior to the establishment of this subsidiary in 2011, Shinhan Bank provided banking services in Vietnam through a branch since 1995.
(4) Banco Shinhan de Mexico commenced operations in March 2018.
(5) Shinhan Bank acquired a 98.01% stake in Bank Metro Express and a 100% stake in Centratama Nasional Bank, two banks in Indonesia, in November 2015 and December 2016, respectively. On March 3, 2016, Bank Metro Express obtained a license to conduct business activities in the name of PT Shinhan Bank Indonesia. Centratama Nasional Bank was merged with PT Bank Shinhan Indonesia on December 6, 2016.
(6) Shinhan Bank's representative office in Myanmar was closed as of June 8, 2018.

Currently, our overseas subsidiaries and branches are primarily engaged in trade financing and local currency funding for Korean companies and Korean nationals in the overseas markets, as well as providing foreign exchange services in conjunction with Shinhan Bank's headquarters. On a limited basis, these overseas branches and subsidiaries also engage in investment and trading of securities of foreign issuers. In the future, as part of our globalization efforts, we plan to expand our coverage of local customers in the overseas markets by providing a wider range of services in retail and corporate banking, and to that end, we have increasingly established subsidiaries in lieu of branches in select markets and in 2011 merged two of our Vietnam banking subsidiaries in order to enhance our presence and enable greater flexibility in its service offerings in these markets. We plan to maintain our focus on organic growth, while we may selectively pursue acquisitions in markets where it is difficult to obtain local banking licenses through greenfield entry. In furtherance of this objective, Shinhan Bank acquired a 98.01% stake in Bank Metro Express and a 100% stake in Centratama Nasional Bank, two banks in Indonesia, in November 2015 and December 2016, respectively. The Bank completed the merger of the two banks in December 2016. The Bank also opened additional branches in Australia, Myanmar and India in the second half of 2016. In April 2017, Shinhan Bank Vietnam Co., Ltd. acquired ANZ Bank (Vietnam) Limited's retail division. In 2017, Shinhan Bank became the first Korean Bank to obtain a license to set up a local subsidiary in Mexico and started local business in Mexico in March 2018. We plan to continue our efforts to expand our overseas banking service network and global operations.

Credit Card Distribution Channels

Shinhan Card primarily uses four distribution channels to attract new credit card customers: (i) the banking and credit card branch network, (ii) sales agents, (iii) business partnerships and affiliations with vendors and (iv) digital platforms such as Shinhan PayFAN.

The branch network for our credit card operations consisted of 876 branches as of December 31, 2019 of Shinhan Bank and 23 card sales branches of Shinhan Card. The use of the established distribution network of Shinhan Bank is part of the group-wide cross-selling efforts of selling credit card products to existing banking customers. In 2019, the number of new cardholders acquired through our banking distribution network accounted for approximately 29.0% of the total number of new cardholders. We believe that the banking distribution network will continue to provide a stable and low-cost venue for acquiring high-quality credit cardholders.

The sales agents represented the most significant source of Shinhan Card's new cardholders in 2019, and the number of new cardholders acquired through sales agents accounted for approximately 37.7% of the total number of Shinhan Card's new cardholders in 2019. As of December 31, 2019, Shinhan Card had 2,036 sales agents, who were independent contractors. These sales agents assist prospective customers with the application process and customer service. Compensation of these sales agents is generally tied to the transaction volume of the customers introduced by them, and we believe this system helps to enhance profitability.

As a way of acquiring new cardholders, Shinhan Card also has business partnership and affiliation arrangements with a number of vendors, including gas stations, major retailers, airlines and telecommunication and Internet service providers. Shinhan Card plans to continue to leverage its alliances with such vendors to attract new cardholders.

As part of a group-wide initiative to streamline our operations and create a digital-friendly business platform, Shinhan Card has strategically expanded its digital platforms. Shinhan Card launched Shinhan FAN, a mobile application providing consolidated financial services including strategic alliances, online and offline payment services, financing services such as installment financings for automobile purchases and a group-wide integrated customer reward program, and subsequently upgraded the application to Shinhan PayFan in October 2018 in order to better provide customized financial services aimed at meeting the comprehensive needs of customers and ultimately lead the mobile payment industry in Korea. In addition to providing traditional payment services, Shinhan PayFan utilizes digital technology such as artificial intelligence and big data to provide real-time customized services tailored to individual users and integrated access across services provided by various merchants and affiliates. Shinhan PayFan is able to provide most of the services provided through traditional customer service means such as call centers and website applications.

In November 2014, as an initial step to exploring potential opportunities overseas, Shinhan Card established its first overseas subsidiary in Kazakhstan, LLP MFO Shinhan Finance, as Kazakhstan was deemed to have relatively low entry barriers to foreign financial institutions, high growth potential for retail operations and the possibility of leveraging Shinhan Bank's network. LLP MFO Shinhan Finance obtained its business license in the first half of 2015 and commenced operations in July 2015, including installment financing and credit loans. In 2018, LLP MFO Shinhan Finance expanded its sales channels and introduced new credit loan products. In 2019, LLP MFO Shinhan Finance focused on expanding its sales coverage while enhancing its risk management capabilities. In 2020, LLP MFO Shinhan Finance plans to diversify and optimize its product offerings to create a more stable income base.

In December 2015, Shinhan Card acquired a majority stake in PT Swadharma Indotama Finance, a multi finance company in Indonesia, and changed its legal name to PT Shinhan Indo Finance. PT Shinhan Indo Finance engages in corporate and retail operations, including installment financing and financial leases, and began offering credit card services in January 2017 after obtaining its credit card business license in December 2016. In 2018, PT Shinhan Indo Finance began to expand its retail business across Indonesia. In 2019, PT Shinhan Indo

Finance launched its joint finance product with Shinhan Bank, maintaining a conservative approach to its retail business while steadily increasing its corporate leasing assets, particularly corporate fleet vehicles. In 2020, PT Shinhan Indo Finance plans to continue expanding its corporate fleet vehicle leasing business and improve financial performance.

In March 2016, to accelerate our global business expansion, we established Shinhan Microfinance, a local subsidiary in Myanmar. Shinhan Microfinance obtained its microfinance business license in July 2016 and launched operations in September 2016. Since then, it has expanded its business operations by diversifying the range of microfinance product offerings and expanding its sales network. In 2020, Shinhan Microfinance looks to increase efficiency through new branch operational strategies and continue to seek long term growth opportunities.

In January 2018, Shinhan Card acquired Prudential Vietnam Finance Company Limited in order to gain a stronger presence in Vietnam and increase synergy with Shinhan Bank and Shinhan Investment's Vietnam operations. In July 2019, Shinhan Card changed its legal name into Shinhan Vietnam Finance Company Ltd. ("Shinhan Vietnam Finance"). Utilizing its relatively lower funding cost resulting from cooperation with other affiliates in Vietnam such as Shinhan Bank and Shinhan Investment, Shinhan Vietnam Finance was able to expand its asset base, reaching total assets of US$336 million as of December 31, 2019. The State Bank of Vietnam recently introduced Circular 18, which amends the regulation on consumer lending activities in Circular 43 and is aimed at improving soundness of Vietnam's consumer finance industry and facilitating a transition towards a cashless society by regulating the proportion of direct disbursements (for example, cash loans) to the total outstanding loans. According to the amendment, the rate of total consumer loans with direct disbursements to total consumer credit balance should gradually be decreased to 30% by 2024. In order to efficiently cope with the new regulatory changes, in 2020, Shinhan Vietnam Finance plans to diversify its business offerings to include, among others, car loans and installment financing and also leverage Shinhan Card's digitalization capabilities to increase efficiency and provide customers with innovative services.

Securities Brokerage Distribution Channels

Our securities brokerage services are conducted principally through Shinhan Investment. As of December 31, 2019, Shinhan Investment had 126 service centers nationwide, and four overseas subsidiaries based in Hong Kong, New York, Vietnam and Indonesia to service our corporate customers.

Approximately 63% of our brokerage branches are located in the Seoul metropolitan area with a focus on attracting high net-worth individual customers as well as enhancing synergy with our retail and corporate banking branch network. We plan to continue to explore new business opportunities, particularly in the corporate customer segment, through further cooperation between Shinhan Investment and Shinhan Bank.

Insurance Sales and Distribution Channels

We sell and provide our insurance services primarily through Shinhan Life Insurance and Orange Life Insurance. Both Shinhan Life Insurance and Orange Life Insurance, in addition to distributing bancassurance products through our bank branches, also distribute a wide range of life insurance products through their own branch network, agency network of financial planners and telemarketers, as well as through the Internet. As of December 31, 2019, Shinhan Life Insurance and Orange Life Insurance had 123 and 106 branches and 7 and 3 customer support centers, respectively. These branches are staffed by financial planners, telemarketers, agent marketers and bancassurance to meet the various needs of our insurance and lending customers. Our group-wide customer support centers arrange for policy loans (namely loans secured by the cash surrender value of the underlying insurance policy) for our insurance customers and, to a limited extent, other loans to other customers, and also handle insurance payments.

Information Technology

We dedicate substantial resources to maintaining a sophisticated information technology system to support our operations management and provide high quality customer service. Our information and technology system is operated at a group-wide level based on comprehensive group-wide information collection and processing. We also operate a single group-wide enterprise information technology system known as "enterprise data warehouse" for customer relations management capabilities, risk management systems and data processing. We continually upgrade our group-wide information technology system in order to apply the best-in-class technology to our risk management systems to reflect the changes in our business environment as well as enhance differentiation from our competitors.

In 2013, we completed the construction of the Shinhan Data Center, which is responsible for comprehensive management of information technology systems for our subsidiaries on a group-wide basis. This center ensures a stable use of a central information processing facilities for at least 15 years and is designed to maximize operational and cost efficiency as well as enhance information security by combining the various data centers previously used by our subsidiaries. All of our subsidiaries relocated their information management capabilities to this center in 2014.

In order to enhance security and trustworthiness of the financial services provided by us, we continually seek to enhance a group-wide set of standards for information security and upgrade the related systems. In 2008, we established group-wide information systems and policies, which have since been continually updated and upgraded. In 2017, we further upgraded the group-wide information security control tower to a best-in-class level and replaced most of our internal information security staff with highly qualified experts in order to reinforce our security defense capabilities in the event of cyber breaches. In addition, we have a team within our group to provide specialized data protection and related support services to our smaller operating subsidiaries, and we take active measures to preemptively forestall any security breaches through mock trials.

At the subsidiary level, we also continue to upgrade the information technology infrastructure and services for each of our subsidiaries to enhance the quality of our customer service specific to such subsidiary and thereby bolster their respective competitiveness, including with respect to electronic and mobile banking, online consultation, expanded sales services and customized informational services. In addition, we have recently strengthened our indirect service channels through a major upgrade of the corporate online banking services and expansion of mobile phone-based product offerings and sales and service networks, such as the launch of Shinhan Bank's banking application SOL and upgrades to Shinhan Investment's Shinhan iAlpha application system, in light of the growing base of customers who increasingly access financial services through their mobile phones. We also established in April 2015 a new credit evaluation system with enhanced precision in assessing the creditworthiness of our corporate customers, which has enabled us to manage our credit risk more effectively. On a group-wide level, we are enhancing the efficiency of the information technology operations of our subsidiaries through cloud computing. Furthermore, we have expanded, and will continue to expand, our information technology systems to support the sales and operational capabilities of our overseas subsidiaries and branches through a global customer management system as well as provide country-specific financial services.

The information technology system for each of our subsidiaries is currently backed up on a real-time basis. In 2014, we converted the pre-existing data center to a back-up and disaster recovery center for all our subsidiaries' operations in order to provide customer services in a continued seamless manner even in the case of an interruption at Shinhan Data Center. We believe that our centralized back-up systems, including our data back-up centers and disaster recovery centers, enable more efficient back-up at a higher level of security.

Competition

Competition in the Korean financial services industry is, and is likely to remain, intense, including as a result of the sustained low interest rate environment (which narrows opportunities to make profit based on the spread between lending rates and funding rates), the continuing sluggishness in the general economy, the growing maturation and saturation of the industry as a whole, the entry of new market participants and deregulation, among others.

In the banking sector, Shinhan Bank competes principally with other national commercial banks in Korea, but also faces competition from a number of additional banking institutions, including branches and subsidiaries of foreign banks operating in Korea, regional banks, Internet-only banks, government-owned development banks and Korea's specialized banks, such as Korea Development Bank, Industrial Bank of Korea and the National Federation of Fisheries Cooperatives, as well as various other types of financial service providers, including savings institutions (such as mutual savings and finance companies, credit unions and credit cooperatives), investment companies (such as securities brokerage firms, merchant banking corporations and asset management companies) and life insurance companies. As of December 31, 2019, Korea had six major nationwide domestic commercial banks (including Citibank Korea Inc. and Standard Chartered Bank Korea Limited, both of which are domestic commercial banks acquired by global financial institutions), six regional commercial banks, two Internet-only banks and branches and subsidiaries of 36 foreign banks. Foreign financial institutions, many of which have greater experiences and resources than we do, may continue to enter the Korean market and compete with us in providing financial products and services either by themselves or in partnership with existing Korean financial institutions.

In the small- and medium-sized enterprise and retail banking segments, which have been Shinhan Bank's traditional core businesses, competition is expected to increase further. In recent years, Korean banks, including Shinhan Bank, have increasingly focused on stable asset growth based on quality credit, such as corporate borrowers with high credit ratings, loans to SOHO with high levels of collateralization, and mortgage and home equity loans within the limits of the prescribed loan-to-value ratios and debt-to-income ratios. This common shift in focus toward stable growth based on less risky assets has intensified competition as banks compete for the same limited pool of quality credit by engaging in price competition or by other means although Shinhan Bank has traditionally focused, and will continue to focus, on enhancing profitability rather than increasing asset size or market share, and has avoided, to the extent practicable, engaging in price competition by way of lowering lending rates. In addition, such competition may result in lower net interest margin and reduced overall profitability, especially if the low interest rate environment were to continue for a significant period of time. Shinhan Bank's net interest margin (on a separate basis) declined slightly to 1.54% in 2019 from 1.62% in 2018 due to, at least partly, decreases in base interest rate by the Bank of Korea from 1.75% to 1.50% in July 2019 and from 1.50% to 1.25% in October 2019 and may decline further as the Bank of Korea has reduced the base interest rate from 1.25% to 0.75% in March 2020 and if the base interest rate is decreased again during 2020. Even if interest rates were to increase, the effect on Shinhan Bank's results of operations may not be as beneficial as expected, or at all, due to factors such as increased volatility of market interest rates and tighter regulations regarding SOHO loans, including the implementation of additional credit review guidelines for individual businesses. Further, if competing financial institutions seek to expand market share by lowering their lending rates, Shinhan Bank may suffer customer loss, especially among customers who select their lenders principally on the basis of lending rates. In response thereto or for other strategic reasons, Shinhan Bank may subsequently lower its lending rates to stay competitive, which could lead to a further decrease in its net interest margins and outweigh any potential positive impact on the net interest margin from a general rise in market interest rates. Any future decline in Shinhan Bank's customer base or its net interest margins could have an adverse effect on our results of operations and financial condition.

In the credit card sector, Shinhan Card competes principally with existing "monoline" credit card companies, credit card divisions of commercial banks, consumer finance companies, other financial institutions and, recently, credit card service providers allied with mobile telecommunications service providers in Korea. Competition has been historically intense in this sector and the market has shown signs of saturation as existing and new credit card service providers make significant investments and engage in aggressive marketing campaigns and promotions to acquire new customers and target customers with high credit quality. While competition has subsided somewhat recently due to stricter government regulations, such as curbs on excessive marketing expenses, competition remains intense and credit card issuers may continue to compete with Shinhan Card for customers by offering lower interest rates and fees, higher credit limits, more attractive promotions and incentives and alternative products such as credit card reward points, gift cards and low-interest consumer loan products. As a result, Shinhan Card may lose customers or service opportunities to competing credit card issuers and/or incur higher marketing expenses. Also, over the years, the Government has implemented regulations lowering certain merchant fees chargeable by credit card companies. In 2012, the Government adopted regulations mandating lower merchant fees chargeable to small- and medium-sized enterprises, and beginning January 31, 2016, a further reduction in the merchant fees chargeable to small- and medium-sized enterprises went into effect. The Enforcement Decree of the Specialized Credit Finance Business Act was amended in July 2017 and January 2019 to further expand the range of small- and medium-sized enterprises subject to lower merchant fees, and additional amendments to regulations requiring further downward adjustments to merchant fees may come into force in the future. For further details on the Government's regulations on merchant fees chargeable by credit card companies, See "Item 3.D. Risk Factors — Risks Relating to Our Credit Card Business — Future changes in market conditions as well as other factors, such as stricter regulation, may lead to reduced revenues and deterioration in the asset quality of credit card receivables." In addition, since the implementation of the Improper Solicitation and Graft Act in September 2016, revenue growth for corporate cards and service related industries such as dining, floral and entertainment have shown signs of decline, and additional regulations on loans reducing maximum interest rates chargeable from 27.9% to 24% came into effect in February 2018. These developments have put further downward pressure on the results of operations for credit card companies, including Shinhan Card. Furthermore, the Government's recent guidelines to bolster consumer protection and protect customers' personal data in the aftermath of data leaks at certain credit companies (not including Shinhan Card) may result in additional compliance costs for Shinhan Card. Customer attrition, together with any further lowering of fees or reduction in base and market interest rates and/or additional expenses from more extensive marketing and promotional campaigns that Shinhan Card might implement to acquire and retain customers, could reduce its revenues and earnings. Furthermore, the average credit quality of Shinhan Card's customers may deteriorate if customers with higher credit quality borrow from our competitors rather than Shinhan Card and it may become more difficult for Shinhan Card to attract and maintain quality customers. In general, the growth, market share and profitability of Shinhan Card's operations may decline or become negative as a result of market saturation in this sector, interest rate competition, pressure to lower fee rates and incur higher marketing expenses, as well as Government regulation and social and economic developments in Korea that are beyond our control, such as changes in consumer confidence levels, spending patterns or public perception of credit card usage and consumer debt. If Shinhan Card fails to maintain or attract new cardholders or increase the card usage by existing customers or experiences deterioration in its asset quality and a rise in delinquency, our business, financial condition and results of operations may be adversely affected.

In other financial services sectors, our other subsidiaries also compete in a highly fragmented market. Some of our competitors, particularly major global financial institutions, have greater experience and resources than we do.

Consolidation among our rival institutions and the Government's privatization efforts may also add competition in the markets in which we and our subsidiaries conduct business. A number of significant mergers and acquisitions in the industry have taken place in Korea recently, including Hana Financial Group's acquisition of Korea Exchange Bank in 2012 and the resulting merger of Hana Bank and Korea Exchange Bank in September 2015. Moreover, in 2014, pursuant to the implementation of the Government's privatization plan with respect to Woori Finance Holdings (now merged into Woori Bank) and its former subsidiaries, Woori Financial, Woori Asset Management and Woori F&I were acquired by KB Financial Group, Kiwoom Securities and Daishin Securities, respectively, and Woori Investment & Securities, Woori Aviva Life Insurance and Woori FG Savings Bank were acquired by NongHyup Financial Group. In addition, in October 2014, the Government's ownership interests in the holding companies of Kwangju Bank and Kyongnam Bank were acquired by JB Financial Group and BS Financial Group (now BNK Financial Group), respectively. In 2015, the Government decided to sell a 30% to 40% interest in Woori Bank to multiple investors in separate blocks ranging from 4% to 10% each. Since December 2016, Korea Deposit Insurance Corporation has consummated sales transactions with seven institutional investors including Kiwoom Securities, Korea Investment and Securities, Hanwha Life Insurance, Tongyang Life Insurance, Eugene Asset Management, Mirae Asset Global Investments and IMM Private Equity for the sale of an aggregate 29.7% interest in Woori Bank in separate blocks. In the securities brokerage sector, Mirae Asset acquired KDB Daewoo Securities in 2016, creating the largest brokerage company in Korea by assets, and on June 1, 2016, KB Financial Group completed its acquisition of Hyundai Securities and merged it with its existing brokerage unit, KB Investment & Securities Co, creating the fifth largest brokerage company in Korea by assets. In the asset management business sector, Woori Financial Group acquired two asset management companies, Tongyang Asset Management and ABL Global Asset Management (former Allianz Global Investors). Any of these developments may place us at a competitive disadvantage and outweigh any potential benefit to us in the form of opportunities to acquire new customers who are displeased with the level of services at the newly reorganized entities or to provide credit facilities to corporate customers who wish to maintain relationships with a wide range of banks in order to diversify their sources of funding. In September 2018, we announced the acquisition of a 59.15% interest in Orange Life Insurance, the former Korean unit of ING Life Insurance, as part of our efforts to diversify and enhance our non-banking businesses and closed on February 1, 2019. On January 28, 2020, we acquired the remaining interests in Orange Life Insurance by effecting a comprehensive stock exchange under Articles 360-2 of the Korean Commercial Code whereby holders (other than us) of Orange Life Insurance's common stock transferred all of their shares to us and in return receive shares of our common stock, and hence Orange Life Insurance has become our wholly owned subsidiary as of such date. We expect that such consolidation and other structural changes in the financial industry will continue. Other financial institutions may seek to acquire or merge with other entities, and the financial institutions resulting from such consolidation may, by virtue of their increased size and business scope, provide greater competition for us. Increased competition and continuing consolidation may lead to decreased margins, resulting in a material adverse impact on our future profitability.

Regulatory reforms and the general modernization of business practices in Korea have also led to increased competition among financial institutions in Korea. Since July 2015, the Financial Services Commission has provided, through the Korea Financial Telecommunications and Clearings Institute, the integrated automatic payment transfer management service, which allows account holders to search for, terminate or modify automatic payments they have set up with financial institutions participating in such service (currently including banks, securities companies and other financial institutions such as The Post Office, Korean Federation of Community Credit Cooperatives, National Credit Union Federation of Korea, Mutual Savings Bank and National Forestry Cooperative Federation). In addition, the Financial Services Commission began providing the integrated account management service from December 2016, which allows account holders to search for detailed information of their bank accounts opened in banks participating in such service, close small-sum inactive accounts (i.e., accounts with no transaction activity during the previous one year period and with a balance of less than ₩500,000) and transfer the balance in such accounts to other accounts. Moreover, in December 2017, the Financial Services Commission introduced the "my account at a glance" system, which enables consumers to view their key financial account information online, including information on banks, insurances, mutual finance, loan and card issuances on one page. The "my account at a glance" system became available on mobile channels in February 2016 and expanded its scope of services to include savings banks and securities companies. Since their introduction, the integrated automatic payment transfer management service, integrated account management service and "my account at a glance" system have gained widespread acceptance. As the reform of the financial sector continues, competition may become more intense among existing banks, insurance companies, securities companies and other financial organizations, and may lead to significant changes in the current Korean financial market. Moreover, the Regulation on the Supervision of the Banking Business was amended on July 12, 2018 to provide that, beginning on January 1, 2020, in calculating loan to deposit ratio, retail loans and corporate loans are weighed differently, with retail loans subject to a multiple of 115% and corporate loans (excluding loans to SOHOs) subject to a multiple of 85%, thereby increasing the impact of retail loans and reducing the impact of corporate loans in calculating such ratio. This may further intensify competition for corporate loans and deposits among commercial banks and, as a result, Shinhan Bank may face difficulties in increasing or retaining its corporate loans and deposits, which in turn may result in an increase in its cost of funding.

Furthermore, as the Korean economy further develops and new business opportunities arise, more competitors may enter the financial services industry. For example, as online service providers and technology companies with large-scale user networks, such as Kakao Corp., NAVER and Samsung Electronics, recently make significant inroads in providing virtual payment services through a system based on a growing convergence of financial services and technology commonly referred to as "fintech," competition for online customers is growing not just among commercial banks, but also from online and mobile payment service providers. Also, widespread consumer acceptance of mobile phone payment services in lieu of credit card services could add to the competitive threat faced by existing credit card service providers, including our credit card subsidiary. In 2015, the Government announced its plans to allow Internet-only banks to operate in Korea. KT consortium's K-Bank and Kakao consortium's Kakao Bank commenced operations in April 2017 and July 2017, respectively, and Viva Republica consortium's Toss Bank has recently obtained preliminary business authorization from the Financial Services Commission on December 16, 2019. Internet-only banks may have advantages over traditional banks as the former can pass savings in labor and overhead costs to their customers by offering higher interest rates on deposit accounts, lower loan costs and reduced service fees. Accordingly, commercial banks will likely face increasing pressure to upgrade their service platforms to attract and maintain online users, which represents a growing customer base compared to traditional customers who have primarily conducted banking in-person at physical banking branches.

As part of the Government's financial policies to promote innovative digital finance, 10 commercial banks, including Shinhan Bank, began offering a preliminary open banking service in October 2019. More local banks and fintech companies joined in December 2019, when the open banking service was fully and officially launched. Open banking service allows each fintech company and bank to provide banking services, such as checking balances and making withdrawals and transfers, with regards to customers' accounts at other banks. Using open banking service, customers can easily access accounts, products and services across multiple banks, instead of being limited to the accounts, products and services available at the particular bank that they deal with. In addition, on January 9, 2020, the Korean National Assembly passed amendments to three major data privacy laws (the Personal Information Protection Act, the Act on the Promotion of Information and Communications Network Utilization and Information Protection and the Act on the Use and Protection of Credit Information). These amendments introduced the MyData service, allowing and requiring (upon the customer's request and subject to compliance requirements) financial institutions that have been approved by the Financial Service Commission as a MyData service provider access and sharing of customers' personal information, credit information and transaction data. If and when fintech companies receive authorization as MyData service providers, we expect competition for customers among banks and fintech firms such as Kakao Pay, Toss and Bank Salad to intensify.

Recently, following the global financial crisis, the Government has subjected Korean financial institutions to stricter regulatory requirements and guidelines in areas of asset quality, capital adequacy, liquidity and residential and other lending practices (including a requirement to maintain a certain ratio of core capital to total risk exposure, which was introduced in January 2018 in order to control excessive leverage), which has had a dampening effect on competition. The Financial Services Commission implemented the capital requirements of Basel III, whose minimum requirements were phased in sequentially from December 1, 2013 through full implementation by January 1, 2015, based on the guidelines set forth in the amended Regulation on the Supervision of the Banking Business and the Detailed Regulation on the Supervision of the Banking Business. In addition, the Financial Services Commission has implemented the Basel III requirements relating to liquidity coverage ratio and capital conservation buffer, each of which have been fully phased in as of January 1, 2019. As of January 1, 2016, the Financial Services Commission implemented Basel III requirements relating to accumulation of additional capital for systemically important banks and bank holding companies and countercyclical capital buffer requirements. Each year, the Financial Services Commission may designate banks with significant influence (based on size and connectivity with other financial institutions) on the domestic financial system as a domestic systemically important bank and require the accumulation of additional capital in accordance with the highest of: (i) ratio of common equity capital to risk-weighted assets, ranging from 0.0% to 2.0%, depending on the systematic importance evaluation score, (ii) if the bank's holding company is a domestic systemically important bank holding company, the capital ratio corresponding to the additional capital required for the bank holding company under the Financial Holding Company Supervision Regulations, or (iii) if the bank is also a global systemically important bank, as defined by the Basel Committee, the capital ratio as required by the Basel Committee. According to the instructions of the Financial Services Commission, domestic systematically important banks including Shinhan Bank have been required to maintain an additional capital buffer of 0.25% since January 1, 2016, with such buffer increased by 0.25% annually to reach 1.00% as of January 1, 2019. The Financial Services Commission may also, upon quarterly review, determine and require banks to accumulate a required level of countercyclical capital buffer within the range of 0% to 2.5% of risk-weighted assets, taking into account factors such as the degree of increase in credit relative to the gross domestic product. However, there is no assurance that these measures will have the effect of curbing competition or that the Government will not reverse or reduce such measures or introduce other deregulatory measures, which may further intensify competition in the Korean financial services industry. For further details on the capital requirements applicable to us, see "— Supervision and Regulation — Principal Regulations Applicable to Financial Holding Companies — Capital Adequacy."

If, despite our efforts to adapt to the changing macroeconomic environment and comply with new regulations, we are unable to compete effectively in the changing business and regulatory environment, our profit margin and market share may erode and our future growth opportunities may become limited, which could adversely affect our business, financial condition and results of operations. See "Item 3.D. Risk Factors — Risks Relating to Our Overall Business — Competition in the Korean financial services industry is intense, and may further intensify" and "— Supervision and Regulation."

Description of Assets and Liabilities

Loans

As of December 31, 2019, our total gross loan portfolio was ₩327,578 billion, which represented an increase of 8.1% from ₩303,070 billion on December 31, 2018. The increase in our portfolio primarily reflects a 5.8% increase in corporate loans and an 11.2% increase in retail loans.

Loan Types

The following table presents our loans by type as of the dates indicated. Except where specified otherwise, all loan amounts stated below are before deduction of allowance for credit losses on loans. Total loans reflect our loan portfolio, including past due amounts.

	As of December 31,				
	2015	2016	2017	2018[6]	2019[6]
	(In billions of Won)				
Corporate					
Corporate loans[1]	₩125,155	₩128,672	₩138,277	₩151,647	₩161,501
Public and other[2]	2,191	2,154	2,298	2,831	3,312
Loans to banks[3]	4,653	4,730	2,970	3,586	2,634
Lease financing	1,875	1,814	1,713	1,726	1,683
Total — Corporate	133,874	137,370	145,258	159,790	169,130
Retail					
Mortgages and home equity	54,983	56,235	59,078	62,394	68,074
Other retail[4]	41,035	47,949	52,512	58,438	66,350
Total — Retail	96,018	104,184	111,590	120,832	134,424
Credit cards	18,537	19,450	20,641	22,448	24,024
Total loans[5]	₩248,429	₩261,004	₩277,489	₩303,070	₩327,578

Notes:

(1) Consists primarily of working capital loans, general purpose loans, bills purchased and trade-related notes and excludes loans to public institutions and commercial banks.
(2) Consists of working capital loans and loan facilities to public institutions and non-profit organizations.
(3) Consists of interbank loans and call loans.
(4) Consists of general unsecured loans and loans secured by collateral other than housing to retail customers.
(5) As of December 31, 2015, 2016, 2017, 2018 and 2019, 89.4%, 88.9%, 88.2%, 88.9% and 87.9% of our total gross loans, respectively, were Won-denominated.
(6) Loan amounts as of December 31, 2018 and 2019 include loans at amortized cost and loans at fair value classified in accordance with IFRS 9. Corporate loans include loans at fair value in the amount of ₩1,209 billion and ₩2,155 billion as of December 31, 2018 and 2019, respectively.

Loan Portfolio

The total exposure of us or our banking subsidiaries to any single borrower and exposure to any single group of companies belonging to the same conglomerate is limited by law to 20% and 25%, respectively, of the Net Total Equity Capital (as defined in "— Supervision and Regulation").

Twenty Largest Exposures by Individual Borrower

As of December 31, 2019, our 20 largest exposures, consisting of loans, securities and guarantees and acceptances, totaled ₩83,647.3 billion. The following table sets forth our total exposures to these top 20 borrowers as of December 31, 2019.

	As of December 31, 2019						
	Loans in Won Currency	Loans in Foreign Currency	Securities	Guarantees and Acceptances	Others	Total Exposure	Impaired Loans and Guarantees and Acceptances
	(In billions of Won)						
Ministry of Economy and Finance	₩ 0.0	₩ —	₩35,364.7	₩ —	₩—	₩35,364.7	₩—
Bank of Korea	1,660.0	—	6,929.5	0.1	—	8,589.6	—
Korea Housing Finance Corporation.	0.0	—	7,603.3	—	—	7,603.3	—
Korea Development Bank	7.1	—	6,045.1	70.6	—	6,122.9	—
Industrial Bank of Korea.	752.3	10.6	4,247.7	0.1	—	5,010.7	—
Export-Import Bank of Korea	—	11.8	2,956.0	—	—	2,967.8	—
NongHyup Bank.	1,242.5	14.9	660.5	17.0	—	1,935.0	—
Samsung Electronics Co., Ltd.	—	1,856.7	—	—	—	1,856.7	—
KEB Hana Bank	432.5	126.9	888.8	75.5	—	1,523.8	—
Korea Land & Housing Corporation.	0.0	—	1,464.0	—	—	1,464.0	—
Korea Deposit Insurance Corporation	—	—	1,397.7	—	—	1,397.7	—
Kookmin Bank.	836.0	46.5	488.8	13.4	—	1,384.7	—
National Agricultural Cooperative Federation.	53.6	—	1,327.6	—	—	1,381.2	—
Korea Expressway Corporation	0.0	—	1,325.9	—	—	1,326.0	—
United States of America	—	—	1,050.7	—	—	1,050.7	—
Korea Electric Power Corporation	0.3	—	1,004.0	6.3	—	1,010.7	—
Woori Bank.	195.4	31.8	768.4	—	—	995.6	—
KB Kookmin Card Co., Ltd.	—	—	931.0	—	—	931.0	—
Korea Rail Network Authority	—	—	875.3	—	—	875.3	—
Korea Gas Corporation.	0.0	40.6	815.5	—	—	856.2	—
Total	₩5,179.9	₩2,139.9	₩76,144.6	₩182.9	₩—	₩83,647.3	₩—

Exposure to Main Debtor Groups

As of December 31, 2019, our total exposure to the main debtor groups as identified by the Governor of the Financial Supervisory Service amounted to ₩29,577 billion. The main debtor groups are largely comprised of *chaebols*. The following table shows, as of December 31, 2019, our total exposures to the 10 main debtor groups to which we have the largest exposure.

	As of December 31, 2019						
Main Debtor Groups	**Loans in Won Currency**	**Loans in Foreign Currency**	**Securities**	**Guarantees and Acceptances**	**Others**	**Total Exposure**	**Amounts of Impaired Loans and Guarantees and Acceptances**
	(In billions of Won)						
Hyundai Motors	₩ 514.5	₩2,102.5	₩1,819.1	₩ 300.6	₩0.1	₩ 4,736.8	₩—
Samsung	195.1	2,286.3	972.3	716.7	0.0	4,170.4	—
Lotte	57.8	681.2	1,870.2	349.5	0.1	2,958.8	—
SK	942.4	390.9	1,096.1	441.9	0.0	2,871.3	—
LG	399.1	435.0	998.8	353.7	0.0	2,186.6	—
Hyundai Heavy Industries	106.7	82.3	210.9	1,276.7	—	1,676.6	—
Hanwha	269.7	300.1	621.3	339.7	0.0	1,530.9	—
LS	132.9	416.3	212.1	704.1	0.0	1,465.5	—
GS	42.6	347.5	544.8	283.2	0.0	1,218.2	—
CJ	154.3	184.7	545.5	105.4	—	989.9	—
Total	₩2,815.1	₩7,226.8	₩8,891.2	₩4,871.5	₩0.3	₩23,804.9	₩—

Loan Concentration by Industry

The following table shows the aggregate balance of our corporate loans by industry concentration as of December 31, 2019.

	As of December 31, 2019	
Industry	**Aggregate Loan Balance**	**Percentage of Total Corporate Loan Balance**
	(In billions of Won)	(Percentages)
Manufacturing	₩ 47,611	28.2%
Real estate, leasing and service	32,802	19.4
Retail and wholesale	20,672	12.2
Finance and insurance	16,784	9.9
Transportation, storage and communication	5,006	3.0
Hotel and leisure	7,818	4.6
Construction	3,872	2.3
Other service(1)	17,724	10.5
Other(2)	16,841	9.9
Total	₩169,130	100.0%

Notes:

(1) Includes other service industries such as publication, media and education.
(2) Includes other industries such as agriculture, forestry, mining, electricity and gas.

Maturity Analysis

The following table sets out the scheduled maturities (presented in terms of time remaining until maturity) of our loan portfolio as of December 31, 2019. The amounts below are before allowance for credit losses on loans and deferred loan origination costs and fees. In the case of installment payment loans, maturities have been adjusted to take into account the timing of installment payments.

	As of December 31, 2019			
	1 Year or Less	Over 1 Year but Not More Than 5 Years	Over 5 Years(1)	Total
	(In billions of Won)			
Corporate:				
Corporate loans	₩103,111	₩50,555	₩ 7,835	₩161,501
Public and other	1,516	1,387	409	3,312
Loans to banks	1,947	535	152	2,634
Lease financing	575	1,101	7	1,683
Total corporate	₩107,149	₩53,578	₩ 8,403	₩169,130
Retail:				
Mortgage and home equity	₩ 11,737	₩19,171	₩37,166	₩ 68,074
Other retail	40,133	16,902	9,315	66,350
Total retail	₩ 51,870	₩36,073	₩46,481	₩134,424
Credit cards	₩ 21,084	₩ 2,718	₩ 222	₩ 24,024
Total loans	₩180,103	₩92,369	₩55,106	₩327,578

Note:

(1) Includes overdue loans.

We may roll over our corporate loans (primarily consisting of working capital loans and facility loans) and retail loans (to the extent not payable in installments) after we conduct our standard loan reviews in accordance with our loan review procedures. Working capital loans may generally be extended on an annual basis for an aggregate term of up to five years. Facilities loans, which are generally secured, may generally be extended on an annual basis for a maximum of 15 years from the initial loan date. Retail loans may be extended for additional terms of up to 12 months for an aggregate term of ten years from the initial loan date for both unsecured loans and secured loans.

Interest Rate Sensitivity

The following table presents a breakdown of our loans in terms of interest rate sensitivity as of December 31, 2019.

	As of December 31, 2019		
	Due Within 1 Year	Due After 1 Year	Total
	(In billions of Won)		
Fixed rate loans(1)	₩ 57,735	₩ 36,201	₩ 93,936
Variable rate loans(2)	122,368	111,274	233,642
Total loans	₩180,103	₩147,475	₩327,578

Notes:

(1) Fixed rate loans are loans for which the interest rate is fixed for the entire term of the loan.
(2) Variable or adjustable rate loans are for which the interest rate is not fixed for the entire term of the loan.

For additional information regarding our management of interest rate risk, see "— Risk Management."

Nonaccrual Loans and Past Due Accruing Loans

Except in the case of repurchased loans, we generally recognize interest income on nonaccrual loans using the rate of interest used to discount the future cash flows of such loans for the purpose of measuring impairment loss. Generally, we discontinue accruing of interest on loans (other than repurchased loans) when payment of interest and/or principal becomes past due by 90 days. Loans (other than repurchased loans) are not reclassified as accruing until interest and principal payments are brought current.

We generally do not request borrowers to make immediate repayment of the whole outstanding principal balances and related accrued interest on loans whose interest payments are past due for one to 14 days in the case of commercial loans and one to 30 days in the case of retail loans.

Interest foregone is interest due on nonaccrual loans that has not been accrued in our books of account. In 2015, 2016, 2017, 2018 and 2019, we would have recorded gross interest income of ₩79 billion, ₩91 billion, ₩96 billion, ₩66 billion and ₩64 billion, respectively, on loans accounted for on a nonaccrual basis throughout the respective years, or since origination for loans held for part of the year, had the loans been current with respect to their original contractual terms. The amount of interest income on those loans that was included in our net income in 2015, 2016, 2017, 2018 and 2019 were ₩39 billion, ₩38 billion, ₩42 billion, ₩36 billion and ₩38 billion, respectively.

The following table shows, at the dates indicated, the amount of loans that are placed on a nonaccrual basis and accruing loans which are past due one day or more. The term "accruing but past due one day" includes loans which are still accruing interest but on which principal or interest payments are contractually past due one day or more. We continue to accrue interest on loans where the total amount of loan outstanding, including accrued interest, is fully secured by cash on deposits.

	As of December 31,				
	2015	**2016**	**2017**	**2018**	**2019**
			(In billions of Won)		
Loans accounted for on a nonaccrual basis[1]					
Corporate	₩1,235	₩1,102	₩1,035	₩ 897	₩ 903
Retail	228	243	311	358	413
Credit cards	93	86	67	92	101
Sub-total	1,556	1,431	1,413	1,347	1,417
Accruing loans which are contractually past due one day or more as to principal or interest					
Corporate	176	234	199	199	258
Retail	316	313	440	706	874
Credit cards	399	369	509	558	545
Sub-total	891	916	1,148	1,463	1,677
Total	₩2,447	₩2,347	₩2,561	₩2,810	₩3,094

Note:

(1) Represents either loans that are "troubled debt restructuring" or loans for which payment of interest and/or principal became past due by 90 days or more (adjusting for any overlap due to loans that satisfy both prongs so as to avoid double counting).

Troubled Debt Restructurings

The following table presents, at the dates indicated, our loans which are "troubled debt restructurings." These loans mainly consist of corporate loans that have been restructured through the process of workout and recovery proceedings. See " — Credit Exposures to Companies in Workout and Recovery Proceedings." These loans accrue interest at rates lower than the original contractual terms, or involve the extension of the original contractual maturity as a result of a variation of terms upon restructuring.

	As of December 31,				
	2015	2016	2017	2018	2019
	(In billions of Won)				
Loans classified as "troubled debt restructurings" (excluding nonaccrual and past due loans)	₩244	₩133	₩ 10	₩ 12	₩ 89
Loans classified as "troubled debt restructurings" (including nonaccrual and past due loans)	₩714	₩526	₩502	₩440	₩425

The following table presents, for the periods indicated and with respect to the restructured loans, the amounts that would have been recorded as our interest income under the original contract terms of the restructured loans, and the amounts that were actually recorded as our interest income for such loans under the restructured contractual terms of such loans.

	As of December 31,				
	2015	2016	2017	2018	2019
	(In billions of Won)				
Interest income under the original contractual terms of the restructured loans[(1)]	₩22	₩17	₩15	₩19	₩19
Interest income under the restructured contractual terms of the restructured loans[(1)]	₩ 6	₩ 8	₩11	₩ 7	₩ 6

Note:

(1) Includes nonaccrual and past due loans.

The following table presents a breakdown of the outstanding balance and specific allowance for credit losses on loans as of December 31, 2015, 2016, 2017, 2018 and 2019 of corporate loans classified as "troubled debt restructurings" (including nonaccrual and past due loans) by the type of restructuring to which such loans are subject.

	As of December 31,									
	2015		2016		2017		2018		2019	
	Outstanding Balance	Allowance	Outstanding Balance	Allowance	Outstanding Balance	Allowance	Outstanding Balance	Allowance	Outstanding Balance	Allowance
	(In billions of Won)									
Workout	₩506	₩215	₩410	₩214	₩387	₩275	₩331	₩237	₩292	₩140
Recovery Proceedings	208	63	113	32	109	36	98	34	121	32
Others[(1)]	—	—	3	2	6	5	11	5	12	8
Total	₩714	₩278	₩526	₩248	₩502	₩316	₩440	₩276	₩425	₩180

Note:

(1) Principally consists of loans subject to corporate turnaround or corporate reorganization pursuant to the Debtor Rehabilitation and Bankruptcy Act (also known as the Consolidated Insolvency Act).

The following table presents the outstanding balance and specific allowance for credit losses on loans as of December 31, 2015, 2016, 2017, 2018 and 2019 of retail loans (including nonaccrual and past due loans) subject to credit rehabilitation programs for retail borrowers. All such loans became modified under credit rehabilitation programs and became beneficiaries of maturity extension and interest rate reductions, while a substantially limited portion of such loans also became beneficiaries of debt forgiveness and deferral. For more information on the credit rehabilitation program, see "— Credit Exposures to Companies in Workout and Recovery Proceedings — Credit Rehabilitation Programs for Delinquent Consumer and Small- and Medium-sized Enterprise Borrowers."

	As of December 31,									
	2015		2016		2017		2018		2019	
	Outstanding Balance	Allowance	Outstanding Balance	Allowance	Outstanding Balance	Allowance	Outstanding Balance	Allowance	Outstanding Balance	Allowance
	(In billions of Won)									
Retail loans subject to credit rehabilitation programs[(1)]: . . .	₩61	₩40	₩84	₩49	₩118	₩70	₩84	₩46	₩126	₩73

Note:

(1) Includes nonaccrual and past due loans.

The following table presents, as of the dates indicated and with respect to corporate loans, the amounts of restructured loans that were considered impaired and classified as nonaccrual pursuant to our general interest accrual policy as described in "— Accrual Policy for Restructured Loans." The table also presents, for the periods indicated and with respect to corporate loans, the amounts of total charge-off on restructured loans and the amounts of charge-off as part of debt-to-equity conversions.

	As of and for the year ended December 31,				
	2015	2016	2017	2018	2019
	(In billions of Won)				
Impaired and nonaccrual restructured loans	₩470	₩393	₩492	₩428	₩336
Total charge-off of restructured loans	₩259	₩118	₩ 89	₩ 59	₩138
Charge-off as part of debt-to-equity conversion	₩ 51	₩ 22	₩ 68	₩ 67	₩230

Credit Exposures to Companies in Workout and Recovery Proceedings

Our credit exposures to restructuring are monitored and managed by our Corporate Credit Support Department. As of December 31, 2019, 0.13% of our total loans, or ₩425 billion (of which ₩336 billion was classified as nonaccrual and ₩89 billion was classified as accruing), was under restructuring. Restructuring of our credit exposures generally takes the form of workout and recovery proceedings.

Workout

The original Corporate Restructuring Promotion Act (Act No. 6504) was enacted on August 14, 2001 in order to facilitate the out-of-court restructuring of insolvent companies. This law expired on December 31, 2005, and new Corporate Restructuring Promotion Acts were enacted on August 3, 2007 (expired on December 31, 2010), May 19, 2011 (expired on December 31, 2013), January 1, 2014 (expired on December 31, 2015), March 18, 2016 (expired on June 30, 2018) and October 16, 2018 (to be expired on October 15, 2023, the new CRPA enacted and implemented on October 16, 2018 is hereinafter referred to as the "CRPA").

If the 'main Creditor Financial Institution' of a Failing Company provided notice of convening a Creditor Committee (defined below) on or before October 15, 2023, any proceedings commenced by such Creditor Committee will remain subject to the CRPA even after October 15, 2023 unless and until such proceedings are completed or discontinued.

The following is a summary of the key provisions of the CRPA. The CRPA applies to a financial creditor (the "Financial Creditor") who has financial claims against a debtor company by 'providing credit' to such debtor company or other third parties. "Provision of Credit" is defined in the CRPA as any transaction determined by the Financial Supervisory Commission to fall under any of the following:

- loans;
- purchase of promissory notes and debentures or bonds;
- equipment leasing;
- payment guarantees;
- providing advance payments on acceptances and guarantees under a payment guarantee;
- any direct or indirect financial transaction which may cause a loss to a counterparty as a consequence of a payment failure by a debtor company; or
- any transaction other than the transactions set out above which may have in substance the same effect as the transactions set out above.

The "debtor company" is defined under the CRPA as a company established under the Korean Commercial Code or other person performing profit-making activities. The Failing Company means a debtor company deemed, through a credit evaluation carried out in the manner set out in the CRPA, by its 'main Creditor Financial Institution' as having difficulty to repay debts to its financial creditor without external financial support or an additional loan (excluding loans obtained in the course of conducting normal financial transactions).

Once the debtor company is notified by the main Creditor Financial Institution to fall under the definition of Failing Company, such company may submit its business restructuring plan and the list of its Financial Creditors, and apply to such main Creditor Financial Institution for commencement of the management procedure to be assumed by a committee of Financial Creditors (the "Creditor Committee") or such main Creditor Financial Institution.

Under the CRPA, the main Creditor Financial Institution of a Failing Company is required to take or arrange one of the following actions if it determines that there is a possibility that the financial condition of the Failing Company may be rehabilitated or brought back to normal in accordance with its business restructuring plan:

- convocation of the first meeting of the Creditor Committee to decide whether to commence the management of the Failing Company by the Creditor Committee; or
- assumption of management of the Failing Company by the main Creditor Financial Institution.

Under the CRPA, in order to call for the first meeting of the Creditor Committee, the main Creditor Financial Institution is required to notify the Financial Creditors, the Failing Company and the Financial Supervisory Service. However, the main Creditor Financial Institution may omit the notification to some extent of the Financial Creditors who are set out in the CRPA such as a Financial Creditor who does not perform the financial business or a Financial Creditor who has only small claims against the Failing Company. The Financial Creditors who do not receive the notification from the main Creditor Financial Institution will be excluded from the Creditor Committee; provided that if they nevertheless want to attend the meeting, the main Creditor Financial Institution may not exclude such Financial Creditors. When the main Creditor Financial Institution calls for the first meeting of the Creditor Committee, it may require the Financial Creditors to grant a moratorium on the enforcement of claims (including the enforcement of security interests) until the end of the first meeting of the Creditor Committee. In addition, at the first meeting of the Creditor Committee, the Financial Creditors may resolve to declare a moratorium for up to one month (or three months if an investigation of the Failing Company's financial status is necessary) from the commencement date of the management procedure (which may be extended by one additional month by resolutions of the Creditor Committee).

The Financial Creditors who attend the first meeting of the Creditor Committee may resolve, among other things: (i) commencement of the management procedure, (ii) composition of the Financial Creditors who will participate in such management procedure and (iii) declaration of moratorium mentioned above.

Once the management procedure commences, the main Creditor Financial Institution is required to prepare the corporate restructuring plan of the Failing Company considering the investigation results of the Failing Company's financial status and submit such plan to the Creditor Committee for approval thereof. The corporate restructuring plan may include, among other things, the matters regarding rescheduling of debt owed by the Failing Company, provision of new credit and the business restructuring plan of the Failing Company. If the corporate restructuring plan is not approved by the date the moratorium period ends, the Creditor Committee's management of the Failing Company shall be deemed to have terminated.

The resolution at the Creditor Committee is generally passed by an approval of the Financial Creditors representing at least 75 per cent. of the outstanding credit to the Failing Company of the Financial Creditors who constitute the Creditor Committee; provided that if a single Financial Creditor holds at least 75 per cent. of the outstanding credit, the resolution shall be passed by an approval of not less than 40 per cent. of the total number of the Financial Creditors who constitute the Creditor Committee, including such single Financial Creditor. An additional approval of the Financial Creditors holding interests in 75 per cent. or more of the total amount of the secured claims owned by the Financial Creditors constituting the Creditor Committee against the Failing Company is required with respect to the debt rescheduling of the Failing Company.

A Financial Creditor which has opposed the resolutions of the Creditor Committee in respect of the commencement of management of the Failing Company by the Creditor Committee, establishment of or amendment to the corporate restructuring plan, extension of management procedure, the rescheduling of claims or provision of new credit (the "Opposing Financial Creditor") may, within seven days of such resolutions, request the main Creditor Financial Institutions to purchase its outstanding claims against the Failing Company, stating the type and number of claims. The Financial Creditors that have approved such resolutions (the "Approving Financial Creditors") shall jointly purchase such claims within six months of such request.

The purchase price and terms of such purchase shall be determined by mutual agreement of the Approving Financial Creditors and the Opposing Financial Creditor. Pending the agreement of such matters, the payments shall be made at a provisional price, and adjusting payments made once an agreement has been reached. If no such agreement is reached, then such matters shall be determined by the coordination committee established under the CRPA.

Recovery Proceedings

Under the Debtor Rehabilitation and Bankruptcy Act, which took effect on April 1, 2006, court receiverships have been replaced with recovery proceedings. In a recovery proceeding, unlike court receivership proceedings where the management of the debtor company was vested in a court appointed receiver, the existing chief executive officer of the debtor company may continue to manage the debtor company, provided, that (i) neither fraudulent conveyance nor concealment of assets existed, (ii) the financial failure of the debtor company was not due to gross negligence of such chief executive officer, and (iii) no creditors' meeting was convened to request, based on reasonable cause, a court-appointed receiver to replace such chief executive officer. Recovery proceeding may be commenced by any insolvent debtor. Furthermore, in an effort to meet global standards, international bankruptcy procedures have been introduced in Korea under which a receiver of a foreign bankruptcy proceeding may, upon receiving Korean court approval of the ongoing foreign bankruptcy proceeding, apply for or participate in a Korean bankruptcy proceeding. Similarly, a receiver in a domestic recovery proceeding or a bankruptcy trustee is allowed to perform its duties in a foreign country where an asset of the debtor is located to the extent the applicable foreign law permits.

As of December 31, 2019, the total loan amount subject to recovery proceedings was ₩121 billion. No loan amount was subject to court receivership or composition proceedings.

Loans in the process of workout and recovery proceedings are reported as nonaccrual loans on our statements of financial position as described in "— Nonaccrual Loans and Past Due Accruing Loans" above since generally, they are past due by more than 90 days and interest does not accrue on such loans. Restructured loans that meet the definition of a troubled debt restructuring are reported as troubled debt restructurings as described above in "— Troubled Debt Restructurings." Such restructured loans are reported as either loans or securities on our statements of financial position depending on the type of instrument we receive as a result of the restructuring.

Credit Rehabilitation Programs for Delinquent Consumer and Small- and Medium-sized Enterprise Borrowers

In light of the gradual increase in delinquencies in credit card and other consumer credit, the Government has implemented a number of measures intended to support the rehabilitation of the credit of delinquent consumer borrowers. These measures may affect the amount and timing of our collections and recoveries on our delinquent consumer credits.

The Credit Counseling and Recovery Service offers two programs for individual debtors, the pre-workout program and the individual workout program, both of which are available to individuals with total debt amounts of ₩1.5 billion or less (secured debt amount of ₩1 billion or less and unsecured debt amount of ₩500 million or less). The pre-workout program is offered to individuals whose delinquency period is between 31 days and 89 days (including those whose delinquency period is between one day and 30 days but with annual income of ₩40 million or less and cumulative delinquency period of 30 days or more within the year immediately preceding the application date), and the individual workout program is offered to individuals whose delinquency period is three months or more. When an individual debtor applies for the pre-workout or individual workout program, the Credit Counseling and Recovery Service will deliberate and resolve on a debt restructuring plan, and once the creditor financial institution that is in a credit recovery support agreement with the Credit Counseling and Recovery Service and holding the majority of each of the unsecured claims and secured claims to the relevant individual debtor agrees to such debt restructuring plan, the plan will be finalized and debt restructuring measures, such as extension of maturity, adjustment of interest rates or reduction of debt, will be taken according to the pre-workout program or individual workout program applied for.

Under the Debtor Rehabilitation and Bankruptcy Act, a qualified individual debtor with outstanding debts in an aggregate amount not exceeding threshold amounts of ₩500 million of unsecured debt and/or ₩1 billion of secured debt may restructure his or her debts through a court-supervised debt restructuring that is binding on creditors.

Once a borrower is deemed to be eligible to participate in the pre-workout program, we promptly sell the collateral underlying such borrower's secured loans to mitigate our losses, and we may restructure such borrower's unsecured loans (regardless of their type) as follows:

- *Extension of maturity*: Based on considerations of the type of loan, the total loan amount, the repayment amount and the probability of repayment, the maturity of unsecured loans may be extended by up to 10 years and maturity of secured loans may be extended by up to 20 years with a grace period not exceeding three years.

- *Interest rate adjustment:* The interest rate of the loan may be adjusted to 70% of the original interest rate or 5% per annum, whichever is higher; provided that if the original interest rate is less than 5% per annum, no adjustment applies. The adjusted interest rate applies to the principal amount following any adjustment thereto as part of the pre-workout program, and no interest accrues on the interest already accrued or fees payable.
- *Debt forgiveness*: Debt forgiveness under the pre-workout program is limited to (i) the default interest accrued prior to the application for the pre-workout program and (ii) the regular and default interest accrued following such application but before the approval of the program.
- *Deferral*: If the foregoing three measures are deemed to be insufficient in terms of providing meaningful assistance to a qualifying borrower due to layoff, unemployment, business closure, disaster or earnings loss, loan repayment may be deferred for a maximum of one year, provided that the pre-workout committee may extend such deferral period every six months, for a period not to exceed six months, upon the borrower's application. The deferral period is not counted toward the repayment period, and interest accrues at 3% per annum during the deferral period.

In 2019, the aggregate amount of our retail credit (including credit card receivables) which became subject to the pre-workout program was ₩126 billion. We believe that our participation in such pre-workout program has not had a material impact on the overall asset quality of our retail loans and credit card portfolio or on our results of operations and financial condition to date.

Under the guidelines of the Financial Supervisory Commission, Korean banks, including Shinhan Bank, operated since 2008 a fast track program which was a liquidity support program for small- and medium-sized companies. As the fast track program ended as of December 31, 2016, the Financial Supervisory Service implemented a swift financial assistance program for small- and medium-sized companies for a period of five years beginning on January 1, 2017. Banks and other financial institutions participating in the program will, based on an evaluation of credit risks, provide financial assistance (including extension of maturity on existing obligations and lower interest rates) to small- and medium-sized companies that are experiencing temporary liquidity crises but have a credit rating exceeding a certain threshold. In principle, the application of the swift financial assistance program to companies will be limited to three years, but such application may be extended, in consultation with the creditor financial institutions concerned, one time for an additional period of up to one year.

Loan Modification Programs for Loans under Troubled Debt Restructuring

We generally offer the following types of concessions in relation to restructured loans: reduction of interest rate, forgiveness of overdue interest, extension of the term for repayment of principal, conversion of debt into equity or a combination of the foregoing. The nature and degree of such concessions vary depending on, among other things, the creditworthiness of the borrower, the size of loans being restructured, the existing terms of the loans and other factors deemed relevant by the relevant creditors' committee. We generally do not restructure an existing loan into multiple new loans.

The following table presents a breakdown of the gross amount of loans under restructuring as of December 31, 2015, 2016, 2017, 2018 and 2019 by our loan modification programs, as further categorized according to the loan category and performing versus non-performing status at each fiscal year end.

As of December 31, 2015

Modification Programs	Non-Performing	Performing	Total
	(In billions of Won)		
Extension of due date for principal and interest	₩ —	₩ 87	₩ 87
Reduction of interest rate	119	368	487
Forgiveness of principal	—	—	—
Equity conversion	—	—	—
Additional lending[(1)]	4	19	23
Others[(2)]	87	30	117
Total	₩210	₩504	₩714

As of December 31, 2016

Modification Programs	Non-Performing	Performing	Total
	(In billions of Won)		
Extension of due date for principal and interest	₩ —	₩ 92	₩ 92
Reduction of interest rate	3	234	237
Forgiveness of principal	—	—	—
Equity conversion	—	—	—
Additional lending[(1)]	—	37	37
Others[(2)]	116	44	160
Total	₩119	₩407	₩526

As of December 31, 2017

Modification Programs	Non-Performing	Performing	Total
	(In billions of Won)		
Extension of due date for principal and interest	₩ 3	₩ 82	₩ 85
Reduction of interest rate	9	299	308
Forgiveness of principal	—	—	—
Equity conversion	—	—	—
Additional lending[(1)]	—	—	—
Others[(2)]	70	39	109
Total	₩82	₩420	₩502

As of December 31, 2018

Modification Programs	Non-Performing	Performing	Total
	(In billions of Won)		
Extension of due date for principal and interest	₩ 3	₩ 79	₩ 82
Reduction of interest rate	8	250	258
Forgiveness of principal	—	—	—
Equity conversion	—	—	—
Additional lending[(1)]	—	—	—
Others[(2)]	43	57	100
Total	₩54	₩386	₩440

As of December 31, 2019			
Modification Programs	**Non-Performing**	**Performing**	**Total**
	(In billions of Won)		
Extension of due date for principal and interest	₩ —	₩ 76	₩ 76
Reduction of interest rate	45	211	256
Forgiveness of principal	—	—	—
Equity conversion	—	—	—
Additional lending[(1)]	—	2	2
Others[(2)]	56	35	91
Total	₩101	₩324	₩425

Notes:

(1) Represents additional loans provided to the borrower at favorable terms as part of the restructuring package, which may include extension of the due date or reduction of interest rate, among others.

(2) Principally consists of restructured loans whose restructuring terms were not determined as of the date indicated. A loan is deemed to be subject to restructuring upon the commencement of the recovery proceedings or when the relevant creditors' committee or our credit officer determines that the borrower will be subject to workout, and in many cases the restructuring terms for such loans are not determined at the time such loans are deemed to be subject to restructuring.

Debt-to-equity Conversion

We distinguish between loans that we consider to be collectible under modified terms and loans that we consider to be uncollectible regardless of any modification of terms. With respect to loans that are in the latter category, we convert a portion of such loans into equity securities following negotiation with the borrowers and charge off the remainder of such loans as further described below. The equity securities so converted are recorded at fair value, based on the market value of such securities if available or the appraisal value of such securities by an outside appraiser if a market value is unavailable. In 2019, our loans restructured into equity securities amounted to ₩112 billion, which was subsequently charged off.

Debt-to-equity conversion generally has two primary benefits. One, the debt-to-equity conversion reduces the amount of loans and related interest expenses of the borrower, resulting in lesser debt burden and greater liquidity for the borrower, a greater likelihood of its exit from restructuring and the repayment of its obligations to us. Two, in the case of a successful turnaround of the borrower, we are entitled to the upside gains from the increase in the value of the equity securities so converted. Notwithstanding these benefits, however, the resulting impact from the debt-to-equity conversion on our interest income is generally not material as the loans being converted as part of restructuring are generally deemed to be uncollectible regardless any modification of terms. As for the impact on our asset classification, we generally apply the same asset classification standards to both non-restructured and restructured loans. As for restructured loans, we also consider additional factors such as the borrower's adherence to its business plans and execution of the self-help measures, among others, to the extent applicable. In consideration of such criteria, we generally classify loans subject to workout as "precautionary." For a general discussion of our loan classifications, see "— Supervision and Regulation — Principal Regulations Applicable to Financial Holding Companies — Capital Adequacy."

Evaluation of Loan Modification Programs

We currently do not conduct a systematic or quantitative evaluation of the success of any particular concession by type, whether historically, relative to each other or relative to other financial institutions in Korea, although we do monitor on an individual basis the compliance by the borrower with the modified terms of the restructured loans. This is principally due to the following reasons.

One, in the case of large corporations subject to or about to be subject to restructuring, which represents the most significant restructuring cases in Korea, the restructuring process is generally not driven by us, but by a creditors' committee involving several large creditor financial institutions, and in the case of very large corporations or corporations that are members of large business conglomerates, the process frequently involves the guidance of the Government in light of the potential ripple effects of the restructuring on the general economy. Hence, it is difficult for us to collect data that would help us to evaluate the success of a particular concession based on the credit profile of the borrower and the type of concessions offered.

Two, the unavailability of systematic analysis notwithstanding, our general sense is that the restructuring cases in Korea have, to a large part, been successful as measured in terms of the ability of the borrowers to exit restructuring programs relatively quickly and further that the failed cases have not been particularly material. As a result, to date, we have not found it particularly necessary or helpful to expend the time and resources required to conduct a systematic analysis for purposes of evaluating the success of concessions by the type of a particular concession offered.

We do, however, measure the success of concessions in limited ways, that is, principally in terms of how well the borrower complies with the terms and conditions of the restructuring plan as agreed between the borrower and its creditor institutions. A restructuring plan typically includes a business plan and self-help measures to be undertaken by the borrower. We monitor the borrower's compliance with the restructuring plan on a periodic basis (namely, annual, semiannual or quarterly in accordance with the terms of the restructuring plan) and evaluate the success thereof principally in terms of three attributes: (i) the progress in the execution of the business plan, (ii) the progress in the execution of the self-help measures and (iii) other qualitative factors such as major developments in the general economy, the regulatory environment, the competitive landscape, the quality of senior management and personnel, and transparency in management. We also closely monitor the cash inflows and outflows of the borrower, and the creditors' committee typically has the right to participate in decision-making related to major spending and borrowings by the borrower.

Accrual Policy for Restructured Loans

For purposes of our accrual policy, we classify restructured loans principally into (i) loans subject to workout pursuant to the Corporate Restructuring Promotion Act and (ii) loans subject to recovery proceedings pursuant to the Debtor Rehabilitation and Bankruptcy Act, which is the comprehensive bankruptcy-related law in Korea. See "— Credit Exposures to Companies in Workout and Recovery Proceedings." As for loans subject to workout, our general policy is to discontinue accruing interest on a loan when payment of principal and/or interest thereon becomes past due by 90 days or more, as described above in "— Nonaccrual Loans and Past Due Accruing Loans". Interest is recognized on these loans on a cash basis (i.e., when collected) from the date such loan is reclassified as non-accruing, and such loans are not reclassified as accruing until the overdue principal and/or interest amounts are paid in full. This general policy also applies to loans subject to workout even if such loans are restructured loans. In the case of loans subject to recovery proceedings, we discontinue accruing interest immediately upon the borrowers becoming subject to recovery proceedings (even if such loans are not yet delinquent) in light of the heightened uncertainty regarding the borrower's ability to repay. Interest on such loans is recognized on a cash basis and such loans are not reclassified as accruing until the borrower exits recovery proceedings. Accordingly, under our accrual policy, the number of payments made on a nonaccrual restructured loan is not a relevant factor in determining whether to reinstate such loan to the accrual status.

Determination of Performance of Restructured Loans

In determining whether a borrower has satisfactorily performed its obligations under the existing loan terms, we principally review the payment history of the borrower, namely whether the borrower has been delinquent by one day or more pursuant to our general interest accrual policy. In determining whether a borrower has shown the capacity to continue to perform under the restructured terms, we primarily rely upon the assessment of our credit officers (or the creditors' committee in the case of large corporate borrowers with significant outstanding loans) of the likelihood of the borrower's ability to repay under the restructured terms, which assessment takes into account the size of the loans in question, the credit profile of the borrower, the original terms of the loans and other factors deemed relevant by the relevant credit officers. Depending on various factors such as the size of the loans in question and the credit profile of the borrower, we or the relevant creditors' committee, as the case may be, sometimes engage an outside advisory firm to perform further due diligence in order to supplement the aforementioned assessment. In certain cases, the borrowers also submit self-help proposals to facilitate obtaining the approval for restructuring, which measures are then also taken into consideration by our credit officers or the relevant creditors' committees, as the case may be, in determining their future capacity to continue to perform under the restructured terms.

Charge-off of Restructured Loans

As for loans that we consider to be collectible under modified terms (for example, by extending the due date for the payment of principal and/or interest or reducing the interest rate below the applicable interest rate to a rate below the prevailing market rate, or a combination of the foregoing), we generally restructure such loans under the modified terms and do not charge off any portion of such loans.

As for loans that we consider to be uncollectible regardless of any modification of terms, we negotiate with the borrower to have a portion of such loans converted into equity securities (usually common stock) of the borrower in consideration, among others, of (i) the degree to which such conversion will alleviate the debt burdens and liquidity concerns of the borrower, (ii) our potential upside from the gain in the value of the equity securities compared to the likelihood of collection if the loans were not converted into equity securities, and (iii) the borrower's concerns regarding its shareholding structure subsequent to such conversion. We then charge off the remainder of the loans not converted into equity securities. The value of the equity securities so converted is recorded at fair value, based on the market value of such securities if available or the appraisal value of such securities by an outside appraiser if a market value is unavailable.

Since we generally do not accrue interest on loans subject to recovery proceedings while we generally accrue interest on loans subject to workout unless past due by 90 days or more, charge-off is not a relevant factor we consider when determining the accrual status of a particular restructured loan.

We continue to accrue interest on restructured loans if we conclude that repayment of interest and principal contractually due on the entire debt is reasonably assured. Such conclusion is reached only after we have carefully reviewed the borrower's ability to repay based on an assessment, among others, of various factors such as the size of the loans in question and the credit quality of the borrower by our credit officer or the relevant creditors' committee as supplemented by the due diligence by outside advisory firms, as the case may be.

Potential Problem Loans

We operate an "early warning system" in order to enable a more systematic and real-time monitoring of loans with significant potential of default. This system assists our management in making decisions by identifying loans which have serious doubt as to the ability of the borrowers to comply with their respective loan repayment terms as well as loans with significant potential of non-repayment.

We classify potential problem loans as loans that are designated as "early warning loans" and reported to the Financial Supervisory Service. The "early warning loans" designation applies to borrowers that have been (i) identified by our early warning system as exhibiting signs of credit risk based on the relevant borrower's financial data, credit information and/or transactions with banks and, following such identification and (ii) designated by our loan officers as potential problem loans on their evaluation of known information about such borrowers' possible credit problems. Such loans are required to be reported on a quarterly basis to the Financial Supervisory Service. If a borrower's loans are designated as "early warning loans" pursuant to the process described above and included in our quarterly report to the Financial Supervisory Service, we consider this to be an indication of serious doubt as to such borrower's ability to comply with repayment terms in the near future. As of December 31, 2019, we had ₩657 billion of potential problem loans.

Provisioning Policy

Loans

We conduct periodic and systematic detailed reviews of our loan portfolios to identify credit risks and to establish the overall allowance for credit losses on loans. Our management believes the allowance for credit losses on loans reflects the best estimate of the expected credit losses as of the date of each statement of financial position.

At each reporting date, we assess whether the credit risk on a financial instrument has increased significantly since initial recognition. When making the assessment, we use the change in the risk of a default occurring over the expected life of the financial instrument instead of the change in the amount of expected credit losses. Upon assessment, each asset is classified as in one of the following three stages, which is used as the basis of calculating the loss allowances at the 12-month expected credit losses ("ECL") or the lifetime ECL, depending on the stage.

Category		Provision for credit loss allowance
Stage 1	When credit risk has not increased significantly since the initial recognition	12-months ECL: The ECL associated with the probability of default events occurring within the next 12 months
Stage 2	When credit risk has increased significantly since the initial recognition	Lifetime ECL: A lifetime ECL associated with the probability of default events occurring over the remaining lifetime
Stage 3	When assets are impaired	

To make that assessment, we compare the risk of default of the financial instrument as at the reporting date with such risk of default as at the date of initial recognition, taking into account reasonable supporting information that is available without undue cost or effort and is indicative of significant increases in credit risk since initial recognition. Supporting information also includes historical default data held by us and analysis conducted by internal credit risk rating specialists.

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

We accumulate information after analyzing the information regarding exposure to credit risk and default information by the type of product and borrower as well as results of internal credit risk assessment. For some portfolios, we use information obtained from external credit rating agencies when performing these analyses.

We apply statistical techniques to estimate (i) the probability of default for the remaining life of the exposure from the accumulated data and (ii) the changes in the estimated probability of default over time.

We use the indicators defined as per portfolio to determine the significant increase in credit risk. Such indicators generally consist of changes in the risk of default estimated from changes in the internal credit risk rating, qualitative factors, days of delinquency and others.

We consider a financial asset to be in default if it meets one or more of the following conditions:

- if a borrower is overdue 90 days or more from the contractual payment date, or

- if we determine that it is not possible to recover principal and interest without enforcing the collateral on a financial asset.

We use the following indicators when determining whether a borrower is in default:

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

The definition of default applied by us generally conforms to the definition of default defined for regulatory capital management purposes. However, depending on the situation, the information used to determine whether default has incurred and the extent thereof may vary.

We measure expected credit losses on a forward-looking basis, and expected credit losses reflects information presented by internal experts based on a variety of sources. For purposes of estimating such forward-looking information, we utilize economic outlook and projections published by domestic and overseas research institutes or government and public agencies.

We reflect future macroeconomic conditions anticipated from a bias-free, neutral standpoint in measuring expected credit losses. Expected credit losses in this respect reflect conditions that are most likely to occur and are based on the same assumptions that we use in our business plan and management strategy.

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

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

These variables have been estimated from historical experience data by using statistical techniques developed internally by Shinhan Bank and have been adjusted to reflect forward-looking information. When measuring expected credit losses on financial assets, Shinhan Bank reflects a period of expected credit loss measurement based on a contractual maturity. The Bank takes into consideration the extension rights held by a borrower when deciding the contractual maturity.

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

- Type of products,
- Internal credit risk rating,
- Type of collateral,
- Loan-to-value ratio,
- Industry that the borrower belongs to,
- Location of the borrower or collateral, and
- Days of delinquency.

The criteria for classification of groups are periodically reviewed to maintain homogeneity of the group and are adjusted if necessary. We use external benchmark information to supplement internal information for a particular portfolio that does not have sufficient internal data accumulated from the past experience. See "Item 5.A. Operating Results — Critical Accounting Policies — Impairment of Financial Assets — Allowance for Credit Losses on Loans."

Credit Cards

Prior to 2017, we established an allowance for the credit card portfolio using a roll-rate model. A roll-rate model is a statistical tool used to monitor the progression of loans based on aging of the balance and established loss rates. The actual loss rates derived from this model are used to project the percentage of losses within each aging category based on performance over a five-year look-back period. Basel II requires a minimum of nine years of data collection (consisting of a minimum five-year observation period for defaults and a minimum four-year observation period for post-default recoveries) as a necessary condition to using the internal model approach. After its merger with LG Card in 2007, Shinhan Card has worked to establish a risk management system and met the Basel II nine-year data collection requirement in October 2016. Through the operation of a credit review system and risk management system based on Basel II requirements, we have gained the necessary data to create internal models that can calculate PD/LGD and credit conversion factors for different groups of borrowers of financial assets.

At the end of December 2016, the Financial Supervisory Service granted Shinhan Card final approval to use the internal model approach. During the first quarter of 2017, Shinhan Card completed the establishment of the IFRS loan loss calculation system, for example, by replacing Basel II risk components with risk components for financial reporting in accordance with IAS 39, and Shinhan Card revised the calculation methodology of loan losses from a roll-rate model to an internal model approach.

The internal model approach calculates separate default rates and loss given default for different groups of customers, differentiated based on the characteristics of both the customers and the products that they use. The internal model approach disaggregates customers into more than twice the number of groups than does the roll-rate model. Whereas the roll-rate model does not distinguish between customers with high and low risks of default when calculating roll rates, the internal model approach allows for a more sophisticated calculation of loan loss that reflects the customers' credit ratings.

Our general policy is to be proactive in our collection procedures, and we therefore emphasize collections at an early stage of delinquency, although we increase the level of collection efforts as the delinquency period increases with respect to the relevant account. Efforts to collect from cardholders whose account balances are up to 30 days past due are generally made by our credit support centers at Shinhan Card.

For credit card accounts with balances that are more than 30 days past due, we generally assign collection to collection companies such as Shinhan Credit Information, a subsidiary of ours, and Mirae Credit Information. For credit card accounts that are charged off, we outsource collection to collection companies such as Shinhan Credit Information, Mirae Credit Information Services Corp. and Koryo Credit Information.

Loan Aging Schedule

The following table shows our loan aging schedule (excluding accrued interest) for all loans as of the dates indicated.

	Current		Past Due Up to 3 Months		Past Due 3-6 Months		Past Due More Than 6 Months		Total
As of December 31,	**Amount**	**%**	**Amount**	**%**	**Amount**	**%**	**Amount**	**%**	**Amount**
	(In billions of Won, except percentages)								
2015	245,998	99.02	1,098	0.44	781	0.32	552	0.22	248,429
2016	258,650	99.10	1,180	0.45	643	0.25	531	0.20	261,004
2017	274,935	99.08	1,479	0.53	616	0.22	459	0.17	277,489
2018	300,324	99.09	1,656	0.55	684	0.23	406	0.13	303,070
2019	324,458	99.05	1,795	0.55	772	0.24	553	0.16	327,578

Non-Performing Loans

Non-performing loans are defined as loans past due by more than 90 days. The following table shows, as of the dates indicated, the amount of the total non-performing loan portfolio and as a percentage of our total loans.

	As of December 31,				
	2015	2016	2017	2018	2019
	(In billions of Won, except percentages)				
Total non-performing loans	₩1,333	₩1,174	₩1,075	₩1,090	₩1,325
As a percentage of total loans	0.54%	0.45%	0.39%	0.36%	0.40%

Analysis of Non-Performing Loans

The following table sets forth, for the periods indicated, the total non-performing loans by the borrower type.

	As of December 31,														
	2015			2016			2017			2018			2019		
	Total Loans	Non-Performing Loans[1]	Ratio of Non-Performing Loans	Total Loans	Non-Performing Loans[1]	Ratio of Non-Performing Loans	Total Loans	Non-Performing Loans[1]	Ratio of Non-Performing Loans	Total Loans	Non-Performing Loans[1]	Ratio of Non-Performing Loans	Total Loans	Non-Performing Loans[1]	Ratio of Non-Performing Loans
	(In billions of Won, except percentages)														
Corporate															
Corporate loans	₩125,155	₩ 663	0.53%	₩128,672	₩ 480	0.37%	₩138,277	₩ 325	0.24%	₩151,647	₩ 278	0.18%	₩161,501	₩ 388	0.24%
Public and other[2]	2,191	1	0.05	2,154	—	—	2,298	1	0.04	2,831	—	0.00	3,312	12	0.36
Loans to banks	4,653	—	—	4,730	—	—	2,970	—	—	3,586	—	0.00	2,634	—	—
Lease financing	1,875	16	0.85	1,814	20	1.10	1,713	15	0.88	1,726	16	0.93	1,683	17	1.01
Total corporate	133,874	680	0.51	137,370	500	0.36	145,258	341	0.23	159,790	294	0.18	169,130	417	0.25
Retail															
Mortgage and home equity	54,983	45	0.08	56,235	33	0.06	59,078	45	0.08	62,394	45	0.07	68,074	70	0.10
Other retail	41,035	193	0.47	47,949	222	0.46	52,512	296	0.56	58,438	332	0.57	66,350	385	0.58
Total retail	96,018	238	0.25	104,184	255	0.24	111,590	341	0.31	120,832	377	0.31	134,424	455	0.34
Credit cards	18,537	415	2.24	19,450	419	2.15	20,641	393	1.90	22,448	419	1.87	24,024	453	1.89
Total	₩248,429	₩1,333	0.54%	₩261,004	₩1,174	0.45%	₩277,489	₩1,075	0.39%	₩303,070	₩1,090	0.36%	₩327,578	₩1,325	0.40%

Notes:

(1) The number of days past due of restructured credit card loans is calculated from the first date of non-payment regardless of subsequent modification of terms.
(2) Includes debtors such as local and regional authorities, state-owned enterprises and non-profit organizations.

Non-Performing Loans by Industry

The following table sets forth a breakdown of our non-performing corporate loans by industry as of December 31, 2019.

Industry	Aggregate Non-Performing Corporate Loan Balance	Percentage of Total Non-Performing Corporate Loan Balance
	(In billions of Won)	(Percentages)
Construction	₩ 32	7.7%
Manufacturing	182	43.7
Real estate, leasing and service	28	6.7
Retail and wholesale	54	12.9
Finance and insurance	2	0.5
Hotel and leisure	17	4.1
Transportation, storage and communication	11	2.6
Other service(1)	70	16.8
Other(2)	21	5.0
Total	₩417	100.0%

Notes:

(1) Includes other service industries such as publication, media and education.
(2) Includes other industries such as agriculture, forestry, mining, electricity and gas.

Top 20 Non-Performing Loans

As of December 31, 2019, our 20 largest non-performing loans accounted 10.8% of our total non-performing loan portfolio. The following table shows, at the date indicated, certain information regarding our 20 largest non-performing loans.

		As of December 31, 2019		
		Industry	Gross Principal Outstanding	Allowance for credit losses on loans
			(In billions of Won)	
1	Borrower A	Manufacturing	₩23	₩ 2
2	Borrower B	Manufacturing	18	—
3	Borrower C	Other service	16	4
4	Borrower D	Construction	15	8
5	Borrower E	Retail and wholesale	13	13
6	Borrower F	Manufacturing	6	1
7	Borrower G	Other service	5	0
8	Borrower H	Other service	4	1
9	Borrower I	Manufacturing	4	—
10	Borrower J	Other service	4	—
11	Borrower K	Manufacturing	4	1
12	Borrower L	Real estate, leasing and service	4	1
13	Borrower M	Manufacturing	4	—
14	Borrower N	Manufacturing	4	2
15	Borrower O	Real estate, leasing and service	4	1
16	Borrower P	Other service	3	1

		As of December 31, 2019		
		Industry	Gross Principal Outstanding	Allowance for credit losses on loans
		(In billions of Won)		
17	Borrower Q	Retail and wholesale	3	2
18	Borrower R	Manufacturing	3	3
19	Borrower S	Transportation, storage, and communication	3	0
20	Borrower T	Construction	3	3
			₩143	₩43

Non-Performing Loan Strategy

One of our primary objectives is to prevent our loans from becoming non-performing. Through our corporate credit rating system, which is designed to prevent our loan officers from extending new loans to borrowers with high credit risks based on the borrower's credit rating, we seek to reduce credit risk related to future non-performing loans. Our early warning system is designed to bring any sudden increase in a borrower's credit risk to the attention of our loan officers, who then closely monitor such loans.

If a loan becomes non-performing notwithstanding such preventive mechanism, an officer at the branch level responsible for monitoring non-performing loans will commence due diligence on the borrower's assets, send a notice demanding payment or a notice that we will take or prepare for legal action.

At the same time, we also initiate our non-performing loan management process, which includes:

- identifying loans subject to a proposed sale by assessing the estimated losses from such sale based on the estimated recovery value of collateral, if any, for such non-performing loans;
- identifying loans subject to charge-off based on the estimated recovery value of collateral, if any, for such non-performing loans and the estimated rate of recovery of unsecured loans; and
- to a limited extent, identifying commercial loans subject to normalization efforts based on the cash-flow situation of the borrower.

Once the details of a non-performing loan are identified, we pursue early solutions for recovery. Actual recovery efforts for non-performing loans are handled by the relevant department, depending on the nature of such loans and the borrower, among others. The officers or agents of the responsible departments and units use a variety of methods to resolve non-performing loans, including:

- making phone calls and paying visits to the borrower to request payment;
- continuing to assess and evaluate assets of our borrowers; and
- if necessary, initiating legal action such as foreclosures, attachment and litigation.

In order to promote speedy recovery on loans subject to foreclosures and litigation, the branch responsible for handling these loans may transfer them to the relevant unit at headquarters.

Our policy is to commence legal action within one month after default on promissory notes and four months after delinquency of payment on other types of loans. For loans to insolvent or bankrupt borrowers or when we conclude that it is not possible to recover through normal procedures, we take prompt legal actions regardless of the grace period.

In addition to making efforts to collect on these non-performing loans, we take other measures to reduce the level of our non-performing loans, including:

- selling non-performing loans to third parties including the Korea Asset Management Corporation;

- entering into asset-backed securitization transactions with respect to non-performing loans;
- managing retail loans that are three months or more past due through Shinhan Credit Information under an agency agreement; and
- using third-party collection agencies including credit information companies.

In 2019, we sold non-performing loans in the amount of ₩41 billion to third parties, including ₩28 billion transferred to JB Woori Capital Co., Ltd, an investment management company. Loans transferred to third parties meet the criteria of true sale and are derecognized accordingly.

The following table presents a roll-forward of our non-performing loans in 2019.

	(In billions of Won)
Non-performing loans as of December 31, 2018	₩1,090
Additional non-performing loans due to delinquency	602
Loans sold	(41)
Loans charged off	(230)
Loans modified and returned to performing	(52)
Other adjustments(1)	(44)
Non-performing loans as of December 31, 2019	₩1,325

Note:

(1) Represents loans paid down or paid off and loans returned to performing other than as a result of modification. We do not separately collect and analyze data relating to non-performing loans other than those that were sold, charged off, modified and returned to performing, or transferred to held-for-sale investment portfolio.

Allocation of Allowance for Credit Losses on Loans

The following table presents, as of the dates indicated, the allocation of our allowance for credit losses on loans by loan type. The table as of December 31, 2018 and 2019 has been presented separately due to the adoption of IFRS 9 from January 1, 2018.

	As of December 31,									
	2018					2019				
	(In billions of Won, except percentages)									
	12-month expected credit Losses	Lifetime expected credit losses				12-month expected credit Losses	Lifetime expected credit losses			
		Not-impaired	Impaired	Total	% of Total Allowances		Not-impaired	Impaired	Total	% of Total Allowances
Corporate										
Corporate loans	₩419	₩ 568	₩482	₩1,469	53.9%	₩393	₩511	₩435	₩1,339	49.9%
Public and other	4	5	10	19	0.7	4	8	2	14	0.5
Loan to banks	6	—	—	6	0.2	5	0	—	5	0.2
Lease financing	9	9	32	50	1.8	26	20	34	80	3.0
Total corporate	438	582	524	1,544	56.6	428	539	471	1,438	53.6
Retail										
Mortgages and home equity	2	6	2	10	0.4	2	5	4	11	0.4
Other retail	216	200	368	784	28.8	131	86	165	382	14.2
Total retail	218	206	370	794	29.2	133	91	169	393	14.6

	As of December 31,									
	2018					2019				
	(In billions of Won, except percentages)									
	12-month expected credit Losses	Lifetime expected credit losses		Total	% of Total Allowances	12-month expected credit Losses	Lifetime expected credit losses		Total	% of Total Allowances
		Not-impaired	Impaired				Not-impaired	Impaired		
Credit cards	76	240	71	387	14.2	174	365	315	854	31.8
Total allowance for credit losses on loans	₩732	₩1,028	₩965	₩2,725	100.0%	₩735	₩995	₩955	₩2,685	100.0%

	As of December 31,					
	2015		2016		2017	
	(In billions of Won, except percentages)					
	Amount	% of Total Allowances	Amount	% of Total Allowances	Amount	% of Total Allowances
Corporate						
Corporate loans	₩1,357	58.5%	₩1,312	55.7%	₩1,285	55.6%
Public and other	8	0.4	8	0.3	5	0.2
Loan to banks	10	0.4	8	0.3	9	0.4
Lease financing	29	1.3	34	1.4	50	2.2
Total corporate	1,404	60.6	1,362	57.7	1,349	58.4
Retail						
Mortgages and home equity	33	1.4	29	1.2	27	1.2
Other retail	206	8.9	267	11.3	331	14.3
Total retail	239	10.3	296	12.5	358	15.5
Credit cards	675	29.1	703	29.8	604	26.1
Total allowance for credit losses on loans	₩2,318	100.0%	₩2,361	100.0%	₩2,311	100.0%

Our total allowance for credit losses on loans decreased by ₩40 billion, or 1.5%, to ₩2,685 billion as of December 31, 2019 from ₩2,725 billion as of December 31, 2018, primarily due to an increase in the sale and transfer of debt securities as well as an increase in the sale, transfer and charge-offs of non-performing loans.

Our total allowance for credit losses on loans increased by ₩414 billion, or 17.9%, to ₩2,725 billion as of December 31, 2018 from ₩2,311 billion as of December 31, 2017, primarily due to the replacement of the model for impairment loss from the "incurred loss" model under the previous guidance to the "expected credit loss" model under IFRS 9 adopted from January 1, 2018, which requires us to recognize impairment loss earlier and on a more forward-looking basis.

Analysis of Allowance for Credit Losses on Loans

The following tables present an analysis of our credit losses on loans experience for each of the years indicated. The table for 2018 and 2019 has been presented separately due to the adoption of IFRS 9 from January 1, 2018.

	2018				2019			
	(In billions of Won, except percentages)							
	12-month expected credit losses	Lifetime expected credit losses		Total	12-month expected credit losses	Lifetime expected credit losses		Total
		Not-impaired	Impaired			Not-impaired	Impaired	
Balance at the beginning of the period	₩ 731	₩1,088	₩1,053	₩2,872	₩ 732	₩1,028	₩ 965	₩2,725
Stage Transfer	52	(52)	—	—	56	14	(70)	—
Amounts charged against income	24	160	521	705	2	270	639	911
Gross charge-offs:								
Corporate:								
Corporate loans	(1)	—	(365)	(366)	—	—	(287)	(287)
Public and other	—	—	(5)	(5)	—	—	(10)	(10)
Loan to banks	—	—	—	—	—	—	—	—
Lease financing	—	—	(5)	(5)	—	—	(22)	(22)
Retail:								
Mortgage and home equity	—	—	(4)	(4)	—	—	(3)	(3)
Other retail	—	—	(361)	(361)	—	—	(277)	(277)
Credit cards	—	—	(192)	(192)	—	—	(338)	(338)
Total gross charge-offs	(1)	—	(932)	(933)	—	—	(937)	(937)
Recoveries:								
Corporate:								
Corporate loans	—	—	68	68	—	—	50	50
Public and other	—	—	1	1	—	—	2	2
Loan to banks	—	—	—	—	—	—	—	—
Lease financing	—	—	2	2	—	—	13	13
Retail:								
Mortgage and home equity	—	—	—	—	—	—	—	—
Other retail	—	—	130	130	—	—	70	70
Credit cards	—	—	110	110	—	—	191	191
Total recoveries	—	—	311	311	—	—	326	326
Other	(74)	(168)	12	(230)	(71)	(321)	8	(384)
Business combination	—	—	—	—	16	4	24	44
Net charge-offs	(75)	(168)	(609)	(852)	(55)	(317)	(579)	(951)
Balance at the end of the period	₩ 732	₩1,028	₩ 965	₩2,725	₩ 735	₩ 995	₩ 955	₩2,685
Ratio of net charge-offs during the period to average loans outstanding during the period	0.02%	0.06%	0.21%	0.29%	0.02%	0.10%	0.18%	0.30%

	2015	2016	2017
	(In billion of Won, except percentages)		
Balance at the beginning of the period	₩ 2,501	₩ 2,318	₩ 2,361
Amounts charged against income	1,022	1,103	800
Gross charge-offs:			
Corporate:			
Corporate loans	(731)	(758)	(376)
Public and other	(2)	(1)	(1)
Loan to banks	—	—	—
Lease financing	(60)	(42)	(4)
Retail:			
Mortgage and home equity	—	—	(2)
Other retail	(128)	(130)	(137)
Credit cards	(520)	(462)	(540)
Total gross charge-offs	(1,441)	(1,393)	(1,060)
Recoveries:			
Corporate:			
Corporate loans	88	125	81
Public and other	—	—	—
Loan to banks	—	—	—
Lease financing	1	1	1
Retail:			
Mortgage and home equity	3	—	1
Other retail	24	35	43
Credit cards	171	176	185
Total recoveries	287	337	311
Other	(51)	(4)	(101)
Net charge-offs	(1,205)	(1,060)	(850)
Balance at the end of the period	₩ 2,318	₩ 2,361	₩ 2,311
Ratio of net charge-offs during the period to average loans outstanding during the period	0.51%	0.42%	0.32%

Loan Charge-offs

Our gross charge-offs increased by 0.4% from ₩933 billion in 2018 to ₩937 billion in 2019, primarily due to an increase in the amount of charge-offs for credit cards in 2019 compared to 2018. Our gross charge-offs decreased by 12.0% from ₩1,060 billion in 2017 to ₩933 billion in 2018, primarily due to a decrease in the amount of charge-offs for credit cards in 2018 compared to 2017. Our gross charge-offs decreased by 23.9% from ₩1,393 billion in 2016 to ₩1,060 billion in 2017, primarily due to a decrease in the amount of charge-offs for corporate loans in 2017 compared to 2016.

In 2019, the charge-off on restructured loans amounted to ₩138 billion, of which ₩230 billion was related to loans converted into equity securities as part of restructuring. With respect to a loan that we consider to be uncollectible regardless of any modification of terms, we convert a portion of such loan into equity securities following negotiation with the borrower and charge off the remainder of such loan as previously discussed in "— Troubled Debt Restructurings — Charge-off of Loans Subject to Restructuring." The equity securities so converted are recorded at fair value, based on the market value of such securities if available or the appraisal value of such securities by an outside appraiser if a market value is unavailable.

We attempt to minimize loans to be charged off by practicing a sound credit approval process based on credit risk analysis prior to extending loans and a systematic management of outstanding loans. For charge-off of restructured loans, see "— Loan Modification Programs for Loans under Restructuring — Charge-off of Restructured Loans" above.

Loans to be Charged-off

Loans are charged off if they are deemed to be uncollectible by falling under any of the following categories:

- loans for which collection is not foreseeable due to insolvency or bankruptcy, dissolution or the termination of the debtor's business;
- loans for which collection is not foreseeable due to the death or disappearance of debtors;
- loans for which collection expenses exceed the collectible amount;
- loans for which collection is not possible through legal or any other means;
- payments in arrears in respect of credit cards that are overdue for more than six months;
- payments outstanding on unsecured retail loans that are overdue for more than 12 months;
- payments in arrears in respect of leases that are overdue for more than 12 months;
- the portion of loans classified as "estimated loss," net of any recovery from collateral, which is deemed to be uncollectible; or
- domestic loans that are required by the Financial Supervisory Service to be charged-off, or loans held by our foreign subsidiaries or branches for which a charge-off or special provisioning is required by the relevant regulatory authority.

Timeline for Charge-off

Shinhan Bank's loans to be charged-off must be charged-off within one year of the month they are deemed to be uncollectible. If such loans are not charged-off within one year, the reason for the delay must be reported to Shinhan Bank's Audit Department.

Procedure for Charge-off Approval

An application for Shinhan Bank's loans to be charged-off is submitted by the relevant branch or department to the Credit Collection Department. The Credit Collection Department refers the application to the Audit Department for their review to ensure compliance with Shinhan Bank's internal procedures for charge-offs. The Credit Collection Department, after reviewing the application to confirm that it meets relevant requirements, seeks approval from the Financial Supervisory Service for the charge-offs, which is typically granted. Once the Financial Supervisory Service approves (except for household loans with estimated losses of ₩10 million or less, whose charge-off is considered automatically approved by the Financial Supervisory Service), loans are charged-off upon approval by the President of Shinhan Bank. As for Shinhan Card, it generally charges off receivables that are 180 days past due following internal review.

Treatment of Loans Charged-off

Once loans are charged off, they are derecognized from our statements of financial position and are classified as charged-off loans. We continue collection efforts in respect of these loans through third-party collection agencies, including the Korea Asset Management Corporation, and Shinhan Credit Information, which is our subsidiary. The General Manager of the Credit Collection Department must report to the Financial Supervisory Service the amounts of loans permanently written off or recovered during each reporting period.

Treatment of Collateral

When we determine that a loan collateralized by real estate cannot be recovered through normal collection channels, we generally petition a court to foreclose and sell the collateral through a court-supervised auction within one month after default and insolvency and within four months after delinquency. However, this procedure does not apply to companies under restructuring, recovery proceedings, workout or other court proceedings where there are restrictions on such auction procedures. Filing of such petition with the court generally encourages the debtor to repay the overdue loan. If a debtor ultimately fails to repay and the court grants its approval for foreclosure, we sell the collateral and recover the principal amount and interest accrued up to the sales price, net of expenses incurred from the auction. Foreclosure proceedings under the laws and regulations of Korea typically take seven months to one year from initiation to collection depending on the nature of the collateral.

Financial Statement Presentation

Our financial statements generally report as charge-offs all unsecured retail loans that are overdue for more than 12 months. Leases are charged off when past due for more than twelve months. For collateral dependent loans, we charge off the excess of the book value of the subject loan over the amount received or to be received from the sale of the underlying collateral when the collateral is sold as part of a foreclosure proceeding and its sale price becomes known through court publication as part of such proceeding.

Investment Portfolio

Investment Policy

We invest in and trade Won-denominated and, to a lesser extent, foreign currency-denominated securities for our own account in order to:

- maintain the stability and diversification of our assets;
- maintain adequate sources of back-up liquidity to match our funding requirements; and
- supplement income from our core lending activities.

When making an investment decision with respect to particular securities, we consider macroeconomic trends, industry analysis and credit evaluation, among others.

Our securities investment activities are subject to a number of regulatory guidelines, including limitations prescribed under the Financial Holding Companies Act and the Banking Act. Generally, a financial holding company is prohibited from acquiring more than 5% of the total issued and outstanding shares of another finance-related company (other than its direct and indirect subsidiaries). Furthermore, under these regulations, Shinhan Bank must limit its investments in shares and securities with a maturity in excess of three years (other than monetary stabilization bonds issued by the Bank of Korea and national government bonds) to 100.0% of the sum of Tier I and Tier II capital (less any deductions) of Shinhan Bank. Generally, Shinhan Bank is also prohibited from acquiring more than 15.0% of the shares with voting rights issued by any other corporation (other than for the purpose of establishing or acquiring a subsidiary). Further information on the regulatory environment governing our investment activities is set out in "— Supervision and Regulation — Principal Regulations Applicable to Banks — Restrictions on Investments in Property," "— Principal Regulations Applicable to Banks — Restrictions on Shareholdings in Other Companies," "— Principal Regulations Applicable to Financial Holding Companies — Liquidity" and "— Principal Regulations Applicable to Financial Holding Companies — Restrictions on Shareholdings in Other Companies."

Book Value and Fair Value

The following tables set out the book value and fair value of investments in our investment portfolio as of the dates indicated. The table as of December 31, 2018 and 2019 has been presented separately due to the adoption of IFRS 9 from January 1, 2018.

	As of December 31, 2018		As of December 31, 2019	
	Book Value	Fair Value	Book Value	Fair Value
	(In billions of Won)			
Securities at fair value through other comprehensive income				
Equity securities	₩ 636	₩ 636	₩ 808	₩ 808
Debt securities:				
Korean treasury and governmental agencies	7,756	7,756	15,701	15,701
Debt securities issued by financial institutions	17,341	17,341	21,527	21,527
Corporate debt securities	9,183	9,183	17,177	17,177
Debt securities issued by foreign government	1,220	1,220	1,897	1,897
Mortgage-backed and asset-backed securities	2,178	2,178	2,271	2,271
Total — Securities at fair value through other comprehensive income	₩38,314	₩38,314	₩59,381	₩59,381
Securities at amortized cost				
Debt securities:				
Korean treasury and governmental agencies	₩17,143	₩18,139	₩29,277	₩31,088
Debt securities issued by financial institutions	2,247	2,271	4,937	5,050
Corporate debt securities	3,955	4,108	5,308	5,732
Debt securities issued by foreign government	857	835	1,108	1,154
Mortgage-backed and asset-backed securities	4,276	4,324	4,952	4,979
Total — Securities at amortized cost	₩28,478	₩29,677	₩45,582	₩48,003
Financial assets at fair value through profit or loss				
Equity securities	₩ 1,165	₩ 1,165	₩ 1,598	₩ 1,598
Debt securities:				
Korean treasury and governmental agencies	2,734	2,734	2,742	2,742
Debt securities issued by financial institutions	9,593	9,593	12,849	12,849
Corporate debt securities	15,722	15,722	18,353	18,353
Debt securities issued by foreign governments	31	31	131	131
Mortgage-backed and asset-backed securities	435	435	380	380
Other debt securities[(1)]	11,620	11,620	13,946	13,946
Sub-total — Securities at fair value	₩41,300	₩41,300	₩49,999	₩49,999
Others:				
Loans at fair value	1,209	1,209	2,155	2,155
Due from banks at fair value	871	871	897	897
Gold/Silver deposits	155	155	112	112
Total — Financial assets at fair value through profit or loss	₩43,535	₩43,535	₩53,163	₩53,163

	As of December 31, 2017	
	Book Value	Fair Value
	(In billions of Won)	
Financial assets designated at fair value		
Marketable equity securities	₩ 1,468	₩ 1,468
Debt securities:		
Korean treasury and governmental agencies	530	530
Debt securities issued by financial institutions	716	716
Corporate debt securities	856	856
Debt securities issued by foreign government	9	9
Mortgage-backed and asset-backed securities	—	—
Others	—	—
Total — Fair Value Through Profit and Loss	₩ 3,579	₩ 3,579
Available-for-sale securities		
Marketable equity securities	₩ 4,930	₩ 4,930
Debt securities:		
Korean treasury and governmental agencies	6,497	6,497
Debt securities issued by financial institutions	17,650	17,650
Corporate debt securities	9,602	9,602
Debt securities issued by foreign government	1,073	1,073
Mortgage-backed and asset-backed securities	2,365	2,365
Total — Available-for-sale	₩42,117	₩42,117
Held-to-maturity securities		
Debt securities:		
Korean treasury and governmental agencies	₩14,495	₩14,913
Debt securities issued by financial institutions	2,708	2,694
Corporate debt securities	3,859	3,897
Debt securities issued by foreign government	669	643
Mortgage-backed and asset-backed securities	3,260	3,243
Total — Held-to-maturity	₩24,991	₩25,390
Trading Securities		
Marketable equity securities	₩ 4,634	₩ 4,634
Debt securities:		
Korean treasury and governmental agencies	3,178	3,178
Financial institutions	8,014	8,014
Corporations	11,863	11,863
Mortgage-backed and asset-backed securities	509	509
Debt securities issued by foreign governments	77	77
Other trading assets	189	189
Total — Trading	₩28,464	₩28,464
Total securities	₩99,151	₩99,550

Note:

(1) Other debt securities included puttable equity investment, beneficiary certificates and restricted reserve for claims of customers' deposits (trusts) classified as debt instruments in accordance with IFRS 9.

Maturity Analysis

The following table categorizes our securities by maturity and weighted average yield as of December 31, 2019.

	As of December 31, 2019									
	1 Year or Less		Over 1 but within 5 Years		Over 5 but within 10 Years		Over 10 Years		Total	
	Carrying Amount	Weighted Average Yield[(1)]	Carrying Amount	Weighted Average Yield[(1)]	Carrying Amount	Weighted Average Yield[(1)]	Carrying Amount	Weighted Average Yield[(1)]	Carrying Amount	Weighted Average Yield[(1)]
	(In billions of Won, except percentages)									
Securities at fair value through other comprehensive income:										
Korean treasury securities and government agencies	₩ 7,127	2.82%	₩ 6,199	1.60%	₩1,506	1.79%	₩ 869	1.82%	₩ 15,701	2.18%
Debt securities issued by financial institutions	9,857	1.81	9,514	1.76	289	2.48	1,867	2.30	21,527	1.84
Corporate debt securities	7,883	2.63	6,598	2.14	1,190	2.41	1,506	2.37	17,177	2.40
Debt securities issued by foreign governments	1,317	2.18	218	4.04	88	2.12	274	5.22	1,897	2.83
Mortgage-backed securities and asset-backed securities	1,044	2.09	1,079	1.99	61	1.98	87	2.55	2,271	2.06
Total	₩27,228	2.34%	₩23,608	1.85%	₩3,134	2.10%	₩ 4,603	2.41%	₩ 58,573	2.14%
Securities at amortized cost:										
Korean treasury securities and government agencies	₩12,485	2.89%	₩10,127	2.06%	₩1,390	3.68%	₩ 5,275	2.61%	₩ 29,277	2.59%
Debt securities issued by financial institutions	2,148	1.75	1,457	2.34	134	2.70	1,198	4.39	4,937	2.59
Corporate debt securities	1,993	3.12	805	2.85	448	3.21	2,062	2.70	5,308	2.92
Debt securities issued by foreign governments	139	5.39	313	2.54	34	6.77	622	4.05	1,108	3.87
Mortgage-backed securities and asset-backed securities	748	2.25	2,158	2.30	1,141	2.45	905	2.38	4,952	2.34
Total	₩17,513	2.77%	₩14,860	2.18%	₩3,147	3.16%	₩10,062	2.91%	₩ 45,582	2.63%
Financial assets at fair value through profit or loss:										
Korean treasury securities and government agencies	₩ 104	2.03%	₩ 697	1.91%	₩ 824	1.75%	₩ 1,117	2.02%	₩ 2,742	1.91%
Debt securities issued by financial institutions	1,901	2.05	2,486	1.68	75	4.15	8,387	2.14	12,849	2.05
Corporate debt securities	8,859	2.03	2,278	2.47	341	3.11	6,875	1.88	18,353	2.05
Debt securities issued by foreign governments	1	5.95	5	2.97	5	2.75	120	1.12	131	1.27
Mortgage-backed securities and asset-backed securities	100	2.32	110	1.75	11	1.41	159	2.84	380	2.35
Other debt securities	13,824	0.01	—	—	—	—	122	—	13,946	0.01
Total	₩24,789	0.90%	₩ 5,576	2.04%	₩1,256	2.26%	₩16,780	2.01%	₩ 48,401	1.45%
Total	₩69,530		₩44,044		₩7,537		₩31,445		₩152,556	

Note:

(1) The weighted-average yield for the portfolio represents the yield to maturity for each individual security, weighted using its amortized cost.

Concentrations of Risk

The following table presents securities held by us whose aggregate book value exceeded 10% of our stockholders' equity as of December 31, 2019. As of December 31, 2019, 10% of our stockholders' equity was ₩4,193 billion.

	As of December 31, 2019	
	Book Value	Fair Value
	(In billions of Won)	
Name of issuer:		
Ministry of Strategy and Finance	₩45,498	₩48,721
The Korea Development Bank	₩ 6,092	₩ 6,141
The Bank of Korea	₩ 9,701	₩ 9,706
The Korea Housing Finance Corp	₩ 7,525	₩ 7,614
Industrial Bank of Korea	₩ 4,931	₩ 4,935

All of the above entities are either an agency of the Government or an entity controlled by the Government.

Credit-Related Commitments and Guarantees

In the normal course of our operations, we make various commitments and guarantees to meet the financing and other business needs of our customers. Commitments and guarantees are usually in the form of, among others, commitments to extend credit, commercial letters of credit, standby letters of credit and performance guarantees. The contractual amount of these financial instruments represents the maximum possible loss amount if the account party draws down the commitment or we should fulfill our obligation under the guarantee and the account party fails to perform under the contract.

The following table sets forth our credit-related commitments and guarantees as of the dates indicated.

	As of December 31,		
	2017	2018	2019
	(In billions of Won)		
Commitments to extend credit	₩ 73,373	₩ 89,873	₩ 96,936
Commercial letters of credit	2,744	3,162	2,760
Others[1]	85,276	93,960	100,484
Total	₩161,393	₩186,995	₩200,180

Note:

(1) Consists of financial guarantees, performance guarantees, liquidity facilities to special purpose entities, acceptances, guarantee on trust accounts, endorsed bills and unused credit limits on credit cards.

We have credit-related commitments that are not reflected in our statements of financial position, which primarily consist of commitments to extend credit and commercial letters of credit. Commitments to extend credit, including credit lines, represent unfunded portions of authorizations to extend credit in the form of loans. These commitments expire on fixed dates and a customer is required to comply with predetermined conditions to draw funds under the commitments. Commercial letters of credit are undertakings on behalf of customers authorizing third parties to make drawdowns up to a stipulated amount under specific terms and conditions. They are generally short-term and collateralized by the underlying shipments of goods to which they relate.

We also have guarantees that are recorded on our statements of financial position at their fair value at inception which are amortized over the life of the guarantees. Such guarantees generally include standby letters of credit, other financial and performance guarantees and liquidity facilities to special purpose entities. Standby letters of credit are irrevocable obligations to pay third-party beneficiaries when our customers fail to repay loans or debt instruments, which are generally in foreign currencies. A substantial portion of these standby letters of credit is secured by collateral, including trade-related documents. Other financial and performance guarantees are irrevocable assurances that we will pay beneficiaries if our customers fail to perform their obligations under certain contracts. Liquidity facilities to special purpose entities are irrevocable commitments to provide contingent liquidity credit lines to special purpose entities established by our customers in the event that a triggering event such as shortage of cash occurs.

The commitments and guarantees do not necessarily represent our exposure since they often expire unused.

Derivatives

As discussed under " — Our Principal Activities — Other Banking Services — Derivatives Trading" above, we engage in derivatives trading activities primarily on behalf of our customers so that they may hedge their risks and also enter into back-to-back derivatives with other financial institutions to cover exposures arising from such transactions. In addition, we enter into derivatives transactions to hedge against risk exposures arising from our own assets and liabilities, some of which are non-trading derivatives that do not qualify for hedge accounting treatment.

The following table shows, as of December 31, 2019, the gross notional or contractual amounts of derivatives held or issued for (i) trading and (ii) non-trading that qualify for hedge accounting.

	As of December 31, 2019		
	Underlying Notional Amount[(1)]	Estimated Fair Value Assets	Estimated Fair Value Liabilities
	(In billions of Won)		
Trading:			
Foreign exchange derivatives:			
Future and forward contracts	₩138,429	₩1,360	₩1,057
Swaps	40,826	474	520
Options	2,759	9	9
Sub-total	182,014	1,843	1,586
Interest rate derivatives:			
Future and forward contracts	2,455	1	1
Swaps	103,671	260	248
Options	286	1	5
Sub-total	106,412	262	254
Credit derivatives:			
Swaps	5,404	283	39
Sub-total	5,404	283	39
Equity derivatives:			
Swaps and forward contracts	4,256	144	40
Options	4,903	33	39
Future contracts	876	4	6
Sub-total	10,035	181	85

	As of December 31, 2019		
	Underlying Notional Amount[(1)]	Estimated Fair Value Assets	Estimated Fair Value Liabilities
	(In billions of Won)		
Commodity derivatives:			
Swaps and forward contracts	759	14	28
Future contracts	344	3	10
Sub-total	1,103	17	38
Total	₩304,968	₩2,586	₩2,002
Non-trading:			
Hedge accounting:			
Foreign exchange derivatives:			
Swaps	₩ 4,532	₩ 74	₩ 48
Future and forward contracts	1,869	14	21
Interest rate derivatives:			
Swaps	10,092	155	233
Total	₩ 16,493	₩ 243	₩ 302

Note:

(1) Notional amounts in foreign currencies were converted into Won at prevailing exchange rates as of December 31, 2019.

Funding

We obtain funding from a variety of sources, both domestic and foreign. Our principal source of funding is customer deposits obtained from our banking operations, and we from time to time issue equity and debt securities, including preferred shares. In addition, our subsidiaries acquire funding through call money, borrowings from the Bank of Korea, other short-term borrowings, corporate debentures and other long-term debt, including debt and equity securities issuances, asset-backed securitizations and repurchase transactions, to complement, or if necessary, replace funding through customer deposits. For further details relating to funding by us and our subsidiaries, see "Item 5.B. Liquidity and Capital Resources."

Deposits

Although the majority of our bank deposits are short-term, the majority of our depositors have historically rolled over their deposits at maturity, providing our banking operation with a stable source of funding.

The following table shows the average balances of our deposits and the average rates paid on our deposits for the periods indicated.

	2017		2018		2019	
	Average Balance[(1)]	Average Rate Paid	Average Balance[(1)]	Average Rate Paid	Average Balance[(1)]	Average Rate Paid
	(In billions of Won, except percentages)					
Interest-bearing deposits:						
Demand deposits	₩ 35,978	0.36%	₩ 37,714	0.39%	₩ 40,379	0.42%
Savings deposits	69,671	0.51	74,467	0.56	77,652	0.58
Time deposits	121,050	1.55	130,846	1.81	147,479	1.92
Other deposits	8,164	1.57	8,525	1.96	9,297	2.07
Total interest-bearing deposits	₩234,863	1.06%	₩251,552	1.23%	₩274,807	1.33%

Note:

(1) Average balances are based on (a) daily balances of Shinhan Bank and (b) quarterly balances for other subsidiaries.

For a breakdown of deposit products, see "— Our Principal Activities — Deposit-taking Activities," except that cover bills sold are recorded on short-term borrowings and securities sold under repurchase agreements are recorded as secured borrowings.

Certificates of Deposit and Other Time Deposits

The following table presents the certificates of deposit and other time deposits in excess of ₩100 million by remaining maturities as of December 31, 2019.

	As of December 31, 2019		
	Certificates of Deposit	Other Time Deposits	Total
	(In billions of Won)		
Maturing within three months	₩3,775	₩ 37,497	₩ 41,272
After three but within six months	2,238	24,699	26,937
After six but within 12 months	3,306	41,392	44,698
After 12 months	105	7,142	7,247
Total	₩9,424	₩110,730	₩120,154

A majority of our certificates of deposit accounts and other time deposits issued by our foreign offices is in the amount of US$100,000 or more.

Short-term Borrowings

The following table presents information regarding our short-term borrowings (borrowings with a maturity of one year or less) for the periods indicated.

	2017					2018					2019				
	Balance Outstanding	Average Balance Outstanding[1]	Highest Balances at Any Month-end	Weighted Average Interest Rate[2]	Year-end Interest Rate	Balance Outstanding	Average Balance Outstanding[1]	Highest Balances at Any Month-end	Weighted Average Interest Rate[2]	Year-end Interest Rate	Balance Outstanding	Average Balance Outstanding[1]	Highest Balances at Any Month-end	Weighted Average Interest Rate[2]	Year-end Interest Rate
	(In billions of Won, except for percentages)														
Borrowings from The Bank of Korea[3]	₩ 2,913	₩ 2,903	₩ 2,977	0.67%	0.50 - 0.75%	₩ 2,330	₩ 2,603	₩ 2,853	0.66%	0.50 - 0.75%	₩ 2,429	₩ 2,312	₩ 2,474	0.63%	0.50 - 0.75%
Call money	857	1,892	4,006	1.69	0.00 - 6.20	1,425	1,977	5,255	2.29	0.00 - 6.85	712	1,414	1,659	2.08	0.00 - 5.25
Other short-term borrowings[4]	14,375	13,047	14,478	0.74	0.00 - 12.50	21,884	18,900	21,884	1.23	0.00 - 12.00	25,861	23,700	25,861	1.36	0.00 – 13.65
	₩18,145	₩17,842	₩21,461	0.83%		₩25,639	₩23,480	₩29,992	1.26%		₩29,002	₩27,426	₩29,994	1.33%	

Notes:

(1) Average balances are based on (a) daily balances of Shinhan Bank and (b) quarterly balances for other subsidiaries.
(2) Weighted-average interest rates are calculated by dividing the total interest expenses by the average amount borrowed.
(3) Borrowings from the Bank of Korea generally mature within one month for borrowings in Won and six months for borrowings in foreign currencies.
(4) Other short-term borrowings included borrowings from trust accounts, bills sold, and borrowings in domestic and foreign currencies.

Our short-term borrowings have maturities of less than one year and are generally unsecured with the exception of borrowings from the Bank of Korea, which are generally secured with securities at fair value through other comprehensive income or at amortized cost (previously classified as available-for-sale or held-to-maturity securities under IAS 39) held by us.

Risk Management

Overview

As a financial services provider, we are exposed to various risks relating to our lending, credit card, insurance, securities investment, trading and leasing businesses, our deposit taking and borrowing activities and our operating environment. The principal risks to which we are exposed are credit risk, market risk, interest rate risk, liquidity risk and operational risk. These risks are recognized, measured and reported in accordance with risk management guidelines established at our holding company level and implemented at the subsidiary level through a carefully stratified checks-and-balances system.

We believe that our risk management system has been instrumental to building our reputation as a well-managed and prudent financial service provider and withstanding various external shocks. In particular, during the global financial crisis of 2008 and 2009, we believe our risk management provided effective early warning signals which helped us to proactively reconfigure our asset portfolio and substantially reduce our exposure to troubled debtors and thereby avoid what could have been a substantially greater credit loss during such crisis, and we are carefully upgrading and refining our risk management system in the face of current and potential economic difficulties at global, regional and domestic levels.

Our group-wide risk management philosophy is to instill a culture of effective risk management and awareness at all levels of our organization and pursue a proper balance between risk and return in our business activities in order to achieve a sustainable growth. In particular, our group-wide risk management is guided by the following core principles:

- carrying out all business activities within prescribed risk tolerance levels and prudently balancing profitability and risk management;
- standardizing the risk management process and monitoring compliance at a group-wide level;
- operating a prudent risk management decision making system backed by active participation by management;
- creating and operating a risk management organization independent of business activities;
- operating a performance management system that enhances clear and prompt identification of risks when making business decisions;
- aiming to achieve preemptive and practical risk management; and
- prudent preparation for known and unknown contingencies.

We take the following steps to implement the foregoing risk management principles:

- *risk capital management* — Risk capital refers to capital necessary to compensate for losses in case of a potential risk being realized, and risk capital management refers to the process of asset management based on considerations of risk exposure and risk appetite for our total assets so that we can maintain an appropriate level of risk capital. As part of our risk capital management, we and our subsidiaries have adopted and maintain various risk planning processes and reflect such risk planning in our business and financial planning. We also maintain a risk limit management system to ensure that risks in our business do not exceed prescribed limits.
- *risk monitoring* — We proactively, preemptively and periodically review risks that may impact our overall operations, including through a multidimensional risk monitoring system. Currently, each of our subsidiaries is required to report to the holding company any factors that could have a material impact on group-wide risk management, and the holding company reports to our chief risk officer and other members of our senior management the results of risk monitoring weekly, monthly and on an *ad hoc* basis as needed. In addition, we perform preemptive risk management through a "risk dashboard

system" under which we closely monitor any increase in asset size, risk levels and sensitivity to external factors with respect to the major asset portfolios of each of our subsidiaries, and to the extent such monitoring yields any warning signals, we promptly analyze the causes and, if necessary, formulate and implement actions in response thereto.

- *risk review* — Prior to entering any new business, offering any new products or changing any major policies, we review any relevant risk factors based on a prescribed risk management checklist and, in the case of changes for which assessment of risk factors is difficult, perform reasonable decision-making in order to avoid taking any unduly risky action. The risk management departments of all our subsidiaries are required to review all new businesses, products and services prior to their launch and closely monitor the development of any related risks following their launch, and in the case of any action that involves more than one subsidiary, the relevant risk management departments are required to consult with the risk management team at the holding company level prior to making any independent risk reviews.
- *crisis management* — We maintain a group-wide risk management system to detect the early warning signals of any crisis and, in the event of a crisis actually happening, to respond on a timely, efficient and flexible basis so as to ensure our survival as a going concern. Each of our subsidiaries maintains crisis planning for three levels of contingencies, namely, "alert," "imminent crisis" and "crisis," determination of which is made based on quantitative and qualitative monitoring and consequence analysis, and upon the occurrence of any such contingency, is required to respond according to a prescribed contingency plan. At the holding company level, we maintain and install a crisis detection and response system which is applied consistently group-wide, and upon the occurrence of an "imminent crisis" or "crisis" event at a subsidiary level, we directly take charge of the situation at the holding company level so that we manage it on a concerted group-wide basis.

Organization

Our risk management system is organized along the following hierarchy (from top to bottom): at the holding company level, the Group Risk Management Committee, the Group Risk Management Council, the Group Chief Risk Officer and the Group Risk Management Team, and at the subsidiary level, the Risk Management Committee, the Chief Risk Officer and the Risk Management Team of the relevant subsidiary. The Group Risk Management Committee, which is under the supervision of our holding company's board of directors, sets the basic group-wide risk management policies and strategies. Our Group Chief Risk Officer reports to the Group Risk Management Committee, and the Group Risk Management Council coordinates the risk management policies and strategies at the group level as well as at the subsidiary level among each of our subsidiaries. Each of our subsidiaries also has a separate Risk Management Committee, Risk Management Working Committee and Risk Management Team, whose tasks are to implement the group-wide risk management policies and strategies at the subsidiary level as well as to set risk management policies and strategies specific to such subsidiary in line with the group-wide guidelines. We also have the Group Risk Management Team, which supports our Chief Risk Officer in his or her risk management and supervisory role.

In order to maintain the group-wide risk at an appropriate level, we use a hierarchical risk limit system under which the Group Risk Management Committee assigns reasonable risk limits for the entire group and each of our subsidiaries, and the Risk Management Committee and the Risk Management Working Committee of each of our subsidiaries manage the subsidiary-specific risks by establishing and managing risk limits in more detail by type of risk and type of product for each department and division within such subsidiary. Further details follow.

At the holding company level:

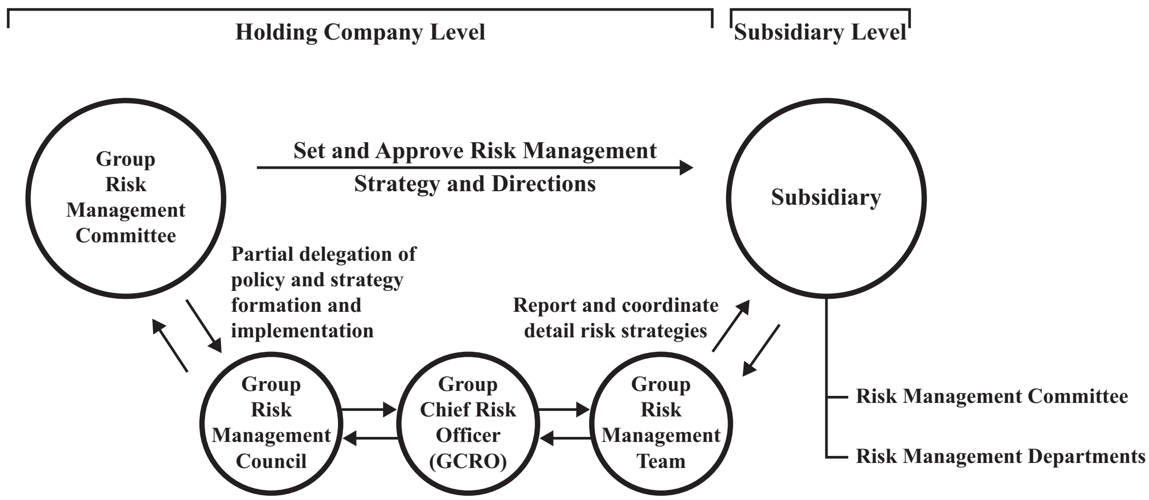
- *Group Risk Management Committee* — The Group Risk Management Committee consists of four outside directors of our holding company. The Group Risk Management Committee convenes at least quarterly and on an *ad hoc* basis as needed. Specifically, the Group Risk Management Committee does the following: (i) establish the overall risk management policies consistent with management strategies, (ii) set reasonable risk limits for the entire group and each of our subsidiaries, (iii) approve appropriate investment limits or permissible loss limits, (iv) enact and amend risk management regulations, and (v) decide other risk management-related issues the board of directors or the Group Risk Management Committee sees fit to discuss. The results of the Group Risk Management Committee meetings are reported to the board of directors of our holding company. The Group Risk Management Committee makes decisions through affirmative votes by a majority of the committee members.

- *Group Risk Management Council* — Comprised of the Group Chief Risk Officer and Chief Risk Officers of each of our subsidiaries, the Group Risk Management Council provides a forum for risk management executives from each subsidiary to discuss our group-wide risk management guidelines and strategy in order to maintain consistency in the group-wide risk policies and strategies.
- *Group Chief Risk Officer* — The Group Chief Risk Officer assists the Group Risk Management Committee by implementing the risk policies and strategies as well as ensuring consistency in the risk management systems of our subsidiaries. Furthermore, the Group Chief Risk Officer evaluates the Chief Risk Officer of each subsidiary in addition to monitoring the risk management practices of each subsidiary.
- *Group Risk Management Team* — This team provides support and assistance to the Group Chief Risk Officer in carrying out his or her responsibilities.

At the subsidiary level:

- *Risk Management Committee* — In order to maintain group-wide risk at an appropriate level, we have established a hierarchical risk limit system where the Group Risk Management Committee establishes risk limits for us and our subsidiaries, and each of our subsidiaries establishes and manages risk limits in more detail by type of risk and type of product for each department and division within such subsidiary. In accordance with the group risk management policies and strategies, the Risk Management Committee at the subsidiary level establishes its own risk management policies and strategies in more detail and the respective risk management department implements those policies and strategies.
- *Risk Management Team* – The Risk Management Team, operating independently from the business units of each of our subsidiaries, monitors, assesses, manages and controls the overall risk of its operations and reports all major risk-related issues to the Group Risk Management Team at the holding company level, which then reports to the Group Chief Risk Officer.

The following is a flowchart of our risk management system at the holding company level and the subsidiary level.



Credit Risk Management

Credit risk, which is the risk of loss from default by borrowers, other obligors or other counterparties to the transactions that we have entered into, is the greatest risk we face. Our credit risk management encompasses all areas of credit that may result in potential economic loss, including not just transactions that are recorded on our balance sheets, but also off-balance-sheet transactions such as guarantees, loan commitments and derivatives transactions. A substantial majority of our credit risk relates to the operations of Shinhan Bank and Shinhan Card.

Credit Risk Management of Shinhan Bank

Shinhan Bank's credit risk management is guided by the following principles:

- achieve a profit level corresponding to the level of risks involved;
- improve asset quality and achieve an optimal mix of asset portfolios;
- avoid excessive loan concentration in a particular borrower or sector;
- closely monitor the borrower's ability to repay the debt; and
- provide financial support to advance the growth of select customers.

Major policies for Shinhan Bank's credit risk management, including Shinhan Bank's overall credit risk management plan and credit policy guidelines, are determined by the Risk Policy Committee of Shinhan Bank, the executive decision-making body for management of credit risk. The Risk Policy Committee is headed by the Chief Risk Officer, and also comprises of the Chief Credit Officer and the heads of each business unit. In order to separate the loan approval functions from credit policy decision-making, Shinhan Bank has a Credit Review Committee that performs credit review evaluations with a focus on improving the asset quality of and profitability from the loans being made and operates separately from the Risk Policy Committee. Both the Risk Policy Committee and the Credit Review Committee make decisions by a vote of two-thirds or more of the attending members of the respective committees, which must constitute at least two-thirds of the respective committee members to satisfy the respective quorum.

Shinhan Bank complies with credit risk management procedures pursuant to internal guidelines and regulations and continually monitors and improves these guidelines and regulations. Its credit risk management procedures include:

- credit evaluation and approval;
- credit review and monitoring; and
- credit risk assessment and control.

Credit Evaluation and Approval

All loan applicants and guarantors are subject to credit evaluation before approval of any loans. Credit evaluation of loan applicants is carried out by senior officers of Shinhan Bank specifically charged with granting loan approvals. Loan evaluation is carried out by a group rather than by an individual reviewer through an objective and deliberative process. Credit ratings of loan applicants and guarantors influence loan interest rates, the level of internal approval required, credit exposure limits, calculation of potential losses and estimated cost of capital, and therefore are determined objectively and independently by the relevant business unit. Shinhan Bank uses a credit scoring system for retail loans and a credit-risk rating system for corporate loans.

Each of Shinhan Bank's borrowers is assigned a credit rating, which is based on a comprehensive internal credit evaluation system that considers a variety of criteria. For retail borrowers, the credit rating takes into account the borrower's biographic details, past dealings with Shinhan Bank and external credit rating information, among other things. For corporate borrowers, the credit rating takes into account financial indicators as well as non-financial indicators such as industry risk, operational risk and management risk, among other things. The credit rating, once assigned, serves as the fundamental instrument for Shinhan Bank's credit risk management, and is applied to a wide range of credit risk management processes, including credit approval, credit limit management, loan pricing and computation of allowance for credit losses on loans. Shinhan Bank has separate credit evaluation systems for retail customers, SOHO customers and corporate customers, which are further segmented and refined to meet Basel II requirements, which requirements have not changed under Basel III. See "Item 5.A. Operating Results — Critical Accounting Policies — Impairment of Financial Assets — Allowance for Credit Losses on Loans."

Retail Loans

Loan applications for retail loans are reviewed in accordance with Shinhan Bank's credit scoring system and the objective statistics models for secured and unsecured loans maintained and operated by Shinhan Bank's Retail Banking Division. Shinhan Bank's credit scoring system is an automated credit approval system used to evaluate loan applications and determine the appropriate pricing for the loan, and takes into account factors such as a borrower's personal information, transaction history with Shinhan Bank and other financial institutions and other relevant credit information. The applicant is assigned a score, which is used to determine (i) whether to approve the applicant's loan, (ii) the amount of loan to be granted, and (iii) the interest rates thereon. The applicant's score also determines whether the applicant is approved for credit, conditionally approved, subject to further assessment, or denied. If the applicant becomes subject to further assessment, the appropriate discretionary body, either at the branch level or at the headquarter level, makes a reassessment based on qualitative as well as quantitative factors, such as credit history, occupation and past relationship with Shinhan Bank.

For mortgage and home equity loans and loans secured by real estate, Shinhan Bank evaluates the value of the real estate offered as collateral using a proprietary database, which contains information about real estate values throughout Korea. In addition, Shinhan Bank uses up-to-date information provided by third parties regarding the real estate market and property values in Korea. While Shinhan Bank uses internal staff from the processing centers to appraise the value of the real estate collateral, Shinhan Bank also hires certified appraisers to review and co-sign the appraisal value of real estate collateral that have an appraisal value exceeding ₩3 billion, as initially determined by the processing centers. Shinhan Bank also reevaluates internally, on a summary basis, the appraisal value of collateral at least every year.

For loans secured by securities, deposits or other assets other than real estate, Shinhan Bank requires borrowers to observe specified collateral ratios in respect of secured obligations.

Corporate Loans

Shinhan Bank rates all of its corporate borrowers using internally developed credit evaluation systems. These systems consider a variety of criteria (quantitative, qualitative, financial and non-financial) in order to standardize credit decisions and focus on the quality of borrowers rather than the size of loans. The quantitative considerations include the borrower's financial and other data, while the qualitative considerations are based on the judgment of Shinhan Bank's credit officers as to the borrower's ability to repay. Financial considerations include financial variables and ratios based on customer's financial statements, such as return on assets and cash flow to total debt ratios, and non-financial considerations include, among other things, the industry to which the borrower's businesses belong, the borrower's competitive position in its industry, its operating and funding capabilities, the quality of its management and controlling stockholders (based in part on interviews with its officers and employees), technological capabilities and labor relations.

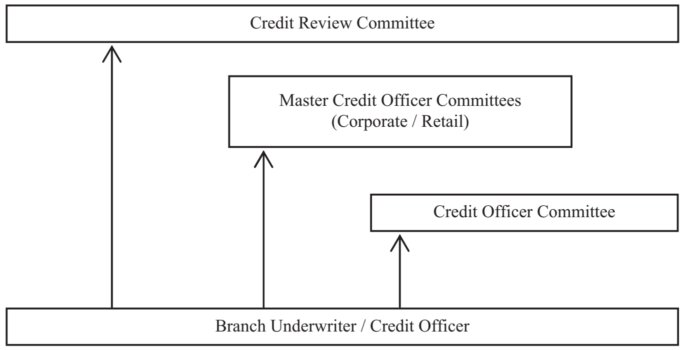
In addition, in order to enhance the accuracy of its internal credit reviews, Shinhan Bank also considers reports prepared by external credit rating services, such as Nice Information Service and Korea Enterprise Data, and monitors and improves the effectiveness of the credit risk-rating systems using a database that it updates continually with actual default records.

Based on the scores calculated under the credit rating system, which takes into account the evaluation criteria described above and the probability of default, Shinhan Bank assigns the borrower one of 23 grades (from the highest of AAA to the lowest of-D3). Grades AA through B are further broken down into "+", "0" or "-." Grades AAA through B- are classified as normal, grade CCC precautionary, and grades CC through D3 non-performing. The credit risk-rating model is further differentiated by the size of the corporate borrower and the type of credit facilities.

Loan Approval Process

Loans are generally approved after evaluations and approvals by the relationship manager at the branch level as well as the committee of the applicable business unit at Shinhan Bank. The approval limit for retail loans is made based on Shinhan Bank's automated credit scoring system. In the case of large corporate loans, approval limits are also reviewed and approved by a Credit Officer at the headquarter level. Depending on the size and the importance of the loan, the approval process is further reviewed by the Credit Officer Committee or the Master Credit Officer Committee. If the loan is considered significant or the amount exceeds the discretion limit of the Master Credit Officer Committee, further evaluation is made by the Credit Review Committee, which is Shinhan Bank's highest decision-making body in relation to credit approval. The Credit Review Committee's evaluation and approval of loan limits vary depending on the credit ratings of the borrowers as determined by Shinhan Bank's internal credit rating system. For example, for borrowers with a credit rating of B-, the Credit Review Committee evaluates and approves unsecured loans in excess of ₩10 billion and secured loans in excess of ₩15 billion, whereas for borrowers with a credit rating of AAA, the Credit Review Committee evaluates and approves unsecured loans in excess of ₩40 billion and secured loans in excess of ₩90 billion. The Credit Review Committee holds at least two meetings a week to approve applications for large-sized loans whose principal amounts exceed prescribed levels set by it.

The chart below summarizes the credit approval process of our banking operation. The Master Credit Officer and the Head of Business Division do not make individual decisions on loan approval, but are part of the decision-making process at the group level.



The reviewer at each level of the review process may in its discretion approve loans up to a maximum amount per loan assigned to such level. The discretionary loan approval limit for each level of the loan approval process takes into account the total amount of loans extended to the borrower, the credit level of the applicant based on credit review, the existence and value of collateral and the level of credit risk established by the credit rating system. The discretionary loan amount approval limit ranges from ₩15 million for unsecured retail loans with a credit rating of B-, which are subject to approvals by the retail branch manager, to ₩90 billion for secured loans with a credit rating of AAA, which are subject to approvals by the Master Credit Officer Committee. Any loans exceeding the maximum discretionary loan amount approval limit must be approved by the Credit Review Committee.

Credit Review and Monitoring

Shinhan Bank continually reviews and monitors credit risks primarily with respect to borrowers. In particular, Shinhan Bank's automated early warning system conducts daily examination for borrowers using over 206 financial and non-financial factors, and the branch manager and the credit officer must conduct periodic loan review and report to an independent Credit Review Department which analyzes in detail the results and adjusts credit ratings accordingly. Based on these reviews, Shinhan Bank adjusts a borrower's credit rating, credit limit and credit policies. In addition, the group credit rating of the borrower's group, if applicable, may be adjusted following a periodic review of the main debtor groups, as identified by the Governor of the Financial Supervisory Service based on their outstanding credit exposures. Shinhan Bank also continually reviews other factors, such as industry-specific conditions for the borrower's business and its domestic and overseas asset base and operations, in order to ensure that the assigned ratings are appropriate. The Credit Review Department provides credit review reports, independent of underwriting, to the Chief Risk Officer on a monthly basis.

The early warning system performs automatic daily checks for borrowers to whom Shinhan Bank has more than ₩1 billion of total exposure (which represents the total outstanding amount due from a borrower, net of collateral for deposit, installment savings, guarantees and import guarantee money) or ₩500 million of exception for credit exposure (which represents total exposure net of effective collateral). When the early warning systems detect a warning signal, such signal and other findings from the monitoring are reviewed by the Credit Review Department in the case of a borrower to whom Shinhan Bank has more than ₩2 billion of exposure, and by the branch manager and the Credit Officer in the case of a borrower to whom Shinhan Bank has ₩2 billion or less of exposure. In addition, Shinhan Bank carries out a timeless credit review of each borrower in accordance with changes in credit risk factors based on changes in the economic environment. The results of such credit review are continually reported to the Chief Risk Officer of Shinhan Bank.

Depending on the nature of the signals detected by the early warning system, a borrower may be classified as "worsening credit" and become subject to evaluation for a possible downgrade in credit rating, or may be initially classified as "showing early warning signs" or become reinstated to the "normal borrower" status. For borrowers classified as "showing early warning signs," the relevant branch manager gathers information and conducts a review of the borrower to determine whether the borrower should be classified as a worsening credit or whether to impose management improvement warnings or implement joint creditors' management. If the borrower becomes non-performing, Shinhan Bank's collection department directly manages such borrower's account in order to maximize recovery rate, and conducts auctions, court proceedings, sale of assets or corporate restructuring as needed.

Pursuant to the foregoing credit review and monitoring procedures and in order to promptly prevent deterioration of loan qualities, Shinhan Bank classifies potentially problematic borrowers into (i) borrowers that show early warning signals, (ii) borrowers that require precaution, (iii) borrowers that require observation and (iv) normal borrowers, and treats them differentially accordingly.

In order to curtail delinquency among its corporate customers, Shinhan Bank takes primarily the following measures: (i) systematic monitoring of borrowers with sizable outstanding loans, (ii) heightened monitoring of borrowers with bad credit history and/or belonging to troubled industries and (iii) assignment of industry-specific lending caps, as adjusted for whether specific industries are particularly sensitive to general business cycles and/or are troubled at a given time.

Systematic monitoring of borrowers with sizable outstanding loans. Shinhan Bank currently applies a heightened monitoring system to corporate borrowers with outstanding loans (other than guaranteed loans and loans secured by specified types of collaterals such as deposits with us or letters of credit) in the aggregate amount of ₩1 billion or more and borrowers with net outstanding loans (i.e., the outstanding loan amount minus the fair value of collaterals (other than as aforesaid) securing such loans) in the aggregate amount of ₩500 million or more. Under this monitoring system, each such borrower is assigned one of the following ratings:

- "Normal borrower" — a borrower who is determined to have a low probability of insolvency with a credit rating above CCC (sub-borrower rating applicable);
- "Borrower that requires observation" — a borrower that carries some risk of affecting the corporate insolvency in the future and is subject to consistent observation to detect any change of such risk;
- "Borrower that requires precaution" — a borrower with a possibility of insolvency due to an increase in risk of default and therefore requires detailed inspection of the credit quality of such borrower and precaution in extending any further loans;
- "Borrower with early warning signs" — a borrower with a high possibility of insolvency; and
- "Problematic or reorganized borrower" — a borrower currently undergoing rehabilitation procedures, such as management improvement plans, workout or corporate recovery or showing no signs of recovery.

Shinhan Bank conducts systematic monitoring of the foregoing borrowers at intervals depending on the borrower's credit rating (for example, every 12 months for "normal" borrowers with a credit rating of AAA to A, every nine months for "normal" borrowers with a credit rating of A- to BBB+, every six months for a credit rating of BBB to B- and every three months for borrowers with a credit rating of CCC or below and borrowers not deemed to be "normal"). In addition, the loan reviewer may request more frequent monitoring if the borrower is showing signs of deteriorating credit quality. For borrowers with outstanding loan amounts of ₩2 billion or more, Shinhan Bank also monitors the revenues and earnings of such borrower on a quarterly basis within seven weeks following the end of each quarter.

Heightened monitoring of borrowers with bad credit history and/or belonging to troubled industries. In addition to the systematic monitoring discussed above, Shinhan Bank also carries out additional monitoring for borrowers that, among others, (i) are rated as "requiring observation," "requiring precaution" or "with early warning signs" as noted above, (ii) have prior history of delinquency or restructuring or (iii) have borrowings that are classified as substandard or below. Based on the heightened monitoring of these borrowers, Shinhan Bank adjusts contingency planning as to how the overall asset quality of a specific industry should change for each phase of the business cycle, how Shinhan Bank should limit or reduce its exposure to such borrowers, and how our group-wide delinquency and non-performing ratio would change, among other things.

Credit Risk Assessment and Control

In order to assess credit risk in a systematic manner, Shinhan Bank has developed and upgraded systems designed to quantify credit risk based on selection and monitoring of various statistics, including delinquency rate, non-performing loan ratio, expected credit losses on loans and weighted average risk rating.

Shinhan Bank controls loan concentration by monitoring and managing loans at two levels: portfolio level and individual loan account level. In order to maintain portfolio-level credit risk at an appropriate level, Shinhan Bank manages its loans using value-at-risk ("VaR") limits for the entire bank as well as for each of its business units. In order to prevent concentration of risk in a particular borrower or borrower class, Shinhan Bank also manages credit risk by borrower, industry, country and other detailed categories.

Shinhan Bank measures credit risk using internally accumulated data. Shinhan Bank measures expected and unexpected losses with respect to total assets monthly, which Shinhan Bank refers to when setting risk limits for, and allocating capital to, its business groups. Expected loss is calculated based on the probability of default, the loss given default, the exposure at default and the past bankruptcy rate and recovery rate, and Shinhan Bank provides allowance for credit losses on loans accordingly. Shinhan Bank makes provisioning at a level which is the higher of the Financial Supervisory Service requirement or Shinhan Bank's internal calculation. Unexpected loss is predicted based on VaR, which is used to determine compliance with the aggregate credit risk limit for Shinhan Bank as well as the credit risk limit for the relevant department within Shinhan Bank. Shinhan Bank uses the AIRB method as proposed by the Basel Committee to compute VaR at the account-specific level as well as to measure risk adjusted performance.

Credit Risk Management of Shinhan Card

Major policies for Shinhan Card's credit risk management are determined by Shinhan Card's Risk Management Council, and Shinhan Card's Risk Management Committee is responsible for approving them. Shinhan Card's Risk Management Council is headed by the Chief Risk Officer, and also comprises of the heads of each business unit, supporting unit and relevant department at Shinhan Card. Shinhan Card's Risk Management Council convenes at least once every month and may also convene on an *ad hoc* basis as needed. Shinhan Card's Risk Management Committee is comprised of three Non-Standing Directors. Shinhan Card's Risk Management Committee convenes at least once every quarter and may also convene on an *ad hoc* basis as needed.

The risk of loss from default by the cardholders or credit card loan borrowers is Shinhan Card's greatest credit risk. Shinhan Card manages its credit risk based on the following principles:

- achieve profit at a level corresponding to the level of risks involved;
- improve asset quality and achieve an optimal mix of asset portfolios; and
- closely monitor borrower's ability to repay the debt.

Credit Card Approval Process

Shinhan Card uses an automated credit scoring system to approve credit card applications or credit card authorizations. The credit scoring system is divided into two sub-systems: the behavior scoring system and the application scoring system. The behavior scoring system is based largely on the credit history of the cardholder or borrower, and the application scoring system is based largely on personal information of the applicant. For credit card applicants with whom we have an existing relationship, Shinhan Card's credit scoring system considers internally gathered information such as the ability to repay, total assets, the length of the existing relationship and the applicant's contribution to Shinhan Card's profitability. The credit scoring system also automatically conducts credit checks on all credit card applicants. Shinhan Card gathers information about the applicant's transaction history with financial institutions, including banks and credit card companies, from a number of third party credit reporting agencies including, among others, National Information & Credit Evaluation Inc. and Korea Credit Bureau. These credit checks reveal a list of the delinquent customers of all credit card issuers in Korea.

If a credit score assigned to an applicant is above the minimum threshold, the application is approved unless overridden based on other considerations such as delinquencies with other credit card companies. For a credit card application by a long-standing customer with a good credit history, Shinhan Card may, on a discretionary basis, approve the application notwithstanding the assigned credit score unless overridden by other considerations. All of these factors also serve as the basis for setting a credit limit for approved applications.

The following describes the process of how Shinhan Card sets credit limits for credit cards, cash advances and card loans:

- *Credit purchase and cash advance limit*s — These limits are set based on the applicant's limit request and Shinhan Card's credit screening criteria. Unless a cardholder requests a reduction in the credit purchase and/or cash advance limit, Shinhan Card is required to provide prior notice to the cardholder for any reduction in such cardholder's limit. However, if the account holder defaults or the cardholder's credit limit is reduced according to the terms of the card agreement, Shinhan Card may lower the credit limit before notifying the account holder.
- *Card loan limit* — This limit is set monthly by Shinhan Card based on the cardholder's credit rating and transaction history. The card loan limit can be adjusted monthly based on the cardholder's credit standing without prior notification.

Monitoring

Shinhan Card continually monitors all cardholders and accounts using a behavior scoring system. The behavior scoring system predicts a cardholder's payment pattern by evaluating the cardholder's credit history, card usage and amounts, payment status and other relevant data. The behavior score is recalculated each month and is used to manage the accounts and approval of additional loans and other products to the cardholder. Shinhan Card also uses the scoring system to monitor its overall risk exposure and to modify its credit risk management strategy.

Loan Application Review and On-going Credit Review

When reviewing new applications and conducting an ongoing credit review for retail loans, installment purchase loans and personal leases, Shinhan Card uses criteria substantially similar to those used in the credit underwriting system and the credit review system for cardholders. For retail loans, installment purchase loans and personal leases to existing cardholders, Shinhan Card reviews their card usage history in addition to other factors such as their income, occupation and assets.

Fraud Loss Prevention

Shinhan Card seeks to minimize losses from the fraudulent use of credit cards issued by it. Shinhan Card focuses on preventing fraudulent uses and, following the occurrence of a fraudulent use, makes investigations in order to make the responsible party bear the losses. Misuses of lost credit cards account for a substantial majority of Shinhan Card's fraud-related losses. Through its fraud loss prevention system, Shinhan Card seeks to detect, on a real-time basis, transactions that are unusual or inconsistent with prior usage history and calls are made to the relevant cardholders to confirm their purchases. A team at Shinhan Card dedicated to investigating fraud losses also examines whether the cardholder was at fault by, for example, not reporting a lost card or failing to endorse the card, or whether the relevant merchant was negligent in checking the identity of the user. Fault may also lie with delivery companies that fail to deliver credit cards to the relevant applicant. In such instances, Shinhan Card attempts to recover fraud losses from the responsible party. To prevent misuse of a card as well as to manage credit risk, Shinhan Card's information technology system will automatically suspend the use of a card (i) when, as a result of ongoing monitoring, fraudulent use or loss of the card is suspected based on the account holder's credit score, or (ii) at the request of the account holder.

Approximately 94% of Shinhan Card's cardholders consent to Shinhan Card's accessing their travel records to detect any misuse of credit cards while they are traveling abroad. Shinhan Card also offers cardholders additional fraud protection through a fee-based texting service. At the cardholder's option, Shinhan Card notifies the cardholder of any credit card activity in his or her account by sending a text message to his or her mobile phone. This notification service allows customers to quickly and easily identify any fraudulent use of their credit cards.

Credit Risk Management of Shinhan Investment

In accordance with the guidelines of the Financial Supervisory Service, Shinhan Investment assesses its credit risks (including through VaR analyses) and allocates the maximum limit for the credit amount at risk by department. Shinhan Investment also assesses the counterparty risks in all credit-related transactions, such as loans, acquisition financings and derivative transactions and takes corresponding risk management measures. In assessing the credit risk of a corporate counterparty, Shinhan Investment considers such counterparty's corporate credit rating obtained from Shinhan Group Corporate Credit Rating System. Through its risk management system, Shinhan Investment also closely monitors credit risk exposures by counterparty, industry, conglomerates, credit ratings and country. Shinhan Investment conducts credit risk stress tests on a daily basis based on probability of default and also conducts more advanced stress tests from time to time, the results of which are then reported to its management as well as the Group Chief Risk Officer to support group-wide credit risk management.

Credit Risk Management of Shinhan Life Insurance

Shinhan Life Insurance also assesses credit risks for all of its credit-related transactions, including provision of loans and acquisitions of financial instruments. Shinhan Life Insurance conducts additional risk reviews for new types of investments and financial instruments, such as those denominated in currencies it previously did not deal with. In assessing the credit risk of corporate customers, Shinhan Life Insurance considers such corporation's credit rating obtained from Shinhan Group Corporate Credit Rating System. Through its risk management system Shinhan Life Insurance conducts credit risk monitoring based on the credit history of debtors. To closely monitor credit risk, Shinhan Life Insurance's loan review department performs periodic loan review of its loan assets and plans on-site inspections where necessary. Furthermore, in the retail business, Shinhan Life Insurance operates its own credit-scoring system to assess credit risk and update customers' behavior scores.

Credit Risk Management of Orange Life Insurance

Orange Life Insurance evaluates and manages risk for all credit-related transactions, including transactions related to deposits, bonds, loans and over-the-counter derivatives. In addition, in order to manage counterparty credit risk, Orange Life Insurance sets limits on credit ratings of counterparties and also sets transaction limits per counterparty in order to prevent risk concentration on any particular counterparty. In addition, different measurement criteria for asset quality are used depending on the creditworthiness of the lender, and asset quality is continuously monitored and managed accordingly. In order to preemptively manage and prevent significant credit risks, Orange Life Insurance establishes loan loss reserves when appropriate based on its assessment of asset quality and recognizes impairment loss on assets that are likely to incur significant loss or become difficult to collect.

Market Risk Management

Market risk is the risk of loss generated by fluctuations in market prices such as interest rates, foreign exchange rates and equity prices. The principal market risks to which we are exposed are interest rate risk and, to a lesser extent, foreign exchange and equity price risk. These risks stem from our trading and non-trading activities relating to financial instruments such as loans, deposits, securities and financial derivatives. We divide market risk into risks arising from trading activities and risks arising from non-trading activities.

Our market risks arise primarily from Shinhan Bank, and to a lesser extent, Shinhan Investment, our securities trading and brokerage subsidiary, which faces market risk relating to its trading activities.

Shinhan Bank's Risk Management Committee establishes overall market risk management principles for both the trading and non-trading activities of Shinhan Bank. Based on these principles, the Risk Policy Committee acts as the executive decision-making body in relation to Shinhan Bank's market risks in terms of setting its risk management policies and risk limits in relation to market risks and assets and controlling market risks arising from trading and non-trading activities of Shinhan Bank. The Risk Policy Committee consists of deputy presidents in charge of Shinhan Bank's seven business groups and Shinhan Bank's Chief Risk Officer and the Chief Financial Officer. At least on a monthly basis, the Risk Policy Committee reviews and approves reports relating to, among others, the position and VaR with respect to Shinhan Bank's trading activities and the position, VaR, duration gap and market value analysis and net interest income simulation with respect to its non-trading activities. In addition, Shinhan Bank's Risk Engineering Department comprehensively manages market risks on an independent basis from Shinhan Bank's operating departments, and functions as the middle office of Shinhan Bank. Shinhan Bank measures market risk with respect to all assets and liabilities in bank accounts and trust accounts in accordance with the regulations promulgated by the Financial Services Commission.

Shinhan Investment manages its market risk based on its overall risk limit established by its risk management committee as well as the risk limits and detailed risk management guidelines for each product and department established by its Risk Management Working Committee. Shinhan Investment's Risk Management Working Committee is the executive decision-making body for managing market risks related to Shinhan Investment, and determines, among other things, Shinhan Investment's overall market risk management policies and strategies, and assesses and approves trading activities and limits. In addition, Shinhan Investment's Risk Management Department manages various market risk limits and monitors operating conditions on an independent basis from Shinhan Investment's operating departments. Shinhan Investment assesses the adequacy of these limits at least annually. In addition, Shinhan Investment assesses the market risks of its trading assets. The assessment procedure is based on the standard procedures set by the Financial Supervisory Service as well as an internally developed model. Shinhan Investment assesses the risk amount and VaR, and manages the risk by setting a risk limit per sector as well as a VaR limit.

Shinhan Life Insurance manages its market risk based on its overall risk limit established by its risk management committee. Shinhan Life Insurance manages market risk in regard to assets that are subject to trading activities and foreign exchange positions. Shinhan Life Insurance assesses the market risk amount and the 10-day VaR, a procedure based on the delta-normal method, and manages market risk by setting a 10-day VaR limit. Shinhan Life Insurance assessed the adequacy of these limits at least annually and implements back tests on market risk determinations by comparing daily profit and loss against one-day VaR in 2017.

Orange Life Insurance manages its foreign exchange risk resulting from the difference in its foreign currency assets and liabilities risk by setting risk limits on the amounts of foreign currency assets and monitoring compliance with such limits on a daily basis, with such monitoring results submitted to the Bank of Korea. Orange Life Insurance does not face significant market risk from trading activities.

Shinhan Card does not have any assets with significant exposure to market risks and therefore does not maintain a risk management policy with respect to market risks.

We use financial information prepared on a separate basis according to IFRS for the market risk management of our subsidiaries and, unless otherwise specified herein, financial information in this annual report presented for quantitative market risk disclosure relating to our subsidiaries have been prepared in accordance with IFRS on a separate basis.

Market Risk Exposure from Trading Activities

Shinhan Bank's trading activities principally consist of:

- trading activities to realize short-term profits from trading in the equity and debt securities markets and the foreign currency exchange markets based on Shinhan Bank's short-term forecast of changes in market situation and customer demand, for its own account as well as for the trust accounts of Shinhan Bank's customers; and
- trading activities primarily to realize profits from arbitrage transactions involving derivatives such as swaps, forwards, futures and options, and, to a lesser extent, to sell derivative products to Shinhan Bank's customers and to cover market risk associated with those trading activities.

Shinhan Investment's trading activities principally consist of trading for customers and for proprietary accounts equity and debt securities and derivatives based on stock prices, stock indexes, interest rates, foreign currency exchange rates and commodity prices.

As a result of these trading activities, Shinhan Bank is exposed principally to interest rate risk, foreign currency exchange rate risk and equity risk, and Shinhan Investment is exposed principally to equity risk and interest rate risk.

Interest Rate Risk

Shinhan Bank's exposure to interest rate risk arises primarily from Won-denominated debt securities, directly held or indirectly held through beneficiary certificates, and, to a lesser extent, from interest rate derivatives. Shinhan Bank's exposure to interest rate risk arising from foreign currency-denominated trading debt securities is minimal since its net position in those securities is not significant. As Shinhan Bank's trading accounts are marked-to-market daily, it manages the interest rate risk related to its trading accounts using VaR, a market value-based tool.

Shinhan Investment's interest rate risk arises primarily from management of its interest rate-sensitive asset portfolio, which mainly consists of debt securities, interest rate swaps and government bond futures, and the level of such risk exposure depends largely on the variance between the interest rate movement assumptions built into the asset portfolio and the actual interest rate movements and the spread between a derivative product and its underlying assets. Shinhan Investment quantifies and manages the interest rate-related exposure by daily conducting VaR and stress tests on a marked-to-market basis.

Foreign Currency Exchange Rate Risk

Shinhan Bank's exposure to foreign currency exchange rate risk mainly relates to its assets and liabilities, including derivatives such as foreign currency forwards and futures and currency swaps, which are denominated in currencies other than the Won. Shinhan Bank manages foreign currency exchange rate risk, including the corresponding risks faced by its overseas branches, on a consolidated basis by covering all of its foreign exchange spot and forward positions in both trading and non-trading accounts.

Shinhan Bank's net foreign currency open position represents the difference between its foreign currency assets and liabilities as offset against forward foreign currency positions, and is Shinhan Bank's principal exposure to foreign currency exchange rate risk. The Risk Policy Committee oversees Shinhan Bank's foreign currency exposure for both trading and non-trading activities by establishing limits for the net foreign currency open position, loss limits and VaR limits. Shinhan Bank centrally monitors and manages its foreign exchange positions through its Financial Engineering Center. Dealers in the Financial Engineering Center manage Shinhan Bank's consolidated position within preset limits through spot trading, forward contracts, currency options, futures and swaps and foreign currency swaps. Shinhan Bank sets a limit for net open positions by currency. The limits for currencies other than the U.S. Dollar, Japanese Yen, Euro and Chinese Yuan are set in a conservative manner in order to minimize trading in such currencies.

Shinhan Investment faces foreign currency exchange rate risk in relation to the following product offerings: currency forwards, currency swaps and currency futures. Shinhan Investment centrally monitors and manages transactions involving such products through its Fixed Income, Currency & Commodities Departments. Shinhan Investment's Risk Management Working Committee, which is delegated with the authority to approve foreign currency-related transactions and limits on the related open positions, manages the related foreign exchange risk by setting nominal limits on the amounts of foreign exchange-related products and monitoring compliance with such limits on a daily basis. As of December 31, 2019, Shinhan Investment's net open position related to foreign currency-related products was US$1,213 million, and its open positions related to the sale of Won-U.S. Dollar forwards and Won-U.S. Dollar futures were US$1,356 million and US$695 million, respectively.

Shinhan Capital manages its foreign exchange risk resulting from the difference in its foreign currency assets and liabilities through derivative transactions such as forwards or swaps and maintains its net exposure at US$12.4 million.

The net open foreign currency positions held by our other subsidiaries are insignificant.

The following table shows Shinhan Bank's net foreign currency open positions as of December 31, 2017, 2018 and 2019. Positive amounts represent long exposures and negative amounts represent short exposures.

Currency	As of December 31, 2017	2018	2019
	(In millions of US$)		
U.S. Dollars	$ 47.3	$ 38.9	$ (147.4)
Japanese Yen	(3.9)	(9.6)	(14.1)
Euro	3.4	0.9	12.1
Others	1,113.9	1,104.1	1,169.2
Total	$1,160.8	$1,134.3	$1,019.9

Equity Risk

Shinhan Bank's equity risk related to trading activities mainly involves trading equity portfolios of Korean companies and Korea Stock Price Index futures and options. The trading equity portfolio consists of stocks listed on the KRX KOSPI Market or the KRX KOSDAQ Market of the Korea Exchange and nearest-month or second nearest-month futures contracts under strict limits on diversification as well as limits on positions. Shinhan Bank maintains strict scrutiny of these activities in light of the volatility in the Korean stock market and closely monitors the loss limits and the observance thereof. Although Shinhan Bank holds a substantially smaller amount of equity securities than debt securities in its trading accounts, the VaR of trading account equity risk is generally higher than that of trading account interest rate risk due to high volatility in the value of equity securities. As of December 31, 2017, 2018 and 2019, Shinhan Bank held ₩219.0 billion, ₩184.2 billion and ₩126.3 billion, respectively, of equity securities in its trading accounts (including the trust accounts).

Shinhan Investment's equity risk related to trading activities also mainly involves the trading of equity portfolio of Korean companies and Korea Stock Price Index futures and options. As of December 31, 2017, 2018 and 2019, the total amount of equity securities at risk held by Shinhan Investment was ₩22.8 billion, ₩31.3 billion and ₩27.8 billion, respectively.

Equity positions held by our other subsidiaries are insignificant.

Management of Market Risk from Trading Activities

The following table presents an overview of market risk, measured by VaR, from trading activities of Shinhan Bank and Shinhan Investment, respectively, as of and for the year ended December 31, 2019. For market risk management purposes, Shinhan Bank includes in the computation of total VaR its trading portfolio in bank accounts and assets in trust accounts, in each case, for which it guarantees principal or fixed return in accordance with the Financial Services Commission regulations.

	Trading Portfolio VaR for the Year 2019			
	Average	Minimum	Maximum	As of December 31, 2019
	(In billions of Won)			
Shinhan Bank:(1)				
Interest rate	₩ 21.2	₩ 12.7	₩ 32.4	₩ 28.3
Foreign exchange(2)	24.7	22.3	29.2	25.9
Equities	18.1	8.2	49.4	15.4
Option volatility(3)	0.2	0.1	0.3	0.2
Commodity	—	—	—	—
Less: portfolio diversification(4)	(16.3)	(11.7)	(29.8)	(21.9)
Total VaR(5)	₩ 47.9	₩ 31.5	₩ 81.6	₩ 48.0
Shinhan Investment:(1)				
Interest rate	₩ 13.7	₩ 5.7	₩ 20.9	₩ 12.0
Equities	31.3	15.5	74.4	25.7
Foreign exchange	4.1	0.4	38.0	4.4
Option volatility(3)	9.9	2.5	31.7	9.9
Less: portfolio diversification(4)	(20.8)	(18.2)	(79.4)	(15.2)
Total VaR	₩ 38.3	₩ 5.8	₩ 85.6	₩ 36.7

Notes:

(1) Shinhan Bank and Shinhan Investment's 10-day VaR is based on a 99.9% confidence level.

(2) Includes both trading and non-trading accounts as Shinhan Bank and Shinhan Investment manage foreign exchange risk on a total position basis.

(3) Volatility implied from the option price using the Black-Scholes or a similar model.

(4) Calculation of portfolio diversification effects is conducted on different days' scenarios for different risk components. Total VaRs are less than the simple sum of the risk component VaRs due to offsets resulting from portfolio diversification.

(5) Includes trading portfolios in Shinhan Bank's bank accounts and assets in trust accounts, in each case, for which it guarantees principal or fixed return.

Shinhan Bank generally manages its market risk from the trading activities of its portfolios on an aggregated basis. To control its trading portfolio market risk, Shinhan Bank uses position limits, VaR limits, stop loss limits, Greek limits and stressed loss limits. In addition, it establishes separate limits for investment securities. Shinhan Bank maintains risk control and management guidelines for derivative trading based on the regulations and guidelines promulgated by the Financial Services Commission, and measures market risk from trading activities to monitor and control the risk of its operating divisions and teams that perform trading activities. Shinhan Bank manages VaR measurements and limits on a daily basis based on automatic interfacing of its trading positions into its market risk measurement system. In addition, Shinhan Bank presets limits on loss, sensitivity, investment and stress for its trading departments and desks and monitors such limits and observance thereof on a daily basis.

Value-at-risk analysis. Shinhan Bank uses 10-day and one-day VaRs to measure its market risk. Shinhan Bank calculates (i) 10-day VaRs on a daily basis based on data for the previous 12 months for the holding periods of 10 days and (ii) one-day VaRs on a daily basis based on data for the previous 12 months for the holding periods of one day. A 10-day VaR and one-day VaR are statistically estimated maximum amounts of loss that can occur for 10 days and one day, respectively, under normal market conditions. If a VaR is measured using a 99% confidence level, the actual amount of loss may exceed the expected VaR, on average, once out of every 100 business days, while if a VaR is measured using a 99.9% confidence level, the actual amount of loss may exceed the expected VaR, on average, once out of 1,000 business days.

Shinhan Bank currently uses the 10-day 99% confidence level-based VaR and stressed VaR for purposes of calculating the regulatory capital used in reporting to the Financial Supervisory Service. Stressed VaR reflects the potential significant loss in the current trading portfolio based on scenarios derived from a crisis simulation during the preceding 12 months. Shinhan Bank also uses the more conservative 10-day 99.9% confidence level-based VaR for purposes of calculating its "economic" capital used for internal management purposes, which is a concept used in determining the amount of Shinhan Bank's requisite capital in light of the market risk. In addition, Shinhan Bank uses the one-day 99% confidence level-based VaR on a supplemental basis for purposes of setting and managing risk limits specific to each desk or team in its operating units as well as for back-testing purposes. For Shinhan Bank, the amount of losses (either actual or virtual) exceeded the one-day 99% confidence level-based VaR amount three times in 2017, zero times in 2018 and five times in 2019. The increased frequency of instances in which the amount of losses exceeded the VaR amount in 2019 was primarily because the foreign currency exchange market experienced unusually high volatility. The VaR exceptions referred to above were all due to the amount of virtual losses exceeding the VaR amount. Virtual losses represent the potential changes in the value of a portfolio when simulating the same portfolio with market variables of the next trading day.

Shinhan Investment currently uses the same 10-day 99.9% confidence level-based historical VaR for purposes of calculating its "economic" capital used for internal management purposes, although such model is not subject to regulatory review or reporting requirements. In addition, Shinhan Investment applies this VaR as a risk limit for the entire company as well as individual departments and products, and the adequacy of such VaR is reviewed by way of daily back-testing. When computing VaR, Shinhan Investment does not assume any particular probability distribution and calculates it through a simulation of the "full valuation" method based on changes of market variables such as stock prices, interest rates and foreign exchange rates in the past one year. For Shinhan Investment, the amount of losses (either actual or virtual) exceeded the one-day 99% confidence level-based VaR amount two times in 2017, and there were no such instances in 2018 and 2019. The VaR exceptions referred to above were all due to the amount of virtual losses exceeding the VaR amount.

Value-at-risk is a commonly used market risk management technique. However, VaR models have the following shortcomings:

- VaR estimates possible losses over a certain period at a particular confidence level using past market movement data. Past market movement, however, is not necessarily a reliable indicator of future events, particularly those that are extreme in nature;
- VaR may underestimate the probability of extreme market movements;
- Shinhan Bank's VaR models assume that a holding period of generally one to 10 days is sufficient prior to liquidating the underlying positions, but such assumption regarding the length of the holding period may actually prove to be inadequate;

- The 99.9% confidence level does not take into account or provide indication of any losses that might occur beyond this confidence level; and
- VaR does not capture all complex effects of various risk factors on the value of positions and portfolios and could underestimate potential losses.

Currently, Shinhan Bank and Shinhan Investment conduct back-testing of VaR results against actual outcomes on a daily basis.

Shinhan Bank operates an integrated market risk management system which manages Shinhan Bank's Won-denominated and foreign-denominated accounts. This system uses historical simulation to measure both linear risks arising from products such as equity and debt securities and nonlinear risks arising from other products including options. We believe that this system enables Shinhan Bank to generate elaborate and consistent VaR information and to perform sensitivity analysis and back testing in order to check the validity of the models on a daily basis. Shinhan Life Insurance also measures market risks based on a VaR analysis.

Stress test. In addition to VaR, Shinhan Bank performs stress tests to measure market risk. As VaR assumes normal market situations, Shinhan Bank assesses its market risk exposure to unlikely abnormal market fluctuations through the stress test. Stress test is a valuable supplement to VaR since VaR does not cover potential loss if the market moves in a manner which is outside Shinhan Bank's normal expectations. Stress test projects the anticipated change in value of holding positions under certain scenarios assuming that no action is taken during a stress event to change the risk profile of a portfolio.

Shinhan Bank uses seven relatively simple but fundamental scenarios for stress test by taking into account four market risk components: foreign currency exchange rates, stock prices, and Won-denominated interest rates and foreign currency-denominated interest rates. For the worst case scenario, Shinhan Bank assumes instantaneous and simultaneous movements in four market risk components: appreciation of Won by 20%, a decrease in Korea Exchange Composite Index by 30% and increases in Won-denominated and U.S. Dollar-denominated interest rates by 200 basis points each, respectively. Under this worst-case scenario, the market value of Shinhan Bank's trading portfolio would have declined by ₩456 billion as of December 31, 2019. Shinhan Bank performs stress test on a daily basis and reports the results to its Risk Policy Committee on a monthly basis and its Risk Management Committee on a quarterly basis.

Shinhan Investment uses nine scenarios for stress tests by taking into account four market risk components: stock prices (both in terms of stock market indices and ß-based individual stock prices), interest rates for Won-denominated loans, foreign currency exchange rates and historical volatility. As of December 31, 2019, under the worst case scenario assuming a 1% point increase in the three-year government bond yield, the market value of Shinhan Investment's trading portfolio would have fluctuated by ₩74.2 billion for one day.

Shinhan Bank sets limits on stress testing for its overall operations. Shinhan Investment sets limits on stress testing for its overall operations as well as at its department level. Although Shinhan Life Insurance does not set any limits on stress testing, it monitors the impact of market turmoil or other abnormalities. In the case of Shinhan Bank, Shinhan Investment and Shinhan Life Insurance, if the potential impact is large, their respective head of Risk Management will notify such impact and may request a portfolio restructuring or other proper action.

Hedging and Derivative Market Risk

The principal objective of our group-wide hedging strategy is to manage market risk within established limits. We use derivative instruments to hedge our market risk as well as to make profits by trading derivative products within preset risk limits. Our derivative trading includes interest rate and cross-currency swaps, foreign currency forwards and futures, stock index and interest rate futures, and stock index and currency options.

While we use derivatives for hedging purposes, derivative transactions by nature involve market risk since we take trading positions for the purpose of making profits. These activities consist primarily of the following:

- arbitrage transactions to make profits from short-term discrepancies between the spot and derivative markets or within the derivative markets;
- sales of tailor-made derivative products that meet various needs of our corporate customers, principally of Shinhan Bank and Shinhan Investment, and related transactions to reduce their exposure resulting from those sales;
- taking positions in limited cases when we expect short-swing profits based on our market forecasts; and
- trading to hedge our interest rate and foreign currency risk exposure as described above.

In accordance with accounting requirements under IFRS 9, "Financial instruments", which has replaced IAS 39, "*Financial Instruments: Recognition and Measurement*" since January 1, 2018, we have implemented internal processes which include a number of key controls designed to ensure that fair value is measured appropriately, particularly where a fair value model is internally developed and used to price a significant product.

Shinhan Bank assesses the adequacy of the fair market value of a new product derived from its internal model prior to the launch of such product. The assessment process involves the following:

- computation of an internal dealing system market value (based on assessment by the quantitative analysis team of the adequacy of the formula and the model used to compute the market value as derived from the dealing system);
- computation of the market value as obtained from an outside credit evaluation company; and
- following comparison of the market value derived from an internal dealing system to that obtained from outside credit evaluation companies, determination as to whether to use the internally developed market value based on inter-departmental consensus.

The dealing system market value, which is used officially by Shinhan Bank after undergoing the assessment process above, does not undergo a sampling process that confirms the value based on review of individual transactions, but is subject to an additional assessment procedure of comparing such value against the profits derived from the dealing systems based on the deal portfolio sensitivity.

Shinhan Investment follows an internal policy as set by its Fair Value Evaluation Committee for computing and assessing the adequacy of fair value of all of its over-the-counter derivative products. Shinhan Investment computes the fair value based on an internal model and internal risk management systems and assesses the adequacy of the fair value through cross-departmental checks as well as comparison against fair values obtained from outside credit evaluation companies.

See "Item 5.A. Operating Results — Critical Accounting Policies" and Note 3 of the notes to our consolidated financial statements included in this annual report.

Market risk from derivatives is not significant since derivative trading activities of Shinhan Bank and Shinhan Investment are primarily driven by arbitrage and customer deals with highly limited open trading positions. Market risk from derivatives is also not significant for Shinhan Life Insurance as its derivative trading activities are limited to those within preset risk limits and are subject to heavy regulations imposed on the insurance industry. Market risk from derivatives is not significant for our other subsidiaries since the amount of such positions by our other subsidiaries is insignificant.

Market Risk Management for Non-trading Activities

Interest Rate Risk

Interest rate risk represents Shinhan Bank's principal market risk from non-trading activities. Interest rate risk is the risk of loss resulting from interest rate fluctuations that adversely affect the financial condition and results of operations of Shinhan Bank. Shinhan Bank's interest rate risk primarily relates to the differences between the timing of rate changes for interest-earning assets and that for interest-bearing liabilities.

Interest rate risk affects Shinhan Bank's earnings and the economic value of Shinhan Bank's net assets as follows:

- *Earnings:* interest rate fluctuations have an effect on Shinhan Bank's net interest income by affecting its interest-sensitive operating income and expenses.
- *Economic value of net assets:* interest rate fluctuations influence Shinhan Bank's net worth by affecting the present value of cash flows from the assets, liabilities and other transactions of Shinhan Bank.

Accordingly, Shinhan Bank measures and manages interest rate risk for non-trading activities by taking into account the effects of interest rate changes on both its income and net asset value. Shinhan Bank measures and manages interest rate risk on a daily and monthly basis with respect to all interest-earning assets and interest-bearing liabilities in Shinhan Bank's bank accounts (including derivatives denominated in Won which are principally interest rate swaps entered into for the purpose of hedging) and in trust accounts, except that Shinhan Bank measures VaRs on a monthly basis. Most of Shinhan Bank's interest-earning assets and interest-bearing liabilities are denominated in Won.

Interest Rate Risk Management

The principal objectives of Shinhan Bank's interest rate risk management are to generate stable net interest income and to protect Shinhan Bank's net asset value against interest rate fluctuations. Through its asset and liability management system, Shinhan Bank monitors and manages its interest rate risk based on various analytical measures such as interest rate gap, duration gap and net present value and net interest income simulations, and monitors on a monthly basis its interest rate VaR limits, interest rate earnings at risk ("EaR") limits and interest rate gap ratio limits. Shinhan Bank measures its interest rate VaR and interest rate EaR based on interest rate risk in the banking book standardized approach presented by the Bank for International Settlements (the "IRRBB standardized approach"). IRRBB, which is part of the Basel capital framework's Pillar 2 and subject to the Committee's guidance set out in the 2004 revised principles for the management and supervision of interest rate risk, refers to current or prospective risk to a bank's capital and earnings arising from adverse movements in interest rates that affect the bank's banking book position. Interest rate risk is managed by reflecting possible future interest rate environments and customer behavior based on the IRRBB standardized approach. Interest rate VaR is measured by the change in economic value of equity under six types of scenarios (parallel up, parallel down, stiffener, flattener, short-term interest rate-up and short-term interest rate-down). Interest rate EaR is measured by the largest loss amount based on two types of scenarios (parallel up and parallel down). The Risk Policy Committee sets the interest rate risk limits for Shinhan Bank's Won-denominated and foreign currency-denominated non-trading accounts and trust accounts, and the Risk Management Committee sets Shinhan Bank's overall interest rate risk limit, in both cases, at least annually. The Risk Management Department monitors Shinhan Bank's compliance with these limits and reports the monitoring results to the Risk Policy Committee on a monthly basis and the Risk Management Committee on a quarterly basis. Shinhan Bank uses interest rate swaps to control its interest rate exposure limits.

Interest rate VaR represents the maximum anticipated loss in a net present value calculation (computed as the present value of interest-earning assets minus the present value of interest-bearing liabilities), whereas interest rate EaR represents the maximum anticipated loss in a net earnings calculation (computed as interest income minus interest expenses) for the immediately following one-year period, in each case, as a result of negative movements in interest rates. Therefore, interest rate VaR is a more expansive concept than interest rate EaR in that the former covers all interest-earning assets and all interest-bearing liabilities, whereas the latter covers only those interest-earning assets and interest-bearing liabilities that are exposed to interest rate volatility for a one-year period.

Hence, for interest rate VaRs, the duration gap (namely, the weighted average duration of all interest-earning assets minus the weighted average duration of all interest-bearing liabilities) can be a more critical factor than the relative sizes of the relevant assets and liabilities in influencing interest rate VaRs. In comparison, for interest rate EaRs, the relative sizes of the relevant assets and liabilities in the form of the "one year or less interest rate" gap (namely, the volume of interest-earning assets with maturities of less than one year minus the volume of interest-bearing liabilities with maturities of less than one year) are the most critical factor in influencing the interest rate EaRs.

On a monthly basis, we monitor whether the non-trading positions for interest rate VaR and EaR exceed their respective limits as described above.

Interest rate VaR cannot be meaningfully compared to the 10-day 99% confidence level based VaR ("market risk VaR") for managing trading risk principally because (i) the underlying assets are different (namely, non-trading interest-bearing assets as well as liabilities in the case of the interest rate VaR, compared to trading assets only in the case of the market risk VaR), and (ii) interest rate VaR is sensitive to interest rate movements only while the market risk VaR is sensitive to interest rate movements as well as other factors such as foreign currency exchange rates, stock market prices and option volatility.

Even if comparison were to be made between the interest rate VaR and the interest rate portion only of the market risk VaR, we do not believe such comparison would be meaningful since the interest rate VaR examines the impact of interest rate movements on both assets and liabilities (which will likely have offsetting effects), whereas the interest rate portion of the market VaR examines the impact of interest rate movements on assets only.

Shinhan Bank uses various analytical methodologies to measure and manage its interest rate risk for non-trading activities on a daily and monthly basis, including the following analyses:

- Interest rate gap analysis;
- Duration gap analysis;
- Market value analysis; and
- Net interest income simulation analysis.

Interest Rate Gap Analysis

Shinhan Bank performs an interest gap analysis to measure the difference between the amount of interest-earning assets and that of interest-bearing liabilities at each maturity and re-pricing date for specific time intervals by preparing interest rate gap tables in which Shinhan Bank's interest-earning assets and interest-bearing liabilities are allocated to the applicable time intervals based on the expected cash flows and re-pricing dates.

On a daily basis, Shinhan Bank performs interest rate gap analysis for Won- and foreign currency-denominated assets and liabilities in its bank and trust accounts. Shinhan Bank's gap analysis includes Won-denominated derivatives (which are interest rate swaps for the purpose of hedging) and foreign currency-denominated derivatives (which are currency swaps for the purpose of hedging), which are managed centrally at the Financial Engineering Center. Through the interest rate gap analysis that measures interest rate sensitivity gaps, cumulative gaps and gap ratios, Shinhan Bank assesses its exposure to future interest risk fluctuations. For interest rate gap analysis, Shinhan Bank assumes and uses the following maturities for different types of assets and liabilities:

- With respect to the maturities and re-pricing dates of Shinhan Bank's assets, Shinhan Bank assumes that the maturity of Shinhan Bank's prime rate-linked loans is the same as that of its fixed-rate loans. Shinhan Bank excludes equity securities from interest-earning assets.
- With respect to the maturities and re-pricing of Shinhan Bank's liabilities, Shinhan Bank assumes that money market deposit accounts and "non-core" demand deposits under the Financial Services Commission guidelines have a maturity of one month or less for both Won-denominated accounts and foreign currency-denominated accounts.
- With respect to "core" demand deposits under the Financial Services Commission guidelines, Shinhan Bank assumes that they have maturities of eight different intervals ranging from one month to five years.

The following tables show Shinhan Bank's interest rate gaps as of December 31, 2019 for (i) Won-denominated non-trading bank accounts, including derivatives entered into for the purpose of hedging and (ii) foreign currency-denominated non-trading bank accounts, including derivatives entered into for the purpose of hedging.

Won-denominated non-trading bank accounts[(1)]

	As of December 31, 2019						
	0-3 Months	3-6 Months	6-12 Months	1-2 Years	2-3 Years	Over 3 Years	Total
	(In billions of Won, except percentages)						
Interest-earning assets	₩116,560	₩65,908	₩ 31,876	₩ 25,495	₩ 21,555	₩ 26,393	₩287,787
Fixed rates	17,538	21,954	20,154	18,374	16,896	15,804	110,720
Floating rates	97,781	43,184	10,492	7,091	4,659	10,269	3,590
Interest rate swaps	1,240	770	1,230	30	0	320	3,590
Interest-bearing liabilities	₩115,835	₩46,948	₩ 71,826	₩ 22,563	₩ 19,071	₩ 25,648	₩301,891
Fixed liabilities	53,716	34,065	58,507	11,605	8,029	2,914	168,836
Floating liabilities	58,529	12,883	13,320	10,957	11,043	22,734	129,466
Interest rate swaps	3,590	0	0	0	0	0	3,590
Sensitivity gap	724	18,960	(39,950)	2,932	2,484	745	(14,104)
Cumulative gap	724	19,684	(20,266)	(17,334)	(14,849)	(14,104)	(14,104)
% of total assets	0.25%	6.84%	(7.04)%	(6.02)%	(5.16)%	(4.9)%	(4.9)%

Foreign currency-denominated non-trading bank accounts[(1)]

	As of December 31, 2019					
	0-3 Months	3-6 Months	6-12 Months	1-3 Years	Over 3 Years	Total
	(In millions of US$, except percentages)					
Interest-earning assets	$24,379	$8,246	$ 3,055	$ 3,809	$ 5,213	$44,702
Interest-bearing liabilities	24,116	5,626	5,071	7,576	6,605	48,994
Sensitivity gap	263	2,619	(2,016)	(3,767)	(1,392)	(4,292)
Cumulative gap	263	2,883	867	(2,901)	(4,292)	(4,292)
% of total assets	0.59%	6.45%	1.94%	(6.49)%	(9.60)%	(9.60)%

Note:

(1) Includes merchant banking accounts.

Duration Gap Analysis

Shinhan Bank performs a duration gap analysis to measure the differential effects of interest rate risk on the market value of its assets and liabilities by examining the difference between the durations of Shinhan Bank's interest-earning assets and those of its interest-bearing liabilities, which durations represent their respective weighted average maturities calculated based on their respective discounted cash flows using applicable yield curves. These measurements are done on a daily basis and for each operating department, account, product and currency, the respective durations of interest-earning assets and interest-bearing liabilities.

The following tables show duration gaps and market values of Shinhan Bank's Won-denominated interest-earning assets and interest-bearing liabilities in its non-trading accounts as of December 31, 2019 and changes in these market values when interest rate increases by one percentage point.

Duration as of December 31, 2019 (for non-trading Won-denominated bank accounts[1])

	Duration as of December 31, 2019
	(In months)
Interest-earning assets	11.92
Interest-bearing liabilities	10.93
Gap	0.99

Note:

(1) Includes merchant banking accounts and derivatives for the purpose of hedging.

Market Value Analysis

Shinhan Bank performs a market value analysis to measure changes in the market value of Shinhan Bank's interest-earning assets compared to that of its interest-bearing liabilities based on the assumption of parallel shifts in interest rates. These measurements are done on a monthly basis.

Market Value as of December 31, 2019 (for non-trading Won-denominated bank accounts[1])

	Market Value as of December 31, 2019		
	Actual	1% Point Increase	Changes
	(In billions of Won)		
Interest-earning assets	₩315,803	₩312,879	₩(2,924)
Interest-bearing liabilities	308,499	305,830	(2,670)
Gap	7,304	7,049	(255)

Note:

(1) Includes merchant banking accounts and derivatives for the purpose of hedging.

Net Interest Income Simulation

Shinhan Bank performs net interest income simulation to measure the effects of the change in interest rate on its results of operations. Such simulation uses the deterministic analysis methodology to measure the estimated changes in Shinhan Bank's annual net interest income (interest income less interest expenses) under the current maturity structure, using different scenarios for interest rates (assuming parallel shifts) and funding requirements. For simulations involving interest rate changes, based on the assumption that there is no change in funding requirements, Shinhan Bank applies three scenarios of parallel shifts in interest rate: (1) no change, (2) a 1% point increase in interest rates and (3) a 1% point decrease in interest rates.

The following table illustrates by way of an example the simulated changes in Shinhan Bank's annual net interest income for 2019 with respect to Won-denominated interest-earning assets and interest-bearing liabilities, using Shinhan Bank's net interest income simulation model, assuming (a) the maturity structure and funding requirement of Shinhan Bank as of December 31, 2019 and (b) the same interest rates as of December 31, 2019 and a 1% point increase or decrease in the interest rates.

Simulated Net Interest Income for 2019 (For Non-Trading Won-Denominated Bank Accounts[1])

	Assumed Interest Rates			Change in Net Interest Income		Change in Net Interest Income	
	No Change	1% Point Increase	1% Point Decrease	Amount (1% Point Increase)	% Change (1% Point Increase)	Amount (1% Point Decrease)	% Change (1% Point Decrease)
	(In billions of Won, except percentages)						
Simulated interest income	₩8,738	₩10,298	₩7,178	₩1,560	17.86%	₩(1,560)	(17.86)%
Simulated interest expense	3,980	5,108	2,851	1,129	28.37%	(1,129)	(28.37)%
Net interest income	4,758	5,190	4,327	432	9.07%	(432)	(9.07)%

Note:

(1) Includes merchant banking accounts and derivatives entered into for the purpose of hedging.

Shinhan Bank's Won-denominated interest-earning assets and interest-bearing liabilities in non-trading accounts have a maturity structure that benefits from an increase in interest rates, because the re-pricing periods for interest-earning assets in Shinhan Bank's non-trading accounts are, on average, shorter than those of the interest-bearing liabilities in these accounts. This is primarily due to a sustained low interest rate environment in the recent years in Korea, which resulted in a significant increase in demand for floating rate loans (which tend to have shorter maturities or re-pricing periods than fixed rate loans) as a portion of Shinhan Bank's overall loans, which in turn led to the shortening, on average, of the maturities or re-pricing periods of Shinhan Bank's loans on an aggregate basis. As a result, Shinhan Bank's net interest income tends to decrease during times of a decrease in the market interest rates while the opposite is generally true during times of an increase in the market interest rates.

Interest Rate VaRs for Non-trading Assets and Liabilities

Shinhan Bank measures VaRs for interest rate risk from non-trading activities on a monthly basis. The following table shows, as of and for the year ended December 31, 2019, the VaRs of interest rate mismatch risk for other assets and liabilities, which arises from mismatches between the re-pricing dates for Shinhan Bank's non-trading interest-earning assets (including available-for-sale investment securities) and those for its interest-bearing liabilities. Under the regulations of the Financial Services Commission, Shinhan Bank includes in calculation of these VaRs interest-earning assets and interest-bearing liabilities in its bank accounts and its merchant banking accounts.

	VaR for the Year 2019[1]			
	Average	Minimum	Maximum	As of December 31
	(In billions of Won)			
Interest rate mismatch — non-trading assets and liabilities	₩322	₩145	₩610	₩321

Note:

(1) One-year VaR results computed based on the interest rate risk in the banking book standardized approach presented by the Bank for International Settlements. See "— Interest Rate Risk Management."

Interest Rate Risk for Other Subsidiaries

Shinhan Card monitors and manages its interest rate risk for all its interest-bearing assets and liabilities (including off-balance sheet items) in terms of the impact on its earnings and net asset value from changes in interest rates. Shinhan Card primarily uses interest rate VaR and EaR analyses to measure its interest rate risk.

The interest rate VaR analysis used by Shinhan Card principally focuses on the maximum impact on its net asset value from adverse movements in interest rates and consists of (i) historical interest rate VaR analysis and (ii) interest rate gap analysis. The historical interest rate VaR analysis is made through simulation of net asset value based on the interest rate volatility over a fixed past period to produce expected future interest rate scenarios and computes the maximum value at risk at a 99.9% confidence level by analyzing the net present value distribution under each such scenario. As for interest rate gap analysis, Shinhan Card computes the value at risk based on the duration proxies and interest rate shocks for each time interval as recommended under the Basel Accord.

The interest rate EaR analysis used by Shinhan Card computes the maximum loss in net interest income for a one-year period following adverse movements in interest rates, based on an interest rate gap analysis using the time intervals and the "middle of time band" as recommended under the Basel Accord.

Shinhan Investment uses historical interest rate VaR analysis based on its internal model to monitor and manage its interest rate risk. The historical interest rate VaR analysis is made through simulation of net asset value based on the interest rate volatility over the past three years to compute the maximum value at risk at a 99.9% confidence level. Shinhan Investment also measures its level of IRRBB exposure.

Shinhan Life Insurance monitors and manages its interest rate risk for its investment assets and liabilities based on simulations of its asset-liability management system. These simulations typically involve subjecting Shinhan Life Insurance's current and future assets and liabilities to more than 2,000 market scenarios based on varying assumptions, such as new debt purchases and current investment portfolios, so as to derive its net asset value forecast for the next one year at a 99.9% confidence level.

Orange Life Insurance monitors and manages its interest rate risk based on net asset value and net interest income using a stochastic cash flow model. In addition, Orange Life Insurance also has a strategic asset allocation system reflecting the interest rates of insurance liabilities and maturities of its assets and liabilities, upon which its asset management guidelines are based.

Interest rate risk for our other subsidiaries is insignificant.

Equity Risk

Substantially all of Shinhan Bank's equity risk relates to its portfolio of common stock in Korean companies. As of December 31, 2019, Shinhan Bank held an aggregate amount of ₩230.5 billion of equity interest in unlisted foreign companies (including ₩221.0 billion invested in unlisted private equity funds).

The equity securities in Won held in Shinhan Bank's investment portfolio consist of stocks listed on the KRX KOSPI Market or the KRX KOSDAQ Market of the Korea Exchange and certain non-listed stocks. Shinhan Bank sets exposure limits for most of these equity securities to manage their related risk. As of December 31, 2019, Shinhan Bank held equity securities in an aggregate amount of ₩723.4 billion in its non-trading accounts, including equity securities in the amount of ₩187.9 billion that it held, among other reasons, for management control purposes and as a result of debt-to-equity conversion as a part of reorganization proceedings of the companies to which it had extended loans.

As of December 31, 2019, Shinhan Bank held Won-denominated convertible bonds in an aggregate amount of ₩182.5 billion and did not hold any Won-denominated exchangeable bonds or Won-denominated bonds with warrants, in each case, in its non-trading accounts. Shinhan Bank does not measure equity risk with respect to convertible bonds, exchangeable bonds or bonds with warrants, and the interest rate risk of these equity-linked securities are measured together with the other debt securities. As such, Shinhan Bank measures interest rate risk VaRs but not equity risk VaRs for these equity-linked securities.

Liquidity Risk Management

Liquidity risk is the risk of insolvency, default or loss due to disparity between inflow and outflow of funds, including the risk of having to obtain funds at a high price or to dispose of securities at an unfavorable price due to lack of available funds. Each of our subsidiaries seeks to minimize liquidity risk through early detection of risk factors related to the sourcing and managing of funds that may cause volatility in liquidity and by ensuring that it maintains an appropriate level of liquidity through systematic management. At the group-wide level, we manage our liquidity risk by conducting monthly stress tests that compare liquidity requirements under normal situations against those under three types of stress situations, namely, our group-specific internal crisis, crisis in the external market and a combination of internal and external crisis. In addition, in order to preemptively and comprehensively manage liquidity risk, we measure and monitor liquidity risk management using various indices, including the “limit management index,” “early warning index” and “monitoring index.”

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

- raise funds in sufficient amounts, at the optimal time at reasonable costs;
- maintain liquidity risk at appropriate levels and preemptively manage them through a prescribed risk limit system and an early warning signal detection system;
- secure stable sources of revenue and minimize actual losses by implementing an effective asset-liability management based on diversified sources of funding with varying maturities;
- monitor and manage daily and intra-daily liquidity positions and risk exposures for timely payment and settlement of financial obligations due under both normal and crisis situations;
- conduct periodic liquidity stress test in anticipation of any potential liquidity crisis and establish and implement contingency funding plans in case of an actual crisis; and
- consider liquidity-related costs, benefits of and risks in determining the pricing of our products and services, performance evaluations and approval of launching of new products and services.

Each of our subsidiaries manages liquidity risk in accordance with the risk limits and guidelines established internally and by the relevant regulatory authorities. Pursuant to principal regulations applicable to financial holding companies and banks as promulgated by the Financial Services Commission, we, at the holding company level, are required to maintain a liquidity coverage ratio and a foreign currency liquidity coverage ratio. These ratios require us to maintain the relevant ratios above certain minimum levels.

Shinhan Bank manages its liquidity risk within the limits set on Won and foreign currency accounts in accordance with the regulations of the Financial Services Commission. The Financial Services Commission implemented a minimum liquidity coverage ratio requirement for Korean banks, including Shinhan Bank, of at least 90.0% as of January 1, 2017, 95.0% as of January 1, 2018 and 100.0% starting January 1, 2019. The Financial Services Commission defines liquidity coverage ratio as high quality liquid assets that can be immediately converted into cash with little or no loss in value, as divided by the net amount of cash outflow for the next 30 day period, under the stress level established according to the liquidity coverage ratio, pursuant to the Regulation on the Supervision of the Banking Business, which was amended as of June 28, 2016 to implement the liquidity coverage ratio requirements under Basel III. In addition to the liquidity coverage ratio, the Financial Supervisory Commission introduced the net stable funding ratio into the Regulation on the Supervision of the Banking Business that came in effect in January 2018. Whereas liquidity coverage ratio is aimed at measuring liquidity for the next 30-day period, net stable funding ratio, calculated as the ratio of available stable funding to required stable funding, is aimed at measuring liquidity for the next one-year period. A bank's available stable funding is the portion of its capital and liabilities that are safely expected to remain with the bank for more than one year. A bank's required stable funding is the amount of stable funding that it is required to hold given the liquidity characteristics and residual maturities of its assets and the contingent liquidity risk arising from its off-balance sheet exposures. Shinhan Bank is required by the Financial Services Commission to maintain a net stable funding ratio of at least 100%.

With respect to foreign currency liquidity coverage ratio, the Regulation on the Supervision of the Banking Business requires that financial institutions dealing with foreign exchange affairs (i.e., banks) whose foreign-currency denominated liabilities are equal to or greater than US$500 million or 5% of its total liabilities, as of the end of the immediately preceding half-year period, maintain a foreign currency liquidity coverage ratio of 60% or higher beginning January 1, 2017, 70% or higher beginning January 1, 2018 and 80% or higher beginning January 1, 2019. The term "foreign currency liquidity coverage ratio" means the ratio of high-liquidity assets to the net cash outflow in respect of foreign-currency denominated assets and liabilities for the next 30 days. In the case of financial institutions dealing with foreign exchange affairs whose foreign-currency denominated liabilities are less than US$500 million and less than 5% of its total liabilities, as of the end of the immediately preceding half-year period, the following ratios shall be maintained and foreign-currency denominated assets and liabilities shall be categorized and managed according to such different remaining maturities: (i) the ratio of assets for which remaining maturities are less than three months to liabilities for which remaining maturities are less than three months shall be at least 85%, and (ii) the assets for which remaining maturities are less than one month shall not exceeded liabilities for which the remaining maturities are less than one month by more than 10%.

Shinhan Bank's Treasury Department is in charge of liquidity risk management with respect to Shinhan Bank's Won and foreign currency funds. The Treasury Department submits Shinhan Bank's monthly funding and asset management plans to Shinhan Bank's Asset and Liability Committee for approval, based on the analysis of various factors, including macroeconomic indices, interest rate and foreign exchange movements and maturity structures of Shinhan Bank's assets and liabilities. Shinhan Bank's Risk Engineering Department measures Shinhan Bank's liquidity coverage ratio on a daily basis and net stable funding ratio on a monthly basis and reports whether they are in compliance with the respective limits to Shinhan Bank's Risk Policy Committee, which sets and monitors Shinhan Bank's liquidity coverage ratio and net stable funding ratio on a monthly basis.

The following tables show Shinhan Bank's (i) average liquidity coverage ratio, (ii) average foreign currency liquidity coverage ratio, and (iii) net stable funding ratio, each for the month of December 2019 in accordance with the regulations of the Financial Services Commission.

Shinhan Bank's Average Liquidity Coverage Ratio for the Month of December 2019

	For the Month of December 2019
	(in billions of Won, except percentages)
High quality liquid assets (A)	₩64,608
Net cash outflows over the next 30 days (B)	60,895
Cash outflow	82,245
Cash inflow	21,350
Liquidity coverage ratio (A/B)	106.10%

Shinhan Bank's Average Foreign Currency Liquidity Coverage Ratio for the Month of December 2019

	For the Month of December 2019
	(in millions of US$, except percentages)
High quality liquid assets (A)	₩ 5,720
Net cash outflows over the next 30 days (B)	5,364
Cash outflow	13,240
Cash inflow	7,876
Liquidity coverage ratio (A/B)	106.65%

Shinhan Bank's Net Stable Funding Ratio for the Month of December 2019

	For the Month of December 2019
	(in billions of Won, except percentages)
Available stable funding (A)	₩238,234
Required stable funding (B)	216,219
Net stable funding ratio (A/B)	110.18%

Shinhan Bank maintains diverse sources of liquidity to facilitate flexibility in meeting its funding requirements. Shinhan Bank funds its operations principally by accepting deposits from retail and corporate depositors, accessing the call loan market (a short-term market for loans with maturities of less than one month), issuing debentures and borrowing from the Bank of Korea. Shinhan Bank uses the funds primarily to extend loans or purchase securities. Generally, deposits are of shorter average maturity than loans or investments.

Shinhan Card manages its liquidity risk according to the following principles: (i) provide a sufficient volume of necessary funding in a timely manner at a reasonable cost, (ii) establish an overall liquidity risk management strategy, including in respect of liquidity management targets, policy and internal control systems, and (iii) manage its liquidity risk in conjunction with other risks based on a comprehensive understanding of the interaction among the various risks. As for any potential liquidity shortage at or near the end of each month, Shinhan Card maintains liquidity at a level sufficient to withstand credit shortage for three months.

In addition, Shinhan Card manages liquidity risk by setting and complying with specific guidelines for various measures of liquidity, including the breakdown of contractual payment obligations by maturity, overseas funding, the ratio of asset-backed securitized borrowings to the total borrowing, the ratio of requisite liquidity to reserve liquidity, and the ratio of fixed interest rate borrowings to floating interest rate borrowings. Furthermore, Shinhan Card closely monitors various indicators of a potential liquidity crisis, such as the actual liquidity gap ratio (in relation to the different maturities for assets as compared to liabilities), the liquidity buffer ratio. Shinhan Card also has contingency plans in place in case of any emergency or crisis. In managing its liquidity risk, Shinhan Card focuses on a prompt response system based on periodic monitoring of the relevant early signals, stress testing and contingency plan formulations. Shinhan Card identifies its funding needs on a daily, monthly, quarterly and annual basis based on the maturity schedule of its liabilities as well as short-term liquidity needs, based upon which it formulates its funding plans using diverse sources such as corporate debentures, commercial papers, asset-backed securitizations and credit line facilities. When entering into asset-backed securitizations, Shinhan Card provides sufficient credit enhancements to avoid triggering early amortization events. In addition, prior to entering into any funding transaction and related derivative transaction, Shinhan Card conducts pre-transaction risk analyses, including in respect of counterparty credit risk and its total exposure limit by country and by financial institution.

Shinhan Card also manages its liquidity risk within the limits set on Won accounts in accordance with the regulations of the Financial Services Commission. Under the Specialized Credit Financial Business Act and the regulations thereunder, credit card companies in Korea are required to maintain a Won liquidity ratio of at least 100.0%.

The following tables show Shinhan Card's liquidity status and limits for Won-denominated accounts as of December 31, 2019 in accordance with the regulations of the Financial Services Commission.

Shinhan Card's Won-denominated accounts

	As of December 31, 2019						
Won-Denominated Accounts	**7 Days or Less**	**1 Month or Less**	**3 Months or Less**	**6 Months or Less**	**1 Year or Less**	**Over 1 Year**	**Total**
			(In billions of Won, except percentages)				
Assets	₩2,757	₩12,208	₩17,922	₩21,604	₩25,501	₩ 7,746	₩33,247
Liabilities	892	3,951	4,465	4,846	5,142	20,531	25,673
Liquidity ratio			401.4%				

Shinhan Investment manages its liquidity risk for its Won-denominated accounts by setting a limit of ₩300 billion on each of its seven-day and one-month liquidity gap, a limit of 110% on its one-month and three-months liquidity ratios and a limit of ₩9 billion on its liquidity VaR. As for its foreign currency-denominated accounts, Shinhan Investment manages the liquidity risk on a quarterly basis in compliance with the guidelines of the Financial Supervisory Service, which requires the one-week and one-month maturity mismatch ratios to be 0% and -10% or less, respectively, and the three months liquidity ratio to be 85% or higher.

Our other subsidiaries fund their operations primarily through call money, bank loans, commercial paper, corporate debentures and asset-backed securities. Our holding company acts as a funding vehicle for long-term financing of our subsidiaries whose credit ratings are lower than the holding company, including Shinhan Card and Shinhan Capital, to lower the overall funding costs within regulatory limitations. Under the Monopoly Regulations and Fair Trade Act, however, a financial holding company is prohibited from borrowing funds in excess of 200% of its total stockholders' equity.

In addition to liquidity risk management under the normal market situations, we have contingency plans to effectively cope with possible liquidity crisis. Liquidity crisis arises when we would not be able to effectively manage the situations with our normal liquidity management measures due to, among other reasons, inability to access our normal sources of funds or epidemic withdrawals of deposits as a result of various external or internal factors, including a collapse in the financial markets or abrupt deterioration of our credit. We have contingency plans corresponding to different stages of liquidity crisis: namely, "alert stage," "imminent-crisis stage" and "crisis stage," based on the following liquidity indices:

- indices that reflect the market movements such as interest rates and stock prices;
- indices that reflect financial market sentiments, an example being the size of money market funds; and
- indices that reflect our internal liquidity condition.

Operational Risk Management

Operational risk is difficult to quantify and subject to different definitions. The Basel Committee defines operational risk as the risk of loss resulting from inadequate or failed internal processes, people and systems or from other external events. Similarly, we define operational risk as the risks related to our overall management other than credit risk, market risk, interest rate risk and liquidity risk. These include risks arising from system failure, human error, non-adherence to policy and procedures, fraud, inadequate internal controls and procedures or environmental changes and resulting in financial and non-financial loss. We monitor and assess operational risks related to our business operations, including administrative risk, information technology risk (including cyber security risk), managerial risk and legal risk, with a view to minimizing such losses.

Our holding company's Audit Committee, which consists of three outside directors, one of whom is an accounting or financial expert as required by internal control regulations under the Act on Corporate Governance of Financial Companies, oversees and monitors our operational compliance with legal and regulatory requirements. The Audit Committee also oversees management's operations and may, at any time it deems appropriate, demand additional operations-related reporting from management and inspects our asset condition. At the holding company level, we define each subsidiary's operational process and establish an internal review system applicable to each subsidiary. Each subsidiary's operational risk is internally monitored and managed at the subsidiary level and the Group Internal Audit Department at our holding company, which reports to our Audit Committee, continuously monitors the integrity of our subsidiaries' operational risk management system. Our holding company's board of directors and the Group Risk Management Committee establish our basic policies for operational risk management at the group level. The Group Internal Audit Department at our holding company is directly responsible for overseeing our operational risk management with a focus on legal, regulatory, operational and reputational risks. The Group Internal Audit Department audits both our and our subsidiaries' operations and asset condition in accordance to our annual audit plan, which is approved by the Audit Committee, and submits regular reports to the Audit Committee pursuant to our internal reporting system. If the Group Internal Audit Department discovers any non-compliance with operational risk procedures or areas of weaknesses, it promptly alerts the business department in respect of which such non-compliance was discovered and demands implementation of corrective measures. Implementation of such corrective measures is subsequently reviewed by the Group Internal Audit Department.

To monitor and manage operational risk, Shinhan Bank maintains a system of comprehensive policies and has in place a control framework designed to provide a stable and well-managed operational environment throughout the organization. Currently, the primary responsibility for ensuring compliance with our banking operational risk procedures remains with each of the business units and operational teams. In addition, the Audit Department, the Risk Management Department and the Compliance Department of Shinhan Bank also play important roles in reviewing and maintaining the integrity of Shinhan Bank's internal control environment.

The operational risk management system of Shinhan Bank is managed by the operational risk team under the Risk Management Department. The current system principally consists of risk control self-assessment, risk quantification using key risk indicators, loss data collection, scenario analysis and operational risk capital measurement. Shinhan Bank operates several educational and awareness programs designed to have all of its employees to be familiar with this system. In addition, Shinhan Bank has a designated operational risk manager at each of its departments and branch offices, who serves as a coordinator between the operational risk team at the headquarters and the employees in the front office and seeking to provide centralized feedback to further improve the operational risk management system.

As of December 31, 2019, Shinhan Bank has conducted risk control self-assessments on its departments as well as domestic and overseas branch offices, from which it collects systematized data on all of its branch offices, and uses the findings from such self-assessments to improve the procedures and processes for the relevant departments or branch offices. In addition, Shinhan Bank has accumulated risk-related data since 2003, improved the procedures for monitoring operational losses and is developing risk simulation models. In addition, Shinhan Bank selects and monitors, at the department level, approximately 186 key risk indicators.

The Audit Committee of Shinhan Bank, which consists of one standing director and two outside directors, is an independent inspection authority that supervises Shinhan Bank's internal controls and compliance with established ethical and legal principles. The Audit Committee performs internal audits of, among other matters, Shinhan Bank's overall management and accounting, and supervises its Audit Department, which assists Shinhan Bank's Audit Committee. Shinhan Bank's Audit Committee also reviews and evaluates Shinhan Bank's accounting policies and their changes, financial and accounting matters and fairness of financial reporting.

Shinhan Bank's Audit Committee, Audit Department and Compliance Department supervise and perform the following duties:

- general audits, including full-scale audits performed annually for the overall operations, sectional audits of selected operations performed as needed, and periodic and irregular spot audits;

- special audits, performed when the Audit Committee deems it necessary or pursuant to requests by the chief executive officer or supervisory authorities such as the Financial Supervisory Service;
- day-to-day audits, performed by Shinhan Bank's Compliance Department for material transactions or operations that are subject to approval by the heads of Shinhan Bank's operational departments or senior executives;
- real-time monitoring audits, performed by the computerized audit system to identify any irregular transactions and take any necessary actions; and
- self-audits as a self-check by each operational department to ensure its compliance with our business regulations and policies, which include daily audits, monthly audits and special audits.

In addition to these audits and compliance activities, Shinhan Bank's Audit Department designates operational risk management examiners to monitor the appropriateness of operational risk management frameworks and the functions and activities of the board of directors, relevant departments and business units, and conducts periodic checks on the operational risk and reports such findings. Shinhan Bank's Risk Management Department also reviews in advance proposed banking products or other business or service plans with a view to minimizing operational risk.

As for Shinhan Investment, its audit department conducts an annual inspection as to whether the internal policy and procedures of Shinhan Investment relating to its overall operational risk management are being effectively complied. The inspection has a particular focus on the appropriateness of the scope of operational risks and the collection, maintenance and processing of relevant operating data. Shinhan Investment, through its operational risk management system, also conducts self-assessments of risks, collects loss data and manages key risk indicators. The operational risk management system is supervised by its audit department, compliance department and risk management department, as well as a risk management officer in each of Shinhan Investment's departments.

Shinhan Card's audit committee reviews whether the internal policy and procedures of Shinhan Card are effective and implements measures to improve such policies as needed. Shinhan Card's audit committee also contributes to work efficiency, financial risk minimization and management rationalization. Shinhan Card is expected to develop an operational risk management system once the Financial Supervisory Service announces its oversight guidelines regarding operational risk measurement.

Shinhan Life Insurance's Risk Management Department and Compliance Department reviews whether the internal policy and procedures of Shinhan Life Insurance are being effectively complied with. Shinhan Life Insurance implemented an operational risk management process in 2018 by setting up key risk indicators in each department and utilizes it to assess operational risk, collect data and manage key indicators. Furthermore, Shinhan Life Insurance established a standard roadmap to improve its operational risk assessment capabilities.

Orange Life Insurance has implemented an operational risk management system, including a series of processes for setting targets and assessing, monitoring and responding to operational risks. To this end, Orange Life Insurance regularly assesses risks relating to major products, projects, outsourcing, sales channels and control environment and analyzes and monitors sales activities by channel and product. Orange Life Insurance also has firm-wide control systems to maintain business continuity and for financial reporting, which are operated in coordination with the operational risk management system.

In addition to internal audits and inspections, the Financial Supervisory Service conducts general annual audits of our and our subsidiaries' operations. The Financial Supervisory Service also performs special audits as the need arises on particular aspects of our and our subsidiaries' operations such as risk management, credit monitoring and liquidity. In the ordinary course of these audits, the Financial Supervisory Service routinely issues warning notices where it determines that a regulated financial institution or such institution's employees have failed to comply with the applicable laws or rules, regulations and guidelines of the Financial Supervisory Service. We and our subsidiaries have in the past received, and expect in the future to receive, such notices and we have taken and will continue to take appropriate actions in response to such notices. For example, in October 2018, the Financial Supervisory Service requested Shinhan Bank to submit supporting documents in connection with allegations of inadequate compliance controls. In November 2018, the Financial Supervisory Service notified Shinhan Bank of an institutional caution for alleged deficiencies in its customer due diligence. In December 2019, the Financial Supervisory Service notified Shinhan Bank of an institutional caution and imposed an administrative fine of ₩3 billion for alleged prohibited activities, including promotional activities for specified money trusts, investment solicitation for derivatives and management of trust properties.

The Financial Supervisory Service also conducted a special audit of Shinhan Card, together with BC Card and KB Kookmin Card, from June to July 2013, in relation to alleged imperfect sales of insurance products, and in March 2014, issued an institutional warning against each of the three credit card companies based on a finding that card customers were provided inadequate or misleading disclosures regarding the risks relating to such products at the time of sale. The Financial Supervisory Service also imposed disciplinary actions against three Shinhan Card employees and assessed a fine of ₩10 million against Shinhan Card as well as similar sanctions against BC Card and KB Kookmin Card. In addition, the Financial Supervisory Service conducted a comprehensive audit of Shinhan Card, together with Samsung Card and Hyundai Card, in September 2014, and in November 2015, issued an institutional warning against each of the three credit card companies based on a finding that they had illegally provided personal credit information of potential new cardholders to their credit card sales agents. The Financial Supervisory Service also imposed disciplinary actions against six Shinhan Card employees and assessed a fine of ₩6 million against Shinhan Card as well as similar sanctions against Samsung Card and Hyundai Card. In July 2018, the Financial Supervisory Service notified Shinhan Investment of an institutional warning and imposed an administrative fine of ₩852 million for alleged prohibited trading of entrusted properties. In January 2020, the Financial Supervisory Service notified Shinhan Life Insurance of an institutional caution and imposed an administrative fine of ₩266 million for allegedly omitting certain information regarding the level of expenses deducted from premiums paid when selling savings insurance products over the telephone.

We consider legal risk as a part of operational risk. The uncertainty of the enforceability of obligations of our customers and counterparties, including foreclosure on collateral, creates legal risk. Changes in laws and regulations could also adversely affect us. Legal risk is higher in new areas of business where the law is often untested in the courts although legal risk can also increase in our traditional business to the extent that the legal and regulatory landscape in Korea changes and many new laws and regulations governing the banking industry remain untested. We seek to minimize legal risk by using stringent legal documentation, employing procedures designed to ensure that transactions are properly authorized and consulting legal advisers. The Compliance Department operates Shinhan Financial Group's compliance system. This system is designed to ensure that all employees of Shinhan Financial Group and its subsidiaries comply with the relevant laws and regulations. The compliance system's main function is to monitor the degree of improvement in compliance with the relevant laws and regulations, maintain internal controls (including ensuring that each department has established proper internal policies and that it complies with those policies) and educate employees about observance of the relevant laws and regulations. The Compliance Department also supervises the management, execution and performance of self-audits.

Upgrades to Risk Management Systems

Our recent material upgrades in relation to risk management systems are as follows.

Shinhan Financial Group

In May 2015, we developed and implemented a credit review system to unify our corporate credit review and risk measurements, allowing us and our subsidiaries to utilize a uniform and consistent credit review system with respect to each borrower. In addition, in preparation of full implementation of Basel III requirements relating to liquidity coverage ratios for bank holding companies and to enhance our liquidity risk management capabilities, we have implemented a Basel III liquidity coverage ratio risk management system by which we calculate our liquidity coverage ratio each month.

Shinhan Bank

In order to strengthen risk management of its overseas subsidiaries and effectively comply with local and domestic regulations, Shinhan Bank is in the process of laying out a global risk management system network, which records the risk data of its overseas subsidiaries. Shinhan Bank seeks to leverage the development of this system for further overseas expansion and stable growth of existing overseas subsidiaries. To date, Shinhan Bank has completed the development of such system for its subsidiaries in China, Japan, Vietnam, the United States, Canada, India, Europe and Mexico. Shinhan Bank also plans to expand the application of this system to its other overseas subsidiaries.

Shinhan Bank has also completed development of a system to calculate stressed VaR based on Basel II standards in order to prepare for stress situations such as the global financial crisis in 2008. Shinhan Bank has received approval for such system from the Financial Supervisory Service and has been implemented since 2012.

In 2012, Shinhan Bank developed a system for improving collection and recovery of bad assets through enhanced loss given default data processing. In addition, in 2012, Shinhan Bank received approvals from the Financial Supervisory Service for upgrades to its credit evaluation modeling for risk assessment of small- to medium-sized enterprises that are not required to be audited by outside accounting firms and for SOHOs, which upgrades related to factoring in the credit profile of the head of such enterprises and SOHOs. In 2014, Shinhan Bank further upgraded the credit evaluation modeling for risk assessment of small- and medium-size enterprises that are not required to be audited by outside accounting firms by entirely revamping the modeling for enterprises subject to outside audits, enterprises that are not subject to outside auditors and enterprise heads. Such upgraded modeling was approved by the Financial Supervisory Service, and Shinhan Bank began implementation of the upgraded system since 2014. In 2014, Shinhan Bank reclassified its credit evaluation models for risk assessment of enterprises into the following four categories: (i) IFRS (enterprises subject to external audits under Korean IFRS), (ii) GAAP (enterprises subject to external audits under Generally Accepted Accounting Principles), (iii) small- and medium-size enterprises and (iv) SOHO. Such reclassification was approved by the Financial Supervisory Service, and Shinhan Bank began to implement the system in 2015.

In addition, in 2013, Shinhan Bank obtained approval from the Financial Supervisory Service to use an internal evaluation model with respect to Basel II credit risks related to Shinhan Bank's retail SOHO exposures. In 2016, Shinhan Bank developed a new internal evaluation model and obtained approval from the Financial Supervisory Service to use the new model with respect to Basel II credit risks related to Shinhan Bank's retail exposures. In addition, Shinhan Bank received another approval in 2016 for loss given default data processing using the AIRB approach in order to reflect changes in economic conditions such as prolonged recovery periods and low interest rates, and the newly approved loss given default data processing will replace existing loss given default data processing for both retail and SOHO exposures.

Shinhan Bank also upgraded the asset and liability management system in 2012 in order to timely comply with Basel III, IFRS and other regulatory requirements as well as to upgrade the quality of risk-related data. In 2014, Shinhan Bank upgraded the liquidity coverage ratio and net stable funding ratio systems under Basel III in order to facilitate daily measurement and efficient management.

Following the approval by the Financial Supervisory Service of the advanced measurement approach for risk management, Shinhan Bank has re-established the operational risk management system in order to further enhance its operational risk management capabilities.

Shinhan Card

In 2012, Shinhan Card completed further upgrades to its credit risk measurement system in satisfaction of the Basel II standards, as well as other regulatory requirements and internal needs in order to address the ongoing volatility in the economic and regulatory environment. In December 2016, Shinhan Card obtained approval from the Financial Supervisory Service to use a new internal evaluation model with respect to Basel III credit risks related to its retail and SOHO exposures.

Shinhan Investment

In 2016, Shinhan Investment established a Risk Engineering Team and updated its market risk management system to increase its value assessment capabilities for over-the-counter derivatives, strengthen its VaR risk analysis capabilities and improve various simulation functions. Beginning in 2017, the Risk Engineering Team conducts value assessment and reviews over-the-counter derivatives directly using various enhanced simulation functions such as updated stress tests in order to stabilize financial accounting prices and enhance the risk management of over-the-counter derivatives. In January 2019, the Risk Engineering Team was elevated to a department, becoming the Risk Engineering Department, expanding the scope of products reviewed by the department and strengthening its simulation analysis capabilities.

Shinhan Life Insurance

In 2017, Shinhan Life Insurance updated its interest rate risk measurement system, called the ALM system, in anticipation of Korea-ICS, a new insurance liability market valuation system designed to replace the existing risk based capital system, and IFRS 17. In 2018, the new asset liability management system implemented an interest rate risk management system based on the Europe Solvency II standard. The asset liability management system can measure both asset and liability based on marking to market valuation. Shinhan Life Insurance also updated its interest rate risk management system to control net income margin volatility resulting from market interest rate changes and has tailored its business scheme to this system in order to better manage risk and profits and match the duration of its assets and liabilities. In 2019, Shinhan Life Insurance further upgraded its insurance risk measurement system in anticipation of Korea-ICS, which is expected to become effective beginning 2022. However, on March 17, 2020, the IASB announced deferral of the effective date for IFRS 17 from 2022 to 2023, and it is likely that Korea-ICS will correspondingly also become effective beginning 2023. The upgraded system can more elaborately measure insurance risk associated with mortality, longevity, morbidity, disability, lapse and expenses. Shinhan Life Insurance measures its insurance risk using shock scenarios and parameters calibration based on internal statistical estimates.

Orange Life Insurance

Orange Life Insurance operates a risk management system based on the Europe Solvency II standard. In 2014, Orange Life Insurance transitioned from an available financial resources at risk (AFRaR) model to the economic value at risk (EVaR) model, assessing risk through changes in net asset value resulting from shock scenarios reflecting volatility of cash flow due to from changes in insurance and interest rates. In 2019, Orange Life Insurance further upgraded its risk management system and established a new solvency system to calculate economic capital based on Monte Carlo experiments, a broad class of computational algorithms relying on repeated random sampling to obtain numerical results. This new solvency system has enabled automation of the economic capital calculation process and the establishment of an auditable governance framework, and also supports various tasks such as capital projection, budgeting and calculation of regulatory capital in anticipation of Korea-ICS, which is expected to become effective beginning 2022. In addition, this system is designed to provide flexibility and insight for management by providing analysis on the overall distribution of Orange Life Insurance's net assets.

Supervision and Regulation

Principal Regulations Applicable to Financial Holding Companies

General

The Korean financial holding companies and their subsidiaries are regulated by the Financial Holding Companies Act (last amended on December 31, 2018, Law No. 16182). In addition, Korean financial holding companies and their subsidiaries are subject to the regulations and supervision of the Financial Services Commission and the Financial Supervisory Service.

Pursuant to the Financial Holding Companies Act, the Financial Services Commission regulates various activities of financial holding companies. For instance, it approves the application for setting up a new financial holding company and promulgates regulations on the capital adequacy of financial holding companies and their subsidiaries and other regulations relating to the supervision of financial holding companies.

The Financial Supervisory Service is subject to the instructions and directives of the Financial Services Commission and carries out supervision and examination of financial holding companies and their subsidiaries. In particular, the Financial Supervisory Service sets forth liquidity and capital adequacy requirements for financial holding companies and reporting requirements pursuant to the authority delegated to the Financial Supervisory Service under the Financial Services Commission regulations, pursuant to which financial holding companies are required to submit quarterly reports on business performance, financial status and other matters prescribed in the Presidential Decree of the Financial Holding Companies Act.

Under the Financial Holding Companies Act, the establishment of a financial holding company must be approved by the Financial Services Commission. A financial holding company is required to be mainly engaged in controlling its subsidiaries by holding the shares or equities of the subsidiaries in the amount of not less than 50% of aggregate amount of such financial holding company's assets based on the latest balance sheet. A financial holding company is prohibited from engaging in any profit-making businesses other than controlling the management of its subsidiaries and certain ancillary businesses as prescribed in the Presidential Decree of the Financial Holding Companies Act which includes the following businesses:

- financially supporting its subsidiaries and the subsidiaries of its subsidiaries (the "direct and indirect subsidiaries"), including lending properties with economic values such as monies and securities, guaranteeing obligation performance and other direct or indirect transactions involving transactional credit risk;
- raising capital necessary for the investment in subsidiaries or providing financial support to its direct and indirect subsidiaries;
- supporting the business of its direct and indirect subsidiaries for the joint development and marketing of new products;
- supporting the operations of its direct and indirect subsidiaries by providing access to data processing, legal and accounting resources; and
- pursuing any other activities exempted from authorization, permission or approval under the applicable laws and regulations.

The Financial Holding Companies Act requires every financial holding company (other than any financial holding company that is controlled by any other financial holding company) or its subsidiaries to obtain the prior approval from the Financial Services Commission before acquiring control of another company or to file with the Financial Services Commission a report within thirty days after acquiring such control. Permission to liquidate or to merge with any other company must be obtained in advance from the Financial Services Commission. A financial holding company must report to the Financial Services Commission regarding certain events including:

- when there is a change of its largest shareholder;
- when there is a change of principal shareholders of a bank holding company;

- when the shareholding of the largest shareholder or a principal shareholder as prescribed under the Financial Holding Companies Act or a person who is in a special relationship with such largest or principal shareholder (as defined under the Presidential Decree of the Financial Holding Companies Act) changes by 1% or more of the total issued and outstanding voting shares of the financial holding company;
- when there is a change of its name;
- when there is a cause for dissolution; and
- when it or its subsidiary ceases to control any of its respective direct and indirect subsidiaries by disposing of the shares of such direct and indirect subsidiaries.

Capital Adequacy

The Financial Holding Companies Act does not provide for a minimum paid-in capital of financial holding companies. All financial holding companies, however, are required to maintain a specified level of solvency. In addition, in its allocation of the net profit earned in a fiscal term, a financial holding company is required to set aside in its legal reserve an amount equal to at least 10% of the net income after tax each time it pays dividends on its net profits earned until its legal reserve reaches at least the aggregate amount of its paid-in capital.

A financial holding company controlling banks or other financial institutions conducting banking business as prescribed in the Financial Holding Company Act (hereinafter, the "bank holding company") is required to maintain a minimum consolidated equity capital ratio of 8.0%. "Consolidated equity capital ratio" is defined as the ratio of equity capital as a percentage of risk-weighted assets on a consolidated basis, determined in accordance with the Financial Services Commission requirements that have been formulated based on the Bank of International Settlements standards. "Equity capital," as applicable to bank holding companies, is defined as the sum of Tier I capital, Tier II capital, and Tier III capital less any deductible items, each as defined under the Regulation on the Supervision of Financial Holding Companies. "Risk-weighted assets" is defined as the sum of credit risk-weighted assets and market risk-weighted assets.

For regulatory reporting purposes, we maintain allowances for credit losses on the following loan classifications that classify corporate and retail loans as required by the Financial Services Commission. In making these classifications, we take into account a number of factors, including the financial position, profitability and transaction history of the borrower, the value of any collateral or guarantee taken as security for the extension of credit, probability of default and loss amount in the event of default. This classification method, and our related provisioning policy, is intended to reflect the borrower's capacity to repay. To the extent there is any conflict between the Financial Services Commission guidelines and our internal analysis in such classifications, we adopt whichever is more conservative.

The following table sets forth loan classifications according to the guidelines of the Financial Services Commission.

Loan Classification	Loan Characteristics
Normal	Loans extended to customers that, based on our consideration of their business, financial position and future cash flows, do not raise concerns regarding their ability to repay the loans.
Precautionary	Loans extended to customers that (i) based on our consideration of their business, financial position and future cash flows, show potential risks with respect to their ability to repay the loans, although showing no immediate default risk or (ii) are in arrears for one month or more but less than three months.
Substandard	(i) Loans extended to customers that, based on our consideration of their business, financial position and future cash flows, are judged to have incurred considerable default risks as their ability to repay has deteriorated; or
	(ii) the portion that we expect to collect of total loans (a) extended to customers that have been in arrears for three months or more, (b) extended to customers that have incurred serious default risks due to the occurrence of, among other things, final refusal to pay their debt instruments, entry into liquidation or bankruptcy proceedings or closure of their businesses, or (c) extended to customers who have outstanding loans that are classified as "doubtful" or "estimated loss."
Doubtful	Loans exceeding the amount that we expect to collect of total loans to customers that:
	(i) based on our consideration of their business, financial position and future cash flows, have incurred serious default risks due to noticeable deterioration in their ability to repay; or
	(ii) have been in arrears for three months or more but less than twelve months.
Estimated loss	Loans exceeding the amount that we expect to collect of total loans to customers that:
	(i) based on our consideration of their business, financial position and future cash flows, are judged to be accounted as a loss because the inability to repay became certain due to serious deterioration in their ability to repay;
	(ii) have been in arrears for twelve months or more; or
	(iii) have incurred serious risks of default in repayment due to the occurrence of, among other things, final refusal to pay their debt instruments, liquidation or bankruptcy proceedings or closure of their business.

In accordance with the Regulations for the Supervision of Financial Institutions, we establish regulatory reserve for loan loss in the amount of the difference between allowance for credit losses as calculated pursuant to our provisioning policy in accordance with IFRS and allowance for credit losses based on the loan classifications set forth above as required by the Financial Services Commission. In determining consolidated equity capital ratio, we deduct regulatory reserve for loan loss from equity capital.

Liquidity

All financial holding companies are required to match the maturities of their assets to those of liabilities in accordance with the Financial Holding Companies Act in order to ensure liquidity. Financial holding companies are required to submit quarterly reports regarding their liquidity to the Financial Supervisory Service and must:

- maintain a Won liquidity ratio (defined as Won assets due within one month, including marketable securities, divided by Won liabilities due within three months) of not less than 100%;
- maintain a foreign currency liquidity ratio (defined as foreign currency liquid assets due within three months divided by foreign currency liabilities due within three months) of not less than 80% except for financial holding companies with a foreign currency liability to total assets ratio of less than 1%;
- maintain a ratio of foreign currency liquid assets due within seven days less foreign currency liabilities due within seven days divided by total foreign currency assets of not less than 0%, except for financial holding companies with a foreign currency liability to total assets ratio of less than 1%; and
- maintain a ratio of foreign currency liquid assets due within a month less foreign currency liabilities due within a month divided by total foreign currency assets of not less than negative 10% except for financial holding companies with a foreign currency liability to total assets ratio of less than 1%.

Financial Exposure to Any Single Customer and Major Shareholders

Subject to certain exceptions, the total sum of credit (as defined in the Presidential Decree of the Financial Holding Companies Act, the Bank Act, the Presidential Decree of the Financial Investment Services and Capital Markets Act, the Insurance Act, the Mutual Savings Bank Act and the Specialized Credit Financial Business Act, respectively) of a financial holding company and its direct and indirect subsidiaries which are banks, merchant banks or securities companies ("Financial Holding Company Total Credit") extended to a single group of companies that belong to the same conglomerate as defined in the Monopoly Regulations and Fair Trade Act will not be permitted to exceed 25% of the Net Total Equity Capital.

"Net Total Equity Capital" for the purpose of the calculation of financial exposure to any single customer and Major Shareholder (as defined below) as applicable to us and our subsidiaries is defined under the Presidential Decree of the Financial Holding Companies Act as

(a) the sum of:

(i) in the case of a financial holding company, the shareholders' equity as defined under Article 24-3, Section 7(2) of the Presidential Decree of the Financial Holding Companies Act, which represents the difference between the total assets less total liabilities on the balance sheet as of the end of the most recent quarter;

(ii) in the case of a bank, the shareholders' equity as defined under Article 2, Section 1(5) of the Bank Act, which represents the sum of Tier I and Tier II capital amounts determined according to the standards set by the BIS;

(iii) in the case of a merchant bank, the capital amount as defined in Article 342, Section (1) of the Financial Investment Services and Capital Markets Act;

(iv) in the case of a financial investment company, the shareholders' equity as defined under Article 37, Section 3 of the Presidential Decree of the Financial Investment Services and Capital Markets Act, which represents the total shareholders' equity as adjusted as determined by the Financial Services Commission, such as the amount of increase or decrease in paid-in capital after the end of the most recent fiscal year;

(v) in the case of an insurance company, the shareholders' equity as defined under Article 2, Section 15 of the Insurance Act, which represents the sum of items designated by the Presidential Decree, such as paid-in-capital, capital surplus, earned surplus and any equivalent items, less the value of good will and other equivalent items;

(vi) in the case of a mutual savings bank, the shareholders' equity as defined under Article 2, Section 4 of the Mutual Savings Bank Act, which represents the sum of Tier I and Tier II capital amounts determined in accordance with the standards set by the Bank for International Settlements; and

(vii) in the case of a credit card company or a specialty credit provider, the shareholders' equity as defined under Article 2, Section 19 of the Specialized Credit Financial Business Act, which represents the sum of the items designated by the Presidential Decree, such as paid-in-capital, capital surplus, earned surplus and any equivalent items;

(b) less the sum of:

(i) the amount of shares in direct and indirect subsidiaries held by the financial holding company;

(ii) the amount of shares in the direct and indirect subsidiaries that are cross-held by such subsidiaries; and

(iii) the amount of shares in the financial holding company held by its direct and indirect subsidiaries.

The Financial Holding Company Total Credit to a single individual or legal entity may not exceed 20% of the Net Total Equity Capital.

Furthermore, the total sum of credits (as defined under the Financial Holding Companies Act, the Banking Act and the Financial Investment Services and Capital Markets Act, respectively) of a bank holding company and its direct and indirect subsidiaries ("Bank Holding Company Total Credit") extended to a "Major Shareholder" (together with the persons who have special relationship with such Major Shareholder) (as defined below) generally may not exceed the smaller of (x) 25% of the Net Total Equity Capital and (y) the amount of the equity capital of the financial holding company multiplied by the shareholding ratio of such Major Shareholder, subject to certain exceptions.

"Major Shareholder" is defined under the Financial Holding Companies Act as follows:

(a) a shareholder holding (together with persons who have a special relationship with such shareholder as defined in the Presidential Decree of the Financial Holding Companies Act) in excess of 10% (or in the case of a financial holding company controlling regional banks only, 15%) in the aggregate of the financial holding company's total issued and outstanding voting shares; or

(b) a shareholder holding (together with persons who have a special relationship with such shareholder as defined in the Presidential Decree of the Financial Holding Companies Act) more than 4% in the aggregate of the total issued and outstanding voting shares of the financial holding company controlling national banks (other than a financial holding company controlling regional banks only), excluding shares related to the shareholding restrictions on non-financial business group companies as described below, where such shareholder is the largest shareholder or has actual control over the major business affairs of the financial holding company through, for example, appointment and dismissal of the officers pursuant to the Presidential Decree of the Financial Holding Companies Act.

In addition, the total sum of the Bank Holding Company Total Credit extended to all of a bank holding company's Major Shareholder may not exceed 25% of the Net Total Equity Capital. Furthermore, the bank holding company and its direct and indirect subsidiaries that intend to extend the Bank Holding Company Total Credit to the bank holding company's Major Shareholder not less than the lesser of (i) the amount equivalent to 0.1% of the Net Total Equity Capital or (ii) ₩5 billion, with respect to a single transaction, must obtain prior unanimous board resolutions and then, immediately after the completion of the transaction, must file a report with the Financial Services Commission and publicly disclose the filing of such report (for example, through a website).

Restrictions on Transactions among Direct and Indirect Subsidiaries and Financial Holding Company

Generally, a direct or indirect subsidiary of a financial holding company may not extend credit to the financial holding company which directly or indirectly controls such subsidiary. In addition, a direct or indirect subsidiary of a financial holding company may not extend credit to any other single direct or indirect subsidiary of the financial holding company in excess of 10% of its stockholders' equity and to any other direct and indirect subsidiaries of the financial holding company in excess of 20% of its stockholders' equity in the aggregate. The direct or indirect subsidiaries of a financial holding company must obtain an appropriate level of collateral for the credits extended to the other direct and indirect subsidiaries unless otherwise approved by the Financial Services Commission. The appropriate level of collateral for each type of such collateral is as follows:

(i) For deposits and installment savings, obligations of the Government or the Bank of Korea, obligations guaranteed by the Government or the Bank of Korea, obligations secured by securities issued or guaranteed by the Government or the Bank of Korea: 100% of the amount of the credit extended;

(ii) (a) For obligations of local governments under the Local Autonomy Act, local public enterprises under the Local Public Enterprises Act, and investment institutions and other quasi-investment institutions under the Basic Act on the Management of Government-Invested Institution (hereinafter, the "public institutions and others"); (b) obligations guaranteed by the public institutions and others; and (c) obligations secured by the securities issued or guaranteed by public institutions and others: 110% of the amount of the credit extended; and

(iii) For any property other than those set forth in the above (i) and (ii): 130% of the amount of the credit extended.

Subject to certain exceptions, a direct or indirect subsidiary of a financial holding company is prohibited from owning the shares of any other direct or indirect subsidiaries (other than those directly controlled by the direct and indirect subsidiaries in question) in common control by the financial holding company. However, a direct or indirect subsidiary of a financial holding company may invest as a limited partner in a private equity fund that is a direct or indirect subsidiary of the same financial holding company. The transfer of certain assets subject to or below the precautionary criteria between the financial holding company and its direct or indirect subsidiary or between the direct and indirect subsidiaries of a financial holding company is prohibited except for (i) the transfer to an asset-backed securitization company, typically a special purpose entity, or the entrustment with a trust company, under the Asset-Backed Securitization Act, (ii) the transfer to a mortgage-backed securitization company under the Mortgage-Backed Securitization Company Act, (iii) the transfer or in-kind contribution to a corporate restructuring vehicle under the Corporate Restructuring Investment Company Act or (iv) the acquisition by a corporate restructuring company under the Industrial Development Act.

Disclosure of Management Performance

For the purpose of protecting the depositors and investors in the subsidiaries of the financial holding companies, the Financial Services Commission requires financial holding companies to disclose certain material matters including (i) financial condition and profit and loss of the financial holding company and its direct and indirect subsidiaries, (ii) how capital was raised by the financial holding company and its direct and indirect subsidiaries and how such capital was used, (iii) any sanctions levied on the financial holding company and its direct and indirect subsidiaries under the Financial Holding Companies Act or any corrective measures or sanctions under the Law on Improvement of Structure of Financial Industry or (iv) occurrence of any non-performing assets or financial incident which may have a material adverse effect.

Restrictions on Shareholdings in Other Companies

Subject to certain exceptions, a bank holding company may not own more than 5% of the total issued and outstanding shares of another company (other than its direct and indirect subsidiaries). If the financial holding company owns shares of another company (other than its direct and indirect subsidiaries) which is not a finance-related company, the financial holding company is required to exercise its voting rights in the same manner and same proportion as the other shareholders of the company exercise their voting rights in favor of or against any resolutions under consideration at the shareholders' meeting of the company.

Restrictions on Shareholdings by Direct and Indirect Subsidiaries

Generally, a direct subsidiary of a financial holding company is prohibited from controlling any other company; *provided* that a direct subsidiary of a financial holding company may control (as an indirect subsidiary of the financial holding company): (i) subsidiaries in foreign jurisdiction which are engaged in a financial business, (ii) certain financial institutions which are engaged in the business that the direct subsidiary may conduct without any licenses or permits, (iii) certain financial institutions whose business is related to the business of the direct subsidiary as prescribed under the Presidential Decree of the Financial Holding Companies Act (for example, the companies which a bank subsidiary may control are limited to credit information companies, credit card companies, trust business companies, securities investment management companies, investment advisory companies, futures business companies, and asset management companies), (iv) certain financial institutions whose business is related to financial business as prescribed by the regulations of the Ministry of Strategy and Finance, and (v) certain companies which are not financial institutions but whose business is related to the financial business of the financial holding company as prescribed by the Presidential Decree of the Financial Holding Companies Act (e.g. finance-related research company, finance-related information technology company, etc.). Acquisition by the direct subsidiaries of such indirect subsidiaries requires a prior permission from the Financial Services Commission or a report to be submitted to the Financial Services Commission, depending on the types of the indirect subsidiaries and the amount of total assets of the indirect subsidiaries.

An indirect subsidiary of a financial holding company is prohibited from controlling any other company, provided, however, that in the case where a company held control over another company at the time such company initially became an indirect subsidiary of a financial holding company, such indirect subsidiary shall be required to dispose of its interest in such other company within two years after becoming an indirect subsidiary of a financial holding company.

A subsidiary of a financial holding company may invest in a special purpose company as its largest shareholder for purposes of making investments under the Act on Private Investment in Social Infrastructure without being deemed as controlling such special purpose company.

In addition, a private equity fund established in accordance with the Financial Investment Services and Capital Markets Act is not considered to be a subsidiary of a financial holding company even if the financial holding company is the largest investor in the private equity fund unless the financial holding company is the asset management company for the private equity fund.

Restrictions on Transactions Between a Financial Holding Company and its Major Shareholder

A bank holding company and its direct and indirect subsidiaries are prohibited from acquiring (including acquisition by a trust account of its subsidiary bank) shares issued by such bank holding company's Major Shareholder in excess of 1% of the Net Total Equity Capital. In addition, the financial holding company and its direct and indirect subsidiaries which intend to acquire shares issued by such Major Shareholder not less than the lesser of (i) the amount equivalent to 0.1% of the Net Total Equity Capital or (ii) ₩5 billion, with respect to a single transaction, must obtain prior unanimous board resolutions and then, immediately after the acquisition, must file a report with the Financial Services Commission and publicly disclose the filing of such report (for example, through a website).

Restrictions on Financial Holding Company Ownership

Under the Financial Holding Companies Act, foreign financial institutions are permitted to establish financial holding companies in Korea. Pursuant to the Presidential Decree of the Financial Holding Companies Act, a foreign financial institution can control a financial holding company if, subject to satisfying certain other conditions, it, together with its specially-related persons, holds 100% of the total shares in the financial holding company.

In addition, any single shareholder and persons who stand in a special relationship with such shareholder (as defined under the Presidential Decree to the Financial Holding Companies Act) may acquire beneficial ownership of up to 10% of the total issued and outstanding shares with voting rights of a financial holding company controlling national banks (or 15% in the case of a financial holding company controlling regional banks only). The Government and the Korea Deposit Insurance Corporation are not subject to such a ceiling.

However, "non-financial business group companies" (as defined below) may not acquire beneficial ownership of shares of a bank holding company in excess of 4% of such financial holding company's outstanding voting shares, provided that such non-financial business group companies may acquire beneficial ownership of up to 10% of such financial holding company's outstanding voting shares with the approval of the Financial Services Commission under the condition that such non-financial business group companies will not exercise voting rights in respect of such shares in excess of the 4% limit. In addition, any person (whether a Korean national or a foreigner), with the exception of non-financial business group companies described above, may also acquire in excess of 10% of total voting shares issued and outstanding of a financial holding company which controls national bank, provided that an approval from the Financial Services Commission is obtained in instances where the total holding exceeds 10% (or 15% in the case of a financial holding company controlling regional banks only), 25% or 33% of the total voting shares issued and outstanding of such bank holding company.

"Non-financial business group companies" are defined under the Financial Holding Companies Act as companies, which include:

(i) any same shareholder group with aggregate net assets of all non-financial business companies belonging to such group of not less than 25% of the aggregate net assets of all members of such group;

(ii) any same shareholder group with aggregate assets of all non-financial business companies belonging to such group of not less than ₩2 trillion;

(iii) any mutual fund in which the same shareholder group identified in item (i) or (ii) above holds more than 4% of the total shares issued and outstanding of such mutual fund;

(iv) any private equity fund (x) which has a partner with limited liability that falls under item (i), (ii) or (iii) above and holds equity equivalent to 10% or greater of the total amount invested by the private equity fund, (y) which has a partner with unlimited liability that falls under item (i), (ii) or (iii) above or (z) whose affiliates belonging to an enterprise group subject to limitation on mutual investment hold in aggregate equity equivalent to 30% or greater of the total amount invested by such private equity fund; or

(v) any investment purpose company in which a private equity fund that falls under item (iv) above acquires and holds no less than 4% of such company's shares or equity or exercises de-facto influence on such company's significant managerial matters.

The Act on Corporate Governance of Financial Companies

The Act on Corporate Governance of Financial Companies came into effect as of August 1, 2016. The Act was enacted to address calls for strengthened regulations on corporate governance of financial companies and to serve as a uniform regulation on corporate governance matters applicable to all financial companies in place of the separate regulations for each sector that existed. The Act contains several key measures, including, but not limited, to (i) condition of eligibility of officers of financial companies and standards for determining whether financial companies' officers may hold concurrent positions in other companies, (ii) standards for composition and operation of board of directors, (iii) standards for establishment, composition and operation of committees of the board of directors, (iv) internal control and risk management, (v) requirements and procedures for the approval of a change of major shareholders and (vi) special regulations for rights of minority shareholders of financial companies.

Financial Investment Services and Capital Markets Act

General

The Financial Investment Services and Capital Markets Act categorizes capital markets-related business into six different functions, as follows:

- dealing (trading and underwriting of "financial investment products" (as defined below));
- brokerage (brokerage of financial investment products);
- collective investment (establishment of collective investment schemes and the management thereof);
- investment advice;
- discretionary investment management; and
- trusts (together with the five businesses set forth above, the "Financial Investment Businesses").

Accordingly, all financial businesses relating to financial investment products are reclassified as one or more of the Financial Investment Businesses described above, and financial institutions are subject to the regulations applicable to their relevant Financial Investment Businesses, irrespective of the type of the financial institution it is. For example, under the Financial Investment Services and Capital Markets Act, derivative businesses conducted by securities companies and future companies will be subject to the same regulations under the Financial Investment Services and Capital Markets Act, at least in principle.

The banking business and insurance business are not subject to the Financial Investment Services and Capital Markets Act and will continue to be regulated under separate laws; provided, however, that they may become subject to the Financial Investment Services and Capital Markets Act if their activities involve any financial investment businesses requiring a license based on the Financial Investment Services and Capital Markets Act.

Comprehensive Definition of Financial Investment Products

In an effort to encompass the various types of securities and derivative products available in the capital markets, the Financial Investment Services and Capital Markets Act sets forth a comprehensive term "financial investment products," defined to mean all financial products with a risk of loss in the invested amount (in contrast to "deposits," which are not financial investment products for which the invested amount is protected or preserved). Financial investment products are classified into two major categories: (i) "securities" (relating to financial investment products where the risk of loss is limited to the invested amount) and (ii) "derivatives" (relating to financial investment products where the risk of loss may exceed the invested amount). As a result of the general and open-ended manner in which financial investment products are defined, any future financial product could potentially fall under the definition of financial investment products, which would enable Financial Investment Companies (as defined below) to handle a broader range of financial products. Under the Financial Investment Services and Capital Markets Act, securities companies, asset management companies, futures companies and other entities engaging in any Financial Investment Business are classified as "Financial Investment Companies."

License System

Financial Investment Companies are able to choose what Financial Investment Business to engage in (through the "check the box" method set forth in the relevant license application), by specifying the desired (i) Financial Investment Business, (ii) financial investment product and (iii) target customers to which financial investment products may be sold (namely, general investors or professional investors). Licenses will be issued under the specific business sub-categories described above. For example, it would be possible for a Financial Investment Company to obtain a license to engage in the Financial Investment Business of (i) dealing (ii) over-the-counter derivatives products (iii) only with professional investors.

Expanded Business Scope of Financial Investment Companies

Under the previous regulatory regime in Korea, it was difficult for a financial institution to explore a new line of business or expand upon its existing line of business. For example, a financial institution licensed as a securities company generally could not engage in the asset management business. In contrast, under the Financial Investment Services and Capital Markets Act, pursuant to the integration of its current business involving financial investment products into a single Financial Investment Business, a licensed Financial Investment Company is permitted to engage in all types of Financial Investment Businesses, subject to compliance with the relevant regulations, for example, maintaining an adequate "Chinese Wall," to the extent required. As to incidental businesses (i.e., a financial related business which is not a Financial Investment Business), the Financial Investment Services and Capital Markets Act generally allows a Financial Investment Company to freely engage in such incidental businesses by shifting away from the previous system of permitting only the listed activities towards a more comprehensive system. In addition, a Financial Investment Company is permitted (i) to outsource marketing activities by contracting with "introducing brokers" that are individuals but not employees of the Financial Investment Company, (ii) to engage in foreign exchange business related to their Financial Investment Business and (iii) to participate in the settlement network, pursuant to an agreement among the settlement network participants.

Improvement in Investor Protection Mechanism

While the Financial Investment Services and Capital Markets Act broadens the scope of financial businesses in which financial institutions are permitted to engage, a more rigorous investor-protection mechanism is imposed upon Financial Investment Companies dealing in financial investment products. The Financial Investment Services and Capital Markets Act makes a distinction between general investors and sophisticated investors and provides new or enhanced protections to general investors. For instance, the Financial Investment Services and Capital Markets Act expressly provides for strict know-your-customer rules for general investors and imposes an obligation on Financial Investment Companies that they should market financial investment products suitable to each general investor considering his or her personal attributes, including investment objective, net worth, and investment experience. Under the Financial Investment Services and Capital Markets Act, a Financial Investment Company can be held liable if a general investor proves (i) damages or losses relating to such general investor's investment in financial investment products solicited by such Financial Investment Company and (ii) absence of explanation, false explanation, or omission of material fact (without having to prove fault or causation). In case there are any conflicts of interest between the Financial Investment Companies and investors, the Financial Investment Services and Capital Markets Act expressly requires (i) disclosure of any conflict of interest to investors and (ii) mitigation of conflicts of interest to a comfortable level or abstention from the relevant transaction.

Other Regulatory Changes Related to Securities and Investments

The Financial Investment Services and Capital Markets Act brought changes to various rules in securities regulations including those relating to public disclosure, insider trading and proxy contests, which had previously been governed by the Securities and Exchange Act. For example, the 5% and 10% reporting obligations under the Securities and Exchange Act have become more stringent under the Financial Investment Services and Capital Markets Act. For instance, the number of events requiring an investor to update its 5% report have increased under the Financial Investment Services and Capital Markets Act. Previously, only a change in the shareholding of 1% or more or in the purpose of shareholding (such as an intention to influence management) could trigger the obligation to update the 5% report. The Government has issued detailed regulations stipulating additional events requiring updates to 5% reports, such as the change in the type of holding and change in any major aspect of the relevant contract. As for the 10% report filing obligation, the initial filing is expected to be required to be made within five business days of the date of the event triggering the 10% reporting obligation, compared to 10 calendar days under the previous law. The due date for reporting a subsequent change after the initial 10% report filing has been reduced from the 10th day of the first month immediately following the month in which such change took place to five business days of the date of such change. Under the previous law, there had been a limitation on the type of investment vehicles that could be used in a collective investment scheme (namely, to trusts and corporations), the type of funds that could be used for collective investments, and the types of assets and investment securities a fund could invest in. However, the Financial Investment Services and Capital Markets Act significantly liberalizes these restrictions, permitting all legal entities, including limited liability companies or partnerships, to be used for the purpose of collective investments, allowing the formation of fund complexes and permitting investment funds to invest in a wide variety of different assets and investment instruments.

Principal Regulations Applicable to Banks

General

The banking system in Korea is governed by the Banking Act and the Bank of Korea Act of 1950, as amended (the "Bank of Korea Act"). In addition, Korean banks are subject to the regulations and supervision of the Bank of Korea, the Bank of Korea's Monetary Policy Committee, the Financial Services Commission and its executive body, the Financial Supervisory Service.

The Bank of Korea, established in June 1950 under the Bank of Korea Act, performs the customary functions of a central bank. It seeks to contribute to the sound development of the national economy by price stabilization through establishing and implementing efficient monetary and credit policies. The Bank of Korea acts under instructions of the Monetary Policy Committee, the supreme policy-making body of the Bank of Korea.

Under the Bank of Korea Act, the Monetary Policy Committee's primary responsibilities are to formulate monetary and credit policies and to determine the operations, management and administration of the Bank of Korea. The Financial Services Commission, established on April 1, 1998 as the Financial Supervisory Commission and later changed its name to the Financial Services Commission on March 3, 2008, regulates commercial banks pursuant to the Banking Act, including establishing guidelines on capital adequacy of commercial banks, and promulgates regulations relating to supervision of banks. Furthermore, pursuant to the Amendment to the Government Organization Act and the Banking Act on May 24, 1999, the Financial Services Commission, instead of the Ministry of Strategy and Finance, now regulates market entry into the banking business.

The Financial Supervisory Service is subject to the instructions and directives of the Financial Services Commission and carries out supervision and examination of commercial banks. In particular, the Financial Supervisory Service sets requirements both for the prudent control of liquidity and for capital adequacy and establishes reporting requirements pursuant to the authority delegated to it under the Financial Services Commission regulations, pursuant to which banks are required to submit annual reports on financial performance and shareholdings, regular reports on management strategy and non-performing loans, including write-offs, and management of problem companies and plans for the settlement of bad loans.

Under the Banking Act, approval to commence a commercial banking business or a long-term financing business must be obtained from the Financial Services Commission. Commercial banking business is defined as the lending of funds acquired predominantly from the acceptance of deposits for a period not exceeding one year or, subject to the limitation established by the Financial Services Commission, for a period between one year and three years. Long-term financing business is defined as the lending, for periods in excess of one year, of funds acquired predominantly from paid-in capital, reserves or other retained earnings, the acceptance of deposits with maturities of at least one year, or the issuance of bonds or other securities. A bank wishing to enter any business other than commercial banking and long-term financing businesses, such as the trust business, must obtain approval from the Financial Services Commission. Approval to merge with any other banking institution, to liquidate, to close a banking business or to transfer all or a part of a business must also be obtained from the Financial Services Commission.

If the Financial Services Commission deems a bank's financial condition to be unsound or if a bank fails to meet the applicable capital adequacy ratio set forth under Korean law, the Financial Services Commission may order, among others,:

- capital increases or reductions;
- suspension of officers' performance of their duties and appointment of custodians;
- stock cancellations or consolidations;
- transfers of a part or all of business;
- sale of assets and bar on acquisition of high-risk assets;
- closures or downsizing of branch offices or workforce;
- mergers or becoming a subsidiary under the Financial Holding Companies Act of a financial holding company;
- acquisition of a bank by a third party;
- suspensions of a part or all of business operation; or
- assignments of contractual rights and obligations relating to financial transactions.

Capital Adequacy

The Banking Act requires nationwide banks to maintain a minimum paid-in capital of ₩100 billion and regional banks to maintain a minimum paid-in capital of ₩25 billion.

In addition to minimum capital requirements, all banks including foreign bank branches in Korea are required to maintain a prescribed solvency position. A bank must also set aside as its legal reserve an amount equal to at least 10% of its net profits after tax each time it pays dividends on net profits earned until such time when the reserve equals the amount of its total paid-in capital.

Under the Banking Act, the capital of a bank is divided into two categories: Tier I and Tier II capital. Tier I capital (typically referred to as "Core Capital") consists of (i) the capital that can absorb losses incurred by a bank such as capital, capital surplus and earned surplus generated from the issuance of common shares (collectively, "Common Stock Capital"), and (ii) the capital that can absorb the losses of a bank after depletion of the Common Stock Capital such as capital and capital surplus generated from the issuance of Tier I capital instruments satisfying the requirements designated by the Financial Supervisory Service (collectively, "Other Core Capital"). Tier II capital (typically referred to as "Supplementary Capital") represents the capital which is equivalent to, but not included in, the Core Capital and can absorb losses incurred upon the liquidation of a bank such as capital and capital surplus generated from the issuance of Tier II capital instruments satisfying the requirements designated by the Financial Supervisory Service and allowance for bad debts set aside for loans classified as "normal" or "precautionary."

Under the Detailed Regulations on the Supervision of the Banking Business, Tier I capital instruments must satisfy, among others, the following requirements in order to be recognized as Other Core Capital:

(i) the price for such instruments shall have been fully paid through the procedure for issuance, and the instruments shall be in a perpetual form with no cause triggering a step-up or redemption;

(ii) such instruments shall be bound by a special agreement on being subordinate to depositors, general creditors and subordinated debt of the bank (referring to a special agreement under which subordinated creditors' right to claim payment shall take effect only after unsubordinated creditors' claims are fully paid, when bankruptcy or any similar incident occurs; hereinafter the same shall apply) but shall not fall within liabilities exceeding assets at the time when bankruptcy is declared under the Debtor Rehabilitation and Bankruptcy Act;

(iii) the payment of dividends or interests shall be suspended from the date when the bank is designated as a "insolvent financial institution" under the Act on Structural Improvement of the Financial Industry of Korea or under the Depositor Protection act of Korea as applicable, or the Financial Supervisory Service takes measures under the Regulations on the Supervision of the Banking Business such as the managerial improvement recommendation, the managerial improvement request, the managerial improvement order and the emergency measures against the bank to the date when the above-mentioned event is removed;

(iv) the payment of dividends or interests shall not be determined in connection with the credit rating of the bank;

(v) the dividends may only be paid out of distributable income;

(vi) the bank shall be able to revoke in its sole discretion the payment of dividends or interests at any time;

(vii) the cancellation of paying dividends must not impose restrictions on the bank except in relation to dividends to common stockholders;

(viii) the revocation of the payment of dividends or interests shall not be deemed as the event of defaults, and the bank shall be able to use in its sole discretion the amount which was revoked to pay as dividends or interests to redeem any other debts of the bank then due and payable;

(ix) such instruments shall not be redeemed within five years from the issuance date and the bank shall be able to determine in its sole discretion whether it redeems such instruments even after five years from the issuance date, and the instruments shall not be subject to any condition that arouse investors' expectation to have the instruments redeemed or any condition that imposes a burden of redemption upon the issuing bank in fact;

(x) the requirements prescribed in Appendix 3-5 (Trigger Events for Contingent Capital Securities) of the Detailed Enforcement Rules of Regulation on Supervision of Banking Business shall be satisfied;

(xi) the bank or the person who has de facto control over the bank shall not purchase capital instruments or provide a purchaser of such securities with funds for the purchase by providing a collateral or guarantee for payment or by lending a loan, shall not raise the priority of its claims, legally or economically, for the price paid for the securities, and shall not provide a collateral or guarantee to the purchasers of the securities directly or via a related company; and

(xii) such capital instruments shall have no condition that hinders the issuing bank's procurement or expansion of capital in the future.

Under the Detailed Regulations on the Supervision of the Banking Business, Tier II capital instruments must satisfy, among others, the following requirements in order to be recognized as Supplementary Capital:

(i) the procedure for issuance shall have been completed, the price for such capital instruments shall have been fully paid, and the capital instruments shall be bound by a special agreement of subordination to deposits and ordinary debts;

(ii) the maturity shall not be less than five years from the issuance date, and Tier II capital instruments shall not be redeemed within five years from the issuance date;

(iii) there is no condition to promote the bank to redeem such capital instruments such as a step-up provision, and the bank shall be able to determine in its sole discretion whether to redeem such instruments prior to the maturity date, and the instruments shall not be subject to any condition that arouse investors' expectation to have the instruments redeemed or any condition that imposes a burden of redemption upon the issuing bank in fact;

(iv) other than the case where the bank is subject to the bankruptcy or liquidation, the holder of Tier II capital instruments shall not have the right to require bank to pay the principal or interests of such instruments earlier than the original due date thereof;

(v) the payment of dividends or interests shall not be determined in connection with the credit rating of the bank;

(vi) the requirements prescribed in Appendix 3-5 (Trigger Events for Contingent Capital Securities) of the Detailed Enforcement Rules of Regulation on Supervision of Banking Business shall be satisfied;

(vii) the bank or any person or entity over which the bank exercises substantial control shall not purchase the capital instruments issued by such bank nor provide, directly or indirectly, the funds to acquire the capital instruments by providing any collateral or guaranty or loan in favor of the person or entity which tries to acquire such instruments; and

(viii) the bank shall not enhance, legally or economically, the payment priority of the capital instruments, nor provide, directly or indirectly through its affiliated company, any collateral or guaranty in favor of the person or entity which acquires such instruments.

All banks must meet standards regarding minimum ratios of Tier I and Tier II capital (less any capital deductions) to risk-weighted assets, determined in accordance with the Financial Services Commission requirements that have been formulated based on the BIS Standards. These standards were adopted and became effective in 1996. Under these regulations, all domestic banks and foreign bank branches are required to meet the minimum ratio of Tier I and Tier II capital (less any capital deductions) to risk-weighted assets of 8%.

Furthermore, as Basel III was adopted and is being implemented in stages in Korea since December 1, 2013, all banks in Korea are required to meet minimum ratios of common stock capital (less any capital deductions) and core capital (less any capital deductions) to risk-weighted assets as set out in the Regulation on the Supervision of the Banking Business. The required minimum ratio of common stock capital (less any capital deductions) to risk-weighted assets is 4.5%, and the required minimum ratio of core capital (less any capital deductions) to risk-weighted assets is 6.0%. In addition, additional capital conservation buffer requirements have been implemented in stages from January 1, 2016 to January 1, 2019. Under such requirements, all banks in Korea are required to maintain a capital conservation buffer of 0.625% from January 1, 2016, which was gradually increased to 1.25% on January 1, 2017, 1.875% on January 1, 2018 and 2.5% on January 1, 2019.

Under the Regulation on the Supervision of the Banking Business and the Detailed Regulations promulgated thereunder, Korean banks apply the following risk-weight ratios in respect of their home mortgage loans:

(i) for those banks adopting a standardized approach for calculating credit risk-weighted assets, the risk-weight ratio of 35% (only in the case where the loan is fully secured by a first ranking mortgage); and

(ii) for those banks adopting an internal ratings-based approach for calculating credit risk-weighted assets, a risk-weight ratio calculated with reference to the probability of default, loss given default and exposure at default, each as defined in the Detailed Regulations on the Supervision of the Banking Business.

In Korea, Basel II, a convention entered into by the Basel committee in June 2004 for the purpose of improving risk management and increasing capital adequacy of banks, was implemented in January 2008. Pursuant to Basel II, operational risk, such as inadequate procedure, loss risk by employees, internal system, occurrence of unexpected event, as well as credit risk and market risk, is taken into account in calculating the risk-weighted assets, in addition to maintaining the capital adequacy ratio of 8% for banks. Under Basel II, the capital requirements for credit risk can be calculated by the internal rating based (IRB) approach or the standardized approach.

Under the standardized approach, a home mortgage loan fully secured by a first ranking mortgage over the residential property is risk-weighted at 35%, but certain home mortgage loans with loan-to-value ratio exceeding 60% are risk weighted at 50% pursuant to an amendment of the Detailed Regulation on the Supervision of the Banking Business on December 31, 2018.

Under the Regulation on the Supervision of the Banking Business, banks shall set aside allowances for bad debts for each class of soundness in accordance with IFRS as adopted by Korea. If the amount for each class of soundness calculated in accordance with the following criteria exceeds the allowances for bad debts set aside, the excess amount shall, at the time of each settlement of accounts, be set aside as regulatory reserve for credit losses.

- 0.85% of normal credits (or 0.9% in the case of normal credits comprising loans to certain industries including construction, retail and wholesale sales, accommodations, restaurant, real estate and lease, 1.0% in the case of normal credits comprising loans to individuals and households, 2.5% in the case of normal credits comprising credit card loans and 1.1% in the case of normal credits comprising other credit card receivables);
- 7% of precautionary credits (or 10% in the case of precautionary credits comprising loans to individuals and households, 50% in the case of precautionary credits comprising credit card loans and 40% in the case of precautionary credits comprising other credit card receivables);
- 20% of substandard credits (or 10% in the case of substandard credits comprising assets for which the bank has the right to receive payment in priority pursuant to the Corporate Restructuring Promotion Act of Korea or Paragraph 180, Subparagraph 2 of the Debtor Rehabilitation and Bankruptcy Act of Korea (the "Priority Assets"), 65% in the case of substandard credits comprising credit card loans and 60% in the case of substandard credits comprising other credit card receivables);
- 50% of doubtful credits (or 25% in the case of doubtful credits comprising Priority Assets, 55% in the case of doubtful credits comprising loans to individuals and households and 75% in the case of doubtful credits comprising credit card loans and other credit card receivables); and
- 100% of estimated loss credits (or 50% in the case of estimated loss credits comprising of Priority Assets).

Furthermore, under the Regulation on the Supervision of the Banking Business, banks must maintain allowances for bad debts and regulatory reserve for credit losses in respect of their confirmed guarantees (including confirmed acceptances) and outstanding non-used credit lines in an aggregate amount calculated at the same rates applicable to normal, precautionary, substandard, doubtful and estimated loss credits comprising their outstanding loans and other credits as set forth above.

As of January 1, 2016, the Financial Services Commission implemented Basel III requirements relating to accumulation of additional capital for systemically important banks and countercyclical capital buffer requirements. Each year, the Financial Services Commission may designate banks with significant influence (based on size and connectivity with other financial institutions) on the domestic financial system as a domestic systemically important bank and require the accumulation of additional capital in accordance with the highest of: (i) ratio of common equity capital to risk-weighted assets, ranging from 0.0% to 2.0%, depending on the systematic importance evaluation score, (ii) if the bank's holding company is a domestic systemically important bank holding company, the capital ratio corresponding to the additional capital required for the bank holding company under the Financial Holding Company Supervision Regulations, or (iii) if the bank is also a global systemically important bank, as defined by the Basel Committee, the capital ratio as required by the Basel Committee. Shinhan Financial Group and Shinhan Bank were selected as a domestic systemically important bank holding company and domestic systemically important bank, respectively, from 2016 through 2020. According to the instructions of the Financial Services Commission, domestic systematically important banks including Shinhan Bank have been required to maintain an additional capital buffer of 0.25% since January 1, 2016, with such buffer increased by 0.25% annually to reach 1.00% as of January 1, 2019. The Financial Services Commission may also, upon quarterly review, determine and require banks to accumulate a required level of countercyclical capital buffer within the range of 0% to 2.5% of risk-weighted assets, taking into account factors such as the degree of increase in credit relative to the gross domestic product. Since March 2016, the Financial Services Commission has maintained countercyclical capital buffer requirements at 0%, and the Financial

Supervisory Service has maintained the countercyclical capital buffer requirement at 0% for the first quarter of 2020. In addition, the Regulation on the Supervision of the Banking Business is expected to be amended during 2020 to introduce an additional countercyclical capital buffer requirement that specifically addresses the increase of credit in the retail sector. This is in addition to and separate from the existing general countercyclical capital buffer requirements that take into account the degree of increase in credit generally relative to the gross domestic product. The Detailed Regulation on the Supervision of the Banking Business was also amended on June 30, 2018 to add "concentration of risk in the retail sector" as an additional criterion when the Financial Supervisory Service evaluates the risk management systems of Korean banks.

Liquidity

All banks are required to match the maturities of their assets and liabilities in accordance with the Banking Act in order to ensure adequate liquidity. Banks may not invest in excess of an amount exceeding 100% of their Tier I and Tier II capital (less any capital deductions) in stocks and other securities with a period remaining to maturity of over three years. However, this restriction does not apply to government bonds or to Monetary Stabilization Bonds issued by the Bank of Korea.

The Financial Services Commission requires Korean banks to maintain a liquidity coverage ratio of at least 90.0% as of January 1, 2017, 95.0% as of January 1, 2018 and 100.0% as of January 1, 2019. The Financial Services Commission defines liquidity coverage ratio as high quality liquid assets that can be immediately converted into cash with little or no loss in value, as divided by the net amount of cash outflow for the next 30 day period, under the stress level established according to the liquidity coverage ratio, pursuant to the Regulation on the Supervision of the Banking Business, which was amended as of June 28, 2016 to implement the liquidity coverage ratio requirements under Basel III.

With respect to foreign currency liquidity coverage ratio, the Regulation on the Supervision of the Banking Business requires that financial institutions dealing with foreign exchange affairs (i.e., banks) whose foreign-currency denominated liabilities are equal to or greater than US$500 million or 5% of its total liabilities, as of the end of the immediately preceding half-year period, maintain a foreign currency liquidity coverage ratio of 60% or higher beginning January 1, 2017, 70% or higher beginning January 1, 2018 and 80% or higher beginning January 1, 2019. The term "foreign currency liquidity coverage ratio" means the ratio of high-liquidity assets to the net cash outflow in respect of foreign-currency denominated assets and liabilities for the next 30 days. In the case of financial institutions dealing with foreign exchange affairs whose foreign-currency denominated liabilities are less than US$500 million and less than 5% of its total liabilities, as of the end of the immediately preceding half-year period, the following ratios shall be maintained and foreign-currency denominated assets and liabilities shall be categorized and managed according to such different remaining maturities: (i) the ratio of assets for which remaining maturities are less than three months to liabilities for which remaining maturities are less than three months shall be at least 85%, and (ii) the assets for which remaining maturities are less than one month shall not exceed liabilities for which the remaining maturities are less than one month by more than 10%.

The Monetary Policy Committee of the Bank of Korea is authorized to fix and alter minimum reserve requirements that banks must maintain against their deposit liabilities. The current minimum reserve ratio is 7.0% of average balances for Won-denominated demand deposits outstanding, 0.0% of average balances for Won-denominated employee asset establishment savings deposits, employee long-term savings deposits, employee house purchase savings deposits, long-term house purchase savings deposits, household long-term savings deposits and employee preferential savings deposits outstanding and 2.0% of average balances for Won-denominated time and savings deposits, mutual installments, housing installments and certificates of deposit outstanding. For foreign currency deposit liabilities, a 2.0% minimum reserve ratio is applied to savings deposits outstanding and a 7.0% minimum reserve ratio is applied to demand deposits, while a 1.0% minimum reserve ratio is applied for offshore accounts, immigrant accounts and resident accounts opened by foreign exchange banks.

Loan-to-Deposit Ratio

In December 2009, the Financial Supervisory Service announced that it would introduce a new set of regulations on the loan-to-deposit ratio by amending the Regulation on the Supervision of the Banking Business upon its determination that the overall liquidity of banks in Korea had become unstable due to the ongoing increase in the loan-to-deposit ratio resulting from banks expanding their asset size too competitively by granting mortgages on houses and loans to small- and medium-sized enterprises over the last couple of years. The Regulation on the Supervision of the Banking Business, which was amended as of August 19, 2010 and December 26, 2014 and took effect on January 1, 2014 and January 1, 2015, respectively, requires banks with Won-denominated loans of not less than ₩2 trillion in value as of the last month of the immediately preceding quarter to maintain a ratio of Won-denominated loans (excluding certain types of loans using funds borrowed from Korea Development Bank or the Government or loans made under certain operational rules of Korea Federation of Banks) to Won-denominated deposits (excluding certificates of deposit) and the balance of the covered bonds under the Act on Issuance of Covered Bonds, the maturity of which is not less than five years (only in case when such financing from the issuance of covered bonds is used in Won currency and up to 1% of Won-denominated deposits) not more than 1:1. Shinhan Bank's loan-to-deposit ratio as of December 31, 2019 was 95.4%, based on monthly average balances.

Currently, in calculating the loan to deposit ratio, there is no differentiation between retail loans and corporate loans. However, the Regulation on the Supervision of the Banking Business was amended on July 12, 2018 to provide that, beginning on January 1, 2020, in calculating such loan to deposit ratio, retail loans and corporate loans are weighed differently, with retail loans subject to a multiple of 115% and corporate loans (excluding loans to SOHOs) subject to a multiple of 85%, thereby increasing the impact of retail loans and reducing the impact of corporate loans in calculating such ratio.

Financial Exposure to Any Single Customer and Major Shareholders

Under the Banking Act, the sum of material credit exposures by a bank, namely, the total sum of its credits to single individuals, legal entities or persons sharing credit risk with such individuals or legal entities such as companies belonging to the same enterprise groups as defined under the Monopoly Regulations and Fair Trade Act that exceed 10% of the sum of Tier I and Tier II capital (less any capital deductions), must not exceed five times the sum of Tier I and Tier II capital (less any capital deductions), subject to certain exceptions. Subject to certain exceptions, no bank is permitted to extend credit (including loans, guarantees, purchases of securities (only in the nature of a credit) and such other transactions which directly or indirectly create credit risk) in excess of 20% of the sum of Tier I and Tier II capital (less any capital deductions) to an individual or a legal entity, and no bank may grant credit in excess of 25% of the sum of Tier I and Tier II capital (less any capital deductions) to individuals, legal entities and companies that belong to the same enterprise group as defined in the Monopoly Regulations and Fair Trade Act.

Under the Banking Act, certain restrictions apply to extending credits to a major shareholder. The definition of a "major shareholder" is as follows:

- a shareholder holding (together with persons who have a special relationship with such shareholder as defined in the Presidential Decree of the Banking Act) in excess of 10% (or in the case of regional banks, 15%) in the aggregate of the bank's total issued and outstanding voting shares; or
- a shareholder holding (together with persons who have a special relationship with such shareholder as defined in the Presidential Decree of the Banking Act) more than 4% in the aggregate of the total issued and outstanding voting shares of a bank (other than a regional bank), where such shareholder is the largest shareholder or is able to actually control the major business affairs of the bank, for example, through appointment and dismissal of the chief executive officer or of the majority of the executives.

Under the Banking Act, banks are prohibited from extending credits in the amount greater than the lesser of (1) 25% of the sum of such bank's Tier I and Tier II capital (less any capital deductions) and (2) the relevant major shareholder's shareholding ratio multiplied by the sum of the bank's Tier I and Tier II capital (less any capital deductions) to a major shareholder (together with persons who have special relationship with such major shareholder as defined in the Presidential Decree of the Banking Act). Also, no bank is allowed to grant credit to its major shareholders in the aggregate in excess of 25% of its Tier I and Tier II capital (less any capital deductions).

When managing the credit risk of banks, among the methods for providing credit support by banks, a loan agreement, a purchase agreement for asset-backed commercial papers, purchase of subordinate beneficiary certificates, and assumption of liability by providing warranty against default under asset-backed securitization are examples of creating financial exposure to banks.

Interest Rates

Korean banks remain dependent on the acceptance of deposits as their primary source of funds. Currently, there are no legal controls on interest rates on bank loans in Korea, except for the cap of 24.0% per annum on interest rates under the Act on Lending Business.

Lending to Small- and Medium-sized Enterprises

When commercial banks (including Shinhan Bank) make Won-denominated loans to certain startup, venture, innovative and other strategic small- and medium-sized enterprises specially designated by the Bank of Korea as "priority borrowers," the Bank of Korea generally provides the underlying funding to these banks at concessionary rates for up to 50% of all such loans made to the priority borrowers subject to a monthly-adjusted limit prescribed by the Bank of Korea (currently ₩5.9 trillion) provided that if such loans to priority borrowers made by all commercial banks exceed the prescribed limit for a given month, the concessionary funding for the following month will be allocated to each commercial bank in proportion to such bank's lending to priority borrowers two months prior to the time of such allocation, which has the effect that, if a particular bank lags other banks in making loans to priority borrowers, the amount of funding such bank can receive from the Bank of Korea at concessionary rates will be proportionately reduced.

Disclosure of Management Performance

For the purpose of enforcing mandatory disclosure of management performance so that the general public, especially depositors and stockholders, will be in a better position to monitor banks, the Financial Services Commission requires commercial banks to disclose certain matters as follows:

- loans bearing no profit made to a single business group in an amount exceeding 10% of the sum of the bank's Tier I and Tier II capital (less any capital deductions) as of the end of the previous month (where the loan exposure to such borrower is calculated pursuant to the criteria under the Detailed Regulations promulgated under the Regulation on the Supervision of the Banking Business), except where the loan exposure to a single business group is not more than ₩4 billion; and
- any loss due to court judgments or similar decisions in civil proceedings in an amount exceeding 1% of the sum of the bank's Tier I and Tier II capital (less any capital deductions) as of the end of the previous month, except where the loss is not more than ₩1 billion.

Restrictions on Lending

According to the Banking Act, commercial banks are prohibited from making any of the following categories of loans:

- loans made directly or indirectly on the pledge of a bank's own shares;
- loans made directly or indirectly to enable a natural or a legal person to buy the bank's own shares;

- loans made to any of the bank's officers or employees other than de minimis loans of up to (1) ₩20 million in the case of a general loan, (2) ₩50 million in the case of a general loan plus a housing loan, or (3) ₩60 million in the aggregate for general loans, housing loans and loans to pay damages arising from wrongful acts of employees in financial transactions;
- credit (including loans) secured by a pledge of shares of a subsidiary corporation of the bank or to enable a natural or juridical person to buy shares of a subsidiary corporation of the bank; and
- loans to any officers or employees of a subsidiary corporation of the bank, other than general loans of up to ₩20 million or general and housing loans of up to ₩50 million in the aggregate.

Recent Regulations Relating to Retail Household Loans

The Financial Services Commission implemented a number of changes in recent years to the mechanisms by which a bank evaluates and reports its retail household loan balances and has proposed implementing further changes. In order to rationalize the regulations on the housing loans, the Financial Services Commission and the Financial Supervisory Service provided administrative instructions in July 2014 with effect from August 1, 2014, which have been extended and amended several times, that all financial institutions including banks under the Banking Act were subject to the maximum loan-to-value ratio of 70% (irrespective of the location of the property, subject to certain exceptions) and the maximum debt-to-income ratio of 60% (only in respect of apartment units located in the greater Seoul metropolitan area, subject to certain exceptions). However, due to a rapid increase in the volume of loans secured by homes and other forms of housing, the Financial Services Commission and the Financial Supervisory Service implemented the following regulations designed to curtail extension of new or refinanced loans secured by housing by respectively amending the Regulation on the Supervision of the Banking Business and the Detailed Regulation on the Supervision of the Banking Business to replace the above administrative instructions in August 2017:

- as to loans secured by collateral of housing located nationwide, the loan-to-value ratio (the aggregate principal amount of loans secured by such collateral over the appraised value of the collateral) shall not exceed 70%;
- as to loans secured by collateral of housing located in "adjustment targeted areas", as designated by the government, the loan-to-value ratio for loans should not exceed 60%;
- as to loans secured by collateral of housing located in "overheated speculative districts" or "speculative districts", as designated by the government, the loan-to-value ratio for loans should not exceed 40%;
- as to loans secured by collateral of housing to be extended to a low income household satisfying certain requirements such as (i) in respect of the housing located in "adjustment targeted areas," the annual income of households being less than ₩60 million (and ₩70 million for first home buyers) and the value of housing being less than ₩500 million, and (ii) in respect of the housing located in "overheated speculative districts" or "speculative districts," the annual income of households being less than ₩70 million (and ₩80 million for first home buyers) and the value of housing being less than ₩600 million, the maximum loan-to-value ratio is 10% higher than the applicable loan-to-value ratios of 60% in "adjustment targeted areas" and 40% in "overheated speculative districts" or "speculative districts" described above;
- as to loans secured by collateral of housing to be extended to a household which has already received one or more loans secured by collateral of housing, the maximum loan-to-value ratio is 10% lower than the applicable loan-to-value ratios of 60% in "adjustment targeted areas" and 40% in "overheated speculative districts" or "speculative districts" described above;
- as to loans secured by collateral of housing (limited to an apartment) located in the greater Seoul metropolitan area, the borrower's debt-to-income ratio (calculated as (i) the aggregate annual total payment amount of (x) the principal of and interest on loans secured by such housing and existing mortgage and home equity loans and (y) the interest on other loans of the borrower over (ii) the borrower's annual income) shall not exceed 60%;

- as to loans secured by collateral of housing (limited to an apartment) located in "adjustment targeted areas", as designated by the government, the borrower's debt-to-income ratio shall not exceed 50%;
- as to loans secured by collateral of housing located in "overheated speculative districts" or "speculative districts", as designated by the government, the borrower's debt-to-income ratio shall not exceed 40%;
- as to loans secured by collateral of housing to be extended to a low income household, the maximum debt-to-income ratio is 10% higher than the applicable debt-to-income ratios of 50% in "adjustment targeted areas" and 40% in "overheated speculative districts" or "speculative districts" described above;
- as to loans secured by collateral of housing to be extended to a household which has already received one or more loans secured by collateral of housing, the maximum debt-to-income ratio is 10% lower than the applicable debt-to-income ratios of 50% in "adjustment targeted areas" and 40% in "overheated speculative districts" or "speculative districts" described above;
- as to apartments located in "speculative districts", as designated by the government, a household is permitted to have only one new loan secured by such apartment; and
- where a household has two or more loans secured by apartments located in "speculative districts", as designated by the government, the loan with the earliest maturity date must be repaid first and the number of loans must be eventually reduced to one.

As housing prices in the greater Seoul metropolitan area continued to rise despite the above measures, on December 16, 2019, the Government unveiled a tighter set of measures aimed at the housing market. According to these new measures, which became effective from December 17, 2019, no mortgage or home equity loans can be provided to purchase a new home located in any of the regulated areas to a household that already owns two or more housing units. For a household that already owns one housing unit, such loans can only be provided under very limited circumstances. Furthermore, the "speculative districts" and "overheated speculative districts" are further restricted by tighter loan-to-value ratios. If the market value of a home located in any of the "speculative districts" or "overheated speculative districts" being acquired is greater than ₩1.5 billion, no mortgage or home equity loans may be provided. For homes located in any of the "speculative districts" or "overheated speculative districts" with a market value equal or less than ₩1.5 billion but greater than ₩900 million, the loans can only cover 40% of the market value up to ₩900 million and 20% of any remaining value between ₩1.5 billion and ₩900 million. In addition to the foregoing restrictions, no mortgage loan applicant buying a home in any of the "speculative districts" or "overheated speculative districts" may incur a loan that will exceed 40% of his/her debt service ratio for homes with market values exceeding ₩900 million. Furthermore, on February 20, 2020, the Government announced additional countermeasures to curb housing prices in the "adjustment targeted areas", under which if the market value of a home located in any of the "adjustment targeted areas" being acquired is greater than ₩900 million, the loans can only cover 50% of the market value up to ₩900 million and 30% of any remaining value exceeding ₩900 million.

Restrictions on Investments in Property

A bank may possess real estate property only to the extent necessary for conducting its business; provided that the aggregate value of such real estate property must not exceed 60% of the sum of its Tier I and Tier II capital (less any capital deductions). Any property acquired by a bank (1) through the exercise of its rights as a secured party or (2) the acquisition of which is prohibited by the Banking Act must be disposed of within three years, unless otherwise provided by the regulations thereunder.

Restrictions on Shareholdings in Other Companies

Under the Banking Act, a bank may not own more than 15% of shares outstanding with voting rights of another company, except where, among other reasons:

- the company issuing such shares is engaged in a business that falls under the category of financial businesses set forth by the Financial Services Commission (including companies which business purpose is to own equity interests in private equity funds); or
- the acquisition of shares by the bank is necessary for corporate restructuring of such company and is approved by the Financial Services Commission.

In the above cases, a bank must satisfy either of the following requirements:

- the total investment in companies in which the bank owns more than 15% of the outstanding shares with voting rights does not exceed 20% of the sum of Tier I and Tier II capital (less any capital deductions); or
- the total investment in companies in which the bank owns more than 15% of the outstanding shares with voting rights does not exceed 30% of the sum of Tier I and Tier II capital (less any capital deductions) where the acquisition satisfies the requirements determined by the Financial Services Commission.

The Banking Act provides that a bank using its bank accounts and its trust accounts is not permitted to acquire the shares issued by the Major Shareholder of such bank in excess of an amount equal to 1% of the sum of Tier I and Tier II capital (less any capital deductions).

Restrictions on Bank Ownership

Under the Banking Act, subject to certain exceptions, a single shareholder and persons who stand in a special relationship with such shareholder (as described in the Presidential Decree to the Banking Act) may acquire beneficial ownership of up to 10% of a national bank's total issued and outstanding shares with voting rights and up to 15% of a regional bank's total issued and outstanding shares with voting rights. The government, the Korea Deposit Insurance Corporation and financial holding companies qualifying under the Financial Holding Companies Act are not subject to such ceilings. However, non-financial business group companies — namely, (1) any same shareholder group with an aggregate net assets of all non-financial companies belonging to such group of not less than 25% of the aggregate net assets of all corporations that are members of such group; (2) any group with aggregate assets of all non-financial companies belonging to such group of not less than ₩2 trillion; (3) any mutual fund in which the same shareholder group, as described in items (1) and (2) above, owns more than 4% of the total shares issued and outstanding; (4) a private equity fund (under the Financial Investment Services and Capital Markets Act) where (i) the general partner of such private equity fund, (ii) the limited partner whose equity holding ratio in such private equity fund is 10% or more, or (iii) the limited partners, being member companies of a single group of companies that belong to the same conglomerate as defined in the Monopoly Regulations and Fair Trade Act, whose aggregate equity holding ratio in such private equity fund is 30% or more falls under either of item (1) to (3) above; or (5) a special purpose company of a private equity fund where a private equity fund, as described in item (4) above, owns 4% or more of the special purpose company's issued and outstanding shares or has actual control over the major business affairs of the special purpose company through, for example, appointment and dismissal of the officers – may not acquire beneficial ownership of shares of a national bank in excess of 4% of such bank's outstanding voting shares, provided that such non-financial business group companies may acquire beneficial ownership of:

- up to 10% of a national bank's outstanding voting shares with the approval of the Financial Services Commission under the condition that such non-financial group companies will not exercise voting rights in respect of such shares in excess of the 4% limit; and

- in the event that a foreigner, as defined in the Foreign Investment Promotion Act, owns not less than 10% of a national bank's outstanding voting shares, up to 10% of such bank's outstanding voting shares without the approval of the Financial Services Commission, and in excess of 10%, 25% or 33% of such bank's outstanding voting shares, with the approval of the Financial Services Commission, up to the number of shares owned by such foreigner.

In addition, any person (whether a Korean national or a foreigner), with the exception of non-financial business group companies described above, may also acquire in excess of 10% of a national bank's total voting shares issued and outstanding, provided that an approval from the Financial Services Commission is obtained in instances where the total holding exceeds 10% (or 15% in the case of regional banks), 25% or 33% of the bank's total voting shares issued and outstanding.

Deposit Insurance System

The Depositor Protection Act provides, through a deposit insurance system, insurance for certain deposits of banks in Korea. Under the Depositor Protection Act, all banks governed by the Banking Act, including Shinhan Bank and Jeju Bank, are required to pay to the Korea Deposit Insurance Corporation an insurance premium on a quarterly basis at such rate as determined by the Presidential Decree to the Depositor Protection Act, which shall not exceed 0.5% of the bank's insurable deposits in any given year. The current insurance premium is 0.02% of insurable deposits for each quarter. If the Korea Deposit Insurance Corporation pays the insured amount, it will acquire the claims of the depositors within the payment amount. Under current rules, the Korea Deposit Insurance Corporation insures only up to a total of ₩50 million per an individual for deposits and interest in a single financial institution, regardless of when the deposits were made and the size of the deposits.

Trust Business

A bank that intends to enter into the trust business must obtain the approval of the Financial Services Commission. Trust activities of banks are governed by the Financial Investment Services and Capital Markets Act. Banks engaged in the banking business and trust business are subject to certain legal and accounting procedures requirements, including the following:

- under the Banking Act, the Financial Investment Services and Capital Markets Act and the Trust Act, assets accepted in trust by a bank in Korea must be segregated from its other assets in the accounts of such bank; accordingly, banks engaged in the banking and trust businesses must maintain two separate accounts, the "banking accounts" and the "trust accounts," and two separate sets of records which provide details of their banking and trust businesses, respectively; and
- assets comprising the trust accounts are not available to depositors or other general creditors of such bank in the event the trustee is liquidated or is wound up.

In the event that a bank qualifies and operates as a collective investment business entity, a trustee, a custodian or a general office administrator under the Financial Investment Services and Capital Markets Act, it is required to establish relevant operation and management systems to prevent potential conflicts of interest among the banking business, the collective investment business, the trustee or custodian business and general office administration. These measures include:

- prohibitions against officers, directors and employees of one particular business operation from serving as an officer, director and employee in another business operation, except where an officer or a director (1) serving in two or more business operations with no significant conflict of interest in accordance with the Presidential Decree on the Financial Investment Services and Capital Markets Act or (2) serving in a trustee business or a custodian business and simultaneously serving in a general office administrator business in accordance with the Financial Investment Services and Capital Markets Act;
- prohibitions against the joint use or sharing of computer equipment or office equipment; and

- prohibitions against the sharing of information by and among officers, directors and employees engaged in the different business operations.

A bank which qualifies and operates as a collective investment business entity may engage in the sale of beneficiary certificates of investment trusts which are managed by such bank. However, such bank is prohibited from engaging in the following activities:

- acting as trustee of an investment trust managed by such bank;
- purchasing with such bank's own funds beneficiary certificates of an investment trust managed by such bank;
- using in its sales activities of other collective investment securities information relating to the trust property of an investment trust managed by such bank;
- selling through other banks established under the Banking Act beneficiary certificates of an investment trust managed by such bank;
- establishing a short-term financial collective investment vehicle; and
- establishing a mutual fund.

Laws and Regulations Governing Other Business Activities

To enter the foreign exchange business, a bank must register with the Minister of the Ministry of Strategy and Finance. The foreign exchange business is governed by the Foreign Exchange Transaction Law. To enter the securities business, a bank must obtain the approval of the Financial Services Commission. The securities business is governed by regulations under the Financial Investment Services and Capital Markets Act. Pursuant to the above-mentioned laws, banks are permitted to engage in the foreign exchange business and the underwriting business for government and other public bonds.

Recently, regulatory authorities are encouraging financial institutions to lower the ATM usage fees in order to decrease the financial expense burden on consumers. Further, in light of the increasing household debt, regulatory authorities are encouraging financial institutions to gradually increase the proportion of the principal of retail loans that are subject to the fixed interest rates from 14% in 2012 to 45% by 2017.

Principal Regulations Applicable to Credit Card Companies

General

Any person, including a bank, wishing to engage in the credit card business must obtain a license from the Financial Services Commission. In addition, in order to enter the credit card business, a bank must obtain a license from the Financial Services Commission (hereinafter, a bank which obtains such license is defined as "licensed bank engaged in the credit card business"). The credit card business is regulated and governed by the Specialized Credit Financial Business Act. Under the Specialized Credit Financial Business Act and regulations thereunder, a company in the same conglomerate group (as defined in the Monopoly Regulations and Fair Trade Act) may engage in the credit card business even though another company in the same conglomerate group is already engaged in such business, which was previously not permitted.

The Specialized Credit Financial Business Act establishes guidelines on capital adequacy and provides for other regulations relating to the supervision of credit card companies. The Specialized Credit Financial Business Act delegates regulatory authority over credit card companies to the Financial Services Commission and its executive body, the Financial Supervisory Service.

A licensed bank engaging in the credit card business is regulated by the Financial Services Commission and the Financial Supervisory Service.

The Financial Services Commission regulates credit card companies and licensed banks engaged in the credit card business by establishing guidelines or regulations on management of such companies. Moreover if the Financial Services Commission deems the financial condition of a credit card company or a licensed bank engaged in the credit card business to be unsound or such companies fail to satisfy the guidelines or regulations, the Financial Services Commission may take certain measures to improve the financial condition of such companies.

Restrictions on Scope of Business

Under the Specialized Credit Financial Business Act, a credit card company may conduct only the following types of business: (i) credit card business as licensed or other specialized credit finance businesses as registered pursuant to the Specialized Credit Financial Business Act; (ii) the businesses ancillary to the credit card business, (for example, providing cash advance loans to existing credit card holders, issuing and settling of debit cards and issuing, selling and settling of pre-paid cards); (iii) provision of unsecured or secured loans; (iv) provision of discount on notes; (v) purchase, management and collection of account receivables originated by companies in the course of providing goods and services; (vi) provision of payment guarantee; (vii) asset management business under the Asset Backed Securitization Act; (viii) credit investigation; and (ix) other incidental businesses related to the foregoing. Under the Specialized Credit Financial Business Act, a credit card company's scope of business includes "businesses that utilize existing manpower, assets or facilities in a credit card company, as designated by the Financial Services Commission." Under the current regulation established by the Financial Services Commission, a credit card company may engage in various types of business including, but not limited to, e-commerce, operation of insurance agency, delegation of card issuance, supply of payment settlement system, loan brokerage and brokerage of collective investment securities.

A credit card company's average balance of claim amounts arising from the advance of loans to credit card holders (excluding such claims arising from the re-advance of loans to credit card holders following a change in the maturity or interest rate of such loans as part of a debt restructuring) as of the end of each quarter may not exceed the sum of the following amounts:

- Average balance of claims during a quarter arising from the purchase of goods or services by credit card holders with credit cards; and
- Amount of debit card usage during a quarter by debit card members.

Capital Adequacy

The Specialized Credit Financial Business Act provides for a minimum paid-in capital amount of: (i) ₩20 billion in the case of a specialized credit financial business company which wishes to engage in no more than two kinds of core businesses (i.e. credit card, installment finance, leasing and new technology business) and (ii) ₩40 billion in the case of an specialized credit financial business company, which wishes to engage in three or more kinds of core businesses.

Under the Specialized Credit Financial Business Act and regulations thereof, a credit card company must maintain a "capital adequacy ratio," defined as the ratio of adjusted equity capital to adjusted total asset, of 8% or more and a "delinquent claim ratio," defined as the ratio of delinquent claims to total claims as set forth under the regulations relating to the Specialized Credit Financial Business Act, of less than 10%.

Under the Specialized Credit Financial Business Act and regulations thereof, the minimum ratio of allowances for losses on loans, leased assets (except assets subject to an operating lease) and suspense receivables as of the date of accounting settlement (including semiannual preliminary accounts settlement) would be 0.5% of normal assets, 1% of precautionary assets and 20% of substandard assets, 75% of doubtful assets and 100% of estimated loss assets, and the minimum ratio of allowances for losses on card assets would be 1.1% (or 2.5%, in the case of card loan assets and revolving assets) of normal assets, 40% (or 50%, in the case of card loan assets and revolving assets) of precautionary assets, 60% (or 65%, in the case of card loan assets and revolving assets) of substandard assets, 75% of doubtful assets and 100% of estimated loss assets. In addition, a credit card company has to reserve a certain amount calculated according to relevant regulations as loss allowances for unused credit limits.

Liquidity

Under the Specialized Credit Financial Business Act and regulations thereunder, a credit card company must maintain a Won liquidity ratio (Won-denominated current assets/Won-denominated current liabilities) of 100% or more. In addition, once a credit card company is registered as a foreign exchange business institution with the Minister of the Ministry of Strategy and Finance, such credit card company is required to (1) maintain a foreign-currency liquidity ratio within three months (defined as foreign-currency liquid assets due within three months divided by foreign-currency liabilities due within three months) of not less than 80%, (2) maintain a ratio of foreign-currency liquid assets due within seven days (defined as foreign-currency liquid assets due within seven days less foreign-currency liabilities due within seven days, divided by total foreign-currency assets) of not less than 0% and (3) maintain a ratio of foreign-currency liquid assets due within a month (defined as foreign-currency liquid assets due within a month less foreign-currency liabilities due within a month, divided by total foreign-currency assets) of not less than negative 10%. The Financial Services Commission requires a credit card company to submit quarterly reports with respect to the maintenance of these ratios.

Restrictions on Funding

Under the Specialized Credit Financial Business Act, a credit card company may raise funds using only the following methods: (i) borrowing from financial institutions, (ii) issuing corporate debentures or notes, (iii) selling securities held by the credit card company, (iv) transferring claims held by the credit card company, (v) borrowing and issuing foreign currency securities after registering itself as a foreign exchange business institutions under the Foreign Exchange Transactions Law, (vi) transferring claims held by the credit card company in connection with its businesses, or (vii) issuing securities backed by the claims held by the credit card company relating to its businesses.

Furthermore, a credit card company may borrow funds from offshore or issue foreign currency denominated securities once it is registered as a foreign exchange business institution with the Minister of the Ministry of Strategy and Finance.

A credit card company must ensure that its total asset does not exceed six times the amount of its equity capital. However, if the credit card company cannot comply with such limit due to the occurrence of unavoidable events such as drastic changes in the domestic and global financial markets, such limit of its total assets compared to the equity capital may be adjusted by a resolution of the Financial Services Commission. A non-credit card company must ensure that its total asset does not exceed ten times the amount of its equity capital.

Restrictions on Loans to Affiliate Companies

Under the Specialized Credit Financial Business Act and regulations thereof, a credit card company may not provide loans exceeding 50% of its equity capital, in the aggregate, to its specially related persons (as defined under the relevant laws) including, but not limited to, its affiliates.

Restrictions on Assistance to Other Companies

Under the Specialized Credit Financial Business Act, a credit card company may not engage in any of the following acts in conjunction with other financial institutions or companies: (i) holding voting shares under cross shareholding or providing credit for the purpose of avoiding the restrictions on loans to affiliate companies;

(ii) acquiring shares under cross shareholding for the purpose of avoiding the limitation on purchase of its treasury shares under the Korean Commercial Code or the Financial Investment Services and Capital Markets Act; or (iii) other acts which are likely to have a material adverse effect on the interests of transaction parties as stipulated by the Presidential Decree to the Specialized Credit Financial Business Act, which are not yet provided.

A credit card company also may not extend credit for enabling another person to purchase the shares of such credit card company or to arrange financing for the purpose of avoiding the restrictions on loans to affiliate companies.

Restrictions on Investment in Real Estate

Under the Specialized Credit Financial Business Act and the regulations thereof, a credit card company may possess real estate only to the extent that such business conduct is designated by such laws and regulations, with certain exceptions such as for the purposes of factoring or leasing or as a result of enforcing its security rights, provided that the Financial Services Commission may limit the maximum amount a credit card company may invest in real estate investments for business purposes up to a percentage equal to or in excess of 100% of its equity capital.

Restrictions on Shareholding in Other Companies

Under the Specialized Credit Financial Business Act and the Act on the Structural Improvement of the Financial Industry, a credit card company and its affiliate financial institutions (together a "group") are required to obtain prior approval of the Financial Services Commission if such credit card company, together with its affiliate financial institutions, (i) owns 20% or more of outstanding voting shares of a target company or (ii) owns 5% or more of outstanding voting shares of a target company, and shall be deemed to have control of the target company, including being the largest shareholder of such target company or otherwise.

Disclosure and Reports

Pursuant to the Specialized Credit Financial Business Act and the regulations thereof, the ordinary disclosure requirement for a credit card company is to disclose any material matters relating to management performance, profits and losses, corporate governance, competence of the employees or risk management within three months from the end of each fiscal year and within two months from the end of the first half of the fiscal year. In addition, a credit card company is required to disclose on an on-going basis certain matters such as the occurrence of non-performing loans, a financial incident or losses exceeding certain amounts. In addition, under the regulations issued by the Financial Services Commission, a credit card company or a licensed bank engaging in the credit card business must submit such report as required by the Governor of the Financial Supervisory Service, with certain important matters being reported as frequently as each month. In addition, all companies engaged in the specialized credit financial business under the Specialized Credit Financial Business Act, including, without limitation, credit card companies, must file a report to the Financial Supervisory Service regarding the result of settlement of accounts within one month after the end of its fiscal year. Also, these companies are required to conduct a provisional settlement of accounts for each quarter and file a report to the Financial Supervisory Service within one month after the end of such quarter.

Risk of Loss Due to Lost, Stolen, Forged or Altered Credit Cards

Under the Specialized Credit Financial Business Act, upon notice from the holder of a credit card or a debit card of its loss or theft, a credit card company or a licensed bank engaged in the credit card business, as the case may be, is liable for any loss arising from the unauthorized use of credit cards or debit cards thereafter as well as any loss from unauthorized transactions made within 60 days prior to such notice. However, a credit card company or a licensed bank engaged in the credit card business, as the case may be, may transfer to the cardholder all or part of the risks of loss associated with unauthorized transactions made within 60 days prior to such notice, in accordance with the standard terms and conditions agreed between the credit card company or the licensed bank engaged in the credit card business, as the case may be, and the cardholder, provided that the loss or theft must be due to the cardholder's willful misconduct or negligence. Disclosure of a cardholder's password under duress or threat to the cardholder's or his/her family's life or health will not be deemed as the cardholder's willful misconduct or negligence.

Moreover, a credit card company or a licensed bank engaged in the credit card business, as the case may be, is also responsible for any losses resulting from the use of forged or altered credit cards, debit cards and pre-paid cards. However, a credit card company or a licensed bank engaged in the credit card business, as the case may be, may transfer all or part of this risk of loss to holders of credit cards in the event of willful misconduct or gross negligence by holders of such cards if the terms and conditions of the written agreement entered between the credit card company or a licensed bank engaged in the credit card business, as the case may be, and holders of such cards specifically provide for such transfer. For these purposes, disclosure of a customer's password that is made intentionally or through gross negligence, or the transfer of or giving as collateral of the credit card or debit card, is considered willful misconduct or gross negligence.

In addition, the Specialized Credit Financial Business Act prohibits a credit card company from transferring to merchants the risk of loss arising from lost, stolen, forged or altered credit cards, debit cards or pre-paid cards; provided, however, that a credit card company may enter into an agreement with a merchant under which the merchant agrees to be responsible for such loss if caused by the merchant's gross negligence or willful misconduct.

Each credit card company or a licensed bank engaged in the credit card business must institute appropriate measures such as establishing reserves, purchasing insurance or joining a cooperative association in order to fulfill its obligations related to the risk of loss arising from unauthorized use due to lost, stolen, forged or altered credit cards, debit cards or pre-paid cards.

Under the Specialized Credit Financial Business Act, the Financial Services Commission may take necessary measures to maintain credit order and protect consumers by establishing standards to be complied with by credit card companies relating to:

- maximum limits for cash advances on credit cards;
- restrictions on debit cards with respect to per day or per transaction usage;
- aggregate issuance limits and maximum limits on the amount per card on pre-paid cards;
- calculation and determination of credit limits;
- determination of the amount limit of credit cards;
- provisions included in credit card agreements;
- management of credit card merchants;
- collection on claims; or
- classification of credit card holders for purposes of determining the fees applicable to such holders.

Lending Ratio in Ancillary Business

Pursuant to the Presidential Decree of the Specialized Credit Financial Business Act, as amended in January 2020, a credit card company must maintain a quarterly average balance of receivables arising from cash advances to credit card holders (excluding cash advances incurred by re-lending to a credit card holder after modifying the terms and conditions, such as maturity or interest rate, of the original cash advance for debt rescheduling purposes) no greater than its aggregate quarterly average balance of receivables arising from credit card holders' purchase of goods and services (excluding the amount of receivables arising from the purchase of goods and services using an exclusive use card for business purposes) plus its aggregate quarterly amount of payments made by members using their debit cards.

Issuance of New Cards and Solicitation of New Card Holders

The Presidential Decree of the Specialized Credit Financial Business Act establishes the conditions under which a credit card company or a licensed bank engaged in the credit card business may issue new cards and solicit new members. Specifically, new credit cards may be issued only to the following persons that meet all of the following criteria: (i) age of 19 years or more as defined in the Korean Civil Code, or age of 18 years or more with evidence of employment as of the date of the credit card application; (ii) satisfaction of a minimum credit score as publicly announced by the Financial Services Commission, provided that the minimum personal credit score requirement will not apply in the case where (a) the credit card company can confirm through objective evidence that an applicant is sufficiently capable of paying for his or her credit card use or such applicant can provide objective evidence therefor, or (b) a credit card function is added to an existing debit card for added convenience to the card holder and the credit card function is subject to limits determined by the Financial Services Commission; (iii) satisfaction of the application scoring system for the relevant credit; and (iv) verification of personal identity.

In addition, a credit card company or a licensed bank engaged in the credit card business, as the case may be, may not engage in the following methods of soliciting credit card holders: (i) providing economic benefits or conditioning such benefits in excess of 10% of the annual credit card fee (in the case of no-annual fee credit cards, the average annual fees will be ₩10,000) in connection with issuance of credit cards; (ii) solicitation on streets and private roads as prescribed under the Road Act and Private Road Act, public place and corridors used by the general public; (iii) solicitation through visits, except those visits made upon prior consent and visits to a business area; (iv) solicitation through pyramid sales methods; and (v) solicitation through the Internet, as further discussed below.

In addition, a credit card company or a licensed bank engaged in the credit card business is required to check whether the credit card applicant has any delinquent debt owed to any other credit card company or other financial institutions which the applicant is unable to repay, and also require, in principle, with respect to solicitations made through the Internet, the certified electronic signature of the applicant. Moreover, persons who intend to engage in solicitation of credit card applicants must register with the Financial Services Commission, unless the solicitation is made by officers or employees of a credit card company or a company in business alliance with such credit card company.

Compliance Rules on Collection of Receivable Claims

Pursuant to the Specialized Credit Financial Business Act and its regulations, a credit card company or a licensed bank engaged in the credit card business are prohibited from collecting its claims by way of:

- exerting violence or threat of violence;
- informing a Related Party (a guarantor of the debtor, blood relative or fiancée of the debtor, a person living in the same household as the debtor or a person working in the same workplace as the debtor) of the debtor's liability without just cause;
- providing false information relating to the debtor's obligation to the debtor or his or her Related Party;
- threatening to sue or suing the debtor for fraud despite lack of affirmative evidence to establish that the debtor has submitted forged or false documentation with respect to his/her capacity to make payment;
- visiting or telephoning the debtor during late hours between 9:00 p.m. and 8:00 a.m.; and

- utilizing other uncustomary methods to collect the receivables thereby invading the privacy or the peacefulness in the workplace of the debtor or his or her Related Party.

Principal Regulations Applicable to Financial Investment Companies

General

The securities business is regulated and governed by the Financial Investment Services and Capital Markets Act. Financial investment companies are under the regulation and supervision of the Financial Services Commission, the Financial Supervisory Service and the Securities and Futures Commission.

Under the Financial Investment Services and Capital Markets Act, a financial investment company may engage in dealing, brokerage, collective investment, investment advice, discretionary investment management or trust businesses if it has obtained relevant licenses from the Financial Services Commission.

A financial investment company may also engage in certain businesses ancillary to the primary business or certain other additional businesses by submitting a report to the Financial Services Commission at least seven days prior to the commencement of the business without obtaining any separate license. Approval to merge with any other entity or to transfer all or substantially all of a business must also be obtained from the Financial Services Commission.

Under the Act on the Structural Improvement of the Financial Industry, if the Government deems a financial investment company's financial condition to be unsound or if a financial investment company fails to meet the applicable Net Operating Equity Ratio (as defined below), the government may order certain sanctions, including among others, sanctions against a financial investment company or its officers or employees, capital increase or reduction and a suspension or assignment of a part or all of business operation.

Regulations on Financial Soundness — Capital Adequacy

The Financial Investment Services and Capital Markets Act sets forth various types of brokerage and/or dealing business licenses based on (i) the scope of products and services that may be provided by each type of the brokerage and/or dealing licensee and (ii) the type of customers to which such products and services may be provided. For example, a financial investment company engaged in the brokerage, dealing and underwriting businesses with retail investors as well as professional investors in connection with all types of securities is required to have a minimum paid-in capital of ₩53 billion in order to obtain a license for such brokerage, dealing and underwriting businesses.

Under the Financial Investment Service Regulations, as amended and effective as of January 31, 2019, the soundness requirement of financial investment companies changed from the previous net operating equity ratio requirement to a net equity ratio requirement. The net equity ratio is calculated according to the following formula:

Net Equity Ratio = (Net Operating Equity – Total Risk) / Equity Capital Maintenance Requirement for Each Service Unit

The terms "Net Operating Equity" and "Total Risk" for the purpose of the above-stated formula are defined and elaborated in the regulations of the Financial Services Commission. Generally, the Net Operating Equity, the Total Risk and the Equity Capital Maintenance Requirement for Each Service Unit are to be calculated according to the following formula:

Net Operating Equity = Net assets (total assets - total liabilities) - the total of items that may be deducted + the total of items that may be added;

Total Risk = market risk + counterparty risk + management risk; and

Equity Capital Maintenance Requirement for Each Service Unit = Mandatory Equity Capital to be Required for Each Licensed Service Unit × 70%

The regulations of the Financial Services Commission require, among other things, financial investment companies to maintain the net equity ratio at a level equal to or higher than 100% at the end of each quarter of the fiscal year.

In addition, all Korean companies, including financial investment companies, are required to set aside, as a legal reserve, 10% of the cash portion of the annual dividend or interim dividend in each fiscal year until the reserve reaches 50% of the stated capital.

Under the Financial Investment Services and Capital Markets Act and regulations thereunder, the minimum ratio of allowances for losses on loans and suspense receivables specified under such regulations is 0.5% of normal assets, 2% of precautionary assets, 20% of substandard assets, 75% of doubtful assets and 100% of estimated loss assets.

Other Provisions on Financial Soundness

The Financial Investment Services and Capital Markets Act, the Presidential Decree of the Financial Investment Services and Capital Markets Act and the regulations of the Financial Services Commission also include certain provisions which are designed to regulate certain types of activities relating to the management of the assets of a securities company, subject to certain exceptions. Such provisions include:

- restrictions on the holdings by a securities company of securities issued by another company which is the largest shareholder or the major shareholder (each as defined under the Financial Investment Services and Capital Markets Act) of such securities company; and
- restrictions on providing money or credit to the largest shareholder (including specially-related persons of such shareholder), major shareholders, officers and specially-related persons of the securities company.

Principal Regulations Applicable to Insurance Companies

General

Insurance companies are regulated and governed by the Insurance Business Act (the “Insurance Business Act”). In addition, insurance companies in Korea are under the regulation and supervision of the Financial Services Commission and its governing entity, the Financial Supervisory Service.

Under the Insurance Business Act, approval to commence an insurance business must be obtained from the Financial Services Commission based on the type of insurance businesses, which are classified as life insurance business, non-life insurance business and third type insurance business. Life insurance business means an insurance business which deals with life insurance policies or pension insurance policies (including retirement insurance policies). Non-life insurance business means an insurance business which deals with fire insurance policies, marine insurance policies, car insurance policies, guaranty insurance policies, reinsurance policies, liability insurance policies or other insurance policies prescribed under the Presidential Decree of the Insurance Business Act. Third type insurance business means an insurance business which deals with injury insurance policies, health insurance policies or nursing care insurance policies. Under the Insurance Business Act, insurance companies are not allowed to engage in both a life insurance business and a non-life insurance business, subject to certain exceptions.

If the Government deems an insurance company's financial condition to be unsound or if an insurance company fails to properly manage the business as set forth under relevant Korean law, the government may order certain sanctions including, among others, sanctions against an insurance company or its officers or employees, capital increase or reduction and a suspension or assignment of a part or all of business operation.

Capital Adequacy

The Insurance Business Act requires a minimum paid-in capital of ₩30 billion for an insurance company; provided, that, the insurance company which intends to engage in only certain types of insurance policies may have a lower paid-in capital pursuant to the Presidential Decree of the Insurance Business Act.

In addition to the minimum capital requirement, an insurance company is required to maintain a Solvency Margin Ratio of 100% or more. "Solvency Margin Ratio" is the ratio of the Solvency Margin to the Standard Amount of the Solvency Margin. Solvency Margin is the aggregate amount of paid-in capital, reserve for dividends to policyholders, allowance for bad debt and subordinated debt amount and others similar thereto as set out in the regulation of the Financial Services Commission, less non-amortized acquisition costs, goodwill and others similar thereto as appearing in the regulation of the Financial Services Commission. The Standard Amount of Solvency Margin for life insurance companies is defined under the regulation of the Financial Services Commission and is required to comply with the risk based capital regime.

Under the Insurance Business Act, the Presidential Decree and other regulations thereunder, for each accounting period, insurance companies are required to appropriate policy reserve that is earmarked for future payments of insurance money, refund and dividends to policyholders (hereinafter collectively referred to as "Insurance Money") for each insurance contract. However, if an insurance company has reinsured a portion of its insurance contracts with a creditworthy reinsurance company in order to lower its overall risk, in principle, the insurance company is not required to appropriate policy reserve for the reinsured contracts. Instead, the reinsurance company is required to appropriate such policy reserve for the reinsured contracts. However, if an insurance company transfers more than 50% of its risk to a reinsurance company, the amount of risk transferred in excess of 50% will be disregarded for purposes of calculating the solvency margin ratio. In particular, if the ratio of the risks transferred to the reinsurance company to the total risks insured by an insurance company exceeds 50%, such insurance company will be required to have net assets in relation to such risks transferred in excess of the 50% threshold for purposes of the solvency margin requirement. The Insurance Business Act was amended on January 24, 2011 to classify the insurance products into two categories: (i) reportable insurance products and (ii) voluntary insurance products. Under this amendment, only the changes to the terms and conditions of the reportable insurance products require a prior report and approval from the Financial Supervisory Service and the voluntary insurance products can be sold without prior approval from the Financial Supervisory Service. The policy reserve needs to be appropriated in accordance with the policy reserve calculation method for each insurance product as stipulated in amended Insurance Business Act.

The policy reserve amount consists of the following: (i) premium reserves and prepaid insurance premiums which are calculated under the methods determined by the written calculation methods for insurance premiums and policy reserves by insurance types or by lapses of insurance period, with regard to the contracts for which the causes for payment of the Insurance Money have yet to occur as of the end of each accounting period; (ii) amounts for which a lawsuit is pending on the Insurance Money or amounts for which a payment has been fixed with regard to the contracts for which the causes for payment of Insurance Money have occurred as of the end of each accounting period, and amounts which have not been paid yet due to an unsettled amount for paying the Insurance Money, even if the causes for payment of the Insurance Money have already occurred; and (iii) amounts reserved by an insurance company for allocation to policyholders.

Pursuant to the regulations established by the Financial Services Commission, insurance companies are required to maintain allowances for outstanding loans, accounts receivables and other credits (including accrued income, payment on account, and bills receivables or dishonored) in an aggregate amount covering not less than

0.5% of normal credits, 2% of precautionary credits, 20% of substandard credits, 50% of doubtful credits and 100% of estimated loss credits, provided that the minimum ratio of allowances for certain type of outstanding loans by insurance companies to individuals and households (including, retail loans, housing loans, and other forms of retail loans extended to individuals not registered for business), is increased to 1% of normal credits, 10% of precautionary credits and 55% of doubtful credits. Furthermore, the regulations on insurance companies became more stringent in September 2010 by adding a requirement that insurance companies maintain allowance for bad debts in connection with real estate project financing loans in excess of 0.9% of normal credits and 7% of precautionary credits.

Variable Insurance and Bancassurance Agents

Variable insurance is regulated pursuant to the Insurance Business Act and the Financial Investment Services and Capital Markets Act. In order for an insurance company to sell variable insurance to a policyholder and operate such variable insurance, the insurance company must obtain a license with respect to collective investment business from the Financial Services Commission and register as a selling company with the Financial Services Commission. In this case, according to the Financial Investment Services and Capital Markets Act, an insurance company will be regulated as an investment trust and assets acquired in connection with variable insurance must be held by a trust company that is registered with the Financial Services Commission pursuant to the Financial Investment Services and Capital Markets Act.

According to the Financial Investment Services and Capital Markets Act, insurance companies may operate variable insurance through (i) mandating all of the management and the management instruction business to another asset management company, (ii) operating by way of discretionary investment all of the assets constituting the investment advisory assets out of the investment trust assets, or (iii) operating all of the investment trust assets into other collective investment securities, thereby allowing all of the particular variable insurance assets to be outsourced.

The Insurance Business Act permits banks, securities companies, credit card companies and other financial institutions to register as insurance agents or insurance brokers and engage in the insurance business (the "Bancassurance Agents"), who are currently permitted to sell all types of life and non-life insurance products, except for protection type insurance products, such as whole life insurance, critical illness insurance and automobile insurance.

Restrictions on Investment of Assets

According to the Insurance Business Act, insurance companies are prohibited from making any of the following investment of assets:

- owning any real estate (excluding any real estate owned as a result of enforcing their own security interest) other than real estate for conducting its business as designated by the Presidential Decree. In any case, the total amount of real estate owned by an insurance company must not exceed 25% of its Total Assets, provided that investment in real estate for a separate account is limited to 15% of the assets of such separate account;
- loans made for the purpose of speculation in commodities or securities;
- loans made directly or indirectly to enable a natural or legal person to buy their own shares;
- loans made directly or indirectly to finance political campaigns and other similar activities; and
- loans made to any of the insurance company's officers or employees other than loans based on insurance policy or de minimis loans of up to (1) ₩20 million in the case of a general loan, (2) ₩50 million in the case of a general loan plus a housing loan, or (3) ₩60 million in the aggregate for general loans and housing loans.

In addition, insurance companies are not allowed to exceed the following limits in making the following investments:

- with respect to holding foreign currency under the Foreign Exchange Transaction Act or owning offshore real estate, 30% of its Total Assets; and
- with respect to the sum of margins for a futures exchange designated by the Presidential Decree or a foreign futures exchange, and commitment amounts of over-the-counter derivatives must not exceed 6% of its Total Assets, provided that the over-the-counter derivative trades are limited to 3%. The derivatives trades of a separate account are limited to 6% of the assets of separate account, provided that the over-the-counter derivatives trades are limited to 3%.

Regulations on Class Actions Regarding Securities

The Law on Class Actions Regarding Securities was enacted as of January 20, 2004 and last amended on May 28, 2013. The Law on Class Actions Regarding Securities governs class actions suits instituted by one or more representative plaintiff(s) on behalf of 50 or more persons who claim to have been damaged in a capital markets transaction involving securities issued by a listed company in Korea.

Applicable causes of action with respect to such suits include:

- claims for damages caused by misleading information contained in a securities statement;
- claims for damages caused by the filing of a misleading business report, semi-annual report, or quarterly report;
- claims for damages caused by insider trading or market manipulation; and
- claims instituted against auditors for damages caused by accounting irregularities.

Any such class action may be instituted upon approval from the presiding court and the outcome of such class action will have a binding effect on all potential plaintiffs who have not joined the action, with the exception of those who have filed an opt out notice with such court.

U.S. Regulations

As a substantial majority of our and our subsidiaries' operations are in Korea, we are primarily subject to the regulations and supervision of the Financial Services Commission and the Financial Supervisory Service. Our subsidiaries, however, have limited operations in the United States, and we own a bank in the United States. Therefore, we and our U.S. operations are subject to U.S. supervision, regulation and enforcement by relevant authorities in the United States with regard to our U.S. operations.

U.S. Banking Regulations

Our operations in the United States are subject to a variety of regulatory regimes. Shinhan Bank maintains an uninsured branch in New York, which is licensed by the New York State Department of Financial Services (the "Department") and registered with the banking authority of Korea. Shinhan Bank's New York branch is subject to regulation and examination by the Department under its licensing authority. In addition, the Board of Governors of the Federal Reserve System (the "Federal Reserve Board") exercises examination and regulatory authority over Shinhan Bank's U.S. branch. We also own a non-member state chartered bank, Shinhan Bank America, which is regulated by the Department, as its chartering authority, and by the Federal Deposit Insurance Corporation ("FDIC"), as its primary federal banking regulator and as the insurer of its deposits. Our U.S. branch and U.S. bank subsidiary are subject to restrictions on their respective activities, as well as prudential restrictions, such as limits on extensions of credit to a single borrower, and restrictions on transactions with affiliates, among other things. We are also a financial holding company and a bank holding company under U.S. banking laws and our U.S. operations are subject to regulation, supervision and enforcement by the Federal Reserve Board.

Shinhan Bank's U.S. Branch

The Department, as the licensing authority of Shinhan Bank's U.S. branch, has the authority, in certain circumstances, to take possession of the business and property of Shinhan Bank located in New York. Such circumstances generally include violations of law, unsafe business practices and insolvency. If the Department exercised this authority over the New York branch of Shinhan Bank, all assets of Shinhan Bank located in New York would generally be applied first to satisfy creditors of the New York branch. Any remaining assets would be applied to satisfy creditors of other U.S. offices of Shinhan Bank, after which any residual assets of the New York branch would be returned to the principal office of Shinhan Bank, and made available for application pursuant to any Korean insolvency proceeding.

Financial Holding Company

In addition to the direct regulation of Shinhan Bank's U.S. branch by the Department and the Federal Reserve Board, because we operate a U.S. branch and have a subsidiary bank in the U.S., our nonbanking activities in the United States are subject to regulation by the Federal Reserve Board pursuant to the International Banking Act of 1978, the Bank Holding Company Act of 1956 (the "BHC Act"), and other laws. We have elected to be a "financial holding company" under the BHC Act. Financial holding companies may engage in a broader spectrum of activities than bank holding companies or foreign banking organizations that are not financial holding companies, including underwriting and dealing in securities. To maintain our financial holding company status, (i) we and our U.S. subsidiary bank located in New York are required to be "well capitalized" and "well managed," (ii) our U.S. branch is required to meet certain examination ratings, and (iii) our subsidiary bank in New York is required to maintain a rating of at least "satisfactory" under the Community Reinvestment Act of 1977 (the "CRA").

A major focus of U.S. governmental policy relating to financial institutions in recent years has been aimed at fighting money laundering and terrorist financing. Regulations applicable to us and our subsidiaries impose obligations to maintain effective policies, procedures and controls to detect, prevent and report money laundering and terrorist financing and to verify the identities of clients. Failure of a financial institution to maintain and implement adequate programs to combat money laundering and terrorist financing could have serious consequences for the firm, both in legal terms and in terms of our reputation.

The Dodd-Frank Wall Street Reform and Consumer Protection Act (the "Dodd-Frank Act"), which was enacted on July 21, 2010 in response to the financial crisis, impacts the financial services industry by addressing, among other issues, systemic risk oversight, bank capital standards, the liquidation of failing systemically important institutions, over-the-counter and cleared derivatives, the ability of banking entities, including non-U.S. banks with branches in the U.S., like us, to engage in proprietary trading activities and invest in hedge funds and private equity (the so-called Volcker rule), consumer and investor protection, hedge fund registration, securitization, investment advisors, shareholder "say on pay," the role of credit-rating agencies, and more. The Dodd-Frank Act requires various federal banking and financial regulatory authorities to adopt a broad range of implementing rules and regulations. Such authorities have significant discretion in drafting the implementing rules and regulations.

The Dodd-Frank Act provides regulators with tools to impose greater capital, leverage and liquidity requirements and other prudential standards, particularly for financial institutions that pose significant systemic risk. Pursuant to the Dodd-Frank Act, the Federal Reserve Board has implemented rules that establish enhanced prudential standards for the U.S. operations of foreign banking organizations ("FBOs") such as us. In imposing such heightened prudential standards on non-U.S. banks such as us, the Federal Reserve Board is directed to take into account the principle of national treatment and equality of competitive opportunity, and the extent to which the foreign bank holding company is subject to comparable home country standards.

On May 24, 2018, the Economic Growth, Regulatory Relief and Consumer Protection Act (the "Reform Act") was signed into law. Among other regulatory changes, the Reform Act amends various sections of the

Dodd-Frank Act, including by raising the asset threshold for automatic application of enhanced prudential standards to FBOs under the Dodd-Frank Act from $50 billion in total global consolidated assets to $250 billion. The bill exempted FBOs with total global consolidated assets of less than $100 billion from these enhanced prudential standards effective immediately upon enactment of the bill. In October 2019, the Federal Reserve Board issued a final rule to implement the Reform Act's changes to the application of enhanced prudential standards with respect to U.S. bank holding companies and FBOs (the "EPS Tailoring Rule"). The EPS Tailoring Rule delineates three categories of enhanced prudential standards ("EPS categories") applicable to FBOs based on an FBO's asset size and other factors such as the degree of the cross-jurisdictional activity, reliance on short-term wholesale funding, nonbank assets, and off-balance sheet exposures of an FBO's U.S. operations. The EPS Tailoring Rule generally determines the stringency of enhanced prudential standards applicable to FBOs based on the risk profile of the FBO's U.S. operations, rather than its global footprint, with most enhanced prudential standards applying only to FBOs with combined U.S. assets of at least $100 billion. FBOs with global assets of $100 billion or more and a relatively limited U.S. presence, such as us, are subject to certain minimum standards under the EPS Tailoring Rule, with the Federal Reserve Board relying primarily on compliance with comparable home-country prudential standards with respect to such FBOs.

If our size or risk profile were to increase, our combined U.S. operations may be subject to certain further enhanced prudential standards. In particular, enhanced prudential standards applicable to FBOs require an FBO with both significant total global consolidated assets and significant U.S. assets (excluding the total assets of each U.S. branch and agency) to establish a U.S. top-tier intermediate holding company ("IHC") over all U.S. bank and nonbank subsidiaries, and generally subject such an FBO's IHC to the same capital adequacy standards, including minimum risk based capital and leverage requirements, liquidity, liquidity risk management, stress testing and single counterparty credit limits as those applicable to U.S. bank holding companies in the same EPS category under the EPS Tailoring Rule. In addition, certain enhanced prudential standards will apply to the combined U.S. operations of an FBO whether or not the FBO is required to establish a U.S. IHC. Rules imposing early remediation requirements on FBOs have yet to be finalized. We continue to assess the full impact of these enhanced prudential requirements and the EPS Tailoring Rule on our business.

In addition, as an FBO with more than $100 billion in total consolidated assets, we are currently required to submit annually to the Federal Reserve Board and FDIC a resolution plan for the orderly resolution of our U.S. operations under the U.S. Bankruptcy Code or other applicable insolvency laws in a rapid and orderly fashion in the event of future material financial distress or failure. If the Federal Reserve Board and the FDIC jointly determine that the resolution plan is not credible and the deficiencies are not cured in a timely manner, they may jointly impose more stringent capital, leverage or liquidity requirements or restrictions on our growth, activities or operations. If we were to fail to address the deficiencies in the resolution plan when required, we could eventually be required to divest certain assets or operations.

In October 2019, the Federal Reserve Board and FDIC issued a final rule addressing the applicability of resolution planning requirements for FBOs (the "FBO Resolution Plan Rule"). The FBO Resolution Plan Rule applies reduced resolution plan filing requirements to FBOs that have $250 billion or more in total global consolidated assets and that do not otherwise meet certain category thresholds identified in the EPS Tailoring Rule, such as us, requiring such FBOs to submit a reduced content resolution plan every three years.

In July 2019, U.S. federal regulatory agencies adopted amendments to the Volcker Rule regulations to implement the Volcker Rule amendments included in the Reform Act, and also in 2019 such U.S. federal regulatory agencies adopted certain targeted amendments to the Volcker Rule regulations to simplify and tailor certain compliance requirements relating to the Volcker Rule. In January 2020, U.S. federal regulatory agencies proposed additional revisions to the Volcker Rule's current restrictions on banking entities sponsoring and investing in certain covered hedge funds and private equity funds, including by proposing new exemptions allowing banking entities to sponsor and invest without limit in credit funds, venture capital funds, customer facilitation funds and family wealth management vehicles. The proposal would also loosen certain other restrictions on extraterritorial fund activities and direct parallel or co-investments made alongside covered funds.

If adopted, the proposal would expand the ability of banking entities to invest in and sponsor private funds. However, the proposed revisions have not yet been adopted and are subject to change. The ultimate consequences of these regulatory developments on our activities remain uncertain.

Shinhan Bank America

Shinhan Bank America, a state chartered bank that is located in New York and is not a member of the Federal Reserve Board, is subject to extensive regulation and examination by the Department, as its chartering authority, and by the FDIC, as the insurer of its deposits and as its primary federal banking regulator. The federal and state laws and regulations which are applicable to banks regulate, among other things, the activities in which they may engage and the locations at which they may engage in them, their investments, their reserves against deposits, the timing of the availability of deposited funds and transactions with affiliates, among other things. Shinhan Bank America must file reports with the Department and the FDIC concerning its activities and financial condition, in addition to obtaining regulatory approvals prior to entering into certain transactions, such as establishing branches and mergers with, or acquisitions of, other depository institutions. The Department and the FDIC periodically examine the bank to test Shinhan Bank America's safety and soundness and its compliance with various regulatory requirements. This comprehensive regulatory and supervisory framework restricts the activities in which a bank can engage and is intended primarily for the protection of the FDIC insurance fund and the bank's depositors. The regulatory structure also gives the regulatory authorities extensive discretion in connection with their supervisory and enforcement activities and examination policies, including policies with respect to the classification of assets and the establishment of adequate loan loss reserves. Any change in such regulations, whether by the Department, the FDIC or as a result of the enactment of legislation, could have a material adverse impact on Shinhan Bank America and its operations.

Capital Requirements. The FDIC imposes capital adequacy standards on state-chartered banks like Shinhan Bank America. The "prompt corrective action" framework under the Federal Deposit Insurance Corporation Improvement Act of 1991 ("FDICIA"), provides, among other things, for expanded regulation of insured depository institutions, including banks, and their parent holding companies. As required by FDICIA, the federal banking agencies have established five capital tiers ranging from "well capitalized" to "critically undercapitalized" for insured depository institutions. In order for our U.S. bank subsidiary to be classified as "well capitalized," which is necessary in order for us to maintain our financial holding company status, it must maintain a minimum 5% Tier I leverage ratio, a 6.5% common equity Tier I capital ratio, a 8% Tier I risk-based capital ratio and a 10% total risk-based capital ratio.

In order for Shinhan Bank America to be classified as "adequately capitalized" under FDICIA's prompt corrective action standards, which is necessary in order for Shinhan Bank America to avoid certain restrictions under FDICIA, it must maintain a minimum 4% Tier I leverage ratio, a 4.5% common equity Tier I capital ratio, a 6% Tier I risk-based capital ratio and a 8% total risk-based capital ratio.

As of December 31, 2019, Shinhan Bank America exceeded all of the capital ratio standards for a well-capitalized bank with a Tier I leverage ratio of 13.28%, a common equity Tier I risk-based capital ratio of 17.61%, a Tier I risk-based capital ratio of 17.61% and a total risk-based capital ratio of 18.33%.

Activities and Investments of New York-Chartered Banks. Shinhan Bank America derives its lending, investment and other authority primarily from the applicable provisions of New York State Banking Law and the regulations of the Department, as well as FDIC regulations and other federal laws and regulations. See "–Activities and Investments of FDIC-Insured State-Chartered Banks" below. These New York laws and regulations authorize Shinhan Bank America to invest in real estate mortgages, consumer and commercial loans, certain types of debt securities, including certain corporate debt securities and obligations of federal, State and local governments and agencies, and certain other assets. A bank's aggregate lending powers are not subject to percentage of asset limitations, but, as discussed below, there are limits on the amount of credit exposure that a bank may have to a single borrower or group of related borrowers. A New York-chartered bank may also exercise trust powers upon approval of the Department. Shinhan Bank America does not have trust powers.

With certain limited exceptions, Shinhan Bank America may not make loans or extend credit for commercial, corporate or business purposes (including lease financing) to a single borrower, the aggregate amount of which would be in excess of 15% of Shinhan Bank America’s net worth, on an unsecured basis, and 25% of the net worth if the excess is collateralized by readily marketable collateral or collateral otherwise having a value equal to the amount by which the loan exceeds 15% of Shinhan Bank America’s net worth. In calculating the amount of outstanding loans or credit to a particular borrower for this purpose, Shinhan Bank America must include its credit exposure arising from derivative transactions with the borrower.

Activities and Investments of FDIC-Insured State-Chartered Banks. The activities and equity investments of FDIC-insured, state-chartered banks are generally limited to those that are permissible for national banks. Under regulations dealing with equity investments, an insured state bank generally may not directly or indirectly acquire or retain any equity investment of a type, or in an amount, that is not permissible for a national bank. An insured state bank may, among other things, (i) acquire or retain a majority interest in a subsidiary that is engaged in activities that are permissible for the bank itself to engage in, (ii) invest as a limited partner in a partnership the sole purpose of which is direct or indirect investment in the acquisition, rehabilitation or new construction of a qualified housing project, provided that such limited partnership investments may not exceed 2% of the bank’s total assets, and (iii) acquire up to 10% of the voting stock of a company that solely provides or reinsures directors’, trustees’ and officers’ liability insurance coverage or bankers’ blanket bond group insurance coverage for insured depository institutions. In addition, an FDIC-insured state-chartered bank may not directly, or indirectly through a subsidiary, engage as “principal” in any activity that is not permissible for a national bank unless the FDIC has determined that such activities would pose no risk to the insurance fund of which it is a member and the bank is in compliance with applicable regulatory capital requirements.

Regulatory Enforcement Authority. Applicable banking laws include substantial enforcement powers available to federal banking regulators. This enforcement authority includes, among other things, the ability to assess civil money penalties, to issue cease-and-desist or removal orders and to initiate injunctive actions against banking organizations and institution-affiliated parties, as defined. In general, these enforcement actions may be initiated for violations of laws and regulations and unsafe or unsound practices. Other actions or inactions may provide the basis for enforcement action, including misleading or untimely reports filed with regulatory authorities. On June 12, 2017, Shinhan Bank America entered into a consent order with the FDIC with respect to certain weaknesses relating to its anti-money laundering compliance program. Shinhan Bank America has taken corrective measures and provides periodic reports to the FDIC with regard to such matters.

Under the New York State Banking Law, the Department may issue an order to a New York-chartered banking institution to appear and explain an apparent violation of law, to discontinue unauthorized or unsafe practices and to keep prescribed books and accounts. Upon a finding by the Department that any director, trustee or officer of any banking organization has violated any law, or has continued unauthorized or unsafe practices in conducting the business of the banking organization after having been notified by the Department to discontinue such practices, such director, trustee or officer may be removed from office by the Department after notice and an opportunity to be heard. The Department also may take possession of a banking organization under specified statutory criteria.

Prompt Corrective Action. Section 38 of the Federal Deposit Insurance Act provides the federal banking regulators with broad power to take “prompt corrective action” to resolve the problems of undercapitalized institutions. The extent of the regulators’ powers depends on whether the institution in question is “well capitalized,” “adequately capitalized,” “undercapitalized,” “significantly undercapitalized” or “critically undercapitalized.” A bank is deemed to be (i) “well capitalized” if it has total risk-based capital ratio of 10.0% or greater, has a Tier I risk-based capital ratio of 8.0% or greater, has a common equity Tier I capital ratio of 6.5% or greater, has a Tier I leverage capital ratio of 5.0% or greater, and is not subject to specified requirements to meet and maintain a specific capital level for any capital measure, (ii) "adequately capitalized" if it has a total risk-based capital ratio of 8.0% or greater, has a Tier I risk-based capital ratio of 6.0% or greater, has a common equity Tier I capital ratio of 4.5% or greater, has a Tier I leverage capital ratio of 4.0% or greater and does not meet the definition of "well capitalized," (iii) "undercapitalized" if it has a total risk-based capital ratio that is less than 8.0%, has a Tier I risk-based capital ratio that is less than 6.0%, has a common equity Tier I capital ratio of less than 4.5%, or has a Tier I leverage capital ratio that is less than 4.0%, (iv) "significantly undercapitalized" if it has a total risk-based capital ratio that is less than 6.0%, has a Tier I risk-based capital ratio that is less than 4.0%, has a common equity Tier I capital ratio that is less than 3.0%, or has or a Tier I leverage capital ratio that is less than 3.0%, and (v) "critically undercapitalized" if it has a ratio of tangible equity to total assets that is equal to or less than 2.0%. The regulations also provide that a federal banking regulator may, after notice and an opportunity for a hearing, reclassify a "well capitalized" institution as "adequately capitalized" and may require an "adequately capitalized" institution or an "undercapitalized" institution to comply with supervisory actions as if it were in the next lower category if the institution is in an unsafe or unsound condition or engaging in an unsafe or unsound practice. The federal banking regulator may not, however, reclassify a "significantly undercapitalized" institution as "critically undercapitalized."

An institution generally must file a written capital restoration plan which meets specified requirements, as well as a performance guaranty by each company that controls the institution, with an appropriate federal banking regulator within 45 days of the date that the institution receives notice or is deemed to have notice that it is "undercapitalized," "significantly undercapitalized" or "critically undercapitalized." Immediately upon becoming undercapitalized, an institution becomes subject to statutory provisions, which, among other things, set forth various mandatory and discretionary restrictions on the operations of such an institution.

FDIC Insurance. Shinhan Bank America's deposits are insured by the FDIC. As insurer, the FDIC is authorized to conduct examinations of, and to require reporting by, FDIC-insured institutions. It also may prohibit any FDIC-insured institution from engaging in any activity the FDIC determines by regulation or order to pose a serious threat to the FDIC.

During the 2008-2009 financial crisis, there were many failures and near-failures among financial institutions. The FDIC insurance fund reserve ratio, representing the ratio of the fund to the level of insured deposits, declined due to losses caused by bank failures and the FDIC then increased its deposit insurance premiums on remaining institutions in order to replenish the insurance fund. The FDIC insurance fund balance increased throughout 2010 and turned positive in 2011. The Dodd-Frank Act requires the FDIC to increase the ratio of the FDIC insurance fund to estimated total insured deposits ("Reserve Ratio") to 1.35% by September 30, 2020. If bank failures in the future are more costly than the FDIC currently anticipates, then the FDIC may be required to continue to impose higher insurance premiums. Any such increase would increase our non-interest expense. Thus, despite the prudent steps Shinhan Bank America may take to avoid the mistakes made by other banks, its costs of operations may increase as a result of those mistakes by others.

As required by the Dodd-Frank Act, the FDIC revised its deposit insurance premium assessment rates in 2011. In 2016, the FDIC adopted a rule in accordance with provisions of the Dodd-Frank Act that requires large institutions to bear the burden of raising the Reserve Ratio from 1.15% to 1.35% through assessment surcharges for such large institutions. The Reserve Ratio exceeded 1.35% in September 2018.

As a result of the Dodd-Frank Act, the increase in the standard FDIC insurance limit from US$100,000 to US$250,000 was made permanent. The Dodd-Frank Act also removed the prohibition on banks paying interest on demand deposits.

The FDIC may terminate the deposit insurance of any insured depository institution, including Shinhan Bank America, if it determines, after a hearing, that the institution has engaged or is engaging in unsafe or unsound practices, is in an unsafe or unsound condition to continue operations, or has violated any applicable law, regulation, order or any condition imposed by an agreement with the FDIC. It also may suspend deposit insurance temporarily during the hearing process for the permanent termination of insurance, if the institution has no tangible capital. If insurance of accounts is terminated, the accounts at the institution at the time of the termination, less subsequent withdrawals, shall continue to be insured for a period of six months to two years, as determined by the FDIC. Management is aware of no existing circumstances that would result in termination of Shinhan Bank America's deposit insurance.

Brokered Deposits. Under federal law and applicable regulations, (i) a well capitalized bank may solicit and accept, renew or roll over any brokered deposit without restriction, (ii) an adequately capitalized bank may not accept, renew or roll over any brokered deposit unless it has applied for and been granted a waiver of this prohibition by the FDIC and (iii) an undercapitalized bank may not (x) accept, renew or roll over any brokered deposit or (y) solicit deposits by offering an effective yield that exceeds by more than 75 basis points the prevailing effective yields on insured deposits of comparable maturity in such institution's normal market area or in the market area in which such deposits are being solicited. The term "undercapitalized insured depository institution" is defined to mean any insured depository institution that fails to meet the minimum regulatory capital requirement prescribed by its appropriate federal banking agency. The FDIC may, on a case-by-case basis and upon application by an adequately capitalized insured depository institution, waive the restriction on brokered deposits upon a finding that the acceptance of brokered deposits does not constitute an unsafe or unsound practice with respect to such institution. In August 2019 and December 2019, the FDIC issued proposed rules on aspects of FDIC's brokered deposit and interest rate regulations. The outcome of these proposed rules on the FDIC's regulations in the future is uncertain. Shinhan Bank America had an aggregate amount of US$35.6 million of brokered deposits outstanding as of December 31, 2019.

Community Reinvestment and Consumer Protection Laws. In connection with its lending activities, Shinhan Bank America is subject to a variety of federal laws designed to protect borrowers and promote lending to various sectors of the economy and population. Included among these are the Home Mortgage Disclosure Act, Real Estate Settlement Procedures Act, Truth-in-Lending Act, Equal Credit Opportunity Act, Fair Credit Reporting Act and CRA.

The CRA requires FDIC insured banks to define the assessment areas that they serve, identify the credit needs of those assessment areas and take actions that respond to the credit needs of the community. The FDIC must conduct regular CRA examinations of Shinhan Bank America and assign it a CRA rating of "outstanding," "satisfactory," "needs improvement" or "unsatisfactory." Shinhan Bank America is also subject to provisions of the New York State Banking Law which impose similar obligations to serve the credit needs of its assessment areas. The Department and the FDIC each periodically assess a bank's compliance, and makes the assessment available to the public. Federal and New York State laws both require consideration of these ratings when reviewing a bank's application to engage in certain transactions, including mergers, asset purchases and the establishment of branch offices. A negative assessment may serve as a basis for the denial of any such application. Shinhan Bank America has received "satisfactory" ratings from both the Department and the FDIC in its most recent CRA performance evaluation.

In December 2019, the FDIC and the Office of the Comptroller of the Currency ("OCC") proposed comprehensive amendments to the CRA, which would significantly affect the manner in which banks seek to satisfy their CRA obligations (including by modifying incentives for banks to lend to, invest in, and provide services to their communities generally, and in low- and moderate-income ("LMI") areas, in particular) and modify the CRA examination process for all but the smallest banks by moving from the current subjective rating system to a "metric-based" rating system. It remains unclear whether the FDIC, OCC or other regulatory agencies will adopt final rules amending the CRA and, if such rules were to be adopted, we cannot predict at this time the extent to which the scope of such final rules would resemble the CRA amendments proposed in December 2019. It also remains unclear whether any other particular legislative or regulatory proposals will be enacted or adopted concerning CRA requirements applicable to us. To the extent any such final amendments to CRA requirements applicable to us are adopted, such regulatory developments may impact the ability of Shinhan Bank America to achieves "satisfactory" CRA performance ratings.

The Dodd-Frank Act created the Consumer Financial Protection Bureau (the "Bureau") with broad authority to regulate and enforce consumer protection laws. The Bureau has the authority to adopt regulations under numerous existing federal consumer protection statutes. The Bureau may also decide that a particular consumer financial product or service, or the manner in which it is offered, is an unfair, deceptive, or abusive act or practice. If the Bureau so decides, it has the authority to outlaw such act or practice.

Limitations on Dividends. The payment of dividends by Shinhan Bank America is subject to various regulatory requirements. Under New York State Banking Law, a New York-chartered stock bank may declare and pay dividends out of its net profits, unless there is an impairment of capital, but approval of the Superintendent of Banks is required if the total of all dividends declared in a calendar year would exceed the total of its net profits for that year combined with its retained net profits of the preceding two years, subject to certain adjustments.

Assessments. Banking institutions are required to pay assessments to both the FDIC and the Department to fund the operations of those agencies. The assessments are based upon the amount of Shinhan Bank America's total assets. Shinhan Bank America must also pay an examination fee to the Department when it conducts an examination.

Transactions with Related Parties. Shinhan Bank America's authority to engage in transactions with related parties or "affiliates" (i.e., any entity that controls or is under common control with an institution) is limited by Sections 23A and 23B of the Federal Reserve Act. Section 23A limits the aggregate amount of transactions with any individual affiliate to 10% of the capital and surplus of the institution and also limits the aggregate amount of transactions with all affiliates to 20% of the institution's capital and surplus. The term "affiliate" includes, for this purpose, us and any company that we control other than Shinhan Bank America and its subsidiaries.

Loans to affiliates must be secured by collateral with a value that depends on the nature of the collateral. The purchase of low quality assets from affiliates is generally prohibited. Loans and asset purchases with affiliates must be on terms and under circumstances, including credit standards, that are substantially the same or at least as favorable to the institution as those prevailing at the time for comparable transactions with nonaffiliated companies. In the absence of comparable transactions, such transactions may only occur under terms and circumstances, including credit standards that in good faith would be offered to or would apply to nonaffiliated companies. Shinhan Bank America's authority to extend credit to executive officers, directors and 10% shareholders, as well as entities controlled by such persons, is governed by Regulation O of the Federal Reserve Board. Regulation O generally requires such loans to be made on terms substantially similar to those offered to unaffiliated individuals (except for preferential loans made in accordance with broad based employee benefit plans), places limits on the amount of loans Shinhan Bank America may make to such persons based, in part, on Shinhan Bank America's capital position, and requires certain approval procedures to be followed.

Standards for Safety and Soundness. FDIC regulations require that Shinhan Bank America adopt procedures and systems designed to foster safe and sound operations in the areas of internal controls, information systems, internal and audit systems, loan documentation, credit underwriting, interest rate risk exposure, asset growth, asset quality, earnings and compensation, fees and benefits. Among other things, these regulations prohibit compensation and benefits and arrangements that are excessive or that could lead to a material financial loss. If Shinhan Bank America fails to meet any of these standards, it will be required to submit to the FDIC a plan specifying the steps that will be taken to cure the deficiency. If it fails to submit an acceptable plan or fails to implement the plan, the FDIC will require it to correct the deficiency and until corrected, may impose restrictions on it.

The FDIC has also adopted regulations that require Shinhan Bank America to adopt written loan policies and procedures that are consistent with safe and sound operation, are appropriate for its size, and must be reviewed by its board of directors annually. Shinhan Bank America has adopted such policies and procedures, the material provisions of which are discussed above as part of the discussion of our lending operations.

U.S. Regulation of Other U.S. Operations

In the United States, Shinhan Investment America Inc., our U.S.-registered broker-dealer subsidiary, is subject to regulations that cover all aspects of the securities business, including, sales methods, trade practices among broker-dealers, use and safekeeping of clients' funds and securities, capital structure; record-keeping, the financing of clients' purchases, and the conduct of directors, officers and employees.

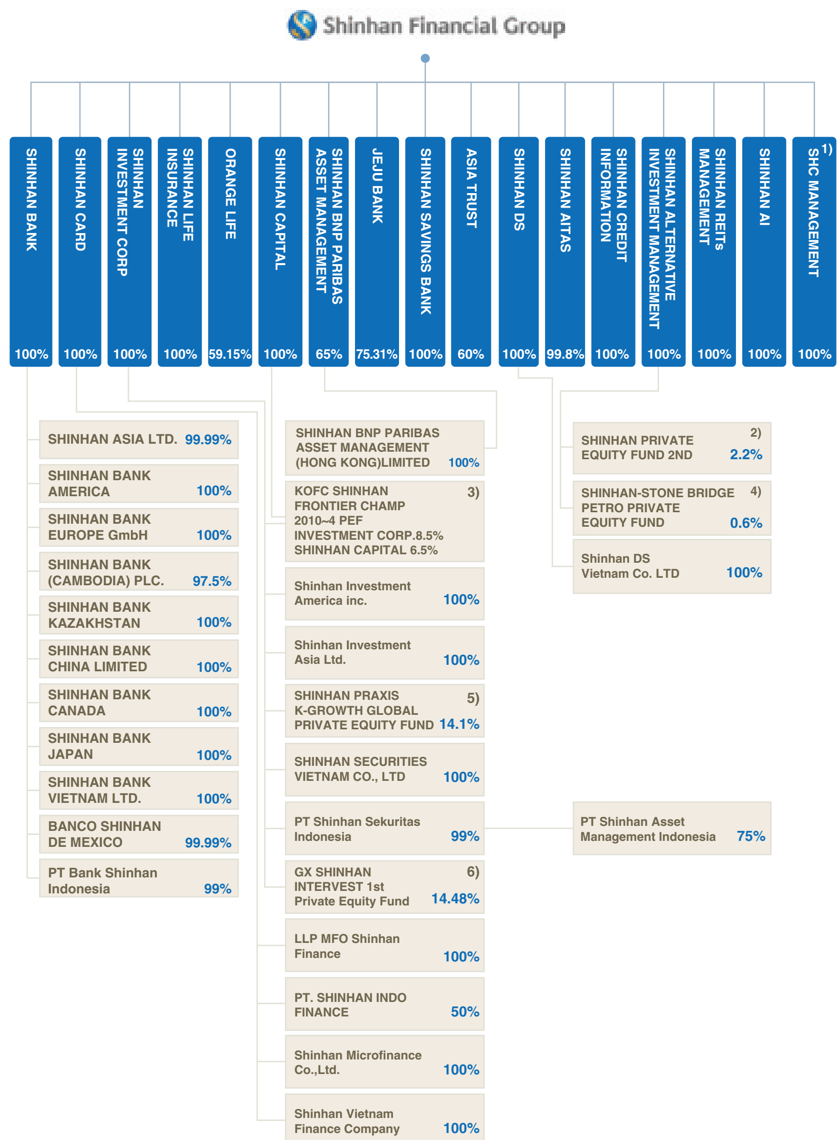
Shinhan Investment America Inc. is regulated by a number of different government agencies and self-regulatory organizations, including the SEC and the Financial Industry Regulatory Authority ("FINRA"). Our U.S. subsidiaries are also regulated by some or all of the NYSE, the Municipal Securities Rulemaking Board, the U.S. Department of the Treasury, the Federal Reserve Board and the Commodities Futures Trading Commission. In addition, the U.S. states, provinces and territories have local securities commissions that regulate and monitor activities in the interest of investor protection. These regulators have a variety of sanctions available, including the authority to conduct administrative proceedings that can result in censure, fines, the issuance of cease-and-desist orders or the suspension or expulsion of the broker-dealer or its directors, officers or employees.

FINRA is dedicated to investor protection and market integrity through effective and efficient regulation and complementary compliance and technology-based services. FINRA covers a broad spectrum of securities businesses, including, registering and educating industry participants, examining securities firms, writing rules, enforcing those rules and the federal securities laws, informing and educating the investing public, providing trade reporting and other industry utilities, and administering a dispute resolution forum for investors and registered firms. It also performs market regulation under contract for the NASDAQ Stock Market, the American Stock Exchange and the Chicago Climate Exchange.

Many of the provisions of the Dodd-Frank Act discussed above will affect the operation of Shinhan Investment America, as well as our U.S. banking operations. Again, the impact of this statute on our operations will depend on the final regulations ultimately adopted by various agencies and oversight boards in coming years.

ITEM 4.C. Organizational Structure

We currently have 17 direct and 27 indirect subsidiaries. The following diagram provides an overview of our organizational structure, including our significant subsidiaries and our ownership of such subsidiaries as of the date of this annual report:



1) Currently in liquidation proceedings.
2) We and our subsidiaries currently own 32.6% in the aggregate.
3) We and our subsidiaries currently own 34.6% in the aggregate.
4) We and our subsidiaries currently own 1.8% in the aggregate.
5) We and our subsidiaries currently own 18.9% in the aggregate.
6) We and our subsidiaries currently own 25.27% in the aggregate.

All of our subsidiaries are incorporated in Korea, except for the following:

- Shinhan Asia Limited (incorporated in Hong Kong);
- Shinhan Bank America (incorporated in the United States);

- Shinhan Bank Canada (incorporated in Canada);
- Shinhan Bank (China) Limited (incorporated in the People's Republic of China);
- Shinhan Bank Europe GmbH (incorporated in Germany);
- Shinhan Bank Kazakhstan Limited (incorporated in Kazakhstan);
- Shinhan Bank Japan (incorporated in Japan);
- Shinhan Bank (Cambodia) PLC (incorporated in Cambodia);
- Shinhan Bank Vietnam Ltd. (incorporated in Vietnam);
- PT Bank Shinhan Indonesia (incorporated in Indonesia);
- Banco Shinhan de Mexico (incorporated in Mexico);
- LLP MFO Shinhan Finance (incorporated in Kazakhstan);
- PT Shinhan Indo Finance (incorporated in Indonesia);
- Shinhan Microfinance Co., Ltd. (incorporated in Myanmar);
- Shinhan Investment Corp., USA Inc. (incorporated in the United States);
- Shinhan Investment Corp., Asia Ltd. (incorporated in Hong Kong);
- Shinhan Securities Vietnam Co., Ltd. (incorporated in Vietnam);
- PT Shinhan Sekuritas Indonesia (incorporated in Indonesia);
- Shinhan Asset Management Indonesia (incorporated in Indonesia);
- Shinhan BNP Paribas Asset Management (Hong Kong) Limited (incorporated in Hong Kong); and
- Shinhan DS Vietnam Co. Limited (incorporated in Vietnam).

ITEM 4.D. Properties

The following table provides information regarding certain of our properties in Korea.

		Area (In square meters)	
Type of Facility	**Location**	**Building**	**Site (If Different)**
Registered office and corporate headquarters	20, Sejong-daero 9-gil, Jung-gu, Seoul, Korea 04513	59,519	5,418
Shinhan Investment Corp.	70, Yeoui-daero, Yeoungdeungpo-gu, Seoul, Korea 07325	70,170	4,765
Shinhan Centennial Building	29, Namdaemun-ro 10-gil, Jung-gu, Seoul, Korea 04540	19,697	1,389
Shinhan Bank Gwanggyo Branch	54, Cheonggyecheon-ro, Jung-gu, Seoul, Korea 04540	16,727	6,783
Shinhan Myongdong Branch	43, Myeongdong-gil, Jung-gu, Seoul, Korea 04534	8,936	1,017
Shinhan Youngdungpo Branch	27, Yeongjung-ro, Yeoungdeungpo-gu, Seoul, Korea 07301	6,171	1,983
Shinhan Back Office Support Center	1311, Jungang-ro, Ilsandong-gu, Goyang-si, Gyeonggi-do, Korea 10401	25,238	5,856
Shinhan Bank Back Office and Call Center	251, Yeoksam-ro, Gangnam-gu, Seoul, Korea 06225	40,806	7,964
Shinhan Bank Back Office and Storage Center	1221, 1sunwhan-ro, Sangdang-gu, Cheongju-Si, Chungcheongbuk-do, Korea 28777	6,019	5,376

Type of Facility	Location	Area (In square meters) Building	Site (If Different)
Shinhan Card Yoksam-Dong Building	176, Yeoksam-ro, Gangnam-gu, Seoul, Korea 06248	7,348	1,185
Shinhan Data Center	67, Digital Valley-ro, Suji-gu, Yongin-si, Gyeonggi-do, Korea 16878	45,277	9,114
Shinhan Life Insurance headquarters	358, Samil-daero, Jung-gu, Seoul, Korea 04542	30,833	1,978

Our subsidiaries own or lease various land and buildings for their branches and sales offices.

As of December 31, 2019, Shinhan Bank had a countrywide network of 876 branches. Approximately 22.4% of these facilities were housed in buildings owned by us, while the remaining branches were leased properties. Lease terms are generally between two to three years and generally do not exceed five years. As of December 31, 2019, Jeju Bank had 38 branches of which we own 18 of the buildings in which the facilities are located, representing 47.4 of its total branches. Lease terms are generally between one to two years and seldom exceed five years.

As of December 31, 2019, Shinhan Card had 23 branches, all but one of which was leased. Lease terms are generally between one to two years. We also lease Shinhan Card's headquarters for a term of five years. As of December 31, 2019, Shinhan Investment had a nationwide network of 126 branches of which we own five of the buildings in which the facilities are located, representing 3.97% of its total branches in Korea. Lease terms are generally between one to two years. As of December 31, 2019, Shinhan Life Insurance had 123 branches which we leased for a term of generally one to two years.

The net book value of all the properties owned by us on December 31, 2019 was ₩2,606 billion. We do not own any material properties outside of Korea.

ITEM 4A. *UNRESOLVED STAFF COMMENTS*

We do not have any unresolved comments from the staff of the U.S. Securities and Exchange Commission regarding our periodic reports under the Securities Exchange Act of 1934, as amended.

ITEM 5. *OPERATING AND FINANCIAL REVIEW AND PROSPECTS*

You should read the following discussion and analysis of our financial condition and results of operations together with our consolidated financial statements and notes thereto included in this annual report. The following discussion is based on our consolidated financial statements, which have been prepared in accordance with IFRS.

ITEM 5.A. Operating Results

Overview

We are one of the leading financial institutions in Korea in terms of total assets, revenues, profitability and capital adequacy, among others. Incorporated on September 1, 2001, we are the first privately-held financial holding company to be established in Korea. Since inception, we have developed and introduced a wide range of financial products and services in Korea and aimed to deliver comprehensive financial solutions to clients through a convenient one-portal network. According to reports by the Financial Supervisory Service, we are the second largest financial services provider in Korea (as measured by consolidated total assets as of December 31, 2019) and operate the second largest banking business (as measured by consolidated total bank assets as of December 31, 2019) and the largest credit card business (as measured by total credit purchase volume in 2019) in Korea.

Most of our assets are located in, and we generate most of our income from, Korea. Accordingly, our business and profitability are largely dependent on the general economic and social conditions in Korea, including interest rates, inflation, exports, personal expenditures and consumption, unemployment, demand for business products and services, debt service burden of households and businesses, the general availability of credit, the asset value of real estate and securities and other factors affecting the financial well-being of our corporate and retail customers. The Korean economy is closely integrated with, and is significantly affected by, developments in the global economy and financial markets. In recent years, the global economy and financial markets experienced adverse conditions and volatility, which also had an adverse impact on the Korean economy and in turn on our business and profitability. See "Item 3.D. Risk Factors — Risks Relating to Our Overall Business — Difficult conditions and turbulence in the Korean and global economy and financial markets may adversely affect our business, asset quality, capital adequacy and earnings."

We derive most of our income from interest earned on our corporate and retail loans, net of funding costs (which primarily consist of interest payable on customer deposits). Net interest income is largely a function of the average volume of loans and the net interest spread thereon.

In 2018, the average volume of retail loans increased by 9.1% from 2017, primarily as a result of continued increase in home rental long-term deposits loans. In 2018, the average volume of corporate loans increased by 7.8% from 2017, primarily as a result of increased loans to SOHO and small- and medium sized enterprises in the manufacturing, real estate and service industries.

In 2019, the average volume of retail loans increased by 11.1% from 2018, primarily as a result of increase in home rental long-term deposit loans. In 2019, the average volume of corporate loans increased by 10.2% from 2018, primarily as a result of an increase in facilities loans.

From 2017 to 2018, the average yield on both retail loans and corporate loans and the average rate on deposits increased primarily due to the increase in the base interest rate by the Bank of Korea in November 2017 and November 2018. Meanwhile, the increase in the average yield rate on retail and corporate loans was higher than that of deposits since our deposits generally have longer maturity profiles than our retail and corporate loans and are therefore less sensitive to movements in the base and market interest rates. Shinhan Bank's net interest income increased by 11.9% from ₩4,992 billion in 2017 to ₩5,586 billion in 2018. Net interest income after provision for credit losses on loans amounted to ₩4,510 billion and ₩5,340 billion in 2017 and 2018, respectively. Shinhan Bank's operating income increased by 43.5% from ₩2,206 billion in 2017 to ₩3,165 billion in 2018.

From 2018 to 2019, the average yield on retail loans and the average rate on deposits increased as the base interest rate set by the Bank of Korea was increased from 1.50% to 1.75% in November 2018, resulting in a higher average market interest rate for 2019 compared to 2018, notwithstanding decreases in the base interest rate by the Bank of Korea from 1.75% to 1.50% in July 2019 and from 1.50% to 1.25% in October 2019. The average yield on corporate loans remained stable despite a higher average market interest rate in 2019 due to an increase in loans to corporate borrowers with high credit ratings which have lower interest rates. Shinhan Bank's net interest income increased by 5.1% from ₩5,586 billion in 2018 to ₩5,872 billion in 2019. Net interest income after provision for credit losses on loans amounted to ₩5,340 billion and ₩5,501 billion in 2018 and 2019, respectively. Shinhan Bank's operating income increased by 3.1% from ₩3,165 billion in 2018 to ₩3,263 billion in 2019.

As for Shinhan Card, its operating revenue is largely dependent on transaction volume and less sensitive to interest rate movements than our banking business, since merchant fees (representing a fixed percentage of a credit card purchase amount) provide a stable source of income and our credit card business enjoys more diversified sources of funding, including commercial paper, corporate debentures (which have maturities longer than most bank deposit products) and asset-backed securitizations. The credit card transaction volume is largely dependent on the overall trends of the general Korean economy, such as general consumer spending patterns in

Korea. Shinhan Card's operating revenues decreased by 27.8% from ₩5,197 billion in 2017 to ₩3,752 billion in 2018, largely due to a decrease in fees and commission income as a result of the application of IFRS 15. Shinhan Card's operating revenues increased by 3.7% from ₩3,752 billion in 2018 to ₩3,892 billion in 2019, largely due to an increase in interest income resulting from an increase in loans of foreign subsidiaries to increase their operating assets, as well as Shinhan Card's acquisition of Prudential Vietnam Finance Company Limited (which subsequently changed its legal name to Shinhan Vietnam Finance). Interest income on credit card receivables increased due to a 7.0% increase in the average balance of credit card receivables from ₩21,366 billion in 2018 to ₩22,869 billion in 2019. In addition, fees and commission income decreased by 3.6% from ₩1,486 billion in 2018 to ₩1,432 billion in 2019, primarily as a result of the Government's continued policies to lower credit card merchant fees.

The following provides a discussion of the major trends surrounding the general economy and the financial services sector in Korea in 2019 and our current outlook for 2020 as they relate to our core businesses. The following discussion represents the subjective view of our management and may significantly differ from the actual results for 2020.

Trends in the Korean Economy

In 2019, the global economy showed signs of deepening slowdown with the manufacturing sector at the epicenter, as overseas trade decreased sharply due to the escalation of the U.S.-China trade conflicts. With the prices of electronic parts, chemicals and raw materials, including semiconductors, generally declining compared to 2018, trade volume also decreased, leading to a downward trend of the global economy and dampening the growth of export-oriented countries, such as Germany, China and Korea. According to the International Monetary Fund, the global economic growth rate for 2019 is estimated to fall below 3 percent, which would be the lowest growth rate since the 2008 global financial crisis. Global economic uncertainties are expected to continue in 2020, including the recent coronavirus (COVID-19) outbreak and potential escalation of ongoing trade wars between major economies including the U.S. and China, among others. There are also uncertainties stemming from political events in major countries, including political uncertainties following Korea's general elections in April 2020 and the U.S. presidential election in November 2020. Any of these events or uncertainties may have a material adverse effect on the global economy and also our business, financial condition and results of operations.

In 2019, the Korean economy recorded a growth rate of 2.0% compared to a growth rate of 2.7% in 2018, showing signs of slowdown as exports of Korea's major export products, including semiconductors, decreased as a result of a decrease in global demand mainly due to escalated U.S.-China trade disputes. Investments in the construction industry also decreased due to decreases in facility investments amid slowing exports as well as the Government's strengthened regulations in the real estate market and reduced investment in social overhead capital ("SOC"). Despite the general economic slowdown, domestic household purchasing power remained stable due to increased welfare spending by the Government for low-income households. However, overall economic growth was further weakened by structural factors such as the aging and declining population. In 2020, the overall sluggishness in the Korean economy is expected to continue as persisting uncertainty in the global economic environment is expected to continue affecting the Korean economy. In particular, petrochemical and other export items with high demands from China are expected to continue to experience a negative impact due to the economic slowdown in China amidst the recent coronavirus (COVID-19) outbreak, and although the decline in price for semiconductors, Korea's main export item, may slow, it remains uncertain whether semiconductor exports will increase amidst global economic uncertainties. Facility investment in Korea has declined sharply during the past two years, and the global political and economic uncertainties are expected to continue to discourage companies from actively investing in new facilities in Korea. Investment in the housing sector is similarly expected to remain low due to the Government's tightening regulations on the real estate market, and structural factors such as the aging population will continue to persist. Although it is expected that the Government will implement policies to mitigate downturn in the economy, for example large-scale fiscal spending and welfare spending, Korea's economy is expected to continue to experience low growth rates despite any fiscal expansion policy adopted by the Government. In particular, it is expected that factors such as a decline in exports, consumption and tourism if the recent coronavirus (COVID-19) outbreak were to be prolonged, as well as increased volatility in the financial markets and the possibility of escalations of trade disputes between major economies will pose downside risks to the domestic economy in 2020.

In 2020, we consider the following as potential risks to the Korean economy: (i) possibility of a global recession in major markets due to the recent coronavirus (COVID-19) outbreak and resulting decline in consumer confidence; (ii) the increased volatility of foreign currency exchange markets due to the varying monetary policies of the global economies including decreases in base interest rates, fiscal and monetary easing policies; (iii) a prolonged slump in the Korean economy resulting from slowing of job creation and exacerbation of unemployment issues, particularly a rise in youth unemployment; (iv) China's slowing growth and the possibility of a hard landing for China; (v) potential decline in productivity due to aging demographics and low birth rates; (vi) uncertainty and volatility regarding the political and economic policies, including growing protectionism, of the United States and other major economies; (vii) concerns within the financial sectors due to high levels of household debt; and (viii) political risks including political instability due to North Korea. In particular, the recent coronavirus (COVID-19) outbreak, which was declared a "pandemic" by the World Health Organization in March 2020, has led to significant global economic and financial disruptions, including an adverse impact on international trade and business activities, sharp declines and significant volatility in the financial markets as well as decreases in interest rates worldwide. In light of the high level of interdependence of the global economy, unfavorable changes in the global financial markets, including as a result of any of the foregoing potential risks, could have a material adverse effect on the Korean economy and financial markets, and in turn on our business, financial condition and results of operations. Accordingly, the economic outlook for the financial services sector in Korea in 2020 and for the foreseeable future remains highly uncertain.

As for interest rate movements, since 2009, Korea, like many other countries, has experienced a low interest rate environment despite some marginal fluctuations, in part due to the Government's policy to stimulate the economy through active rate-lowering measures. Between 2009 and 2014, the base interest rate set by the Bank of Korea remained within the band between 2.00% and 3.25%. In an effort to support Korea's economy amidst a slowdown in Korea's growth and uncertain global economic prospects, the Bank of Korea reduced the base interest rate to 1.75% in March 2015, 1.50% in June 2015 and further reduced such rate to the historic low of 1.25% in June 2016. In November 2017, the Bank of Korea raised the base interest rate to 1.50%, marking the first time it increased the base interest rate since 2011, and in November 2018 further raised the base interest rate from 1.50% to 1.75%, citing concerns over household debt in the aggregate exceeding ₩1,500 trillion and potential outflow of funds due to the widening interest rate differential between the base interest rate of the Bank of Korea and the benchmark interest rate of the Federal Reserve Board. After increasing its benchmark interest rate three times during 2017, the Federal Reserve Board increased its benchmark interest rate four times during 2018, to a range of 2.25% to 2.50% in December 2018 when it signaled that it expected to raise the benchmark interest rate another two times during 2019. However, the Federal Reserve Board actually reduced the benchmark interest rate three times during 2019 amidst signs of slowdown in the U.S. and major global economies and recently lowered the rate again to a range of 1.0% to 1.25% on March 3, 2020 and to a range of 0% to 0.25% on March 15, 2020 in response to the threat posed to the economy by the recent coronavirus (COVID-19) outbreak. Similarly, the Bank of Korea also lowered the base interest rate from 1.75% to 1.50% in July 2019 and from 1.50% to 1.25% in October 2019, and further reduced the base interest rate from 1.25% to 0.75% on March 16, 2020 in response to the recent coronavirus (COVID-19) outbreak. The Bank of Korea's policy path of interest rates in 2020 and for the foreseeable future remains uncertain and will be affected in part by the policy path of the Federal Reserve Board, which also remains uncertain for the foreseeable future. The recent decreases in base interest rate by the Bank of Korea are expected to put further downward pressure on the Bank's net interest margin, particularly if the base interest rate is decreased again during 2020.

Recent Developments and Outlook for the Korean Financial Sector

Commercial Banking

Since the financial crisis in 2008, the asset size of Korean commercial banks has consistently grown year over year, including in 2019. Asset quality of commercial banks in Korea also continued to improve in 2019, but as net interest margin declined and growth of loans has weakened, the overall growth of the banking business has slowed down. Although the increase in household loans has slowed in part due to the Government's real estate policies aimed at curbing household debt, loans for small- and medium-sized enterprises remained stable due to banks' efforts to support high performing small- and medium-sized enterprises.

In 2020, asset growth for commercial banks in Korea is expected to slow due to a variety of factors, including the Government's strengthening of policies on the housing market and household debt, such as those relating to total household debt management, introduction of debt service ratios and loan-to-deposit ratios, an expected slowdown in the real estate market and financial regulators' continued focus on curbing the growth of housing loans. In addition, as the demand for consumer protection in investment products increases, the banks' organization and key performance indicators are expected to be readjusted, and fees and commission income generally is expected to decrease. Competition between banks and fintech firms is expected to further intensify due to the introduction of open banking and amendments to Korea's major data privacy laws. The resulting competition is expected to go beyond traditional price-based competition, requiring banks to focus on offering customized products and services based on big data analysis and integrating financial services with customers' daily life patterns in order to provide differentiated value. The Government's policies focusing on protection of consumers and encouraging inclusive financial policies are also expected to lead to further competition among banks for relevant businesses, such as businesses to support the middle class, socially disadvantaged classes, small businesses and startups. As there may be an increased risk of a decline in asset quality, particularly as a result of the recent coronavirus (COVID-19) outbreak, we believe that strengthening risk management capabilities will become increasingly important and have a more direct impact on the financial performance of commercial banks in Korea.

Credit Cards

In 2019, despite concerns regarding the credit card industry in light of Government regulations, such as those lowering the applicable rate of merchant fees, and a slowdown in growth of credit card market, the credit card industry showed generally good profitability due to efficient cost reduction, stabilization of procurement costs and quality focused growth. Capital stability and adequacy also remained stable during 2019.

In 2020, it is expected that credit card companies will continue to cut marketing costs by decreasing high-cost products as the growth of credit card usage is expected to slow down due to weakening consumer sentiment. Profitability may also decrease due to Government regulations. As vulnerable borrowers are more likely to become insolvent or otherwise unable to service their debt during an economic downturn, credit card companies are preparing for a market environment with increased uncertainty in 2020.

Securities

In 2019, the financial investment industry's overall revenue hit a record high based on the performance of large securities companies and investment banks, despite the fact that the stock market experienced only moderate growth due to market uncertainties and low interest rates.

In 2020, the efforts to diversify revenue sources other than brokerage services, such as investment banking and sales and trading, are expected to continue in an effort to minimize the impact of stock price fluctuations on securities companies. We expect main issues in the securities industry in 2020 to include: (i) a decrease in demand for wealth management services and increased legal disputes amid Lime Asset's suspension of withdrawals and resulting financial and reputational damage to certain major securities companies in Korea, (ii) a slow-down in the real estate market, particularly if Government measures aimed at restricting the real estate market are adopted or existing measures are strengthened, (iii) increased volatility in the stock market, decreased transactions, restrictions on business activities for investment banking and resulting volatility of profits from sales and trading, particularly if the recent coronavirus (COVID-19) outbreak were to persist, and (iv) increased need for risk management due to increased contingent liabilities such as guarantees resulting from investment banking business expansion. As entry barriers into the securities industry are lowered, competition against fintech firms is expected to intensify. The Government is working to implement measures to develop large scale financial investment companies in order to increase competitiveness and to expand potential growth opportunities for securities companies, including promotion of the financial product advisory businesses and test operations of robo-advisor services. In order to improve profitability, it is expected to become increasingly important for securities companies to develop new, differentiating profit models and diversify its product offerings.

Life Insurance

In 2019, the life insurance industry's overall revenue declined primarily due to a persisting low interest rate environment, as well as slowing growth of the economy, an aging population and low birthrates.

In 2020, the life insurance industry's overall profitability is expected to continue to decline as the factors mentioned above continue to persist, and it is expected that risk management and underwriting (risk takeover) capability will become an increasingly important factor in life insurance companies' ability to strategically reduce business expenses. In addition, the demands for health insurance products and retirement pension insurance have increased steadily, and as a result it is expected that sales channels, products, and digital-based competitiveness will become more important in the future. As the line between financial and non-financial sectors become blurry and the life insurance market matures, we expect overall growth potential for the industry to be limited and the importance of developing differentiated products and services tailored to customers' individualized needs and expanding digital-based customer services to become increasingly important.

Asset Management

The total amount of assets under management by asset management companies, including fund assets under management and discretionary investment contracts, increased by 11.4% to ₩1,139 trillion as of December 31, 2019 from ₩1,022 trillion as of December 31, 2018, primarily due to an increase in private funds such as real estate funds, special asset funds and mixed asset funds. The total amount of fund assets under management increased by 17.7% to ₩652 trillion as of December 31, 2019 from ₩553.5 trillion as of December 31, 2018, and the total amount of discretionary investment contracts increased by 4.1% to ₩486.8 trillion as of December 31, 2019 from ₩467.7 trillion as of December 31, 2018. Operating profit increased by 12.8% to ₩918.7 billion in 2019 from ₩467.7 trillion in 2018, due primarily to higher commission gains driven by the rise in total amount of assets under management. As a result, net profit increased by 31.2% to ₩795 billion in 2019 from ₩984.4 trillion in 2018.

In 2020, institutional investors are expected to continue to lead the growth of the asset management industry. Growth of the private funds market is expected to slow, in part due to redemption delays and losses from several private funds. Investors' risk appetite may increase if U.S.-China trade tension is eased and if improvement is shown in major financial indicators, as returns on bonds are expected to decrease in a low-interest rate environment and hence demands for higher return investment products are expected to increase. As estimated returns on investments in the Korean market are expected to remain low due to slowing growth of the Korean economy, demand for investments in overseas markets is expected to increase. Demand for long-term investment products in the public fund market, such as individual annuity funds and retirement pension funds, is expected to continue to rise. Demand from investors looking to invest in ESG products is expected to continue to be strong as new ESG products are introduced into the market and gradually attract interest from retail investors.

Specialized Credit

The specialized credit business was introduced in Korea in August 1997. The specialized credit business cannot accept customer deposits and generally involves providing a combination of four types of financing: equipment and facilities leasing, installment finance, new technology finance and credit card services, and sources funding primarily by issuing debentures and commercial papers. The specialized credit business generally targets customers with higher risk profile in return for higher return compared to customers of commercial banks, which makes risk management (including customer screening) a particularly key factor for commercial success of this business.

Due, in part, to the variety of services being offered and the broad range of potential customers, specialized credit providers often find it relatively easy to develop new customer segments and provide niche offerings. Due to the relatively low barriers of entry, however, competition is intense and is expected to further intensify as a result of the commencement of automobile loan offerings by commercial banks and the expanded entry into personal loan markets by micro lenders. In addition, on September 30, 2015, the National Assembly of Korea passed an amendment to the Credit Finance Business Act, which, among other things, aims at alleviating restrictions on entry into the credit finance industry by lowering the minimum capital requirements for new entrants. In line with recent Government policies emphasizing productive finance, we expect that specialized credit providers will continue to focus their efforts on finding new business opportunities, including by expanding the new technology finance segment and selective overseas expansions.

Interest Rates

Interest rate movements, in terms of magnitude and timing as well as their relative impact on our assets and liabilities, have a significant impact on our net interest margins and profitability, particularly with respect to its financial products that are sensitive to such movements. For example, if the interest rates applicable to Shinhan Bank's loans (which are recorded as our assets) decrease at a faster pace or by a wider margin, or increase at a slower pace or by a thinner margin, compared to the interest rates applicable to its deposits (which are recorded as our liabilities), Shinhan Bank's net interest margin will shrink and its profitability will be negatively affected. In addition, the relative size and composition of Shinhan Bank's variable rate loans and deposits (as compared to our fixed rate loans and deposits) may also impact Shinhan Bank's net interest margin. Furthermore, the difference in the average repricing frequency of Shinhan Bank's interest-earning assets (primarily loans) compared to its interest-bearing liabilities (primarily deposits) may also impact its net interest margin. For example, since Shinhan Bank's deposits currently have a longer term, on average, than that of its loans, its deposits are on average less sensitive to movements in the base interest rates on which its deposits and loans tend to be pegged, and therefore, an increase in the base interest rates tends to increase its net interest margin while a decrease in the base interest rates tends to have the opposite effect. Since Shinhan Bank is one of our principal operating subsidiaries, its net interest margin and profitability have a substantial effect on our overall net interest margin and profitability. While we continually manage our assets and liabilities to minimize our exposure to the interest rate volatility, such efforts by us may not mitigate the impact of interest rate volatility in a timely or effective manner.

The interest rate charged to customers by our banking subsidiaries is based, in part, on the "cost of funds index," or COFIX, which is published by the Korean Federation of Banks. COFIX is computed based on the weighted average interest of select funding products (including time deposits, housing and other installment savings deposits, repos, discounted bills and senior non-convertible financial debentures) of eight major Korean banks (comprised of Shinhan Bank, Kookmin Bank, Woori Bank, KEB Hana Bank, Nonghyup Bank, Industrial Bank of Korea, Citibank Korea and Standard Chartered Bank Korea). Each bank then independently determines the interest rate applicable to its respective customers by adding a spread to the COFIX based on the difference between the COFIX and such bank's general funding costs, administration fees, the customer's credit score, the maturity of the loan and other customer-specific premiums and discounts based on the customer relationship with such bank. These interest rates are typically adjusted on a monthly basis.

The following table shows certain benchmark Won-denominated borrowing interest rates as of the dates indicated.

	Corporate Bond Rates(1)	Treasury Bond Rates(2)	Certificate of Deposit Rates(3)	COFIX Balance-Based(4)	New COFIX Balance-Based(5)	COFIX New Borrowing-Based(6)
June 30, 2015	2.01	1.79	1.65	2.22	—	1.75
December 31, 2015	2.11	1.66	1.67	1.90	—	1.66
June 30, 2016	1.69	1.25	1.37	1.75	—	1.54
December 31, 2016	2.13	1.64	1.52	1.62	—	1.51
June 30, 2017	2.24	1.70	1.38	1.58	—	1.47
December 31, 2017	2.68	2.14	1.66	1.66	—	1.77
June 30, 2018	2.77	2.12	1.65	1.83	—	1.82
December 31, 2018	2.29	1.82	1.93	1.95	—	1.96
June 30, 2019	1.80	1.47	1.78	2.00	—	1.85
December 31, 2019	1.78	1.36	1.53	1.81	1.55	1.63

Source: Korea Financial Investment Association Bond Information Service

Notes:

(1) Measured by the yield on three-year AA- rated corporate bonds.
(2) Measured by the yield on three-year treasury bonds.
(3) Measured by the yield on certificates of deposit (with maturity of 91 days).
(4) Measured based on the weighted average of the borrowing rates for the monthly ending balances of the funding made by the commercial banks that are subject of the COFIX reporting.
(5) New COFIX on Outstanding Balance (the "New COFIX") is a new benchmark COFIX introduced since July 2019. The New COFIX also takes into account other deposits such as inter-bank time deposits and non-resident deposits and other funding sources such as subordinated bonds and convertible bonds in calculating the weighted average of the borrowing rates for the monthly ending balances of the funding made by the commercial banks that are subject of the COFIX reporting.
(6) Measured based on the weighted average of the borrowing rates for new funding for each month made by the commercial banks that are subject of the COFIX reporting.

Critical Accounting Policies

The notes to our consolidated financial statements contain a summary of our significant accounting policies, including a discussion of recently issued accounting pronouncements. Certain of these policies are critical to the portrayal of our financial condition, since they require management to make difficult, complex or subjective judgments, some of which may relate to matters that are inherently uncertain. We discuss these critical accounting policies below. The accounting policies set out below have been applied consistently to all periods presented in our consolidated financial statements included in this annual report, unless otherwise indicated.

Non-derivative Financial Assets

Classification, measurement and impairment of non-derivative financial assets have been amended due to the adoption of IFRS 9 'Financial Instruments' which became effective from January 1, 2018. As this report exhibits comparative financial statements prior to and after the adoption of the new standard, the critical accounting policies presented herein include information with regard to both IAS 39 and IFRS 9.

Non-derivative financial Assets — classification and measurement policy applicable before January 1, 2018 under IAS 39

Financial assets are classified into four categories. (i) Financial assets at fair value through profit or loss ("FVTPL") are financial assets that are held for trading or designated at fair value through profit or loss upon initial recognition. These financial assets are measured at fair value after initial recognition and the changes in the fair value are recognized through profit or loss of the period. Costs attributable to the acquisition are immediately expensed in the period. (ii) Held-to-maturity financial assets are non-derivative assets with fixed or determinable payments and fixed maturity that we have the positive intent and ability to hold to maturity. They are carried at amortized cost using the effective interest method after their initial recognition. (iii) Loans and receivables are financial assets with fixed or determinable payments that are not quoted in an active market. Such assets are recognized initially at fair value plus any directly attributable transaction costs. Subsequent to initial recognition, loans and receivables are measured at amortized cost using the effective interest method, less any impairment losses. (iv) Available-for-sale ("AFS") financial assets are non-derivative financial assets that are designated as available-for-sale or are not classified as financial assets at fair value through profit or loss, held-to-maturity investments or loans and receivables. They are measured at fair value after their initial recognition.

Non-derivative financial Assets — classification and measurement policy applicable from January 1, 2018 under IFRS 9

Under IFRS 9, non-derivative financial assets are classified and measured at fair value through profit or loss with the changes in fair value recognized in profit and loss as they arise, unless restrictive criteria are met for classifying and measuring the asset at either amortized cost ("AC") or fair value through other comprehensive income ("FVOCI"). A financial asset shall be measured at FVOCI or at AC if both of the following conditions are met:

- the objective of our business model is to hold assets only to collect cash flows, or to collect cash flows and to sell ("the Business Model test"); and
- the contractual cash flows of an asset give rise to payments on specified dates that are solely payments of principal and interest ("SPPI") on the principal amount outstanding ("the SPPI test").

Despite meeting both criteria of the Business Model test and the SPPI test, we may, at initial recognition, irrevocably designate a financial asset as measured at fair value through profit or loss if doing so eliminates or significantly reduces a measurement or recognition inconsistency (sometimes referred to as an 'accounting mismatch'). Hybrid financial instruments which do not meet the criteria of contractual cash flow characteristics such as convertible bonds, equity-linked securities and structured deposits were classified as FVTPL regardless of its business model because the accounting to bifurcate embedded derivatives from the host contract is not allowed under IFRS 9.

Also, a special designation for equity instruments is allowed at initial recognition that would otherwise be measured at fair value through profit or loss to present subsequent changes in fair value in other comprehensive income. It becomes important to distinguish these equity investments from other financial assets. IFRS 9 defines an equity investment as one meeting the definition of an equity instrument in IAS 32, *Financial Instruments: Presentation* — i.e., any contract that evidences a residual interest in the assets of an entity after deducting all of its liabilities. Under IFRS 9, puttable instruments, which were previously classified as equity instruments in accordance with the exemption of IAS 32, are no longer qualified to be classified as equity instruments from the investor's perspective. Some equity stocks, equity investments and beneficiary certificates which had been included in available-for-sale equity instruments under IAS 39 were re-classified into FVTPL because of their puttable characteristics upon adoption of IFRS 9.

Valuation of Financial Assets and Liabilities

All financial assets are measured at fair value except held-to-maturity financial assets and loans and receivables under IAS 39 and financial assets at amortized cost under IFRS 9. The fair value of financial instruments being traded in an active market is determined by the published market prices at the end of each period. The published market prices of financial instruments being held by us are based on notifications by trading agencies. Where the market for a financial instrument is not active, such as in the case of over-the-counter market derivatives, fair value is determined by using either a valuation technique or an independent third-party valuation service.

We use various valuation techniques and set rational assumptions based on the present market situations. Such valuation techniques may include using recent arm's length market transactions between knowledgeable and willing parties, if available, reference to the current fair value of another instrument that is substantially the same, discounted cash flow analysis or option pricing models. The main assumptions and estimates which our management considers when applying a model with valuation techniques are:

- The likelihood and expected timing of future cash flows on the instrument. These cash flows are usually governed by the terms of the instrument, although judgment may be required when the ability of the counterparty to service the instrument in accordance with the contractual terms is in doubt. Future cash flows may be sensitive to changes in market rates.
- Selecting an appropriate discount rate for the instrument. The determination of this rate is based on an assessment of what a market participant would regard as the appropriate spread of the rate for the instrument over the appropriate risk-free rate.
- Judgment to determine what model should be used to calculate fair value in areas where the choice of valuation model is particularly subjective (for example, valuation of complex derivative products).

We classify and disclose fair value of financial instruments into the following three-level of IFRS fair value hierarchy:

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

Impairment of Financial Assets

Under IAS 39, a financial asset (or in aggregate thereof) as of the end of the reporting period was considered to be impaired only when there was objective evidence of impairment as a result of one or more events that occurred after the initial recognition of the asset (a 'loss event') and that loss event (or events) has an impact on the estimated future cash flows of the financial asset or group of financial assets that can be reliably estimated. Losses expected as a result of future events, no matter how likely, were not recognized under IAS 39. However, after the adoption of IFRS 9, we changed our impairment policy to recognized loss allowance for expected credit loss, and therefore we have been recognizing impairment loss on a more forward-looking basis and in a more timely manner than we did previously.

As IFRS 9 is based on expected credit loss, we evaluate whether the credit risk on a financial asset has increased significantly since initial recognition at the end of each reporting period. When making such assessment, we use the change in the risk of a default occurring over the expected life of the financial asset instead of the change in the amount of expected credit losses. In order to make this assessment, we compare the risk of a default occurring on the financial asset as at the end of the reporting period with the risk of a default occurring on the financial asset as at the date of initial recognition, considering reasonable and supportable information that is available without undue cost or effort and that demonstrates significant increases in credit risk since initial recognition. We consider changes in the risk of default estimated from changes in internal credit rating, qualitative factors, days of delinquency, and others as part of the evaluation criteria for significant increases in credit risk. For details, see Note 4 of the notes to our consolidated financial statements included in this annual report. Impairment losses under IAS 39 on the other hand were estimated on the basis of historical loss experience, and estimated future cash flows for financial assets, assessed collectively, were calculated based on impairment history of other similar financial assets with similar credit risk characteristics.

As for measurement model, IAS 39 determined whether to use an individual or collective assessment basis depending on the individual significance and the existence of objective evidence of impairment. However, IFRS 9 has three types of measurement models – general approach, impairment approach, or simplified approach, depending on whether the financial asset was already impaired at the date of initial recognition and the classification of financial asset. We apply the general approach to most of our loans at amortized cost. The general approach requires recognition of lifetime expected credit losses for all financial assets for which there have been significant increases in credit risk since initial recognition — whether assessed on an individual or collective basis — considering all reasonable and supportable information, including that which is forward-looking.

As for measurement items, impairment standards of IAS 39 were applied to loans and receivables, available-for-sale securities and held-to-maturity securities, respectively. However, expected credit losses under IFRS 9 are recognized on debt instruments at FVOCI or at AC, loan commitments and financial guarantee contracts regardless of whether the type of financial instrument is securities or loans or whether it is on-balance or off-balance. In addition, as all equity instruments under IFRS 9 are measured at FVTPL or at FVOCI and the amount recognized in other comprehensive income shall not be subsequently transferred to profit or loss, impairment standards of IFRS 9 are not applied to equity instruments. In contrast, under IAS 39, a significant or prolonged decline in fair value of an available-for-sale equity security below its cost was considered as objective evidence of impairment, and the cumulative other comprehensive gain or loss was realized to profit or loss.

Allowance for Credit Losses on Loans

Loans are classified as financial assets at amortized cost except for certain loans whose contractual cash flows do not consist solely of payments of principal and interest on the principal amount outstanding. Under IAS 39, loans were only permitted to be classified as loans and receivables. Loans at amortized cost under IFRS 9 are and loans and receivables under IAS 39 were subject to the application of impairment standards. The allowance for credit losses on loans has increased due to the adoption of IFRS 9 and the subsequent application of the new impairment model — expected credit loss model (whereas IAS 39 previously applied the incurred loss model). The allowance for credit losses on loans for the comparative financial statements as at the end of the period prior to adoption of the new standard was not restated, and the transition impact upon the initial adoption of IFRS 9 was recognized in retained earnings as of January 1, 2018.

The methodology for determining allowance for credit losses on loans is as follows and is mainly focused on Shinhan Bank which holds the majority of our loan assets.

- Allowance for Credit Losses on Loans Assessed Individually

Allowance for credit losses on loans assessed individually is based on the management's best estimate derived from present value of future cash flows that are expected to be collected from debt instruments subject to assessment. When forecasting these cash flows, we utilize all relevant information and financial circumstances available such as net realizable value of relevant collateral and operating cash flows of counterparties. Based on the individual significance, Shinhan Bank determines whether to apply individual or collective assessment — collective assessment is applied for loans that are not individually significant or loans that are individually significant but do not have significant increases in credit risk. Individual assessment is applied for loans that have relatively large balances and which have had significant increase in credit risk or have become impaired. Under IAS 39, Shinhan Bank evaluated impaired loans with relatively large balances individually. Shinhan Bank classifies credit-impaired borrowers with loan amounts of over ₩3 billion as subject to individual assessment (quantitative criteria) and also considers certain other factors such as asset quality, financial ratios, audit opinions and signs of insolvency (qualitative criteria).

Meanwhile, retail loans are not subject to individual assessment as they are not significant in amount from Shinhan Bank's overall credit risk management perspective.

- Allowance for Credit Losses on Loans Assessed Collectively

Allowance for credit losses on loans assessed collectively uses estimation model based on experience loss ratio in order to measure expected credit loss (incurred loss under IAS 39) embedded in portfolios. This model considers various factors such as the type of borrower, credit rating and maturity in order to apply Probability of Default ("PD") of each financial asset (or in the aggregate), recovery rate per loan and collateral, as well as Loss Given Default ("LGD"). Additionally, we modelize the measurement of inherent loss and apply consistent assumptions in order to determine the input variables based on current circumstances and historical and forward-looking information. For forward-looking information, we utilize economic outlooks published by domestic and overseas research institutes or government and public agencies. We also reflect estimates of future macroeconomic conditions that we believe have been prepared without bias from a neutral viewpoint in measuring expected credit losses. The methodology and assumptions used in this model are reviewed on a regular basis in order to minimize the difference between estimated allowance for credit losses on loans and actual credit losses on loans.

Shinhan Bank uses a PD/LGD model for collective assessment using three risk components – Exposure At Default ("EAD"), PD and LGD. EAD refers to the expected exposure at the time of default. EAD of financial assets is equal to the total carrying amount of such asset, and EAD of loan commitments or financial guarantee contracts are calculated as the sum of the amount already used and the amount expected to be used in the future.

As for measurement of PD by loan type, we estimate PD for corporate credit exposure based on internal credit ratings and PD for retail credit exposure based on Behavior Scoring System (BSS) ratings (which are largely based on the credit history of retail loan borrowers and predict such borrowers' payment patterns) and product type. If there hasn't been a significant increase in credit risk since initial recognition, we use probability of default events occurring within the next 12 months. However if there has been a significant increase in credit risk, we use probability of default events occurring over the remaining lifetime of the loan.

LGD refers to the expected loss if a borrower defaults. We calculate LGD, where LGD = (1 – RR), based on the Recovery Rate ("RR") measured from past default exposures. The model for measuring LGD is developed to reflect type of collateral, seniority of collateral, type of borrower and cost of recovery. In particular, LGD for retail loan products uses loan-to-value ratio as a key variable. The recovery rate reflected in the LGD calculation is based on the present value of recovery amount, discounted at the effective interest rate.

We believe that the accounting estimates related to impairment of loans at amortized cost and our allowance for credit losses on loans are "critical accounting policies" because: (1) they are highly susceptible to change from period to period since they require us to make assumptions about future default rates and losses relating to our loan portfolio; and (2) any significant difference between our estimated losses on loans (as reflected in our allowance for credit losses on loans) and actual losses on loans could require us to record additional provisions for credit losses on loans which, if significant, could have a material impact on our profit. Our assumptions about estimated losses require significant judgment because actual losses have fluctuated in the past and are expected to continue to do so, based on a variety of factors.

Derivative Financial Instruments

Derivatives are recognized initially at fair value and attributable transaction costs are recognized in profit or loss as incurred. Subsequent to initial recognition, derivatives are measured at fair value, and changes therein are accounted for as described below.

Hedge Accounting

We hold derivative financial instruments to hedge our foreign currency and interest rate risk exposures. On initial designation of the hedge, we formally document the relationship between the hedging instrument(s) and hedged item(s), including the risk management objectives and strategy in undertaking the hedge transaction, together with the methods that will be used to assess the effectiveness of the hedging relationship. We make an assessment, both at the inception of the hedge relationship as well as on an ongoing basis, whether the hedging instruments are expected to be "highly effective" in offsetting the changes in the fair value or cash flows of the respective hedged items during the period for which the hedge is designated, and whether the actual results of each hedge are within a range of 80-125%. For a cash flow hedge of a forecast transaction, the transaction should be highly probable to occur and should present an exposure to variations in cash flows that could ultimately affect reported net income.

IFRS 9 maintains the mechanics of hedge accounting (three types of hedge accounting) as defined in IAS 39 but modifies it such that it becomes less complex and more aligned with the actual way risks are managed as compared to IAS 39. Previous hedging relationships which hedge accounting had been applied under IAS 39 therefore still remain effective after adoption of IFRS 9.

Fair Value Hedges

When a derivative is designated as the hedging instrument in a hedge of the change in fair value of a recognized asset or liability or a firm commitment that could affect profit or loss, changes in the fair value of the derivative are recognized immediately in profit or loss together with changes in the fair value of the hedged item that are attributable to the hedged risk (in the same line item in the consolidated statements of comprehensive income as the hedged item).

If the hedging derivative expires or is sold, terminated or exercised, or the hedge no longer meets the criteria for fair value hedge accounting, or the hedge designation is revoked, hedge accounting is discontinued prospectively. Any adjustment arising from gain or loss on the hedged item attributable to the hedged risk is amortized to profit or loss from the date the hedge accounting is discontinued.

Cash Flow Hedges

When a derivative is designated as the hedging instrument in a hedge of the variability in cash flows attributable to a particular risk associated with a recognized asset or liability or a highly probable forecast transaction that could affect profit or loss, the effective portion of changes in the fair value of the derivative is recognized in other comprehensive income, net of tax, and presented in the hedging reserve in equity. The amount recognized in other comprehensive income is removed and included in profit or loss in the same period as the hedged cash flows affect profit or loss under the same line item in the consolidated statements of comprehensive income as the hedged item. Any ineffective portion of changes in the fair value of the derivative is recognized immediately in profit or loss.

If the hedging instrument no longer meets the criteria for hedge accounting, expires or is sold, terminated or exercised, or the designation is revoked, then hedge accounting is discontinued prospectively. The cumulative gain or loss on the hedging instrument that has been recognized in other comprehensive income from the period when the hedge was effective remains separately in equity until the forecast transaction occurs. When the transaction occurs, the related cumulative gain or loss on the hedging instrument recognized in other comprehensive income is reclassified from equity to profit or loss as a reclassification adjustment in the same period that the hedged item affects profit or loss. If the forecast transaction is no longer expected to occur, the cumulative gains or losses that had been recognized in other comprehensive income are immediately reclassified to profit or loss.

Net Investment in a Foreign Operation

Hedges of a net investment in a foreign operation, including a hedge of a monetary item that is accounted for as part of the net investment are recognized in other comprehensive income to the extent that the hedge is effective. To the extent that the hedge is ineffective, such differences are recognized in profit or loss. When the hedged part of a net investment is disposed of, in whole or in part, the gain or loss on hedging instrument relating to the effective portion of the hedge that has been recognized in other comprehensive income is reclassified from equity to profit or loss in accordance with IAS 21 ‘The Effects of Changes in Foreign Exchange Rates’.

Intangible Assets

Goodwill

Goodwill that arises upon the acquisition of subsidiaries is included in intangible assets. Goodwill is measured at cost less accumulated impairment losses. In respect of associates, the carrying amount of goodwill is included in the carrying amount of the investment, and an impairment loss on such an investment is not allocated to any asset, including goodwill, that forms part of the carrying amount of the equity method accounted investee.

Impairment of Non-financial Assets

The carrying amounts of our non-financial assets, other than assets arising from employee benefits, deferred tax assets and assets held for sale, are reviewed at each reporting date to determine whether there is any indication of impairment. If any such indication exists, then the asset’s recoverable amount is estimated. For goodwill, and intangible assets that have indefinite useful lives or that are not yet available for use, the recoverable amount is estimated each year at the same time.

The recoverable amount of an asset or cash-generating unit is the greater of its value in use and its fair value less costs to sell. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. For the purpose of impairment testing, assets that cannot be tested individually are grouped together into the smallest group of assets that generates cash inflows from continuing use that are largely independent of the cash inflows of other assets or groups of assets (the “cash-generating unit,” or “CGU”).

An impairment loss is recognized if the carrying amount of an asset or its CGU exceeds its estimated recoverable amount. Impairment losses are recognized in profit or loss. Impairment losses recognized in respect of CGUs are allocated first to reduce the carrying amount of any goodwill allocated to the units, and then to reduce the carrying amounts of the other assets in the unit (group of units) on a pro rata basis.

An impairment loss in respect of goodwill is not reversed. In respect of other assets, impairment losses recognized in prior periods are assessed at each reporting date for any indications that the loss has decreased or no longer exists. An impairment loss is reversed if there has been a change in the estimates used to determine the recoverable amount. An impairment loss is reversed only to the extent that the asset’s carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortization, if no impairment loss had been recognized.

Goodwill that forms part of the carrying amount of an investment in an associate is not recognized separately, and therefore is not tested for impairment separately. Instead, the entire amount of the investment in an associate is tested for impairment as a single asset when there is objective evidence that the investment in an associate may be impaired.

Employee Benefits

Short-term Employee Benefits

Short-term employee benefit obligations are measured on an undiscounted basis and are expensed as the related service is provided.

A liability is recognized for the amount expected to be paid under short-term cash bonus or profit-sharing plans if we have a present legal or constructive obligation to pay this amount as a result of past service provided by the employee, and the obligation can be estimated reliably.

Other Long-term Employee Benefits

Our net obligation in respect of long-term employee benefits other than pension plans is the amount of future benefit that employees have earned in return for their service in the current and prior periods; that benefit is discounted to determine its present value, and the fair value of any related assets is deducted. The discount rate is the yield at the reporting date on AA credit-rated bonds that have maturity dates approximating the terms of our obligations. The calculation is performed using the projected unit credit method. Any actuarial gains and losses are recognized in profit or loss in the period in which they arise.

Defined Benefit Plans

A defined benefit plan is a post-employment benefit plan other than a defined contribution plan. Our net obligation in respect of defined benefit plans is calculated by estimating the amount of future benefit that employees have earned in return for their service in the current and prior periods; that benefit is discounted to determine its present value. The fair value of plan assets is deducted. The calculation is performed annually by an independent actuary using the projected unit credit method.

Remeasurements of the net defined benefit liability, which comprise actuarial gains and losses, the return on plan assets (excluding interest) and the effect of the asset ceiling (if any, excluding interest), are recognized immediately in other comprehensive income. We determine the net interest expense (income) on the net defined benefit liability (asset) for the period by applying the discount rate used to measure the defined benefit obligation at the beginning of the annual period to the then-net defined benefit liability (asset), taking into account any changes in the net defined benefit liability (asset) during the period as a result of contributions and benefit payments. Net interest expense and other expenses related to defined benefit plans are recognized in personnel expenses in profit or loss.

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

When the benefits of a plan are changed or when a plan is curtailed, the resulting change in benefit that relates to past service or the gain or loss on curtailment is recognized immediately in profit or loss. We recognize gains and losses on the settlement of a defined benefit plan when the settlement occurs.

Defined Contribution Plans

A defined contribution plan is a post-employment benefit plan under which an entity pays fixed contributions into a separate entity and will have no legal or constructive obligation to pay further amounts. Obligations for contributions to defined contribution pension plans are recognized as an employee benefit expense in profit or loss in the periods during which services are rendered by employees. Prepaid contributions are recognized as an asset to the extent that a cash refund or a reduction in future payments is available.

Termination Benefits

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

Share-based Payment Transactions

The grant date fair value of share-based payment awards granted to employees is recognized as an employee expense, with a corresponding increase in equity, over the period that the employees unconditionally become entitled to the awards. The amount recognized as an expense is adjusted to reflect the number of awards for which the related service and non-market vesting conditions are expected to be met, such that the amount ultimately recognized as an expense is based on the number of awards that do meet the related service and non-market performance conditions at the vesting date. For share-based payment awards with non-vesting conditions, the grant date fair value of the share-based payment is measured to reflect such conditions and there is no true-up for differences between expected and actual outcomes.

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

Income Tax

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

Current tax is the expected tax payable or receivable on the taxable income or loss for the year, using tax rates enacted or substantively enacted at the reporting date, and any adjustment to tax payable in respect of previous years. Taxable profit is different from accounting profit for the period since taxable profit excludes temporary differences (which will be taxable or deductible in determining taxable profit (tax loss) of future periods) and non-taxable or non-deductible items from accounting profit.

Deferred tax is recognized in respect of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes. A deferred tax liability is recognized for all taxable temporary differences. A deferred tax asset is recognized for all deductible temporary differences to the extent that it is probable that there will be taxable profit against which such deductible temporary differences can be utilized. However, deferred tax is not recognized for the following temporary differences: (i) taxable temporary differences arising from the initial recognition of goodwill, (ii) the initial recognition of assets or liabilities in a transaction that is not a business combination and that affects neither accounting nor taxable profit or loss, and (iii) differences associated with investments in subsidiaries, associates, and interests in joint ventures, to the extent that we are able to control the timing of the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future. Deferred tax is measured at the tax rates that are expected to be applied to temporary differences when they reverse, based on the laws that have been enacted or substantively enacted by the reporting date. Deferred tax assets and liabilities are offset if there is a legally enforceable right to offset current tax liabilities and assets, and they relate to income taxes levied by the same tax authority on the same taxable entity, or on different tax entities, but they intend to settle current tax liabilities and assets on a net basis or their tax assets and liabilities will be realized simultaneously.

A deferred tax asset is recognized for unused tax losses, tax credits and deductible temporary differences, to the extent that it is probable that future taxable profits will be available against which they can be utilized. Deferred tax assets are reviewed at each reporting date and are reduced to the extent that it is no longer probable that the related tax benefit will be realized.

We file our national income tax return with the Korean tax authorities under the consolidated corporate tax system, which allows us to make national income tax payments based on our and our wholly owned domestic subsidiaries' consolidated profits or losses. Deferred taxes are measured based on the future tax benefits expected to be realized in consideration of the expected profits or losses of eligible companies in accordance with the consolidated corporate tax system. Consolidated corporate tax amounts, once determined, are allocated to each of our subsidiaries and are used as a basis for the income taxes to be recorded in their separate financial statements.

Recently Adopted Standards and Interpretations

IFRS 16, 'Leases'

IFRS 16, published on May 22, 2017, replaces existing standards including IAS 17, 'Leases', IFRIC 4, 'Determining whether an Arrangement contains a Lease', SIC-15, 'Operating Leases — Incentives' and SIC-27, 'Evaluating the Substance of Transactions Involving the Legal Form of a Lease'. The Group has applied IFRS 16 from the year beginning on January 1, 2019, the date of initial application.

Previously, we classified our leases either as an operating lease or a finance lease based on whether the lease substantially transfers the risk and reward of owning the underlying assets. IFRS 16 introduced new or amended requirements with respect to lease accounting. It introduced significant changes to lessee accounting by removing the distinction between operating and finance leases and requiring the recognition of a right-of-use asset and a lease liability at commencement for all leases, other than short-term leases and leases of low value assets. In contrast to lessee accounting, the requirements for lessor accounting have remained largely unchanged.

The accumulated effects on retained earnings due to the initial application of IFRS 16 on January 1,2019 was zero, and the comparative financial information presented has applied IAS 17 and the related Interpretations as previously reported have not been restated. The transition effects arising from changes in accounting policies are described in Note 51 of the notes to our consolidated financial statements included in this annual report.

New Standards and Interpretations Not Yet Adopted

There are no new or amended standards or interpretations that have yet to been adopted but are expected to have a significant impact on our consolidated financial statements. Details are described in Note 3 of the notes to our consolidated financial statements included in this annual report.

Average Balance Sheet and Volume and Rate Analysis

Average Balances and Related Interest

The following table shows our average balances and interest rates, as well as the net interest spread, net interest margin and asset liability ratio, in 2017, 2018 and 2019.

	Year Ended December 31,								
	2017			2018			2019		
	Average Balance(1)	Interest Income/ Expense	Yield / Rate	Average Balance(1)	Interest Income/ Expense	Yield / Rate	Average Balance(1)	Interest Income/ Expense	Yield / Rate
	(In billions of Won, except percentages)								
Assets:									
Interest-earning assets									
Due from banks(2)	₩ 10,726	₩ 168	1.56%	₩ 10,747	₩ 189	1.76%	₩ 10,996	₩ 242	2.20%
Loans(3)									
Retail loans	105,998	3,416	3.22	115,622	4,029	3.48	128,474	4,672	3.64
Corporate loans	133,602	4,395	3.29	144,063	5,154	3.58	158,797	5,686	3.58
Public and other loans	2,126	70	3.30	2,486	87	3.49	3,159	110	3.50
Loans to banks	5,430	112	2.05	4,915	122	2.48	3,969	107	2.69
Credit card loans	19,943	1,681	8.43	21,527	1,790	8.32	23,059	1,917	8.31
Total loans	267,099	9,674	3.62	288,613	11,182	3.87	317,458	12,492	3.94
Securities(4)	91,215	1,871	2.05	101,614	2,113	2.08	141,855	2,880	2.03
Other interest-earning assets	—	86	—	—	88	—	—	93	—
Total interest-earning assets	₩369,040	₩11,799	3.20%	₩400,974	₩13,572	3.38%	₩470,309	₩15,707	3.34%
Non-interest-earning assets									
Cash and due from banks	₩ 10,844			₩ 11,409			₩ 12,731		
Derivative assets	2,020			2,263			2,757		
Property and equipment and intangible assets	7,293			7,313			9,229		
Other non-interest-earning assets	23,089			24,328			32,028		
Total non-interest-earning assets	₩ 43,246			₩ 45,313			₩ 56,745		
Total assets	₩412,286	₩11,799		₩446,287	₩13,572		₩527,054	₩15,707	
Liabilities:									
Interest-bearing liabilities									
Deposits									
Demand deposits	₩ 35,978	₩ 129	0.36%	₩ 37,714	₩ 148	0.39%	₩ 40,379	₩ 171	0.42%
Savings deposits	69,671	353	0.51	74,467	415	0.56	77,652	452	0.58
Time deposits	121,050	1,873	1.55	130,846	2,362	1.81	147,479	2,830	1.92
Other deposits	8,164	127	1.57	8,525	167	1.96	9,297	192	2.07
Total interest-bearing deposits	234,863	2,482	1.06	251,552	3,092	1.23	274,807	3,645	1.33
Trading Liabilities	2	—	—	—	—	—	—	—	—
Borrowings	28,158	352	1.25	29,364	468	1.59	32,336	551	1.71
Debt securities issued	47,151	1,085	2.30	55,931	1,337	2.39	70,087	1,666	2.38
Other interest-bearing liabilities	3,276	37	1.09	3,213	95	2.98	4,192	107	2.55
Total interest-bearing liabilities	₩313,450	₩ 3,956	1.26%	₩340,060	₩ 4,992	1.47%	₩381,422	₩ 5,969	1.57%
Non-interest-bearing liabilities									
Non-interest-bearing deposits	₩ 3,574			₩ 3,547			₩ 3,608		

	Year Ended December 31,								
	2017			2018			2019		
	Average Balance(1)	Interest Income/ Expense	Yield / Rate	Average Balance(1)	Interest Income/ Expense	Yield / Rate	Average Balance(1)	Interest Income/ Expense	Yield / Rate
	(In billions of Won, except percentages)								
Derivatives liabilities	2,228			2,889			2,691		
Insurance liabilities	23,453			25,388			50,742		
Other non-interest-bearing liabilities	36,595			39,739			48,211		
Total non-interest-bearing liabilities	₩ 65,850			₩ 71,563			₩105,252		
Total liabilities	₩379,300	₩3,956		₩411,623	₩4,992		₩486,674	₩5,969	
Total equity attributable to equity holder of the Group	32,210			33,876			37,844		
Non-controlling interests	776			788			2,536		
Total liabilities and equity	₩412,286	₩3,956		₩446,287	₩4,992		₩527,054	₩5,969	
Net interest spread(5)			1.94%			1.91%			1.77%
Net interest margin(6)			2.13%			2.14%			2.07%
Average asset liability ratio(7)			117.73%			117.91%			123.30%

Notes:

(1) Average balances are based on (a) daily balances for Shinhan Bank and (b) quarterly balances for other subsidiaries.

(2) Due from banks as of December 31, 2018 and 2019, consists of due from banks at amortized cost and due from banks at fair value through profit or loss.

(3) Non-accruing loans are included in the respective average loan balances. Income on such non-accruing loans is no longer recognized from the date the loan is placed on nonaccrual status. We reclassify loans as accruing when interest (including default interest) and principal payments are current. Loans as of December 31, 2018 and 2019, consist of loans at amortized cost and loans at fair value through profit or loss.

(4) Average balance of and yield on securities are based on book value. Securities as of December 31, 2019 consist of securities at fair value through profit or loss, securities at fair value through other comprehensive income and securities at amortized cost.

(5) Represents the difference between the average rate of interest earned on interest-earning assets and the average rate of interest paid on interest-bearing liabilities.

(6) Represents the ratio of net interest income to average interest-earning assets.

(7) Represents the ratio of average interest-earning assets to average interest-bearing liabilities.

Analysis of Changes in Net Interest Income — Volume and Rate Analysis

The following table provides an analysis of changes in interest income, interest expense and net interest income between changes in volume and changes in rates for (i) 2019 compared to 2018 and (ii) 2018 compared to 2017. Volume and rate variances have been calculated on the movement in average balances and the change in the interest rates on average interest-earning assets and average interest-bearing liabilities in proportion to absolute volume and rate change.

	From 2018 to 2019 Interest Increase (Decrease) Due to Change in		
	Volume	Rate	Change
	(In billions of Won)		
Increase (decrease) in interest income			
Due from banks	₩ 4	₩ 49	₩ 53
Loans:			
Retail loans	462	181	643
Corporate loans	528	4	532
Public and other loans	23	0	23
Loans to banks	(25)	10	(15)
Credit card loans	128	(1)	127
Total loans	1,116	194	1,310
Securities	818	(51)	767
Other interest-earning assets	—	5	5
Total interest income	₩1,938	₩197	₩2,135
Increase (decrease) in interest expense			
Deposits:			
Demand deposits	₩ 11	₩ 12	₩ 23
Savings deposits	18	19	37
Time deposits	313	155	468
Other deposits	16	9	25
Total interest-bearing deposits	358	195	553
Borrowings	49	34	83
Debt securities issued	337	(8)	329
Other interest-bearing liabilities	26	(14)	12
Total interest expense	₩ 770	₩207	₩ 977
Net increase (decrease) in net interest	₩1,168	₩(10)	₩1,158

	From 2017 to 2018 Interest Increase (Decrease) Due to Change in		
	Volume	Rate	Change
	(In billions of Won)		
Increase (decrease) in interest income			
Due from banks	₩ —	₩ 21	₩ 21
Loans:			
Retail loans	323	290	613
Corporate loans	358	401	759
Public and other loans	12	5	17
Loans to banks	(11)	21	10
Credit card loans	132	(23)	109
Total loans	814	694	1,508
Securities	216	26	242
Other interest-earning assets	—	2	2
Total interest income	₩1,030	₩743	₩1,773
Increase (decrease) in interest expense			
Deposits:			
Demand deposits	₩ 6	₩ 13	₩ 19
Savings deposits	25	37	62
Time deposits	160	329	489
Other deposits	6	34	40
Total interest-bearing deposits	197	413	610
Borrowings	16	100	116
Debt securities issued	209	43	252
Other interest-bearing liabilities	(1)	59	58
Total interest expense	₩ 421	₩615	₩1,036
Net increase (decrease) in net interest	₩ 609	₩128	₩ 737

Results of Operations

2019 Compared to 2018

The following table sets forth, for the periods indicated, the principal components of our operating income.

	Year Ended December 31,		
	2018	2019	% Change
	(In billions of Won, except percentages)		
Net interest income	₩ 8,580	₩ 9,738	13.5%
Net fees and commission income	1,939	2,141	10.4
Net other operating income (expense)	(6,020)	(6,833)	13.5
Operating income	₩ 4,499	₩ 5,046	12.2%

Net Interest Income

The following table shows, for the periods indicated, the principal components of our net interest income.

	Year Ended December 31,		
	2018	2019	% Change
	(In billions of Won, except percentages)		
Interest income:			
Cash and deposits at amortized cost	₩ 155	₩ 210	35.5%
Deposits at fair value through profit or loss	34	32	(5.9)
Securities at fair value through profit or loss	624	741	18.8
Securities at fair value through other comprehensive income	759	1,078	42.0
Securities at amortized cost	730	1,061	45.3
Loans at amortized cost	11,159	12,435	11.4
Loans at fair value through profit or loss	23	57	147.8
Others	88	93	5.7
Total interest income	₩13,572	₩15,707	15.7%
Interest expense:			
Deposits	₩ 3,092	₩ 3,645	17.9%
Borrowings	468	551	17.7
Debt securities issued	1,337	1,666	24.6
Others	95	107	12.6
Total interest expense	₩ 4,992	₩ 5,969	19.6%
Net interest income	₩ 8,580	₩ 9,738	13.5%
Net interest margin(1)	2.14%	2.07%	

Note:

(1) Represents the ratio of net interest income to average interest-earning assets. See "— Average Balance Sheet and Volume and Rate Analysis — Average Balances and Related Interest."

Interest income. Interest income increased by 15.7% from ₩13,572 billion in 2018 to ₩15,707 billion in 2019 primarily due to an increase in interest on loans at amortized cost and, to a lesser extent, an increase in interest on securities at amortized cost. Interest on loans at amortized cost increased by 11.4% from ₩11,159 billion in 2018 to ₩12,435 billion in 2019 primarily as a result of increases in the average balances of both retail loans and corporate loans and an increase in the average lending rates on retail loans as further described below. Interest on securities at amortized cost increased by 45.3% from ₩730 billion in 2018 to ₩1,061 billion in 2019 primarily due to an increase in the average balance of securities resulting from our acquisition of Orange Life Insurance.

Interest income on retail loans increased by 16.0% from ₩4,029 billion in 2018 to ₩4,672 billion in 2019, primarily due to a 11.1% increase in the average balance of retail loans from ₩115,622 billion in 2018 to ₩128,474 billion in 2019 as well as an increase in the average lending rate for retail loans from 3.48% in 2018 to 3.64% in 2019. The average balance of retail loans increased primarily as a result of increased demand in the housing market despite stricter regulations on maximum debt-to-income and loan-to-value ratios implemented by the Government on mortgage loans. In particular, the volume of mortgage and home equity loans increased as more households chose to purchase homes due to a continued increase in the amounts of long-term deposits required for housing rentals and a decrease in the supply of homes available for long-term deposit leases. The average lending rate for retail loans increased primarily as a result of the general increase in market interest rates largely driven by the increase in the base interest rate from 1.50% to 1.75% by the Bank of Korea in November

2018, notwithstanding decreases in the base interest rate by the Bank of Korea from 1.75% to 1.50% in July 2019 and from 1.50% to 1.25% in October 2019. The base rate set by the Bank of Korea largely determines the market rates for certificates of deposit, which in turn largely determines the lending rates for a substantial majority of our retail loans.

Interest income from corporate loans increased by 10.3% from ₩5,154 billion in 2018 to ₩5,686 billion in 2019, primarily due to a 10.2% increase in the average balance of such loans from ₩144,063 billion in 2018 to ₩158,797 billion in 2019, despite the average lending rate for corporate loans remaining stable. The average balance of corporate loans increased principally as a result of an increase in facilities loans as Shinhan Bank increased its target loan growth in 2019 to match an expected increase in funding, for example, upon Shinhan Bank's designation as the primary bank for Seoul Metropolitan Government and Incheon Metropolitan City. The average lending rate for corporate loans remained stable at 3.58% for 2018 and 2019 despite a higher average market interest rate in 2019 due to an increase in loans to corporate borrowers with high credit ratings which have lower interest rates.

Interest expense. Interest expense increased by 19.6% from ₩4,992 billion in 2018 to ₩5,969 billion in 2019, due primarily to a 17.9% increase in interest expense on deposits from ₩3,092 billion in 2018 to ₩3,645 billion in 2019, as well as a 24.6% increase in interest expense on debt securities issued from ₩1,337 billion in 2018 to ₩1,666 billion in 2019.

The increase in interest expense on deposits was due to an increase in the average interest rate payable on deposits from 1.23% in 2018 to 1.33% in 2019 as well as a 9.2% increase in the average balance of deposits from ₩251,552 billion in 2018 to ₩274,807 billion in 2019. The increase in the average interest rate payable on deposits resulted mainly from an increase in the average interest rate payable on time deposits from 1.81% in 2018 to 1.92% in 2019, as well as an increase in the average interest rate payable on savings deposits from 0.56% in 2018 to 0.58% in 2019. The average interest rate payable on time deposits increased largely as a result of higher average market interest rates for 2019 compared to 2018 as described above. The increase in the average balance of deposits was primarily due to a 12.7% increase in the average balance of time deposits, which was largely a result of customers' preference for low-risk investments in light of the continuing uncertainty in financial markets.

The increase in interest expense on debt securities issued was due primarily to a 25.3% increase in the average balance of debt securities issued from ₩55,931 billion in 2018 to ₩70,087 billion in 2019, which was partially offset by a decrease in the average interest rate payable on debt securities from by 1 basis points to 2.38% in 2019 from 2.39% in 2018. The average balance of debt securities increased principally as a result of an increased funding requirements resulting from an increase in the average balance of loans.

Net interest margin. Net interest margin represents the ratio of net interest income to the average balance of interest-earning assets. Our overall net interest margin decreased by 7 basis points from 2.14% in 2018 to 2.07% in 2019 largely due to the increase in average volume of interest-earning assets described above outpacing the increase in net interest income.

Net interest spread, which represents the difference between the average rate of interest earned on interest-earning assets and the average rate of interest paid on interest-bearing liabilities, decreased by 14 basis points from 1.91% in 2018 to 1.77% in 2019 due to a 10 basis point increase in the average rate of interest on interest-bearing liabilities to 1.57% in 2019 from 1.47% in 2018 and a 4 basis point decrease in the average rate of interest on interest-earning assets to 3.34% in 2019 from 3.38% in 2018. The average rate of interest on interest-bearing liabilities increased primarily due to a 10 basis point increase in the average interest rate on deposits. The average rate of interest on interest-earning assets decreased primarily due to a 4 basis point decrease in the average interest rates on securities, which was mainly due to the reduced average interest rate on securities at amortized cost. The average volume of interest-earning assets increased by 17.3% from ₩400,974 billion in 2018 to ₩470,309 billion in 2019 largely as a result of an increase in the volume of retail and corporate loans, as well as an increase in the volume of securities resulting from our acquisition of Orange Life Insurance. The average volume of interest-bearing liabilities increased by 12.2% from ₩340,060 billion in 2018 to ₩381,422 billion in 2019 largely due to an increase in deposits, which was primarily driven by customers' preference for low-risk investments in light of the continuing uncertainty in financial markets and our efforts to attract more low cost deposits.

Fees and Commission Income (Expense), Net

The following table shows, for the periods indicated, the principal components of our net fees and commission income.

	Year Ended December 31,		
	2018	2019	% Change
	(In billions of Won, except percentages)		
Fees and commission income:			
Credit placement fees	₩ 63	₩ 67	6.3%
Commission received as electronic charge receipt	146	152	4.1
Brokerage fees	412	353	(14.3)
Commission received as agency	121	140	15.7
Investment banking fees	91	151	65.9
Commission received in foreign exchange activities	214	244	14.0
Asset management fees	235	307	30.6
Credit card fees	1,360	1,234	(9.3)
Operating lease fees	82	142	73.2
Others	571	767	34.3
Total fees and commission income	₩3,295	₩3,557	8.0%
Fees and commission expense:			
Credit-related fees	₩ 37	₩ 42	13.5%
Credit card fees	945	916	(3.1)
Others	374	458	22.5
Total fees and commission expense	₩1,356	₩1,416	4.4%
Net fees and commission income	₩1,939	₩2,141	10.4%

Net fees and commission income increased by 10.4% from ₩1,939 billion in 2018 to ₩2,141 billion in 2019 primarily due to increases in other fees and commission income, asset management fees income, operating lease fees income and investment banking fees income, which was partially offset by a decrease in credit card fees income and brokerage fees income.

Other fees and commission income increased by 34.3% from ₩571 billion in 2018 to ₩767 billion in 2019 primarily due to our acquisition of Orange Life Insurance. Asset management fees income increased by 30.6% from ₩235 billion in 2018 to ₩307 billion in 2019 primarily due to an increase in management fees received from specified money and real estate related trust accounts of Shinhan Bank. Operating lease fees income increased by 73.2% from ₩82 billion in 2018 to ₩142 billion in 2019, primarily due to an increase in fees and commission income from lease operations resulting from an increase in the average balance of operating leased assets. Investment banking fees income increased by 65.9% from ₩91 billion in 2018 to ₩151 billion in 2019 primarily due to increased brokerage and advisory fees for mergers and acquisitions and other corporate transactions.

Credit card fees income decreased by 9.3% from ₩1,360 billion in 2018 to ₩1,234 billion in 2019, primarily as a result of the Government's continued policies to lower credit card merchant fees. Brokerage fees income decreased by 14.3% from ₩412 billion in 2018 to ₩353 billion in 2019, primarily due to a decrease in daily average stock trading volume amidst volatile market conditions as well as a decrease in the rate of brokerage fees.

Other Operating Income (Expense), Net

The following table shows, for the periods indicated, the principal components of our net operating expense.

	Year Ended December 31,		
	2018	**2019**	**% Change**
	(In billions of Won, except percentages)		
Net insurance loss	₩ (472)	₩ (497)	5.3%
Dividend income	88	82	(6.8)
Net gain on financial instruments at fair value through profit or loss	420	1,385	229.8
Net gain (loss) on financial instruments at fair value through profit or loss (overlay approach)	75	(247)	N/M
Net loss on financial instruments designated at fair value through profit or loss	(27)	(846)	3,033.3
Net foreign currency transaction gain	194	441	127.3
Net gain on disposal of financial asset at fair value through other comprehensive income	21	152	623.8
Provision for credit loss allowance	(748)	(981)	31.1
General and administrative expenses	(4,742)	(5,135)	8.3
Other operating expenses, net	(829)	(1,187)	43.2
Net other operating expenses	₩(6,020)	₩(6,833)	13.5%

N/M = not meaningful

Net other operating expenses increased by 13.5% to ₩6,833 billion in 2019 from ₩6,020 billion in 2018, primarily due to an increase in net loss on financial instruments designated at fair value through profit or loss by 3,033.3% from ₩27 billion in 2018 to ₩846 billion in 2019 and an increase in general and administrative expenses by 8.3% from ₩4,742 billion in 2018 to ₩5,135 billion in 2019, as well as, to a lesser extent, as we recognized net loss on financial instruments at fair value through profit or loss (overlay approach) of ₩247 billion in 2019 compared to net gain on financial instruments at fair value through profit or loss (overlay approach) of ₩75 billion in 2018, which was partially offset by an increase in net gain on financial instruments at fair value through profit or loss by 229.8% from ₩420 billion in 2018 to ₩1,385 billion in 2019.

The increase in net loss on financial instruments designated at fair value through profit or loss was largely a result of an increase in disposal loss from financial instruments designated at fair value through profit or loss held by Shinhan Investment. The increase in general and administrative expenses was largely due to our acquisition of Orange Life Insurance. We recognized net loss on financial instruments at fair value through profit or loss (overlay approach) in 2019 compared to net gain on financial instruments at fair value through profit or loss (overlay approach) in 2018 as gains on valuation of financial instruments at fair value through profit or loss of Shinhan Life Insurance and Orange Life Insurance were reclassified in 2019 to other comprehensive income through the application of overlay approach. Net gain on financial instruments at fair value through profit or loss increased largely due to a decrease in market interest rates towards the end of 2019, resulting in an increase in the fair value of financial instruments.

Provision for Credit Loss Allowance on Financial Assets

The following table sets forth for the periods indicated the credit loss allowance by type of financial asset.

	Year Ended December 31,		
	2018	2019	% Change
	(In billions of Won, except percentages)		
Loans*:*			
Retail	₩383	₩226	(41.0)%
Corporate	104	203	95.2
Credit card	202	484	139.6
Others	16	(2)	N/M
Subtotal	705	911	29.2
Securities[(1)]	14	7	(50.0)
Others	29	63	117.2
Total provision for credit loss allowance on financial assets	₩748	₩981	31.1%

N/M = not meaningful

Note:

(1) Consist of securities at amortized cost and securities at fair value through other comprehensive income.

Provision for credit loss allowance increased by 31.1% from ₩748 billion in 2018 to ₩981 billion in 2019 principally due to a 29.2% increase in credit loss allowance on loans from ₩705 billion in 2018 to ₩911 billion in 2019. Our credit loss allowance for loans increased primarily due to an increase in allowance for credit losses on corporate loans as well as credit card loans. Allowance for credit losses on corporate loans increased mainly due to an increase in delinquency ratio and credit deterioration in certain corporate borrowers, as well as an increase in the proportion of unsecured corporate loans which are subject to higher loss given default rates compared to secured corporate loans. Allowance for credit losses on credit card loans increased primarily as a result of an increase in the balance of credit card receivables.

Income Tax Expense

Income tax expense increased by 0.1% from ₩1,268 billion in 2018 to ₩1,269 billion in 2019 primarily as a result of an increase in profit before income taxes by 10.0% to ₩4,911 billion in 2019 from ₩4,466 billion in 2018. Our effective rate of income tax decreased to 25.8% in 2019 from 28.4% in 2018.

Net Income for the Period

As a result of the foregoing, our net income for the period increased by 13.9% from ₩3,198 billion in 2018 to ₩3,642 billion in 2019.

Other Comprehensive Income (loss) for the Period

	Year Ended December 31,		
	2018	**2019**	**% Change**
	(In billions of Won, except percentages)		
Items that are or may be reclassified to profit or loss:			
Gain on financial assets at fair value through other comprehensive income	₩161	₩352	118.6%
Gain (loss) on financial instruments at fair value through profit or loss (overlay approach)	(54)	163	N/M
Equity in other comprehensive income of associates	7	3	(57.1)
Foreign currency translation adjustments for foreign operations	20	106	430.0
Net change in unrealized fair value of cash flow hedges	(20)	(19)	(5.0)
Other comprehensive income of separate account	9	11	22.2
	123	616	400.8
Items that will never be reclassified to profit or loss:			
Remeasurements of the defined benefit liability	(93)	(55)	(40.9)
Valuation gain on financial assets at fair value through other comprehensive income	23	19	(17.4)
Loss on disposal of financial assets at fair value through other comprehensive income	(3)	(6)	100.0
Changes in own credit risk on financial liabilities designated at fair value through profit of loss	2	(8)	N/M
	(71)	(50)	(29.6)
Total other comprehensive income (loss), net of income tax	₩ 52	₩566	988.5%

N/M = not meaningful

Our other comprehensive income increased significantly from ₩52 billion in 2018 to ₩566 billion in 2019, primarily due to an increase in gain on financial assets at fair value through other comprehensive income, as well as to a lesser extent because we recognized gain on financial instruments at fair value through profit or loss (overlay approach) in 2019 compared to loss on financial instruments at fair value through profit or loss (overlay approach) in 2018. Gain on financial assets at fair value through other comprehensive income increased by 118.6% to ₩352 billion in 2019 from ₩161 billion in 2018 primarily due to fluctuations in interest rates and stock prices. We recognized gain on financial instruments at fair value through profit or loss (overlay approach) of ₩163 billion in 2019 compared to loss on financial instruments at fair value through profit or loss (overlay approach) of ₩54 billion in 2018, primarily as gain on valuation and disposal of financial instruments increased in 2019 due to a decrease in market interest rates towards the end of 2019, resulting in an increase in the fair value of financial instruments. Gain on foreign currency translation adjustments for foreign operations increased by 430.0% to ₩106 billion in 2019 from ₩20 billion in 2018, primarily due to an increase in foreign currency exchange rates amid depreciation in the valuation of the Won.

2018 Compared to 2017

The following table sets forth, for the periods indicated, the principal components of our operating income.

	Year Ended December 31,		
	2017	2018	% Change
	(In billions of Won, except percentages)		
Net interest income	₩ 7,843	₩ 8,580	9.4%
Net fees and commission income	1,711	1,939	13.3
Net other operating income (expense)	(5,724)	(6,020)	5.2
Operating income	₩ 3,830	₩ 4,499	17.5%

Net Interest Income

The following table shows, for the periods indicated, the principal components of our net interest income.

	Year Ended December 31,		
	2017	2018	% Change
	(In billions of Won, except percentages)		
Interest income:			
Cash and due from banks	₩ 168	₩ 189	12.5%
Loans	9,674	11,182	15.6
Securities	1,871	2,113	12.9
Other interest income	86	88	2.3
Total interest income	₩11,799	₩13,572	15.0%
Interest expense:			
Deposits	₩ 2,482	₩ 3,092	24.6%
Borrowings	352	468	33.0
Debt securities issued	1,085	1,337	23.2
Other interest expense	37	95	156.8
Total interest expense	₩ 3,956	₩ 4,992	26.2%
Net interest income	₩ 7,843	₩ 8,580	9.4%
Net interest margin(1)	2.13%	2.14%	

Note:

(1) Represents the ratio of net interest income to average interest-earning assets. See "— Average Balance Sheet and Volume and Rate Analysis — Average Balances and Related Interest."

Interest income. Interest income increased by 15.0% from ₩11,799 billion in 2017 to ₩13,572 billion in 2018 primarily due to an increase in interest on loans and, to a lesser extent, an increase in interest on securities resulting from an increase in the average balance of government and public bonds. Interest on loans increased by 15.6% from ₩9,674 billion in 2017 to ₩11,182 billion in 2018 primarily as a result of increases in the average balances of and average lending rates on both retail loans and corporate loans as further described below.

Interest on retail loans increased by 17.9% from ₩3,416 billion in 2017 to ₩4,029 billion in 2018, primarily due to a 9.1% increase in the average balance of retail loans from ₩105,998 billion in 2017 to ₩115,622 billion in 2018 as well as an increase in the average lending rate for retail loans from 3.22% in 2017 to

3.48% in 2018. The average balance of retail loans increased primarily as a result of the relatively low interest rate environment and increased demand in the housing market despite stricter regulations on maximum debt-to-income and loan-to-value ratios implemented by the Government on mortgage loans. In particular, the volume of mortgage and home equity loans increased as more households chose to purchase homes due to a continued increase in the amounts of long-term deposits required for housing rentals and a decrease in the supply of homes available for long-term deposit leases. The average lending rate for retail loans increased primarily as a result of the general increase in market interest rates largely driven by the increases in base interest rate by the Bank of Korea from 1.25% to 1.50% in November 2017 and from 1.50% to 1.75% in November 2018. The base rate set by the Bank of Korea largely determines the market rates for certificates of deposit, which in turn largely determines our lending rates for a substantial majority of our retail loans.

Interest income from corporate loans increased by 17.3% from ₩4,395 billion in 2017 to ₩5,154 billion in 2018, primarily due to a 7.8% increase in the average balance of such loans from ₩133,602 billion in 2017 to ₩144,063 billion in 2018, as well as an increase in the average lending rate for corporate loans from 3.29% in 2017 to 3.58% in 2018. The average balance of corporate loans increased principally as a result of increased loan demand from SOHOs and small- and medium-sized enterprises amid the Government's policy initiatives to promote the growth of such enterprises. The average lending rate for corporate loans increased largely as a result of the general increase in market interest rates as described above.

Interest expense. Interest expense increased by 26.2% from ₩3,956 billion in 2017 to ₩4,992 billion in 2018, due primarily to a 24.6% increase in interest expense on deposits from ₩2,482 billion in 2017 to ₩3,092 billion in 2018, as well as a 23.2% increase in interest expense on debt securities issued from ₩1,085 billion in 2017 to ₩1,337 billion in 2018.

The increase in interest expense on deposits was due to an increase in the average interest rate payable on deposits from 1.06% in 2017 to 1.23% in 2018 as well as a 7.1% increase in the average balance of deposits from ₩234,863 billion in 2017 to ₩251,552 billion in 2018. The increase in the average interest rate payable on deposits resulted mainly from an increase in the average interest rate payable on time deposits from 1.55% in 2017 to 1.81% in 2018, as well as an increase in the average interest rate payable on savings deposits from 0.51% in 2017 to 0.56% in 2018. The average interest rate payable on time and savings deposits increased largely as a result of a general increase in market interest rates reflecting the increase in the base interest rate set by the Bank of Korea. The increase in the average balance of deposits was primarily due to an 8.1% increase in the average balance of time deposits and a 6.9% increase in the average balance of saving deposits, which was largely a result of customers' preference for low-risk investments in light of the continuing uncertainty in financial markets.

The increase in interest expense on debt securities issued was due primarily to a 18.6% increase in the average balance of debt securities issued from ₩47,151 billion in 2017 to ₩55,931 billion in 2018 as well as an increase in the average interest rate payable on debt securities from by 9 basis points to 2.39% in 2018 from 2.30% in 2017. The average interest rate payable on debt securities issued increased largely due to the general increase in market interest rates in 2018.

Net interest margin. Net interest margin represents the ratio of net interest income to the average balance of interest-earning assets. Our overall net interest margin increased by 1 basis points from 2.13% in 2017 to 2.14% in 2018 largely due to the increase in net interest income described above outpacing the increase in the average volume of interest-earning assets as a result of the general increase in market interest rates largely driven by the increase in base interest rate by the Bank of Korea from 1.25% to 1.50% in November 2017 and 1.50% to 1.75% in November 2018.

Net interest spread, which represents the difference between the average rate of interest earned on interest-earning assets and the average rate of interest paid on interest-bearing liabilities, decreased by 3 basis points from 1.94% in 2017 to 1.91% in 2018 primarily due to a 21 basis point increase in the average rate of interest on interest-bearing liabilities and an 18 basis point increase in the average rate of interest on interest-earning assets.

Although our interest-bearing liabilities have, on average, longer maturity profiles than our interest-earning assets do and are therefore less sensitive to movements in base and market interest rates, the average rate of interest on interest-bearing liabilities outpaced that of interest-earning assets primarily due to an 11 basis point decrease in the average interest rate on credit card receivables resulting from the effect of promotion providing lower interest rates as part of revenue diversification strategy of Shinhan Card. The average volume of interest-earning assets increased by 8.7% to ₩400,974 billion in 2018 from ₩369,040 billion in 2017 largely as a result of an increase in the volume of retail and corporate loans. The average volume of interest-bearing liabilities increased by 8.5% to ₩340,060 billion in 2018 from ₩313,450 billion in 2017 largely as a result of an increase in deposits, primarily driven by customers' preference for low-risk investments in light of the continuing uncertainty in financial markets and our effort to attract more low cost deposits.

Fees and Commission Income (Expense), Net

The following table shows, for the periods indicated, the principal components of our net fees and commission income.

	Year Ended December 31,		
	2017	2018	% Change
	(In billions of Won, except percentages)		
Fees and commission income:			
Credit placement fees	₩ 59	₩ 63	6.8%
Commission received as electronic charge receipt	143	146	2.1
Brokerage fees	373	412	10.5
Commission received as agency	129	121	(6.2)
Investment banking fees	66	91	37.9
Commission received in foreign exchange activities	198	214	8.1
Asset management fees	191	235	23.0
Credit card fees	2,370	1,360	(42.6)
Others	516	653	26.6
Total fees and commission income	₩4,045	₩3,295	(18.5)%
Fees and commission expense:			
Credit-related fees	₩ 36	₩ 37	2.8%
Credit card fees	1,989	945	(52.5)
Others	309	374	21.0
Total fees and commission expense	₩2,334	₩1,356	(41.9)%
Net fees and commission income	₩1,711	₩1,939	13.3%

Net fees and commission income increased by 13.3% from ₩1,711 billion in 2017 to ₩1,939 billion in 2018 primarily as a result of a 23.0% increase in asset management fees income from ₩191 billion in 2017 to ₩235 billion in 2018. The increase in asset management fees income was primarily due to an increase in management fees received from specified money and real estate related trust accounts of Shinhan Bank.

Credit card fees expense decreased by 52.5% from ₩1,989 billion in 2017 to ₩945 billion in 2018, and credit card fees income decreased by 42.6% from ₩2,370 billion in 2017 to ₩1,360 billion in 2018. Such decrease in credit card fees income and expense was due to the application of IFRS 15. Under IFRS 15, amounts allocated to credit card points are considered payables to the customers and recognized as a reduction of fees and commission income, estimated as the fair value of the monetary benefits, taking into account the expected redemption rate. In addition, cardholder service fees paid to customers, which had previously been recognized as fees and commission expense, are recognized as reductions of fees and commission income under IFRS 15. However, these changes do not have a material effect on net fees and commission income as any such decrease in fees and commission income are offset by a corresponding decrease in fees and commission expense. For further details, see Note 51 of the notes to our consolidated financial statements included in this annual report.

Other Operating Income (Expense), Net

The following table shows, for the periods indicated, the principal components of our net operating expense.

	Year Ended December 31,		
	2017	2018	% Change
	(In billions of Won, except percentages)		
Net insurance loss	₩ (460)	₩ (472)	2.6%
Dividend income	257	88	(65.8)
Net gain on financial instruments at fair value through profit or loss	—	420	—
Net gain on financial instruments at fair value through profit or loss (overlay approach)	—	75	—
Net trading income (loss)	963	—	—
Net loss on financial instruments designated at fair value through profit or loss (IFRS 9)	—	(27)	—
Net loss on financial instruments designated at fair value through profit or loss (IAS 39)	(1,060)	—	—
Net foreign currency transaction gain	364	194	(46.7)
Net gain on disposal of financial asset at fair value through other comprehensive income	—	21	—
Net gain on disposal of available-for-sale financial assets	499	—	—
Provision for credit loss allowance	—	(748)	—
Impairment loss on financial assets	(1,014)	—	—
General and administrative expenses	(4,811)	(4,742)	(1.4)
Others	(462)	(829)	79.4
Other operating income (expenses)	₩(5,724)	₩(6,020)	5.2%

Net other operating expenses increased by 5.2% to ₩6,020 billion in 2018 from ₩5,724 billion in 2017, primarily as a result of a 79.4% increase in others to ₩829 billion in 2018 from ₩462 billion in 2017 and a 65.8% decrease in dividend income to ₩88 billion in 2018 from ₩257 billion in 2017. Changes other than those mentioned are mainly due to changes in classification criteria of financial instruments as a result of the adoption of IFRS 9.

Others increased largely due to a decrease in loss allowances for unused credit limits of Shinhan Card. Dividend income decreased due to the change of classification criteria of debt instruments and equity instruments. IFRS 9 requires to classify puttable instruments such as beneficiary certificates as debt instruments which had been classified as equity instruments under previous IAS 39 and the income resulted from those financial instruments has been recognized as interest income accordingly, not dividend.

As a result of the adoption of IFRS 9, gains or losses on securities, which had previously recognized as (i) trading income or loss, (ii) gain or loss on financial instruments designated at FVTPL or (iii) gain or loss on sale of AFS securities, are now recognized as (i) valuation and disposal gain or loss on financial instruments at FVTPL, (ii) valuation and disposal gain or loss on financial instruments designated at FVTPL or (iii) valuation and disposal gain or loss on financial instruments at FVOCI. Following the adoption of IFRS 9, measurement model and measurement items specified in the impairment standard were changed. Allowance for expected credit losses are required to be recognized for all debt instruments except those classified as financial assets at FVTPL, regardless of loans or securities. Equity instruments, on the other hand, are no longer subject to impairment assessment. As such, we recognized provision for credit loss allowance for loans at AC and debt securities at AC or FVOCI measured based on the expected credit loss model whereas we had previously recognized impairment loss for loans and equity instruments based on the incurred loss model. For further information, see Notes 2 and 51 of the notes to our consolidated financial statements included in this annual report.

Impairment Loss on Financial Assets and Provision for Credit Loss Allowance on Financial Assets

The following table sets forth for the periods indicated the impairment loss by type of financial asset. The table for the year ended December 31, 2018 has been presented separately due to the adoption of IFRS 9 from January 1, 2018.

	Year Ended December 31, 2018 (In billions of Won, except percentages)
Loans:	
Retail	₩383
Corporate	104
Credit card	202
Others	16
Subtotal	705
Securities[(1)]	14
Others	29
Total provision for credit loss allowance on financial assets	₩748

Note:

(1) Consist of securities at amortized cost and securities at fair value through other comprehensive income.

	Year Ended December 31, 2017 (In billions of Won, except percentages)
Loans:	
Retail	₩ 146
Corporate	403
Credit card	252
Others	(1)
Subtotal	800
Securities[(1)]	198
Others	16
Total impairment loss on financial assets	₩1,014

Note:

(1) Consist of available-for-sale financial assets.

We recognized provision for credit loss allowance of ₩748 billion in 2018 compared to net provision for credit loss allowance of ₩1,014 billion in 2017. For loans, we recognized provision for credit loss allowance for loans of ₩705 billion in 2018 compared to net impairment loss on loans of ₩800 billion in 2017. As of January 1, 2018, we increased our credit loss allowance for loans by ₩561 billion, from ₩2,311 billion to ₩2,872 billion, which was a result of the measurement model being changed from the "incurred loss" model under the previous guidance to a more forward-looking "expected credit loss" model upon adopting IFRS 9. The effect of such increase in credit loss allowance for loans was recorded in our retained earnings as of January 1, 2018. While the provision for credit loss allowance for loans in 2018 decreased compared to the net impairment loss on loans in 2017, which was mainly due to the reversal of impairment loss on certain corporate borrowers during 2018, credit loss allowance for loans increased to ₩2,725 billion as of December 31, 2018 under IFRS 9 from ₩2,311 billion as of December 31, 2017 under the previous guidance of IAS 39. For further information on the financial impact of IFRS 9 on our credit loss allowance, see "Item 3.D. Risk Factors — Risks Relating to Law, Regulation and Government Policy — The implementation of IFRS 9 has caused us to increase our allowance for impairment losses to cover expected credit loss on our loan portfolio and other financial instruments and may increase volatility in our profit or loss." We also recognized provision for credit loss allowance for securities of ₩14 billion in 2018 compared to net impairment loss on securities of ₩198 billion in 2017, which was principally due to impairment loss on available-for-sale equity instruments, including, a significant decline in the fair value of ₩131 billion in Shinhan Bank's investments in Kookmin Cable Investment Inc. during 2017, which was the largest portion of impairment loss on securities, no longer being subject to impairment assessment upon the implementation of IFRS 9.

Income Tax Expense

Income tax expense increased by 49.5% from ₩848 billion in 2017 to ₩1,268 billion in 2018 primarily as a result of an increase in profit before income taxes by 17.6% to ₩4,466 billion in 2018 from ₩3,797 billion in 2017 as well as an increase in the corporate tax rate from 24.2% to 27.5%. Our effective rate of income tax increased to 28.4% in 2018 from 22.3% in 2017.

Net Income for the Period

As a result of the foregoing, our net income for the period increased by 8.4% from ₩2,949 billion in 2017 to ₩3,198 billion in 2018.

Other Comprehensive Income (loss) for the Period

	Year Ended December 31,		
	2017	2018	% Change
	(In billions of Won, except percentages)		
Items that are or may be reclassified to profit or loss:			
Valuation gain on financial asset at fair value through other comprehensive income	₩ —	₩161	—%
Loss on financial instruments at fair value through profit or loss (overlay approach)	—	(54)	—
Loss on available-for-sale financial assets	(323)	—	—
Equity in other comprehensive income (loss) of associates	(23)	7	N/M
Foreign currency translation adjustments for foreign operations	(194)	20	N/M
Net change in unrealized fair value of cash flow hedges	16	(20)	N/M
Other comprehensive income (loss) of separate account	(9)	9	N/M
	(533)	123	N/M
Items that will never be reclassified to profit or loss:			
Remeasurements of defined benefit liability	103	(93)	N/M
Equity in other comprehensive income of associates	1	—	—
Valuation gain on financial asset at fair value through other comprehensive income	—	23	—
Loss on disposal of financial asset at fair value through other comprehensive income	—	(3)	—
Changes in own credit risk on financial liabilities designated at fair value through profit of loss	—	2	—
	104	(71)	N/M
Total other comprehensive income (loss), net of income tax	₩(429)	₩ 52	N/M%

N/M = not meaningful

We recorded other comprehensive income of ₩52 billion in 2018 compared to other comprehensive loss of ₩429 billion in 2017. The items recognized in other comprehensive income were changed due to the adoption of IFRS 9, particularly related to classification and measurement of securities. We recognized valuation gain on financial asset at fair value through other comprehensive income of ₩184 billion in 2018 compared to loss on available-for-sale financial assets of ₩323 billion in 2017. We recognized gain on foreign currency translation adjustments for foreign operations of ₩20 billion in 2018 compared to loss on foreign currency translation adjustments for foreign operations of ₩194 billion in 2017, primarily due to an increase in exchange rates in 2018.

Results by Principal Business Segment

As of December 31, 2019, we were organized into five major business segments as follows:

- commercial banking services, which are principally provided by Shinhan Bank:
- credit card services, which are principally provided by Shinhan Card;
- securities brokerage services, which are provided by Shinhan Investment;
- life insurance services, which are provided by Shinhan Life Insurance and Orange Life Insurance; and
- others.

We report our segment information in accordance with the provisions of IFRS 8 (Operating Segments). We categorize our operating segments according to a business based approach. See Note 7 of the notes to our consolidated financial statements included in this annual report.

Operating Income by Principal Business Segment

The table below provides the income statement data for our principal business segments for the periods indicated.

	Year Ended December 31,			% Change	
	2017	2018	2019	2017/2018	2018/2019
	(In billions of Won, except percentages)				
Banking	₩2,089	₩3,047	₩3,162	45.9%	3.8%
Credit card	1,304	873	812	(33.1)	(7.0)
Securities	253	333	240	31.6	(27.9)
Life insurance	160	181	585	13.1	223.2
Others	32	102	169	218.8	65.7
Consolidation adjustment(1)	(8)	(37)	78	362.5	N/M
Total operating income	₩3,830	₩4,499	₩5,046	17.5%	12.2%

N/M = not meaningful
Note:

(1) Consolidation adjustment consists of adjustments for inter-segment transactions.

Banking Services

The banking services segment offers commercial banking and related services and includes: (i) retail banking, which consists of banking and other services provided primarily through the retail branches of Shinhan Bank and Jeju Bank to individuals and households; (ii) corporate banking, which consists of corporate banking products and services provided through Shinhan Bank's corporate banking branches to its corporate customers, most of which are small- and medium-sized enterprises and large corporations, including members of the *chaebol* groups; (iii) international banking, which primarily consists of the operations of Shinhan Bank's overseas subsidiaries and branches; and (iv) other banking, which primarily consists of treasury business for our banking business (including internal asset and liability management and other non-deposit funding activities), securities investing and trading and derivatives trading, as well as administration of our overall banking operations.

The table below provides the income statement data for our banking services segment for the periods indicated.

	Year Ended December 31,			% Change	
	2017	2018	2019	2017/2018	2018/2019
	(In billions of Won, except percentages)				
Income statement data					
Net interest income (expense)	₩ 5,108	₩ 5,708	₩ 5,989	11.7%	4.9%
Net fees and commission income (expense)	817	851	950	4.2	11.6
Net other income (expense)	(3,836)	(3,512)	(3,777)	(8.4)	7.5
Operating income (expense)	₩ 2,089	₩ 3,047	₩ 3,162	45.9%	3.8%

Comparison of 2019 to 2018

Operating income for banking services increased by 3.8% from ₩3,047 billion in 2018 to ₩3,162 billion in 2019.

Net interest income (expense). Net interest income increased by 4.9% from ₩5,708 billion in 2018 to ₩5,989 billion in 2019 primarily due to increases in net interest income for corporate banking, international banking and other banking services, which was partially offset by a decrease in net interest income for retail banking services. More specifically:

- Net interest income for retail banking decreased by 0.4% from ₩2,631 billion in 2018 to ₩2,620 billion in 2019 primarily due to a decrease in Shinhan Bank's net interest margin which was partially offset by an increase in the average volume of retail loans. The decrease in Shinhan Bank's net interest margin was largely due to the increase in average volume of interest-earning assets outpacing the increase in net interest income as described above. The average volume of retail loans increased largely due to an increase in home mortgage loans.
- Net interest income for corporate banking increased by 3.1% from ₩2,282 billion in 2018 to ₩2,353 billion in 2019 primarily due an increase in the average balance of corporate loans while the average lending rate on corporate loans remained stable. The average balance of corporate loans increased principally as a result of an increase in facilities loans. The average lending rate for corporate loans remained stable despite a higher average market interest rate in 2019 due to an increase in loans to corporate borrowers with high credit ratings which have lower interest rates.
- Net interest income for international banking increased by 18.6% from ₩629 billion in 2018 to ₩746 billion in 2019 primarily due to an increase in the average balance of loans extended by Shinhan Bank's overseas subsidiaries, particularly in Vietnam.
- Net interest income for other banking services increased by 62.7% from ₩166 billion in 2018 to ₩270 billion in 2019, primarily due to an increase in interest earned on assets managed by the treasury department of Shinhan Bank.

Net fees and commission income (expense). Net fees and commission income increased by 11.6% from ₩851 billion in 2018 to ₩950 billion in 2019 primarily due to an increase in net fees and commissions for corporate banking services, and to a lesser extent, an increase in net fees and commissions for other banking services. Net fees and commissions for corporate banking services increased primarily due to an increase in investment banking fees and commissions principally resulting from an increased volume of mergers and acquisitions, SOC projects and other corporate transactions. Net fees and commissions for other banking services increased primarily due to an increase in trust management fees.

Net other income (expense). Net other expense increased by 7.5% from ₩3,512 billion in 2018 to ₩3,777 billion in 2019 primarily due to an increase in net other expense for other banking services, and to a lesser extent, an increase in net other expense for international banking services. Net other expense for other banking services increased mainly due to a decrease in net gain on financial instruments at fair value through profit of loss. Net other expense for international banking services increased primarily due to an increase in expenses related to the expansion of Shinhan Bank's overseas network.

Comparison of 2018 to 2017

Operating income for banking services increased by 45.9% from ₩2,089 billion in 2017 to ₩3,047 billion in 2018.

Net interest income (expense). Net interest income increased by 11.7% from ₩5,108 billion in 2017 to ₩5,708 billion in 2018 primarily due to increases in net interest income for retail banking, corporate banking, and international banking which was partially offset by a decrease in net interest income for other banking services. More specifically:

- Net interest income for retail banking increased by 18.1% from ₩2,227 billion in 2017 to ₩2,631 billion in 2018 primarily due to an increase in Shinhan Bank's net interest margin as well as an increase in the average volume of retail loans. The increase in Shinhan Bank's net interest margin was largely due to the general increase in market interest rates largely driven by the increase in the base interest rate set by the Bank of Korea. The average volume of retail loans increased largely due to an increase in home mortgage loans.
- Net interest income for corporate banking increased by 7.1% from ₩2,131 billion in 2017 to ₩2,282 billion in 2018 primarily due to increases in the average balance and the average lending rate of corporate loans. The average balance of corporate loans increased principally as a result of increased loan demand from SOHOs and small- and medium-sized enterprises amid the Government's policy initiatives to promote the growth of such enterprises. The average lending rate for corporate loans increased largely as a result of the general increase in market interest rates as described above.
- Net interest income for international banking increased by 35.9% from ₩463 billion in 2017 to ₩629 billion in 2018 primarily due to an increase in the average balance of loans extended by Shinhan Bank's overseas subsidiaries, especially its subsidiaries in Vietnam.
- Net interest income for other banking services decreased by 42.2% from ₩287 billion in 2017 to ₩166 billion in 2018.

Net fees and commission income (expense). Net fees and commission income increased by 4.2% from ₩817 billion in 2017 to ₩851 billion in 2018 primarily due to an increase in net fees and commission income for corporate banking and international banking services, which was partially offset by a decrease in net fees and commissions for other banking services. Net fees and commission income for corporate banking increased primarily due to an increase in investment banking fees and commissions principally resulting from an increased volume of mergers and acquisitions, SOC projects and other corporate transactions. Net fees and commission income for international banking services increased primarily due to an increase in credit cards fees and commissions charged by Shinhan Bank Vietnam. Net fees and commission income for other banking decreased primarily due to a decrease in fees and commissions related to beneficiary certificates.

Net other income (expense). Net other expense decreased by 8.4% from ₩3,836 billion in 2017 to ₩3,512 billion in 2018 due primarily to a decrease in net other expense for other banking services, which was partially offset by increases in net other expense for retail banking and international banking. Net other expense for other banking services decreased primarily as we recorded net gain on financial instruments at fair value through profit or loss in 2018 compared to net trading loss in 2017, which was partially offset by a decrease in income from foreign currency transactions due to the decline in foreign currency exchange rates amid stronger valuation of the Won. Net other expense for retail banking and international banking increased primarily due to an increase in rental expenses due to an overall increase in rental fees and an increase in expenses related to the expansion of Shinhan Bank's overseas network.

Credit Card Services

The credit card services segment consists of the credit card business of Shinhan Card, including its installment finance and automobile leasing businesses.

	Year Ended December 31,			% Change	
	2017	2018	2019	2017/2018	2018/2019
	(In billions of Won, except percentages)				
Income statement data					
Net interest income (expense)	₩1,501	₩ 1,583	₩ 1,754	5.5%	10.8%
Net fees and commission income (expense)	359	433	403	20.6	(6.9)
Net other income (expense)	(556)	(1,143)	(1,345)	105.6	17.7
Operating income (expense)	₩1,304	₩ 873	₩ 812	(33.1)%	(7.0)%

Comparison of 2019 to 2018

Operating income for the credit card business decreased by 7.0% from ₩873 billion in 2018 to ₩812 billion in 2019.

Net interest income increased by 10.8% from ₩1,583 billion in 2018 to ₩1,754 billion in 2019 primarily due to an increase in the average balance of credit card receivables, which was partially offset by an increase in interest expense on borrowings and bonds resulting from increases in the average balances of such liabilities amid increased need for working capital amidst asset growth.

Net fees and commission income decreased by 6.9% from ₩433 billion in 2018 to ₩403 billion in 2019 primarily as a result of a decrease in credit card commission income due to the Government's continued policies to lower credit card merchant fees, which was partially offset by an increase in fees and commission income from lease operations due an increase in the average balance of operating leased assets.

Net other expense increased by 17.7% from ₩1,143 billion in 2018 to ₩1,345 billion in 2019, primarily due to an increase in provision for credit loss allowance and an increase in depreciation expense on the operating leased assets. Provision for credit loss allowance increased primarily as a result of an increase in the balance of credit card receivables. Depreciation expense increased primarily as a result of increase in the average balance of operating leased assets.

Comparison of 2018 to 2017

Operating income for the credit card business decreased by 33.1% from ₩1,304 billion in 2017 to ₩873 billion in 2018.

Net interest income increased by 5.5% primarily due to an increase in interest income resulting from an increase in the average balance of credit card receivables, which was partially offset by an increase in interest expense on borrowings and bonds resulting from increases in the average balances of such liabilities amid increased need for working capital following asset growth. The average balance of credit card receivables increased in accordance with our strategy of diversifying our revenue structure to promote credit card loans and cash advances in response to decreased merchant fee rates resulting from Government policies lowering merchant fees chargeable by credit card companies.

Net fees and commission income increased by 20.6% primarily as a result of an increase in fees and commission income from lease operations as part of the revenue diversification strategy described above.

Net other expense increased by 105.6% primarily due to an increase in provision for credit loss allowance. Provision for credit loss allowance increased primarily as a result of an increase in the balance of credit card receivables as well as an increase in the proportion of assets with relatively high allowance rates, such as card loans and cash advances.

Securities Brokerage Services

Securities brokerage services segment primarily reflects securities brokerage and dealing services on behalf of customers, which is conducted by Shinhan Investment, our principal securities brokerage subsidiary.

	Year Ended December 31,			% Change	
	2017	2018	2019	2017/2018	2018/2019
	(In billions of Won, except percentages)				
Income statement data					
Net interest income (expense)	₩ 433	₩ 429	₩ 458	(0.9)%	6.8%
Net fees and commission income (expense)	298	389	351	30.5	(9.8)
Net other income (expense)	(478)	(485)	(569)	1.5	17.3
Operating income (expense)	₩ 253	₩ 333	₩ 240	31.6%	(27.9)%

Comparison of 2019 to 2018

Operating income for securities brokerage services decreased by 27.9% from ₩333 billion in 2018 to ₩240 billion in 2019.

Net interest income increased by 6.8% from ₩429 billion in 2018 to ₩458 billion in 2019 primarily due to an increase in the average debt securities classified as financial assets at fair value through profit or loss, as well as an increase in interest income from consolidated structured entities due to an increase in the number of such entities.

Net fees and commission income decreased by 9.8% from ₩389 billion in 2018 to ₩351 billion in 2019 primarily due to a decrease in fees and commission received on brokerage resulting from a decrease in daily average stock trading volume amidst volatile market conditions, as well as a decrease in the rate of brokerage fees.

Net other expense increased by 17.3% from ₩485 billion in 2018 to ₩569 billion in 2019 due primarily to an increase in salaries as a result of increases in the number of employees as well as average wages.

Comparison of 2018 to 2017

Net interest income decreased by 0.9% due primarily to an increase in the average volume of debt securities issued resulting from the issuance of unguaranteed corporate bonds and subordinated bonds, which was partially offset by an increase in the average volume of beneficiary certificates resulting from an increase in investments in fund of funds.

Net fees and commission income increased by 30.5% due primarily to an increase in brokerage fees income resulting from increased daily average stock trading volume amid favorable stock market performance in 2018, as well as an increase in fees and commission income related to investment banking business such as financial guarantee fees and underwriting fees as a result of an expansion of our investment banking business.

Net other expense increased by 1.5% due primarily to an increase in employee costs such as performance-linked incentives resulting from an increase in operating income as compared to the prior year.

Life Insurance Services

Life insurance services segment consists of life insurance services provided by Shinhan Life Insurance.

	Year Ended December 31,			% Change	
	2017	2018	2019	2017/2018	2018/2019
	(In billions of Won, except percentages)				
Income statement data					
Net interest income (expense)	₩ 728	₩ 762	₩ 1,648	4.7%	116.3%
Net fees and commission income (expense)	53	70	167	32.1	138.6
Net other income (expense)	(621)	(651)	(1,230)	4.8	88.9
Operating income (expense)	₩ 160	₩ 181	₩ 585	13.1%	223.2%

Comparison of 2019 to 2018

Operating income for life insurance services increased by 223.2% from ₩181 billion in 2018 to ₩585 billion in 2019.

Net interest income increased by 116.3% from ₩762 billion in 2018 to ₩1,648 billion in 2019 due primarily to an increase in the volume of average earning assets resulting from our acquisition of Orange Life Insurance.

Net fees and commission income increased by 138.6% from ₩70 billion in 2018 to ₩167 billion in 2019 due primarily to an overall increase in fee income earned from our management of separate accounts, primarily resulting from our acquisition of Orange Life Insurance, despite a decrease in fee income earned from the management of separate accounts by Shinhan Life Insurance.

Net other expense increased by 88.9% from ₩651 billion in 2018 to ₩1,230 billion in 2019 primarily due to an increase in net insurance loss resulting from the our acquisition of Orange Life Insurance as well as a decrease in premiums received by Shinhan Life Insurance for new contracts underwritten, which was partially offset by a decrease in provisions for insurance reserves resulting from such changes.

Comparison of 2018 to 2017

Operating income for life insurance services increased by 13.1% from ₩160 billion in 2017 to ₩181 billion in 2018.

Net interest income increased by 4.7% due primarily to an increase in interest income from investments on government and public bonds resulting from an increase in the average volume of such assets. Our purchases of long-term government bonds increased in accordance with our strategy to extend asset duration.

Net fees and commission income increased by 32.1% due primarily to an increase in fees and commission related to contracts transferred from separate accounts to general accounts. Where a beneficiary reaches the eligible age for receiving pension payments, balances in the separate accounts are transferred to general accounts and we recognize such balance as fees and commission income.

Net other expense increased by 4.8% from ₩621 billion in 2017 to ₩651 billion in 2018 primarily due to an increase in insurance contract cancellations as well as a decrease in premiums received for new contracts underwritten, which was partially offset by a decrease in provisions for insurance reserves resulting from such changes.

Others

Other segment primarily reflects all other activities of Shinhan Financial Group, as the holding company, and our other subsidiaries, including the results of operations of Shinhan Capital, Shinhan Credit Information, Shinhan BNP Paribas Asset Management, Shinhan Alternative Investment Management, Shinhan Savings Bank, Asia Trust Co. Ltd., Shinhan REITs Management and back-office functions maintained at the holding company.

	Year Ended December 31,			% Change	
	2017	2018	2019	2017/2018	2018/2019
	(In billions of Won, except percentages)				
Income statement data					
Net interest income (expense)	₩ 69	₩ 96	₩ 128	39.1%	33.3%
Net fees and commission income (expense)	181	199	272	9.9	36.7
Net other income (expense)	(218)	(193)	(231)	(11.5)	19.7
Operating income (expense)	₩ 32	₩ 102	₩ 169	218.8%	65.7%

Comparison of 2019 to 2018

Operating income for others increased by 65.7% from ₩102 billion in 2018 to ₩169 billion in 2019.

Net interest income increased by 33.3% from ₩96 billion in 2018 to ₩128 billion in 2019 primarily due to an increase in interest income from Shinhan Savings Bank and Shinhan Capital resulting from increases in their average balances of total loans, and, to a lesser extent, an increase in interest income from consolidated structured entities resulting from an increase in the number of consolidated structured entities.

Net fees and commission income increased by 36.7% from ₩199 billion in 2018 to ₩272 billion in 2019 primarily due to an increase in asset management fees resulting from our acquisition of Asia Trust Co. Ltd.

Net other expense increased by 19.7% from ₩193 billion in 2018 to ₩231 billion in 2019, primarily due to an increase in general and administrative expense resulting from our acquisition of Asia Trust Co. Ltd.

Comparison of 2018 to 2017

Operating income for others increased by 218.8% from ₩32 billion in 2017 to ₩102 billion in 2018.

Net interest income increased by 39.1% from ₩69 billion in 2017 to ₩96 billion in 2018 primarily due to an increase in interest income from consolidated structured entities resulting from an increase in the number of consolidated structured entities, and, to a lesser extent, an increase in interest income from Shinhan Savings Bank due to an increase in its average balance of total loans.

Net fees and commission income increased by 9.9% primarily due to increased fees and commission income recognized by Shinhan REITs Management, which was incorporated in October 2017.

Net other expense decreased by 11.5% from ₩218 billion in 2017 to ₩193 billion in 2018, primarily due to a decrease in provision for credit loss allowance of loans by Shinhan Capital resulting from a decrease in the volume of loans provided for the financing of shipment projects.

Financial Condition

Assets

The following table sets forth, as of the dates indicated, the principal components of our assets.

	As of December 31,			% Change	
	2017	2018	2019	2017/2018	2018/2019
	(In billions of Won, except percentages)				
Cash and due from banks at amortized cost	₩ —	₩ 17,349	₩ 28,424	—%	63.8%
Cash and due from banks	22,669	—	—	—	—
Financial assets at fair value through profit or loss	—	43,535	53,163	—	22.1
Trading assets	28,464	—	—	—	—
Financial assets designated at fair value through profit or loss(IAS 39)	3,579	—	—	—	—
Derivative assets	3,400	1,794	2,829	(47.2)	57.7
Securities at fair value through other comprehensive income	—	38,314	59,381	—	55.0
Available-for-sale financial assets	42,117	—	—	—	—
Securities at amortized cost	—	28,478	45,582	—	60.1
Held-to-maturity financial assets	24,991	—	—	—	—
Loans at amortized cost	—	299,609	323,245	—	7.9
Loans	275,566	—	—	—	—
Property and equipment	3,022	3,004	4,083	(0.6)	35.9
Intangible assets	4,273	4,320	5,559	1.1	28.7
Investments in associates	631	671	1,453	6.3	116.5
Current tax receivables	25	45	88	80.0	95.6
Deferred tax assets	592	427	218	(27.9)	(48.9)
Investment property	418	475	489	13.6	2.9
Asset for defined benefit obligations	—	—	2	—	—
Other assets	16,552	21,572	27,879	30.3	29.2
Assets held for sale	8	8	25	—	212.5
Total assets	₩426,307	₩459,601	₩552,420	7.8%	20.2%

2019 Compared to 2018

Our assets increased by 20.2% from ₩459,601 billion as of December 31, 2018 to ₩552,420 billion as of December 31, 2019, principally due to increases in securities at fair value through other comprehensive income, loans at amortized cost, securities at amortized cost and cash and due from banks at amortized cost.

Our securities at fair value through other comprehensive income increased by 55.0% to ₩59,381 billion as of December 31, 2019 from ₩38,314 billion as of December 31, 2018 primarily as a result of our acquisition of Orange Life Insurance.

Our loans at amortized cost increased by 7.9% to ₩323,245 billion as of December 31, 2019 from ₩299,609 billion as of December 31, 2018, due primarily to an increase in retail loans and corporate loans.

Our securities at amortized cost increased by 60.1% to ₩45,582 billion as of December 31, 2019 from ₩28,478 billion as of December 31, 2018 primarily as a result of our acquisition of Orange Life Insurance.

Our cash and due from banks at amortized cost increased by 63.8% to ₩28,424 billion as of December 31, 2019 from ₩17,349 billion as of December 31, 2018, due primarily to an increase in reserve deposits with the Bank of Korea to account for debt securities with approaching maturities.

2018 Compared to 2017

Our assets increased by 7.8% from ₩426,307 billion as of December 31, 2017 to ₩459,601 billion as of December 31, 2018, principally due to increases in loans at amortized cost and, to a lesser extent, an increase in securities at fair value through other comprehensive income and securities at amortized cost based on IFRS 9.

We had loans of ₩275,566 billion as of December 31, 2017. As a result of adopting IFRS 9, on January 1, 2018, ₩274,819 billion and ₩747 billion of net loans as of December 31, 2017 were transferred to loans at net amortized cost and loans at fair value through profit or loss, respectively. Our loans at amortized cost increased by 9.2% to ₩299,609 billion as of December 31, 2018 from ₩274,254 billion as of January 1, 2018, due primarily to an increase in retail loans and corporate loans.

We had available-for-sale financial assets of ₩42,117 billion as of December 31, 2017. As a result of adopting IFRS 9, on January 1, 2018, ₩37,248 billion and ₩4,869 billion of available-for-sale financial assets as of December 31, 2017 were transferred to securities at fair value through other comprehensive income and securities at fair value through profit or loss, respectively. Our securities at fair value through other comprehensive income increased by 2.9% to ₩38,314 billion as of December 31, 2018 from ₩37,248 billion as of January 1, 2018, due primarily to an increase in government bonds.

We had held-to-maturity financial assets of ₩24,991 billion as of December 31, 2017. As a result of adopting IFRS 9, on January 1, 2018, ₩24,425 billion and ₩566 billion of held-to-maturity financial assets as of December 31, 2017 (which constituted all of our held-to-maturity financial assets as of December 31, 2017) were transferred to securities at amortized cost and securities at fair value through profit or loss, respectively. Our securities at amortized cost increased by 16.6% to ₩28,478 billion as of December 31, 2018 from ₩24,416 billion as of January 1, 2018 due primarily to an increase in government bonds.

For further information on a comparison between our assets as at December 31, 2018 and as at December 31, 2017, see Note 51 of the notes to our consolidated financial statements included in this annual report.

Liabilities and Equity

The following table sets forth, as of the dates indicated, the principal components of our liabilities.

	As of December 31,			% Change	
	2017	2018	2019	2017/2018	2018/2019
	(In billions of Won, except percentages)				
Deposits	₩249,419	₩265,000	₩294,874	6.2%	11.3%
Financial liabilities at fair value through profit or loss	—	1,420	1,632	—	14.9
Trading liabilities	1,848	—	—	—	—
Financial liabilities designated at fair value through profit or loss (IFRS 9)	—	8,536	9,409	—	10.2
Financial liabilities designated at fair value through profit or loss(IAS 39)	8,298	—	—	—	—
Derivative liabilities	3,488	2,440	2,303	(30.0)	(5.6)
Borrowings	27,587	29,819	34,863	8.1	16.9
Debt securities issued	51,341	63,228	75,363	23.2	19.2
Liability for defined benefit obligations	7	127	121	1714.3	(4.7)
Provisions	429	508	557	18.4	9.6
Current tax payable	349	430	513	23.2	19.3
Deferred tax liabilities	10	22	452	120.0	1954.5
Liabilities under insurance contracts	24,515	26,219	52,164	7.0	99.0
Other liabilities	25,312	25,200	38,238	(0.4)	51.7
Total liabilities	392,603	422,949	510,489	7.7	20.7
Total equity attributable to equity holders of the Group	32,820	35,726	39,179	8.9	9.7
Non-controlling interests	884	926	2,752	4.8	197.2
Total equity	33,704	36,652	41,931	8.7	14.4
Total liabilities and equity	₩426,307	₩459,601	₩552,420	7.8%	20.2%

2019 Compared to 2018

Our total liabilities increased by 20.7% from ₩422,949 billion as of December 31, 2018 to ₩510,489 billion as of December 31, 2019, primarily due to an increase in deposits (which principally consist of customer deposits) and an increase in liabilities under insurance contracts and an increase in other liabilities and, to a lesser extent, an increase in debt securities issued.

Our deposits increased by 11.3% from ₩265,000 billion as of December 31, 2018 to ₩294,874 billion as of December 31, 2019, primarily due to an increase in time and savings deposits largely resulting from customers' preference for low-risk investments in light of the continuing uncertainty in financial markets.

Our liabilities under insurance contracts increased by 99.0% from ₩26,219 billion as of December 31, 2018 to ₩52,164 billion as of December 31, 2019 primarily as a result of our acquisition of Orange Life Insurance.

Our other liabilities increased by 51.7% from ₩25,200 billion as of December 31, 2018 to ₩38,238 billion as of December 31, 2019, primarily due to an increase in separate account liabilities resulting from our acquisition of Orange Life Insurance.

Our debt securities issued increased by 19.2% from ₩63,228 billion as of December 31, 2018 to ₩75,363 billion as of December 31, 2019, primarily due to an increase in debentures issued by Shinhan Bank and Shinhan Card.

Total equity increased by 14.4% from ₩36,652 billion as of December 31, 2018 to ₩41,931 billion as of December 31, 2019, largely due to an increase in retained earnings and non-controlling interests.

2018 Compared to 2017

Our total liabilities increased by 7.7% from ₩392,603 billion as of December 31, 2017 to ₩422,949 billion as of December 31, 2018, primarily due to an increase in deposits (which principally consist of customer deposits) and, to a lesser extent, an increase in debt securities issued.

Our deposits increased by 6.2% from ₩249,419 billion as of December 31, 2017 to ₩265,000 billion as of December 31, 2018, primarily due to an increase in time and savings deposits largely resulting from customers' preference for low-risk investments in light of the continuing uncertainty in financial markets.

Our debt securities issued increased by 23.2% from ₩51,341 billion as of December 31, 2017 to ₩63,228 billion as of December 31, 2018, primarily due to an increase in debentures issued by Shinhan Card and Shinhan Capital.

Total equity increased by 8.7% from ₩33,704 billion as of December 31, 2017 to ₩36,652 billion as of December 31, 2018, largely due to an increase in retained earnings from profit for the year and, to a lesser extent, the issuance of hybrid bonds.

ITEM 5.B. Liquidity and Capital Resources

We are exposed to liquidity risk arising from the funding of our lending, trading and investment activities and in the management of trading positions. The goal of liquidity management is for us to be able, even under adverse conditions, to meet all of our liability repayments on time and fund all investment opportunities. For an explanation of how we manage our liquidity risk, see "Item 4.B. Business Overview — Risk Management — Market Risk Management — Market Risk Management for Non-trading Activities — Liquidity Risk Management." In our opinion, the working capital is sufficient for our present requirements.

The following table sets forth our capital resources as of December 31, 2019.

	As of December 31, 2019
	(In billions of Won)
Deposits	₩294,874
Long-term debt	73,299
Call money	712
Borrowings from the Bank of Korea	2,429
Other short-term borrowings	25,861
Asset securitizations	9,090
Stockholders' equity[(1)]	14,619
Total	₩420,884

Note:

(1) Includes capital stock, share premium, and hybrid bonds issued.

We obtain funding from a variety of sources, both domestic and foreign. Our principal source of funding is customer deposits obtained from our banking operations, and we from time to time issue equity and debt securities. In addition, our subsidiaries acquire funding through call money, borrowings from the Bank of Korea, other short-term borrowings, corporate debentures, other long-term debt and asset-backed securitizations.

Our primary funding strategy has been to achieve low-cost funding by increasing the average balances of low-cost retail customer deposits. Customer deposits accounted for 72.9% of our total funding as of December 31, 2017, 71.1% of our total funding as of December 31, 2018 and 70.1% of our total funding as of December 31, 2019. Historically, except in limited circumstances, largely due to the lack of alternative investment opportunities for individuals and households in Korea, especially in light of a low interest rate environment and volatile stock market conditions, a substantial portion of such customer deposits were rolled over upon maturity and accordingly provided a stable source of funding for our banking subsidiaries. However, in the face of attractive alternative investment opportunities such as during a bullish run of the stock market, customers may transfer a significant amount of bank deposits to alternative investment products in search of higher returns, which may result in temporary difficulties in finding sufficient funding on commercial terms favorable to us. In addition, in recent years, we have faced increasing pricing competition from our competitors with respect to our deposit products. If we do not continue to offer competitive interest rates to our deposit customers, we may lose their business, which has traditionally provided a stable and low-cost source of funding. Even if we are able to match our competitors' pricing, doing so may result in an increase in our funding costs, which may have an adverse impact on our results of operations.

While our banking subsidiaries generally have not faced, and currently are not facing, liquidity difficulties in any material respect, if we or our banking subsidiaries are unable to obtain the funding we need on terms commercially acceptable to us for an extended period of time for reasons of Won devaluation or otherwise, we may not be able to ensure our financial viability, meet regulatory requirements, implement our strategies or compete effectively. See "Item 3.D. Risk Factors — Risks Related to Our Overall Business — Changes in interest rates, foreign exchange rates, bond and equity prices, and other market factors have affected and will continue to affect our business, results of operations and financial condition."

As of December 31, 2017, 2018 and 2019, ₩5,639 billion, ₩5,645 billion and ₩6,015 billion, or 2.3%, 2.2% and 2.1%, respectively, of Shinhan Bank's total deposits were deposits made by litigants in connection with legal proceedings in Korean courts. Court deposits carry interest rates which are generally lower than market rates.

In addition, we obtain funding through borrowings and the issuances of debt and equity securities, primarily through Shinhan Bank. Our borrowings consist mainly of borrowings from financial institutions, the Government and Government-affiliated funds. Call money, which is available in both Won and foreign currencies, is obtained from the domestic call loan market, a short-term loan market for loans with maturities of less than one month. As for our long-term debt, it is principally in the form of corporate debt securities issued by Shinhan Bank. Since 1999, Shinhan Bank has actively issued and continues to issue long-term debt securities with maturities of over one year in the Korean fixed-income market. Shinhan Bank and we have maintained one of the highest credit ratings in the domestic fixed-income market since their inception in 1999 and 2001, respectively. As Shinhan Bank maintains one of the highest debt ratings in the fixed-income market in Korea, we believe that Shinhan Bank will be able to obtain replacement funding through the issuance of long-term debt securities. Shinhan Bank's interest rates on long-term debt securities are in general 20 to 30 basis points higher than the interest rates offered on their deposits. However, since long-term debt is not subject to premiums paid for deposit insurance and the Bank of Korea reserves, we estimate that our funding costs on long-term debt securities are generally on par with our funding costs on deposits. In addition, our company, as well as Shinhan Bank may also issue long-term debt securities denominated in foreign currencies in overseas markets. Our company and Shinhan Bank each have a global medium term notes program under which foreign currency-denominated notes may be issued with an aggregate program limit of US$5 billion and US$6 billion, respectively. As of December 31, 2017, 2018 and 2019, our long-term debt amounted to ₩53,140 billion, ₩60,753 billion and ₩73,299 billion, respectively.

We also have funding requirements for our credit card activities. We obtain funding for our credit card activities from a variety of sources, primarily in Korea. The principal sources of funding for Shinhan Card are debentures, commercial papers (including call money), borrowings from the holding company and third-parties, which amounted to ₩18,645 billion, ₩1,560 billion, ₩1,463 billion and ₩292 billion, or 84.9%, 7.1%, 6.7%

and 1.3%, respectively, of the funding for our credit card activities, as of December 31, 2019. Unlike other credit card companies, Shinhan Card has the benefit of obtaining funding at favorable rates through loans from Shinhan Financial Group, which currently maintains the highest credit rating assigned by local rating agencies. Shinhan Card aims to further diversify its funding sources and more actively tap the domestic and international capital markets to ensure access to liquidity as needed.

Credit ratings affect the cost and other terms upon which we and our subsidiaries are able to obtain funding. Domestic and international rating agencies regularly evaluate us, and our subsidiaries and their ratings of our and our subsidiaries' long-term debt are based on a number of factors, including our financial strength as well as conditions affecting the financial services industry generally.

There can be no assurance that we or our subsidiaries will maintain our current credit ratings if, among other reasons, the global or Korean economy were to face another downturn, there are any changes in our corporate governance or our businesses significantly deteriorate. Our failure to maintain current credit ratings and outlooks could increase the cost of our funding, limit our access to capital markets and other borrowings, and require us to post additional collateral in financial transactions, any of which could adversely affect our liquidity, net interest margins and profitability.

Secondary funding sources also include call money, borrowings from the Bank of Korea and other short-term borrowings which amounted to ₩18,145 billion, ₩25,639 billion and ₩29,002 billion, as of December 31, 2017, 2018 and 2019, respectively, each representing 5.3%, 6.9% and 6.9%, respectively, of our total funding as of such dates.

We may also from time to time obtain funding through issuance of equity securities. For example, in the first quarter of 2009, we conducted a rights offering in the face of an expanding global credit crisis in order to enhance our capital position to prepare for potential contingencies, despite having fully met the required capital adequacy ratios required under applicable laws and regulations and not facing any significant liquidity constraints or financial distress. As a result of such offering, which was substantially fully subscribed and resulted in a capital increase of approximately 16.4%, we raised approximately ₩1,310 billion (before underwriting commissions and other offering expenses).

In limited situations, we may also issue convertible and/or preferred shares. For example, in August 2003, in order to partly fund our acquisition of Chohung Bank, we raised a total of ₩2,552 billion through domestic private placements of redeemable preferred shares and redeemable convertible preferred shares to domestic financial institutions and governmental entities in Korea, all of which shares have since been redeemed or converted. In addition, in January 2007, partly to fund the acquisition of LG Card, we raised a total of ₩3,750 billion through domestic private placements of redeemable preferred shares and redeemable convertible preferred shares, all of which have been redeemed as of the date hereof. In April 2011, we issued redeemable preferred shares to fund redemption of such securities, and in April 2016, we redeemed the redeemable preferred shares issued in April 2011. In February 2019, we raised a total of ₩750 billion through domestic private placements of convertible preferred shares. For further details of our preferred shares, see "Item 10.B. Memorandum and Articles of Incorporation — Description of Preferred Stock."

Pursuant to laws and regulations in Korea, we may redeem our preferred stock to the extent of our retained earnings of the previous fiscal year, net of certain reserves. At this time, we expect that cash from our future operations would be adequate to provide us with sufficient capital resources to enable us to redeem our preferred stock on or prior to their scheduled maturities. In the event there is a short-term shortage of liquidity to make the required cash payments for redemption as a result of, among other things, failure to receive dividend payments from our operating subsidiaries on time or as a result of significant expenditures resulting from future acquisitions, we plan to raise cash liquidity through the issuance of long-term debt in the Korean fixed-income market in advance of the scheduled maturity on our preferred stock. To the extent we need to obtain additional liquidity, we plan to do so through the issuance of long-term corporate debentures or further preferred stock and/or the use of our other secondary funding sources.

We generally may not acquire our own shares except in certain limited circumstances such as a capital reduction. However, pursuant to the Financial Investment Services and Capital Markets Act and regulations under the Financial Holding Companies Act, we may purchase our own shares on the KRX KOSPI Market of the Korea Exchange or through a tender offer, or retrieve our own shares from a trust company upon termination of a trust agreement subject to the restrictions that (1) the aggregate purchase price of such shares may not exceed the total amount available for distribution of dividends at the end of the preceding fiscal year less the amounts of dividends and reserves for such fiscal year, subtracted by the sum of (a) the purchase price of treasury stock acquired if any treasury stock has been purchased after the end of the preceding fiscal year pursuant to the Commercial Act or the Financial Investment Services and Capital Markets Act, (b) the amount subject to a trust contract, and (c) the amount of dividends approved at the ordinary general shareholders' meeting after the end of the preceding fiscal year and the amount of retained earnings reserve required under the Commercial Act; plus if any treasury stock has been disposed of after the end of the preceding fiscal year, the acquisition cost of such treasury stock, and (2) the purchase of such shares shall meet the requisite ratio under the Financial Holding Companies Act and regulations thereunder. In addition, pursuant to the Financial Investment Services and Capital Markets Act, in certain limited circumstances, dissenting holders of shares have the right to require us to purchase their shares.

Contractual Obligations, Commitments and Guarantees

In the ordinary course of our business, we have certain contractual cash obligations and commitments which extend for several years. As we are able to obtain liquidity and funding through various sources as described in "— Liquidity and Capital Resources" above, we do not believe that these contractual cash obligations and commitments will have a material effect on our liquidity or capital resources.

Contractual Cash Obligations

The following table sets forth our contractual cash obligations as of December 31, 2019.

	As of December 31, 2019 Payments Due by Period(1)						
	Less than 1 Month	1-3 Months	3-6 Months	6-12 Months	1-5 Years	More than 5 Years	Total
	(In billions of Won)						
Deposits	₩149,773	₩31,415	₩38,078	₩61,747	₩14,972	₩ 3,591	₩299,576
Borrowings	15,314	3,691	3,608	4,028	5,244	3,002	34,887
Debt securities issued	5,368	4,370	4,876	8,946	49,805	6,468	79,833
Lease liability	23	37	51	92	872	29	1,104
Total	₩170,478	₩39,513	₩46,613	₩74,813	₩70,893	₩13,090	₩415,400

Note:

(1) Reflects all estimated contractual interest payments due on our interest-bearing deposits, borrowings, debt securities issued and lease liability, and the estimated contractual interest payments on borrowings and debt securities that are on a floating rate basis as of December 31, 2019 were computed as if the interest rate used on the last applicable date (for example, the interest payment date for such floating rate loans immediately preceding the determination date) were the interest rate applicable throughout the remainder of the term.

Commitments and Guarantees

In the normal course of business, our subsidiaries make various commitments and guarantees to meet the financing needs of our customers. Commitments and guarantees are usually in the form of, among others, commitments to extend credit, commercial letters of credit, standby letter of credit and performance guarantees. The contractual amount of these financial instruments represents the maximum possible loss amount if the counterparty draws down the commitment or we should fulfill our obligation under the guarantee and the counterparty fails to perform under the contract. See “Item 4.B. Business Overview — Description of Assets and Liabilities — Credit-Related Commitments and Guarantees.”

The following table sets forth our commitments and guarantees as of December 31, 2019. These commitments, apart from certain guarantees and acceptances, are not included within our consolidated statements of financial position.

	As of December 31, 2019 Commitment Expiration by Period			
	Less than 1 Year	1-5 Years	More than 5 Years	Total
	(In billions of Won)			
Commitments to extend credit[1]	₩ 73,418	₩11,846	₩11,672	₩ 96,936
Commercial letters of credit[2]	2,660	100	—	2,760
Financial guarantees[3]	1,840	851	72	2,763
Performance guarantees[4]	4,747	2,461	57	7,265
Liquidity facilities to SPEs[5]	1,349	651	117	2,117
Acceptances[6]	200	1	—	201
Endorsed bills[7]	6,748	—	—	6,748
Unused credit limits on credit cards	76,654	—	—	76,654
Other	2,311	72	2,353	4,736
Total	₩169,927	₩15,982	₩14,271	₩200,180

Notes:

(1) Commitments to extend credit represent unfunded portions of authorizations to extend credit in the form of loans. The commitments expire on fixed dates and a customer is required to comply with predetermined conditions to draw funds under the commitments. Commitments to extend credit, including credit lines, are in general subject to provisions that allow us to withdraw such commitments in the event there are material adverse changes affecting an obligor.

(2) Commercial letters of credit are undertakings on behalf of customers authorizing third parties to draw drafts on us up to a stipulated amount under specific terms and conditions. These are generally short-term and collateralized by the underlying shipments of goods to which they relate.

(3) Financial guarantees are contracts that require us to make specified payments to reimburse the holder for a loss it incurs because a specified debtor fails to make payment when due in accordance with the terms of a debt instrument. Financial guarantee liabilities are recognized initially at their fair value, and the initial fair value is amortized over the life of the financial guarantee. The financial guarantee liability is subsequently carried at the higher of this amortized amount and the present value of any expected payment when a payment under the guarantee has become probable. Financial guarantees are included within other liabilities.

(4) Performance guarantees are issued to guarantee customers’ tender bids on construction or similar projects or to guarantee completion of such projects in accordance with contractual terms. They are also issued to support a customer’s obligation to supply products, commodities, maintenance or other services to third parties.

(5) Liquidity facilities to SPEs represent irrevocable commitments to provide contingent credit lines including commercial paper purchase agreements to special purpose entities for which we serve as the administrator.

(6) Acceptances represent guarantees by us to pay a bill of exchange drawn on a customer. We expect most acceptances to be presented, but reimbursement by the customer is normally immediate.

(7) Endorsed bills represent notes transferred to third parties by us. We are obligated to fulfill the duty of payment if the person primarily liable does not honor the bill on the due date.

See also Note 46 of the notes to our consolidated financial statements included in this annual report.

Capital Adequacy

The following table sets forth a summary of our capital and capital adequacy ratios as of December 31, 2017, 2018 and 2019 based on Basel III.

	As of December 31,		
	2017	2018	2019
	(In millions of Won, except percentages)		
Tier I Capital:			
Tier I CE Capital	₩ 26,756,509	₩ 28,696,267	₩ 28,561,568
Paid-in capital	2,645,053	2,645,053	2,645,053
Capital reserve	9,494,769	9,494,769	9,494,769
Retained earnings	20,790,599	22,959,440	25,525,821
Non-controlling interests in consolidated subsidiaries	83,996	77,847	70,398
Others	(6,257,908)	(6,480,842)	(9,174,474)
Additional Tier I Capital	916,383	1,981,609	3,138,262
Total Tier I Capital	₩ 27,672,891	₩ 30,677,876	₩ 31,699,830
Tier II Capital:			
Allowances for credit losses	372,621	599,913	479,393
Subordinated debt	175,000	140,000	105,000
Others	2,492,951	2,575,272	3,430,347
Total Tier II capital	₩ 3,040,572	₩ 3,315,185	₩ 4,014,740
Total Capital	₩ 30,713,464	₩ 33,993,061	₩ 35,714,570
Risk-weighted assets			
Credit risk	₩182,783,264	₩201,623,530	₩226,670,310
Market risk	9,404,768	9,995,964	11,660,212
Operational risk	15,580,603	17,058,611	18,561,142
Total risk-weighted assets	₩207,768,636	₩228,678,105	₩256,891,664
Capital adequacy ratio	14.78%	14.87%	13.90%
Tier I capital adequacy ratio	13.32%	13.42%	12.34%
Common equity capital adequacy ratio	12.88%	12.55%	11.12%

ITEM 5.C. Research and Development, Patents and Licenses, etc.

Not applicable.

ITEM 5.D. Trend Information

These matters are discussed under Items 4.B., 5.A. and 5.B. above where relevant.

ITEM 5.E. Off-Balance Sheet Arrangements

We have several types of off-balance sheet arrangements, including guarantees for loans, debentures, trade financing arrangements, guarantees for other financings, credit lines, letters of credit and credit commitments. In the normal course of our banking activities, we make various commitments and guarantees to meet the financing needs of our customers. Commitments and guarantees are usually in the form of, among others, commitments to extend credit, commercial letters of credit, standby letters of credit and performance guarantees. The contractual amount of these financial instruments represents the maximum possible loss amount if the account party draws down the commitment or we should fulfill our obligation under the guarantee and the account party fails to perform under the contract. See "Item 4.B. Business Overview — Description of Assets and Liabilities — Credit-Related Commitments and Guarantees."

Details of our off-balance sheet arrangements are provided in Note 46 of the notes to our consolidated financial statements included in this annual report.

ITEM 5.F. Tabular Disclosure of Contractual Obligations

See "Item 5.B. Liquidity and Capital Resources — Contractual Obligations, Commitments and Guarantees."

ITEM 6. *DIRECTORS, SENIOR MANAGEMENT AND EMPLOYEES*

ITEM 6.A. Directors and Senior Management

Executive Directors

Our executive director is as follows:

Name	Date of Birth	Position	Director Since	Date Term Ends[1]
Cho Yong-byoung	Jun. 30, 1957	Chairman and Chief Executive Officer	March 23, 2017	March 2023

Note:

(1) The date on which the term will end will be the date of the general shareholders' meeting in the relevant year.

Cho Yong-byoung is our Chairman and Chief Executive Officer. Prior to being elected to his current position on March 23, 2017, Mr. Cho served as the president and chief executive officer of Shinhan Bank from 2015. Mr. Cho also served as the chief executive officer of Shinhan BNP Paribas Asset Management in 2013 and as the deputy president of Shinhan Bank in 2011. Mr. Cho received a bachelor's degree in law from Korea University.

Non-Executive and Outside Directors

Non-executive directors are directors who are not our employees and do not hold executive officer positions with us. Outside directors are non-executive directors who also satisfy the requirements set forth under the Financial Investment Services and Capital Markets Act to be independent of our major shareholders, affiliates and management. Our non-executive directors are selected based on the candidates' talents and skills in diverse areas, such as law, finance, economics, management and accounting. Currently, 12 non-executive directors are in office, all of whom were nominated by our board of directors and approved at a general meeting of shareholders.

Our non-executive and outside directors are as follows:

Name	Date of Birth	Position	Director Since	Date Term Ends[(1)]
Jin Ok-dong	Feb. 21, 1961	Non-Executive Director	March 27, 2019	March 2021
Philippe Avril	Apr. 27, 1960	Non-Executive Director	March 25, 2015	March 2021
Park Ansoon	Jan. 24, 1945	Outside Director	March 23, 2017	March 2021
Park Cheul	Apr. 27, 1946	Outside Director	March 25, 2015	March 2021
Byeon Yang-ho	Jul. 30, 1954	Outside Director	March 27, 2019	March 2021
Lee Yoon-jae	Nov. 3, 1950	Outside Director	March 27, 2019	March 2021
Huh Yong-hak	Sep. 10, 1958	Outside Director	March 27, 2019	March 2021
Yoon Jaewon	Aug. 29, 1970	Outside Director	March 26, 2020	March 2022
Sung Jae-ho	Mar. 18, 1960	Outside Director	March 27, 2019	March 2021
Jin Hyun-duk	Sep. 10, 1955	Outside Director	March 26, 2020	March 2022
Choi Kyong-rok	May 26, 1966	Outside Director	March 22, 2018	March 2021
Yuki Hirakawa	Oct. 21, 1960	Outside Director	March 25, 2015	March 2021

Note:

(1) The date on which each term will end will be the date of the general shareholders' meeting in the relevant year.

Jin Ok-dong has been our non-executive director since March 27, 2019. Mr. Jin is currently the chief executive officer of Shinhan Bank and previously served as the deputy president of Shinhan Financial Group from 2017 to 2018, the deputy president of Shinhan Bank in 2017 and the chief executive officer of Shinhan Bank Japan from 2015 to 2016. Mr. Jin received a master's degree in business administration from Chung Ang University.

Philippe Avril has been our non-executive director since March 26, 2020. Mr. Avril currently serves as the chief executive officer and representative director of BNP Paribas Securities (Japan) Ltd. and the chief country officer of BNP Paribas, Tokyo Branch. Mr. Avril received a master's degree in economics from Université Paris-Dauphine. Mr. Avril had previously served as an outside director since March 25, 2015. However, as currently BNP Paribas owns 3.55% of our common stock, our board of directors reclassified Mr. Avril as a non-executive director, and Mr. Avril was elected as a non-executive director at the general meeting of shareholders held on March 26, 2020.

Park Ansoon has been our outside director since March 23, 2017. Mr. Park currently serves as the chairman of Taisei Group Co., Ltd. and the chairman of the Korean Residents Union in Japan. Mr. Park served as the chief executive officer from 1993 to 2012 and held various executive roles at Taisei Group Co., Ltd. from 1968 to 2018. Mr. Park received a bachelor's degree in philosophy from Waseda University.

Park Cheul has been our outside director since March 25, 2015. Mr. Park is currently the chairman of our board of directors. Mr. Park served as the chairman and chief executive officer of Leading Investment & Securities Co., Ltd. from 2006 to 2013, an outside director of the Korea Development Bank from 2003 to 2006, a committee member of the National Economy Advisory Council in 2004 and the senior deputy governor of the Bank of Korea from 2000 to 2003. Mr. Park received a master's degree in economics from New York University.

Byeon Yang-ho has been our outside director since March 27, 2019. Mr. Byeon is currently a company advisor at VIG Partners and also served as the non-executive director of Tong Yang Life Insurance. Mr. Byeon received a Ph.D. in economics from Northern Illinois University.

Lee Yoon-jae has been our outside director since March 27, 2019. Mr. Lee served as an outside director for various Korean companies, such as LG, KT&G and S-Oil from 2006 to 2015. In addition, he held the chief executive officer position at KorEI from 2001 to 2010. Mr. Lee received a master's degree in business administration from Stanford Graduate School of Business.

Huh Yong-hak has been our outside director since March 27, 2019. Mr. Huh currently serves as the chief executive officer of First Bridge Strategy Limited since 2015. Mr. Huh served as the chief investment officer of alternative investment of the Hong Kong Monetary Authority from 2008 to 2014. Mr. Huh received a master's degree in international affairs from Columbia University.

Yoon Jaewon has been our outside director since March 26, 2020. Ms. Yoon is currently a professor at Hongik University College of Business Administration and a member of both the committee on development tax system and committee on national accounting policy of the Ministry of Economy and Finance. Ms. Yoon previously served as a non executive judge at the Tax Tribunal from 2013 to 2019. Ms. Yoon received a Ph.D in accounting from Korea University.

Sung Jae-ho has been our outside director since March 27, 2019. Mr. Sung is currently a professor at Sung Kyun Kwan University School of Law. Mr. Sung previously served as an outside director of NICE Holdings from 2018 to 2019 and Shinhan Card from 2015 to 2019, and chairman of Korea Council of International Law. Mr. Sung received a Ph.D in law from Sung Kyun Kwan University.

Jin Hyun-duk has been our outside director since March 26, 2020. Mr. Jin currently serves as the chief executive officer of Phoedra Co., Ltd. since 1988 and a councilor of the Korea Educational Foundation. Mr. Jin was previously a professor at Sakushin-gakuin University and Utsunomiya University. Mr. Jin received a master's degree in business administration from Keio Business School.

Choi Kyong-rok has been our outside director since March 22, 2018. Mr. Choi currently serves as the chief executive officer of CYS Corporation. Mr. Choi served as an outside director of Shinhan Life Insurance from 2010 to 2015. Mr. Choi received a master's degree in computational science from Keio University.

Yuki Hirakawa has been our outside director since March 25, 2015. Mr. Hirakawa currently serves as the chief executive officer of Primer Korea LLC. Mr. Hirakawa served as the chief executive officer of Hirakawa Industry Co., Ltd. from 1994 to 2012. Mr. Hirakawa received a bachelor's degree in Spanish from Osaka University.

Any director wishing to enter into a transaction with Shinhan Financial Group or any of its subsidiaries in his or her personal capacity is required to obtain the prior approval of our board of directors. The director having an interest in the transaction may not vote at the meeting of our board of directors at which the relevant transaction is subject to vote for approval.

Executive Officers

In addition to the executive directors who are also our executive officers, we currently have the following executive officers.

Name	Date of Birth	Position	In Charge of
Yi Sunny	Mar. 25, 1962	Deputy President and Chief Digital Officer	Digital Strategy Team
Jang Dong-ki	Jan. 2, 1964	Deputy President	Global Markets & Securities Business Group
Jeong Woon-jin	Apr. 20, 1964	Deputy President	Global Investment Banking Business Group
Lee Byeong-cheol	Jan. 22, 1963	Deputy President and Chief Public Relations Officer	Brand Strategy Division
Jeong Jiho	Jun. 25, 1963	Deputy President	Global Business Management Group
Wang Mi-hwa	Oct. 5, 1964	Deputy President	Wealth Management Planning Group
Roh Yong-hoon	Mar. 16, 1964	Deputy President and Chief Financial Officer	Finance Management Team Accounting Team Investor Relations Team Internal Control on Financial Reporting Team
An Hyo-ryul	May 26, 1965	Deputy President	Pension Business Group
Wang Ho-min	Mar. 4, 1964	Managing Director and Chief Compliance Officer	Compliance Team
Lee Een-kyoon	Apr. 1, 1967	Managing Director and Chief Operation Officer	Shinhan Leadership Center Management Support Team Management Innovation Team
Park Sung-hyun	Nov. 8, 1965	Managing Director and Chief Strategy & Sustainability Officer	Strategic Planning Team One Shinhan Strategy Team Business Management Team Platform Marketing Team
Bang Dong-kwon	Feb. 10, 1966	Managing Director and Chief Risk Officer	Risk Management Team Risk Model Validation Team Credit Review Team

None of the executive officers have any significant activities outside Shinhan Financial Group.

Yi Sunny has been our deputy president and chief digital officer since February 5, 2020. Mr. Yi previously served as the executive officer of Future Strategy Research Institute of Shinhan Financial Group. Before joining Shinhan Financial Group, he was a founder and CEO of Accion Consulting and Investment and had served as the global director and managing partner of Bain & Company's Seoul office. Mr. Yi received a Ph.D in business administration from Business School Lausanne and aSSIST.

Jang Dong-ki has been our deputy president since January 1, 2018. Mr. Jang previously served as Chief Financial Officer of Shinhan Financial Group and head of finance management team and managing director and head of the capital market and trading division of Shinhan Bank. Mr. Jang received a bachelor's degree in economics from Seoul National University.

Jeong Woon-jin has been our deputy president since January 1, 2019. Mr. Jeong previously served as the deputy president and head of management planning group of Shinhan Bank. Mr. Jeong received a bachelor's degree in economics from Seoul National University.

Lee Byeong-cheol has been our deputy president and chief public relations officer since January 1, 2019. Mr. Lee previously served as a managing director of Shinhan Bank. Mr. Lee received a bachelor's degree in law from Korea National Open University.

Jeong Jiho has been our deputy president since January 1, 2019. Mr. Jeong previously served as the managing director and head of global business department of Shinhan Bank and chief executive officer of Shinhan Bank Kazakhstan Ltd. Mr. Jeong received a bachelor's degree in business administration from Korea University.

Wang Mi-hwa has been our deputy president since January 1, 2019. Ms. Wang previously served as the managing director, head of wealth management department and head of Shinhan Gangnam private banking center of Shinhan Bank. Ms. Wang graduated from Busanjin Girl's Commercial High School.

Roh Yong-hoon has been our deputy president and Chief Financial Officer since January 1, 2020. Mr. Roh previously served as the head of global business division of Shinhan Bank and head of global strategy team of Shinhan Financial Group. Mr. Roh received a bachelor's degree in business administration from Yonsei University.

An Hyo-ryul has been our deputy president since June 1, 2020. Mr. An previously served as a managing director and the head of management planning and consumer protection group of Shinhan Bank. Mr. An received a bachelor's degree in business administration from Korea University.

Wang Ho-min has been our managing director and chief compliance officer since January 1, 2019. Mr. Wang previously served as the branch manager of Southern Jam-sil branch, Seoul southern district court branch and head of corporate culture development team. Mr. Wang received a bachelor's degree in law from Hankuk University of Foreign Studies.

Lee Een-kyoon has been our managing director and chief operation officer since January 1, 2019. Mr. Lee previously served as the head of management support team and head of secretary's office of Shinhan Bank. Mr. Lee received a bachelor's degree in English literature from Hanyang University.

Park Sung-hyun has been our managing director and chief strategy & sustainability officer since January 1, 2020. Mr. Park previously served as the head of strategic planning team of Shinhan Financial Group. Mr. Park received a master of laws from Northwestern University and bachelor's degree in economics from Seoul National University.

Bang Dong-kwon has been our managing director and chief risk officer since January 1, 2020. Mr. Bang previously served as the head of risk management department of Shinhan Bank. Mr. Bang received a bachelor's degree in English language and literature from Sung Kyun Kwan University.

There are no family relationships among our directors and/or executive officers.

ITEM 6.B. Compensation

The aggregate remuneration and benefits-in-kind paid by us to our chairman, our executive directors, our non-executive directors and our executive officers for the year ended December 31, 2019 was ₩3.7 billion, consisting of ₩2.8 billion in salaries and wages and ₩0.9 billion in bonus payments.

We do not have service contracts with any of our directors or executive officers providing for benefits upon termination of their employment with us. We do not pay any severance payment to our chairman or directors upon their retirement, but we pay fixed sums of severance payment to other members of senior management pursuant to internal guidelines on severance payments to members of senior management. In 2019, we accrued ₩0.1 billion for retirement bonus.

Prior to April 1, 2010, we granted stock options to our chairman, our president and chief executive officer and other directors and executive officers. Effective April 1, 2010, we ceased granting stock options. On March 18, 2015, the exercise period for all outstanding stock options expired, except for a limited number of stock options for which exercise of such stock options (and hence the expiration of the exercise period as well) were suspended by a resolution of the board of directors in December 2010. In May 2017 and September 2017, by a resolution of the board of directors, we lifted such suspension for a portion of the stock options. As of December 31, 2019, we have no stock options that remain unexercisable. We did not record any accrued expense for stock options in 2019.

During the period from March 20, 2007 to December 31, 2013, we granted "performance units" to certain high-ranking officers of select group companies. These performance units are performance-based cash compensation, the per-unit value of which is initially determined at the time of grant subject to adjustment after a fixed number of years based on the operating and financial performance of the relevant group company over the same or another fixed term, at the end of which a cash amount equal to the adjusted number of the performance units is paid out. For performance units granted prior to April 1, 2010, the performance review period was three years, and the payout was made at the end of the three-year term. For performance units granted on or after April 1, 2010 until December 31, 2013, the applicable performance review period is generally four years (and to a limited extent, five years), and the payment is made at the end of such four- or five-year term. We ceased granting performance units since January 1, 2014.

Since April 1, 2010, we have also granted "performance shares" to certain high-ranking officers of select group companies. The performance shares are conceptually similar to the performance units granted since April 1, 2010, in that the number of performance shares is based on the operating and financial performance of the relevant group company, except that the number of performance shares granted is adjusted on the basis of movements in the market price of our shares. The aggregate amount of performance shares granted to a given grantee is generally equal to the expected incentive compensation payable to such grantee for three years (in the case of performance shares granted prior to January 1, 2014) and one year (in the case of performance shares granted since January 1, 2014) of service starting from the grant date, which initial amount is computed based on the expected performance of the grantee's company and the expected price movements of our shares over the applicable adjustment period, which is generally four years (and to a limited extent, five years). The performance shares are paid out in cash at the end of the applicable adjustment period (even if employment is terminated prior to such date), and the grantee is contractually and in accordance with our internal regulations required to use the payout solely to purchase our shares in the market at the then-prevailing market price (in the case of performance shares granted prior to January 1, 2014).

Neither performance units nor performance shares have been granted to outside directors. In 2019, we recognized no accrued expenses for performance units and ₩10 billion as accrued expenses for performance shares.

Under the Financial Supervisory Service's standards for preparing corporate disclosure forms, which standards were amended in December 2016, we are required to disclose in our Korean annual report the individual annual compensation (including stock options) paid by us to our directors and statutory auditors if the individual annual compensation for such persons is ₩500 million or greater.

In 2019, Cho Yong-byoung, our Chairman and Chief Executive Officer, received ₩1,260 million, consisting of salary and wages. In addition, in 2019 Mr. Cho was granted 22,178 performance shares. The exercisability of these performance shares will be determined based on a review of our business performance and share price movements during a four-year period beginning with the fiscal year in which such shares were granted.

ITEM 6.C. Board Practices

Board of Directors

Our board of directors, which currently consists of one executive director, two non-executive directors and ten outside directors, has the ultimate responsibility for the management of our affairs.

Our Articles of Incorporation provide for no less than three but no more than 15 directors, the number of outside directors must be more than 50% of the total number of directors, and we must maintain at least three outside directors. All directors are elected for a term not exceeding three years as determined by the shareholders' meeting, except that outside directors are elected for a term not exceeding two years, provided that the term of re-election shall not exceed one year and the term cannot be extended in excess of six years. The aggregate term served as an outside director of us or any of our subsidiaries shall not exceed nine years.

Terms are renewable and are subject to the Korean Commercial Code, the Financial Holding Companies Act, the Act on Corporate Governance of Financial Companies and related regulations. See "Item 6.A. Directors and Senior Management" above for information concerning the terms of office of our directors and executive officers.

Our board of directors meets on a regular basis to discuss and resolve material corporate matters. Additional extraordinary meetings may also be convened at the request of the chairman and chief executive officer or a director designated by the board.

Currently, there are no outstanding service contracts between any of our directors or executive officers and us or any of our subsidiaries providing for benefits upon termination of employment by such director or executive officer.

Committees of the Board of Directors

We currently have eight management committees that serve under the board:

- the Board Steering Committee;
- the Risk Management Committee;
- the Audit Committee;
- the Remuneration Committee;
- the Outside Director Recommendation Committee;
- the Audit Committee Member Recommendation Committee;
- the Corporate Governance and Chief Executive Officer Recommendation Committee; and
- the Corporate Social Responsibility Committee.

Each committee member is appointed by the board of directors, except for members of the Audit Committee, who are elected at the general meeting of shareholders.

Board Steering Committee

The Board Steering Committee currently consists of four directors, namely Cho Yong-byoung, Park Cheul, Hirakawa Yuki and Park Ansoon. The committee is responsible for ensuring the efficient operations of the board and the facilitation of the board's functions. The committee's responsibilities also include reviewing and assessing the board's structure and the effectiveness of that structure in fulfilling the board's fiduciary responsibilities. The committee holds regular meetings every quarter.

Risk Management Committee

The Risk Management Committee currently consists of three outside directors, namely Byeon Yang-ho, Park Cheul and Huh-Yong-hak. The committee oversees and makes determinations on all issues relating to our comprehensive risk management function. In order to ensure our stable financial condition and to maximize our profits, the committee monitors our overall risk exposure and reviews our compliance with risk policies and risk limits. In addition, the committee reviews risk and control strategies and policies, evaluates whether each risk is at an adequate level, establishes or abolishes risk management divisions, reviews risk-based capital allocations, and reviews the plans and evaluation of internal control. The committee holds regular meetings every quarter.

Audit Committee

The Audit Committee currently consists of three outside directors, namely Yoon Jaewon, Sung Jae-ho and Lee Yoon-jae. The committee oversees our financial reporting and approves the appointment of and interaction with our independent auditors and our internal audit-related officers. The committee also reviews our financial information, audit examinations, key financial statement issues and the administration of our financial affairs by the board of directors. In connection with the general meetings of stockholders, the committee examines the agenda for, and financial statements and other reports to be submitted by, the board of directors for each general meeting of stockholders. The committee holds regular meetings every quarter.

Remuneration Committee

The Remuneration Committee currently consists of three outside directors, namely Huh Yong-hak, Yoon Jaewon and Sung Jae-ho. At least one-half of the members of this committee must be outside directors and currently all members of Remuneration Committee are outside directors. This committee is responsible for reviewing and approving the management's evaluation and compensation programs. The committee meetings are called by the chairman of this committee, who must be an outside director.

Outside Director Recommendation Committee

The Outside Director Recommendation Committee currently consists of five outside directors, namely Park Cheul, Yoon Jaewon, Hirakawa Yuki, Jin Hyun-duk and Sung Jae-ho. Members of this committee will be appointed by our board of directors only to the extent necessary to recommend and nominate candidates for our outside director positions and related matters. The committee meetings are called by the chairman of this committee, who must be an outside director. This committee is responsible and authorized for: (i) establishment, review and reinforcement of policies for outside director selection, (ii) recommendation of outside director candidates for approval at the general shareholders' meeting and (iii) continual recruitment and screening of potential outside director candidates.

Audit Committee Member Recommendation Committee

The Audit Committee Member Recommendation Committee consists of only outside directors. Members of this committee must be outside directors and will be appointed by our board of directors on an as-needed basis to recommend and nominate candidates for our Audit Committee member positions and related matters. This committee recommends candidates for the members of the Audit Committee and is required to act on the basis of a two-thirds vote of the members present.

Corporate Governance and Chief Executive Officer Recommendation Committee

The Corporate Governance and Chief Executive Officer (CEO) Recommendation Committee was established in March 2012 and currently consists of seven directors, namely Park Cheul, Jin Hyun-duk, Choi Kyong-rok, Lee Yoon-jae, Byeon Yang-ho, Huh Yong-hak and Sung Jae-ho. This committee is responsible for reviewing and making recommendations in relation to the overall corporate governance of our group (including any aspects of corporate governance relating to code of ethics and other code of behavior, size of the board of directors and other matters necessary for improving our overall corporate governance structure), as well as recommendation of the nominees for the president and/or chief executive officer of our group and development, operation and review of our management succession plan, including setting the qualifications for the CEO, evaluating CEO candidate pool and recommending CEO candidates. The chairperson of the committee must be an outside director, and the incumbent CEO may be restricted from participating and voting on matters related to the CEO selection.

Corporate Social Responsibility Committee

The Corporate Social Reasonability Committee was established in March 2015 and currently consists of four directors, namely Cho Yong-byoung, Yoon Jaewon, Choi Kyong-rok and Lee Yoon-jae. This committee is responsible for setting the general corporate policy and discussing specific business agenda in relation to enhancing our role as a responsible corporate citizen.

ITEM 6.D. Employees

At the holding company level, we had 143, 156 and 157 regular employees as of December 31, 2017, 2018 and 2019, respectively, almost all of whom are employed within Korea. Our subsidiaries had 21,262, 20,971 and 19,850 regular employees as of December 31, 2017, 2018 and 2019, respectively, almost all of whom are employed within Korea. In addition, we had six, seven and seven non-regular employees at the holding company level as of December 31, 2017, 2018 and 2019, respectively, and 1,540, 1,490 and 2,190 non-regular employees at the subsidiary level as of December 31, 2017, 2018 and 2019, respectively. Of the total number of regular and non-regular employees at both the holding company and subsidiaries, approximately 0.48% were managerial or executive employees.

9,464 employees of Shinhan Bank and 339 employees of Jeju Bank were members of the Korean Financial Industry Union as of December 31, 2019. 2,185 employees of Shinhan Card were members of the Korean Federation of Clerical and Financial Labor Union as of December 31, 2019. 1,526 employees of Shinhan Investment, 1,061 employees of Shinhan Life Insurance and 486 employees of Orange Life Insurance were members of the Korea Finance & Service Workers' Union as of December 31, 2019.

Under Korean law, we may not terminate full time employees except under limited circumstances.

Since our acquisition of Chohung Bank in 2003, we have not experienced any general employee work stoppages and consider our employee relations to be good.

Under the Korean National Pension Law, we annually contribute an amount equal to 4.5% of employee wages, and each employee contributes 4.5% of his or her wages, to the National Pension Management Corporation. In addition, pursuant to the Employee Retirement Security Act, we operate a retirement pension system under which we make annual contributions to pension funds managed by financial institutions (which replaced our former retirement pension system under which we managed the pension fund in-house) that provide employees both regular pension payments and a lump sum payment upon termination of employment. We believe that our retirement pension system confers the following benefits: (1) insulation of employees from the risk of default on their pension payments as the pension funds are deposited with large financial institutions; (2) offer of varied forms of payment, i.e., regular pension payments and a lump sum payment, upon termination of employment; (3) offer to employees the option to make investment decisions for his or her individual pension account and (4) elimination of the ability of employees to cash in his or her retirement fund prematurely, thereby guaranteeing such employee a lump sum payment upon termination of employment. Under this retirement pension system, we and our subsidiaries can opt for either a defined benefit plan or a defined contribution plan, or a combination of both. Under the defined benefit plan, the amount of pension payable upon an employee's retirement is fixed in advance, and the employer is responsible for making the requisite payments to the pension fund and making investment decisions in relation to the fund assets. Under the defined contribution plan, the employee sets aside a fixed percentage or amount of his salaries to the pension fund and exercises investment decisions for his or her individual pension account. As of December 31, 2017, 2018 and 2019, we recognized liabilities for defined benefit obligations of ₩7 billion, ₩127 billion and ₩119 billion, respectively. See Note 25 of the notes to our consolidated financial statements included in this annual report.

ITEM 6.E. Share Ownership

As of April 2, 2020, the persons who are currently our directors or executive officers, as a group, beneficially held an aggregate of 932,174 shares of our common stock, representing approximately 0.19% of our outstanding common stock as of such date. None of these persons individually held more than 1% of our outstanding common stock as of such date.

Members of the employee stock ownership association have certain pre-emptive rights in relation to our shares that are publicly offered under the Financial Investment Services and Capital Markets Act. As of December 31, 2019, the employee stock ownership association owned 24,252,302 shares of our common stock.

Prior to April 1, 2010, we granted stock options to our chairman, our president and chief executive officer and other directors and executive officers. Effective April 1, 2010, we ceased granting stock options. On March 18, 2015, the exercise period for all outstanding stock options expired, except for a limited number of stock options for which exercise of such stock options (and hence the expiration of the exercise period as well) were suspended by a resolution of the board of directors in December 2010. In May 2017 and September 2017, by a resolution of the board of directors, we lifted such suspension for a portion of the stock options. As of December 31, 2019, there were no unexercisable stock options.

On February 1, 2019, we acquired a 59.15% interest in Orange Life Insurance. On January 28, 2020, we acquired the remaining interests in Orange Life Insurance by effecting a comprehensive stock exchange under Articles 360-2 of the Korean Commercial Code. As part of the comprehensive stock exchange, we transferred 980,780 shares of our common stock to Orange Life Insurance in exchange for 1,485,697 treasury shares of Orange Life Insurance held by Orange Life Insurance in accordance with the exchange ratio for the comprehensive stock exchange. Pursuant to paragraph (2) of Article 342-2 of the Korean Commercial Code, Orange Life Insurance must dispose of these shares of our common stock within six months from the acquisition date. In addition, we also transferred 5,514,807 shares of our common stock to Orange Life Insurance in exchange for 8,353,891 shares of Orange Life Insurance which were purchased by Orange Life Insurance as a result of the exercise of appraisal rights by dissenting shareholders of Orange Life Insurance. Pursuant to paragraph (1) of Article 62-2 of the Financial Holding Company Act, Orange Life Insurance must dispose of these shares of our common stock within three years from the acquisition date. The acquisition date of these shares of common stock is January 28, 2020. Such disposals may have an effect on the price of our common shares and our American depositary shares.

ITEM 7. *MAJOR SHAREHOLDERS AND RELATED PARTY TRANSACTIONS*

ITEM 7.A. Major Shareholders

The following table sets forth certain information relating to the beneficial ownership of our common shares as of December 31, 2019.

Name of Shareholder	Number of Common Shares Beneficially Owned	Beneficial Ownership (%)
National Pension Service(1)	47,063,799	9.92%
BlackRock Fund Advisors(2)	25,051,282	5.28
Shinhan Financial Group Employee Stock Ownership Association	24,252,302	5.11
BNP Paribas SA	16,826,276	3.55
Citibank, N.A. (ADR Department)	13,260,291	2.80
The Government of Singapore	12,030,695	2.54
Norges Bank	8,739,929	1.84
Samsung Asset Management.	8,285,439	1.75
Vanguard Total International Stock Index	6,799,594	1.43
People's Bank of China	5,603,568	1.18
Others	306,286,412	64.59%
Total(3)	474,199,587	100.00%

Notes:

(1) According to the filing of share ownership dated February 7, 2020, available through the Financial Supervisory Service's Data Analysis, Retrieval and Transfer System (DART), as of February 1, 2020, National Pension Service beneficially owns 47,094,821 common shares, or 9.76% beneficial ownership of the total number of shares issued as of February 1, 2020.

(2) Based on Form SC 13G filed by BlackRock, Inc. on February 6, 2020.

(3) Total number of common shares issued as of December 31, 2019. The total number of common shares increased to 482,432,493 shares as of January 28, 2020, due to the newly issued common shares in relation to a comprehensive stock exchange between Shinhan Financial Group and Orange Life Insurance.

As of December 31, 2019, the number of treasury shares held by us is 13,882,062 common shares, which do not have voting rights. Other than those listed above, no other person or entity known by us, jointly or severally, directly or indirectly own more than 1% of our issued and outstanding voting securities or otherwise exercise control or could exercise control over us. None of our shareholders have different voting rights.

As of the date hereof, our total authorized share capital is 1,000,000,000 shares, par value ₩5,000 per share.

As of December 31, 2019, the latest date on which we closed our shareholders' registry, 618 shareholders of record were notated as U.S. persons, holding in the aggregate 24.6% of our then total outstanding shares (including Citibank, N.A., as the depositary for our American depositary shares, each representing one share of our common stock effective October 15, 2012, prior to which each American depositary share represented two common shares).

ITEM 7.B. Related Party Transactions

Since the beginning of the preceding three financial years, none of our directors or officers has or had any transactions with us that are or were unusual in their nature or conditions or significant to our business, other than as set forth below and also described in Note 48 of the notes to our consolidated financial statements included in this annual report.

In December 2001, BNP Paribas acquired 4.00% of our common stock in return for an investment of approximately ₩155 billion in cash pursuant to an alliance agreement. Under the terms of the alliance agreement, for so long as BNP Paribas does not sell or otherwise transfer (except to any of its wholly-owned subsidiaries) any portion of its ownership interest in our common stock and maintains, after any issuances of new shares by us from time to time, its shareholding percentage of not less than 3.5% of our issued common stock, we are required to call a meeting of our shareholders to recommend that one nominee of BNP Paribas be elected to our board of directors. In addition, under the alliance agreement, BNP Paribas has the right to subscribe for new issuances of our common shares in the event that such new issuances would result in the dilution of the shareholding percentage of BNP Paribas below 3.5%. As of December 31, 2019, BNP Paribas held 16,826,276 shares, or 3.55%, of our total common stock.

As of December 31, 2017, 2018 and 2019, we had principal loans outstanding to our directors, executive officers and their affiliates in the principal amount of ₩3.2 billion, ₩3.3 billion and ₩4.4 billion, which were made in the ordinary course of business on substantially the same terms, including interest rate and collateral, as those prevailing at the time for comparable transactions with other persons, and did not involve more than the normal risk of collectability or present other unfavorable features.

ITEM 7.C. Interests of Experts and Counsel

Not applicable.

ITEM 8. *FINANCIAL INFORMATION*

ITEM 8.A. Consolidated Statements and Other Financial Information

See "Item 18. Financial Statements" and our consolidated financial statements included in this annual report.

Legal Proceedings

We and our subsidiaries are involved in various legal actions and regulatory proceedings arising from the normal course of business. As of December 31, 2019, we and our subsidiaries were defendants in pending lawsuits (including any government proceedings) in the aggregate claim amount of ₩257 billion, for which we recorded a provision of ₩9 billion.

In October 2018, the Financial Supervisory Service requested Shinhan Bank to submit supporting documents in connection with allegations of inadequate compliance controls. In November 2018, the Financial Supervisory Service notified Shinhan Bank of an institutional caution for alleged deficiencies in its customer due diligence. In December 2019, the Financial Supervisory Service notified Shinhan Bank of an institutional caution and imposed an administrative fine of ₩3 billion for alleged prohibited activities, including promotional activities for specified money trusts, investment solicitation for derivatives and management of trust properties. In addition, the Financial Supervisory Service conducted a comprehensive audit of Shinhan Card, together with Samsung Card and Hyundai Card, in September 2014, and in November 2015, issued an institutional warning against each of the three credit card companies based on a finding that they had illegally provided personal credit information of potential new cardholders to their credit card sales agents. The Financial Supervisory Service also imposed disciplinary actions against six Shinhan Card employees and assessed a fine of ₩6 million against Shinhan Card as well as similar sanctions against Samsung Card and Hyundai Card. In July 2018, the Financial Supervisory Service notified Shinhan Investment of an institutional warning and imposed an administrative fine of ₩852 million for alleged prohibited trading of entrusted properties. In January 2020, the Financial Supervisory Service notified Shinhan Life Insurance of an institutional caution and imposed an administrative fine of ₩266 million for allegedly omitting certain information regarding the level of expenses deducted from premiums paid when selling savings insurance products over the telephone.

It has been reported in the press that certain employees of Shinhan Bank have been indicted by the Prosecutors' Office for allegedly illegally influencing the hiring process of new employees and manipulating hiring standards for certain candidates. As of the date hereof, six current and former employees of Shinhan Bank, each of whom had occupied positions within Shinhan Bank's recruiting department between 2013 and 2016, have been indicted for alleged illegal hiring activities while they occupied such positions at Shinhan Bank. In addition to these employees, on September 17, 2018, the Prosecutors' Office also indicted our current Chairman and Chief Executive Officer, who previously served as Shinhan Bank's president, chief executive officer and executive director from March 2015 through March 2017, for alleged illegal hiring activities while he occupied such position at Shinhan Bank. On January 22, 2020, the Seoul Eastern District Court found him partially guilty on charges of influence-peddling and issued a six-month prison term, suspended for two years, which has been appealed to a higher court. No date has been set for the higher court proceedings. We believe that we have robust and fair internal procedures for hiring new employees. As part of Shinhan Bank's efforts to enhance fairness and transparency of its hiring practices, Shinhan Bank has adopted the model hiring procedures promulgated by the Korea Federation of Banks, and beginning in 2018 has established a hiring committee consisting of third-party human resources experts and internal compliance officers.

In August 2019, the Financial Supervisory Service launched an investigation into Lime Asset Management Co., Ltd. ("Lime Asset"), Korea's largest hedge fund managing approximately ₩4.1 trillion in assets as of December 31, 2019, including with regards to allegations that Lime Asset had concealed the fact that it had changed the multi-manager trade finance fund's investment method and concealed losses in their trade finance funds. Beginning in October 2019, Lime Asset suspended withdrawals from certain of its funds, freezing approximately ₩1.7 trillion in total as of the end of 2019, according to the Financial Supervisory Service. According to Financial Supervisory Service investigations, Lime Asset's ₩600 billion trade finance fund was found to have been associated with a debacle involving the International Investment Group LLC ("IIG"), a New York-based investment adviser charged with securities fraud and running a Ponzi scheme. On November 26, 2019, the SEC revoked the registration of IIG for allegedly overvaluing defaulted loans in the fund's portfolio to conceal losses in its flagship hedge fund and selling at least $60 million in fake loan assets to clients. According to the Financial Supervisory Service, Lime Asset signed a contract with a Singaporean commodity trader, which took over Lime Asset's ownership stake in an IIG fund at a discounted price in June 2019, with the Singaporean entity issuing promissory notes to Lime Asset, and Lime Asset did not properly disclose to its investors such change in the fund's investment target from the IIG fund to promissory notes. Certain investors in funds of Lime Asset have filed dispute mediation claims to the Financial Supervisory Service and criminal and civil claims against Lime Asset, as well as against financial institutions that have sold such products, claiming they learned of the change in the trade finance fund's investment method and losses only in October 2019 and that they were also misguided and not fully informed of the risks associated with these funds when investing in such products. The Financial Supervisory Service is continuing investigations into Lime Asset as well as financial institutions that have sold Lime Asset products, including Shinhan Bank and Shinhan Investment. According to the Financial Supervisory Service, as of December 31, 2019, the total amount of troubled funds sold through Korean financial institutions is approximately ₩1.67 trillion, of which Shinhan Bank sold 478 accounts in the amount of approximately ₩277 billion and Shinhan Investment sold 395 accounts in the amount of approximately ₩325 billion. In addition, in February 2020, the Prosecutors' Office of Korea announced that they have launched an investigation into Lime Asset as well as Shinhan Investment Corp. in connection with this matter. In March 2020, the Prosecutors' Office sought an arrest warrant for a former employee of Shinhan Investment Corp. for allegedly conspiring to conceal from investors Lime Asset's losses and change in investment target. The former employee was arrested on April 10, 2020. We have cooperated with the Financial Supervisory Service's investigations, including responding to Financial Supervisory Service requests during a comprehensive audit in November and December 2019.

As of the date hereof, our management believes that these proceedings will not have a material adverse effect on our financial condition, equity or results of operations. However, although we plan to rigorously defend our positions in the lawsuits or other regulatory proceedings against us, it is difficult to predict the final outcome of these proceedings and the potential impact these proceedings and related events may have on our financial condition, equity or results of operations. The total amount in dispute may increase during the course of litigation, and other lawsuits may be brought against us based on similar allegations. Accordingly, we cannot assure you that these proceedings and related events will not have an adverse effect on our business, financial condition and results of operations. For further details of these and other litigations, see Note 46 of the notes to our consolidated financial statements.

Dividend Policy

For a detailed description on the dividend policy, please see "Item 10.B. Memorandum and Articles of Incorporation — Description of Share Capital — Dividends."

ITEM 8.B. Significant Changes

Except as disclosed elsewhere in this annual report, we have not experienced any significant changes since the date of our audited consolidated financial statements included in this annual report.

ITEM 9. *THE OFFER AND LISTING*

ITEM 9.A. Offer and Listing Details

Market Prices of Common Stock and American Depositary Shares

The principal trading market for our common shares is the KRX KOSPI Market Division of the Korea Exchange, where our common shares were listed on September 10, 2001. Our American depositary shares have been listed on the New York Stock Exchange since September 16, 2003 and are identified by the symbol "SHG."

The table below sets forth, for the periods indicated, the high and low closing prices and the average daily volume of trading activity on the Korea Exchange for our common stock since 2014, and their high and low closing prices and the average daily volume of trading activity on the New York Stock Exchange for our American depositary shares since 2014.

	Korea Exchange			New York Stock Exchange		
	Closing Price per Common Stock		Average Daily Trading Volume	Closing Price per ADS		Average Daily Trading Volume
	High	Low	(Shares)	High	Low	(ADSs)
2015	46,650	39,000	968,985	42.83	32.13	84,145
2016	47,700	36,100	839,260	40.88	29.66	84,952
2017	55,400	44,800	998,487	48.76	36.81	85,658
2018	53,400	39,050	1,024,181	50.35	34.78	101,168
First Quarter	53,400	44,550	1,031,010	45.20	38.14	98,021
Second Quarter	48,400	43,000	947,591	45.35	45.35	86,258
Third Quarter	45,710	41,450	1,010,829	40.43	36.58	84,538
Fourth Quarter	46,150	39,050	1,104,717	40.68	34.78	136,552
2019	48,000	38,350	987,989	40.54	32.23	85,258
First Quarter	44,250	38,350	1,095,137	39.21	34.41	102,985
Second Quarter	48,000	43,700	940,505	40.54	37.09	76,157
Third Quarter	46,300	39,650	1,000,596	39.17	32.23	90,708
Fourth Quarter	45,800	40,900	922,144	39.62	34.19	71,657
October	44,000	40,900	776,755	37.42	34.19	73,822
November	44,950	42,650	951,797	38.30	36.67	64,230
December	45,800	43,350	1,043,667	39.62	36.33	76,595

	Korea Exchange			New York Stock Exchange		
	Closing Price per Common Stock		Average Daily Trading Volume	Closing Price per ADS		Average Daily Trading Volume
	High	Low	(Shares)	High	Low	(ADSs)
2020 (through April 24)	42,750	22,200	1,993,076	37.45	17.37	163,459
January	42,750	39,150	1,121,195	37.45	32.39	86,886
February	39,800	32,300	1,846,135	33.46	26.74	159,611
March	33,150	22,200	2,774,441	28.11	17.37	236,443
April (through April 24)	29,050	26,550	2,180,513	23.84	21.63	170,147

Source: Korea Exchange; New York Stock Exchange.

ITEM 9.B. Plan of Distribution

Not applicable.

ITEM 9.C. Markets

The Korea Exchange

Pursuant to the Korea Stock and Futures Exchange Act, as of January 27, 2005, the Korea Stock Exchange, which began its operations in 1956, the KRX KOSDAQ, which began its operation on July 1, 1996, and the Korea Futures Exchange (as an exchange operating futures market and options market), which began its operation on February 1, 1999, were unified to form the Korea Exchange.

The Korea Exchange was established in a form of a limited liability stock company in accordance with the Korean Commercial Code with the minimum paid-in capital of ₩100 billion in accordance with the Financial Investment Services and Capital Markets Act. Historically, the Korea Exchange was the only exchange authorized under the Financial Investment Services and Capital Markets Act. On May 28, 2013, however, the Financial Investment Services and Capital Markets Act was amended to implement a license system under which a license may be granted to an exchange upon satisfaction of certain requirements. In addition, the Financial Services Commission has authorized the establishment of alternative trading systems that engage in the trading of listed beneficial certificates, among other things, for a multiple number of parties through electronic means. Notwithstanding the foregoing regulatory developments, the Korea Exchange is presently the only duly licensed exchange in Korea and there have been no definitive developments regarding newly licensed exchanges or alternative trading systems in Korea. The Korea Exchange operates and supervises four market divisions, the KRX KOSPI Market Division, the KRX KOSDAQ Market Division, the KRX Futures Market Division and the KRX KONEX Market Division. It has its principal office in Busan.

As of December 31, 2019, the aggregate market value of equity securities listed on the KOSPI was approximately ₩1,475.9 trillion. The average daily trading volume of equity securities for 2019 was approximately 470.7 million shares with an average transaction value of ₩4,989.8 billion.

Even though the Financial Investment Services and Capital Markets Act prescribed that the Korea Exchange be established in a form of a limited liability stock company, the Korea Exchange is expected to play a public role as a public organization. In order to safeguard against a possible conflict, the Financial Investment Services and Capital Markets Act has placed restrictions on the ownership and operation of the Korea Exchange and any newly established exchanges approved by the Financial Services Commission as follows:

- Any person's ownership of shares in the Korea Exchange is limited to 5% or less except for an investment trust company or investment company established under the Financial Investment Services and Capital Markets Act, or the Government. However, more than 5% ownership in Korea Exchange is permitted if necessary for forming a strategic alliance with a foreign stock or futures exchange and such amount of ownership is approved by the Financial Services Commission on grounds that such ownership may contribute to the efficiency and soundness of capital markets and the distribution of shares held by shareholders;

- The number of outside directors on the board of directors of the Korea Exchange shall be more than half of the total number of directors;
- Any amendment to the Articles of Incorporation, transfer or consolidation of business, spin off, stock swap in its entirety or transfer of shares in its entirety of the Korea Exchange will receive prior approval from the Financial Services Commission; and
- In the event the Financial Services Commission determines that the chief executive officer of the Korea Exchange is not appropriate for the position, the Financial Services Commission can request the Korea Exchange upon reasonable cause, within one month from the chief executive officer's election, to dismiss the chief executive officer. Subsequently, the chief executive officer will be suspended from performing his duties and the Korea Exchange will elect a new chief executive officer within two months from the request.

The Korea Exchange has the power in some circumstances to suspend trading in the shares of a given company or to de-list a security. The Korea Exchange also restricts share price movements. All listed companies are required to file accounting reports annually, semiannually and quarterly and to release immediately all information that may affect trading in a security.

The Government has in the past exerted, and continues to exert, substantial influence over many aspects of the private sector of the Korean economy and its actions may depress or boost the stock market. In the past, the Government has informally both encouraged and restricted the declaration and payment of dividends, induced mergers to reduce what it considers excess capacity in a particular industry and induced private companies to offer publicly their securities.

The Korea Exchange publishes the Korea Composite Stock Price Index ("KOSPI") every ten seconds, which is an index of all equity securities listed on the Korea Exchange. Historical movements in KOSPI are set out in the following.

	Opening(1)	High	Low	Closing
2001	503.31	715.93	463.54	693.70
2002	698.00	943.54	576.49	627.55
2003	633.03	824.26	512.30	810.71
2004	821.26	939.52	713.99	895.92
2005	893.71	1,383.14	866.17	1,379.37
2006	1,389.27	1,464.70	1,192.09	1,434.46
2007	1,435.26	2,085.45	1,345.08	1,897.13
2008	1,853.45	1,901.13	892.16	1,124.47
2009	1,157.40	1,723.17	992.69	1,682.77
2010	1,696.14	2,051.00	1,552.79	2,051.00
2011	2,070.08	2,228.96	1,652.71	1,825.74
2012	1,826.37	2,049.28	1,769.31	1,997.05
2013	2,031.10	2,059.58	1,780.63	2,011.34
2014	1,967.19	2,082.61	1,886.85	1,915.59
2015	1,926.44	2,173.41	1,829.81	1,961.31
2016	1,918.76	2,068.72	1,835.28	2,026.46
2017	2,026.16	2,557.97	2,026.16	2,467.49
2018	2,479.65	2,598.19	1,996.05	2,041.04
2019	2,010.00	2,248.63	1,909.71	2,197.67
2020 (through April 24)	2,175.17	2,267.25	1,457.64	1,889.01

Source: Korea Exchange

Note:

(1) The figures represent the daily closing price of the first trading day of the respective year.

Shares are quoted "ex-dividend" on the first trading day of the relevant company's accounting period. "Ex-dividend" refers to a share no longer carrying the right to receive the following dividend payment because the settlement date occurs after the record date for determining which shareholders are entitled to receive dividends. "Ex-rights" refers to shares no longer carrying the right to participate in the following rights offering or bonus issuance because the settlement date occurs after the record date for determining which shareholders are entitled to new shares. The calendar year is the accounting period for the majority of listed companies, this may account for the drop in KOSPI between its closing level at the end of one calendar year and its opening level at the beginning of the following calendar year.

With certain exceptions, principally to take account of a share being quoted "ex-dividend" and "ex-rights," permitted upward and downward movements in share prices of any category of shares on any day are limited under the rules of the Korea Exchange to 30% of the previous day's closing price of the shares, rounded down as set out below:

Previous Day's Closing Price	Rounded Down to Won
Less than 1,000	1
1,000 to less than 5,000	5
5,000 to less than 10,000	10
10,000 to less than 50,000	50
50,000 to less than 100,000	100
100,000 to less than 500,000	500
500,000 or more	1,000

As a consequence, if a particular closing price is the same as the price set by the fluctuation limit, the closing price may not reflect the price at which persons would have been prepared, or would be prepared to continue, if so permitted, to buy and sell shares. Orders are executed on an auction system with priority rules to deal with competing bids and offers.

Due to deregulation of restrictions on brokerage commission rates, the brokerage commission rate on equity securities transactions may be determined by the parties, subject to commission schedules being filed with the Korea Exchange by the financial investment companies with brokerage licenses.

The number of companies listed on the KRX KOSPI Market, the corresponding total market capitalization at the end of the periods indicated and the average daily trading volume for those periods are set forth in the following table.

		Total Market Capitalization		Average Daily Trading Volume, Value		
Year	Number of Listed Companies	(Millions of Won)	(Thousands of Dollars)[1]	Thousands of Shares	(Millions of Won)	(Thousands of Dollars)[1]
2000	704	₩ 188,041,490	$ 148,414,751	306,163	₩2,602,211	$2,053,837
2001	689	255,850,070	194,784,979	473,241	1,997,420	1,520,685
2002	683	258,680,756	218,056,778	857,245	3,041,598	2,563,937
2003	684	355,362,626	298,123,008	542,010	2,216,636	1,859,594
2004	683	412,588,139	398,597,371	372,895	2,232,109	2,156,419
2005	702	655,074,595	648,588,708	467,629	3,157,662	3,126,398
2006	731	704,587,508	757,620,976	279,096	3,435,180	3,693,742
2007	746	951,917,907	1,017,223,666	363,846	5,540,151	5,920,229
2008	765	576,927,703	457,153,489	355,440	5,190,180	4,112,663
2009	770	887,935,183	763,060,356	485,657	5,795,552	4,980,495
2010	777	1,141,885,458	1,009,981,831	380,859	5,619,768	4,970,607
2011	791	1,041,999,162	899,438,206	353,760	6,863,146	5,924,166

Year	Number of Listed Companies	Total Market Capitalization (Millions of Won)	Total Market Capitalization (Thousands of Dollars)[1]	Average Daily Trading Volume, Value Thousands of Shares	Average Daily Trading Volume, Value (Millions of Won)	Average Daily Trading Volume, Value (Thousands of Dollars)[1]
2012	784	1,154,294,167	1,085,638,395	486,480	4,823,643	4,536,739
2013	777	1,185,973,724	1,123,826,139	328,325	3,993,422	3,784,158
2014	773	1,192,252,867	1,092,907,569	278,082	3,983,580	3,651,646
2015	770	1,242,832,089	1,062,885,563	455,256	5,351,734	4,576,870
2016	779	1,308,440,374	1,087,015,348	376,773	4,523,044	3,757,617
2017	774	1,605,820,912	1,504,422,814	340,457	5,325,760	4,989,470
2018	788	1,343,971,858	1,207,630,387	397,972	6,548,622	5,884,286
2019	799	1,475,909,366	1,277,290,667	470,723	4,989,807	4,318,309
2020 (through April 24)	797	1,271,159,367	1,043,816,199	933,917	9,647,344	7,921,944

Source: Korea Exchange

Note:

(1) Converted at the Noon Buying Rate at the end of the periods indicated.

The Korean securities markets are principally regulated by the Financial Services Commission and the Financial Investment Services and Capital Markets Act. The law imposes restrictions on insider trading and price manipulation, requires specified information to be made available by listed companies to investors and establishes rules regarding margin trading, proxy solicitation, takeover bids, acquisition of treasury shares and reporting requirements for shareholders holding substantial interests.

Protection of Customer's Interest in Case of Insolvency of Financial Investment Companies

Under Korean law, the relationship between a customer and a financial investment company in connection with a securities sell or buy order is deemed to be consignment and the securities acquired by a consignment agent (i.e., the securities company) through such sell or buy order are regarded as belonging to the customer in so far as the customer and the consignment agent's creditors are concerned. Therefore, in the event of a bankruptcy or reorganization procedure involving a financial investment company, the customer of the financial investment company is entitled to the proceeds of the securities sold by the financial investment company. In addition, the Financial Investment Services and Capital Markets Act recognizes the ownership of a customer in securities held by a financial investment company in such customer's account.

When a customer places a sell order with a financial investment company which is not a member of the Korea Exchange and this financial investment company places a sell order with another financial investment company which is a member of the Korea Exchange, the customer is still entitled to the proceeds of the securities sold received by the non-member company from the member company regardless of the bankruptcy or reorganization of the non-member company. Likewise, when a customer places a buy order with a non-member company and the non-member company places a buy order with a member company, the customer has the legal right to the securities received by the non-member company from the member company because the purchased securities are regarded as belonging to the customer in so far as the customer and the non-member company's creditors are concerned.

In addition, under the Financial Investment Services and Capital Markets Act, the Korea Exchange is obliged to indemnify any loss or damage incurred by a counterparty as a result of a breach by its members. If a financial investment company which is a member of the Korea Exchange breaches its obligation in connection with a buy order, the Korea Exchange is obliged to pay the purchase price on behalf of the breaching member. Therefore, the customer can acquire the securities that have been ordered to be purchased by the breaching member.

As the cash deposited with a financial investment company is regarded as belonging to the financial investment company, which is liable to return the same at the request of its customer, the customer cannot take back deposited cash from the financial investment company if a bankruptcy or reorganization procedure is instituted against the financial investment company and, therefore, can suffer from loss or damage as a result. However, the Depositor Protection Act provides that the Korea Deposit Insurance Corporation will, upon the request of the investors, pay each investor up to ₩50 million per financial institution in case of the financial investment company's bankruptcy, liquidation, cancellation of securities business license or other insolvency events. The premiums related to this insurance are paid by financial investment companies. Pursuant to the Financial Investment Services and Capital Markets Act, a financial investment company with a dealing or brokerage license is required to deposit the cash received from its customers with the Korea Securities Finance Corporation, a special entity established pursuant to the Financial Investment Services and Capital Markets Act. Set-off or attachment of cash deposits by securities companies with the Korea Securities Finance Corporation is prohibited. In addition, in the event of bankruptcy or dissolution of the financial investment company, the cash so deposited shall be withdrawn and paid to the customer prior to payment to other creditors of the financial investment company.

Restrictions Applicable to ADSs

No Korean governmental approval is necessary for the sale and purchase of our ADSs in the secondary market outside Korea or for the withdrawal of shares of our common stock underlying the ADSs and the delivery inside Korea of shares in connection with the withdrawal, provided that a foreigner who intends to acquire the shares must obtain an investment registration card from the Financial Supervisory Service as described below. The acquisition of the shares by a foreigner must be immediately reported to the governor of the Financial Services Commission, either by the foreigner or by his standing proxy in Korea.

Persons who have acquired shares of our common stock as a result of the withdrawal of shares underlying our ADSs may exercise their preemptive rights for new shares, participate in free distributions and receive dividends on shares without any further Korean governmental approval.

Under current Korean laws and regulations, the depositary is required to obtain our prior consent for the number of shares of our common stock to be deposited in any given proposed deposit that exceeds the difference between:

(1) the aggregate number of shares of our common stock deposited by us for the issuance of our ADSs (including deposits in connection with the initial issuance and all subsequent offerings of our ADSs and stock dividends or other distributions related to these ADSs); and

(2) the number of shares of our common stock on deposit with the depositary at the time of such proposed deposit. We have agreed to grant such consent to the extent that the total number of shares on deposit with the depositary would not exceed 40,432,628 at any time.

Reporting Requirements for Holders of Substantial Interests

Under the Financial Investment Services and Capital Markets Act, any person whose direct or beneficial ownership of our common stock with voting rights, whether in the form of shares of common stock or ADSs, certificates representing the rights to subscribe for shares and equity-related debt securities including convertible bonds and bonds with warrants (which we refer to collectively as "Equity Securities"), together with the Equity Securities beneficially owned by certain related persons or by any person acting in concert with the person, accounts for 5% or more of the total outstanding shares (including Equity Securities of us held by such persons) is required to report the status of the holdings and the purpose of the holdings (for example, whether intending to seek management control) to the Financial Services Commission and the Korea Exchange within five business days after reaching the 5% ownership level. In addition, any change in the ownership interest subsequent to the report that equals or exceeds 1% of the total outstanding Equity Securities or change in the purpose of the holdings is required to be reported to the Financial Services Commission and the Korea Exchange within five business days from the date of the change (within 10 days of the end of the month in which the change occurred, in the case of a person with no intent to seek management control and within 10 days of the end of the quarter in which the change occurred, in the case of an institutional investor prescribed by the Financial Services Commission).

Violation of these reporting requirements may subject a person to criminal sanctions such as administrative sanctions, fines, imprisonment and/or a loss of voting rights with respect to the portion of ownership of Equity Securities exceeding 5% of the total outstanding shares. In addition, the Financial Services Commission may order the disposal of the unreported Equity Securities. Any persons who reports management control as the purpose for its holdings is prohibited from acquiring additional shares or from exercising voting rights during the following five days following the reporting date.

In addition to the reporting requirements described above, any person whose direct or beneficial ownership of our stock accounts for 10% or more of the total issued and outstanding shares (which we refer to as a "major stockholder") must report the status of his/her shareholding to the Korea Securities Futures Commission and the Korea Exchange within five days after he/she becomes a major stockholder. In addition, any change in the ownership interest subsequent to the report must be reported to the Korea Securities Futures Commission and the Korea Exchange within five days after the change occurred, provided that the obligation to report such change shall be exempt if the number shares that changed in ownership is less than 1,000 shares and the aggregate amount of such shares that changed in ownership is less than ₩10 million. Violation of these reporting requirements may subject a person to criminal sanctions such as fines or imprisonment. Any single stockholder or persons who have a special relationship with such stockholder that jointly acquire more than 10% (4% in case of non-financial business group companies) of the voting stock of a Korean financial holding company who controls national banks will be subject to reporting or approval requirements pursuant to the Financial Holding Company Act. See "Item 4.B. Business Overview — Supervision and Regulation — Principal Regulations Applicable to Financial Holding Companies — Restrictions on Financial Holding Company Ownership."

Restrictions Applicable to Shares

Under the Foreign Exchange Transaction Laws and Financial Services Commission regulations, as amended (collectively, the "Investment Rules"), foreigners may invest, with limited exceptions and subject to procedural requirements, in all shares of Korean companies, whether listed on the Stock Market Division of the Korea Exchange or on the KOSDAQ Market Division of the Korea Exchange, unless prohibited by specific laws. Foreign investors may trade shares listed on the Stock Market Division of the Korea Exchange or on the KOSDAQ Market Division of the Korea Exchange only through the Stock Market Division of the Korea Exchange or the KOSDAQ Market Division of the Korea Exchange, except in limited circumstances, including:

- odd-lot trading of shares;
- acquisition of shares (which we refer to as "Converted Shares") by exercise of warrants, conversion rights or exchange rights under bonds with warrants, convertible bonds or exchangeable bonds or withdrawal rights under depositary receipts issued outside of Korea by a Korean company;
- acquisition of shares as a result of inheritance, donation, bequest or exercise of stockholders' rights, including preemptive rights or rights to participate in free distributions and receive dividends;
- over-the-counter transactions between foreigners of a class of shares for which the ceiling on aggregate acquisition by foreigners, as explained below, has been reached or exceeded subject to certain exceptions; and
- sale and purchase of shares at fair value between foreigners who are part of an investor group comprised of foreign companies investing under the control of a common investment manager pursuant to applicable laws or contract.

For over-the-counter transactions of shares between foreigners outside the Stock Market Division of the Korea Exchange or the KOSDAQ Market Division of the Korea Exchange for shares with respect to which the limit on aggregate foreign ownership has been reached or exceeded, a securities company licensed in Korea must act as an intermediary. Odd-lot trading of shares outside the Stock Market Division of the Korea Exchange or the KOSDAQ Market Division of the Korea Exchange must involve a licensed securities company in Korea as the other party. Foreign investors are prohibited from engaging in margin transactions with respect to shares that are subject to a foreign ownership limit.

The Investment Rules require a foreign investor who wishes to invest in shares on the Stock Market Division of the Korea Exchange or the KOSDAQ Market Division of the Korea Exchange (including Converted Shares and shares being issued for initial listing on the Stock Market Division of the Korea Exchange or on KOSDAQ Market Division of the Korea Exchange) to register its identity with the Financial Supervisory Service prior to making any such investment. The registration requirement does not, however, apply to foreign investors who acquire Converted Shares with the intention of selling such Converted Shares within three months from the date of acquisition. Upon registration, the Financial Supervisory Service will issue to the foreign investor an investment registration card, which must be presented each time the foreign investor opens a brokerage account with a securities company. Foreigners eligible to obtain an investment registration card include foreign nationals who have not been residing in Korea for a consecutive period of six months or more, foreign governments, foreign municipal authorities, foreign public institutions, international financial institutions or similar international organizations, corporations incorporated under foreign laws and any person in any additional category designated by decree of the Ministry of Strategy and Finance under the Korean Securities and Exchange Act. All Korean offices of a foreign corporation as a group are treated as a separate foreigner from the offices of the corporation outside Korea for the purpose of investment registration. However, a foreign corporation or depositary issuing depositary receipts may obtain one or more investment registration cards in its name in certain circumstances as described in the relevant regulations.

Upon a foreign investor’s purchase of shares through the Stock Market Division of the Korea Exchange or the KOSDAQ Market Division of the Korea Exchange, no separate report by the investor is required because the investment registration card system is designed to control and oversee foreign investment through a computer system. However, a foreign investor’s acquisition or sale of shares outside the Stock Market Division of the Korea Exchange or the KOSDAQ Market Division of the Korea Exchange (as discussed above) must be reported by the foreign investor or his standing proxy to the governor of the Financial Supervisory Service at the time of each such acquisition or sale. A foreign investor must ensure that any acquisition or sale by it of shares outside the Stock Market Division of the Korea Exchange or the KOSDAQ Market Division of the Korea Exchange in the case of trades in connection with a tender offer, odd-lot trading of shares, trades of a class of shares for which the aggregate foreign ownership limit has been reached or exceeded, is reported to the governor of the Financial Supervisory Service by himself or his standing proxy, or, in the case of sale and purchase of shares at fair value between foreigners, who are part of an investor group comprised of foreign companies investing under the control of a common investment manager pursuant to applicable laws or contract. A foreign investor may appoint a standing proxy from among the Korea Securities Depository, foreign exchange banks (including domestic branches of foreign banks), securities companies (including domestic branches of foreign securities companies), asset management companies, futures trading companies and internationally recognized custodians which will act as a standing proxy to exercise stockholders’ rights or perform any matters related to the foregoing activities if the foreign investor does not perform these activities himself. Generally, a foreign investor may not permit any person, other than its standing proxy, to exercise rights relating to his shares or perform any tasks related thereto on his behalf. However, a foreign investor may be exempted from complying with these standing proxy rules with the approval of the governor of the Financial Supervisory Service in cases deemed inevitable by reason of conflict between laws of Korea and the home country of the foreign investor.

Certificates evidencing shares of Korean companies must be kept in custody with an eligible custodian in Korea. Only foreign exchange banks (including domestic branches of foreign banks), securities companies (including domestic branches of foreign securities companies), the Korea Securities Depository, asset management companies, futures trading companies and internationally recognized custodians are eligible to act as a custodian of shares for a non-resident or foreign investor. A foreign investor must ensure that his custodian deposits his shares with the Korea Securities Depository. However, a foreign investor may be exempted from complying with this deposit requirement with the approval of the governor of the Financial Supervisory Service in circumstances where compliance with that requirement is made impracticable, including cases where compliance would contravene the laws of the home country of such foreign investor.

Under the Investment Rules, with certain exceptions, foreign investors may acquire shares of a Korean company without being subject to any foreign investment ceiling. As one such exception, designated public corporations are subject to a 40% ceiling on the acquisition of shares by foreigners in the aggregate. Designated public corporations may set a ceiling on the acquisition of shares by a single person in their articles of incorporation. Furthermore, an investment by a foreign investor in 10% or more of the issued and outstanding shares with voting rights of a Korean company is defined as a foreign direct investment under the Foreign Investment Promotion Act of Korea. Generally, a foreign direct investment must be reported to the Ministry of Commerce, Industry and Energy of Korea. The acquisition of shares of a Korean company by a foreign investor may also be subject to certain foreign or other shareholding restrictions in the event that the restrictions are prescribed in a specific law that regulates the business of the Korean company. For a description of such restrictions applicable to Korean banks, see "Item 4.B. Business Overview — Supervision and Regulation — Principal Regulations Applicable to Banks — Restrictions on Bank Ownership."

ITEM 9.D. Selling Shareholders

Not applicable.

ITEM 9.E. Dilution

Not applicable.

ITEM 9.F. Expenses of the Issue

Not applicable.

ITEM 10. *ADDITIONAL INFORMATION*

ITEM 10.A. Share Capital

Not applicable.

ITEM 10.B. Memorandum and Articles of Incorporation

We are a financial holding company established under the Financial Holding Company Act. As set forth in our Articles of Incorporation, our objects and purposes as a financial holding company are, among others, to operate and manage financial companies or companies engaged in similar lines of business, to provide financial support to, or investments in, our subsidiaries and to develop and jointly sell products with our subsidiaries. We are registered with the commercial registry office of Seoul Central District Court.

Our articles of incorporation, which was last amended on March 26, 2020, is annexed to this annual report as Exhibit 1.1.

Description of Share Capital

This section provides information relating to our capital stock, including brief summaries of material provisions of our Articles of Incorporation, the Korean Commercial Code, the Financial Investment Services and

Capital Markets Act, the Financial Holding Companies Act and certain related laws of Korea, all as currently in effect. The following summaries are intended to provide only summaries and are subject to the full text of the Articles of Incorporation and the applicable provisions of the Financial Investment Services and Capital Markets Act, the Korean Commercial Code, and certain other related laws of Korea.

General

As of December 31, 2019 and as of the date hereof, our authorized share capital is 1,000,000,000 shares. Our Articles of Incorporation provide that we are authorized to issue shares of preferred stock up to one-half of all of the issued and outstanding shares. Furthermore, through an amendment of the Articles of Incorporation, we have created new classes of shares in addition to the common shares and the preferred shares. As of March 31, 2020, the number of our issued and outstanding common shares was 482,432,493.

On January 25, 2007, we issued 28,990,000 Series 10 redeemable preferred shares and 14,721,000 Series 11 redeemable convertible preferred shares as part of our funding for the acquisition of LG Card, all of which were redeemed on January 25, 2012.

On April 21, 2011, as part of funding for partial redemption of the Series 10 redeemable preferred stock and the Series 11 redeemable convertible preferred stock, we issued 11,100,000 shares of the Series 12 non-voting redeemable preferred stock, all of which were redeemed on April 21, 2016.

On May 1, 2019, as part of funding for the acquisition of Orange Life Insurance, we issued 17,482,000 shares of non-voting convertible preferred stock through third-party allotment at a price of ₩42,900. In addition, we issued 8,232,906 shares of common stock in relation to a comprehensive stock exchange between Shinhan Financial Group and Orange Life Insurance on January 28, 2020. See "— Description of Preferred Stock."

All of the issued and outstanding shares are fully-paid and non-assessable, and are in registered form. As of March 31, 2020, our authorized but unissued share capital was 347,969,943 shares. We may issue the unissued shares without further shareholder approval but subject to a board resolution as provided in the Articles of Incorporation. See "— Distribution of Free Shares." Share certificates are issued in denominations of one, five, ten, 50, 100, 500, 1,000 and 10,000 shares. The par value of our common shares per share is ₩5,000.

Dividends

Dividends are distributed to shareholders in proportion to the number of shares of the relevant class of capital stock owned by each shareholder following approval by the shareholders at an annual general meeting of shareholders. We pay full annual dividends on newly issued shares (such as the common shares representing the American depositary shares ("ADSs")) for the year in which the new shares are issued. We declare our dividend annually at the annual general meeting of shareholders which is held within three months after the end of the fiscal year. Once declared, the annual dividend must be paid to the stockholders of record as of the end of the preceding fiscal year within one month after the annual general meeting unless otherwise resolved thereby. Annual dividends may be distributed either in (i) cash or (ii) shares provided that shares must be distributed at par value and, if the market price of the shares is less than their par value, dividends in shares may not exceed one-half of the total annual dividends (including dividends in shares). In addition to the annual dividend, we may also distribute cash dividends to the stockholders of record as of the end of March, June and September of each year upon a resolution by the board of directors. Under the Korean Commercial Code we do not have an obligation to pay any annual dividend unclaimed for five years from the scheduled payment date.

In addition, under the Korean Commercial Code and our Articles of Incorporation, we may pay interim dividends once during each fiscal year (in addition to the annual dividends). Interim dividends may be paid upon the resolution of the board of directors and are not subject to shareholder approval. The interim dividends, if any, will be paid to the shareholders of record at 12:00 a.m. midnight, July 1 of the relevant fiscal year in cash. Under the Korean Commercial Code, an interim dividend may not be more than the net assets on the balance sheet of the immediately preceding fiscal period, after deducting (i) the capital of the immediately preceding fiscal period, (ii) the sum of the capital reserve and legal reserve accumulated up to the immediately preceding fiscal period, (iii) the amount of earnings for dividend payment approved at the general shareholders' meeting of the immediately preceding fiscal period, (iv) other special reserves accumulated up to the immediately preceding fiscal period, either pursuant to the provisions of our Articles of Incorporation or to the resolution of the general meeting of shareholders, and (v) amount of legal reserve that should be set aside for the current fiscal period following the interim dividend payment.

Under the Financial Holding Companies Act and the regulations thereunder, a financial holding company may not pay an annual dividend unless it has set aside as its legal reserve an amount equal to at least one-tenth of its net income after tax and shall set aside such amount as its legal reserve until its legal reserve reaches at least the aggregate amount of its stated capital.

Other than as set forth above and the dividend rights granted to preferred shareholders as further described in "— Description of Preferred Stock," our articles of incorporation do not provide special rights to our common or preferred shareholders to share in our profits. For information regarding Korean taxes on dividends, see "Item 10.E. Taxation — Korean Taxation."

Distribution of Free Shares

In addition to permitting dividends in the form of shares to be paid out of retained or current earnings, the Korean Commercial Code permits a company to distribute to its shareholders, in the form of free shares, an amount transferred from the capital surplus or legal reserve to stated capital. These free shares must be distributed to all of the shareholders pro rata. Our Articles of Incorporation require the same types of preferred shares to be distributed to the holders of preferred shares in case of distribution of free shares. For information regarding the treatment under Korean tax laws of free share distributions, see "Item 10.E. Taxation — Korean Taxation — Taxation of Dividends on Shares of Common Stock or American Depositary Shares."

Preemptive Rights and Issuance of Additional Shares

Unless otherwise provided in the Korean Commercial Code, a company may issue authorized but unissued shares at such times and upon such terms as the board of directors of the company may determine. The company must offer the new shares on uniform terms to all shareholders who have preemptive rights and who are listed on the shareholders' register as of the record date. Our shareholders are entitled to subscribe for any newly issued shares in proportion to their existing shareholdings. However, as provided in the Articles of Incorporation, we may issue new shares by resolution of board of directors to persons other than existing shareholders if those shares are (1) publicly offered (where the number of such shares so offered may not exceed 50% of our total number of issued and outstanding shares); (2) preferentially allocated to the members of the ESOA pursuant to relevant provisions of the Financial Investment Services and Capital Markets Act; (3) issued for the purpose of issuing depositary receipts pursuant to relevant provisions of the Financial Investment Services and Capital Markets Act (where the number of such shares so issued may not exceed 50% of our total number of issued and outstanding shares); (4) issued to directors or employees as a result of exercise of stock options we granted to them pursuant to the Korean Commercial Code; (5) issued to a financial investment company, a private equity fund or a special purpose company under the Financial Investment Services and Capital Markets Act; or (6) issued to any specified foreign investors, foreign or domestic financial institutions or alliance companies for operational needs such as introduction of advanced financial technology, improvement of its or subsidiaries' financial structure and funding or strategic alliance (where such number of shares so issued may not exceed 50% of our total number of issued and outstanding shares). Under the Korean Commercial Code, a company may vary, without stockholders' approval, the terms of such preemptive rights for different classes of shares. Public notice of the preemptive rights to new shares and the transferability thereof must be given not less than two weeks (excluding the period during which the shareholders' register is closed) prior to the record date. We will notify the shareholders who are entitled to subscribe for newly issued shares of the deadline for subscription at least two weeks prior to the deadline. If a shareholder fails to subscribe on or before such deadline, the shareholder's preemptive rights will lapse. Our board of directors may determine how to distribute shares in respect of which preemptive rights have not been exercised or where fractions of shares occur. Under the Financial Investment Services and Capital Markets Act, if a listed company intends to issue new shares by way of allotment to shareholders, it must issue a certificate of preemptive right to the newly issued shares. Furthermore, the company must list the newly issued shares on the Korea Exchange for a certain period of time or designate a securities company to broker and/or deal in such newly issued shares in order to ensure that they are properly distributed. In the event certain shareholder forfeit their right to subscribe to newly issued shares, the company may allot the forfeited shares to a third party under certain conditions, including in relation to the purchase price of such shares, although in principle, the company must withdraw the forfeited shares. Under the Korean Commercial Code, when a company issues new shares by way of allotment to a third party, such company must notify its stockholders or make public notice of the conditions and other details of such new shares not less than two weeks prior to the relevant subscription payment date. Under the Financial Investment Services and Capital Markets Act, however, a listed company may substitute such notification or public notice by disclosing the material fact in a report publicly filed with the listing authorities.

Under the Financial Investment Services and Capital Markets Act, members of a company's employee stock ownership association, whether or not they are shareholders, have a preemptive right, subject to certain exceptions, to subscribe for up to 20% of the shares publicly offered pursuant to the Financial Investment Services and Capital Markets Act. However, this right is exercisable only to the extent that the total number of shares so acquired and held by such members does not exceed 20% of the total number of shares to be newly issued and shares then outstanding. As of December 31, 2019, the employee stock ownership association owned 24,252,302 shares, or 5.11%, of our common stock.

General Meeting of Shareholders

There are two types of general meetings of shareholders: annual general meetings and extraordinary general meetings. We are required to convene our annual general meeting within three months after the end of each fiscal year. Subject to a board resolution or court approval, an extraordinary general meeting of shareholders may be held when necessary or at the request of our Audit Committee. In addition, under the Korean Commercial Code, an extraordinary general meeting of shareholders may be held at the request of the shareholders holding shares for at least six months of an aggregate of 1.5% or more of the outstanding shares with voting rights of the listed company, subject to a board resolution or court approval. Furthermore, under the Act on the Corporate Governance of Financial Companies of Korea and its sub-regulations, an extraordinary general meeting of shareholders may be held at the request of the shareholders holding shares for at least six months of an aggregate of 1.5% (0.75% in the case of a financial holding company (i) whose total assets at the end of the latest fiscal year is ₩5 trillion or more and (ii) who is in control of two or more subsidiaries, each with total assets of ₩2 trillion or more) or more of the outstanding shares of the company, subject to a board resolution or court approval. Meeting agendas are determined by the board of directors or proposed by holders of an aggregate of 3% or more of the outstanding shares with voting rights by way of a written proposal to the board of directors at least six weeks prior to the meeting. In addition, under the Korean Commercial Code, the meeting agenda may be proposed by the shareholders holding shares for at least six months of an aggregate of 1% (0.5% in the case of a listed company whose capital at the end of the latest operating year is ₩100 billion or more) or more of the outstanding shares of the listed company. Furthermore, under the Act on the Corporate Governance of Financial Companies and its sub-regulations, the meeting agenda may be proposed by the shareholders holding shares for at least six months of an aggregate of 0.1%. Written notices stating the date, place and agenda of the meeting must be given to the shareholders at least two weeks prior to the date of the general meeting of shareholders; provided, that, notice may be given to holders of 1% or less of the total number of issued and outstanding shares which are entitled to vote, by placing at least two public notices at least two weeks in advance of the meeting in at least two daily newspapers or by using an electronic method defined under the Korean Commercial Code and related regulations at least two weeks in advance of the meeting. Currently, we use *The Korea Economic Daily* and *Maeil Business Newspaper* for the publication of such notices. Shareholders who are not on the shareholders' register as of the record date are not entitled to receive notice of the general meeting of shareholders, and they are not entitled to attend or vote at such meeting.

The general meeting of shareholders is held at our executive office (which is our registered executive office) or, if necessary, may be held anywhere in the vicinity of our executive office.

Voting Rights

Holders of common shares are entitled to one vote for each share. However, voting rights with respect to common shares that we hold and common shares that are held by a corporate shareholder, more than one-tenth of the outstanding capital stock of which is directly or indirectly owned by such shareholder, may not be exercised. Unless stated otherwise in a company's Articles of Incorporation, the Korean Commercial Code permits holders of an aggregate of 3% (1%, in case of a company whose total assets as at the end of the latest fiscal year is ₩2 trillion or more) or more of the outstanding shares with voting rights to request cumulative voting when electing two or more directors. Our Articles of Incorporation currently do not prohibit cumulative voting. In addition, under the Korean Commercial Code, in case of appointment of an audit committee member who is an outside director, any shareholder holding more than 3% of the outstanding shares with voting rights shall not exercise its voting rights with respect to any portion of its shares exceeding the 3% limit; and in case of appointment of an audit committee member who is a non-outside director, the largest shareholder (together with certain related persons) holding more than 3% of the outstanding shares with voting rights shall not exercise its voting rights with respect to any portion of its shares exceeding the 3% limit.

The Korean Commercial Code and our Articles of Incorporation provide that an ordinary resolution may be adopted if approval is obtained from the holders of at least a majority of those common shares present or represented at such meeting and such majority also represents at least one-fourth of the total of our issued and outstanding common shares. Holders of non-voting shares (other than enfranchised non-voting shares) are not entitled to vote on any resolution or to receive notice of any general meeting of shareholders unless the agenda of the meeting includes consideration of a resolution on which such holders are entitled to vote. The Korean Commercial Code provides that a company's articles of incorporation may prescribe conditions for enfranchisement of non-voting shares. For example, if our general shareholders' meeting resolves not to pay to holders of preferred shares the annual dividend as determined by the board of directors at the time of issuance of such shares, the holders of preferred shares will be entitled to exercise voting rights from the general shareholders' meeting immediately following the meeting adopting such resolution until the end of the meeting to declare to pay such dividend with respect to the preferred shares. Holders of such enfranchised preferred shares have the same rights as holders of common shares to request, receive notice of, attend and vote at a general meeting of shareholders.

The Korean Commercial Code provides that to amend the Articles of Incorporation (which is also required for any change to the authorized share capital of the company) and in certain other instances, including removal of a director of a company, dissolution, merger or consolidation of a company, transfer of the whole or a significant part of the business of a company, acquisition of all of the business of any other company or issuance of new shares at a price lower than their par value, a special resolution must be adopted by the approval of the holders of at least two-thirds of those shares present or represented at such meeting and such special majority must also represent at least one-third of the total issued and outstanding shares with voting rights of the company.

In addition, in the case of amendments to the Articles of Incorporation or any merger or consolidation of a company or in certain other cases which affect the rights or interest of the shareholders of the preferred shares, a resolution must be adopted by a separate meeting of shareholders of the preferred shares. Such a resolution may be adopted if the approval is obtained from shareholders of at least two-thirds of the preferred shares present or represented at such meeting and such preferred shares also represent at least one-third of the total issued and outstanding preferred shares of the company.

A shareholder may exercise his voting rights by proxy given to another shareholder. If a particular shareholder intends to obtain proxy from another shareholder, a reference document specified by the Financial Supervisory Service must be sent to the shareholder giving proxy, with a copy furnished to the company's executive office or the branch office, transfer agent and the Financial Services Commission. The proxy must present the power of attorney prior to the start of the general meeting of shareholders.

Rights of Dissenting Shareholders

Pursuant to the Financial Investment Services and Capital Markets Act, in certain limited circumstances (including, without limitation, if we transfer all or any significant part of our business or if we merge or consolidate with another company), dissenting holders of shares have the right to require us to purchase their shares. Pursuant to the Financial Holding Companies Act, the Financial Investment Services and Capital Markets Act and the Korean Commercial Code, if a financial holding company acquires a new direct or indirect subsidiary through the exchange or transfer of shares except in limited circumstances, the dissenting holders of such shares have the right to require us to purchase their shares. To exercise such a right, shareholders must submit to us a written notice of their intention to dissent prior to the general meeting of shareholders. Within 20 days (or 10 days under certain circumstances according to the Financial Holding Companies Act) after the date on which the relevant resolution is passed at such meeting, such dissenting shareholders must request in writing that we purchase their shares. We are obligated to purchase the shares of dissenting shareholders within one month after the end of such request period at a price to be determined by negotiation between the shareholder and us. If we cannot agree on a price with the shareholder through such negotiations, the purchase price will be the arithmetic mean of (1) the weighted average of the daily closing share prices on the KRX KOSPI Market of the Korea Exchange for two months prior to the date of the adoption of the relevant board of directors' resolution, (2) the weighted average of the daily closing share prices on the KRX KOSPI Market of the Korea Exchange for one month prior to the date of the adoption of the relevant board of directors' resolution and (3) the weighted average of the daily closing share prices on the KRX KOSPI Market of the Korea Exchange for one week prior to the date of the adoption of the relevant board of directors' resolution. If we or the dissenting shareholder who requested purchase of their shares do not accept such purchase price, we or the shareholder may request to the court to adjust such purchase price.

Register of Shareholders and Record Dates

We maintain the register of our shareholders at our transfer agent's office in Seoul, Korea. The Korea Securities Depository as our transfer agent, registers transfers of shares on the register of shareholders upon presentation of the share certificates.

The record date for annual dividends is December 31. For the purpose of determining the holders of shares entitled to annual dividends, the register of shareholders may be closed for the period from January 1 of each year up to January 15 of such year. Further, the Korean Commercial Code and the Articles of Incorporation permit us upon at least two weeks' public notice to set a record date and/or close the register of shareholders for not more than three months for the purpose of determining the shareholders entitled to certain rights pertaining to the shares. The trading of shares and the delivery of certificates in respect thereof may continue while the register of shareholders is closed.

Other Shareholder Rights

Our articles of incorporation do not have sinking fund provisions or provisions creating liability to further capital calls. Other than to amend our articles of incorporation in accordance with the Korean Commercial Code, no particular action is necessary to change the rights of holders of our capital stock. In addition, our articles of incorporation do not have specific provisions for governing changes in capital or which would have an effect of delaying, deferring or preventing a change in control of us and that would operate only with respect to a merger, acquisition or corporate restructuring involving us or any of our subsidiaries.

Directors

Under the Korean Commercial Code and our articles of incorporation, any director wishing to enter into a transaction with us or our subsidiaries in his or her personal capacity is required to obtain the prior approval of the board of directors, and any director having an interest in the transaction may not vote at the meeting of the board of directors to approve the transaction.

Neither our articles of incorporation nor applicable Korean laws have provisions relating to (i) the directors' power, in the absence of an independent quorum, to vote compensation to themselves or any members of their body (ii) borrowing powers exercisable by the directors and how such borrowing powers can be varied; (iii) retirement or non-retirement of directors under an age limit requirement; or (iv) the number of shares required for a director's qualification.

Description of Preferred Stock

On January 25, 2007, as part of funding our acquisition of LG Card, we issued 28,990,000 Series 10 non-voting redeemable preferred shares. On January 25, 2012, we redeemed all of the Series 10 preferred shares.

On January 25, 2007, as part of funding our acquisition of LG Card, we issued 14,721,000 Series 11 non-voting redeemable convertible preferred shares. On January 25, 2012, we redeemed all of the Series 11 preferred shares.

On April 21, 2011, as part of funding for preferred stocks due to be redeemed in January 2012, we issued 11,100,000 Series 12 non-voting redeemable preferred shares for the subscription price of ₩100,000 per share, or ₩1,110 billion in the aggregate. On April 21, 2016, we redeemed all of the Series 12 redeemable preferred shares.

On May 1, 2019, as part of funding for the acquisition of Orange Life Insurance, we issued 17,482,000 shares of non-voting convertible preferred stock through third-party allotment at a price of ₩42,900.

Annual Report

Under the Financial Investment Services and Capital Markets Act, we must file with the Financial Services Commission and the Korea Exchange an annual business report (containing audit report and audited annual nonconsolidated and consolidated financial statements) within 90 days after the end of our fiscal year as well as a semiannual business report within 45 days after the end of the first six months of our fiscal year and quarterly business reports within 45 days after the end of the first three months and nine months of our fiscal year, respectively (in each case, containing review report and reviewed interim nonconsolidated and consolidated financial statements). Copies of such reports are available for public inspection at the websites of the Financial Services Commission and the Korea Exchange.

Transfer of Shares

Under the Korean Commercial Code, the transfer of shares is effected by the delivery of share certificates. In order to exercise shareholders' rights, the transferee must have his name and address registered on the registry of shareholders. For this purpose, shareholders are required to file with us their name, address and seal. Nonresident shareholders must notify us of the name of their proxy in Korea to which our notice can be sent. Under the Financial Services Commission regulations, nonresident shareholders may appoint a standing proxy and may not allow any person other than the standing proxy to exercise rights regarding the acquired share or perform any task related thereto on his behalf, subject to certain exceptions. Under current Korean regulations, the Korea Securities Depository, foreign exchange banks (including domestic branches of foreign banks), financial investment companies with a dealing, brokerage or collective investment license and internationally recognized custodians are authorized to act as standing proxy and provide related services. Certain foreign exchange controls and securities regulations apply to the transfer of shares by nonresidents or non-Koreans. See "Item 10.D. Exchange Controls." As to the ceiling on the aggregate shareholdings of a single shareholder and persons who have a special relationship with such shareholder, please see "Item 4.B. Business Overview — Supervision and Regulation — Principal Regulations Applicable to Financial Holding Companies — Restrictions on Financial Holding Company Ownership."

Acquisition of Treasury Shares

Under the Korean Commercial Code, we may acquire our own shares upon resolution of the general meeting of the shareholders or resolution of the board of directors pursuant to Article 165-3 of the Financial Investment Services and Capital Markets Act by either (i) purchasing them on a stock exchange or (ii) purchasing a number of shares, other than the redeemable shares as set forth in Article 345, Paragraph (1) of the Korean Commercial Code, from each shareholder in proportion to its existing shareholding ratio through the methods set forth in the Presidential Decree, provided that the total purchase price does not exceed the amount of our profit that may be distributed as dividends in respect of the immediately preceding fiscal year. In addition, pursuant to the Financial Investment Services and Capital Markets Act and regulations under the Financial Holding Companies Act, we may purchase our own shares on the KRX KOSPI Market of the Korea Exchange, through a tender offer, or through a trust agreement with a trust company, or retrieve our own shares from a trust company upon termination of a trust agreement, subject to the restrictions that (1) the aggregate purchase price of such shares may not exceed the total amount available for distribution of dividends at the end of the preceding fiscal year less the amounts of dividends and reserves for such fiscal year, subtracted by the sum of (a) the purchase price of treasury stock acquired if any treasury stock has been purchased after the end of the preceding fiscal year pursuant to the Commercial Act or the Financial Investment Services and Capital Markets Act, (b) the amount subject to trust agreements, and (c) the amount of dividends approved at the ordinary general shareholders' meeting after the end of the preceding fiscal year and the amount of retained earnings reserve required under the Commercial Act; plus if any treasury stock has been disposed of after the end of the preceding fiscal year, the acquisition cost of such treasury stock and (2) the purchase of such shares shall meet the requisite capital ratio under the Financial Holding Companies Act and the guidelines issued by the Financial Services Commission. In general, under the Financial Holding Companies Act, our subsidiaries are not permitted to acquire our shares.

Liquidation Rights

In the event we are liquidated, the assets remaining after the payment of all debts, liquidation expenses and taxes will be distributed to shareholders in proportion to the number of shares held by such shareholders. Holders of preferred shares may have preferences over holders of common shares in liquidation.

ITEM 10.C. Material Contracts

None.

ITEM 10.D. Exchange Controls

General

The Foreign Exchange Transaction Act of Korea the related Presidential Decree and the regulations under such Act and Decree (collectively the "Foreign Exchange Transaction Laws") herein, regulate investment in Korean securities by nonresidents and issuance of securities by Korean companies outside Korea. Under the Foreign Exchange Transaction Laws, nonresidents may invest in Korean securities only to the extent specifically allowed by these laws or otherwise permitted by the Ministry of Strategy and Finance of Korea. The Financial Services Commission has also adopted, pursuant to its authority under the Financial Investment Services and Capital Markets Act, regulations that restrict investment by foreigners in Korean securities and regulate issuance of securities by Korean companies outside Korea.

Under the Foreign Exchange Transaction Laws, (1) if the Government determines that it is inevitable due to the outbreak of natural calamities, wars, conflict of arms or grave and sudden changes in domestic or foreign economic circumstances or other situations equivalent thereto, the Ministry of Strategy and Finance may temporarily suspend payment, receipt or the whole or part of transactions to which the Foreign Exchange Transaction Laws apply, or impose an obligation to safe keep, deposit or sell means of payment in or to certain Korean governmental agencies or financial institutions; and (2) if the Government determines that international balance of payments and international finance face or are likely to face serious difficulty or the movement of capital between Korea and abroad will cause or is likely to cause serious obstacles in carrying out its currency policies, exchange rate policies and other macroeconomic policies, the Ministry of Strategy and Finance may take measures to require any person who intends to perform capital transactions to obtain permission or to require any person who performs capital transactions to deposit part of the payments received in such transactions at certain Korean governmental agencies or financial institutions, in each case subject to certain limitations.

Restrictions Applicable to Shares

Under the Foreign Exchange Transaction Laws, a foreign investor who intends to acquire shares must designate a foreign exchange bank at which he must open a foreign currency account and a Won account exclusively for stock investments. No approval is required for remittance into Korea and deposit of foreign currency funds in the foreign currency account. Foreign currency funds may be transferred from the foreign currency account at the time required to make a deposit for, or settle the purchase price of, a stock purchase transaction to a Won account opened at a financial investment company with a securities dealing or brokerage license. Funds in the foreign currency account may be remitted abroad without any Korean governmental approval.

Dividends on shares of Korean companies are paid in Won. No Korean governmental approval is required for foreign investors to receive dividends on, or the Won proceeds of the sale of, any shares to be paid, received and retained in Korea. Dividends paid on, and the Won proceeds of the sale of, any shares held by a nonresident of Korea must be deposited either in a Won account with the investor's financial investment company with a securities dealing or brokerage license or in his Won account. Funds in the investor's Won account may be transferred to his foreign currency account or withdrawn for local living expenses, provided that any withdrawal of local living expenses by any one person exceeding US$10,000 per day needs to be reported to the governor of the Financial Supervisory Service by the foreign exchange bank at which the Won account is maintained. Funds in the Won account may also be used for future investment in shares or for payment of the subscription price of new shares obtained through the exercise of preemptive rights.

Financial investment companies with a securities dealing, brokerage or collective investment license are allowed to open foreign currency accounts with foreign exchange banks exclusively for accommodating foreign investors' stock investments in Korea. Through these accounts, financial companies with a securities dealing, brokerage or collective investment license may enter into foreign exchange transactions on a limited basis, such as conversion of foreign currency funds and Won funds, either as a counterparty to or on behalf of foreign investors, without the investors having to open their own accounts with foreign exchange banks.

ITEM 10.E. Taxation

The following summary is based upon tax laws, regulations, rulings, decrees, income tax conventions (treaties), administrative practice and judicial decisions of Korea and the United States as of the date of this annual report, and is subject to any change in Korean or United States law that may come into effect after such date. Investors in shares of common stock or American depositary shares are advised to consult their own tax advisers as to the Korean, United States or other tax consequences of the purchase, ownership and disposition of such securities, including the effect of any national, state or local tax laws.

Korean Taxation

The following summary of Korean tax considerations applies to you so long as you are not:

- a resident of Korea;
- a corporation having its head office, principal place of business, or place of effective management in Korea (a Korean corporation); or
- engaged in a trade or business in Korea through a permanent establishment or a fixed base to which the relevant income is attributable or with which the relevant income is effectively connected.

Taxation of Dividends on Shares of Common Stock or American Depositary Shares

We will deduct Korean withholding tax from dividends (whether in cash or in shares) paid to you at a rate of 22% (including local income surtax). If you are a qualified resident and a beneficial owner of the dividends in a country that has entered into a tax treaty with Korea, you may qualify for a reduced rate of Korean withholding tax. See "— Tax Treaties" below for a discussion of treaty benefits. If we distribute to you free shares representing a transfer of certain capital reserves or asset revaluation reserves into paid-in capital, such distribution may be subject to a Korean withholding tax.

Taxation of Capital Gains from Transfer of Common Shares or American Depositary Shares

As a general rule, capital gains earned by non-residents upon transfer of our common shares or American depositary shares ("ADSs") are subject to a Korean withholding tax at the lower of (1) 11% (including local income surtax) of the gross proceeds realized or (2) 22% (including local income surtax) of the net realized gain, subject to the production of satisfactory evidence of acquisition costs and certain direct transaction costs associated with common shares or ADSs, unless exempt from Korean income taxation under an applicable tax treaty between Korea and the country of your tax residence. See "— Tax Treaties" below for a discussion on treaty benefits. Even if you do not qualify for the exemption under a tax treaty, you will not be subject to the foregoing withholding tax on capital gains if you meet certain requirements for the exemption under Korean domestic tax laws discussed in the following paragraphs.

You will not be subject to the Korean income taxation on capital gains realized upon a transfer of our common shares through the Korea Exchange if you (1) have no permanent establishment in Korea and (2) do not own and have never owned (together with any shares owned by any entity with which you have a special relationship and possibly including the shares represented by the ADSs) 25% or more of our total issued and outstanding shares at any time during the calendar year in which the sale occurs and during the five consecutive calendar years prior to the calendar year in which the sale occurs.

Under the tax law amendments effective for capital gains recognized or to be recognized from disposition of ADSs on or after January 1, 2008, ADSs are viewed as shares of stock for capital gains tax purposes. Accordingly, capital gains from sale or disposition of ADSs are taxed (if taxable) as if such gains are from sale or disposition of shares of our common stock. It should be noted that (i) capital gains earned by you (regardless of whether you have a permanent establishment in Korea) from a transfer of ADSs outside Korea will generally be exempt from Korean income taxation by virtue of the Special Tax Treatment Control Law of Korea, or the STTCL, provided that the issuance of ADSs is deemed to be an overseas issuance under the STTCL, but (ii) in the case where an owner of the underlying shares of stock transfers ADSs after conversion of the underlying shares into ADSs, the exemption under the STTCL described in (i) will not apply. In the case where an owner of the underlying shares of stock transfers the ADSs after conversion of the underlying shares of stock into ADSs, such person is obligated to file corporate income tax returns and pay tax unless a purchaser or a financial investment company with a brokerage license, as applicable, withholds and pays the tax on capital gains derived from transfer of ADSs, as discussed below.

If you are subject to tax on capital gains with respect to a sale of common shares or ADSs, the purchaser or, in the case of a sale of common shares on the Korea Exchange or through a financial investment company with a brokerage license in Korea, the financial investment company is required to withhold Korean tax from the sales proceeds in an amount equal to 11% (including local income surtax) of the gross realization proceeds and to remit the withheld tax to the Korean tax authority, unless you establish your entitlement to an exemption under an applicable tax treaty or domestic tax law or produce satisfactory evidence of your acquisition costs and certain direct transaction costs associated with common shares or ADSs. See the discussion under "— Tax Treaties" below for an explanation of claiming treaty benefits.

Tax Treaties

Korea has entered into a number of income tax treaties with other countries, including the United States, which reduce or exempt Korean withholding tax on the income derived by residents of such treaty countries. For example, under the Korea-U.S. income tax treaty, reduced rates of Korean withholding tax on dividends of 16.5% or 11.0%, respectively (including local income surtax), depending on your shareholding ratio, and an exemption from Korean withholding tax on capital gains are generally available to residents of the United States that are beneficial owners of the relevant dividend income or capital gains. However, under Article 17 (Investment or Holding Companies) of the Korea-U.S. income tax treaty, such reduced rates and exemption do not apply if (1) you are a United States corporation, (2) by reason of any special measures the tax imposed on you by the United States with respect to such dividends or capital gains is substantially less than the tax generally imposed by the United States on corporate profits, and (3) 25% or more of your capital is held of record or is otherwise determined, after consultation between competent authorities of the United States and Korea, to be owned directly or indirectly by one or more persons who are not individual residents of the United States. Also, under Article 16 (Capital Gains) of the Korea-U.S. income tax treaty, the exemption on capital gains does not apply if (a) you have a permanent establishment in Korea and any shares of common stock in which you hold an interest and which gives rise to capital gains are effectively connected with such permanent establishment, (b) you are an individual and you maintain a fixed base in Korea for a period or periods aggregating 183 days or more during the taxable year and your common shares or ADSs giving rise to capital gains are effectively connected with such fixed base or (c) you are an individual and you are present in Korea for a period or periods of 183 days or more during the taxable year.

You should inquire for yourself whether you are entitled to the benefit of an income tax treaty with Korea. It is the responsibility of the party claiming the benefits of an income tax treaty in respect of dividend payments or capital gains to submit to us, the purchaser, the financial investment company, or other withholding agent, as the case may be, a certificate as to his tax residence. In the absence of sufficient proof, we, the purchaser, the financial investment company, or other withholding agent, as the case may be, must withhold tax at the normal rates. Furthermore, in order for you to claim the benefit of a tax rate reduction or tax exemption on certain Korean source income (e.g., dividends or capital gains) under an applicable tax treaty as the beneficial owner of such Korean source income, Korean tax law requires you (or your agent) to submit an application (in the case for reduced withholding tax rate, an "application for entitlement to reduced tax rate," and in the case for exemption from withholding tax, an "application for tax exemption") with a certificate of your tax residency issued by the competent authority of your country of tax residence, subject to certain exceptions (together, the "BO application"). For example, a U.S. resident would be required to provide a Form 6166 as a certificate of tax residency with the application for entitlement to reduced tax rate or the application for tax exemption, as the case may be. Subject to certain exceptions, where the relevant income is paid to an overseas investment vehicle that is not the beneficial owner of such income (an "OIV"), a beneficial owner claiming the benefit of an applicable tax treaty with respect to such income must submit its BO application to such OIV, which in turn must submit an OIV report and a schedule of beneficial owners (and the BO applications collected from each beneficial owner, if such beneficial owner is applying for tax exemption) to the withholding agent prior to the payment date of such income. Effective from January 1, 2020, an OIV that was not established for the purpose of unjustifiably reducing income tax liabilities in Korea and bears tax liabilities in the country of its residence is deemed to be a beneficial owner of Korean source income for income tax purposes. The benefits under a tax treaty between Korea and the country of such OIV's residence will apply with respect to the relevant income paid to such OIV, subject to certain application requirements as prescribed by the Corporate Income Tax or Individual Income Tax Law. In the case of a tax exemption application, the withholding agent is required to submit such application (together with the applicable OIV report in the event the income will be paid to an OIV) to the relevant district tax office by the ninth day of the month following the date of the payment of such income.

Inheritance Tax and Gift Tax

If you die while holding an ADS or donate an ADS, it is unclear whether, for Korean inheritance and gift tax purposes, you would be treated as the owner of the shares of common stock underlying the ADSs. If the tax authority interprets depositary receipts as the underlying share certificates, you may be treated as the owner of the shares of common stock and your heir or the donee (or in certain circumstances, you as the donor) will be subject to Korean inheritance or gift tax, which ranges from 10% to 50% recently, assessable based on the value of the ADSs or shares of common stock and the identity of the individual against whom the tax is assessed.

If you die while holding a common share or donate a subscription right or a common share, your heir or donee (or in certain circumstances, you as the donor) will be subject to Korean inheritance or gift tax at the same rate as indicated above.

At present, Korea has not entered into any tax treaty relating to inheritance or gift taxes.

Securities Transaction Tax

If you transfer common shares through the Korea Exchange, you will be subject to a securities transaction tax at the rate of 0.1% and an agriculture and fishery special surtax at the rate of 0.15% of the sales price of common shares. If your transfer of common shares is not made through the Korea Exchange, subject to certain exceptions, you will be subject to a securities transaction tax at the rate of 0.45% but will not be subject to an agriculture and fishery special surtax.

Depositary receipts, which the ADSs constitute, are included in the scope of securities transfer subject to securities transaction tax. Nonetheless, transfer of depositary receipts listed on a foreign securities exchange similar to the Korea Exchange (e.g., the New York Stock Exchange, the NASDAQ National Market) will not be subject to the securities transaction tax.

In principle, the securities transaction tax, if applicable, must be paid by a transferor of common shares. When a transfer is effected through a securities settlement company in Korea, such settlement company is generally required to withhold and remit the tax to the tax authorities. When such transfer is made through a financial investment company only, such financial investment company is required to withhold and remit the tax. Where a transfer is affected by a non-resident who has no permanent establishment in Korea by a method other than through a securities settlement company or a financial investment company, the transferee is required to withhold the securities transaction tax.

Non-reporting or underreporting of securities transaction tax will generally result in the imposition of penalties equal to 20% to 60% of the non-reported or 10% to 60% of underreported tax amount and a failure to timely pay securities transaction tax due will result in penalties of 9.125% per annum of the due but unpaid tax. The penalty is imposed on the party responsible for paying the securities transaction tax or, if the securities transaction tax is to be withheld, on the party that has the withholding obligation.

Certain United States Federal Income Tax Consequences

The following summary describes certain U.S. federal income tax considerations for beneficial owners of our common shares or ADSs that hold the common shares or ADSs as capital assets and are "U.S. holders." You are a "U.S. holder" if you are for U.S. federal income tax purposes:

(i) an individual citizen or resident of the United States;

(ii) a corporation, or other entity treated as a corporation for U.S. federal income tax purposes, created or organized in or under the laws of the United States, any state thereof or District of Columbia;

(iii) an estate the income of which is subject to U.S. federal income taxation regardless of its source;

(iv) a trust that is subject to the primary supervision of a court within the United States and has one or more U.S. persons with authority to control all substantial decisions of the trust; or

(v) a trust that has a valid election in effect under applicable U.S. Treasury regulations to be treated as a U.S. person.

In addition, this summary only applies to you if you are a U.S. holder that is a resident of the United States for purposes of the current income tax treaty between the United States and Korea (the "Treaty"), your common shares or ADSs are not, for purposes of the Treaty, effectively connected with a permanent establishment in Korea and you otherwise qualify for the full benefits of the Treaty.

This summary is based upon the provisions of the Internal Revenue Code of 1986, as amended (the "Code") and regulations (including proposed regulations), rulings and judicial decisions thereunder as of the date hereof, as well as the Treaty, all of which are subject to change, perhaps retroactively. It is for general purposes only and you should not consider it to be tax advice. In addition, it is based in part on representations by the ADS depositary and assumes that each obligation under the deposit agreement will be performed in accordance with its terms. This summary does not represent a detailed description of all the U.S. federal income tax consequences to you in light of your particular circumstances, and does not address the Medicare tax on net investment income or the effects of any state, local or non-U.S. tax laws. In addition, it does not represent a detailed description of the U.S. federal income tax consequences applicable to you if you are subject to special treatment under the U.S. federal income tax laws, including if you are:

- a bank;
- a dealer in securities or currencies;
- an insurance company or one of certain financial institutions;
- a regulated investment company;
- a real estate investment trust;
- a tax-exempt entity;
- a trader in securities that has elected to use a mark-to-market method of accounting for your securities holdings;
- a person holding common shares or ADSs as part of a hedging, conversion, constructive sale or integrated transaction or a straddle;
- a person liable for the alternative minimum tax;
- a partnership or other pass-through entity for U.S. federal income tax purposes;

- a person who owns or is deemed to own 10% or more of our stock (by vote or value);
- a person required to accelerate the recognition of any item of gross income with respect to our common shares or ADSs as a result of such income being recognized on an applicable financial statement; or
- a person whose functional currency is not the U.S. Dollar.

If a partnership (or other entity treated as a partnership for U.S. federal income tax purposes) holds our common shares or ADSs, the tax treatment of a partner will generally depend upon the status of the partner and the activities of the partnership. If you are a partner of a partnership holding our common shares or ADSs, you are urged to consult your tax advisor.

You should consult your own tax advisor concerning the particular U.S. federal tax consequences to you of the ownership and disposition of common shares or ADSs, as well as any consequences arising under the laws of any other taxing jurisdiction.

American Depositary Shares

If you hold ADSs, for U.S. federal income tax purposes, you generally will be treated as the owner of the underlying common shares that are represented by such ADSs. Accordingly, deposits or withdrawals of common shares for ADSs will not be subject to U.S. federal income tax.

Distributions on Common Shares or American Depositary Shares

Subject to the discussion below under "Passive Foreign Investment Company Rules," the gross amount of distributions on our common shares or ADSs (including amounts withheld to reflect Korean withholding tax) will be taxable as dividends to the extent paid out of our current or accumulated earnings and profits (as determined under U.S. federal income tax principles). Such income (including withheld taxes) will be includable in your gross income as ordinary income on the day you actually or constructively receive it, in the case of our common shares, or the day actually or constructively received by the ADS depositary, in the case of ADSs. Such dividends will not be eligible for the dividends-received deduction allowed to corporations under the Code.

With respect to non-corporate U.S. holders, certain dividends received from a qualified foreign corporation may be subject to reduced rates of taxation. A qualified foreign corporation includes a foreign corporation that is eligible for the benefits of a comprehensive income tax treaty with the United States which the U.S. Treasury Department determines to be satisfactory for these purposes and which includes an exchange of information provision. The U.S. Treasury Department has determined that the Treaty meets these requirements, and we believe we are eligible for the benefits of the Treaty. A foreign corporation is also treated as a qualified foreign corporation with respect to dividends paid by that corporation on shares (or ADSs backed by such shares) that are readily tradable on an established securities market in the United States. Our common shares will generally not be considered readily tradable for these purposes. U.S. Treasury Department guidance indicates that securities such as our ADSs, which are listed on the New York Stock Exchange, are treated as readily tradable on an established securities market in the United States for these purposes. There can be no assurance that our ADSs will be considered readily tradable on an established securities market in later years. Non-corporate U.S. holders that do not meet a minimum holding period requirement during which they are not protected from a risk of loss or that elect to treat the dividend income as "investment income" pursuant to Section 163(d)(4) of the Code will not be eligible for the reduced rates of taxation regardless of our status as a qualified foreign corporation. In addition, the rate reduction will not apply to dividends if the recipient of a dividend is obligated to make related payments with respect to positions in substantially similar or related property. This disallowance applies even if the minimum holding period has been met. Furthermore, non-corporate U.S. holders will not be eligible for the rate reduction if we are a passive foreign investment company (as discussed below under "Passive Foreign Investment Company Rules") in the taxable year in which such dividends are paid or were a passive foreign investment company in the preceding taxable year. If you are a non-corporate U.S. holder, you should consult your own tax advisor regarding the application of these rules given your particular circumstances.

The amount of any dividend paid in Korean Won will equal the U.S. Dollar value of the Korean Won received calculated by reference to the exchange rate in effect on the date you receive the dividend, in the case of our common shares, or the date received by the ADS depositary, in the case of ADSs, regardless of whether the Korean Won are converted into U.S. Dollars. If the Korean Won received as a dividend are converted into U.S. Dollars on the date they are received, you generally will not be required to recognize foreign currency gain or loss in respect of the dividend income. If the Korean Won received are not converted into U.S. Dollars on the day of receipt, you will have a basis in the Korean Won equal to their U.S. Dollar value on the date of receipt. Any gain or loss realized on a subsequent conversion or other disposition of the Korean Won will be treated as United States source ordinary income or loss.

Subject to certain significant conditions and limitations, Korean taxes withheld from dividends (at a rate not exceeding the rate provided in the Treaty) will be treated as foreign income taxes eligible for credit against your U.S. federal income tax liability. See "— Korean Taxation — Tax Treaties" for a discussion of the Treaty rate. Korean taxes withheld in excess of the rate provided in the Treaty will not be eligible for credit against your U.S. federal income tax until you exhaust all effective and practical remedies to recover such excess withholding, including the seeking of competent authority assistance from the Internal Revenue Service. For purposes of the foreign tax credit, dividends paid on our common shares or ADSs will be treated as income from sources outside the United States and will generally constitute passive category income. If you do not elect to claim a credit for any foreign taxes paid during a taxable year, you may instead elect, subject to certain limitations, to claim a deduction in respect of such foreign taxes, provided that you apply this election to all foreign taxes paid or accrued in the taxable year.

Further, in certain circumstances, if you have held our common shares or ADSs for less than a specified minimum period during which you are not protected from risk of loss, or are obligated to make payments related to the dividends, you will not be allowed a foreign tax credit for foreign taxes imposed on dividends paid on our common shares or ADSs. The rules governing the foreign tax credit are complex. You are urged to consult your tax advisors regarding the availability of the foreign tax credit under your particular circumstances.

To the extent that the amount of any distribution exceeds our current and accumulated earnings and profits for a taxable year, as determined under U.S. federal income tax principles, the distribution will first be treated as a tax-free return of capital, causing a reduction of your adjusted basis in our common shares or ADSs (thereby increasing the amount of gain, or decreasing the amount of loss, to be recognized by you on a subsequent disposition of our common shares or ADSs), and the balance in excess of adjusted basis will be taxed as capital gain recognized on a sale or exchange. However, we do not expect to determine earnings and profits in accordance with U.S. federal income tax principles. Therefore, you should expect that a distribution will be reported and generally be treated as a dividend (as discussed above).

Distributions of our common shares or ADSs or rights to subscribe for our common shares or ADSs that are received as part of a pro rata distribution to all of our shareholders (including holders of ADSs) generally will not be subject to U.S. federal income tax to recipient common shareholders (including holders of ADSs). Consequently, such distributions will not give rise to foreign source income and you will not be able to use the foreign tax credit arising from any Korean withholding tax unless such credit can be applied (subject to applicable limitations) against U.S. tax due on other income derived from foreign sources.

Disposition of Common Shares or American Depositary Shares

For U.S. federal income tax purposes, you will recognize gain or loss upon the sale, exchange or other disposition of our common shares or ADSs in an amount equal to the difference between the amount realized upon the sale, exchange or other disposition and your adjusted tax basis in our common shares or ADSs, as the case may be. Subject to the discussion below under "— Passive Foreign Investment Company Rules," such gain or loss will generally be capital gain or loss and will generally be long-term capital gain or loss if at the time of sale, exchange or other disposition, our common shares or ADSs have been held for more than one year. Long-term capital gains of non-corporate U.S. holders (including individuals) are eligible for reduced rates of taxation. The deductibility of capital losses is subject to limitations. Any gain or loss you recognize on the sale, exchange or other disposition of our common shares or ADSs will generally be treated as United States source gain or loss. Consequently, you may not be able to use the foreign tax credit arising from any Korean tax imposed on the disposition of our common shares or ADSs unless such credit can be applied (subject to applicable limitations) against tax due on other income treated as derived from foreign sources.

You should note that any Korean securities transaction tax generally will not be treated as a creditable foreign tax for U.S. federal income tax purposes, although you may be entitled to deduct such taxes, subject to applicable limitations under the Code.

Passive Foreign Investment Company Rules

Based upon the past and projected composition of our income and assets and valuation of our assets, including goodwill, we do not believe that we were a PFIC for 2019, and we do not expect to be a PFIC in 2020 or to become one in the foreseeable future, although there can be no assurance in this regard. However, PFIC status is a factual determination that is made annually. Accordingly, it is possible that we may become a PFIC in the current or any future taxable year due to changes in composition of our income or assets or valuation of our assets. Because we have valued our goodwill based on the market value of our common shares and ADSs, a decrease in the price of our common shares and ADSs may also result in our becoming a PFIC.

In general, we will be considered a PFIC for any taxable year in which:

- at least 75% of our gross income is passive income; or
- at least 50% of the value (determined based on a quarterly average) of our assets is attributable to assets that produce or are held for the production of passive income.

For this purpose, passive income generally includes dividends, interest, royalties and rents (other than royalties and rents derived in the active conduct of a trade or business and not derived from a related person). Certain proposed U.S. Treasury regulations and other administrative pronouncements from the Internal Revenue Service provide special rules for determining the character of income and assets derived in the active conduct of a banking business for purposes of the PFIC rules. Specifically, these rules treat certain income earned by a non-U.S. corporation engaged in the active conduct of a banking business as non-passive income. Although we believe we have adopted a reasonable interpretation of the proposed U.S. Treasury regulations and administrative pronouncements, there can be no assurance that the Internal Revenue Service will follow the same interpretation. You should consult your own tax advisor regarding the application of these rules.

If we own at least 25% by value of another corporation's stock, we will be treated, for purposes of the PFIC rules, as owning our proportionate share of the assets and receiving our proportionate share of the income of that corporation.

If we are a PFIC for any taxable year during which you hold our common shares or ADSs (and you do not make a timely mark-to-market election, as described below), you will be subject to special tax rules with respect to any "excess distribution" that you receive and any gain you realize from the sale or other disposition (including a pledge) of our common shares or ADSs. These special tax rules generally will apply even if we cease to be a PFIC in future years. Distributions you receive in a taxable year that are greater than 125% of the average annual distributions you received during the shorter of the three preceding taxable years or your holding period for our common shares or ADSs will be treated as excess distributions. Under these special tax rules:

- the excess distribution or gain will be allocated ratably over your holding period for our common shares or ADSs;

- the amount allocated to the current taxable year, and any taxable year prior to the first taxable year in which we are a PFIC, will be treated as ordinary income; and
- the amount allocated to each other year will be subject to tax at the highest tax rate in effect for that year, and the interest charge generally applicable to underpayments of tax will be imposed on the resulting tax attributable to each such year.

In certain circumstances, you could make a mark-to-market election, under which in lieu of being subject to the special rules discussed above, you will include gain on our common shares or ADSs on a mark-to-market basis as ordinary income, provided that our common shares or ADSs are regularly traded on a qualified exchange or other market. Our common shares are listed on the Korea Exchange, which must meet certain trading, listing, financial disclosure and other requirements to be treated as a qualified exchange under applicable U.S. Treasury regulations for purposes of the mark-to-market election, and no assurance can be given that the common shares are or will continue to be "regularly traded" for purposes of the mark-to-market election. Our ADSs are currently listed on the New York Stock Exchange, which constitutes a qualified exchange, although there can be no assurance that the ADSs are or will be "regularly traded." If you make a valid mark-to-market election, for each year that we are a PFIC you will include as ordinary income the excess of the fair market value of your common shares or ADSs at the end of the year over your adjusted tax basis in the common shares or ADSs. You will be entitled to deduct as an ordinary loss in each such year the excess of your adjusted tax basis in the common shares or ADSs over their fair market value at the end of the year, but only to the extent of the net amount previously included in income as a result of the mark-to-market election. If you make an effective mark-to-market election, in each year that we are a PFIC any gain you recognize upon the sale or other disposition of your common shares or ADSs will be treated as ordinary income, and any loss will be treated as ordinary loss, but only to the extent of the net amount previously included in income as a result of the mark-to-market election.

A U.S. holder's adjusted tax basis in common shares or ADSs will be increased by the amount of any income inclusion and decreased by the amount of any deductions under the mark-to-market rules. If a U.S. holder makes a mark-to-market election, it will be effective for the taxable year for which the election is made and all subsequent taxable years unless the common shares or ADSs are no longer regularly traded on a qualified exchange or other market or the Internal Revenue Service consents to the revocation of the election. You should consult your tax advisor about the availability of the mark-to-market election, and whether making the election would be advisable with respect to your particular circumstances.

In addition, a holder of common shares or ADSs in a PFIC can sometimes avoid the rules described above by electing to treat the company as a "qualified electing fund" under Section 1295 of the Code. This option is not available to you because we do not intend to comply with the requirements necessary to permit holders to make this election.

If we are a PFIC for any taxable year during which you hold our common shares or ADSs and any of our non-U.S. subsidiaries is also a PFIC, you will be treated as owning a proportionate amount (by value) of the shares of the lower-tier PFIC for purposes of the application of the PFIC rules. You are urged to consult your tax advisors about the application of the PFIC rules to any of our subsidiaries.

If you hold our common shares or ADSs in any year in which we are classified as a PFIC, you will generally be required to file Internal Revenue Service Form 8621.

Non-corporate U.S. holders will not be eligible for reduced rates of taxation on any dividends received from us if we are a PFIC in the taxable year in which such dividends are paid or were a PFIC in the preceding taxable year. You should consult your tax advisor concerning the determination of our PFIC status and the U.S. federal income tax consequences of holding our common shares or ADSs if we are considered a PFIC in any taxable year.

Information Reporting and Backup Withholding

In general, information reporting will apply to dividends in respect of our common shares or ADSs and the proceeds from the sale, exchange or other disposition of our common shares or ADSs that are paid to you within the United States (and in certain cases, outside the United States), unless you are an exempt recipient. A backup withholding tax may apply to such payments if you fail to provide a taxpayer identification number or certification of other exempt status or fail to report in full dividend and interest income.

Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules will be allowed as a refund or a credit against your U.S. federal income tax liability provided the required information is timely furnished to the Internal Revenue Service.

FATCA

Under Sections 1471 through 1474 of the Code (such Sections commonly referred to as "FATCA"), certain entities in a broadly defined class of foreign financial institutions ("FFIs") may be subject to a 30% United States withholding tax on certain United States source payments made to the FFI, unless the FFI is a "participating FFI," which is generally defined as an FFI that (i) enters into an agreement with the Internal Revenue Service pursuant to which it agrees to comply with a complicated and expansive reporting regime or (ii) complies with the requirements of an intergovernmental agreement entered into by the United States and another jurisdiction regarding the implementation of FATCA (an "IGA"), or the FFI is otherwise deemed compliant with or exempt from FATCA.

The FATCA legislation also contains complex provisions requiring certain participating FFIs to withhold on certain "foreign passthru payments" made to FFIs that are not participating FFIs or otherwise exempt from FATCA withholding and to holders that fail to provide the information required by FATCA. Although the definition of a "foreign passthru payment" is still reserved under current regulations, the term generally refers to payments that are from non-United States sources but that are "attributable to" certain United States payments described above. Pursuant to proposed U.S. Treasury regulations (upon which taxpayers may rely until final regulations are issued), withholding on foreign passthru payments, if applicable, would not be required with respect to payments made before the date that is two years after the date of publication of final regulations defining the term foreign passthru payment. It is unclear whether or to what extent payments on our common shares or ADSs would be considered foreign passthru payments that are subject to withholding under FATCA.

On June 10, 2015, the United States and Korea entered into an IGA to implement the foregoing requirements. The IGA is intended to result in the automatic exchange of tax information through reporting by FFIs to the Internal Revenue Service. Prospective investors should consult their tax advisors regarding the application of the FATCA rules to an investment in our common shares.

ITEM 10.F. Dividends and Paying Agents

Not applicable.

ITEM 10.G. Statements by Experts

Not applicable.

ITEM 10.H. Documents on Display

We are subject to the information requirements of the U.S. Securities Exchange Act of 1934, as amended, and, in accordance therewith, are required to file reports, including annual reports on Form 20-F, and other information with the U.S. Securities and Exchange Commission. You may inspect and copy these materials, including this annual report and the exhibits thereto, at SEC's Public Reference Room 100 Fifth Street, N.E., Washington, D.C. 20549. Please call the Commission at 1-800-SEC-0330 for further information on the public reference rooms. As a foreign private issuer, we are also required to make filings with the Commission by electronic means. Any filings we make electronically will be available to the public over the Internet at the Commission's web site at *http://www.sec.gov*.

ITEM 10.I. Subsidiary Information

Not applicable.

ITEM 11. *QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK*

See "Item 4.B. Business Overview — Risk Management" for quantitative and qualitative disclosures about market risk.

ITEM 12. *DESCRIPTION OF SECURITIES OTHER THAN EQUITY SECURITIES*

ITEM 12.A. Debt Securities

Not applicable.

ITEM 12.B. Warrants and Rights

Not applicable.

ITEM 12.C. Other Securities

Not applicable.

ITEM 12.D. American Depositary Shares

Depositary Fees and Charges

Under the terms of the Deposit Agreement in respect of our American depositary shares ("ADSs"), the holder of ADSs may be required to pay the following fees and charges to Citibank, N.A., acting as depositary for our ADSs:

Item	Services	Fees	Paid by
1	Issuance of ADSs upon deposit of common shares (excluding issuances contemplated by items 3(b) and 5 below	Up to US$5.00 per 100 ADSs (or fraction thereof) issued	Person depositing common shares or person receiving ADSs
2	Delivery of deposited securities against surrender of ADSs	Up to US$5.00 per 100 ADSs (or fraction thereof) surrendered	Person surrendering ADSs for purpose of withdrawal of deposited securities or person to whom deposited securities are delivered
3	Distribution of (a) cash dividends or (b) ADSs pursuant to stock dividends	No fee, to the extent prohibited by the exchange on which the ADSs are listed. If the charging of such fee is not prohibited, the fees specified in item 4 below shall be payable	Person to whom distribution is made

Item	Services	Fees	Paid by
4	Distribution of (a) cash proceeds (i.e., upon sale of rights and other entitlements) or (b) free shares in the form of ADSs (not constituting a stock dividend)	Up to US$2.00 per 100 ADSs (or fraction thereof) held	Person to whom distribution is made
5	Distribution of securities other than ADSs or rights to purchase additional ADSs (i.e., spinoff shares)	Up to US$5.00 per 100 ADSs (or fraction thereof) distributed	Person to whom distribution is made
6	Depositary Services	Unless prohibited by the exchange on which the ADSs are listed, up to US$2.00 per 100 ADSs (or fraction thereof) held as of the last day of each calendar year, except to the extent of any cash dividend fee(s) charged under paragraph (3)(a) above during the applicable calendar year	Person holding ADSs on last day of calendar year
7	Distribution of ADSs pursuant to exercise of rights to purchase additional ADSs	Up to US$2.00 per 100 ADSs (or fraction thereof) held	Person who exercises such rights

Holders and beneficial owners of ADSs, persons depositing common shares for deposit and persons surrendering ADSs for cancellation and for the purpose of withdrawing deposited securities shall be responsible for the following charges:

(i) taxes (including applicable interest and penalties) and other governmental charges;

(ii) such registration fees as may from time to time be in effect for the registration of common shares or other deposited securities on the share register and applicable to transfers of common shares or other deposited securities to or from the name of the custodian, the depositary or any nominees upon the making of deposits and withdrawals, respectively;

(iii) such cable, telex and facsimile transmission and delivery expenses as are expressly provided in the Deposit Agreement to be at the expense of the person depositing or withdrawing common shares or holders and beneficial owners of ADSs;

(iv) the expenses and charges incurred by the depositary in the conversion of foreign currency;

(v) such fees and expenses as are incurred by the depositary in connection with compliance with exchange control regulations and other regulatory requirements applicable to common shares, deposited securities, ADSs and ADRs; and

(vi) the fees and expenses incurred by the depositary, the custodian or any nominee in connection with the servicing or delivery of deposited securities.

Depositary fees payable upon the issuance and cancellation of ADSs are typically paid to the depositary by the brokers (on behalf of their clients) receiving the newly-issued ADSs from the depositary and by the brokers (on behalf of their clients) delivering the ADSs to the depositary for cancellation. The brokers in turn charge these transaction fees to their clients.

Depositary fees payable in connection with distributions of cash or securities to ADS holders and the depositary services fee are charged by the depositary to the holders of record of ADSs as of the applicable ADS record date. The depositary fees payable for cash distributions are generally deducted from the cash being distributed. In the case of distributions other than cash (i.e., stock dividends, rights offerings), the depositary charges the applicable fee to the ADS record date holders concurrent with the distribution. In the case of ADSs registered in the name of the investor (whether certificated or un-certificated in direct registration), the depositary sends invoices to the applicable record date ADS holders. In the case of ADSs held in brokerage and custodian accounts via the central clearing and settlement system, The Depository Trust Company (DTC), the depositary generally collects its fees through the systems provided by DTC (whose nominee is the registered holder of the ADSs held in DTC) from the brokers and custodians holding ADSs in their DTC accounts. The brokers and custodians who hold their clients' ADSs in DTC accounts in turn charge their clients' accounts the amount of the fees paid to the depositary banks.

In the event of refusal to pay the depositary fees, the depositary may, under the terms of the Deposit Agreement, refuse the requested service until payment is received or may set- off the amount of the depositary fees from any distribution to be made to the ADS holder.

The fees and charges the ADS holders may be required to pay may vary over time and may be changed by us and by the depositary. The ADS holders will receive prior notice of such changes.

Depositary Payments for the Fiscal Year 2019

In 2019, we received the following payments from Citibank, N.A., acting as depositary for our ADSs:

Reimbursement of settlement infrastructure fees (including DTC fees)	US$ —
Reimbursement of proxy process expenses (printing, postage and distribution)	US$ 61,257.06
Legal expenses	US$ —
Contributions towards our investor relations efforts (i.e. non-deal roadshows, investor conferences and IR agency fees) and legal expenses incurred in connection to the preparation of our Form 20-F for the fiscal year 2018	US$250,236.89
Total:	US$311,493,95

Note: The amounts provided above are after deduction of applicable of U.S. taxes.

ITEM 13. *DEFAULTS, DIVIDEND ARREARAGES AND DELINQUENCIES*

Not applicable.

ITEM 14. *MATERIAL MODIFICATIONS TO THE RIGHTS OF SECURITY HOLDERS AND USE OF PROCEEDS*

Not applicable.

ITEM 15. *CONTROLS AND PROCEDURES*

Disclosure Control

Under the supervision and with the participation of our management, including our chief executive officer and chief financial officer, we have evaluated the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rule 13a-15(e) under the Securities Exchange Act of 1934, as amended, or the Exchange Act) as of December 31, 2019. There are inherent limitations to the effectiveness of any system of disclosure controls and procedures, including the possibility of human error and the circumvention or overriding of the controls and procedures. Accordingly, even effective disclosure controls and procedures can provide only reasonable assurance of achieving their control objectives. Based upon our evaluation, our chief executive officer and chief financial officer concluded that the design and operation of our disclosure controls and procedures as of December 31, 2019 were effective to provide reasonable assurance that information required to be disclosed by us in the reports we file and submit under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the applicable rules and forms, and that it is accumulated and communicated to our management, including our chief executive officer and chief financial officer, as appropriate to allow timely decision regarding required disclosure.

Management's Annual Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act, for our company. Under the supervision and with the participation of our management, including our chief executive officer and chief financial officer, we have evaluated the effectiveness of our internal control over financial reporting as of December 31, 2019 based on the framework established in Internal Control-Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO"). Internal Control-Integrated Framework (2013) suspended the original framework issued by COSO in 1992 on December 15, 2014. We adopted the 2013 Framework on December 15, 2014. Further details of the changes made are set out below. Our internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of consolidated financial statements in accordance with generally accepted accounting principles and includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of a company's assets, (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of consolidated financial statements in accordance with generally accepted accounting principles, and that a company's receipts and expenditures are being made only in accordance with authorizations of a company's management and directors, and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of a company's assets that could have a material effect on the consolidated financial statements.

Because of its inherent limitations, a system of internal control over financial reporting can provide only reasonable assurance with respect to consolidated financial statement preparation and presentation and may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Based on our evaluation, our management concluded that our internal control over financial reporting was effective as of December 31, 2019. Our management has excluded Orange Life Insurance from our assessment of internal control over financial reporting as of December 31, 2019 in accordance with the SEC's general guidance that an assessment of a recently acquired business may be omitted from the scope of assessment in the year of acquisition. We acquired a 59.15% interest in Orange Life Insurance on February 1, 2019, upon which Orange Life Insurance became our consolidated subsidiary as of such date. Orange Life Insurance accounted for 5.95% of our consolidated total assets as of December 31, 2019, and its profit before income tax for the period subsequent to its consolidation in 2019 amounted to 7.84% of our consolidated total profit before income tax. On January 28, 2020, we acquired the remaining interests in Orange Life Insurance by effecting a comprehensive stock exchange under Articles 360-2 of the Korean Commercial Code whereby holders (other than us) of Orange Life Insurance's common stock transferred all of their shares to us and in return receive shares of our common stock, and hence Orange Life Insurance has become our wholly owned subsidiary as of such date.

The effectiveness of our internal control over financial reporting has been audited by KPMG Samjong, an independent registered public accounting firm, who has also audited our consolidated financial statements for the year ended December 31, 2019. KPMG Samjong has issued an attestation report on the effectiveness of our internal control over financial reporting under Auditing Standard No. 5 of the Public Company Accounting Oversight Board, which is included herein.

Attestation Report of the Independent Registered Public Accounting Firm

KPMG Samjong's attestation report on the effectiveness of internal control over financial reporting can be found on page F-2 of this annual report.

ITEM 16. *[RESERVED]*

ITEM 16A. *AUDIT COMMITTEE FINANCIAL EXPERT*

Our Audit Committee currently consists of three outside directors, namely Yoon Jaewon, Sung Jae-ho and Lee Yoon-jae. Our board of directors has determined that Yoon Jaewon, the chairman of our Audit Committee is an "audit committee financial expert," as such term is defined by the regulations of the Securities and Exchange Commission issued pursuant to Section 407 of the Sarbanes-Oxley Act of 2002. Yoon Jaewon, Sung Jae-ho and Lee Yoon-jae are independent as such term is defined in Section 303A.02 of the NYSE Listed Company Manual, Rule 10A-3 under the Exchange Act and the Korea Stock Exchange listing standards.

ITEM 16B. *CODE OF ETHICS*

We have adopted a code of ethics for our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions as required under Section 406 of the Sarbanes-Oxley Act of 2002, together with an insider reporting system in compliance with Section 301 of the Sarbanes-Oxley Act. We have not granted any waiver, including an implicit waiver, from a provision of the code of ethics to any of the above-mentioned officers during our most recently completed fiscal year. As a further detailed guideline to the code of ethics, we have also adopted a code of ethics applicable to all the officers and employees of our holding company and our subsidiaries and established a supplemental code of behavior for all officers and employees of our holding company and our subsidiaries in order to provide additional guideline for the performance of their work-related duties as well as their daily behavior. Our code of ethics is available on our website www.shinhangroup.com.

ITEM 16C. *PRINCIPAL ACCOUNTANT FEES AND SERVICES*

The following table sets forth the aggregate fees billed for professional services rendered by KPMG Samjong Accounting Corp. for the years ended December 31, 2017, 2018 and 2019, our principal accountants for the respective period, depending on the various types of services and a brief description of the nature of such services.

Type of Services	Aggregate Fees Billed During the Year Ended December 31,			Nature of Services
	2017	2018	2019	
	(In millions of Won)			
Audit fees	₩7,572	₩8,009	₩10,659	Audit service for Shinhan Financial Group and its subsidiaries.
Audit related fees	—	40	30	Assurance services rendered in the ordinary course of our business
Tax fees	265	209	35	Tax return and consulting advisory service.
All other fees	—	—	284	All other services which do not meet the three categories above.
Total	₩7,837	₩8,258	₩11,008	

Our Audit Committee generally pre-approves all engagements of our principal accountants pursuant to policies and procedures adopted by it. Our Audit Committee has adopted the following policies and procedures for consideration and approval of requests to engage our principal accountants to perform audit and non-audit services. Engagement requests for audit and non-audit services for us or our subsidiaries must, in the first instance, be submitted to our Audit Team. If the request relates to services that would impair the independence of our principal accountants, the request must be rejected. If the engagement request relates to audit and permitted non-audit services, it must be forwarded to the Audit Committee for consideration. To facilitate the consideration of engagement requests between its meetings, the Audit Committee has delegated approval authority of the following: (i) permitted non-audit services to our holding company, (ii) audit services to our subsidiaries and (iii) permitted non-audit services to our subsidiaries, to one of its members who is "independent" as defined by the Securities and Exchange Commission and the New York Stock Exchange. Such member in our case is Yoon Jaewon, the chairman of our Audit Committee, and she is required to report any approvals made by them to the Audit Committee at its next meeting. Our Audit Committee meets regularly once every quarter.

Any other audit or permitted non-audit service must be pre-approved by the Audit Committee on a case-by-case basis. Our Audit Committee did not pre-approve any non-audit services under the de minimis exception of Rule 2.01(c)(7)(i)(C) of Regulation S-X as promulgated by the Securities and Exchange Commission.

ITEM 16D. *EXEMPTIONS FROM THE LISTING STANDARDS FOR AUDIT COMMITTEES*

Not applicable.

ITEM 16E. *PURCHASES OF EQUITY SECURITIES BY THE ISSUER AND AFFILIATED PURCHASERS*

Neither we nor any "affiliated purchaser," as defined in Rule 10b-18(a)(3) of the Exchange Act, purchased any of our equity securities during the period covered by this annual report.

ITEM 16F. *CHANGE IN REGISTRANT'S CERTIFYING ACCOUNTANT*

Pursuant to an amendment to Act on External Audit of Stock Companies effective November 1, 2018, where certain listed companies, such as us, have appointed at such company's discretion the independent auditor (as defined under the Certified Public Accountant Act of Korea, for the audit of our financial statements in Korea prepared in conformity with IFRS as adopted by Korea) for a period of six consecutive fiscal years, the Securities and Futures Commission may request such company to appoint or substitute as independent auditor an accounting firm as designated by the Securities and Futures Commission. Absent extenuating circumstances, in which case the company may request the Securities and Futures Commission to re-designate an accounting firm, the company is required to comply with such request.

As we had appointed KPMG Samjong as our independent auditor for the previous six fiscal years, on October 14, 2019, the Securities and Futures Commission designated Samil PricewaterhouseCoopers ("PwC") as our independent auditor for the fiscal years ended December 31, 2020, 2021 and 2022. Upon such request, our Audit Committee evaluated the suitability and independence of PwC, concluding there were no extenuating circumstances which would require us to request re-designation. Accordingly, on December 12, 2019, our Audit Committee approved the appointment of PwC as our independent auditor for the audit of our financial statements in Korea prepared in conformity with IFRS as adopted by Korea for the fiscal years ended December 31, 2020, 2021 and 2022, and our Audit Committee also approved the appointment of PwC as our independent registered public accounting firm for the audit of our financial statements in conformity with IFRS as issued by the IASB for the fiscal year ended December 31, 2020. PwC's appointment is effective from January 1, 2020. KPMG Samjong's engagement as our independent auditor and independent registered public accounting firm expired upon the completion of the audit of our consolidated financial statements as of and for the year ended

December 31, 2019, and no separate dismissal process was required for KPMG Samjong. However, resolutions by the audit committee are required for each of our subsidiaries, which our subsidiaries have obtained as necessary.

KPMG Samjong's reports on our consolidated financial statements for each of the fiscal years ended December 31, 2019 and 2018 did not contain an adverse opinion or a disclaimer of opinion, and were not qualified or modified as to uncertainty, audit scope or accounting principles.

During the two most recent fiscal years ended December 31, 2019 and 2018, there were: (i) no disagreements between us and KPMG Samjong on any matter of accounting principles or practices, financial statement disclosure or auditing scope or procedure, which disagreements, if not resolved to the satisfaction of KPMG Samjong, would have caused KPMG Samjong to make reference to the subject matter of the disagreements in its reports on the consolidated financial statements of Shinhan Financial Group; and (ii) no "reportable events" as defined in Item 16F(a)(1)(v) of Form 20-F.

In 2018, PwC consulted us on the application of IFRS 16 'Leases' on our financial statements. The results of such consultations are reflected in Notes 2, 3 and 51 of the notes to our consolidated financial statements as of and for the year ended December 31, 2019 included in this annual report, which have been audited by KPMG Samjong. During the fiscal years ended December 31, 2019 and 2018, neither we nor anyone acting on our behalf consulted with PwC regarding any matter that was either the subject of a disagreement, as that term is defined in Item 16F(a)(1)(iv) of Form 20-F (and the related instructions thereto), or a reportable event as described in Item 16F(a)(1)(v) of Form 20-F.

We provided a copy of the disclosure in this Item to PwC and provided PwC the opportunity to furnish us with a letter addressed to the Commission containing any new information, clarification of our expression of its views, or the respects in which it does not agree. PwC has not furnished us with such letter. We also provided a copy of the disclosure in this Item to KPMG Samjong and requested that KPMG Samjong furnish us with a letter addressed to the Commission stating whether it agrees with such disclosure, and if it does not agree, stating the respects in which it does not agree. A copy of KPMG Samjong's letter dated April 29, 2020 is filed as Exhibit 15.1 to this Form 20-F.

ITEM 16G. *CORPORATE GOVERNANCE*

We are committed to high standards of corporate governance. We are in compliance with the corporate governance provisions of the Korean Commercial Code, the Financial Holding Companies Act of Korea, the Act on Corporate Governance of Financial Companies, the Financial Investment Services and Capital Markets Act and the Listing Rules of the Korea Exchange. We, like all other companies in Korea, must comply with the corporate governance provisions of the Korean Commercial Code. In addition, as a financial holding company, we are also subject to the Financial Holding Companies Act and the Act on Corporate Governance of Financial Companies. Also, our subsidiaries that are financial institutions must comply with the respective corporate governance provisions under the Act on Corporate Governance of Financial Companies and relevant laws under which they were established.

The Act on Corporate Governance of Financial Companies came into effect as of August 1, 2016. The Act was enacted to address calls for strengthened regulations on corporate governance of financial companies and to serve as a uniform regulation on corporate governance matters applicable to all financial companies in place of the separate regulations for each sector that existed. The Act contains several key measures, including, but not limited, to (i) condition of eligibility of officers of financial companies and standards for determining whether financial companies' officers may hold concurrent positions in other companies, (ii) standards for composition and operation of board of directors, (iii) standards for establishment, composition and operation of committees of the board of directors, (iv) internal control and risk management, (v) requirements and procedures for the approval of a change of major shareholders and (vi) special regulations for rights of minority shareholders of financial companies.

We are a “foreign private issuer” (as such term is defined in Rule 3b-4 under the Exchange Act), and our ADSs are listed on the New York Stock Exchange, or NYSE. Under Section 303A of the NYSE Listed Company Manual, NYSE-listed companies that are foreign private issuers are permitted to follow home country practice in lieu of the corporate governance provisions specified by the NYSE with limited exceptions. Under the NYSE Listed Company Manual, we as a foreign private issuer are required to disclose significant differences between NYSE’s corporate governance standards and those we follow under Korean law. The following summarizes some significant ways in which our corporate governance practices differ from those followed by U.S. companies listed on the NYSE under the listing rules of the NYSE:

Majority of Independent Directors on the Board

Under the NYSE listing rules, U.S. companies listed on the NYSE must have a board the majority of which is comprised of independent directors satisfying the requirements of “independence” as set forth in Rule 10A-3 under the Exchange Act. While as a foreign private issuer, we are exempt from this requirement, but our board of directors is in compliance with this requirement as it currently consists of 13 directors, of which ten directors satisfy the requirements of “independence” as set forth in Rule 10A-3 under the Exchange Act. Ten of our directors are also “outside directors” as defined in the Financial Holding Companies Act of Korea. An “outside director” for purposes of the Act on Corporate Governance of Financial Companies and the Korean Commercial Code means a director who does not engage in the regular affairs of the financial holding company, and who is elected at a shareholders’ meeting, after having been nominated by the outside director nominating committee, and none of the largest shareholder, those persons “specially related” to the largest shareholder of such company, persons who during the past two years have served as an officer or employee of such company, the spouses and immediate family members of an officer of such company, and certain other persons specified by law may qualify as an outside director of such company. Under the Korea Exchange listing rules and the Korean Commercial Code, at least one-fourth of a listed company’s directors must be outside directors. In the case of “large listed companies” as defined under the Korean Commercial Code, like us, a majority of the directors must be outside directors provided that there must be at least three outside directors.

Executive Session

Under the NYSE listing rules, non-management directors of U.S. companies listed on the NYSE are required to meet on a regular basis without management present and independent directors must meet separately at least once per year. There is no such requirement under Korean law or listing standards or our internal regulations.

Audit Committee

Under the NYSE listing rules, listed companies must have an audit committee that has a minimum of three members, and all audit committee members must satisfy the requirements of independence set forth in Section 303A.02 of the NYSE Listed Company Manual and Rule 10A-3 under the Exchange Act. We are in compliance with this requirement as our Audit Committee is comprised of three outside directors meeting the requirements of independence set forth in Section 303A.02 of the NYSE Listed Company Manual and Rule 10A-3 under the Exchange Act. Under the Korea Exchange listing rules and the Korean Commercial Code, a large listed company must also establish an audit committee of which at least two-thirds of its members must be outside directors and whose chairman must be an outside director. In addition, under the Act on Corporate Governance of Financial Companies, at least one member of the audit committee who is an outside director must also be an accounting or financial expert. We are also in compliance with the foregoing requirements.

Nomination/Corporate Governance Committee

Under the NYSE listing rules, U.S. companies listed on the NYSE must have a nomination/corporate governance committee composed entirely of independent directors. In addition to identifying individuals qualified to become board members, this committee must develop and recommend to the board a set of corporate governance principles. Under the Korean Commercial Code and other applicable laws, large listed companies, financial holding companies, commercial banks, and certain other financial institutions are required to have an outside director nominating committee of which at least one-half of its members are required to be outside directors. However, there is no requirement to establish a corporate governance committee under applicable Korean law. Our outside director nominating committee is formed on an ad hoc basis prior to a general shareholders' meeting if the agenda for such meeting includes appointment of an outside director. The composition of the committee is in compliance with the relevant provisions under the Korean Commercial Code and the Act on Corporate Governance of Financial Companies, and the chairman of the committee must be an outside director pursuant to the Act on Corporate Governance of Financial Companies.

Although a corporate governance committee is not required under Korean law, in March 2012, we established the Corporate Governance and Chief Executive Officer Recommendation Committee, which is responsible for reviewing and making recommendations in relation to the overall corporate governance of our group (including any aspects of corporate governance relating to code of ethics and other code of behavior, size of the board of directors and other matters necessary for improving our overall corporate governance structure), as well as recommendation of the nominees for the president and/or chief executive officer of our group and development, operation and review of our management succession plan, including setting the qualifications for the CEO, evaluating CEO candidate pool and recommending CEO candidates. The chairperson of the committee must be an outside director, and the incumbent CEO may be restricted from participating and voting on matters related to the CEO selection.

Compensation Committee

Under the NYSE listing rules, U.S. companies listed on the NYSE are required to have a compensation committee which is composed entirely of independent directors. In January 2013, the SEC approved amendments to the listing rules of NYSE and NASDAQ regarding the independence of compensation committee members and the appointment, payment and oversight of compensation consultants. The listing rules were adopted as required by Section 952 of the Dodd-Frank Act and rule 10C-1 of the Securities Exchange Act of 1934, as amended, which direct the national securities exchanges to prohibit the listing of any equity security of a company that is not in compliance with the rule's compensation committee director and advisor independence requirements. Certain elements of the listing rules became effective on July 1, 2013 and companies listed on the NYSE must comply with such listing rules by the earlier of the company's first annual meeting after January 15, 2014, or October 31, 2014.

Under the Act on Corporate Governance of Financial Companies, financial institutions including financial holding companies must establish a compensation committee of which at least one-half of its members must be outside directors and whose chairman must be an outside director.

We currently have a remuneration committee, which is responsible for reviewing and approving the management's evaluation and compensation programs. The committee consists of three members, all of whom are outside directors and satisfy the independent director requirements as set forth in Rule 10A-3 under the Exchange Act.

Corporate Governance Guidelines and Code of Business Conduct and Ethics

Under the NYSE listing rules, U.S. companies listed on the NYSE are required to establish corporate governance guidelines and to adopt a code of business conduct and ethics for directors, officers and employees, and promptly disclose any waivers of the code for directors or executive officers. As a foreign private issuer, we are exempt from this requirement. In Korea, the Financial Services Commission implemented the Standard Corporate Governance Guidelines for Financial Service Companies in December 2014, and accordingly, we have adopted in February 2015 and are currently complying with international regulators on corporate governance modeled after the standard guidelines implemented by the Financial Services Commission,

Pursuant to the requirements of the Sarbanes-Oxley Act, we have adopted a code of ethics applicable to all the officers and employees of our holding company and our subsidiaries, including all financial, accounting and other officers and employees that are involved in the preparation and disclosure of Shinhan Financial Group's consolidated financial statements and internal control of financial reporting. As a further detailed guideline to the code of ethics, we have also established a supplemental code of behavior for all officers and employees of our holding company and our subsidiaries in order to provide additional guideline for the performance of their work-related duties as well as their daily behavior. We have also adopted an insider reporting system in compliance with Section 301 of the Sarbanes-Oxley Act. The above-mentioned code of ethics and the code of behavior are available on our website www.shinhangroup.com.

On May 25, 2011, the SEC adopted final rules to implement whistleblower provisions of the Dodd-Frank Act, which are applicable to foreign private issuers with securities registered under the U.S. securities laws. The final rules provide that any eligible whistleblower who voluntarily provides the SEC with original information that leads to the successful enforcement of an action brought by the SEC under U.S. securities laws must receive an award of between 10 and 30 percent of the total monetary sanctions collected if the sanctions exceed US$1,000,000. An eligible whistleblower is defined as someone who provides information about a possible violation of the securities laws that he or she reasonably believes has occurred, is ongoing, or is about to occur. The possible violation does not need to be material, probably or even likely, but the information must have a "facially plausible relationship to some securities law violation"; frivolous submissions would not qualify. The final rules also prohibit retaliation against the whistleblower. While the final rules do not require employees to first report allegations of wrongdoing through a company's corporate compliance system, they do seek to incentivize whistleblowers to utilize internal corporate compliance first by, among other things, (i) giving employees who first report information internally the benefit of the internal reporting date for purposes of the SEC program so long as the whistleblower submits the same information to the SEC within 120 days of the initial disclosure; (ii) clarifying that the SEC will consider, as part of the criteria for determining the amount of a whistleblower's award, whether the whistleblower effectively utilized the company's corporate compliance program or hindered the function of the program; and (iii) crediting a whistleblower who reports internally first and whose company passes the information along to the SEC, which would mean the whistleblower could receive a potentially higher award for information gathered in an internal investigation initiated as a result of the whistleblower's internal report.

In addition, the final rules address concerns that the whistleblower rules incentivize officers, directors and those with legal, audit, compliance or similar responsibilities to abuse these positions by making whistleblower complaints to the SEC with respect to information they obtained in these roles by generally providing that information obtained through a communication subject to attorney-client privilege or as a result of legal representation would not be eligible for a whistleblower award unless disclosure would be permitted by attorney conduct rules. Accordingly, officers and directors, auditors and compliance personnel and other persons in similar roles would not be eligible to receive awards for information received in these positions unless (x) they have a reasonable basis to believe that (1) disclosure of the information is necessary to prevent the entity from engaging in conduct that is likely to cause substantial injury to the financial interests of the entity or investors; or (2) the entity is engaging in conduct that will impede an investigation of the misconduct, for example, destroying documents or improperly influencing witnesses; or (y) 120 days have passed since the whistleblower provided the information to senior responsible persons at the entity or 120 days have passed since the whistleblower received the information at a time when these people were already aware of the information.

In Korea, the Act on the Protection of Public Interest Whistleblowers (the "Act on Whistleblowers") was enacted in March 29, 2011 and became effective on September 30, 2011, and was last amended on April 17, 2018. Under the Act on Whistleblowers, a "conduct detrimental to the public interest" means any conduct falling under the penalty provisions of certain acts or any conduct subject to administrative measures such as cancellation or suspension of an approval or a permit. As the Financial Holding Companies Act is included in the "certain acts" above, any conduct falling under the penalty provisions or subject to administrative measures for a violation of the Financial Holding Companies Act constitutes a "conduct detrimental to the public interest." Any person deeming that a conduct detrimental to the public interest has been, or is likely to be, committed may make a public interest report to a representative of the organization involved or a relevant investigative agency. The personal information of a public interest whistleblower shall be kept in confidence, and the measures necessary for personal protection of a public interest whistleblower shall be taken. In addition, any disadvantageous measures against a public interest whistleblower, including discriminatory treatment and delayed payment of wage, are prohibited, and where a public interest report leads to a recovery of, or increase in, revenues of the Government, the public interest whistleblower may be entitled to compensation by the Anti-Corruption and Civil Rights Commission of Korea.

We established a group-wide whistleblower policy in July 2005 and maintain related policies and programs for most of our subsidiaries. For example, Shinhan Bank maintains a whistleblower program named "*Shinhan Jikimi,*" through which any employee, vendor or customer can raise concerns and report suspicious circumstances in confidence using a variety of channels including the Internet, email, postal mail, facsimile and mobile phones. In addition, Shinhan Bank distributes to its employees a quarterly email notice intended to raise awareness of the whistleblower program and posts relevant informative materials on the company bulletin board. At Shinhan Card and Shinhan Investment, we strive to maintain transparency in every aspect of business activities and provide secure and accessible channels for all related parties to raise concerns and report violations.

Shareholder Approval of Equity Compensation Plans

Under the NYSE listing rules, shareholders of U.S. companies listed on the NYSE are required to approve all equity compensation plans.

Under Korean law, if a company issues stock options amounting to 10% or more of its issued and outstanding shares, only a board of director resolution is required for such issuance if permitted by such company's articles of incorporation. Under our articles of incorporation, we may also grant stock options, but since April 1, 2010, we have not granted any stock options.

We currently have two equity compensation plans, consisting of a performance share plan for directors and key employees and an employee stock ownership plan for all employees under the Framework Act on Labor Welfare.

In accordance with our internal regulations, performance shares granted to directors are granted pursuant to a resolution by the board of director, subject to the limit amount set by a resolution at the shareholders' meeting while performance shares granted to key employees are granted pursuant to a resolution by the board of director, without any requirement that the limit amount be approved at the shareholders' meeting. There are no requirements relating to the granting of performance shares under applicable Korean laws and our articles of incorporation.

Under the Framework Act on Labor Welfare, a Korean company may issue stock options up to 20% of its issued and outstanding shares by a resolution at the shareholders' meeting, if permitted by the articles of incorporation. Our articles of incorporation does not contain such provision. The equity compensation scheme for the employee stock ownership association is governed by its internal regulations, over which we have no control under Korean law.

Annual Certification of Compliance

Under the NYSE listing rules, a chief executive officer of a U.S. company listed on the NYSE must annually certify that he or she is not aware of any violation by the company of NYSE corporate governance standards. As a foreign private issuer, we are not subject to this requirement. However, in accordance with rules applicable to both U.S. companies and foreign private issuers, we are required to promptly notify the NYSE in writing if any executive officer becomes aware of any material noncompliance with the NYSE corporate governance standards applicable to us. In addition, foreign private issuers, including us, are required to submit to the NYSE an annual written affirmation relating to compliance with Sections 303A.06 and 303A.11 of the NYSE listed company manual, which are the NYSE corporate governance standards applicable to foreign private issuers. All written affirmations must be executed in the form provided by the NYSE, without modification. An annual written affirmation is required to be submitted to the NYSE within 30 days of filing with the SEC our annual report on Form 20-F. We have been in compliance with this requirement in all material respects and plan to submit such affirmation within the prescribed timeline.

ITEM 16H. *MINE SAFETY DISCLOSURE*

Not applicable.

ITEM 17. *FINANCIAL STATEMENTS*

We have responded to Item 18 in lieu of responding to this item.

ITEM 18. *FINANCIAL STATEMENTS*

Reference is made to Item 19(a) for a list of all financial statements filed as part of this annual report.

ITEM 19. *EXHIBITS*

(a) Exhibits filed as part of this Annual Report:

See Exhibit Index beginning on page 288 of this annual report.

(b) Financial Statements filed as part of this Annual Report:

See Index to Financial Statements on page F-1 of this annual report.

INDEX OF EXHIBITS

1.1	Articles of Incorporation, last amended as of March 26, 2020 (in English)†
2.1	Form of Common Stock Certificate (in English) †*
2.2	Form of Deposit Agreement to be entered into among Shinhan Financial Group, Citibank, N.A., as depositary, and all owners and holders from time to time of American depositary shares issued thereunder, including the form of American depositary receipt*
2.3	Long-term debt instruments of Shinhan Financial Group, Shinhan Bank and other consolidated subsidiaries for which financial statements are required to be filed are omitted pursuant to Item 601(b)(4)(iii) of Regulation S-K. Shinhan Financial Group agrees to furnish the Commission on request a copy of any instrument defining the rights of holders of its long-term debt and that of any subsidiary for which consolidated or unconsolidated financial statements are required to be filed.*
4.1	Stock Purchase Agreement by and between Korea Deposit Insurance Corporation and Shinhan Financial Group dated July 9, 2003**
4.2	Investment Agreement by and between Shinhan Financial Group and Korea Deposit Insurance Corporation dated July 9, 2003*
4.3	Agreed Terms, dated June 22, 2003, by and among the President of Korea Deposit Insurance Corporation, CEO of Shinhan Financial Group, CEO of Chohung Bank, Chairman of the National Financial Industry Labor Union of Korea and the Head of the Chohung Bank Chapter of the National Financial Industry Labor Union*
4.4	Merger Agreement between Shinhan Bank and Chohung Bank (in English) † ***
4.5	Split-Merger Agreement between Shinhan Card and Chohung Bank (in English) † ***
4.6	Form of Share Purchase Agreement, dated January 17, 2007, by and between Shinhan Financial Group and the holders of the redeemable preferred shares and the redeemable convertible shares issued by Shinhan Financial Group as part of the funding for the acquisition of LG Card Co., Ltd. (in English) †****
4.7	LG Card Acquisition Agreement, dated 2006, between Korea Development Bank and 13 other financial institutions, on the one hand, and Shinhan Financial Group†*****
8.1	List of all subsidiaries of Shinhan Financial Group
12.1	Certifications of our Chief Executive Officer required by Rule 13a-14(a) of the Exchange Act
12.2	Certifications of our Chief Financial Officer required by Rule 13a-14(a) of the Exchange Act
13.1	Certifications of our Chief Executive Officer required by Rule 13a-14(b) and Section 1350 of Chapter 63 of the United States Code (18 U.S.C. 1350)
13.2	Certifications of our Chief Financial Officer required by Rule 13a-14(b) and Section 1350 of Chapter 63 of the United States Code (18 U.S.C. 1350)
15.1	Letter from KPMG Samjong Accounting Corp. to the Securities and Exchange Commission dated April 29, 2020
101	Interactive Data Files (XBRL-Related Documents)

† A fair and accurate translation from Korean into English.

* Incorporated by reference to the registrant's previous filing on Form 20-F (No. 001-31798), filed on September 15, 2003.

** Incorporated by reference to the registrant's previous filing on Form 20-F (No. 001-31798), filed on September 15, 2003. Confidential treatment has been requested for certain portions of the Stock Purchase Agreement.

*** Incorporated by reference to the registrant's previous filing on Form 20-F (No. 001-31798), filed on June 30, 2006.

**** Incorporated by reference to the registrant's previous filing on Form 20-F (No. 001-31798), filed on June 29, 2007.

***** Incorporated by reference to registrant's previous filing on Form 20-F (No. 001-31798), filed on June 30, 2008.

SIGNATURES

The registrant hereby certifies that it meets all of the requirements for filing on Form 20-F and that it has duly caused and authorized the undersigned to sign this annual report on its behalf.

Date: April 29, 2020

Shinhan Financial Group Co., Ltd.

By: /s/ Cho Yong-byoung

Name: Cho Yong-byoung

Title: Chairman and Chief Executive Officer

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

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

Opinions on the Consolidated Financial Statements and Internal Control Over Financial Reporting

We have audited the accompanying consolidated statements of financial position of Shinhan Financial Group Co., Ltd. and subsidiaries (the "Group") as of December 31, 2019 and 2018, the related consolidated statements of comprehensive income, changes in equity, and cash flows for each of the years in the three-year period ended December 31, 2019, and the related notes (collectively, the consolidated financial statements). We also have audited the Group's internal control over financial reporting as of December 31, 2019, based on criteria established in Internal Control — Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Group as of December 31, 2019 and 2018, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2019, in conformity with International Financial Reporting Standards as issued by the International Accounting Standards Board. Also in our opinion, the Group maintained, in all material respects, effective internal control over financial reporting as of December 31, 2019 based on criteria established in Internal Control — Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission.

The Group acquired a 59.15% interest in Orange Life Insurance Co., Ltd. during 2019, and the management excluded from its assessment of the effectiveness of the Group's internal control over financial reporting as of December 31, 2019, Orange Life Insurance Co., Ltd.'s internal control over financial reporting associated with 5.95% of total assets and 7.84% of total profit before income tax included in the consolidated financial statements of the Group as of and for the year ended December 31, 2019. Our audit of internal control over financial reporting of the Group also excluded an evaluation of the internal control over financial reporting of Orange Life Insurance Co., Ltd.

Basis for Opinions

The Group's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying "Management's Annual Report on Internal Control over Financial Reporting". Our responsibility is to express an opinion on the Group's consolidated financial statements and an opinion on the Group's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Group in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current period audit of the financial statements that were communicated or required to be communicated to the audit committee and that: (1) relate to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

(i) Assessment of the allowance for credit loss

As discussed in Notes 4(b) and 12 to the consolidated financial statements, the Group recognized an allowance for credit loss using the Expected Credit Loss (ECL) impairment model for the loans at amortized cost amounting to KRW 2,684,835 million as of December 31, 2019. ECL allowances are measured at amounts equal to either (i) 12-month ECL; or (ii) lifetime ECL for those loans that have experienced a Significant Increase in Credit Risk (SICR) since initial recognition or when the loans are impaired. The Group measures ECL allowance on an individual basis for individually significant corporate loans which have had significant increases in credit risk or have become impaired. The individual assessment involves judgment by the Group in estimating the future cash flows including the value of related collateral. The allowance for credit loss for all other loans is measured on a collective basis. For these loans, the Group measures ECL by estimating the Probability of Default (PD), the Loss Given Default (LGD) and the Exposure at Default (EAD) as well as the impact of Forward-Looking Information (FLI). For corporate loans, one of the relevant inputs for determining PD is the internal credit risk rating of the borrower. The internal credit risk rating of the borrower is defined by the Group using quantitative and qualitative factors. The evaluation of the qualitative factors involves a high level of judgment by the Group.

We have identified the assessment of the allowance for credit loss as a critical audit matter. Subjective auditor judgment was required to evaluate the Group's estimates of future cash flows for the corporate loans with ECL measured on an individual basis. In addition, subjective auditor judgment was required to evaluate the Group's estimates and judgments with respect to the measurement of collective ECL. These include the determination of when a loan's credit risk has significantly increased since initial recognition (SICR), the analysis of the qualitative factors in determining the internal credit risk ratings of corporate loans, the calculation of 12 month and lifetime PD, the calculation of LGD and the manner in which FLI is incorporated in the ECL calculation.

The primary procedures we performed to address the above critical audit matter included the following:

- We tested certain internal controls over: (i) the estimated future cash flows for individually assessed corporate loans, including controls over the work of external valuation specialists' engaged by the Group; (ii) the assessment of qualitative factors in the process of determining the internal credit risk rating of the loans, including the review of internal credit risk ratings performed by an independent department with access to the same qualitative information; (iii) the validation of the models used to determine the inputs to the collective ECL calculation and the impact of FLI; (iv) the determination of SICR; and (v) the completeness and accuracy of data used in the models.
- We assessed the estimates of future cash flows on a sample basis by (i) comparing assumptions made with information obtained from internal and external sources, and (ii) assessing the reliability of information used in the estimates, including the qualification of external valuation specialists engaged by the Group.
- We involved credit risk and information technology professionals with specialized skills, industry knowledge and relevant experience who assisted in: (i) evaluating the methodology and key inputs used in determining the PD and LGD parameters and SICR; (ii) evaluating how FLI was incorporated in the collective ECL model; and (iii) recalculating a sample of ECL models and related inputs.
- We checked, for a sample of corporate loans with ECL measured on a collective basis, that Group policy was applied in the internal credit risk rating process and assessed if the Group's policy is aligned with international financial reporting standards.

(ii) Assessment of the measurement of fair value of level 3 financial instruments

As discussed in Note 4.(e) to the consolidated financial statements, the Group classifies financial instruments measured at fair value using valuation techniques where one or more significant inputs are not based on observable market data as level 3. As of December 31, 2019, the recorded fair values of the Group's debt securities, equity securities, derivative assets, derivative liabilities, and financial liabilities designated at fair value through profit or loss classified as level 3 were KRW 8,951,398 million, KRW 511,831 million, KRW 464,826 million, KRW 308,970 million, and KRW 8,511,489 million, respectively. In order to measure these financial instruments, the Group uses discounted cash flow models, option models, or net asset value models and these models use various inputs and assumptions, depending on the nature of the level 3 financial instruments.

We identified the assessment of the measurement of fair value for financial instruments classified as level 3 as a critical audit matter. Subjective auditor judgment was required to evaluate the methodologies used by the Group to value the level 3 financial instruments. In addition, assessing the models' significant inputs which were not directly observable in financial markets, such as volatility of underlying assets, correlations, regression coefficients, discount rates, and growth rates, and the related assumptions, required subjective auditor judgment.

The primary procedures we performed to address this critical audit matter included the following. We tested certain internal controls over the Group's process to measure the fair value of level 3 financial instruments. This included controls related to (1) the development, validation and changes in the methodology of the models used to value the level 3 financial instruments, (2) the development and application of the significant unobservable inputs and assumptions used in the measurement of fair values, and (3) the monitoring of changes to the inputs and assumptions. We evaluated the characteristics of new products and the valuation techniques used by the

Group for these new products. For a sample of level 3 financial instruments, we compared the Group's fair value measurement recorded at period end to the sales price of a subsequent transaction. We involved valuation professionals with specialized skills and knowledge, who assisted in:

- Evaluating the valuation techniques and significant unobservable inputs on a sample basis; and
- Developing models and significant unobservable inputs independently and comparing the resulting fair value estimate to the Group's fair value measurement for a sample of level 3 financial instruments.

/s/ KPMG Samjong Accounting Corp.
We have served as the Group's auditor since 2002.
Seoul, Korea
April 29, 2020

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Consolidated Statements of Financial Position

As of December 31, 2018 and 2019

(In millions of won)	Note	2018	2019
Assets			
Cash and due from banks at amortized cost	4,8,19	₩ 17,348,626	28,423,744
Financial assets at fair value through profit or loss	4,9,19	43,534,766	53,163,143
Derivative assets	4,10	1,793,613	2,829,274
Securities at fair value through other comprehensive income	4,11,19	38,314,170	59,381,053
Securities at amortized cost	4,11,19	28,478,136	45,582,065
Loans at amortized cost	4,12,19	299,609,472	323,244,979
Property and equipment, net	13,18,19,51	3,003,886	4,083,328
Intangible assets	14	4,320,134	5,558,714
Investments in associates	15	671,330	1,452,861
Current tax receivable		45,100	88,433
Deferred tax assets	44	426,965	218,254
Investment property	16	474,820	488,610
Employee benefits	25	—	1,682
Other assets	4,17	21,571,918	27,878,281
Assets held for sale		7,574	25,160
Total assets		₩459,600,510	552,419,581
Liabilities			
Deposits	4,20	₩265,000,190	294,874,256
Financial liabilities at fair value through profit or loss	4,21	1,420,306	1,632,457
Financial liabilities designated at fair value through profit or loss	4,22	8,535,800	9,409,456
Derivative liabilities	4,10	2,439,892	2,303,012
Borrowings	4,23	29,818,542	34,863,156
Debt securities issued	4,24	63,227,699	75,363,364
Liabilities for defined benefit obligations	25	127,348	121,140
Provisions	26	508,416	557,024
Current tax payable		430,306	512,757
Deferred tax liabilities	44	22,020	451,603
Liabilities under insurance contracts	27	26,218,882	52,163,417
Other liabilities	4,28,51	25,199,679	38,237,558
Total liabilities		₩422,949,080	510,489,200
Equity	29		
Capital stock		₩ 2,645,053	2,732,463
Hybrid bonds		1,531,759	1,731,235
Capital surplus		9,895,488	10,565,353
Capital adjustments		(552,895)	(1,116,770)
Accumulated other comprehensive loss		(753,220)	(260,156)
Retained earnings		22,959,440	25,525,821
Total equity attributable to equity holders of Shinhan Financial Group Co., Ltd.		35,725,625	39,177,946
Non-controlling interests		925,805	2,752,435
Total equity		36,651,430	41,930,381
Total liabilities and equity		₩459,600,510	552,419,581

See accompanying notes to the consolidated financial statements.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Consolidated Statements of Comprehensive Income

For the years ended December 31, 2017, 2018 and 2019

(In millions of won)	Notes	2017	2018	2019
Interest income		₩11,798,654	13,572,456	15,707,362
Interest expense		(3,955,701)	(4,992,367)	(5,969,398)
Net interest income	31	7,842,953	8,580,089	9,737,964
Fees and commission income		4,044,955	3,295,256	3,557,013
Fees and commission expense		(2,334,001)	(1,356,259)	(1,416,494)
Net fees and commission income	32	1,710,954	1,938,997	2,140,519
Insurance income		4,599,808	4,398,738	7,569,425
Insurance expenses		(5,059,847)	(4,870,437)	(8,066,351)
Net insurance expenses	27	(460,039)	(471,699)	(496,926)
Dividend income	33	257,306	87,826	82,158
Net gain on financial instruments at fair value through profit or loss	34	—	420,026	1,385,482
Net gain (loss) on financial instruments at fair value through profit or loss (overlay approach)	9	—	74,944	(247,585)
Net trading income	35	963,223	—	—
Net loss on financial instruments designated at fair value through profit or loss (IFRS 9)	36	—	(26,643)	(846,046)
Net loss on financial instruments designated at fair value through profit or loss (IAS 39)	37	(1,059,826)	—	—
Net foreign currency transaction gain		364,006	194,136	440,948
Net gain on disposal of financial asset at fair value through other comprehensive income	11	—	20,554	152,278
Net gain on disposal of available-for-sale financial assets		499,187	—	—
Net gain (loss) on disposal of securities at amortized cost	11	—	(9)	66
Provision for allowance for credit loss	38	—	(747,877)	(980,692)
Impairment loss on financial assets	39	(1,013,548)	—	—
General and administrative expense	40	(4,811,198)	(4,741,575)	(5,134,674)
Other operating expenses, net	42	(462,992)	(829,355)	(1,187,242)
Operating income		3,830,026	4,499,414	5,046,250
Equity method income	15	20,393	17,488	53,287
Other non-operating income (expense), net	43	(52,811)	(50,292)	(188,029)
Profit before income taxes		3,797,608	4,466,610	4,911,508
Income tax expense	44	848,403	1,268,345	1,269,124
Profit for the year		₩ 2,949,205	3,198,265	3,642,384

See accompanying notes to the consolidated financial statements.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES
Consolidated Statements of Comprehensive Income (Continued)
For the years ended December 31, 2017, 2018 and 2019

(In millions of won, except earnings per share)	Notes	2017	2018	2019
Other comprehensive income (loss) for the year, net of income tax	29			
Items that are or may be reclassified to profit or loss:				
Gain on financial asset at fair value through other comprehensive income		₩ —	161,008	352,085
Gain (loss) on financial instruments at fair value through profit or loss (overlay approach)	9	—	(54,333)	162,967
Loss on available-for-sale financial assets		(323,127)	—	—
Equity in other comprehensive income (loss) of associates		(22,813)	7,407	3,302
Foreign currency translation adjustments for foreign operations		(194,172)	19,983	105,771
Net change in unrealized fair value of cash flow hedges		15,904	(20,192)	(18,589)
Other comprehensive income (loss) of separate account		(9,278)	8,676	10,427
		(533,486)	122,549	615,963
Items that will never be reclassified to profit or loss:				
Remeasurements of the defined benefit liability		103,525	(93,098)	(54,644)
Equity in other comprehensive income (loss) of associates		847	28	(8)
Valuation gain on financial asset at fair value through other comprehensive income		—	22,725	18,885
Loss on disposal of financial asset at fair value through other comprehensive income		—	(2,635)	(5,861)
Changes in own credit risk on financial liabilities designated at fair value through profit of loss		—	1,723	(8,425)
		104,372	(71,257)	(50,053)
Total other comprehensive income (loss), net of income tax		(429,114)	51,292	565,910
Total comprehensive income for the year		₩2,520,091	3,249,557	4,208,294
Profit for the year attributable to:				
Equity holders of Shinhan Financial Group Co., Ltd.	29,45	₩2,918,816	3,156,722	3,403,497
Non-controlling interest		30,389	41,543	238,887
		₩2,949,205	3,198,265	3,642,384
Total comprehensive income attributable to:				
Equity holders of Shinhan Financial Group Co., Ltd.		₩2,491,251	3,207,602	3,890,701
Non-controlling interest		28,840	41,955	317,593
		₩2,520,091	3,249,557	4,208,294
Earnings per share:	29,45			
Basic and diluted earnings per share in won		₩ 6,118	6,579	7,000

See accompanying notes to the consolidated financial statements.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Consolidated Statements of Changes in Equity

For the years ended December 31, 2017, 2018 and 2019

(In millions of won)

	Equity attributable to equity holders of Shinhan Financial Group Co., Ltd.								
	Capital stock	**Hybrid bonds**	**Capital surplus**	**Capital adjustments**	**Accumulated other comprehensive income (loss)**	**Retained earnings**	**Sub-total**	**Non-controlling interests**	**Total**
Balance at January 1, 2017	₩2,645,053	498,316	9,887,335	(458,461)	(102,583)	18,640,038	31,109,698	635,282	31,744,980
Total comprehensive income for the period									
Profit for the year	—	—	—	—	—	2,918,816	2,918,816	30,389	2,949,205
Other comprehensive income (loss), net of income tax:									
Foreign currency translation adjustments	—	—	—	—	(193,474)	—	(193,474)	(698)	(194,172)
Net change in unrealized fair value of available-for-sale financial assets	—	—	—	—	(322,056)	—	(322,056)	(1,071)	(323,127)
Equity in other comprehensive loss of associates	—	—	—	—	(21,552)	(414)	(21,966)	—	(21,966)
Net change in unrealized fair value of cash flow hedges	—	—	—	—	15,904	—	15,904	—	15,904
Other comprehensive income of separate account	—	—	—	—	(9,278)	—	(9,278)	—	(9,278)
Remeasurements of defined benefit plans	—	—	—	—	103,305	—	103,305	220	103,525
Total other comprehensive loss	—	—	—	—	(427,151)	(414)	(427,565)	(1,549)	(429,114)
Total comprehensive income (loss)	—	—	—	—	(427,151)	2,918,402	2,491,251	28,840	2,520,091
Other changes in equity									
Dividends	—	—	—	—	—	(687,589)	(687,589)	—	(687,589)
Dividends to hybrid bonds	—	—	—	—	—	(17,678)	(17,678)	—	(17,678)
Issuance of hybrid bonds	—	224,466	—	—	—	—	224,466	—	224,466
Redemption of hybrid bond	—	(298,861)	—	(1,139)	—	—	(300,000)	—	(300,000)
Change in other capital adjustments	—	—	—	61,565	—	(61,493)	72	—	72
Change in other non-controlling interests	—	—	—	—	—	—	—	219,275	219,275
	—	(74,395)	—	60,426	—	(766,760)	(780,729)	219,275	(561,454)
Balance at December 31, 2017	₩2,645,053	423,921	9,887,335	(398,035)	(529,734)	20,791,680	32,820,220	883,397	33,703,617

See accompanying notes to the consolidated financial statements

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Consolidated Statements of Changes in Equity (Continued)

For the years ended December 31, 2017, 2018 and 2019

(In millions of won)

	Equity attributable to equity holders of Shinhan Financial Group Co., Ltd.								
	Capital stock	**Hybrid bonds**	**Capital surplus**	**Capital adjustments**	**Accumulated other comprehensive income (loss)**	**Retained earnings**	**Sub-total**	**Non-controlling interests**	**Total**
Balance at January 1, 2018	₩2,645,053	423,921	9,887,335	(398,035)	(529,734)	20,791,680	32,820,220	883,397	33,703,617
Adoption effect of IFRS 9 and 15, net of tax (Note 51)	—	—	—	—	(277,011)	(251,854)	(528,865)	(3,155)	(532,020)
Balance at January 1, 2018 (adjusted)	2,645,053	423,921	9,887,335	(398,035)	(806,745)	20,539,826	32,291,355	880,242	33,171,597
Total comprehensive income for the year									
Profit for the year	—	—	—	—	—	3,156,722	3,156,722	41,543	3,198,265
Other comprehensive income (loss), net of income tax:									
Gain on financial asset at fair value through other comprehensive income	—	—	—	—	179,793	—	179,793	1,305	181,098
Loss on financial instrument at fair value through profit or loss (overlay approach)	—	—	—	—	(54,333)	—	(54,333)	—	(54,333)
Foreign currency translation adjustments	—	—	—	—	20,465	—	20,465	(482)	19,983
Equity in other comprehensive income of associates	—	—	—	—	7,435	—	7,435	—	7,435
Net change in unrealized fair value of cash flow hedges	—	—	—	—	(20,192)	—	(20,192)	—	(20,192)
Other comprehensive income of separate account	—	—	—	—	8,676	—	8,676	—	8,676
Remeasurements of defined benefit plans	—	—	—	—	(92,687)	—	(92,687)	(411)	(93,098)
Changes in own credit risk on financial liabilities designated at fair value through profit or loss	—	—	—	—	1,723	—	1,723	—	1,723
Total other comprehensive income	—	—	—	—	50,880	—	50,880	412	51,292
Total comprehensive income	₩ —	—	—	—	50,880	3,156,722	3,207,602	41,955	3,249,557

See accompanying notes to the consolidated financial statements

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES
Consolidated Statements of Changes in Equity (Continued)
For the years ended December 31, 2017, 2018 and 2019

(In millions of won)

	Equity attributable to equity holders of Shinhan Financial Group Co., Ltd.								
	Capital stock	**Hybrid bonds**	**Capital surplus**	**Capital adjustments**	**Accumulated other comprehensive income (loss)**	**Retained earnings**	**Sub-total**	**Non-controlling interests**	**Total**
Other changes in equity									
Dividends	₩ —	—	—	—	—	(687,589)	(687,589)	—	(687,589)
Dividends to hybrid bonds	—	—	—	—	—	(40,357)	(40,357)	—	(40,357)
Issuance of hybrid bonds	—	1,107,838	—	—	—	—	1,107,838	—	1,107,838
Acquisition of treasury stock	—	—	—	(155,923)	—	—	(155,923)	—	(155,923)
Change in other capital adjustments	—	—	8,153	1,063	—	(6,517)	2,699	—	2,699
Change in other non-controlling interests	—	—	—	—	—	—	—	3,608	3,608
	—	1,107,838	8,153	(154,860)	—	(734,463)	226,668	3,608	230,276
Reclassification of OCI retained earnings	—	—	—	—	2,645	(2,645)	—	—	—
Balance at December 31, 2018	₩2,645,053	1,531,759	9,895,488	(552,895)	(753,220)	22,959,440	35,725,625	925,805	36,651,430

See accompanying notes to the consolidated financial statements

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES
Consolidated Statements of Changes in Equity (Continued)
For the years ended December 31, 2017, 2018 and 2019

(In millions of won)

	Equity attributable to equity holders of Shinhan Financial Group Co., Ltd.								
	Capital stock	**Hybrid bonds**	**Capital surplus**	**Capital adjustments**	**Accumulated other comprehensive income (loss)**	**Retained earnings**	**Sub-total**	**Non-controlling interests**	**Total**
Balance at January 1, 2019	₩2,645,053	1,531,759	9,895,488	(552,895)	(753,220)	22,959,440	35,725,625	925,805	36,651,430
Total comprehensive income for the year									
Profit for the year	—	—	—	—	—	3,403,497	3,403,497	238,887	3,642,384
Other comprehensive income (loss), net of income tax:									
Gain on financial asset at fair value through other comprehensive income	—	—	—	—	297,652	—	297,652	67,457	365,109
Gain on financial instrument at fair value through profit or loss (overlay approach)	—	—	—	—	150,678	—	150,678	12,289	162,967
Equity in other comprehensive income of associates	—	—	—	—	3,294	—	3,294	—	3,294
Foreign currency translation adjustments	—	—	—	—	104,388	—	104,388	1,383	105,771
Net change in unrealized fair value of cash flow hedges	—	—	—	—	(15,960)	—	(15,960)	(2,629)	(18,589)
Other comprehensive income of separate account	—	—	—	—	10,427	—	10,427	—	10,427
Remeasurements of defined benefit plans	—	—	—	—	(54,850)	—	(54,850)	206	(54,644)
Changes in own credit risk on financial liabilities designated at fair value through profit or loss	—	—	—	—	(8,425)	—	(8,425)	—	(8,425)
Total other comprehensive income	—	—	—	—	487,204	—	487,204	78,706	565,910
Total comprehensive income	₩ —	—	—	—	487,204	3,403,497	3,890,701	317,593	4,208,294

See accompanying notes to the consolidated financial statements.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Consolidated Statements of Changes in Equity (Continued)

For the years ended December 31, 2017, 2018 and 2019

(In millions of won)	Equity attributable to equity holders of Shinhan Financial Group Co., Ltd.								
	Capital stock	**Hybrid bonds**	**Capital surplus**	**Capital adjustments**	**Accumulated other comprehensive income (loss)**	**Retained earnings**	**Sub-total**	**Non-controlling interests**	**Total**
Other changes in equity									
Dividends	₩ —	—	—	—	—	(753,041)	(753,041)	—	(753,041)
Dividends to hybrid bonds	—	—	—	—	—	(61,993)	(61,993)	—	(61,993)
Issuance of hybrid bonds	—	199,476	—	—	—	—	199,476	—	199,476
Issuance of convertible preferred shares	87,410	—	660,381	—	—	—	747,791	—	747,791
Acquisition of treasury stock	—	—	—	(444,077)	—	—	(444,077)	—	(444,077)
Change in other capital adjustments	—	—	9,484	(119,798)	—	(16,222)	(126,536)	—	(126,536)
Change in other non-controlling interests	—	—	—	—	—	—	—	1,509,037	1,509,037
	87,410	199,476	669,865	(563,875)	—	(831,256)	(438,380)	1,509,037	1,070,657
Reclassification of OCI retained earnings	—	—	—	—	5,860	(5,860)	—	—	—
Balance at December 31, 2019	₩2,732,463	1,731,235	10,565,353	(1,116,770)	(260,156)	25,525,821	39,177,946	2,752,435	41,930,381

See accompanying notes to the consolidated financial statements.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES
Consolidated Statements of Cash Flows
For the years ended December 31, 2017, 2018 and 2019

(In millions of won)	Notes	2017	2018	2019
Cash flows from operating activities				
Profit before income taxes		₩ 3,797,608	4,466,610	4,911,508
Adjustments for:				
Interest income	31	(11,798,654)	(13,572,456)	(15,707,362)
Interest expense	31	3,955,701	4,992,367	5,969,398
Dividend income	33	(257,306)	(87,826)	(82,158)
Net fees and commission expense		169,640	176,932	125,975
Net insurance loss		2,571,094	2,080,509	2,098,617
Net loss (gain) on financial instruments at fair value through profit or loss	34	—	66,455	(427,618)
Net loss (gain) on financial instruments at fair value through profit or loss (overlay approach)	9	—	(74,944)	247,585
Net trading gain	35	(334,133)	—	—
Net foreign currency translation loss (gain)		(87,384)	377,632	147,952
Net loss (gain) on financial instrument designated at fair value through profit or loss (IFRS 9)	36	—	(382,667)	33,872
Net loss on financial instruments designated at fair value through profit or loss (IAS 39)	37	231,772	—	—
Net gain on disposal of financial asset at fair value through other comprehensive income	11	—	(20,554)	(152,278)
Net gain on disposal of available-for-sale financial assets		(499,187)	—	—
Net loss (gain) on disposal of securities at amortized cost	11	—	9	(66)
Provision for allowance for credit loss	38	—	747,877	980,692
Provision for credit losses	39	815,249	—	—
Impairment losses on other financial assets	39	198,299	—	—
Employee costs	25	232,709	155,672	188,313
Depreciation and amortization	40	253,344	301,916	677,152
Other operating expense (income)	42	602,027	(278,274)	305,781
Equity method income, net	15	(20,393)	(17,488)	(53,287)
Other non-operating expense (income), net	43	(29,080)	3,147	148,091
		₩ (3,996,302)	(5,531,693)	(5,499,341)

See accompanying notes to the consolidated financial statements.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES
Consolidated Statements of Cash Flows (Continued)
For the years ended December 31, 2017, 2018 and 2019

(In millions of won)	Note	2017	2018	2019
Changes in assets and liabilities:				
Cash and due from banks at amortized cost		₩ —	6,024,743	(10,059,356)
Due from banks		(3,347,818)	—	—
Securities at fair value through profit or loss		—	(3,082,516)	(3,977,211)
Due from banks at fair value through profit or loss		—	(82,014)	73,904
Loans at fair value through profit or loss		—	(422,326)	(943,321)
Trading assets and liabilities		(1,706,990)	—	—
Financial asset designated at fair value through profit or loss (IFRS 9)		—	723,037	847,715
Financial instruments designated at fair value through profit or loss (IAS 39)		(1,300,760)	—	—
Derivative instruments		(488,706)	203,006	58,532
Loans at amortized cost		—	(27,547,413)	(18,831,825)
Loans		(19,232,732)	—	—
Other assets		(250,806)	(5,177,725)	(4,452,651)
Deposits		15,632,957	16,699,467	29,123,272
Liabilities for defined benefit obligations		(178,054)	(145,639)	(263,882)
Provisions		(69,584)	14,542	28,380
Other liabilities		4,845,053	174,590	7,851,505
		(6,097,440)	(12,618,248)	(544,938)
Income taxes paid		(664,286)	(850,696)	(1,130,148)
Interest received		11,425,960	13,208,601	15,200,114
Interest paid		(3,710,093)	(5,058,596)	(5,793,865)
Dividends received		265,887	63,826	35,716
Net cash provided by operating activities		₩ 1,021,334	(6,320,196)	7,179,046

See accompanying notes to the consolidated financial statements.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Consolidated Statements of Cash Flows (Continued)

For the years ended December 31, 2017, 2018 and 2019

(In millions of won)	Notes	2017	2018	2019
Cash flows from investing activities				
Decrease in financial instruments at fair value through profit or loss		₩ —	2,150,860	3,690,283
Increase in financial instruments at fair value through profit or loss		—	(3,290,960)	(6,712,873)
Proceeds from disposal of financial assets at fair value through other comprehensive income		—	27,074,948	36,334,241
Acquisition of financial assets at fair value through other comprehensive income		—	(27,037,290)	(46,908,632)
Proceeds from disposal of available-for-sale financial assets		29,638,281	—	—
Acquisition of available-for-sale financial assets		(34,703,066)	—	—
Proceeds from disposal of financial assets at amortized cost		—	2,093,506	6,722,627
Acquisition of financial assets at amortized cost		—	(5,836,342)	(12,209,898)
Proceeds from disposal of held-to-maturity financial assets		1,712,326	—	—
Acquisition of held-to-maturity financial assets		(7,033,310)	—	—
Proceeds from disposal of property and equipment	13,43	11,459	39,202	51,942
Acquisition of property and equipment	13	(155,186)	(142,933)	(270,386)
Proceeds from disposal of intangible assets	14,43	9,286	3,638	24,825
Acquisition of intangible assets	14	(111,257)	(157,160)	(318,930)
Proceeds from disposal of investments in associates		163,649	189,118	182,604
Acquisition of investments in associates		(380,213)	(227,914)	(669,341)
Proceeds from disposal of investment property	16,43	4,869	15,433	86,422
Acquisition of investment property	16	(2,125)	(115,333)	(2,774)
Proceeds from disposal of assets held for sale		10,466	4,498	137
Proceeds from settlement of hedging derivative financial instruments for available-for-sale financial assets		85,616	67,039	19,303
Payment for settlement of hedging derivative financial instruments for available-for-sale financial assets		(27,629)	(26,653)	(195,900)
Business combination, net of cash acquired (used)	50	83,631	(4,498)	(2,246,932)
Other, net		(10,435)	(311,744)	(264,585)
Net cash used in investing activities		₩(10,703,638)	(5,512,585)	(22,687,867)

See accompanying notes to the consolidated financial statements.

SHINHAN FINANCIAL GROUP CO., LTD. AND SUBSIDIARIES

Consolidated Statements of Cash Flows (Continued)

For the years ended December 31, 2017, 2018 and 2019

(In millions of won)	Note	2017	2018	2019
Cash flows from financing activities				
Issuance of hybrid bonds		₩ 224,466	1,107,838	199,476
Redemption of hybrid bonds		(300,000)	—	—
Net increase in borrowings		3,047,844	1,772,203	5,017,269
Proceeds from debt securities issued		20,006,957	26,487,712	31,083,390
Repayments of debt securities issued		(12,222,815)	(14,689,246)	(19,881,717)
Dividends paid		(706,565)	(714,705)	(830,772)
Proceeds from settlement of hedging derivative financial instruments for debt securities issued		65,220	10,675	1,694,362
Payment for settlement of hedging derivative financial instruments for debt securities issued		(6,509)	(16,832)	(1,716,320)
Acquisition of treasury stock		—	(151,993)	(444,077)
Increase in non-controlling interests		215,357	347	312,390
Redemption of lease liabilities		—	—	(269,362)
Issuance of convertible preferred shares		—	—	747,791
Other, net		8,498	528	(33,619)
Net cash provided by financing activities		10,332,453	13,806,527	15,878,811
Effect of exchange rate fluctuations on cash and cash equivalents held		(46,035)	(30,640)	29,428
Increase (decrease) in cash and cash equivalents		604,114	1,943,106	399,418
Cash and cash equivalents at beginning of year	47	5,632,536	6,236,650	8,179,756
Cash and cash equivalents at end of year	47	₩ 6,236,650	8,179,756	8,579,174

See accompanying notes to the consolidated financial statements.

(In millions of won)

1. Reporting entity

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

(a) Controlling company

Shinhan Financial Group Co., Ltd. (the "Shinhan Financial Group"), a controlling company, was incorporated on September 1, 2001 for the main purposes of Shinhan Bank, Shinhan Securities Co., Ltd., Shinhan Capital Co., Ltd., and Shinhan BNP Asset Management Co., Ltd. with a stock transfer. The total capital stock amounted to ₩1,461,721 million. Also, Shinhan Financial Group's shares has been listed on the Korea Exchange since September 10, 2001 and Shinhan Financial Group's American Depositary Shares were listed on the New York Stock Exchange since September 16, 2003.

(b) Ownership of Shinhan Financial Group and its major consolidated subsidiaries as of December 31, 2018 and 2019 are as follows:

Investor	Investee (*1)	Location	Date of financial information	Ownership (%) 2018	Ownership (%) 2019
Shinhan Financial Group Co., Ltd.	Shinhan Bank	Korea	December 31	100.0	100.0
”	Shinhan Card Co., Ltd.	”	”	100.0	100.0
”	Shinhan Investment Corp. (*2)	”	”	100.0	100.0
”	Shinhan Life Insurance Co., Ltd.	”	”	100.0	100.0
”	Orange Life Insurance Co., Ltd. (*3)	”	”	—	59.2
”	Shinhan Capital Co., Ltd.	”	”	100.0	100.0
”	Jeju Bank (*4)	”	”	71.9	75.3
”	Shinhan Credit Information Co., Ltd.	”	”	100.0	100.0
”	Shinhan Alternative Investment Management Inc.	”	”	100.0	100.0
”	Shinhan BNP Paribas Asset Management Co., Ltd.	”	”	65.0	65.0
”	SHC Management Co., Ltd.	”	”	100.0	100.0
”	Shinhan DS	”	”	100.0	100.0
”	Shinhan Savings Bank	”	”	100.0	100.0
”	Asia Trust Co., Ltd. (*5)	”	”	—	60.0
”	Shinhan AITAS Co., Ltd.	”	”	99.8	99.8
”	Shinhan REITs Management Co., Ltd.	”	”	100.0	100.0
”	Shinhan AI Co., Ltd. (*6)	”	”	—	100.0
Shinhan Bank	Shinhan Asia Limited	Hong Kong	”	99.9	99.9
”	Shinhan Bank America	USA	”	100.0	100.0
”	Shinhan Bank Europe GmbH	Germany	”	100.0	100.0
”	Shinhan Bank Cambodia	Cambodia	”	97.5	97.5

(In millions of won)

1. Reporting entity (continued)

Investor	Investee (*1)	Location	Date of financial information	Ownership (%) 2018	Ownership (%) 2019
”	Shinhan Bank Kazakhstan Limited	Kazakhstan	December 31	100.0	100.0
”	Shinhan Bank Canada	Canada	”	100.0	100.0
”	Shinhan Bank (China) Limited	China	”	100.0	100.0
”	Shinhan Bank Japan	Japan	”	100.0	100.0
”	Shinhan Bank Vietnam Ltd.	Vietnam	”	100.0	100.0
”	Banco Shinhan de Mexico	Mexico	”	99.9	99.9
”	PT Bank Shinhan Indonesia	Indonesia	”	99.0	99.0
Shinhan Card Co., Ltd.	LLP MFO Shinhan Finance	Kazakhstan	”	100.0	100.0
”	PT. Shinhan Indo Finance	Indonesia	”	50.0	50.0
”	Shinhan Microfinance Co., Ltd.	Myanmar	”	100.0	100.0
”	Shinhan Vietnam Finance (*7)	Vietnam	”	—	100.0
Shinhan Investment Corp.	Shinhan Investment Corp. USA Inc.	USA	”	100.0	100.0
”	Shinhan Investment Corp. Asia Ltd.	Hong Kong	”	100.0	100.0
”	SHINHAN SECURITIES VIETNAM CO., LTD	Vietnam	”	100.0	100.0
”	PT. Shinhan Sekuritas Indonesia	Indonesia	”	99.0	99.0
PT Shinhan Sekuritas Indonesia	PT. Shinhan Asset Management Indonesia	”	”	75.0	75.0
Shinhan BNP Paribas Asset Management Co., Ltd.	Shinhan BNP Paribas Asset Management (Hong Kong) Limited	Hong Kong	”	100.0	100.0
Shinhan DS	SHINHAN DS VIETNAM CO., LTD.	Vietnam	”	100.0	100.0

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

(*2) The controlling company has participated in issuing additional shares of Shinhan Investment Corp. amounting to ₩660 billion for the year ended December 31, 2019.

(*3) The Group entered into a share purchase agreement to acquire a 59.15% stake in Orange Life Insurance Co., Ltd. for the years ended December 31, 2018, and the effective stake increased to 60.24% due to the acquisition of treasury shares by Orange Life Insurance Co. Ltd. for the years ended December 31, 2019.

(*4) The Group purchased 1,100,000 shares of Jeju Bank from the Group’s largest shareholder, the National Pension Service for the year ended December 31, 2019.

(*5) The Group acquired 60.00% stake in Asia Trust Co., Ltd. for the year ended December 31, 2019.

(In millions of won)

1. Reporting entity (continued)

(*6) Shinhan AI Co., Ltd. is a subsidiary newly invested for the year ended December 31, 2019. The controlling company has participated in issuing additional shares of Shinhan AI Co., Ltd. shares amounting to ₩40 billion.

(*7) The Group acquired 100% stake in Vietnam-based Prudential Vietnam Finance Co., Ltd. for the year ended December 31, 2019 and changed the name of corporate to Shinhan Vietnam Finance Co., Ltd.

(c) Consolidated structured entities

Consolidated structured entities are as follows:

Category	Consolidated structured entities	Description
Trust	18 trusts managed by Shinhan Bank including development trust	A trust is consolidated when the Group as a trustee is exposed to variable returns, for example, if principle or interest amounts of the entrusted properties falls below guaranteed amount, the Group should compensate it; and the Group has the ability to affect those returns.
Asset-Backed Securitization	MPC Yulchon Green I and 196 others	An entity for asset backed securitization is consolidated when the Group has the ability to dispose assets or change the conditions of the assets, is exposed to variable returns and has the ability to affect the variable returns providing credit enhancement and purchases of subordinated securities.
Structured Financing	SHPE Holdings One Co., Ltd.	An entity established for structured financing relating to real estate, shipping, or mergers and acquisitions is consolidated, when the Group has granted credit to the entity, has sole decision-making authority of these entities due to the entities default, and is exposed to, or has rights to related variable returns.
Investment Fund	KoFC Shinhan Frontier Champ 2010-4 PEF and 111 others	An investment fund is consolidated, when the Group manages or invests assets of the investment funds on behalf of other investors, or has the ability to dismiss the manager of the investment funds, and is exposed to, or has rights to, the variable returns.

(*) The Group provides ABCP credit contribution (purchase agreements) of ₩3,901,421 million for the purpose of credit enhancement of structured companies.

2. Basis of preparation

(a) Statement of compliance

The consolidated financial statements have been prepared in accordance with International Financial Reporting Standards ("IFRS"). IFRS are the standards and related interpretations issued by the International Accounting Standards Board ("IASB").

The consolidated financial statements were authorized for issue by the Board of Directors on February 5, 2020, which were submitted for approval to the stockholder's meeting to be held on March 26, 2020.

(b) Basis of measurement

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

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

(c) Functional and presentation currency

These consolidated financial statements are presented in Korean won, which is the Controlling Company's functional currency and the currency of the primary economic environment in which the Group operates.

(d) Use of estimates and judgements

The preparation of the consolidated financial statements in conformity with 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. Actual results may differ from these estimates.

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

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

In preparing these consolidated financial statements, the significant judgments made by management in applying the Group's accounting policies and the key sources of estimation uncertainty are the same as those that applied to the consolidated financial statements as of and for the year ended December 31, 2018 except for the main sources of critical judgments and estimated uncertainties related to the adoption of IFRS 16 '*Leases*' described in Note 3.

2. Basis of preparation (continued)

(e) Change in accounting policy

Except for the following new standard, which has been applied from January 1, 2019, the accounting policies applied by the Group in these consolidated financial statements are the same as those applied by the Group in its consolidated financial statements as of and for the year ended December 31, 2018. There are other new standards applied from January 1, 2019, which does not have a significant impact to the Group's financial statements.

i) IFRS 16, 'Leases'

IFRS 16, published on May 22, 2017, replaces existing standards including IAS 17, *'Leases'*, IFRIC 4, *'Determining whether an Arrangement contains a Lease'*, IFRIC 15, *'Operating Leases – Incentives'* and IFRIC 27, *'Evaluating the Substance of Transactions Involving the Legal Form of a Lease'*.

The Group has applied IFRS 16 from the year beginning on January 1, 2019, the date of initial application.

At the commencement date of the lease, the Group assesses whether the contract is, or contains, a lease, and assessed whether the contract was, or contained, a lease in accordance with IFRS 16 at the date of initial application. For a contract that is, or contains, a lease, a lessee or a lessor shall account for each lease component within the contract as a lease separately from non-lease components (hereinafter called 'non-lease components') of the contract.

A lessee shall recognize a lease right-of-use asset, which indicates an asset that represents a lessee's right to use an underlying asset (leased asset) for the lease term, and a lease liability, which indicates obligation to make lease payments. However, a lessee may elect not to apply the requirements to short-term leases and leases for which the underlying asset is of low value. Also, the Group used the following practical expedients when applying IFRS 16 to leases previously classified as operating leases applying IAS 17.

- Elects not to apply the requirements to recognize lease right-of-use assets and lease liabilities to leases for which the lease term ends within 12 months of the date of initial application.
- Excludes initial direct costs from the measurements of the lease right-of-use assets at the date of initial application.
- If the contract contains an option to extend or terminate the lease, hindsight is used to determine the lease term

As a practical expedient, a 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.

The accounting treatment as a lessor did not change significantly from the one under IAS 17.

The accumulated effect on retained earnings from initial application of IFRS 16 was zero, and the comparative financial information presented has applied IAS 17 and the related Interpretations as previously reported and has not been retrospectively restated. The transition effects arising from changes in accounting policies are explained in Note 51.

On December 16, 2019, the IFRS Interpretations Committee published the agenda decision on 'Lease term and useful life of leasehold improvements' that the entity should consider all economic penalties for the termination of the lease in the determination of the enforceable period. The Group is analyzing the impact of changes in accounting policies of determination of the enforceable period on the consolidated financial

2. Basis of preparation (continued)

statements, and plans to reflect the impact on the consolidated financial statements when the analysis is completed.

ii) IFRS 9, 'Financial Instruments', IFRS 7, 'Financial Instruments: Disclosures' Revision

The interest rate index reform has added an exception that allows hedge accounting to be applied while uncertainty exists. In a hedging relationship, the assume that the interest rate index that is the underlying variable of cash flows does not change to the interest rate index reform when reviewing the probability of occurrence and the prospective assessment of the effectiveness of the hedge. For hedges of non-contractually specified interest rate risk components, the requirement that the hedged risk should be separately identifiable applies only at the inception of the hedging relationship. Through the interest rate index reform, this application of exception is ended when the timing and amount of cash flows based on the interest rate index will no longer appear, or the hedging relationship is discontinued. These amendments take effect on 1 January 2020 but have been applied early as early entry is allowed. A significant interest rate indicator for hedging relationships is LIBOR and CD rates. The subject affected by this amendment is derivatives of Note 10.

3. Significant accounting policies

Except for the new standards and the amendment to the following standard, which are applied from January 1, 2019, the accounting policies applied by the Group in these consolidated financial statements are the same as those applied by the Group in its consolidated financial statements as of and for the year ended December 31, 2019 and have mentioned on the note 2.

(a) Operating segments

An operating segment is a component of the Group that engages in business activities from which it may earn revenues and incur expenses, including revenues and expenses that relate to transactions with any of the Group's other components, whose operating results are reviewed regularly by the chief operating decision maker to make decisions about resources allocated to each segment and assess its performance, and for which discrete financial information is available.

The segment reporting to a chief executive officer includes items directly attributable to a segment as well as those that can be allocated on a reasonable basis. Unallocated items comprise mainly general expenses and income tax assets and liabilities. The Group considers the Chief Executive Officer ("CEO") of the Bank as the chief operating decision maker.

It is CEO's responsible for evaluating the resources to be distributed to the business and the performance of the business, and makes strategic decisions.

(b) Basis of consolidation

i) Subsidiaries

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

3. Significant accounting policies (continued)

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

ii) Structured entity

The Group establishes or invests in various structured entities. A structured entity is an entity designed so that its activities are not governed by way of voting rights. When assessing control of a structured entity, the Group considers factors such as the purpose and the design of the investee; its practical ability to direct the relevant activities of the investee; the nature of its relationship with the investee; and the size of its exposure to the variability of returns of the investee. The Group does not recognize any non-controlling interests as equity in relation to structured entities in the consolidated statements of financial position since the non-controlling interests in these entities are recognized as liabilities of the Group.

iii) Intra-group transactions eliminated on consolidation

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

iv) Non-controlling interests

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

(c) Business combinations

i) Business combinations

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

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

- Leases and insurance contracts are required to be classified on the basis of the contractual terms and other factors
- Only those contingent liabilities assumed in a business combination that are a present obligation and can be measured reliably are recognized
- Deferred tax assets or liabilities are recognized and measured in accordance with IAS 12, 'Income Taxes'
- Employee benefit arrangements are recognized and measured in accordance with IAS 19, 'Employee Benefits'
- Indemnification assets are recognized and measured on the same basis as the indemnified liability or asset

3. Significant accounting policies (continued)

- Reacquired rights are measured in accordance with special provisions
- Liabilities or equity instruments related to share-based payment transactions are measured in accordance with the method in IFRS 2, 'Share-based Payment'
- Non-current assets held for sale are measured at fair value less costs to sell in accordance with IFRS 5, 'Non-current Assets Held for Sale and Discontinued Operations'

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

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

Acquisition-related costs are costs the acquirer incurs to effect a business combination. Those costs include finder's fees; advisory, legal, accounting, valuation and other professional or consulting fees; general administrative costs, including the costs of maintaining an internal acquisitions department; and costs of registering and issuing debt and equity securities. Acquisition-related costs, other than those associated with the issue of debt or equity securities, which are recognized in accordance with IAS 32 and IFRS 9, are expensed in the periods in which the costs are incurred and the services are received.

ii) Goodwill

The Group measures goodwill at the acquisition date as:

- the fair value of the consideration transferred; plus
- the recognized amount of any non-controlling interests in the acquiree; plus
- if the business combination is achieved in stages, the fair value of the pre-existing equity interest in the acquiree; less
- the net recognized amount (generally fair value) of the identifiable assets acquired and liabilities assumed.

When the excess is negative, a bargain purchase gain is recognized immediately in profit or loss.
When the Group additionally acquires non-controlling interest, the Group does not recognize goodwill since the transaction is regarded as equity transaction.

(d) Investments in associates and joint ventures

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

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

3. Significant accounting policies (continued)

The investment in an associate and a joint venture is initially recognized at cost, and the carrying amount is increased or decreased to recognize the Group's share of the profit or loss and changes in equity of the associate and the joint venture after the date of acquisition. Intra-group balances and transactions, and any unrealized income and expenses arising from intra-group transactions, are eliminated in preparing the consolidated financial statements. Intra-group losses are recognized as expense if intra-group losses indicate an impairment that requires recognition in the consolidated financial statements.

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

When the Group's share of losses exceeds its interest in an equity accounted investee, the carrying amount of that interest, including any long-term investments, is reduced to nil and the recognition of further losses is discontinued except to the extent that the Group has an obligation or has to make payments on behalf of the investee for further losses.

(e) Cash and cash equivalents

Cash and cash equivalents comprise cash balances and call deposits with original maturities of three months or less from the acquisition date that are subject to an insignificant risk of changes in their fair value, and are used by the Group in the management of its short-term commitments. Equity instruments 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. However, the Group's account overdraft is included in borrowings.

(f) Non-derivative financial assets – policy applicable from January 1, 2018

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

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

i) Financial assets designated at FVTPL

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

ii) Equity instruments

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

3. Significant accounting policies (continued)

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

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

iii) Debt instruments

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

① Financial assets at amortized cost

Assets that are held within a business model whose objective is to hold assets to collect contractual cash flows where those cash flows represent solely payments of principal and interest are measured at amortized cost. Impairment losses, and gains or losses on derecognition of the financial assets at amortized cost are recognized in profit or loss. Interest income on the effective interest method is included in the 'Interest income' in the consolidated statement of comprehensive income.

② Financial assets at FVOCI

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

③ Financial assets at FVTPL

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

iv) Embedded derivatives

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

3. Significant accounting policies (continued)

v) Derecognition of financial assets

The Group derecognizes a financial asset when the contractual rights to the cash flows from the asset expire, or it transfers the rights to receive the contractual cash flows on the financial asset in a transaction in which substantially all the risks and rewards of ownership of the financial asset are transferred. Any interest in transferred financial assets that is created or retained by the Group is recognized as a separate asset or liability.

If the Group retains substantially all the risks and rewards of ownership of the transferred financial assets, the Group continues to recognize the transferred financial assets and recognizes financial liabilities for the consideration received.

vi) Offsetting

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

(g) Non-derivative financial assets – policy applicable before January 1, 2018

The Group recognizes and measures non-derivative financial assets by the following four categories: financial assets at fair value through profit or loss, held-to-maturity investments, loans and receivables and available-for-sale financial assets. The group recognizes financial assets in the separate statement of financial position when the group becomes a party to the contractual provisions of the instrument.

Upon initial recognition, non-derivative financial assets are measured at their 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 asset's acquisition or issuance.

i) Financial assets at fair value through profit or loss

A financial asset is classified as at fair value through profit or loss if it is held for trading or is designated at fair value through profit or loss. Upon initial recognition, transaction costs are recognized in profit or loss when incurred. Financial assets at fair value through profit or loss are measured at fair value, and changes therein are recognized in profit or loss.

A financial asset other than a financial asset held for trading may be designated as at FVTPL upon initial recognition if:

- such designation eliminates or significantly reduces a recognition or measurement inconsistency that would otherwise arise; or
- the financial asset forms part of a group of financial assets or financial liabilities or both, which is managed and its performance is evaluated on a fair value basis, in accordance with the Group's documented risk management or investment strategy, and information about the grouping is provided internally on that basis; or
- it forms part of a contract containing one or more embedded derivatives that would be required to be separated from the host contract.

3. Significant accounting policies (continued)

ii) Held-to-maturity financial assets("HTM")

A non-derivative financial asset with a fixed or determinable payment and fixed maturity, for which the Group has the positive intention and ability to hold to maturity, are classified as held-to-maturity investments. Subsequent to initial recognition, held-to-maturity investments are measured at amortized cost using the effective interest method.

iii) Loans and receivables

Loans and receivables are financial assets with fixed or determinable payments that are not quoted in an active market. Subsequent to initial recognition, loans and receivables are measured at amortized cost using the effective interest method.

iv) Available-for-sale financial assets("AFS")

Available-for-sale financial assets are those non-derivative financial assets that are designated as available-for-sale or are not classified as financial assets at fair value through profit or loss, held-to-maturity investments or loans and receivables. Subsequent to initial recognition, they are measured at fair value, which changes in fair value, net of any tax effect, recorded in other comprehensive income in equity. Investments in equity instruments that do not have a quoted market price in an active market and whose fair value cannot be reliably measured and derivatives that are linked to and must be settled by delivery of such unquoted equity instruments are measured at cost.

v) De-recognition of financial assets

The Group derecognizes a financial asset when the contractual rights to the cash flows from the asset expire, or it transfers the rights to receive the contractual cash flows on the financial asset in a transaction in which substantially all the risks and rewards of ownership of the financial asset are transferred. Any interest in transferred financial assets that is created or retained by the Group is recognized as a separate asset or liability.

If the Group retains substantially all the risks and rewards of ownership of the transferred financial assets, the Group continues to recognize the transferred financial assets and recognizes financial liabilities for the consideration received.

vi) Offsetting between financial assets and financial liabilities

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

(h) Derivative financial instruments – policy applicable from January 1, 2018

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

3. Significant accounting policies (continued)

i) Hedge accounting

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

On initial designation of the hedge, the Group formally documents the relationship between the hedging instrument(s) and hedged item(s), including the risk management objectives and strategy in undertaking the hedge transaction, together with the methods that will be used to assess the effectiveness of the hedging relationship.

① Fair value hedge

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

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

② Cash flow hedge

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

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

③ Net investment hedge

The portion of the change in fair value of a financial instrument designated as a hedging instrument that meets the requirements for hedge accounting for a net investment in a foreign operation is recognized in other comprehensive income and the ineffective portion of the hedge is recognized in profit or loss Recognize. The portion recognized as other comprehensive income that is effective as a hedge is recognized in the statement of comprehensive income as a result of reclassification adjustments in accordance with IAS 21, “Effect of Changes in Foreign Exchange Rates” at the time of disposing of its overseas operations or disposing of a portion of its overseas operations To profit or loss.

3. Significant accounting policies (continued)

ii) Other derivative financial instruments

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

iii) Unobservable valuation differences at initial recognition

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

(i) Derivative financial instruments – policy applicable before January 1, 2018

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

i) Hedge accounting

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

On initial designation of the hedge, the Group formally documents the relationship between the hedging instrument(s) and hedged item(s), including the risk management objectives and strategy in undertaking the hedge transaction, together with the methods that will be used to assess the effectiveness of the hedging relationship.

- *Fair value hedge* – Changes in the fair value of a derivative hedging instrument designated as a fair value hedge are recognized in profit or loss. The gain or loss from remeasuring the hedging instrument at fair value for a derivative hedging instrument and the gain or loss on the hedged item attributable to the hedged risk are recognized in profit or loss in the same line item of the consolidated statement of comprehensive income. The Group discontinues fair value hedge accounting if the hedging instrument expires or is sold, terminated or exercised, or if the hedge no longer meets the criteria for hedge accounting. Any adjustment arising from gain or loss on the hedged item attributable to the hedged risk is amortized to profit or loss from the date the hedge accounting is discontinued.
- *Cash flow hedge* – When a derivative is designated to hedge the variability in cash flows attributable to a particular risk associated with a recognized asset or liability or a highly probable forecasted transaction that could affect profit or loss, the effective portion of changes in the fair value of the derivative is recognized in other comprehensive income, net of tax, and presented in the hedging reserve in equity. Any ineffective portion of changes in the fair value of the derivative is recognized immediately in profit or loss. If the hedging instrument no longer meets the criteria for hedge accounting, expires or is sold, terminated, exercised, or the designation is revoked, then hedge accounting is discontinued prospectively. The cumulative gain or loss on the hedging instrument that has been recognized in other comprehensive income is reclassified to profit or loss in the periods during which the forecasted transaction occurs. If the forecasted transaction is no longer expected to occur, then the balance in other comprehensive income is recognized immediately in profit or loss.

3. Significant accounting policies (continued)

- *Hedge of net investment* – Foreign currency differences arising on the retranslation of a financial liability designated as a hedge of a net investment in a foreign operation are recognized in other comprehensive income to the extent that the hedge is effective. To the extent that the hedge is ineffective, such differences are recognized in profit or loss. When the hedged part of a net investment is disposed of, the relevant amount in the accumulated other comprehensive income is transferred to profit or loss as part of the profit or loss on disposal in accordance with IAS 21, 'The Effects of Changes in Foreign Exchange Rates'.

ii) Separable embedded derivatives

Embedded derivatives are separated from the host contract and accounted for separately only if the following criteria has been met: (a) the economic characteristics and risks of the embedded derivative are not closely related to those of the host contract; (b) a separate instrument with the same terms as the embedded derivative would meet the definition of a derivative; and (c) the hybrid instrument is not measured at fair value with changes in fair value recognized in profit or loss. Changes in the fair value of separable embedded derivatives are recognized immediately in profit or loss.

iii) Other derivative financial instruments

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

iv) Unobservable valuation differences at initial recognition

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

(j) Impairment: Financial assets and contract assets – policy applicable from January 1, 2018

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

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

3. Significant accounting policies (continued)

The Group, meanwhile, only recognizes the cumulative changes in lifetime expected credit losses since the initial recognition as an allowance for credit loss for purchased or originated credit-impaired financial assets. The total period refers to the expected life span of the financial instrument up to the contract expiration date.

i) Reflection of forward-looking information

The Group reflects forward-looking information presented by internal experts based on a variety of information when measuring expected credit losses. For the purpose of estimating these forward-looking information, the Group utilizes the economic outlook published by domestic and overseas research institutes or government and public agencies.

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

ii) Measurement of amortization cost regarding the expected credit loss of financial assets

The expected credit loss of an amortized financial asset is measured as the difference between the present value of the cash flows expected to be received and the cash flow expected to be received. For this purpose, we calculate expected cash flows for individually significant financial assets.

For non-individual significant financial assets, the financial assets collectively include expected credit losses as part of a set of financial assets with similar credit risk characteristics.

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

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

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

(k) Impairment: Financial assets and contract assets – policy applicable before January 1, 2018

A financial asset not carried at fair value through profit or loss is assessed at each reporting date to determine whether there is objective evidence that it is impaired. A financial asset is impaired if objective evidence indicates that a loss event has occurred after the initial recognition of the asset, and that the loss event had a negative effect on the estimated future cash flows of that asset that can be estimated reliably. However, losses expected as a result of future events, regardless of likelihood, are not recognized.

In addition, for an investment in an equity security, a significant or prolonged decline in its fair value below its cost is objective evidence of impairment.

3. Significant accounting policies (continued)

If financial assets have objective evidence that they are impaired, impairment losses should be measured and recognized.

Objective evidence that a financial asset or group of assets is impaired includes observable data that comes to the attention of the holder of the asset about the following loss events:

- significant financial difficulty of the issuer or obligor
- a breach of contract, such as a default or delinquency in interest or principal payments;
- the lender, for economic or legal reasons relating to the borrower's financial difficulty, granting to the borrower a concession that the lender would not otherwise consider
- it becoming probable that the borrower will enter bankruptcy or other financial reorganization
- the disappearance of an active market for that financial asset because of financial difficulties
- observable data indicating that there is a measurable decrease in the estimated future cash flows from a group of financial assets since the initial recognition of those assets, although the decrease cannot yet be identified with the individual financial assets in the group.

i) Loans and receivables

The Group first assesses whether objective evidence of impairment exists individually for loans and receivables that are individually significant, and individually or collectively for financial assets that are not individually significant. If the Group determines that no objective evidence of impairment exists for an individually assessed financial asset, whether significant or not, it includes the asset in a group of financial assets with similar credit risk characteristics and collectively assesses them for impairment. Assets that are individually assessed for impairment and for which an impairment loss is or continues to be recognized are not included in a collective assessment of impairment.

If there is objective evidence that an impairment loss on loans and receivables has been incurred, the amount of the loss is measured as the difference between the asset's carrying amount and the present value of estimated future cash flows (excluding future credit losses that have not been incurred) discounted at the financial asset's original effective interest rate (i.e., the effective interest rate computed at initial recognition).

If the interest rate of a loan or receivable is a floating rate, the discount rate used to evaluate impairment loss is the current effective interest rate defined in the loan agreement. The present value of estimated future cash flows of secured financial assets is calculated by including cash flows from collateral after deducting costs to acquire and sell the collateral.

In assessing collective impairment, the Group rates and classifies financial assets, based on credit risk assessment or credit rating assessment process that takes into account asset type, industry, regional location, collateral type, delinquency and other relative factors.

Future cash flow of financial assets applicable to collective impairment assessment is estimated by using statistical modelling of historical trends of the probability of default, timing of recoveries and the amount of loss incurred, adjusted for management's judgment as to whether current economic and credit conditions are such that the impairment losses are likely to be greater or less than suggested by historical modelling. In adjusting the future cash flow by historical modelling, the result has to be in line with changes and trends of observable data. Methodologies and assumptions used to estimate future cash flow are evaluated on a regular basis in order to reduce any discrepancy between impairment loss estimation and actual loss.

3. Significant accounting policies (continued)

Impairment losses are recognized in profit or loss and reflected in an allowance account against loans and receivables. When a subsequent event causes the amount of impairment loss to decrease, and the decrease can be related objectively to an event occurring after the impairment was recognized, the decrease in impairment loss is reversed through profit or loss of the year.

ii) Available-for-sale financial assets

When a decline in the fair value of an available-for-sale financial asset has been recognized in other comprehensive income and there is objective evidence that the asset is impaired, the cumulative loss that had been recognized in other comprehensive income is reclassified from equity to profit or loss as a reclassification adjustment even though the financial asset has not been derecognized. Impairment losses recognized in profit or loss for an investment in an equity instrument classified as available-for-sale are not reversed through profit or loss. If, in a subsequent period, the fair value of a debt instrument classified as available-for-sale increases and the increase can be objectively related to an event occurring after the impairment loss is recognized in profit or loss, the impairment loss is reversed, with the amount of the reversal recognized in profit or loss.

iii) Held-to-maturity financial assets

An impairment loss in respect of held-to-maturity financial assets measured at amortized cost is calculated as the difference between its carrying amount and the present value of the estimated future cash flows discounted at the asset's original effective interest rate and is recognized in profit or loss. Interest on the impaired asset continues to be recognized through the unwinding of the discount. When a subsequent event causes the amount of impairment loss to decrease, the decrease in impairment loss is reversed through profit or loss.

(l) Property and equipment

Property and equipment are initially measured at cost and after initial recognition. The cost of property and equipment includes expenditures arising directly from the construction or acquisition of the asset, any costs directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management and the initial estimate of the costs of dismantling and removing the item and restoring the site on which it is located.

Property and equipment are carried at cost less accumulated depreciation and accumulated impairment losses. Certain land and buildings are measured at fair value at the date of transition to IFRS, which is deemed cost, in accordance with IFRS 1, 'First-time Adoption of IFRS'.

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

Land is not depreciated. Other property and equipment are depreciated on a straight-line basis over the estimated useful lives, which most closely reflect the expected pattern of consumption of the future economic benefits embodied in the asset. Leased assets under finance leases are depreciated over the shorter

3. Significant accounting policies (continued)

of the lease term and their useful lives. The estimated useful lives for the current and comparative periods are as follows:

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

The gain or loss arising from the derecognition of an item of property and equipment, which is included in profit or loss, is determined as the difference between the net disposal proceeds, if any, and the carrying amount of the item. Depreciation methods, useful lives and residual values are reassessed at each fiscal year-end and any adjustment is accounted for as a change in accounting estimate.

(m) Intangible assets

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

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

Descriptions	Useful lives
Software and capitalized development cost	5 years
Other intangible assets	5 years or contract periods, whichever the shorter

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

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

(n) Investment properties

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

3. Significant accounting policies (continued)

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

Descriptions	Depreciation method	Useful lives
Buildings	Straight-line	40 years

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

(o) Leased assets – policy applicable from January 1, 2019

i) Accounting treatment as the lessee

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

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

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

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

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

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

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

3. Significant accounting policies (continued)

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

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

ii) Accounting treatment as the lessor

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

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

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

(p) Leased assets – policy applicable before January 1, 2019

The Group classifies and accounts for leases as either a finance or operating lease, depending on the terms. Leases where the Group assumes substantially all of the risks and rewards of ownership are classified as finance leases. All other leases are classified as operating leases.

i) Finance leases

At the commencement of the lease term, the Group recognizes as finance assets and finance liabilities in its consolidated statements of financial position, the lower amount of the fair value of the leased property and the present value of the minimum lease payments, each determined at the inception of the lease. Any initial direct costs are added to the amount recognized as an asset.

3. Significant accounting policies (continued)

Minimum lease payments are apportioned between the finance charge and the reduction of the outstanding liability. The finance charge is allocated to each period during the lease term so as to produce a constant periodic rate of interest on the remaining balance of the liability. Contingent rents are charged as expenses in the periods in which they are incurred.

The depreciable amount of a leased asset is allocated to each accounting period during the period of expected use on a systematic basis consistent with the depreciation policy the lessee adopts for depreciable assets that are owned. If there is no reasonable certainty that the lessee will obtain ownership by the end of the lease term, the asset is fully depreciated over the shorter of the lease term and its useful life. The Group reviews to determine whether the leased asset may be impaired.

ii) Operating leases

Payments made under operating leases are recognized in profit or loss on a straight-line basis over the period of the lease.

iii) Lessor

Under a finance lease, the lessor recognizes a finance lease receivable. Over the lease term the lessor accrues interest income on the net investment. The receipts under the lease are allocated between reducing the net investment and recognizing finance income, so as to produce a constant rate of return on the net investment.

Under an operating lease, the lessor recognizes the lease payments as income over the lease term and the leased asset in its statement of financial position.

(q) Assets held for sale

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

The Group recognizes an impairment loss for any initial or subsequent write-down of an asset (or disposal group) to fair value less costs to sell, and a gain for any subsequent increase in fair value less costs to sell, up to the cumulative impairment loss previously recognized in accordance with IAS 36 '*Impairment of Assets*'.

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

(r) Impairment of non-financial assets

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

3. Significant accounting policies (continued)

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

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

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

Goodwill acquired in a business combination is allocated to each CGU that is expected to benefit from the synergies arising from the goodwill acquired. Any impairment identified at the CGU level will first reduce the carrying value of goodwill and then be used to reduce the carrying amount of the other assets in the CGU on a pro rata basis. Except for impairment losses in respect of goodwill which are never reversed, an impairment loss is reversed if there has been a change in the estimates used to determine the recoverable amount. An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortization, if no impairment loss had been recognized.

(s) Non-derivative financial liabilities – policy applicable from January 1, 2018

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

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

i) Financial liabilities designated at FVTPL

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

ii) Financial liabilities at FVTPL

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

3. Significant accounting policies (continued)

iii) Other financial liabilities

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

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

(t) Non-derivative financial liabilities – policy applicable before January 1, 2018

The Group classifies non-derivative financial liabilities into financial liabilities at fair value through profit or loss or other financial liabilities in accordance with the substance of the contractual arrangement and the definitions of financial liabilities. The Group recognizes financial liabilities in the consolidated statement of financial position when the Group becomes a party to the contractual provisions of the financial liability.

i) Financial liabilities at fair value through profit or loss

Financial liabilities at fair value through profit or loss include financial liabilities held for trading or designated as such upon initial recognition. Subsequent to 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. Upon initial recognition, transaction costs that are directly attributable to the acquisition are recognized in profit or loss as incurred.

The criteria for designation of financial liabilities at FVTPL upon initial recognition are the same as those of financial assets at FVTPL.

ii) Other financial liabilities

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

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

(u) Foreign currencies

i) Foreign currency transactions

Transactions in foreign currencies are translated to the respective functional currencies of the Group at exchange rates at the dates of the transactions. Monetary assets and liabilities denominated in foreign currencies at the reporting date are retranslated to the functional currency using the reporting date’s exchange rate. The foreign currency gain or loss on monetary items is the difference between amortized cost in the functional currency at the beginning of the period, adjusted for effective interest and payments during

3. Significant accounting policies (continued)

the period, and the amortized cost in foreign currency translated at the exchange rate at the end of the reporting period. Non-monetary assets and liabilities denominated in foreign currencies that are measured at fair value are retranslated to the functional currency at the exchange rate at the date that the fair value was determined.

ii) Foreign operations

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

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

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

iii) Net investment in a foreign operation

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

(v) Equity capital

i) Capital stock

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

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

ii) Hybrid bonds

The Group classifies an issued financial instrument, or its component parts, as a financial liability or an equity instrument depending on the substance of the contractual arrangement of such financial instrument. Hybrid bonds where the Group has an unconditional right to avoid delivering cash or another financial asset to settle a contractual obligation are classified as an equity instrument and presented in equity.

iii) Capital structure

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

3. Significant accounting policies (continued)

(w) Employee benefits

i) Short-term employee benefits

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

ii) Other long-term employee benefits

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

iii) Retirement benefits: defined contribution plans

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

iv) Retirement benefits: defined benefit plans

A defined benefit plan is a post-employment benefit plan other than a defined contribution plan. The Group's net obligation in respect of defined benefit plans is calculated by estimating the amount of future benefit that employees have earned in return for their service in the current and prior periods; that benefit is discounted to determine its present value. The fair value of plan assets is deducted. The calculation is performed annually by an independent actuary using the projected unit credit method.

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

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

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

3. Significant accounting policies (continued)

v) Termination benefits

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

(x) Share-based payment transactions

The grant date fair value of share-based payment awards granted to employees is recognized as an employee expense, with a corresponding increase in equity, over the period that the employees unconditionally become entitled to the awards. The amount recognized as an expense is adjusted to reflect the number of awards for which the related service and non-market vesting conditions are expected to be met, such that the amount ultimately recognized as an expense is based on the number of awards that do meet the related service and non-market performance conditions at the vesting date. For share-based payment awards with non-vesting conditions, the grant date fair value of the share-based payment is measured to reflect such conditions and there is no true-up for differences between expected and actual outcomes.

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

(y) Provisions

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

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

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

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

(z) Financial guarantee contract – policy applicable from January 1, 2018

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

3. Significant accounting policies (continued)

Financial guarantee contracts are recognized initially at their fair value, and the initial fair value is amortized over the life of the financial guarantee contract. The financial guarantee liability is subsequently measured at the higher of the amount of the best estimate of the expenditure required to settle the present obligation at the end of reporting period; and the amount initially recognized less, cumulative amortization recognized on a straight-line basis over the guarantee period. Financial guarantee liabilities are included within other liabilities.

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

- Loss allowance in accordance with IFRS 9, 'Financial Instruments'
- The amount initially recognized less, when appropriate, the cumulative amount of income recognized in accordance with the principles of IFRS 15, 'Revenue from Contracts with Customers'

(aa) Financial guarantee contract – policy applicable before January 1, 2018

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

Financial guarantee contracts are initially measured at their fair values and, if not designated as at fair value through profit or loss, are subsequently measured at the higher of:

- The amount determined in accordance with IAS 37 Provisions, Contingent Liabilities and Contingent Assets and
- The initial amount recognized, less, when appropriate, cumulative amortization recognized in accordance with IAS 18, 'Revenue'

(ab) Insurance contracts

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

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

i-1) Premium reserves

The present value of the premiums payable to the policy holders after the balance sheet date is the present value of the net premium to be paid after the end of the reporting period. The amount is deducted from the value.

i-2) Unpaid premium reserves

As of the end of the reporting period, premiums that have paid due are calculated based on premiums and the liability reserve calculation method.

i-3) Guarantee reserves

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

3. Significant accounting policies (continued)

① Variable minimum guarantee reserve

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

i) the average amount of the top 30% of net loss expected in the future

ii) the minimum required amount by insurance types, minimum guarantees and limits of stock investment portion

② General account guarantee reserve

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

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

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

i-4) Reserve for outstanding claims

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

i-5) Reserves for participating policyholders' dividends

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

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

① Excess crediting rate reserve

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

② Mortality dividend reserve

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

3. Significant accounting policies (continued)

③ Interest dividend reserve

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

④ Reserves for long-term special dividends

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

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

i-6) Reserve for interest dividends

In order to cover the policyholder dividend in the future, the amount is accumulated in accordance with the laws and regulations and the insurance contracts.

i-7) Reserve for dividend insurance loss reserve

In accordance with the regulations set by the supervisory authority, dividend insurance profit is accumulated within 30/100 of the contractor's stake. The reserve loss for dividend insurance shall be preserved at the end of the reporting period and shall be used as the policyholder dividend source for the individual contractor.

ii) Contractor's equity adjustment

The Group classifies the gains and losses on available-for-sale financial assets as of the end of the reporting period as contractor's equity and shareholder's equity based on the ratio of the average liability reserves of the dividend and non-dividend policies for the fiscal year.

iii) Evaluation of debt appropriateness

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

iv) Reinsurance assets

The group presents the recoverable amount of reinsurance assets. The group assesses at the end of each reporting period whether there is objective evidence that a reinsurance asset is impaired. If there is objective evidence that the entity will not be able to collect all amounts under the terms of the agreement as a result of

3. Significant accounting policies (continued)

an event that occurred after the initial recognition and if the event has a reliable and measurable impact on the amount to be received. If reinsurance assets are determined to be impaired, impairment loss is recognized in the profit and loss for the current period.

v) Deferred acquisition cost

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

(ac) Recognition of revenues and expenses

Other than revenues under the scope of IAS 17, *'Leases'*, IAS 28, *'Investments in Associates and Joint Ventures'*, IFRS 9, *'Financial Instruments'*, IFRS 10, *'Consolidated Financial Statements'*, and IFRS 11, *'Joint Arrangements'*, the Group's revenues are recognized using five-step revenue recognition model as follows: ① 'Identifying the contract' → ② 'Identifying performance obligations' → ③ 'Determining the transaction price' → ④ 'Allocating the transaction price to performance obligations' → ⑤ 'Recognizing the revenue by satisfying performance obligations'.

i) Interest income and expense

Interest income and expense are recognized in profit or loss using the effective interest method. The effective interest rate is the rate that exactly discounts the estimated future cash payments and receipts through the expected life of the financial asset or liability or, where appropriate, a shorter period to the net carrying amount of the financial asset or liability. When calculating the effective interest rate, the Group estimates cash flows considering all contractual terms of the financial instrument, but does not consider future credit losses. The calculation includes all fees and points paid or received between parties to the contract that are an integral part of the effective interest rate, and all other premiums or discounts. When it is not possible to estimate reliably the cash flows or the expected life of a financial instrument, the Group uses the contractual cash flows over the full contractual term of the financial instrument.

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

ii) Fees and commission

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

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

Such fees are generally treated as an adjustment to the effective interest rate. Such fees may include compensation for activities such as evaluating the borrower's financial condition, evaluating and recording

3. Significant accounting policies (continued)

guarantees, collateral and other security arrangements, preparing and processing documents, closing the transaction and the origination fees received on issuing financial liabilities. However, when the financial instrument is measured at fair value with the change in fair value recognized in profit or loss, the fees are recognized as revenue when the instrument is initially recognized.

② Fees earned as services are provided

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

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

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

iii) Insurance income

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

iv) Dividends

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

(ad) Revenue from Contracts with Customers – policy applicable from January 1, 2018

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

(ae) Customer loyalty system – policy applicable before January 1, 2018

Under the Customer Loyalty system, the fair value of the consideration received or receivable in exchange for the initial transaction is allocated to the reward points ("points") and the remainder of the fee income. The Group provides compensation in various forms such as payment discounts and gifts. The consideration allocated to the points is based on the fair value of the monetary benefits to be provided for the points to be recovered. The fair value of the benefits provided for the points reclaimed in accordance with the customer loyalty program is estimated taking into account the expected recovery rate and the expected recovery time. The consideration to be allocated to the points is estimated based on the fair value of the monetary benefits

3. Significant accounting policies (continued)

to be provided in consideration of the expected recovery rate of points awarded in accordance with the customer loyalty program and the expected time of recovery. Revenue recognition is measured based on the relative size of the points recovered and exchanged for monetary consideration at the total points expected to be recovered.

In addition, if the unavoidable costs incurred to fulfill the compensation obligation in connection with the customer loyalty system are expected to exceed the amount not recognized as revenue allocated to the compensation score at the time of initial sale, the excess amount is recognized as provision.

(af) Income tax

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

i) Current tax

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

ii) Deferred tax

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

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

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

3. Significant accounting policies (continued)

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

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

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

Because of the tax polices taken by the Group, tax uncertainties arise from the complexity of transactions and differences in tax law analysis. Also, it arises from a tax refund suit, tax investigation, or a refund suit against the tax authorities' tax amount. The Group paid the tax amount by the tax authorities in accordance with IFRIC 23. However, it will be recognized as the corporate tax assets if there is a high possibility of a refund in the future. In addition, the amount expected to be paid as a result of the tax investigation is recognized as the tax liability.

(ag) Accounting for trust accounts

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

(ah) Earnings per share

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

(ai) Issued/Amended Accounting Standards that are not applied

The following issued/amended standards have been published but have not yet been effective during the fiscal year beginning January 1, 2019. Hence, the Group did not apply the following issued/amended standards in preparing financial statements:

i) IAS 1 'Presentation of Financial Statements' and IAS 8 'Accounting Policies, Changes in Accounting Estimates and Errors' amended

The definition of materiality has been clarified, and the feature of information users is taken into account when determining the information to be disclosed and the effects of immaterial information as well as omission or misstatement of material information when determining materiality. This amendment is effective for annual periods beginning on or after January 1, 2020. The Group expects that the amendment will not have a material impact on its financial statements.

3. Significant accounting policies (continued)

ii) IFRS 3 'Business Combination'

The amended definition of business requires that the inputs that have the ability to create outputs and substantial process to be included in the assessment of acquired businesses and the collection of assembled assets, excluding economic benefits from cost reduction. In addition, if the fair value of most of the total assets acquired is concentrated in a single identifiable asset or a set of assets, an optional concentration test has been added that determines that the acquired activities and sets of assets are not a business but assets or a set of assets. This amendment is effective for annual periods beginning on or after January 1, 2020. The Group expects that the amendment will not have a material impact on its financial statements.

4. Financial risk management

(a) Overview

As a financial services provider, Shinhan Financial Group Co., Ltd. and its subsidiaries (collectively the "Group") are exposed to various risks relating to lending, credit card, insurance, securities investment, and trading and leasing businesses, its deposit taking and borrowing activities in addition to the operating environment.

The principal risks to which the Group is exposed are credit risk, market risk, interest rate risk, liquidity risk and operational risk. These risks are recognized, measured and reported in accordance with risk management guidelines established at the Group level and implemented at the subsidiary level through a carefully stratified checks-and-balances system.

i) Risk management principles

The Group risk management is guided by the following core principles:

- identifying and managing all inherent risks;
- standardizing risk management process and methodology;
- ensuring supervision and control of risk management independent of business activities;
- continuously assessing risk preference;
- preventing risk concentration;
- operating a precise and comprehensive risk management system including statistical models; and
- balancing profitability and risk management through risk-adjusted profit management.

ii) Risk management organization

The Group risk management system is organized along with the following hierarchy: from the top and at the Group level, the Group Risk Management Committee, the Group Risk Management Council, the Chief Risk Officer and the Group Risk Management Team, and at the subsidiary level, the Risk Management Committees and the Risk Management Team of the relevant subsidiary.

The Group Risk Management Committee, which is under the supervision of the controlling company's Board of Directors, sets the basic group wide risk management policies and strategies. The controlling company's Chief Risk Officer reports to the Group Risk Management Committee, and the Group Risk

4. Financial risk management (continued)

Management Council, whose members consist of the controlling company's Chief Risk Officer and the risk management team heads of each of subsidiaries, coordinates the risk management policies and strategies at the group level as well as at the subsidiary level among each of subsidiaries.

Each of subsidiaries also has a separate Risk Management Committee, Risk Management Working Committee and Risk Management Team, whose tasks are to implement the group wide risk management policies and strategies at the subsidiary level as well as to set risk management policies and strategies specific to such subsidiary in line with the group wide guidelines. The Group also has the Group Risk Management Team, which supports the controlling company's Chief Risk Officer in his or her risk management and supervisory role.

In order to maintain the group wide risk at an appropriate level, the Group use a hierarchical risk limit system under which the Group Risk Management Committee assigns reasonable risk limits for the entire group and each of subsidiaries, and the Risk Management Committee and the Risk Management Council of each of subsidiaries manage the subsidiary-specific risks by establishing and managing risk limits in more details by type of risk and type of product for each department and division within such subsidiary.

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

① Group Risk Management Committee

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

The resolution of the Committee is as follows:

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

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

4. Financial risk management (continued)

② Group Risk Management Council

In order to maintain the Group's risk policy and strategy consistently, the Group decides what is necessary to discuss the risks of the Group and to carry out the policies set by the Group Risk Management Committee. The members are chaired by the group's risk management officer and consist of the risk management officers of major subsidiaries. However, if the subsidiary's risk management officer is not an executive, the chief executive officer of risk management may attend.

iii) Group Risk Management System

① Management of the risk capital

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

② Risk Monitoring

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

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

③ Risk Reviewing

When conducting new product / new business and major policy changes, risk factors are reviewed by using a pre-defined checklist to prevent indiscriminate promotion of business that is not easy to judge risk and support rational decision making. The subsidiary's risk management department conducts a preliminary review and post-monitoring process on products, services, and projects to be pursued in the business division. After consultation, the Group conduct risk reviews.

④ Risk management

The Group maintain a group wide risk management system to detect the signals of any risk crisis and, in the event of a crisis actually happening, to respond on a timely, efficient and flexible basis so as to ensure the Group's survival as a going concern. Each subsidiary maintains crisis planning for three levels of contingencies, namely, "alert", "imminent crisis" and "crisis", determination of which is made based on quantitative and qualitative monitoring and consequence analysis, and upon the happening of any such contingency, is required to respond according to a prescribed contingency plan. At the controlling company

4. Financial risk management (continued)

level, the Group maintains and installs crisis detection and response system which is applied consistently group wide, and upon the happening of any contingency at two or more subsidiary level, the Group directly takes charge of the situation so that the Group manages it on a concerted group wide basis.

(b) Credit risk

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

- <u>Credit Risk Management of Shinhan Bank</u>

Major policies for Shinhan Bank's credit risk management, including Shinhan Bank's overall credit risk management plan and credit policy guidelines, are determined by the Risk Policy Committee of Shinhan Bank, the executive decision-making body for management of credit risk. The Risk Policy Committee is headed by the Chief Risk Officer, and also comprises of the Chief Credit Officer, the heads of each business unit and the head of the Risk Management Department. In order to separate the loan approval functions from credit policy decision-making, Shinhan Bank has a Credit Review Committee that performs credit review evaluations, which focus on improving the asset quality and profitability from the loans being made, and operates separately from the Risk Policy Committee.

Shinhan Bank complies with credit risk management procedures pursuant to internal guidelines and regulations and continually monitors and improves these guidelines and regulations. Its credit risk management procedures include:

- credit evaluation and approval;
- credit review and monitoring; and
- credit risk assessment and control

Each of Shinhan Bank's borrowers is assigned a credit rating, which is based on a comprehensive internal credit evaluation system that considers a variety of criteria. For retail borrowers, the credit rating takes into account the borrower's past dealings with Shinhan Bank and external credit rating information, among others. For corporate borrowers, the credit rating takes into account financial indicators as well as non-financial indicators such as industry risk, operational risk and management risk, among others. The credit rating, once assigned, serves as the fundamental instrument in Shinhan Bank's credit risk management, and is applied in a wide range of credit risk management processes, including credit approval, credit limit management, loan pricing and computation of allowance for credit loss. Shinhan Bank has separate credit evaluation systems for retail customers, SOHO customers and corporate customers, which are further segmented and refined to meet Basel III requirements.

Loans are generally approved after evaluations and approvals by the manager at the branch level as well as the committee of the applicable business unit at Shinhan Bank. The approval limit for retail loans is made based on Shinhan Bank's automated credit scoring system. In the case of large corporate loans, approval limits are also reviewed and approved by a Credit Officer at the headquarter level. Depending on the size and the importance of the loan, the approval process is further reviewed by the Credit Officer Committee or the Master Credit Officer Committee. If the loan is considered, further evaluation is made by the Credit Review Committee, which is Shinhan Bank's highest decision-making body in relation to credit approval.

4. Financial risk management (continued)

Pursuant to the foregoing credit review and monitoring procedures and in order to promptly prevent deterioration of loan qualities, Shinhan Bank classifies potentially problematic borrowers into (i) borrowers that show early warning signals, (ii) borrowers that require close monitoring and (iii) normal borrowers, and treats them differentially accordingly.

In order to maintain portfolio-level credit risk at an appropriate level, Shinhan Bank manages its loans using value-at-risk ("VaR") limits for the entire bank as well as for each of its business units. In order to prevent concentration of risk in a particular borrower or borrower class, Shinhan Bank also manages credit risk by borrower, industry, country and other detailed categories.

- Credit Risk Management of Shinhan Card

Major policies for Shinhan Card's credit risk management are determined by Shinhan Card's Risk Management Council and Shinhan Card's Risk Management Committee is responsible for approving them. Shinhan Card's Risk Management Council is headed by the Chief Risk Officer, and also comprises of the heads of each business unit, supporting unit and relevant department at Shinhan Card. In order to separate credit policy decision-making from credit evaluation functions, Shinhan Card also has a Risk Management Committee, which evaluates applications for corporate loans exceeding a certain amount and other loans deemed important. Shinhan Card uses an automated credit scoring system to approve credit card applications or credit card authorizations. The credit scoring system is divided into two sub-systems: the application scoring system and the behaviour scoring system. The behaviour scoring system is based largely on the credit history, and the application scoring system is based largely on personal information of the applicant. For credit card applicants with whom the Shinhan Card has an existing relationship, Shinhan Card's credit scoring system considers internally gathered information such as repayment ability, total assets, the length of the existing relationship and the applicant's contribution to profitability. The credit scoring system also automatically conducts credit checks on all credit card applicants.

If a credit score awarded to an applicant is above a minimum threshold, the application is approved unless overridden based on other considerations such as delinquencies with other credit card companies.

Shinhan Card continually monitors all accountholders and accounts using a behaviour scoring system. The behaviour scoring system predicts a cardholder's payment pattern by evaluating the cardholder's credit history, card usage and amounts, payment status and other relevant data. The behaviour score is recalculated each month and is used to manage the accounts and approval of additional loans and other products to the cardholder. Shinhan Card also uses the scoring system to monitor its overall risk exposure and to modify its credit risk management strategy.

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

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

At each reporting date, the Group assesses whether the credit risk on a financial instrument has increased significantly since initial recognition. When making the assessment, the Group uses the change in the risk of a default occurring over the expected life of the financial instrument instead of the change in the amount of expected credit losses. To make that assessment, the Group compares the risk of a default occurring on the financial instrument as at the reporting date with the risk of a default occurring on the financial instrument as at the date of initial recognition and consider reasonable and supportable information, that is available without undue cost or effort, that is indicative of significant increases in credit risk since initial recognition.

4. Financial risk management (continued)

i-1-1) Measuring the risk of default

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

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

The Group accumulates information after analyzing the information regarding exposure to credit risk and default information by the type of product and borrower and results of internal credit risk assessment. For some portfolios, the Group uses information obtained from external credit rating agencies when performing these analyses. The Group applies statistical techniques to estimate the probability of default for the remaining life of the exposure from the accumulated data and to estimate changes in the estimated probability of default over time.

i-1-3) Significant increases in credit risk

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

Corporate exposures	Retail exposures	Card exposures
Significant change in credit ratings	Significant change in credit ratings	Significant change in credit ratings
Continued past due more than 30 days	Continued past due more than 30 days	Continued past due more than 7 days (personal card)
Loan classification of and below precautionary	Loan classification of and below precautionary	Loan classification of and below precautionary
Borrower with early warning signals	Borrower with early warning signals	Specific pool segment
Negative net assets	Specific pool segment	
Adverse audit opinion or disclaimer of opinion	Loans relating to constructor whose collective loans are insolvent	
Interest coverage ratios of below 1 for consecutive three years		
Negative cash flows from operating activities for consecutive two years		

The Group considers the credit risk of financial instrument has been significantly increased since initial recognition if a specific exposure is past due more than 30 days (however, for a specific portfolio if it is past

4. Financial risk management (continued)

due more than 7 days). The Group counts the number of days past due from the earliest date on which the Group has not fully received the contractual payments from the borrower and does not consider the grace period granted to the borrower.

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

- A significant increase in credit risk shall be identified prior to the occurrence of default.
- The criteria established to judge the significant increase in credit risk shall have a more predictive power than the criteria for days of delinquency.
- As a result of applying the judgment criteria, financial instruments shall not be to move too frequently between the 12-months expected credit losses measurement and the lifetime expected credit losses measurement.

i-2) Modified financial assets

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

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

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

i-3) Risk of default

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

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

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

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

4. Financial risk management (continued)

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

i-4) Reflection of forward-looking information

The Group reflects forward-looking information presented by internal experts based on a variety of information when measuring expected credit losses. For the purpose of estimating these forward-looking information, the Group utilizes the economic outlook published by domestic and overseas research institutes or government and public agencies.

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

The Group identified the key macroeconomic variables needed to forecast credit risk and credit losses for each portfolio as follows by analyzing past experience data and drew correlations across credit risk for each variable.

Key macroeconomic variables	Correlation with credit risk
Economic growth	Negative
Consumer price index	Positive
Benchmark rate	Positive
3-year Korea Treasury Bond	Positive
3-year Corporate Bond	Positive
KOSPI	Negative

The predicted correlations between the macroeconomic variables and the risk of default, used by the Group, were derived based on data from the past nine years.

i-5) Measurement of expected credit losses

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

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

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

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

4. Financial risk management (continued)

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

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

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

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

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

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

i-6) Write-off of financial assets

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

ii) Maximum exposure to credit risk

Exposure to credit risk is the exposure related to due from banks, loans, investments in debt securities, derivative transactions, off-balance sheet accounts such as loan commitment. The exposures of due from banks and loans were classified into government, bank, corporation, or retail based on the exposure classification criteria of BASEL III credit risk weights.

(In millions of won)

4. Financial risk management (continued)

The Group's maximum exposure to credit risk without taking into account of any collateral held or other credit enhancements as of December 31, 2018 and December 31, 2019 are as follows:

	2018	2019
Due from banks and loans at amortized cost (*1)(*2):		
Banks	₩ 17,935,816	12,950,561
Retail	136,499,558	152,840,826
Government	6,517,215	19,461,567
Corporations	131,795,992	140,718,619
Card receivable	21,592,287	23,114,264
	314,340,868	349,085,837
Deposits and loans at FVTPL (*1)(*2)		
Bank	890,660	897,525
Corporations	1,189,190	2,154,821
	2,079,850	3,052,346
Securities measured at FVTPL (*3)	40,289,846	48,512,857
Securities measured at fair value – OCI	37,677,646	58,573,094
Securities measured at amortized cost	28,478,136	45,582,065
Derivative assets	1,793,613	2,829,274
Other financial assets (*1)(*4)	16,837,141	17,477,778
Financial guarantee contracts	4,413,874	4,698,558
Loan commitments and other credit liabilities	165,399,937	177,660,547
	₩611,310,911	707,472,356

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

(*2) Due from banks and loans were classified as similar credit risk group when calculating the BIS ratio under new Basel Capital Accord (Basel III).

(*3) Financial asset at fair value through profit or loss comprise debt securities at fair value through profit of loss, gold deposits.

(*4) Other financial assets mainly comprise brokerage, securities and spot transaction related receivables, accrued interest receivables, secured key money deposits and domestic exchange settlement debit settled in a day.

(In millions of won)

4. Financial risk management (continued)

iii) The maximum amount of exposure to credit risk by type of collateral of held financial instruments as of December 31, 2018 and 2019 is as follows:

	2018			
	12 months	Life time expected credit loss		
Classification	Expected credit loss	Not recognized	Recognized	Total
Guarantee	₩ 13,608,254	3,870,047	61,623	17,539,924
Deposits and Savings	1,016,391	241,567	1,379	1,259,337
Property and equipment	1,051,573	244,571	18,766	1,314,910
Real estate	119,174,347	13,856,638	281,943	133,312,928
Securities	3,460,263	105,397	—	3,565,660
Other	2,593,792	28	218	2,594,038
Total	₩140,904,620	18,318,248	363,929	159,586,797

	2019			
	12 months	Life time expected credit loss		
Classification	Expected credit loss	Not recognized	Recognized	Total
Guarantee	₩ 12,232,197	3,756,006	64,386	16,052,589
Deposits and Savings	1,058,353	266,407	2,437	1,327,197
Property and equipment	1,021,002	307,502	12,840	1,341,344
Real estate	128,098,318	14,932,637	370,361	143,401,316
Securities	3,340,337	137,105	—	3,477,442
Other	5,035,192	4,437	364	5,039,993
Total	₩150,785,399	19,404,094	450,388	170,639,881

(In millions of won)

4. Financial risk management (continued)

iv) Impairment information by credit risk of financial assets

- Allowance for credit loss of financial assets as of December 31, 2018 and 2019 are as follows:

	2018								
	12 months expected credit loss		Life time expected credit loss						
	Grade 1 (*1)	Grade 2 (*1)	Grade 1 (*1)	Grade 2 (*1)	Impaired	Total	Allowances	Net	Mitigation of credit risk due to collateral
Due from banks and loans at amortized cost:									
Banks	₩ 16,873,064	980,673	94,866	11,493	—	17,960,096	(24,280)	17,935,816	55,008
Retail	122,318,451	6,122,202	4,991,709	3,103,779	402,975	136,939,116	(439,558)	136,499,558	81,216,489
Government	6,474,219	2,399	45,871	—	—	6,522,489	(5,274)	6,517,215	17,050
Corporations	82,476,923	28,445,914	9,800,260	11,659,375	882,394	133,264,866	(1,468,874)	131,795,992	74,069,579
Card receivable	16,129,536	2,022,525	1,791,147	2,039,390	411,595	22,394,193	(801,906)	21,592,287	7,599
	244,272,193	37,573,713	16,723,853	16,814,037	1,696,964	317,080,760	(2,739,892)	314,340,868	155,365,725
Securities at fair value through other comprehensive income (*2)	30,705,879	6,865,937	—	105,830	—	37,677,646	—	37,677,646	—
Securities at amortized cost	27,661,749	803,174	22,474	—	—	28,487,397	(9,261)	28,478,136	—
	₩302,639,821	45,242,824	16,746,327	16,919,867	1,696,964	383,245,803	(2,749,153)	380,496,650	155,365,725

(In millions of won)

4. Financial risk management (continued)

	2019								
	12 months expected credit loss		Life time expected credit loss						
	Grade 1 (*1)	Grade 2 (*1)	Grade 1 (*1)	Grade 2 (*1)	Impaired	Total	Allowances	Net	Mitigation of credit risk due to collateral
Due from banks and loans at amortized cost:									
Banks	₩ 11,703,863	1,179,294	77,675	1,804	—	12,962,636	(12,075)	12,950,561	57,087
Retail	136,124,712	7,443,675	5,694,210	3,608,216	476,897	153,347,710	(506,884)	152,840,826	87,826,564
Government	19,274,854	111,987	80,648	—	—	19,467,489	(5,922)	19,461,567	—
Corporations	85,202,285	32,112,103	10,219,343	13,546,622	956,772	142,037,125	(1,318,506)	140,718,619	77,732,792
Card receivable	17,161,184	2,249,276	1,879,073	2,233,942	444,311	23,967,786	(853,522)	23,114,264	8,728
	269,466,898	43,096,335	17,950,949	19,390,584	1,877,980	351,782,746	(2,696,909)	349,085,837	165,625,171
Securities at fair value through other comprehensive income (*2)	49,276,299	9,057,701	—	239,094	—	58,573,094	—	58,573,094	—
Securities at amortized cost	44,296,882	1,271,681	23,272	—	—	45,591,835	(9,770)	45,582,065	—
	₩363,040,079	53,425,717	17,974,221	19,629,678	1,877,980	455,947,675	(2,706,679)	453,240,996	165,625,171

(In millions of won)

4. Financial risk management (continued)

(*1) Credit quality of due from banks and loans was classified based on the internal credit rating as follows:

Type of Borrower	Grade 1	Grade 2
Banks and governments	OECD sovereign credit rating of 6 or above (as applied to the nationality of the banks and governments)	OECD sovereign credit rating of below 6 (as applied to the nationality of the banks and governments)
Retail	Pool of retail loans with probability of default of less than 2.25%	Pool of retail loans with probability of default of 2.25% or more
Corporations	Internal credit rating of BBB+ or above	Internal credit rating of below BBB+ (Probability of default for loans with internal credit rating of BBB is 2.25%)
Credit cards	For individual card holders, score of 7 or higher in Shinhan Card's internal behavior scoring system	For individual card holders, score of below 7 in Shinhan Card's internal behavior scoring system
	For corporate cardholders, same as corporate loans	For corporate cardholders, same as corporate loans

(*2) As of December 31, 2018 and 2019, allowance for credit loss for securities at fair value through other comprehensive income amounted to ₩26,084 million and ₩28,236 million, respectively.

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

- Credit risk exposures per credit grade of off-balance items as of December 31, 2018 and 2019 are as follows:

	2018			
	Grade 1 (*1)	Grade 2 (*1)	Impaired	Total
Financial guarantee:				
12 months expected credit loss	₩ 2,137,695	1,975,877	—	4,113,572
Life time expected credit loss	146,236	152,277	—	298,513
Impaired	—	—	1,789	1,789
	2,283,931	2,128,154	1,789	4,413,874
Loan commitment and other credit line				
12 months expected credit loss	137,920,323	19,044,745	—	156,965,068
Life time expected credit loss	6,636,365	1,787,965	—	8,424,330
Impaired	—	—	10,539	10,539
	144,556,688	20,832,710	10,539	165,399,937
	₩146,840,619	22,960,864	12,328	169,813,811

(In millions of won)

4. Financial risk management (continued)

	2019			
	Grade 1 (*1)	Grade 2 (*1)	Impaired	Total
Financial guarantee:				
12 months expected credit loss	₩ 2,805,417	1,495,091	—	4,300,508
Life time expected credit loss	248,544	148,696	—	397,240
Impaired	—	—	810	810
	3,053,961	1,643,787	810	4,698,558
Loan commitment and other credit line				
12 months expected credit loss	146,010,944	21,044,977	—	167,055,921
Life time expected credit loss	7,850,945	2,730,143	—	10,581,088
Impaired	—	—	23,538	23,538
	153,861,889	23,775,120	23,538	177,660,547
	₩156,915,850	25,418,907	24,348	182,359,105

(*1) The distinction between prime grade and normal grade is as follows:

Type of Borrower	Corporations and banks
Grade: 1. Prime	Internal credit rating of BBB+ or above
Grade: 2. Normal	Internal credit rating of below BBB+

vi) Credit risk exposures per credit quality of derivative assets

Credit quality of derivative assets as of December 31, 2018 and 2019 are as follows:

	2018	2019
Grade 1	₩1,687,005	2,377,548
Grade 2	106,608	451,726
	₩1,793,613	2,829,274

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

(In millions of won)

4. Financial risk management (continued)

vii) Concentration by geographic location

An analysis of concentration by geographic location for financial instrument, net of allowance, as of December 31, 2018 and 2019 are as follows:

	2018								
	Korea	USA	England	Japan	Germany	Vietnam	China	Other	Total
Due from banks and loans at amortized cost									
Banks	₩ 8,996,272	1,712,675	462,540	640,895	213,399	947,315	3,221,442	1,741,278	17,935,816
Retail	130,034,683	359,668	4,432	3,440,623	2,151	1,031,299	974,568	652,134	136,499,558
Government	4,257,877	499,742	—	750,676	108,667	182,822	546,597	170,834	6,517,215
Corporations	116,621,693	2,707,273	109,295	2,578,989	96,468	1,846,470	2,621,744	5,214,060	131,795,992
Card	21,453,128	8,435	301	2,107	208	92,992	20,785	14,331	21,592,287
	281,363,653	5,287,793	576,568	7,413,290	420,893	4,100,898	7,385,136	7,792,637	314,340,868
Deposits and loans at FVTPL									
Bank	186,465	704,195	—	—	—	—	—	—	890,660
Corporations	1,189,190	—	—	—	—	—	—	—	1,189,190
	1,375,655	704,195	—	—	—	—	—	—	2,079,850
Securities measured at FVTPL	38,782,201	973,716	163,658	28,062	11,507	20,740	104,853	205,109	40,289,846
Securities at FVOCI	34,667,702	1,209,756	21,749	197,234	46,417	392,668	616,143	525,977	37,677,646
Securities at amortized cost	26,053,245	1,048,909	—	68,594	—	360,953	34,923	911,512	28,478,136
	₩382,242,456	9,224,369	761,975	7,707,180	478,817	4,875,259	8,141,055	9,435,235	422,866,346

(In millions of won)

4. Financial risk management (continued)

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

	2019								
	Korea	USA	England	Japan	Germany	Vietnam	China	Other	Total
Due from banks and loans at amortized cost									
Banks	₩ 5,124,738	1,263,568	423,788	289,233	203,166	1,068,822	2,816,320	1,760,926	12,950,561
Retail	144,700,885	371,602	5,444	3,888,964	1,548	1,612,761	1,211,857	1,047,765	152,840,826
Government	16,805,176	529,096	—	1,080,381	—	140,960	445,526	460,428	19,461,567
Corporations	122,926,428	3,116,777	187,856	3,403,806	99,083	2,140,573	2,758,888	6,085,208	140,718,619
Card	22,916,799	9,068	321	2,233	214	141,844	25,513	18,272	23,114,264
	312,474,026	5,290,111	617,409	8,664,617	304,011	5,104,960	7,258,104	9,372,599	349,085,837
Deposits and loans at FVTPL									
Bank	177,713	719,812	—	—	—	—	—	—	897,525
Corporations	2,146,949	—	—	—	—	—	—	7,872	2,154,821
	2,324,662	719,812	—	—	—	—	—	7,872	3,052,346
Securities measured at FVTPL	45,635,765	1,662,249	194,591	49,067	6,346	21,625	220,837	722,377	48,512,857
Securities at FVOCI	53,939,143	1,955,627	97,710	195,165	93,769	294,095	798,068	1,199,517	58,573,094
Securities at amortized cost	42,927,646	769,884	—	163,112	—	604,019	40,741	1,076,663	45,582,065
	₩457,301,242	10,397,683	909,710	9,071,961	404,126	6,024,699	8,317,750	12,379,028	504,806,199

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

(In millions of won)

4. Financial risk management (continued)

viii) Concentration by industry sector

An analysis of concentration by industry sector of financial instrument, net of allowance, as of December 31, 2018 and 2019 are as follows:

	2018								
	Finance and insurance	Manufacturing	Retail and wholesale	Real estate and business	Construction service	Lodging and Restaurant	Other	Retail customers	Total
Due from banks and loans at amortized cost:									
Banks	₩17,579,099	2,219	—	300	—	—	354,198	—	17,935,816
Retail	—	—	—	—	—	—	—	136,499,558	136,499,558
Government	6,385,776	—	—	2,795	—	—	128,644	—	6,517,215
Corporations	8,456,599	43,957,565	17,420,532	27,009,286	3,272,406	5,610,146	26,066,753	2,705	131,795,992
Card receivable	36,343	210,324	169,070	43,236	42,209	23,506	20,968,820	98,779	21,592,287
	32,457,817	44,170,108	17,589,602	27,055,617	3,314,615	5,633,652	47,518,415	136,601,042	314,340,868
Due from banks and loans at FVTPL:									
Banks	870,656	—	—	20,004	—	—	—	—	890,660
Corporations	554,832	213,715	209,631	2,593	1,621	900	205,898	—	1,189,190
	1,425,488	213,715	209,631	22,597	1,621	900	205,898	—	2,079,850
Securities at fair value through profit or loss	25,067,491	1,646,132	1,185,571	342,124	208,455	60,829	11,779,244	—	40,289,846
Securities at fair value through other comprehensive income	22,436,768	1,695,624	302,789	480,979	480,585	—	12,280,901	—	37,677,646
Securities at amortized cost	6,634,975	99,437	—	775,580	595,334	—	20,372,810	—	28,478,136
	₩88,022,539	47,825,016	19,287,593	28,676,897	4,600,610	5,695,381	92,157,268	136,601,042	422,866,346

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

(In millions of won)

4. Financial risk management (continued)

	2019								
	Finance and insurance	Manufacturing	Retail and wholesale	Real estate and business	Construction service	Lodging and Restaurant	Other	Retail customers	Total
Due from banks and loans at amortized cost:									
Banks	₩ 12,461,379	—	—	—	—	—	489,182	—	12,950,561
Retail	—	—	—	—	—	—	—	152,840,826	152,840,826
Government	19,342,308	—	—	2,295	—	—	116,964	—	19,461,567
Corporations	9,456,194	44,781,794	17,004,407	30,029,000	3,485,602	6,003,383	29,958,239	—	140,718,619
Card receivable	39,003	212,863	170,873	49,000	41,664	23,397	22,427,544	149,920	23,114,264
	41,298,884	44,994,657	17,175,280	30,080,295	3,527,266	6,026,780	52,991,929	152,990,746	349,085,837
Due from banks and loans at FVTPL:									
Banks	897,525	—	—	—	—	—	—	—	897,525
Corporations	1,301,066	505,198	120,636	7,872	3,500	900	215,649	—	2,154,821
	2,198,591	505,198	120,636	7,872	3,500	900	215,649	—	3,052,346
Securities at fair value through profit or loss	29,826,338	2,466,874	1,112,688	350,720	262,183	75,152	14,418,902	—	48,512,857
Securities at fair value through other comprehensive income	28,673,958	3,500,514	673,614	807,274	1,164,947	12,889	23,739,898	—	58,573,094
Securities at amortized cost	9,930,409	49,876	—	884,072	1,076,086	—	33,641,622	—	45,582,065
	₩111,928,180	51,517,119	19,082,218	32,130,233	6,033,982	6,115,721	125,008,000	152,990,746	504,806,199

4. Financial risk management (continued)

(c) Market risk

i) Market risk management from trading positions

i-1) Concept of Market risk

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

i-2) Market risk Management Method

The basic principle of market risk management in the trading sector is to maintain the maximum possible loss due to market risks within a certain level. To that end, the Group sets and operates the VaR limit, investment limit, position limit, sensitivity limit, and loss limit from portfolio to individual desks. These limits are managed daily by the Risk Management Department independent of Operation Department. Trading position refers to securities, foreign exchange position and derivative financial instruments held for the purpose of short-term trading profit. VaR is the representative method for measuring market risk and is a statistical measure of maximum potential loss that can be caused by changes in market conditions. VaR calculates the market risk amount of the standard method by using TRMS, and Shinhan Bank and Shinhan Investment Corp. use own internal model of market risk calculation system.

The Group conducts stress test to supplement risk measurements by statistical method and to manage losses that may arise from rapid changes in the economic environment.

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

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

(In millions of won)

4. Financial risk management (continued)

An analysis of the Group's requisite capital in light of the market risk for trading positions as of and for the years ended December 31, 2018 and 2019 based on the standard guidelines for risk management promulgated by the Financial Supervisory Service, is as follows:

	2018			
	Average	Maximum	Minimum	December 31
Interest rate	₩425,235	453,644	403,195	453,644
Stock price	201,408	227,167	143,238	143,238
Foreign exchange	143,202	174,702	124,292	139,617
Commodity	6,250	9,026	4,501	6,343
Option volatility	34,334	56,834	22,045	56,834
	₩810,429	921,373	697,271	799,676

	2019			
	Average	Maximum	Minimum	December 31
Interest rate	₩508,039	527,349	479,121	504,948
Stock price	191,019	210,589	162,595	210,589
Foreign exchange	143,317	151,779	138,543	139,562
Commodity	7,691	10,558	4,953	10,558
Option volatility	57,972	74,892	39,591	67,160
	₩908,038	975,167	824,803	932,817

i-3) Shinhan Bank

The analyses of the ten-day 99% confidence level-based VaR for managing market risk for trading positions of Shinhan Bank as of and for the years ended December 31, 2018 and 2019 are as follows:

	2018			
	Average	Maximum	Minimum	December 31
Interest rate	₩22,559	29,748	16,194	18,797
Stock price	12,118	25,701	1,976	22,212
Foreign exchange (*)	39,282	45,738	34,162	34,294
Option volatility	131	511	30	261
Commodity	17	61	—	24
Portfolio diversification				(21,298)
	₩43,957	57,462	38,026	54,290

(In millions of won)

4. Financial risk management (continued)

	2019			
	Average	Maximum	Minimum	December 31
Interest rate	₩21,208	32,430	12,709	28,313
Stock price	18,136	49,424	8,171	15,386
Foreign exchange (*)	24,727	29,085	22,259	25,910
Option volatility	161	325	60	212
Commodity	15	104	—	10
Portfolio diversification				(21,879)
	₩47,925	81,553	31,482	47,952

(*) Both trading and non-trading accounts are included since Shinhan Bank manages foreign exchange risk on a total position basis.

i-4) Shinhan Card

The analyses of Shinhan Card's requisite capital in light of the market risk for trading positions as of and for the years ended December 31 2018, and 2019, based on the standard guidelines for risk management promulgated by the Financial Supervisory Service, are as follows:

	2018			
	Average	Maximum	Minimum	December 31
Interest rate	₩1,257	1,972	768	1,269

	2019			
	Average	Maximum	Minimum	December 31
Interest rate	₩1,417	2,000	1,000	2,000

(*) Foreign subsidiaries are excluded from the calculation

(In millions of won)

4. Financial risk management (continued)

i-5) Shinhan Investment

The analyses of the ten-day 99.9% confidence level-based VaR for managing market risk for trading positions of Shinhan Investment as of and for the years ended December 31, 2018 and 2019 are as follows:

	2018			
	Average	Maximum	Minimum	December 31
Interest rate	₩ 7,563	14,314	3,656	7,321
Stock price	64,107	103,846	6,202	43,748
Foreign exchange	5,992	13,798	154	154
Option volatility	9,200	31,810	2,195	31,810
Portfolio diversification				(1,375)
	₩74,821	128,261	11,174	81,658

	2019			
	Average	Maximum	Minimum	December 31
Interest rate	₩13,725	20,857	5,671	11,946
Stock price	31,330	74,421	15,449	25,691
Foreign exchange	4,107	37,970	368	4,369
Option volatility	9,889	31,711	2,504	9,876
Portfolio diversification				(15,150)
	₩38,262	85,597	5,780	36,732

i-6) Shinhan Life Insurance

The analyses of the ten-day 99.9% confidence level-based VaR for managing market risk for trading positions of Shinhan Life Insurance as of and for the year ended December 31, 2018 and 2019 are as follows:

	2018			
	Average	Maximum	Minimum	December 31
Interest rate	₩2,994	6,410	260	293
Stock price	4,084	4,933	2,030	4,793
Foreign exchange	1,111	2,825	40	352
Option volatility	824	4,916	89	106
	₩9,013	19,084	2,419	5,544

	2019			
	Average	Maximum	Minimum	December 31
Interest rate	₩1,853	8,856	313	600
Stock price	5,015	6,520	4,374	4,978
Foreign exchange	1,581	3,434	3	2,050
Option volatility	316	632	124	472
	₩8,765	19,442	4,814	8,100

(In millions of won)

4. Financial risk management (continued)

i-7) Orange Life Insurance Co., Ltd.

The analyses of the ten-day 99.9% confidence level-based VaR for managing market risk for trading positions of Orange Life Insurance as of and for the year ended December 31, 2019 are as follows:

	2019			
	Average	Maximum	Minimum	December 31
Foreign exchange	₩18,578	23,614	12,577	16,710

ii) Interest rate risk management from non-trading positions

ii-1) Principle

Interest rate risk refers to the possibility of a decrease in net interest income or in net asset value that occurs when interest rates fluctuate unfavorably from the Group's financial position. Through the interest rate risk management, changes in net interest income or net asset value arising from interest rate fluctuations are anticipated by early forecasting changes in interest rate risks related to net interest income and net asset value.

ii-2) Managements

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

One of the key indicators of managing interest rate risk is the Earnings at Risk (EaR) from an earning perspective and the Value at Risk (VaR) from an economic value perspective. Interest rate VaR represents the maximum anticipated loss in a net present value calculation, whereas interest rate EaR represents the maximum anticipated loss in a net earnings calculation for the immediately following one-year period, in each case, as a result of negative movements in interest rates. The precision of risk management system differs by each subsidiary. Interest rate VaR and interest rate EaR are measured by internal method or IRRBB (Interest Rate Risk In The Banking Book), and interest rate risk limits are set and monitored based on the interest rate VaR.

The Basel III-based IRRBB measures the interest rate risk more precisely than the existing BIS standard framework by segmenting maturities of interest rates, reflecting customer behaviour models, and diversifying interest rate shocks. The interest rate VaR scenario based IRRBB measures ① parallel up shock ② parallel down shock ③ Steepener shock ④ flattener shock ⑤ short rate up shock ⑥ short rate down shock. By the parallel up shock and parallel down shock, the interest rate VaR scenario measures the scenario value with the largest loss as interest rate risk. Under the existing BIS standard framework, ± 200bp parallel shock scenario was applied to all currency. However, as the shock width is set differently by currency and period, interest rate risk is measured significantly by the IRRBB. ((KRW) Parallel ± 300bp, Short Term ± 400bp, Long Term ± 200bp, (USD) Parallel ± 200bp, Short Term ± 300bp, Long Term ± 150bp) In the IRRBB method, the existing interest rate VaR and the interest rate EaR are expressed as ΔEVE (Economic Value of Equity) and Δ NII (Net Interest Income), respectively.

Since impacts of each subsidiary on changes of interest rates are differentiate by portfolios, the Group is preparing to respond proactively while monitoring the financial market and regulatory environment, and

(In millions of won)

4. Financial risk management (continued)

making efforts to hedge or reduce interest rate risk. In addition, the subsidiaries conduct the crisis analysis on changes in market interest rates and report it to management and the Group.

In particular, through its asset and liability management system, Shinhan Bank measures and manages its interest rate risk based on various analytical measures such as interest rate gap, duration gap and net present value and net interest income simulations, and monitors on a monthly basis its interest rate VaR limits, interest rate earnings at risk ("EaR") limits and interest rate gap ratio limits.

Non-trading positions for interest rate VaR and EaR as of December 31, 2018 and 2019 are as follows:

ii-3) Shinhan Bank

	2018	2019
ΔEVE (*1)	₩930,461	369,944
ΔNII (*2)	405,501	161,385

ii-4) Shinhan Card

	2018	2019
ΔEVE (*1)	₩ 773,293	696,505
ΔNII (*2)	501,272	554,499

ii-5) Shinhan Investment

	2018	2019
ΔEVE (*1)	₩ 82,568	77,436
ΔNII (*2)	72,906	127,476

ii-6) Shinhan Life Insurance

	2018	2019
ΔEVE (*1)	₩ 5,268,879	4,831,042
ΔNII (*2)	67,638	77,000

ii-7) Orange Life Insurance Co., Ltd.

	2019
ΔEVE (*1)	₩2,800,603
ΔNII (*2)	46,372

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

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

(In millions of won)

4. Financial risk management (continued)

iii) Foreign exchange risk

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

The management of Shinhan Bank's foreign exchange position is centralized at the FX & Derivatives Department. Dealers in the FX & Derivatives Department manage Shinhan Bank's overall position within the set limits through spot trading, forward contracts, currency options, futures and swaps and foreign exchange swaps. Shinhan Bank sets a limit for net open positions by currency and the limits for currencies other than the U.S. dollars, Japanese yen, Euros and Chinese yuan are set in order to minimize exposures from the other foreign exchange trading.

Foreign currency denominated assets and liabilities as of December 31, 2018 and 2019 are as follows:

	2018					
	USD	JPY	EUR	CNY	Other	Total
Assets:						
Cash and due from banks at amortized cost	₩ 4,797,714	1,216,221	259,631	1,595,799	1,654,668	9,524,033
Due from banks at FVTPL	704,195	—	—	—	—	704,195
Loan receivables measured at FVTPL	347,966	3,430	4,127	—	—	355,523
Loan at amortized cost	16,301,367	6,862,146	1,275,174	3,496,937	5,934,670	33,870,294
Securities at FVTPL	3,812,541	998	81,300	—	313,750	4,208,589
Derivative assets	133,197	285	2,299	406	11,875	148,062
Securities at FVOCI	3,209,293	125,512	—	357,682	728,456	4,420,943
Securities at amortized cost	1,405,775	128,512	—	34,955	1,175,733	2,744,975
Other financial assets	2,958,609	135,984	70,321	456,405	357,856	3,979,175
	₩33,670,657	8,473,088	1,692,852	5,942,184	10,177,008	59,955,789
Liabilities:						
Deposits	₩13,333,500	7,217,318	727,291	4,565,067	5,232,529	31,075,705
Financial liabilities at FVTPL	4,389	—	—	—	458,934	463,323
Derivative liabilities	172,556	—	1,914	2,089	4,892	181,451
Borrowings	6,287,797	446,102	280,949	395,719	173,731	7,584,298
Debt securities issued	6,168,615	317,125	293,708	—	1,715,780	8,495,228
Financial liabilities designated at FVTPL	1,168,024	—	—	—	—	1,168,024
Other financial liabilities	2,684,717	192,161	125,434	573,544	548,754	4,124,610
	₩29,819,598	8,172,706	1,429,296	5,536,419	8,134,620	53,092,639
Net assets	₩ 3,851,059	300,382	263,556	405,765	2,042,388	6,863,150
Off-balance derivative exposure	(2,056,586)	(157,445)	(217,232)	(34,986)	(164,797)	(2,631,046)
Net position	₩ 1,794,473	142,937	46,324	370,779	1,877,591	4,232,104

(In millions of won)

4. Financial risk management (continued)

	2019					
	USD	JPY	EUR	CNY	Other	Total
Assets:						
Cash and due from banks at amortized cost	₩ 4,235,225	1,532,661	354,686	1,714,524	1,715,443	9,552,539
Due from banks at FVTPL	719,812	—	—	—	—	719,812
Loan receivables measured at FVTPL	479,950	—	7,872	—	—	487,822
Loan at amortized cost	18,275,153	8,256,756	955,836	3,350,557	7,960,731	38,799,033
Securities at FVTPL	5,391,450	32,565	303,917	—	357,018	6,084,950
Derivative assets	342,120	1,403	16,922	391	80,506	441,342
Securities at FVOCI	4,775,714	83,713	337,573	436,236	917,335	6,550,571
Securities at amortized cost	1,392,901	183,133	67,080	40,769	1,482,574	3,166,457
Other financial assets	3,176,509	136,419	171,080	380,955	462,734	4,327,697
	₩38,788,834	10,226,650	2,214,966	5,923,432	12,976,341	70,130,223
Liabilities:						
Deposits	₩14,658,624	9,057,393	843,946	4,426,507	6,906,741	35,893,211
Financial liabilities at FVTPL	—	—	—	—	474,080	474,080
Derivative liabilities	320,176	6,466	20,833	1,163	15,564	364,202
Borrowings	8,938,762	347,881	190,366	407,767	139,658	10,024,434
Debt securities issued	7,882,293	319,041	960,890	—	1,526,661	10,688,885
Financial liabilities designated at FVTPL	1,444,254	—	—	—	—	1,444,254
Other financial liabilities	4,391,046	155,736	125,172	567,860	978,153	6,217,967
	₩37,635,155	9,886,517	2,141,207	5,403,297	10,040,857	65,107,033
Net assets	₩ 1,153,679	340,133	73,759	520,135	2,935,484	5,023,190
Off-balance derivative exposure	(1,335,794)	(160,734)	273,571	(114,015)	(844,534)	(2,181,506)
Net position	₩ (182,115)	179,399	347,330	406,120	2,090,950	2,841,684

(d) Liquidity risk

Liquidity risk is the risk that the Group will encounter difficulty in meeting the obligations associated with its financial liabilities that are settled by delivering cash or another financial asset.

Each subsidiary seeks to minimize liquidity risk through early detection of risk factors related to the sourcing and managing of funding that may cause volatility in liquidity and by ensuring that it maintains an appropriate level of liquidity through systematic management. At the group level, the Group manages liquidity risk by conducting monthly stress tests that compare liquidity requirements under normal situations against those under three types of stress situations, namely, the group-specific internal crisis, crisis in the external market and a combination of internal and external crisis. In addition, in order to preemptively and comprehensively manage liquidity risk, the Group measure and monitor liquidity risk management using various indices, including the “limit management index”, “early warning index” and “monitoring index”.

4. Financial risk management (continued)

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

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

As for any potential liquidity shortage at or near the end of each month, Shinhan Card maintains liquidity at a level sufficient to withstand credit shortage for three months. In addition, Shinhan Card manages liquidity risk by defining and managing various indicators of liquidity risk, such as the actual liquidity gap ratio (in relation to the different maturities for assets as compared to liabilities), the liquidity buffer ratio, the maturity repayment ratio, the ratio of actual funding compared to budgeted funding and the ratio of asset-backed securities to total borrowings, at different risk levels of "caution", "unstable" and "at risk", and the Group also has contingency plans in place in case of any emergency or crisis.

(In millions of won)

4. Financial risk management (continued)

Contractual maturities for financial instruments including cash flows of principal and interest and off balance as of December 31, 2018 and 2019 are as follows:

	2018						
	Less than 1 month	1~3 months	3~6 months	6 months ~ 1 year	1~5 years	More than 5 years	Total
Non-derivative financial instruments:							
Assets:							
Cash and due from banks at amortized cost	₩ 14,451,366	796,510	905,259	1,196,790	1,526	57,259	17,408,710
Due from banks at fair value through profit or loss	115,476	131,712	518,109	105,359	6,053	—	876,709
Loans at fair value through profit or loss	290,724	388,218	42,550	201,591	257,873	48,982	1,229,938
Loans at amortized cost	34,025,588	34,254,065	45,151,571	68,239,781	87,760,434	66,889,553	336,320,992
Securities at fair value through profit or loss	36,043,891	41,287	35,677	403,849	1,572,268	3,351,681	41,448,653
Securities at fair value through other comprehensive income	37,519,813	12,093	5,145	20,291	255,091	507,920	38,320,353
Securities at amortized cost	505,417	1,378,525	481,193	2,270,447	15,067,164	16,896,833	36,599,579
Other financial assets	15,130,599	5,629	19,173	433,060	92,753	1,215,953	16,897,167
	₩138,082,874	37,008,039	47,158,677	72,871,168	105,013,162	88,968,181	489,102,101
Liabilities:							
Deposits (*2)	₩123,166,403	24,736,962	34,096,334	56,060,670	28,316,319	2,880,197	269,256,885
Financial liabilities at fair value through profit or loss	1,402,726	193	53	10,403	10,124	—	1,423,499
Borrowings	13,542,317	2,879,693	2,207,560	2,965,132	5,854,335	2,553,162	30,002,199
Debt securities issued	3,779,407	5,433,266	5,633,286	10,468,221	36,694,200	5,291,240	67,299,620
Financial liabilities designated at fair value through profit or loss	332,249	303,996	171,927	1,061,443	5,552,824	1,113,361	8,535,800
Other financial liabilities	19,423,802	22,744	110,883	146,256	432,277	71,318	20,207,280
	₩161,646,904	33,376,854	42,220,043	70,712,125	76,860,079	11,909,278	396,725,283
Off balance (*3):							
Finance guarantee contracts	₩ 4,413,874	—	—	—	—	—	4,413,874
Loan commitments and other	166,498,542	—	—	—	—	—	166,498,542
	₩170,912,416	—	—	—	—	—	170,912,416
Derivatives:							
Net and gross settlement of derivatives	₩ (451,926)	(5,741)	(26,570)	(6,552)	(37,532)	(10,656)	(538,977)

(In millions of won)

4. Financial risk management (continued)

	2019						
	Less than 1 month	1~3 months	3~6 months	6 months ~ 1 year	1~5 years	More than 5 years	Total
Non-derivative financial instruments:							
Assets:							
Cash and due from banks at amortized cost	₩ 25,543,400	1,039,822	421,453	1,145,323	50,070	249,503	28,449,571
Due from banks at fair value through profit or loss	130,780	150,217	594,643	21,885	—	—	897,525
Loans at fair value through profit or loss	29,961	783,429	12,638	142,756	773,305	488,326	2,230,415
Loans at amortized cost	28,857,297	36,706,993	46,672,732	74,931,639	103,334,861	70,169,035	360,672,557
Securities at fair value through profit or loss	39,736,655	1,852,680	728,518	1,120,791	2,716,677	3,774,694	49,930,015
Securities at fair value through other comprehensive income	57,317,802	—	—	40,145	30,195	2,111,220	59,499,362
Securities at amortized cost	1,214,108	2,015,590	1,704,574	2,098,374	17,491,024	32,951,459	57,475,129
Other financial assets	13,291,239	122,258	122,893	562,793	249,166	3,122,107	17,470,456
	₩166,121,242	42,670,989	50,257,451	80,063,706	124,645,298	112,866,344	576,625,030
Liabilities:							
Deposits (*2)	₩149,773,324	31,415,213	38,077,790	61,746,589	14,972,484	3,590,916	299,576,316
Financial liabilities at fair value through profit or loss	1,558,186	1,096	12,095	17,997	48,609	—	1,637,983
Borrowings	15,314,322	3,690,803	3,608,178	4,028,183	5,244,109	3,002,243	34,887,838
Debt securities issued	5,367,601	4,370,308	4,876,333	8,945,916	49,804,651	6,467,621	79,832,430
Financial liabilities designated at fair value through profit or loss	487,743	110,965	678,041	1,651,198	5,414,944	1,066,565	9,409,456
Other financial liabilities	23,504,746	118,689	253,779	510,768	416,868	3,449,392	28,254,242
	₩196,005,922	39,707,074	47,506,216	76,900,651	75,901,665	17,576,737	453,598,265
Off balance (*3):							
Finance guarantee contracts	₩ 4,698,558	—	—	—	—	—	4,698,558
Loan commitments and other	178,516,047	—	—	—	—	—	178,516,047
	₩183,214,605	—	—	—	—	—	183,214,605
Derivatives:							
Net and gross settlement of derivatives	₩ 407,885	9,640	34,228	18,196	160,292	176,976	807,217

(*1) These amounts include cash flows of principal and interest on financial assets and financial liabilities.
(*2) Demand deposits amounting to ₩106,160,833 million and ₩116,282,706 million as of December 31, 2018 and 2019 are included in the 'Less than 1 month' category, respectively.
(*3) Financial guarantees such as financial guarantee contracts and loan commitments and others provided by the Group are classified based on the earliest date at which the Group should fulfill the obligation under the guarantee when the counterparty requests payment.

(e) Measurement of fair value

The fair values of financial instruments being traded in an active market are determined by the published market prices of each period end. The published market prices of financial instruments being held by the

4. Financial risk management (continued)

Group are based on the trading agencies' notifications. If the market for a financial instrument is not active, such as OTC (Over The Counter market) derivatives, fair value is determined either by using a valuation technique or independent third-party valuation service.

The Group uses various valuation techniques and is setting rational assumptions based on the present market situations. Such valuation techniques may include using recent arm's length market transactions between knowledgeable, willing parties, if available, reference to the current fair value of another instrument that is substantially the same, discounted cash flow analysis and option pricing models.

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

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

(In millions of won)

4. Financial risk management (continued)

i) Financial instruments measured at fair value

i-1) The fair value hierarchy of financial instruments presented at their fair values in the statements of financial position as of December 31, 2018 and 2019 are as follows:

	2018			
	Level 1	Level 2	Level 3	Total
Financial assets				
Due from banks measured at FVTPL	₩ —	57,236	813,420	870,656
Loan receivables measured at FVTPL	—	891,636	317,558	1,209,194
Financial assets at FVTPL:				
Debt securities and other securities	5,084,767	29,552,429	5,497,769	40,134,965
Equity securities	528,113	143,139	493,818	1,165,070
Gold deposits	154,881	—	—	154,881
Derivative assets:				
Trading	62,275	1,548,769	116,277	1,727,321
Hedging	—	61,706	4,586	66,292
Securities measured at FVOCI:				
Debt securities	10,532,244	27,095,555	49,846	37,677,645
Equity securities	135,866	—	500,659	636,525
	₩16,498,146	59,350,470	7,793,933	83,642,549
Financial liabilities:				
Financial liabilities measured at FVTPL:				
Securities sold	₩ 961,372	—	—	961,372
Gold deposits	458,934	—	—	458,934
Financial liabilities designated at fair value through profit or loss:				
Derivatives-combined securities	—	1,702,063	6,833,737	8,535,800
Derivative liabilities:				
Trading	116,160	1,444,545	285,965	1,846,670
Hedging	—	232,102	361,120	593,222
	₩ 1,536,466	3,378,710	7,480,822	12,395,998

(In millions of won)

4. Financial risk management (continued)

	2019			
	Level 1	Level 2	Level 3	Total
Financial assets				
Due from banks measured at FVTPL	₩ —	66,870	830,655	897,525
Loan receivables measured at FVTPL	—	686,446	1,468,375	2,154,821
Financial assets at FVTPL:				
Debt securities and other securities	6,304,161	33,145,583	8,951,398	48,401,142
Equity securities	890,714	195,395	511,831	1,597,940
Gold deposits	111,715	—	—	111,715
Derivative assets:				
Trading	35,711	2,088,307	462,050	2,586,068
Hedging	—	240,430	2,776	243,206
Securities measured at FVOCI:				
Debt securities	16,892,704	41,645,124	35,266	58,573,094
Equity securities	183,107	—	624,852	807,959
	₩24,418,112	78,068,155	12,887,203	115,373,470
Financial liabilities:				
Financial liabilities measured at FVTPL:				
Securities sold	₩ 1,164,697	—	—	1,164,697
Gold deposits	467,760	—	—	467,760
Financial liabilities designated at fair value through profit or loss:				
Derivatives-combined securities	—	897,967	8,511,489	9,409,456
Derivative liabilities:				
Trading	46,854	1,834,930	119,220	2,001,004
Hedging	—	112,258	189,750	302,008
	₩ 1,679,311	2,845,155	8,820,459	13,344,925

(In millions of won)

4. Financial risk management (continued)

i-2) Changes in carrying values of financial instruments classified as Level 3 for the years ended December 31, 2018 and 2019 are as follows:

	2018				
	Financial asset at fair value through profit or loss	Financial asset designated at fair value through profit or loss	Securities at fair value through other comprehensive profit or loss	Financial liabilities designated at fair value through profit or loss	Derivative assets and liabilities, net
Beginning balance	₩ 5,831,369	152,091	621,207	(7,273,754)	(250,662)
Recognized in total comprehensive income for the year:					
Recognized in profit (loss) for the year (*1)	359,160	3,390	4,692	10,090	(128,816)
Recognized in other comprehensive income (loss) for the year	—	—	29,388	235	—
	359,160	3,390	34,080	10,325	(128,816)
Purchase	2,143,853	—	2,510	—	2,236
Issue	—	—	—	(7,127,670)	—
Settlement	(1,212,202)	(155,481)	(107,292)	7,557,362	(148,987)
Transfer to level3 (*2)	1,370	—	—	—	6
Transfer from level3 (*2)	(985)	—	—	—	—
Ending balance	₩ 7,122,565	—	550,505	(6,833,737)	(526,223)

	2019			
	Financial asset at fair value through profit or loss	Securities at fair value through other comprehensive profit or loss	Financial liabilities designated at fair value through profit or loss	Derivative assets and liabilities, net
Beginning balance	₩ 7,122,565	550,505	(6,833,737)	(526,223)
Recognized in total comprehensive income for the year:				
Recognized in profit (loss) for the year (*1)	61,738	1,461	(826,594)	591,332
Recognized in other comprehensive income (loss) for the year	125,037	34,716	(13,654)	—
	186,775	36,177	(840,248)	591,332
Purchase	5,941,978	103,564	—	2,221
Issue	—	—	(8,821,680)	—
Settlement	(2,332,781)	(22,842)	7,984,176	88,312
Reclassification	—	(7,286)	—	—
Transfer to level3 (*2)	162,906	—	—	248
Transfer from level3 (*2)	(27,075)	—	—	(34)
Business combination (Note 50)	707,891	—	—	—
Ending balance	₩11,762,259	660,118	(8,511,489)	155,856

(In millions of won)

4. Financial risk management (continued)

(*1) Recognized profit or loss of the changes in carrying value of financial instruments classified as Level 3 for the years ended December 31, 2018 and 2019 are included in the accounts of the statements of comprehensive income, of which the amounts and the related accounts are as follows:

	2018	
	Amounts recognized in profit or loss	Recognized profit or loss from the financial instruments held as of December 31
Net gain (loss) on financial assets at fair value through profit or loss	₩179,658	(14,586)
Net gain on financial assets designated at fair value through profit or loss	10,090	392,096
Net gain on securities at fair value through other comprehensive income	2,575	—
Reversal of (provision for) allowance for credit loss	17	(28)
Other operating expenses	56,176	57,317
	₩248,516	434,799

	2019	
	Amounts recognized in profit or loss	Recognized profit or loss from the financial instruments held as of December 31
Net gain (loss) on financial assets at fair value through profit or loss	₩ 544,849	23,912
Net gain on financial assets designated at fair value through profit or loss	(826,594)	(66,113)
Net gain on securities at fair value through other comprehensive income	1,461	1,191
Other operating expenses	108,221	109,547
	₩(172,063)	68,537

(*2) Changes in levels for the financial instruments occurred due to the change in the availability of observable market data. The Group reviews the levels of financial instruments as of the end of the reporting period considering the related events and circumstances in the reporting period.

(In millions of won)

4. Financial risk management (continued)

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

i-3-1) Valuation techniques and inputs used in measuring the fair value of financial instruments classified as level 2 as of December 31, 2018 and 2019 are as follows:

	2018		
Type of financial instrument	Valuation technique	Carrying Value	Significant inputs
Assets			
Financial asset at fair value through profit or loss			
Debt securities	DCF	₩30,501,301	Discount rate
Equity securities	NAV	143,139	Price of underlying assets
		30,644,440	
Derivative assets			
Trading	Option model, DCF	1,548,769	Discount rate, foreign exchange rate, volatility, stock price, commodity index, etc.
Hedging		61,706	
		1,610,475	
Securities at fair value through other comprehensive income	DCF	27,095,555	Discount rate, foreign exchange rate, volatility, stock price, commodity index, etc.
		₩59,350,470	
Liabilities			
Financial liabilities designated at fair value through profit or loss			
Borrowings	DCF	₩ 1,702,063	Discount rate
Derivative liabilities			
Trading	Option model DCF	1,444,545	Discount rate, foreign exchange rate, volatility, stock price, commodity index, etc.
Hedging		232,102	
		1,676,647	
		₩ 3,378,710	

(In millions of won)

4. Financial risk management (continued)

	2019		
Type of financial instrument	Valuation technique	Carrying Value	Significant inputs
Assets			
Financial asset at fair value through profit or loss			
Debt securities	DCF	₩33,898,899	Discount rate, interest rate, stock price and price of underlying assets such as stocks, bonds, etc.
Equity securities	NAV	195,395	
		34,094,294	
Derivative assets			
Trading	Option model, DCF	2,088,307	Discount rate, foreign exchange rate, volatility, stock price, and commodity index, etc.
Hedging		240,430	
		2,328,737	
Securities at fair value through other comprehensive income	DCF, NAV	41,645,124	Discount rate, growth rate and price of underlying assets such as stock, bonds, etc.
		₩78,068,155	
Liabilities			
Financial liabilities designated at fair value through profit or loss			
Borrowings	DCF	₩ 897,967	Discount rate
Derivative liabilities			
Trading	Option model, DCF	1,834,930	Discount rate, foreign exchange rate, volatility, stock price, and commodity index, etc.
Hedging		112,258	
		1,947,188	
		₩ 2,845,155	

(In millions of won)

4. Financial risk management (continued)

i-3-2) Valuation techniques and significant inputs, but not observable, used in measuring the fair value of financial instruments classified as level 3 as of December 31, 2018 and 2019 are as follows:

	2018			
Type of financial instrument	Valuation technique	Carrying value(*2)	Significant unobservable inputs	Range
Financial assets				
Financial asset at fair value through profit or loss				
Debt securities	DCF, Option model (*1)	₩6,628,747	The volatility of the underlying asset Correlations	16.39%~42.56% 1.26%~39.45% 0.00%
Equity securities	DCF, NAV	493,818	The volatility of the underlying asset Correlations	5.80%~41.00% 0.00%~74.00%
		7,122,565		
Derivative assets				
Equity and foreign exchange related	Option model (*1)	43,183	The volatility of the underlying asset Correlations	2.20%~38.00% 12.00%~82.00%
Interest rates related	Option model (*1)	44,848	The volatility of the underlying asset Regression coefficient Correlations	0.00%~1.00% 0.42%~1.65% 44.93%~91.00%
Credit and commodity related	Option model (*1)	32,832	The volatility of the underlying asset Correlations	1.00%~33.00% 33.00%~67.00%
		120,863		
Securities at fair value through other comprehensive income				
Debt securities	DCF	49,846	Discount rate	8.43%~17.40%
Equity securities	NAV	500,659	Growth rate	0.00%~3.00%
		550,505		
		₩7,793,933		
Financial liabilities				
Financial liabilities at fair value through profit or loss				
Equity related	Option model (*1)	₩6,833,737	The volatility of the underlying asset Correlations	0.00%~107.00% -42.00%~93.00%
Derivative liabilities				
Equity and foreign exchange related	Option model (*1)	199,504	The volatility of the underlying asset Correlations	2.20%~98.00% -3.00%~82.00%
Interest rates related	Option model (*1)	374,976	The volatility of the underlying asset Regression coefficient Correlations	0.00%~33.00% 0.42%~2.77% 28.15%~91.00%
Credit and commodity related	Option model (*1)	72,605	The volatility of the underlying asset Correlations	1.00%~107.00% -20.00%~93.00%
		647,085		
		₩7,480,822		

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

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

(In millions of won)

4. Financial risk management (continued)

Type of financial instrument	Valuation technique	Carrying value(*2)	Significant unobservable inputs	Range
	2019			
Financial assets				
Financial asset at fair value through profit or loss				
Debt securities	DCF, Option model (*1)	₩ 11,250,428	The volatility of the underlying asset Discount rate	0.00%~46.36% 1.14%~30.70%
Equity securities	DCF, NAV	511,831	The volatility of the underlying asset Correlations Discount rate	1.00%~43.00% 5.00%~88.00% 5.06%~15.42%
		11,762,259		
Derivative assets				
Equity and foreign exchange related	Option model (*1)	145,011	The volatility of the underlying asset Correlations	1.51%~56.00% -42.00%~82.00%
Interest rates related	Option model (*1)	30,983	The volatility of the underlying asset Regression coefficient Correlations	0.50%~0.67% 1.30%~1.57% 59.53%
Credit and commodity related	Option model (*1)	288,832	The volatility of the underlying asset Correlations	0.00%~39.00% 0.00%~93.00%
		464,826		
Securities at fair value through other comprehensive income				
Debt securities	DCF	35,266	Discount rate Growth rate	7.78%~19.32% 0.00%~2.00%
Equity securities	NAV	624,852		
		660,118		
		₩ 12,887,203		
Financial liabilities				
Financial liabilities at fair value through profit or loss				
Equity related	Option model (*1)	₩8,511,489	The volatility of the underlying asset Correlations	0.00%~140.00% -46.00%~93.00%
Derivative liabilities				
Equity and foreign exchange related	Option model (*1)	30,412	The volatility of the underlying asset Correlations	0.00%~140.00% 0.00%~78.00%
Interest rates related	Option model (*1)	213,170	The volatility of the underlying asset Regression coefficient Correlations	0.00%~55.00% 1.30%~2.77% 45.06%~90.34%
Credit and commodity related	Option model (*1)	65,388	The volatility of the underlying asset Correlations	0.00%~109.00% -46.00%~93.00%
		308,970		
		₩8,820,459		

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

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

(In millions of won)

4. Financial risk management (continued)

i-4) Sensitivity analysis for fair value measurements in Level 3

For level 3 fair value measurement, changing one or more of the unobservable inputs used to reasonably possible alternative assumptions would have the following effects on profit or loss, or other comprehensive income as of December 31, 2018 and 2019.

	2018	
	Favorable changes	Unfavorable changes
Financial assets:		
Effects on profit or loss for the period(*1):		
Financial asset at fair value through profit or loss	₩ 45,760	(20,662)
Derivative assets	28,115	(27,201)
	73,875	(47,863)
Effects on other comprehensive income for the period:		
Securities at fair value through other comprehensive income(*2)	23,885	(17,231)
	₩ 97,760	(65,094)
Financial liabilities:		
Effects on profit or loss for the period(*1):		
Financial liabilities designated at fair value through profit or loss	₩112,212	(131,080)
Derivative liabilities	103,938	(88,348)
	₩216,150	(219,428)

	2019	
	Favorable changes	Unfavorable changes
Financial assets:		
Effects on profit or loss for the period(*1):		
Financial asset at fair value through profit or loss	₩ 44,108	(23,618)
Derivative assets	24,792	(22,184)
	68,900	(45,802)
Effects on other comprehensive income for the period:		
Securities at fair value through other comprehensive income(*2)	36,258	(22,183)
	₩105,158	(67,985)
Financial liabilities:		
Effects on profit or loss for the period(*1):		
Financial liabilities designated at fair value through profit or loss	₩ 55,224	(53,294)
Derivative liabilities	16,830	(22,535)
	₩ 72,054	(75,829)

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

(*2) Fair value changes are calculated by increasing or decreasing discount rate (-1~1%) or growth rate (0~1%).

4. Financial risk management (continued)

ii) Financial instruments measured at amortized cost

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

Type	Measurement methods of fair value
Cash and due from banks	The carrying amount and the fair value for cash are identical and most of deposits are floating interest rate deposits or next day deposits of a short-term instrument. For this reason, the carrying value approximates fair value.
Loans	The fair value of the loans is measured by discounting the expected cash flow at the market interest rate and credit risk.
Securities measured at amortized cost	The minimum price between the Korea Asset Pricing's valuation, and KIS Pricing's is used as a fair value.
Deposits and borrowings	The carrying amount and the fair value for demand deposits, cash management account deposits, call money as short-term instrument are identical. The fair value of others is measured by discounting the contractual cash flow at the market interest rate that takes into account the residual risk.
Debt securities issued	Where available, the fair value of deposits and borrowings is based on the published price quotations in an active market. In case there is no data for an active market price, it is measured by discounting the contractual cash flow at the market interest rate that takes into account the residual risk.

(In millions of won)

4. Financial risk management (continued)

ii-2) The carrying value and the fair value of financial instruments measured at amortized cost as of December 31, 2018 and 2019 are as follows:

	2018		2019	
	Carrying value	Fair value	Carrying value	Fair value
Assets:				
Deposits measured at amortized cost	₩ 14,731,395	14,731,327	25,840,858	25,852,497
Loans measured at amortized cost:				
Retails	125,265,676	126,266,820	134,510,282	135,620,862
Corporations	146,302,462	147,420,557	159,560,873	160,818,205
Public and other funding loans	2,868,154	2,891,202	3,427,855	3,446,485
Loans between banks	3,579,169	3,580,576	2,629,999	2,644,603
Credit card	21,594,011	21,930,174	23,115,970	23,489,180
Securities measured at amortized cost:				
Government bonds	18,000,454	18,974,413	30,385,084	32,242,339
Financial institution bonds	2,171,623	2,195,425	4,770,204	4,882,081
Debentures	8,306,059	8,506,853	10,426,777	10,878,059
Other financial assets	16,837,141	16,859,986	17,477,778	17,493,331
	₩359,656,144	363,357,333	412,145,680	417,367,642
Liabilities:				
Deposit liabilities:				
Demand deposits	₩106,160,834	106,160,834	116,282,707	116,282,707
Time deposits	139,644,763	139,580,314	158,427,447	158,478,949
Certificate of deposit	9,247,088	9,298,457	9,707,791	9,714,806
Issued bill deposit	4,087,530	4,087,338	4,579,587	4,579,425
CMA deposits	4,084,709	4,084,709	3,987,372	3,987,372
Other	1,775,266	1,775,276	1,889,352	1,889,700
Borrowing debts:				
Call-money	1,425,162	1,425,162	712,247	712,247
Bills sold	14,536	14,506	19,070	19,035
Bonds sold under repurchase agreements	7,614,659	7,614,659	9,089,736	9,089,736
Borrowings	20,764,185	20,844,318	25,042,103	25,205,292
Debts:				
Borrowings in won	54,769,670	55,240,467	64,717,212	65,322,413
Borrowings in foreign currency	8,458,029	8,265,842	10,646,152	10,783,027
Other financial liabilities	20,545,181	20,233,920	28,231,911	27,949,306
	₩378,591,612	378,625,802	433,332,687	434,014,015

(In millions of won)

4. Financial risk management (continued)

ii-3) The fair value hierarchy of financial assets and liabilities which are not measured at their fair values in the statements of financial position but with their fair value disclosed as of December 31, 2018 and 2019 are as follows:

	2018			
	Level 1	Level 2	Level 3	Total
Assets:				
Deposits measured at amortized cost	₩ 3,364,995	10,587,086	779,246	14,731,327
Loans measured at amortized cost:				
Retails	—	—	126,266,820	126,266,820
Corporations	—	—	147,420,557	147,420,557
Public and other funding loans	—	—	2,891,202	2,891,202
Loans between banks	590	2,498,193	1,081,793	3,580,576
Credit card	—	—	21,930,174	21,930,174
Securities measured at amortized cost:				
Government bonds	7,887,135	11,087,278	—	18,974,413
Financial institution bonds	719,925	1,475,500	—	2,195,425
Debentures	—	8,423,809	83,044	8,506,853
Other financial assets	74,625	11,606,369	5,178,992	16,859,986
	₩12,047,270	45,678,235	305,631,828	363,357,333
Liabilities:				
Deposit liabilities:				
Demand deposits	₩ 1,136,610	104,998,305	25,919	106,160,834
Time deposits	—	—	139,580,314	139,580,314
Certificate of deposit	—	—	9,298,457	9,298,457
Issued bill deposit	—	—	4,087,338	4,087,338
CMA deposits	—	4,084,709	—	4,084,709
Other	1,665,090	—	110,186	1,775,276
Borrowing debts:				
Call-money	465,000	960,162	—	1,425,162
Bills sold	—	—	14,506	14,506
Bonds sold under repurchase agreements	5,243,217	—	2,371,442	7,614,659
Borrowings	—	123,874	20,720,444	20,844,318
Debts:				
Borrowings in won	—	36,335,879	18,904,588	55,240,467
Borrowings in foreign currency	—	5,558,527	2,707,315	8,265,842
Other financial liabilities	74,638	6,630,725	13,528,557	20,233,920
	₩ 8,584,555	158,692,181	211,349,066	378,625,802

(In millions of won)

4. Financial risk management (continued)

	2019			
	Level 1	Level 2	Level 3	Total
Assets:				
Deposits measured at amortized cost	₩ 3,133,425	22,149,706	569,366	25,852,497
Loans measured at amortized cost:				
Retails	—	—	135,620,862	135,620,862
Corporations	108	—	160,818,097	160,818,205
Public and other funding loans	—	—	3,446,485	3,446,485
Loans between banks	—	960,827	1,683,776	2,644,603
Credit card	—	—	23,489,180	23,489,180
Securities measured at amortized cost:				
Government bonds	20,524,820	11,717,519	—	32,242,339
Financial institution bonds	2,252,484	2,629,597	—	4,882,081
Debentures	—	10,792,000	86,059	10,878,059
Other financial assets	526,813	10,813,821	6,152,697	17,493,331
	₩26,437,650	59,063,470	331,866,522	417,367,642
Liabilities:				
Deposit liabilities:				
Demand deposits	₩ 1,053,963	115,216,336	12,408	116,282,707
Time deposits	—	—	158,478,949	158,478,949
Certificate of deposit	—	—	9,714,806	9,714,806
Issued bill deposit	—	—	4,579,425	4,579,425
CMA deposits	—	3,987,372	—	3,987,372
Other	1,747,509	—	142,191	1,889,700
Borrowing debts:				
Call-money	174,000	538,247	—	712,247
Bills sold	—	—	19,035	19,035
Bonds sold under repurchase agreements	6,734,162	—	2,355,574	9,089,736
Borrowings	—	—	25,205,292	25,205,292
Debts:				
Borrowings in won	—	43,747,553	21,574,860	65,322,413
Borrowings in foreign currency	—	7,535,065	3,247,962	10,783,027
Other financial liabilities	526,685	7,932,723	19,489,898	27,949,306
	₩10,236,319	178,957,296	244,820,400	434,014,015

(In millions of won)

4. Financial risk management (continued)

ii-4) For financial instruments not measured at fair value in the statement of financial position but for which the fair value is disclosed, information on valuation technique and inputs used in measuring fair value of financial instruments classified as level 2 or level 3 at December 31, 2018 and 2019 are as follows:

	2018		
	Fair value (*)	Valuation technique	Inputs
Financial instruments classified as level 2:			
Assets			
Due from banks measured at amortized cost	₩ 10,587,086	DCF	Discount rate
Loans measured at amortized cost	2,498,193	DCF	Discount rate, credit spread, prepayment rate
Securities measured at amortized cost	20,986,587	DCF	Discount rate
Other financial assets	11,606,369	DCF	Discount rate
	45,678,235		
Financial instruments classified as level 3:			
Assets			
Due from banks measured at amortized cost	779,246	DCF	Discount rate
Loans measured at amortized cost	299,590,546	DCF	Discount rate, credit spread, prepayment rate
Securities measured at amortized cost	83,044	DCF	Discount rate
Other financial assets	5,178,992	DCF	Discount rate
	305,631,828		
	₩351,310,063		
Financial instruments classified as level 2:			
Liabilities			
Deposits	₩109,083,014	DCF	Discount rate
Borrowings	1,084,036	DCF	Discount rate
Debt securities issued	41,894,406	DCF	Discount rate
Other financial liabilities	6,630,725	DCF	Discount rate
	158,692,181		
Financial instruments classified as level 3:			
Liabilities			
Deposits	153,102,214	DCF	Discount rate
Borrowings	23,106,392	DCF	Discount rate
Debt securities issued	21,611,903	DCF	Discount rate, regression coefficient, correlation coefficient
Other financial liabilities	13,528,557	DCF	Discount rate
	211,349,066		
	₩370,041,247		

(In millions of won)

4. Financial risk management (continued)

	2019		
	Fair value (*)	Valuation technique	Inputs
Financial instruments classified as level 2:			
Assets			
Due from banks measured at amortized cost	₩ 22,149,706	DCF	Discount rate
Loans measured at amortized cost	960,827	DCF	Discount rate, credit spread, prepayment rate
Securities measured at amortized cost	25,139,116	DCF	Discount rate
Other financial assets	10,813,821	DCF	Discount rate
	59,063,470		
Financial instruments classified as level 3:			
Assets			
Due from banks measured at amortized cost	569,366	DCF	Discount rate
Loans measured at amortized cost	325,058,400	DCF	Discount rate, credit spread, prepayment rate
Securities measured at amortized cost	86,059	DCF	Discount rate
Other financial assets	6,152,697	DCF	Discount rate
	331,866,522		
	₩390,929,992		
Financial instruments classified as level 2:			
Liabilities			
Deposits	₩119,203,708	DCF	Discount rate
Borrowings	538,247	DCF	Discount rate
Debt securities issued	51,282,618	DCF	Discount rate
Other financial liabilities	7,932,723	DCF	Discount rate
	178,957,296		
Financial instruments classified as level 3:			
Liabilities			
Deposits	172,927,779	DCF	Discount rate
Borrowings	27,579,901	DCF	Discount rate
Debt securities issued	24,822,822	DCF	Discount rate, regression coefficient, correlation coefficient
Other financial liabilities	19,489,898	DCF	Discount rate
	244,820,400		
	₩423,777,696		

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

(In millions of won)

4. Financial risk management (continued)

iii) Changes in the difference between the fair value at initial recognition (the transaction price) and the value using models with unobservable inputs for the years ended December 31, 2018 and 2019

	2018	2019
Beginning balance	₩(137,393)	(126,111)
Deferral on new transactions	(91,625)	(178,223)
Recognized in profit for the year	102,907	131,475
Ending balance	₩(126,111)	(172,859)

(f) Classification by categories of financial instruments

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

The carrying amounts of each category of financial assets and financial liabilities as of December 31, 2018 and 2019 are as follows:

	2018				
	FVTPL	FVOCI	Amortized cost	Derivatives held for hedging	Total
Assets:					
Cash and due from banks at amortized cost	₩ —	—	17,348,626	—	17,348,626
Due from banks at fair value through profit or loss	870,656	—	—	—	870,656
Securities at fair value through profit or loss	41,454,916	—	—	—	41,454,916
Derivatives assets	1,727,321	—	—	66,292	1,793,613
Loans at fair value through profit or loss	1,209,194	—	—	—	1,209,194
Loans at amortized cost	—	—	299,609,472	—	299,609,472
Securities at fair value through other comprehensive income	—	38,314,170	—	—	38,314,170
Securities at amortized cost	—	—	28,478,136	—	28,478,136
Others	—	—	16,837,141	—	16,837,141
	₩45,262,087	38,314,170	362,273,375	66,292	445,915,924

(In millions of won)

4. Financial risk management (continued)

	2018				
	FVTPL	FVTPL liabilities designated	Financial liabilities measured at amortized cost	Derivatives held for hedging	Total
Liabilities:					
Deposits	₩ —	—	265,000,190	—	265,000,190
Financial liabilities at fair value through profit or loss	1,420,306	—	—	—	1,420,306
Financial liabilities designated at FVTPL	—	8,535,800	—	—	8,535,800
Derivatives liabilities	1,846,669	—	—	593,223	2,439,892
Borrowings	—	—	29,818,542	—	29,818,542
Debt securities issued	—	—	63,227,699	—	63,227,699
Others	—	—	20,545,181	—	20,545,181
	₩3,266,975	8,535,800	378,591,612	593,223	390,987,610

	2019				
	FVTPL	FVOCI	Amortized cost	Derivatives held for hedging	Total
Assets:					
Cash and due from banks at amortized cost	₩ —	—	28,423,744	—	28,423,744
Due from banks at fair value through profit or loss	897,525	—	—	—	897,525
Securities at fair value through profit or loss	50,110,797	—	—	—	50,110,797
Derivatives assets	2,586,068	—	—	243,206	2,829,274
Loans at fair value through profit or loss	2,154,821	—	—	—	2,154,821
Loans at amortized cost	—	—	323,244,979	—	323,244,979
Securities at fair value through other comprehensive income	—	59,381,053	—	—	59,381,053
Securities at amortized cost	—	—	45,582,065	—	45,582,065
Others	—	—	17,477,778	—	17,477,778
	₩55,749,211	59,381,053	414,728,566	243,206	530,102,036

(In millions of won)

4. Financial risk management (continued)

	2019				
	FVTPL	FVTPL liabilities designated	Financial liabilities measured at amortized cost	Derivatives held for hedging	Total
Liabilities:					
Deposits	₩ —	—	294,874,256	—	294,874,256
Financial liabilities at fair value through profit or loss	1,632,457	—	—	—	1,632,457
Financial liabilities designated at FVTPL	—	9,409,456	—	—	9,409,456
Derivatives liabilities	2,001,004	—	—	302,008	2,303,012
Borrowings	—	—	34,863,156	—	34,863,156
Debt securities issued	—	—	75,363,364	—	75,363,364
Others	—	—	28,231,911	—	28,231,911
	₩3,633,461	9,409,456	433,332,687	302,008	446,677,612

(g) Transfer of financial instruments

i) Transfers that do not qualify for derecognition

① Sale of repurchase bonds

Among the Group's sale of repurchase bonds, followings are the details of financial instruments that do not qualify for derecognition because the Group sold on the condition that the Group repurchases at a fixed price as of December 31, 2018 and 2019:

	2018	2019
Transferred asset:		
Securities at FVTPL	₩6,711,060	7,924,953
Securities at FVOCI	688,593	1,867,470
Securities at amortized cost	156,066	818,470
	₩7,555,719	10,610,893
Associated liabilities:		
Bonds sold under repurchase agreements	₩7,167,364	8,717,336

② Securities loaned

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

(In millions of won)

4. Financial risk management (continued)

Securities loaned as of December 31, 2018 and 2019 are as follows:

	2018	2019	Borrowers
Government bonds	₩1,216,381	3,951,869	Korea Securities Finance Corp., Korea Securities Depository, Sumitomo Mitsui Banking Corp and etc.
Financial institutions bonds	409,831	460,052	Korea Securities Finance Corp., Korea Securities Depository
Equity securities	6,029	30,242	Mirae Asset Daewoo Securities Co., Ltd, and etc.
	₩1,632,241	4,442,163	

ii) Financial instruments qualified for derecognition and continued involvement

There was no financial instruments which qualify for derecognition and in which the Group has continuing involvements as of December 31, 2018, and 2019.

(In millions of won)

4. Financial risk management (continued)

(h) Offsetting financial assets and financial liabilities

Financial assets and liabilities subject to offsetting, enforceable master netting arrangements and similar agreements as of December 31, 2018 and 2019 are as follows:

	2018					
				Related amounts not set off in the statement of financial position		
	Gross amounts of recognized financial assets/ liabilities	Gross amounts of recognized financial assets/ liabilities set off in the statement of financial position	Net amounts of financial assets/ liabilities presented in the statement of financial position	Financial instruments	Cash collateral received	Net amount
Assets:						
Derivatives (*1)	₩ 1,730,828	—	1,730,828			
Other financial instruments (*1)	7,476,505	1,268,779	6,207,726	6,746,640	26,638	1,165,276
Bonds purchased under repurchase agreements (*2)	12,945,380	—	12,945,380	12,557,025	—	388,355
Securities loaned (*2)	1,827,066	—	1,827,066	1,246,157	—	580,909
Domestic exchange settlement debit (*3)	32,647,367	26,502,611	6,144,756	74,552	—	6,070,204
Receivables from disposal of securities (*4)	22,906	519	22,387	—	—	22,387
Insurance receivables	8,014	—	8,014	4,872	—	3,142
	₩56,658,066	27,771,909	28,886,157	20,629,246	26,638	8,230,273
Liabilities:						
Derivatives (*1)	₩11,858,108	—	11,858,108			
Other financial instruments (*1)	6,594,979	1,268,779	5,326,200	7,850,210	—	9,334,098
Bonds purchased under repurchase agreements (*2)	7,170,744	—	7,170,744	7,170,744	—	—
Securities borrowed (*2)	746,521	—	746,521	746,521	—	—
Domestic exchange settlement pending (*3)	27,647,185	26,502,611	1,144,574	1,090,808	—	53,766
Payable from purchase of securities (*4)	552	519	33	33	—	—
Insurance payables	4,984	—	4,984	4,871	—	113
	₩54,023,073	27,771,909	26,251,164	16,863,187	—	9,387,977

(In millions of won)

4. Financial risk management (continued)

	2019					
				Related amounts not set off in the statement of financial position		
	Gross amounts of recognized financial assets/ liabilities	Gross amounts of recognized financial assets/ liabilities set off in the statement of financial position	Net amounts of financial assets/ liabilities presented in the statement of financial position	Financial instruments	Cash collateral received	Net amount
Assets:						
Derivatives (*1)	₩ 2,694,236	—	2,694,236			
Other financial instruments (*1)	8,624,844	1,319,365	7,305,479	8,090,372	263,541	1,645,802
Bonds purchased under repurchase agreements (*2)	11,828,135	—	11,828,135	11,051,075	—	777,060
Securities loaned (*2)	1,927,674	—	1,927,674	1,927,674	—	—
Domestic exchange settlement debit (*3)	31,814,310	27,008,189	4,806,121	526,653	—	4,279,468
Receivables from disposal of securities (*4)	25,808	1,134	24,674	—	—	24,674
Insurance receivables	10,353	—	10,353	8,008	—	2,345
	₩56,925,360	28,328,688	28,596,672	21,603,782	263,541	6,729,349
Liabilities:						
Derivatives (*1)	₩12,803,450	—	12,803,450			
Other financial instruments (*1)	7,511,639	1,319,365	6,192,274	8,279,924	11,693	10,704,107
Bonds purchased under repurchase agreements (*2)	8,717,336	—	8,717,336	8,717,336	—	—
Securities borrowed (*2)	1,135,614	—	1,135,614	1,135,614	—	—
Domestic exchange settlement pending (*3)	28,936,661	27,008,189	1,928,472	1,857,152	—	71,320
Payable from purchase of securities (*4)	1,607	1,134	473	473	—	—
Insurance payables	8,202	—	8,202	8,008	—	194
	₩59,114,509	28,328,688	30,785,821	19,998,507	11,693	10,775,621

(*1) The Group has certain derivative transactions subject to the ISDA (International Derivatives Swaps and Dealers Association) agreement. According to the ISDA agreement, when credit events (e.g. default) of counterparties occur, all derivative agreements are terminated and set off.

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

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

(*4) Receivables and payables related to settlement of purchase and disposition of enlisted securities are offset and the net amount is presented in the consolidated statement of financial position because the Group currently has a legally enforceable right to set off the recognized amounts and intends to settle on a net basis.

(In millions of won)

4. Financial risk management (continued)

(i) Capital risk management

The controlling company, banks or other financial institutions conducting banking business as prescribed in the Financial Holding Company Act, is required to maintain a minimum consolidated equity capital ratio of 8.0%.

"Consolidated equity capital ratio" is defined as the ratio of equity capital as a percentage of risk-weighted assets on a consolidated basis, determined in accordance with the Financial Services Commission requirements that have been formulated based on Bank of International Settlement standards. "Equity capital", as applicable to bank holding companies, is defined as the sum of Common Equity Tier I capital (including common stock, share premium resulting from the issue of instruments classified as common equity Tier I, retained earnings, etc.), Additional Tier I capital (with the minimum set of criteria for an instrument issued by the Group to meet, i.e. 'perpetual') and Tier II capital (to provide loss absorption on a gone-concern basis) less any deductible items (including goodwill, income tax assets, etc.), each as defined under the Regulation on the Supervision of Financial Holding Companies. "Risk-weighted assets" is defined as the sum of credit risk-weighted assets and market risk-weighted assets.

The capital adequacy ratio of the Group as of December 31, 2018 and 2019 are as follows:

	2018	2019
Capital:		
Tier I common equity capital	₩ 28,696,267	28,561,568
Additional tier I capital	1,981,609	3,138,262
Tier I capital	30,677,876	31,699,830
Tier II capital	3,315,185	4,014,740
Total capital (A)	₩ 33,993,061	35,714,570
Total risk-weighted assets (B)	₩228,678,105	256,891,664
Capital adequacy ratio (A/B)	14.87%	13.90%
Tier I capital adequacy ratio	13.42%	12.34%
Common equity capital adequacy ratio	12.55%	11.12%

The Group complies with the capital adequacy criteria as shown in the table above (the minimum capital adequacy ratio of 8%).

5. Significant estimates and judgments

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

(a) Estimation of impairment of goodwill

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

5. Significant estimates and judgments (continued)

(b) Income taxes

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

(c) Fair value of financial instruments

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

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

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

(e) Defined benefit obligation

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

(f) Hedging relationship

The Group expects a high risk hedging effect throughout the hedging period in designating the hedging relationship and it is probable that the hedged transaction will be highly probable in the cash flow hedge.

(In millions of won)

6. Investment in subsidiaries

(a) The summarized financial information of the controlling company and the Group's major subsidiaries as of December 31, 2018 and 2019 is as follows:

	2018			2019		
Investees (*1)	**Asset balance**	**Liability balance**	**Equity balance**	**Asset balance**	**Liability balance**	**Equity balance**
Shinhan Financial Group(separate)	₩ 30,114,232	8,464,164	21,650,068	32,261,322	9,795,896	22,465,426
Shinhan Bank	348,523,615	324,331,076	24,192,539	392,723,044	366,629,929	26,093,115
Shinhan Card Co., Ltd.	29,429,455	23,427,988	6,001,467	32,917,910	26,769,044	6,148,866
Shinhan Investment Corp.	28,987,216	25,614,647	3,372,569	37,375,487	33,138,930	4,236,557
Shinhan Life Insurance Co., Ltd.	31,823,631	30,078,522	1,745,109	34,133,649	32,062,490	2,071,159
Orange Life Insurance Co., Ltd.	—	—	—	32,841,359	29,654,711	3,186,648
Shinhan Capital Co., Ltd.	6,116,585	5,368,265	748,320	7,566,428	6,612,519	953,909
Jeju Bank	5,980,941	5,507,949	472,992	6,192,927	5,695,223	497,704
Shinhan Credit Information Co., Ltd.	24,377	8,750	15,627	25,292	10,044	15,248
Shinhan Alternative Investment Management Inc.	102,079	92,194	9,885	87,694	75,665	12,029
Shinhan BNP Paribas Asset Management Co., Ltd.	173,964	14,841	159,123	184,203	19,678	164,525
SHC Management Co., Ltd.	9,755	198	9,557	9,639	—	9,639
Shinhan DS	43,095	23,118	19,977	89,141	67,954	21,187
Shinhan Savings Bank	1,454,290	1,291,012	163,278	1,602,902	1,418,317	184,585
Asia Trust Co., Ltd.	—	—	—	172,793	43,933	128,860
Shinhan AITAS Co., Ltd.	65,725	7,367	58,358	77,086	10,962	66,124
Shinhan REITs Management Co., Ltd.	36,298	3,496	32,802	45,832	5,619	40,213
Shinhan AI Co., Ltd.	—	—	—	42,402	1,674	40,728

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

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

(In millions of won)

6. Investment in subsidiaries (continued)

(b) The summarized income information of the controlling company and the Group's major subsidiaries for the years ended December 31, 2017, 2018 and 2019 is as follows:

	2017 (*3)			2018			2019		
Investees (*1)(*2)	**Operating Income**	**Net Income**	**Comprehensive Income**	**Operating Income**	**Net Income**	**Comprehensive Income**	**Operating Income**	**Net Income**	**Comprehensive Income**
Shinhan Financial Group(separate)	₩ 1,008,868	754,727	755,018	1,519,197	1,234,883	1,234,044	1,480,030	1,129,173	1,127,202
Shinhan Bank	21,240,193	1,712,314	1,496,582	19,731,711	2,279,362	2,333,266	23,145,476	2,329,268	2,527,665
Shinhan Card Co., Ltd.	5,186,592	898,723	787,956	3,752,232	517,761	477,135	3,892,257	509,032	486,114
Shinhan Investment Corp.	5,324,056	211,919	195,910	5,279,567	251,268	269,058	6,139,926	220,764	225,963
Shinhan Life Insurance Co., Ltd.	5,997,997	120,642	46,062	5,633,679	131,021	150,997	5,413,175	123,870	326,783
Orange Life Insurance Co., Ltd.	—	—	—	—	—	—	4,662,085	271,455	433,510
Shinhan Capital Co., Ltd.	351,772	87,647	88,128	439,031	103,400	100,317	455,246	126,050	123,032
Jeju Bank	208,661	25,143	22,053	224,766	27,446	30,579	239,732	27,934	30,519
Shinhan Credit Information Co., Ltd.	32,836	340	377	37,616	1,392	985	38,648	507	658
Shinhan Alternative Investment Management Inc.	29,410	(844)	(842)	21,590	(780)	(780)	32,401	2,144	2,144
Shinhan BNP Paribas Asset Management Co., Ltd.	77,474	19,705	20,073	78,378	18,868	18,980	84,256	23,090	22,655
SHC Management Co., Ltd.	177	1,036	1,036	140	309	309	154	82	82
Shinhan DS	79,063	1,404	2,482	99,279	1,314	1,525	138,697	2,074	1,292
Shinhan Savings Bank	78,516	16,800	16,757	94,636	19,384	18,919	116,849	23,122	22,972
Asia Trust Co., Ltd.	—	—	—	—	—	—	54,920	18,098	18,128
Shinhan AITAS Co., Ltd.	40,781	6,481	6,481	44,729	8,461	8,461	51,823	10,821	10,821
Shinhan REITs Management Co., Ltd.	70	(752)	(752)	7,386	3,564	3,552	7,342	7,414	7,411
Shinhan AI Co., Ltd.	—	—	—	—	—	—	3,088	(654)	(654)

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

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

(*3) As the accounting treatment for the acquisition of ANZ Retail business by Shinhan Bank Vietnam Co. Ltd was completed, the amount was adjusted retrospectively.

6. Investment in subsidiaries (continued)

(c) Change in the scope of consolidation

i) Change in consolidated subsidiaries for the year ended December 31, 2018 are as follows:

	Company	Description
Included	PT Shinhan Asset Management Indonesia	Newly acquired subsidiary
	SHINHAN DS VIETNAM CO, LTD	Newly invested subsidiary

ii) Change in consolidated subsidiaries for the year ended December 31, 2019 are as follows:

	Company	Description
Included	Orange Life Insurance Co., Ltd.	Newly acquired subsidiary
	Asia Trust Co., Ltd.	Newly acquired subsidiary
	Shinhan Vietnam Finance Ltd.	Newly acquired subsidiary
	Shinhan AI Co., Ltd.	Newly invested subsidiary

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

7. Operating segments

(a) Segment information

The general descriptions by operating segments as of December 31, 2019 are as follows:

Segment	Description
Banking	The banking segment offers commercial banking services such as lending to and receiving deposits from corporations and individuals and also includes securities investing and trading and derivatives trading primarily through domestic and overseas bank branches and subsidiaries.
Credit card	The credit card segment primarily consists of the credit card business of Shinhan Card, including its installment finance and automobile leasing businesses.
Securities	Securities segment comprise securities trading, underwriting and brokerage services.
Life insurance	Life insurance segment consists of life insurance services provided by Shinhan Life Insurance and Orange Life Insurance.
Others	Leasing, assets management and other businesses

(In millions of won)

7. Operating segments (continued)

(b) The following tables provide information of income and expense for each operating segment for the years ended December 31, 2017, 2018 and 2019:

	2017						
	Banking (*)	Credit card	Securities	Life insurance	Others	Consolidation adjustment	Total
Net interest income	₩ 5,107,888	1,501,054	433,047	727,917	69,231	3,816	7,842,953
Net fees and commission income	816,795	359,408	297,718	53,271	180,510	3,252	1,710,954
Impairment losses on financial assets	(674,706)	(291,694)	(15,752)	(13,162)	(36,830)	18,596	(1,013,548)
General and administrative expenses	(3,149,436)	(831,927)	(444,935)	(222,650)	(234,649)	72,399	(4,811,198)
Other income (expense), net	(11,556)	567,234	(17,229)	(385,226)	53,815	(106,173)	100,865
Operating income	2,088,985	1,304,075	252,849	160,150	32,077	(8,110)	3,830,026
Equity method income (loss)	1,306	—	12,081	(910)	8,796	(880)	20,393
Income tax expense	418,679	285,853	63,472	41,441	32,805	6,153	848,403
Profit for the period	₩ 1,623,425	1,012,755	211,919	120,642	9,600	(29,136)	2,949,205
Controlling interest	₩ 1,623,184	1,027,823	211,907	120,642	9,600	(74,340)	2,918,816
Non-controlling interests	241	(15,068)	12	—	—	45,204	30,389

	2018						
	Banking	Credit card	Securities	Life insurance	Others	Consolidation adjustment	Total
Net interest income	₩ 5,707,813	1,583,100	429,095	761,742	95,618	2,721	8,580,089
Net fees and commission income	850,646	433,043	388,944	69,780	198,828	(2,244)	1,938,997
Reversal of (provision for) ACL	(250,134)	(466,447)	(9,226)	(13,400)	(10,238)	1,568	(747,877)
General and administrative expenses	(3,098,629)	(751,580)	(493,906)	(227,740)	(263,046)	93,326	(4,741,575)
Other income (expense), net	(163,104)	74,954	17,963	(409,151)	80,857	(131,739)	(530,220)
Operating income(loss) (expense)	3,046,592	873,070	332,870	181,231	102,019	(36,368)	4,499,414
Equity method income (loss)	(977)	—	15,228	(1,026)	6,909	(2,646)	17,488
Income tax expense	832,494	225,837	95,438	50,429	59,556	4,591	1,268,345
Profit for the year	₩ 2,195,263	629,307	251,268	131,021	49,168	(57,762)	3,198,265
Controlling interest	₩ 2,194,950	630,993	251,265	131,021	49,168	(100,675)	3,156,722
Non-controlling interests	313	(1,686)	3	—	—	42,913	41,543

(In millions of won)

7. Operating segments (continued)

	2019						
	Banking	Credit card	Securities	Life insurance	Others	Consolidation adjustment	Total
Net interest income	₩ 5,989,462	1,753,966	457,852	1,647,795	127,564	(238,675)	9,737,964
Net fees and commission income	950,389	403,259	351,303	167,324	272,244	(4,000)	2,140,519
Reversal of (provision for) allowance for credit loss (“ACL”)	(389,004)	(566,415)	1,325	(797)	(25,030)	(771)	(980,692)
General and administrative expenses	(3,177,158)	(745,848)	(511,418)	(443,013)	(335,090)	77,853	(5,134,674)
Other income (expense), net	(211,882)	(33,204)	(59,006)	(786,103)	129,272	244,056	(716,867)
Operating income	3,161,807	811,758	240,056	585,206	168,960	78,463	5,046,250
Equity method income (loss)	(764)	—	18,163	(1,296)	12,265	24,919	53,287
Income tax expense	718,650	205,863	68,311	187,608	73,213	15,479	1,269,124
Profit for the year	₩ 2,256,652	609,582	220,764	395,325	100,259	59,802	3,642,384
Controlling interest	₩ 2,256,576	609,350	220,850	395,325	100,259	(178,863)	3,403,497
Non-controlling interests	76	232	(86)	—	—	238,665	238,887

(*) As the accounting treatment for the acquisition of ANZ Retail business by Shinhan Bank Vietnam Co. Ltd was completed, the amount was adjusted retrospectively.

(c) The following tables provide information of net interest income (expense) of each operating segment for the years ended December 31, 2017, 2018 and 2019:

	2017						
	Banking	Credit card	Securities	Life insurance	Others	Consolidation adjustment	Total
Net interest income from:							
External customers	₩5,113,584	1,517,399	427,888	727,975	56,107	—	7,842,953
Internal transactions	(5,696)	(16,345)	5,159	(58)	13,124	3,816	—
	₩5,107,888	1,501,054	433,047	727,917	69,231	3,816	7,842,953

	2018						
	Banking	Credit card	Securities	Life insurance	Others	Consolidation adjustment	Total
Net interest income from:							
External customers	₩5,714,568	1,602,849	423,156	762,978	76,538	—	8,580,089
Internal transactions	(6,755)	(19,749)	5,939	(1,236)	19,080	2,721	—
	₩5,707,813	1,583,100	429,095	761,742	95,618	2,721	8,580,089

(In millions of won)

7. Operating segments (continued)

	2019						
	Banking	Credit card	Securities	Life insurance	Others	Consolidation adjustment (*)	Total
Net interest income from:							
External customers (*)	₩5,995,097	1,781,266	450,268	1,647,988	103,161	(239,816)	9,737,964
Internal transactions	(5,635)	(27,300)	7,584	(193)	24,403	1,141	—
	₩5,989,462	1,753,966	457,852	1,647,795	127,564	(238,675)	9,737,964

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

(d) The following tables provide information of net fees and commission income (expense) of each operating segment for the years ended December 31, 2017, 2018 and 2019:

	2017						
	Banking	Credit card	Securities	Life insurance	Others	Consolidation adjustment	Total
Net fees and commission income from:							
External customers	₩ 844,349	384,356	306,407	60,555	115,287	—	1,710,954
Internal transactions	(27,554)	(24,948)	(8,689)	(7,284)	65,223	3,252	—
	₩ 816,795	359,408	297,718	53,271	180,510	3,252	1,710,954

	2018						
	Banking	Credit card	Securities	Life insurance	Others	Consolidation adjustment	Total
Net fees and commission income from:							
External customers	₩ 872,631	464,342	400,227	77,145	124,652	—	1,938,997
Internal transactions	(21,985)	(31,299)	(11,283)	(7,365)	74,176	(2,244)	—
	₩ 850,646	433,043	388,944	69,780	198,828	(2,244)	1,938,997

	2019						
	Banking	Credit card	Securities	Life insurance	Others	Consolidation adjustment	Total
Net fees and commission income from:							
External customers	₩1,157,020	254,139	361,526	175,171	192,663	—	2,140,519
Internal transactions	(206,631)	149,120	(10,223)	(7,847)	79,581	(4,000)	—
	₩ 950,389	403,259	351,303	167,324	272,244	(4,000)	2,140,519

(In millions of won)

7. Operating segments (continued)

(e) Financial information of geographical area

The following table provides information of income from external consumers by geographical area for the years ended December 31, 2017, 2018 and 2019.

	2017 (*2)	2018	2019
Domestic	₩3,504,780	4,023,916	4,378,239
Overseas	325,246	475,498	668,011
	₩3,830,026	4,499,414	5,046,250

The following table provides information of non-current assets by geographical area as of December 31, 2018 and 2019.

	2018	2019
Domestic	₩7,597,266	9,816,600
Overseas	201,574	314,052
	₩7,798,840	10,130,652

(*1) Non-current assets comprise property and equipment, intangible assets and investment properties.
(*2) As the accounting treatment for the acquisition of ANZ Retail business by Shinhan Bank Vietnam Co. Ltd was completed, the amount was adjusted retrospectively.

8. Cash and due from banks at amortized cost

(a) Cash and due from banks at amortized cost as of December 31, 2018 and 2019 are as follows:

	2018	2019
Cash and cash equivalents	₩ 2,617,231	2,582,886
Deposits in won:		
Reserve deposits	2,360,416	13,840,988
Time deposits	1,346,015	1,413,964
Other	2,271,812	1,890,541
	5,978,243	17,145,493
Deposits in foreign currency:		
Deposits	5,045,513	5,616,049
Time deposits	2,791,486	2,393,885
Other	930,977	697,505
	8,767,976	8,707,439
Allowance for credit losses	(14,824)	(12,074)
	₩17,348,626	28,423,744

(In millions of won)

8. Cash and due from banks at amortized cost (continued)

(b) Restricted due from banks at amortized cost as of December 31, 2018 and 2019 are as follows:

	2018	2019
Deposits denominated in won:		
Reserve deposits	₩2,360,416	13,840,988
Other	2,182,119	1,081,698
	4,542,535	14,922,686
Deposits denominated in foreign currency	1,632,971	1,584,239
	₩6,175,506	16,506,925

9. Financial assets at fair value through profit or loss

(a) Financial assets at fair value through profit or loss as of December 31, 2018 and 2019 are as follows:

	2018	2019
Debt instruments:		
Governments	₩ 2,765,054	2,873,419
Financial institutions	9,415,470	12,711,074
Corporations	6,664,839	8,541,514
Stocks with put option	381,844	598,858
Equity investment with put option	1,080,723	1,458,933
Beneficiary certificates	9,062,004	10,678,620
Commercial papers	5,535,397	5,160,063
CMA	3,001,831	3,723,401
Others (*)	2,227,802	2,655,260
	40,134,964	48,401,142
Equity instruments:		
Stocks	1,050,097	1,488,743
Equity investment	4,908	—
Others	110,066	109,197
	1,165,071	1,597,940
	41,300,035	49,999,082
Other:		
Loans at fair value	1,209,194	2,154,821
Due from banks at fair value	870,656	897,525
Gold deposits	154,881	111,715
	₩43,534,766	53,163,143

(*) As of December 31, 2018 and 2019, restricted reserve for claims of customers' deposits (trusts) are ₩ 1,040,180 million and ₩ 1,103,050 million, respectively.

(In millions of won)

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

(b) Financial assets to which overlay approach were applied in accordance with IFRS 9 'Financial Instruments' and IFRS 4 'Insurance Contracts' as of December 31, 2018 and 2019 are as follows.

	2018	2019
Due from banks at fair value through profit or loss	₩ 870,656	897,525
Securities at fair value through profit or loss	3,160,525	5,139,380
	₩4,031,181	6,036,905

A financial asset is eligible for designation for the overlay approach, if it is measured at fair value through profit or loss applying IFRS 9 but would not have been measured at fair value through profit or loss in its entirety applying IAS 39; and it is not held in respect of an activity that is not associated with contracts within the scope of IFRS 4.

The reclassified amounts between profit or loss and other comprehensive income due to the overlay approach as of and for the years ended December 31, 2018 and 2019 are as follows:

	2018			
	Profit or loss		Other comprehensive income	
	By IFRS 9	By IAS 39	Amount	Tax effect
Net gain (loss) on valuation of financial assets at fair value through profit or loss	₩(77,179)	(4,425)	(72,754)	20,007
Net gain (loss) on disposal of financial assets at fair value through profit or loss	4,310	6,498	(2,188)	602
	₩(72,869)	2,073	(74,942)	20,609

	2019			
	Profit or loss		Other comprehensive income	
	By IFRS 9	By IAS 39	Amount	Tax effect
Net gain (loss) on valuation of financial assets at fair value through profit or loss	₩150,865	(74,586)	225,451	(50,042)
Net gain (loss) on disposal of financial assets at fair value through profit or loss	65,627	43,493	22,134	(4,672)
	₩216,492	(31,093)	247,585	(54,714)

(In millions of won)

10. Derivatives

(a) The notional amounts of derivatives as of December 31, 2018 and 2019 are as follows:

	2018	2019
Foreign currency related:		
Over the counter:		
Currency forwards	₩139,804,552	137,383,704
Currency swaps	31,794,900	40,826,444
Currency options	1,939,939	2,758,801
	173,539,391	180,968,949
Exchange traded:		
Currency futures	436,714	1,045,138
	173,976,105	182,014,087
Interest rates related:		
Over the counter:		
Interest rate swaps	31,228,489	37,801,528
Interest rate options	294,000	286,000
	31,522,489	38,087,528
Exchange traded:		
Interest rate futures	1,739,697	2,455,450
Interest rate swaps (*)	56,862,374	65,868,540
	58,602,071	68,323,990
	90,124,560	106,411,518
Credit related:		
Over the counter:		
Credit swaps	3,840,660	5,404,257
Equity related:		
Over the counter:		
Equity swaps and forwards	5,134,004	4,255,831
Equity options	645,709	864,038
	5,779,713	5,119,869
Exchange traded:		
Equity futures	630,409	876,220
Equity options	2,708,557	4,039,226
	3,338,966	4,915,446
	9,118,679	10,035,315
Commodity related:		
Over the counter:		
Commodity swaps and forwards	890,289	758,533
Commodity options	4,780	—
	895,069	758,533
Exchange traded:		
Commodity futures and options	245,751	344,329
	1,140,820	1,102,862

(In millions of won)

10. Derivatives (continued)

	2018	2019
Hedge:		
Currency forwards	1,522,306	1,869,518
Currency swaps	4,143,828	4,532,114
Interest rate swaps	10,147,731	10,091,632
	15,813,865	16,493,264
	₩294,014,689	321,461,303

(*) The notional amount of derivatives which is settled in the 'Central Counter Party (CCP)' system.

(b) Fair values of derivative instruments as of December 31, 2018 and 2019 are as follows:

	2018		2019	
	Assets	Liabilities	Assets	Liabilities
Foreign currency related:				
Over the counter:				
Currency forwards	₩ 912,795	870,984	1,360,384	1,056,760
Currency swaps	393,702	372,725	473,797	519,445
Currency options	7,637	12,273	9,007	9,430
	1,314,134	1,255,982	1,843,188	1,585,635
Exchange traded:				
Currency futures	11	—	—	—
	1,314,145	1,255,982	1,843,188	1,585,635
Interest rates related:				
Over the counter:				
Interest rate swaps	251,251	172,019	260,020	247,723
Interest rate options	—	5,347	835	5,626
	251,251	177,366	260,855	253,349
Exchange traded:				
Interest rate futures	412	1,569	697	595
	251,663	178,935	261,552	253,944
Credit related:				
Over the counter:				
Credit swaps	43,382	30,372	283,015	38,598
Equity related:				
Over the counter:				
Equity swap and forwards	51,243	205,611	144,276	39,422
Equity options	2,265	2,352	4,526	9,402
	53,508	207,963	148,802	48,824
Exchange traded:				
Equity futures	15,937	778	4,318	6,417
Equity options	37,690	109,795	28,355	29,741
	53,627	110,573	32,673	36,158
	107,135	318,536	181,475	84,982

(In millions of won)

10. Derivatives (continued)

	2018		2019	
	Assets	Liabilities	Assets	Liabilities
Commodity related:				
Over the counter:				
Commodity swaps and forwards	2,743	58,800	14,496	27,745
Commodity options	27	29	—	—
	2,770	58,829	14,496	27,745
Exchange traded:				
Commodity futures	8,226	4,016	2,342	10,100
	10,996	62,845	16,838	37,845
Hedge:				
Currency forwards	9,185	30,497	14,380	21,121
Currency swaps	21,976	79,492	74,240	48,396
Interest rate swaps	35,131	483,233	154,586	232,491
	66,292	593,222	243,206	302,008
	₩1,793,613	2,439,892	2,829,274	2,303,012

(c) Gain or loss on valuation of derivatives for the years ended December 31, 2017, 2018 and 2019 are as follows:

	2017	2018	2019
Foreign currency related			
Over the counter			
Currency forwards	₩ 85,498	41,188	174,340
Currency swaps	91,410	(34,444)	(24,827)
Currency options	5,422	8,247	4,056
	182,330	14,991	153,569
Exchange traded			
Currency futures	(137)	11	—
	182,193	15,002	153,569
Interest rates related			
Over the counter			
Interest rate swaps	(17,805)	86,675	(75,349)
Interest rate options	413	(1,459)	(1,938)
	(17,392)	85,216	(77,287)
Exchange traded			
Interest rate futures	6,950	(2,512)	1,008
	(10,442)	82,704	(76,279)

(In millions of won)

10. Derivatives (continued)

	2017	2018	2019
Credit related			
Over the counter			
Credit swaps	46,593	(18,396)	213,754
Equity related			
Over the counter			
Equity swap and forwards	73,490	(271,457)	46,770
Equity options	36,662	4,326	(841)
	110,152	(267,131)	45,929
Exchange traded			
Equity futures	(733)	15,159	(2,275)
Equity options	22,315	(44,163)	58,721
	21,582	(29,004)	56,446
	131,734	(296,135)	102,375
Commodity related			
Over the counter			
Commodity swaps and forwards	13,435	(79,296)	3,191
Commodity options	(10)	33	29
	13,425	(79,263)	3,220
Exchange traded			
Commodity futures	5,722	4,209	(7,759)
	19,147	(75,054)	(4,539)
Hedge	(286,920)	78,892	332,778
	₩ 82,305	(212,987)	721,658

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

i) Gains (losses) on fair value hedged items and hedging instruments attributable to the hedged ineffectiveness for the years ended December 31, 2018 and 2019 were as follows:

	2018		
	Gains (losses) on fair value hedges (hedged items)	Gains (losses) on fair value hedges (hedging instruments)	Hedge ineffectiveness recognized in profit or loss (*2)
Fair value hedges			
Interest rate swaps (*1)	₩(76,573)	79,635	3,062
Foreign exchange risk (*1)	55,188	(60,380)	(5,192)
	₩(21,385)	19,255	(2,130)

(In millions of won)

10. Derivatives (continued)

	2019		
	Gains (losses) on fair value hedges (hedged items)	Gains (losses) on fair value hedges (hedging instruments)	Hedge ineffectiveness recognized in profit or loss (*2)
Fair value hedges			
Interest rate swaps (*1)	₩(370,787)	377,121	6,334
Foreign exchange risk (*1)	13,725	(18,786)	(5,061)
	₩(357,062)	358,335	1,273

(*1) The related account categories are presented as interest rate swap assets / liabilities and currency swap assets.
(*2) Ineffective portion of hedge: the difference between hedging instruments and hedged items.

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

	2018		
	Gains (losses) on hedges recognized in other comprehensive income	Hedge ineffectiveness recognized in profit or loss (*2)	From cash flow hedge reserve to profit or loss Reclassified amount
Cash flow hedges			
Interest rate risk (*1)	₩(23,186)	—	—
Foreign exchange risk (*1)	65,386	(5,188)	70,051
Hedge of net investments			
Foreign exchange risk (*1)	(35,879)	(3,765)	—
	₩ 6,321	(8,953)	70,051

	2019		
	Gains (losses) on hedges recognized in other comprehensive income	Hedge ineffectiveness recognized in profit or loss (*2)	From cash flow hedge reserve to profit or loss Reclassified amount
Cash flow hedges			
Interest rate risk (*1)	₩(11,126)	—	—
Foreign exchange risk (*1)	52,932	(25,709)	(57,870)
Discontinuation of cash flow hedges	(7,986)	—	7,986
Hedge of net investments			
Foreign exchange risk (*1)	(49,463)	(2,327)	—
	₩(15,643)	(28,036)	(49,884)

(*1) The related account categories are presented as interest rate swap assets / liabilities and currency swap assets / liabilities, currency forwards assets / liabilities and borrowings.
(*2) Ineffective portion of hedge: The difference between hedging instruments and hedged items.

(In millions of won)

10. Derivatives (continued)

(e) Nominal values and average hedge ratio for derivatives as of December 31, 2018 and December 31, 2019 were as follows:

	2018						
	Less than 1 year	1~2 years	2~3 years	3~4 years	4~5 years	More than 5 years	Total
Interest risk:							
Nominal values:	₩ 190,000	737,632	723,177	707,254	1,305,584	6,484,084	10,147,731
Average hedge ratio:	100%	100%	100%	100%	100%	100%	100%
Exchange risk:							
Nominal values:	2,731,517	1,958,746	827,158	1,038,935	302,423	—	6,858,779
Average hedge ratio:	100%	100%	100%	100%	100%	—	100%

	2019						
	Less than 1 year	1~2 years	2~3 years	3~4 years	4~5 years	More than 5 years	Total
Interest risk:							
Nominal values:	₩ 750,469	704,985	717,948	1,228,424	575,481	6,114,325	10,091,632
Average hedge ratio:	100%	100%	100%	100%	100%	100%	100%
Exchange risk:							
Nominal values:	3,651,118	1,075,886	1,269,520	968,770	84,275	534,898	7,584,467
Average hedge ratio:	100%	100%	100%	100%	100%	100%	100%

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

i) Purpose and strategy of risk avoidance

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

(In millions of won)

10. Derivatives (continued)

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

	2018			
	Nominal amount	Carrying value of assets (*)	Carrying value of liabilities (*)	Changes if fair value in the period
Fair value hedges				
Interest rate swap	₩9,377,731	35,093	467,381	55,244
Currency swap	33,543	433	—	(1,502)
Cash flow hedge				
Interest rate swap	770,000	38	15,853	(23,186)
Currency swap	4,110,285	21,543	79,492	(54)
Currency forward	1,298,686	3,191	24,925	(33,460)
Hedge of net investments in foreign operations				
Currency forward	223,620	5,994	5,572	(3,261)
Borrowings	1,192,645	—	1,186,792	(36,383)

	2019			
	Nominal amount	Carrying value of assets (*)	Carrying value of liabilities (*)	Changes if fair value in the period
Fair value hedges				
Interest rate swap	₩9,371,632	154,586	210,079	—
Currency swap	—	—	248	(1,813)
Currency forward	261,486	776	1,358	(582)
Cash flow hedge				
Interest rate swap	720,000	—	22,412	(11,126)
Currency swap	4,532,114	74,240	48,148	(29,829)
Currency forward	1,376,472	11,854	19,763	(4,426)
Hedge of net investments in foreign operations				
Currency forward	231,560	1,750	—	(4,036)
Borrowings	1,182,835	—	1,177,897	(47,755)

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

(In millions of won)

10. Derivatives (continued)

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

	2018						
	Carrying value of asset (*)	Carrying value of liabilities (*)	Assets of Cumulative fair value hedge adjustment	Liabilities of Cumulative fair value hedge adjustment	Changes if fair value in the year	Cash flow hedge reserve	Foreign currency conversion reserves
Fair value hedges							
Interest rate risk							
Foreign exchange risk	₩ 293,215	8,873,059	(2,832)	(524,459)	(56,462)	—	—
	62,406	—	—	—	2,675	—	—
Cash flow hedge							
Interest rate risk	—	1,539,005	—	—	—	(10,184)	—
Foreign exchange risk	2,795,320	2,716,148	—	—	63,860	(2,006)	—
Hedge of net investments in foreign operations							
Foreign exchange risk	—	—	—	—	(35,879)	—	138,416

	2019						
	Carrying value of asset (*)	Carrying value of liabilities (*)	Assets of Cumulative fair value hedge adjustment	Liabilities of Cumulative fair value hedge adjustment	Changes if fair value in the year	Cash flow hedge reserve	Foreign currency conversion reserves
Fair value hedges							
Interest rate risk							
Foreign exchange risk	₩ 432,172	8,859,022	4,846	(56,292)	(308,463)	—	—
	306,638	—	—	—	1,671	—	—
Cash flow hedge							
Interest rate risk	645,723	1,740,000	—	—	(11,126)	80,674	—
Foreign exchange risk	4,116,068	3,035,423	—	—	115,867	(11,188)	—
Hedge of net investments in foreign operations							
Foreign exchange risk	—	—	—	—	(49,463)	—	(88,953)

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

(In millions of won)

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

(a) Details of securities at FVOCI and securities at amortized cost as of December 31, 2018 and 2019 are as follows:

	2018	2019
Securities at FVOCI:		
Debt securities:		
Government bonds	₩ 8,975,391	17,597,910
Financial institutions bonds	17,341,330	21,527,242
Corporate bonds and others	11,360,924	19,447,942
	37,677,645	58,573,094
Equity securities (*):		
Stocks	630,010	728,311
Equity investments	6,515	5,356
Others	—	74,292
	636,525	807,959
	38,314,170	59,381,053
Securities at amortized cost:		
Debt securities:		
Government bonds	18,000,454	30,385,084
Financial institutions bonds	2,171,623	4,770,204
Corporate bonds and others	8,306,059	10,426,777
	28,478,136	45,582,065
	₩66,792,306	104,963,118

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

(In millions of won)

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

(b) Changes in carrying value of debt securities at fair value through other comprehensive income and securities at amortized cost for the years ended December 31, 2018 and 2019 are as follows:

	2018					
	Securities at fair value through other comprehensive income			Securities at amortized cost		
	12 months expected credit loss	Life time expected credit loss	Total	12 months expected credit loss	Life time expected credit loss	Total
Beginning allowance	₩ 36,641,928	15,879	36,657,807	24,403,423	21,444	24,424,867
Transfer to 12 months expected credit loss	—	—	—	—	—	—
Transfer to life time expected credit loss	(26,187)	26,187	—	—	—	—
Transfer to impaired financial asset	—	—	—	—	—	—
Purchase	26,938,512	98,778	27,037,290	5,836,342	—	5,836,342
Disposal	(7,182,343)	(18,687)	(7,201,030)	—	—	—
Repayment	(19,338,938)	—	(19,338,938)	(1,607,467)	(3)	(1,607,470)
Others (*)	538,842	(16,326)	522,516	(167,377)	1,034	(166,343)
Ending balance	₩ 37,571,814	105,831	37,677,645	28,464,921	22,475	28,487,396

(*) Included the effects from changing currency rate.

	2019					
	Securities at fair value through other comprehensive income			Securities at amortized cost		
	12 months expected credit loss	Life time expected credit loss	Total	12 months expected credit loss	Life time expected credit loss	Total
Beginning allowance	₩ 37,571,814	105,831	37,677,645	28,464,921	22,475	28,487,396
Transfer to 12 months expected credit loss	34,555	(34,555)	—	20,198	(20,198)	—
Transfer to life time expected credit loss	(64,928)	64,928	—	—	—	—
Transfer to impaired financial asset	—	—	—	—	—	—
Purchase	46,847,222	61,410	46,908,632	12,209,898	—	12,209,898
Disposal	(16,109,006)	(10,222)	(16,119,228)	—	—	—
Repayment	(21,129,182)	—	(21,129,182)	(6,722,560)	—	(6,722,560)
Others (*)	230,733	51,702	282,435	322,107	20,995	343,102
Business combination (Note 50)	10,952,792	—	10,952,792	11,273,999	—	11,273,999
Ending balance	₩ 58,334,000	239,094	58,573,094	45,568,563	23,272	45,591,835

(*) Included the effects from changing currency rate, amortization of fair value adjustments recognized through business combination accountings.

(In millions of won)

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

(c) Changes in allowance for credit loss of debt securities at fair value through other comprehensive income and securities at amortized cost for the years ended December 31, 2018 and 2019 are as follows:

	2018					
	Securities at fair value through other comprehensive income			Securities at amortized cost		
	12 months expected credit loss	Life time expected credit loss	Total	12 months expected credit loss	Life time expected credit loss	Total
Beginning allowance	₩17,038	1,938	18,976	6,327	2,232	8,559
Transfer to 12 months expected credit loss	—	—	—	—	—	—
Transfer to life time expected credit loss	(234)	234	—	—	—	—
Transfer to impaired financial asset	—	—	—	—	—	—
Provision (reversal)	15,286	(3,220)	12,066	4,615	(2,215)	2,400
Disposal	(5,251)	(229)	(5,480)	—	—	—
Others (*)	(1,117)	1,639	522	(1,699)	—	(1,699)
Ending balance	₩25,722	362	26,084	9,243	17	9,260

(*) Included the effects from changing currency rate.

	2019					
	Securities at fair value through other comprehensive income			Securities at amortized cost		
	12 months expected credit loss	Life time expected credit loss	Total	12 months expected credit loss	Life time expected credit loss	Total
Beginning allowance	₩25,722	362	26,084	9,243	17	9,260
Transfer to 12 months expected credit loss	33	(33)	—	4,301	(4,301)	—
Transfer to life time expected credit loss	(60)	60	—	—	—	—
Transfer to impaired financial asset	—	—	—	—	—	—
Provision (reversal)	8,403	(2,616)	5,787	(3,752)	4,295	543
Disposal	(5,340)	(258)	(5,598)	—	—	—
Others (*)	(1,177)	3,140	1,963	(33)	—	(33)
Ending balance	₩27,581	655	28,236	9,759	11	9,770

(*) Included the effects from changing currency rate, restructuring, bond-equity swap.

(In millions of won)

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

(d) Gain or loss on disposal of securities at fair value through other comprehensive income and securities at amortized cost for the years ended December 31, 2018 and 2019 are as follows:

	2018	2019
Gain on disposal of securities at FVOCI	₩28,018	159,883
Loss on disposal of securities at FVOCI	(7,464)	(7,605)
Gain on disposal of securities at amortized cost (*)	—	86
Loss on disposal of securities at amortized cost (*)	(9)	(20)
	₩20,545	152,344

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

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

As of December 31, 2018 and 2019, the Group recognizes dividends amounting to ₩16,871 million and ₩16,586 million related to equity securities at fair value through other comprehensive income.

In addition, the disposition of equity securities at fair value through other comprehensive income are as follows:

	2018	2019
Fair value at the date of disposal	₩ 3,285	45,074
Cumulative net loss at the time of disposal	(3,635)	(10,843)

12. Loans at amortized cost

(a) Loans at amortized cost as of December 31, 2018 and 2019 are as follows:

	2018	2019
Household loans	₩120,832,081	134,423,473
Corporate loans	152,164,476	161,029,877
Public and other loans	2,831,026	3,311,735
Loans to banks	3,585,563	2,633,532
Credit card receivables	22,447,614	24,024,491
	301,860,760	325,423,108
Discount	(23,588)	(27,824)
Deferred loan origination costs	497,368	534,530
	302,334,540	325,929,814
Less: Allowance for credit loss	(2,725,068)	(2,684,835)
	₩299,609,472	323,244,979

(In millions of won)

12. Loans at amortized cost (continued)

(b) Changes in carrying value of loans at amortized cost and other assets as of December 31, 2018 and 2019 are as follows:

i) Loans at amortized cost

	2018												
	Retail			Corporate			Credit cards			Others			
	12 months expected credit loss	Life time expected credit loss	Impaired financial asset	12 months expected credit loss	Life time expected credit loss	Impaired financial asset	12 months expected credit loss	Life time expected credit loss	Impaired financial asset	12 months expected credit loss	Life time expected credit loss	Impaired financial asset	Total
Beginning balance	₩104,325,268	7,345,842	301,838	119,852,620	18,455,422	1,084,348	16,467,623	3,743,265	385,252	4,665,298	486,090	13,163	277,126,029
Transfer (from) to 12 months expected credit losses	3,406,566	(3,402,543)	(4,023)	3,736,019	(3,734,730)	(1,289)	318,142	(318,025)	(117)	71,381	(71,381)	—	—
Transfer (from) to lifetime expected credit losses	(4,920,514)	4,935,853	(15,339)	(15,002,047)	15,051,204	(49,157)	(587,777)	588,002	(225)	(366,998)	366,998	—	—
Transfer (from) to credit-impaired financial assets	(536,996)	(36,489)	573,485	(1,349,787)	(114,560)	1,464,347	(37,526)	(25,522)	63,048	(24,068)	(8,557)	32,625	—
Origination	47,789,131	34,200	5,396	75,450,183	386,318	9,260	2,633,086	6,285	181,250	5,244,411	—	—	131,739,520
Collection	(35,972,892)	(2,046,703)	(215,294)	(53,902,860)	(8,365,144)	(758,426)	(74,777)	(120,969)	(1,511)	(3,988,422)	(169,909)	(12,980)	(105,629,887)
Charge off	—	—	(227,787)	—	—	(312,841)	—	—	(308,202)	—	—	(2,567)	(851,397)
Disposal	(42,664)	(3,059)	(74,664)	(79,250)	(15,997)	(493,273)	—	—	—	—	—	(14,555)	(723,462)
Others (*1)	231,971	(7,043)	5,110	763,888	120,077	(23,588)	(563,615)	(42,527)	93,680	93,585	2,199	—	673,737
Ending balance	₩114,279,870	6,820,058	348,722	129,468,766	21,782,590	919,381	18,155,156	3,830,509	413,175	5,695,187	605,440	15,686	302,334,540

(*1) Other changes are due to restructuring, debt-equity swap and exchange rate fluctuations.
(*2) The amount of uncollected loans currently in recovery (principal and interest) is ₩9,597,389 million, which is written off as of December 31, 2018.

(In millions of won)

12. Loans at amortized cost (continued)

ii) Other financial assets

	2018			
	12 months expected credit loss	Life time expected credit loss	Impaired financial asset	Total
Beginning balance	₩ 31,599,203	456,538	23,243	32,078,984
Transfer (from) to 12 months expected credit losses	28,028	(28,024)	(4)	—
Transfer (from) to lifetime expected credit losses	(51,596)	51,607	(11)	—
Transfer (from) to credit- impaired financial assets	(22,162)	(2,986)	25,148	—
Origination	30,085,141	27,251	21,930	30,134,322
Collection	(30,207,574)	(410,559)	(4,236)	(30,622,369)
Charge off	—	—	(20,984)	(20,984)
Disposal	—	(495)	(13,083)	(13,578)
Others (*2)	77,654	6,129	—	83,783
Ending balance	₩ 31,508,694	99,461	32,003	31,640,158

(*1) The amortized cost includes the gross carrying amount of deposits and other assets.
(*2) Other changes are due to restructuring, debt-equity swap and exchange rate fluctuations.

(In millions of won)

12. Loans at amortized cost (continued)

i) Loans at amortized cost

	2019												
	Retail			Corporate			Credit card			Others			
	12 months expected credit loss	Life time expected credit loss	Impaired financial asset	12 months expected credit loss	Life time expected credit loss	Impaired financial asset	12 months expected credit loss	Life time expected credit loss	Impaired financial asset	12 months expected credit loss	Life time expected credit loss	Impaired financial asset	Total
Beginning balance	₩114,279,870	6,820,058	348,722	129,468,766	21,782,590	919,381	18,155,156	3,830,509	413,175	5,695,187	605,440	15,686	302,334,540
Transfer (from) to 12 months expected credit losses	2,619,036	(2,614,416)	(4,620)	4,093,725	(4,088,373)	(5,352)	320,288	(320,129)	(159)	37,430	(37,430)	—	—
Transfer (from) to lifetime expected credit losses	(5,385,659)	5,406,091	(20,432)	(16,484,206)	16,597,346	(113,140)	(603,069)	603,280	(211)	(210,161)	210,333	(172)	—
Transfer (from) to credit-impaired financial assets	(627,950)	(43,168)	671,118	(1,088,270)	(76,177)	1,164,447	(36,483)	(22,473)	58,956	(39,844)	—	39,844	—
Origination	51,784,970	25,296	4,469	75,800,467	480,163	2,485	1,647,393	315,643	305,487	5,495,139	—	—	135,861,512
Collection	(38,870,803)	(1,814,003)	(238,174)	(57,057,718)	(9,966,512)	(395,670)	(59,799)	(5,328)	253	(5,949,565)	(149,802)	(11,979)	(114,519,100)
Charge off	—	—	(257,742)	—	—	(259,400)	—	—	(332,862)	—	—	(8,718)	(858,722)
Disposal	—	(5,122)	(108,624)	(117,453)	(3,806)	(283,747)	—	—	—	—	—	(18,398)	(537,150)
Others (*1)	320,096	88,420	10,744	583,534	(80,749)	(50,283)	(3,880)	(276,926)	(404)	139,207	927	—	730,686
Business combination (Note 50)	2,466,991	7,752	10,431	392,828	17,180	22,866	—	—	—	—	—	—	2,918,048
Ending balance	₩126,586,551	7,870,908	415,892	135,591,673	24,661,662	1,001,587	19,419,606	4,124,576	444,235	5,167,393	629,468	16,263	325,929,814

(*1) Other changes are due to restructuring, debt-equity swap and exchange rate fluctuations.
(*2) The amount of uncollected loans currently in recovery (principal and interest) is ₩10,155,562 million, which is written off as of December 31, 2019

(In millions of won)

12. Loans at amortized cost (continued)

ii) Other financial assets

	2019			
	12 month expected credit loss	Life time expected credit loss	Impaired financial asset	Total
Beginning balance	₩ 31,508,694	99,461	32,003	31,640,158
Transfer (from) to 12 month expected credit losses	12,685	(12,675)	(10)	—
Transfer (from) to lifetime expected credit losses	(253,546)	253,575	(29)	—
Transfer (from) to credit- impaired financial assets	(3,124)	(5,324)	8,448	—
Origination	62,331,232	29,315	27,281	62,387,828
Collection	(51,845,962)	(259,371)	(2,036)	(52,107,369)
Charge off	—	—	(29,456)	(29,456)
Disposal (*2)	(182,212)	(3)	(1,062)	(183,277)
Others (*3)	261,019	42	—	261,061
Business combination (Note 50)	1,416,216	1,497	10,826	1,428,539
Ending balance	₩ 43,245,002	106,517	45,965	43,397,484

(*1) The amortized cost includes the gross carrying amount of deposits and other assets.
(*2) Included the disposal amount of financial instruments for the purpose of collecting loans for credit concentration risk management of non-current assets, which recognized gains of ₩13,317 million.
(*3) Other changes are due to restructuring, debt-equity swap and exchange rate fluctuations.

(In millions of won)

12. Loans at amortized cost (continued)

(c) Changes in allowance for credit loss of loans at amortized cost and other financial assets as of December 31, 2018 and 2019 are as follows:

i) Loans at amortized cost

	2018												
	Retail			Corporate			Credit cards			Others (*)			
	12 months expected credit loss	Life time expected credit loss	Impaired financial asset	12 months expected credit loss	Life time expected credit loss	Impaired financial asset	12 months expected credit loss	Life time expected credit loss	Impaired financial asset	12 months expected credit loss	Life time expected credit loss	Impaired financial asset	Total
Beginning balance	₩ 88,167	125,362	160,536	472,685	624,730	609,925	160,478	335,170	278,759	9,283	2,997	3,894	2,871,986
Transfer (from) to 12 month expected credit losses	45,985	(45,516)	(469)	49,898	(49,552)	(346)	57,848	(57,814)	(34)	433	(433)	—	—
Transfer (from) to lifetime expected credit losses	(5,862)	11,415	(5,553)	(43,180)	79,567	(36,387)	(19,671)	19,687	(16)	(221)	221	—	—
Transfer (from) to credit- impaired financial assets	(750)	(3,551)	4,301	(798)	(34,627)	35,425	(1,288)	(3,793)	5,081	(4)	(140)	144	—
Provision (reversal)	(10,735)	369	169,495	(49,962)	(43,876)	203,667	122,112	132,670	166,338	1,165	3,229	10,043	704,515
Charge off	—	—	(227,787)	—	—	(312,841)	—	—	(308,202)	—	—	(2,567)	(851,397)
Amortization of discount	—	—	(218)	—	—	(17,653)	—	—	(2,907)	—	—	—	(20,778)
Disposal	(302)	(17)	(4,242)	(334)	(357)	(52,871)	—	—	—	—	—	(2,454)	(60,577)
Collection	—	—	57,065	—	—	78,249	—	—	175,120	—	—	846	311,280
Others (*)	(1,208)	298	3,331	6,484	6,030	12,515	(149,237)	(74,155)	(34,041)	14	8	—	(229,961)
Ending balance	₩115,295	88,360	156,459	434,793	581,915	519,683	170,242	351,765	280,098	10,670	5,882	9,906	2,725,068

(*) Other changes are due to restructuring, debt-equity swap and exchange rate fluctuations.

(In millions of won)

12. Loans at amortized cost (continued)

ii) Other financial assets

	2018			
	12 months expected credit loss	Life time expected credit loss	Impaired financial asset	Total
Beginning balance	₩39,048	7,666	20,166	66,880
Transfer (from) to 12 months expected credit losses	581	(578)	(3)	—
Transfer (from) to lifetime expected credit losses	(212)	222	(10)	—
Transfer (from) to credit- impaired financial assets	(94)	(2,209)	2,303	—
Provision (reversal)	(1,998)	1,775	24,293	24,070
Charge off	—	—	(20,984)	(20,984)
Disposal	—	(7)	(2,736)	(2,743)
Collection	—	—	1,815	1,815
Others (*2)	2,602	61	(80)	2,583
Ending balance	₩39,927	6,930	24,764	71,621

(*1) The amortized cost includes the gross carrying amount of deposits and other assets.
(*2) Other changes are due to restructuring, debt-equity swap and exchange rate fluctuations.

(In millions of won)

12. Loans at amortized cost (continued)

i) Loans at amortized cost

	2019												
	Retail			Corporate			Credit cards			Others			
	12 month expected credit loss	Life time expected credit loss	Impaired financial asset	12 month expected credit loss	Life time expected credit loss	Impaired financial asset	12 month expected credit loss	Life time expected credit loss	Impaired financial asset	12 month expected credit loss	Life time expected credit loss	Impaired financial asset	Total
Beginning balance	₩115,295	88,360	156,459	434,793	581,915	519,683	170,242	351,765	280,098	10,670	5,882	9,906	2,725,068
Transfer (from) to 12 months expected credit losses	18,079	(17,592)	(487)	50,720	(48,295)	(2,425)	55,815	(55,712)	(103)	757	(757)	—	—
Transfer (from) to lifetime expected credit losses	(9,411)	17,342	(7,931)	(35,790)	118,605	(82,815)	(20,607)	20,756	(149)	(159)	289	(130)	—
Transfer (from) to credit-impaired financial assets	(942)	(3,739)	4,681	(565)	(13,332)	13,897	(1,250)	(3,916)	5,166	—	—	—	—
Provision (reversal)	(7,751)	19,130	214,260	(43,230)	(31,265)	277,436	57,062	280,047	147,332	(4,067)	1,907	37	910,898
Charge off	—	—	(257,742)	—	—	(259,400)	—	—	(332,862)	—	—	(8,718)	(858,722)
Amortization of discount	—	—	(274)	—	—	(19,396)	—	—	(5,541)	—	—	—	(25,211)
Disposal	—	(241)	(21,561)	(6)	(245)	(30,436)	—	—	—	—	—	(820)	(53,309)
Collection	—	—	70,319	—	—	62,973	—	—	190,738	—	—	1,876	325,906
Others (*)	2,484	(15,353)	4,522	13,810	(76,711)	(27,910)	(87,378)	(227,692)	30,171	300	160	—	(383,597)
Business combination (Note 50)	15,658	3,118	6,792	20	614	17,600	—	—	—	—	—	—	43,802
Ending balance	₩133,412	91,025	169,038	419,752	531,286	469,207	173,884	365,248	314,850	7,501	7,481	2,151	2,684,835

(*) Other changes are due to restructuring, debt-equity swap and exchange rate fluctuations.

(In millions of won)

12. Loans at amortized cost (continued)

ii) Other financial assets

	2019			
	12 months expected credit loss	**Life time expected credit loss**	**Impaired financial asset**	**Total**
Beginning balance	₩39,927	6,930	24,764	71,621
Transfer (from) to 12 months expected credit losses	458	(453)	(5)	—
Transfer (from) to lifetime expected credit losses	(231)	244	(13)	—
Transfer (from) to credit- impaired financial assets	(172)	(2,310)	2,482	—
Provision	2,822	2,667	28,456	33,945
Charge off	—	—	(29,456)	(29,456)
Collection	—	—	1,873	1,873
Others (*2)	(9,738)	9	435	(9,294)
Business combination (Note 50)	921	185	9,054	10,160
Ending balance	₩33,987	7,272	37,590	78,849

(*1) The amortized cost includes the gross carrying amount of deposits and other assets.
(*2) Other changes are due to restructuring, debt-equity swap and exchange rate fluctuations.

(d) Changes in deferred loan origination costs for the years ended December 31, 2018 and 2019 are as follows:

	2018	**2019**
Beginning balance	₩ 434,746	497,368
Loan origination	235,032	232,943
Amortization	(172,410)	(208,998)
Business combination (Note 50)	—	13,217
Ending balance	₩ 497,368	534,530

13. Property and equipment

(a) Details of property and equipment as of December 31, 2018 and 2019 are as follows:

	2018		
	Acquisition cost	Accumulated depreciation	Carrying value
Land	₩1,827,711	—	1,827,711
Buildings	1,173,888	(321,319)	852,569
Others	2,002,755	(1,679,149)	323,606
	₩5,004,354	(2,000,468)	3,003,886

(In millions of won)

13. Property and equipment (continued)

	2019		
	Acquisition cost	Accumulated depreciation	Carrying value
Land	₩1,815,112	—	1,815,112
Buildings	1,167,514	(377,065)	790,449
Right-of-use assets	1,357,206	(244,410)	1,112,796
Others	2,130,805	(1,765,834)	364,971
	₩6,470,637	(2,387,309)	4,083,328

(b) Changes in property and equipment for the years ended December 31, 2018 and 2019 are as follows:

	2018			
	Land	Buildings	Others	Total
Beginning balance	₩1,819,912	883,421	318,439	3,021,772
Acquisitions (*1)	33	14,612	136,244	150,889
Disposals (*1)	(17,735)	(3,282)	(9,699)	(30,716)
Depreciation	—	(47,207)	(124,564)	(171,771)
Amounts transferred from(to) investment properties	23,972	4,227	—	28,199
Amounts transferred from(to) non-current assets held for sale (*2)	(32)	(48)	—	(80)
Effects of foreign currency movements	1,561	846	3,186	5,593
Ending balance	₩1,827,711	852,569	323,606	3,003,886

(*1) ₩6,319 million transferred from construction-in progress was included.
(*2) Included buildings, land.

(In millions of won)

13. Property and equipment (continued)

	2019				
	Land	Buildings	Right-of-use assets (Note 18)	Others	Total
Beginning balance (*1)	₩1,827,711	852,569	583,576	313,853	3,577,709
Acquisitions (*2)	69,045	16,946	805,783	184,630	1,076,404
Disposals (*2)	(249)	(1,719)	(12,595)	(29,081)	(43,644)
Depreciation	—	(55,450)	(298,538)	(125,669)	(479,657)
Amounts transferred from(to) investment property	(81,311)	(23,262)	—	—	(104,573)
Amounts transferred from(to) intangible assets	—	—	—	271	271
Amounts transferred from(to) non-current assets held for sale (*3)	(410)	(45)	—	—	(455)
Effects of foreign currency movements	326	1,410	2,981	9,314	14,031
Business combination (Note 50)	—	—	31,589	11,653	43,242
Ending balance	₩1,815,112	790,449	1,112,796	364,971	4,083,328

(*1) The 9,753 million is transferred from other property and equipment to right-of-use assets due to the adoption of IFRS 16.
(*2) ₩76,004 million transferred from construction-in progress was included.
(*3) Included buildings, and land.

(c) Insured assets and liability insurance as of December 31, 2019 are as follows:

	2019		
Type of insurance	Insured assets	Amount covered	Insurance company
Comprehensive insurance for financial institutions	Cash(including ATM)	23,200	Samsung Fire & Marine Insurance Co., Ltd., etc.
Comprehensive Property insurance	Property Total Risk, Machine Risk, General Liability Collateral	1,315,820	Samsung Fire & Marine Insurance Co., Ltd., etc.
Fire insurance	Business property and real estate	22,141	Meritz Fire & Marine Insurance Co., Ltd., etc.
Compensation liability insurance for officers	Officer liability of executives	60,000	Meritz Fire & Marine Insurance Co., Ltd., etc.
Compensation liability insurance for employee accident	Employee	70,841	Meritz Fire & Marine Insurance Co., Ltd., etc.
Burglary insurance	Cash and securities	83,485	Samsung Fire & Marine Insurance Co., Ltd., etc.
Others	Personal information liability insurance etc.	32,260	Samsung Fire & Marine Insurance Co., Ltd.

(In millions of won)

14. Intangible assets

(a) Details of intangible assets as of December 31, 2018 and 2019 are as follows:

	2018	2019
Goodwill	₩3,903,518	4,690,049
Software	102,393	129,235
Development cost	82,536	144,100
Others	231,687	595,330
	₩4,320,134	5,558,714

(b) Changes in intangible assets for the years ended December 31, 2018 and 2019 are as follows:

	2018				
	Goodwill	Software	Development cost	Others	Total
Beginning balance	₩3,901,260	83,829	75,322	212,910	4,273,321
Acquisitions	—	56,009	38,230	69,501	163,740
Disposals	—	(334)	(5,880)	(7,117)	(13,331)
Impairment (*1)	—	—	(706)	(362)	(1,068)
Amortization (*2)	—	(40,792)	(24,430)	(41,957)	(107,179)
Effects of foreign currency movements	—	3,681	—	(1,288)	2,393
Business combination	2,258	—	—	—	2,258
Ending balance	₩3,903,518	102,393	82,536	231,687	4,320,134

(*1) Memberships such as golf and condominium memberships are intangible assets that cannot be limited to a specific period of time. If the market value of the exchanges is less than the carrying amount at the end of the reporting period, the impairment loss is recognized.
(*2) Included in general administrative expense and other operating income of the consolidated comprehensive income.

	2019				
	Goodwill	Software	Development cost	Others	Total
Beginning balance	₩3,903,518	102,393	82,536	231,687	4,320,134
Acquisitions	—	56,834	71,713	675,070	803,617
Business combination (Note 50)	786,531	9,469	30,435	44,850	871,285
Disposals	—	(428)	(1,310)	(16,476)	(18,214)
Amounts transferred from(to) property and equipment	—	697	(968)	—	(271)
Impairment (*1)(*2)	—	—	(474)	(151,169)	(151,643)
Amortization (*3)	—	(40,578)	(37,832)	(189,533)	(267,943)
Effects of foreign currency movements	—	848	—	901	1,749
Ending balance	₩4,690,049	129,235	144,100	595,330	5,558,714

(*1) The Group reviewed the recoverable value of intangible assets related to the rights to be the depository bank of local governments due to the performance below forecast and future prospects. For the year ended

(In millions of won)

14. Intangible assets (continued)

December 31, 2019, the impairment loss amounted to ₩151,523 million. The impairment loss was included in the non-operating expenses in the consolidated statement of comprehensive income.

(*2) Memberships such as golf and condominium memberships are intangible assets that cannot be limited to a specific period of time. If the market value of the exchanges is less than the carrying amount at the end of the reporting period, the impairment loss is recognized.

(*3) Included in general administrative expense and other operating income of the consolidated statements of comprehensive income.

(c) Goodwill

i) Goodwill allocated in the Group's CGUs as of December 31, 2018 and 2019

	2018	2019
Banking	₩ 810,058	810,058
Credit card	2,773,231	2,880,383
Securities	7,904	7,904
Life insurance (Shinhan Life Insurance)	275,371	275,371
Life insurance (Orange Life Insurance Co., Ltd.)	—	564,576
Others	36,954	151,757
	₩3,903,518	4,690,049

ii) Changes in goodwill for the years ended December 31, 2018 and 2019

	2018	2019
Beginning balance	₩3,901,260	3,903,518
Acquisitions through business combinations (*1)(*2)	2,258	786,531
Ending balance	₩3,903,518	4,690,049

(*1) recognized as a result of the Group's acquisitions of Orange Life Insurance Co., Ltd.("Orange Life"), Asia Trust Co., and the Shinhan Card's acquisition of the new business for the year ended December 31, 2019 (Note 50).

(*2) recognized as a result of the Shinhan Financial Investment Corp. acquisition of the new business for the year ended December 31, 2018.

iii) Goodwill impairment test

The recoverable amounts of each CGU were evaluated based on their respective value in use.

- Explanation on evaluation method

The income approach was applied when evaluating the recoverable amounts based on value in use, considering the characteristics of each unit or group of CGU.

- Projection period

When evaluating the value in use, 5.0~5.5 years of cash flow estimates were used in projection and the value thereafter was reflected as terminal value. 30 years and 60 years of cash flow estimates for Shinhan

(In millions of won)

14. Intangible assets (continued)

Life and Orange Life, respectively were applied and the present value of the future cash flows thereafter is not considered as it is insignificant.

- Discount rates and terminal growth rates

The required rates of return expected by shareholders were applied to the discount rates by calculating the cost of capital which comprises a risk-free interest rate, a market risk premium and systemic risk (beta factor). Expected terminal growth rate is on the basis of inflation rates.

- Discount rates and terminal growth rates applied to each CGU are as follows:

	Discount rates(%)	Terminal growth rate(%)
Banking	8.3~13.9	1.0~3.0
Credit card	8.9~13.3	1.0~3.0
Securities	12.1~13.3	3.0
Life insurance (Shinhan Life Insurance)	8.0	—
Life insurance (Orange Life Insurance Co., Ltd.)	8.0	—
Others	9.2~14.0	1.0

iv) Key assumptions

Key assumptions used in the discounted cash flow calculations of CGUs (other than life insurance components) are as follows:

	2019	2020	2021	2022	2023	2024
CPI growth(%)	0.7	1.1	1.6	1.8	1.7	1.7
Private consumption growth(%)	2.0	2.0	2.2	2.5	2.4	2.4
Real GDP growth(%)	1.9	2.2	2.4	2.7	2.6	2.6

Key assumptions used in the discounted cash flow calculations of life insurance components are as follows:

	Key assumptions
Rate of return on investment(%)	2.45~2.75
Risk-based capital ratio(%)	150.00

The values for the CPI growth rate, real retail sales growth rate, real GDP growth rate, rate of return on investment and risk-based capital ratio are based on a combination of internal and external analysis.

v) Total recoverable amount and total carrying value of CGUs to which goodwill has been allocated, are as follows:

	Amount
Total recoverable amount	₩46,896,966
Total carrying value	41,902,106
	₩ 4,994,860

(In millions of won)

15. Investments in associates

(a) Investments in associates as of December 31, 2018 and December 31, 2019 are as follows:

Investees	Country	Reporting date	Ownership (%) 2018	2019
BNP Paribas Cardif Life Insurance (*1),(*3)	Korea	September 30	14.99	14.99
Songrim Partners. (*1),(*4)	”	December 31	35.34	35.34
Daewontos Co., Ltd. (*7)	”	—	36.33	—
Neoplux Technology Valuation Investment Fund (*1)	”	September 30	33.33	33.33
Partners 4th Growth Investment Fund (*1)	”	”	25.00	25.00
KTB Newlake Global Healthcare PEF (*1)	”	”	30.00	30.00
JAEYANG INDUSTRY (*7)	”	—	25.90	—
Daekwang Semiconductor Co., Ltd. (*1),(*4)	”	September 30	20.94	20.94
Shinhan-Neoplux Energy Newbiz Fund (*1)	”	September 30	23.33	23.33
Shinhan-Albatross tech investment Fund	”	December 31	50.00	50.00
KCLAVIS Meister Fund No.17	”	”	26.09	26.09
Plutus-SG Private Equity Fund	”	”	26.67	26.67
SG ARGES Private Equity Fund No.1 (*7)	”	—	24.06	—
Eum Private Equity Fund No.3	”	December 31	20.76	20.76
KTB Confidence Private Placement	”	”	30.29	31.43
Meritz AI-SingA330-A Investment Type Private Placement Special Asset Fund	”	”	23.89	23.89
Meritz AI-SingA330-B Investment Type Private Placement Special Asset Fund	”	”	20.16	20.16
VOGO Debt Strategy Qualified INV Private R/E INV TR 4	”	”	20.00	20.00
Platform Partners brick save Private Investment trust (*7)	”	—	98.77	—
Shinhan-Midas Donga Secondary Fund	”	December 31	50.00	50.00
ShinHan – Soo Young Entrepreneur Investment Fund No.1	”	”	24.00	24.00
Synergy-Shinhan Mezzanine New Technology Investment Fund	”	”	47.62	47.62
Shinhan Praxis K-Growth Global Private Equity Fund (*5)	”	”	18.87	18.87
Credian Healthcare Private Equity Fund II	”	”	34.07	34.07
Kiwoom Milestone Professional Private Real Estate Trust 19	”	”	50.00	50.00
AIP EURO Green Private Real Estate Trust No.3	”	”	21.28	21.28
Brain Professional Private Trust No.4 (*7)	”	—	27.50	—
Hanhwa US Equity Strategy Private Real Estate Fund No.1	”	December 31	44.84	44.84
Brain KS Qualified Privately Placed Fund No.6 (*7)	”	—	50.00	—
Shinhan Global Healthcare Fund 1 (*5)	”	December 31	4.41	4.41
JB Power TL Investment Type Private Placement Special Asset Fund 7	”	”	33.33	33.33
IBK AONE convertible 1	”	”	47.25	47.25

(In millions of won)

15. Investments in associates (continued)

Investees	Country	Reporting date	Ownership (%)	
			2018	2019
Rico synergy collabo Multi-Mezzanine 3 (*8)	Korea	December 31	50.03	50.03
KB NA Hickory Private Special Asset Fund	”	”	37.50	37.50
GB Professional Private Investment Trust 6 (*7)	”	—	94.51	—
Koramco Europe Core Private Placement Real Estate Fund No.2-2	”	December 31	44.02	44.02
SHBNPP Private Korea Equity Long-Short Professional Feeder (*10)	”	—	21.52	—
Shinhan-Stonebridge Petro PEF (*5)	”	December 31	1.82	1.82
BNP Paribas Cardif General Insurance (*1),(*2)	”	September 30	10.00	10.00
Axis Global Growth New Technology Investment Association	”	December 31	31.85	31.85
Polaris No7 Start up and Venture Private Equity Fund	”	”	28.57	28.57
Hermes Private Investment Equity Fund	”	”	29.17	29.17
SHC ULMUS Fund No.1	”	”	29.41	29.41
Shinhan-Nvestor Liquidity Solution Fund	”	”	24.92	24.92
Shinhan AIM FoF Fund 1a	”	”	24.91	25.00
Daishin Heim Qualified Investor Private Investment Trust No.1808 (*7)	”	—	34.48	—
Heungkuk High Class Professional Trust Private Fund 37 (*7)	”	—	50.00	—
IGIS Global Credit Fund 150-1	”	December 31	25.11	25.00
GX Shinhan Intervest 1st Private Equity Fund	”	”	25.27	25.27
Soo Commerce Platform Growth Fund	”	”	24.62	24.62
Partner One Value up I Private Equity Fund	”	”	27.91	27.91
Genesis No.1 Private Equity Fund	”	”	22.80	22.80
GMB ICT New Technology Investment Fund	”	”	26.75	26.75
Korea Omega Project Fund III	”	”	23.53	23.53
Soo Delivery Platform Growth Fund	”	”	30.00	30.00
Genesis North America Power Company No.1 PEF	”	”	39.92	39.92
Hyungje art printing (*1),(*4)	”	”	31.54	31.54
SHBNPP MAIN Professional Investment Type Private Mixed Asset Investment Trust No.3	”	”	23.33	23.33
Shinhan-Rhinos 1 Fund	”	”	—	22.48
Pacific Private Investment Trust No.20	”	”	—	21.74
Susung Mezzanine project P1 Private Investment Trust	”	”	—	41.18
Korea Finance Security (*1),(*9)	”	September 30	—	14.91
MIEL CO.,LTD (*4)	”	December 31	—	28.77
AIP Transportation Specialized Privately Placed Fund Trust #1	”	”	—	35.73
Lime Neptune Professional Private 6	”	”	—	50.00
PCC S/W 2nd Fund	”	”	—	29.56
E&Healthcare Investment Fund No.6 (*5)	”	”	—	20.37
One Shinhan Global Fund 1 (*5)	”	”	—	19.98

(In millions of won)

15. Investments in associates (continued)

Investees	Country	Reporting date	Ownership (%) 2018	Ownership (%) 2019
Kiwoom-Shinhan Innovation Fund I	Korea	December 31	—	50.00
Daishin-K&T New Technology Investment Fund	”	”	—	31.25
Midas Asset Global CRE Debt Private Fund No.6	”	”	—	20.05
Richmond Private Investment Trust No.82 (*6)	”	”	—	60.00
Tiger Alternative Real Estate Professional Private5	”	”	—	48.71
Samchully Midstream Private Placement Special Asset Fund 5-4	”	”	—	42.92
SHBNPP Senior Loan Professional Investment Type Private Mixed Asset Investment Trust No.3	”	”	—	20.00
AUCTUS FITRIN Corporate Recovery Private Equity Fund	”	”	—	21.43
NH-Amundi Global Infrastructure Trust 14	”	”	—	30.00
Pacific Private Real Estate Fund Investment Trust No.30	”	”	—	37.50
Jarvis Memorial Private Investment Trust 1 (*6)	”	”	—	99.01
Mastern Private Investment Trust 68 (*6)	”	”	—	53.76
Vestas Qualified Investors Private Real Estate Fund Investment Trust No.37 (*8)	”	”	—	60.00
Milestone Private Real Estate Fund 3 (Derivative Type)	”	”	—	32.06
IGIS Private Real Estate Investment Trust 286 (2 class)	”	”	—	41.56
Nomura-Rifa Private Real Estate Investment Trust 31 (2 class)	”	”	—	31.31
Lime Pricing Private Equity Fund	”	”	—	25.85
SHBNPP Senior Loan Professional Investment Type Private Mixed Asset Investment Trust No.2	”	”	—	21.27
DS Solid.II Hedge Fund	”	”	—	27.41
Hana Semiconductor New Technology Fund	”	”	—	24.30
J&Magnet Startup Venture Specialized Private Equity Fund (*1)	”	September 30	—	24.39
Cape IT Fund No.3	”	December 31	—	32.89
Vogo Realty Partners Private Real Estate Fund V	”	”	—	21.64
IL GU FARM CO.,LTD (*1)(*4)	—	”	—	28.47
Korea Credit Bureau (*1)(*9)	”	September 30	—	9.00
SBC PFV Co., Ltd (*11)	”	December 31	—	25.00
Sprott Global Renewable Private Equity Fund II	”	”	—	23.10
NH-amundi global infra private fund 16	”	”	—	50.00
IMM Global Private Equity Fund	”	”	—	31.85
HANA Alternative Estate Professional Private122 (*8)	”	”	—	75.19
Hanwha-Incus Plus New Technology Fund No.1	”	”	—	42.64
SHBNPP Corporate Professional Investment Type Private Security Investment Trust No.7[Bond]	”	”	—	45.96

(In millions of won)

15. Investments in associates (continued)

Investees	Country	Reporting date	Ownership (%) 2018	2019
SHBNPP BNCT Professional Investment Type Private Special Asset Investment Trust (*8)	Korea	December 31	—	57.50
PSA EMP Private Equity Fund	”	”	—	28.99
Deutsche Global Professional Investment Type Private Real Estate Investment Trust No. 24 (*8)	”	”	—	52.28
SHBNPP Peace of Mind TDF 2035 Security Investment Trust [Equity Balanced-FoF]	”	”	—	25.70
SHBNPP Peace of Mind TDF 2040 Security Investment Trust [Equity Balanced-FoF]	”	”	—	25.42
BRAIN DO PROFESSIONALE PRIVATE No. 27	”	”	—	29.13
VISION US Muni US Local Debt Opportunities Professional Private1(S)	”	”	—	25.00

(*1) The latest financial statements were used for the equity method since the financial statements as of December 31, 2019 were not available. Significant trades and events occurred within the period were properly reflected.
(*2) The Group applies the equity method accounting as the Group has significant influence on the financial and operating policies of the investee through the ability to elect investees’ board members and representation in decision making bodies of the investee.
(*3) The Group applies the equity method accounting as the Group has a significant influence on the investees through important business transactions.
(*4) As a part of the rehabilitation process, the Group acquired shares through the conversion of equity investments, as the Group cannot exercise voting rights during the process, the Group has classified the shares as investments at fair value through profit or loss. The Group reclassified Securities at fair value through profit or loss to investments in associates as the reorganization procedures were completed and now the Group can normally exercise its voting rights to the investees.
(*5) As a managing partner, the Group has a significant influence over the investees.
(*6) As a limited partner, the Group does not have an ability to participate in policy-making processes to obtain economic benefit from the investees that would allow the Group to control the entity.
(*7) Excluded from the investments in associates due to full or partial disposal of shares, or loss of significant influence.
(*8) Although the ownership interests were more than 50%, the Group applies the equity method accounting as the Group does not have an ability to participate in the financial and operating policy-making process.
(*9) Although the ownership percentages were less than 20%, the Group applies the equity method accounting since it participates in policy-making processes and therefore can exercise significant influence on investees.
(*10) The investment in the associate is consolidated due to the additional acquisition of the shares from the year ended December 31, 2019.
(*11) The rate of Group’s voting rights is 4.65%.

(In millions of won)

15. Investments in associates (continued)

(b) Changes in investments in associates for the years ended December 31, 2018 and 2019 were as follows:

	2018					
Investees	**Beginning balance**	**Investment and dividend**	**Equity method income (loss)**	**Change in other comprehensive income (loss)**	**Impairment loss**	**Ending balance**
BNP Paribas Cardif Life Insurance	₩ 52,616	(2,043)	783	(1,540)	—	49,816
Daewontos Co., Ltd. (*1)	—	—	—	—	—	—
Songrim Partners. (*1)	48	—	(48)	—	—	—
Neoplux Technology Valuation Investment Fund	13,470	6,000	(242)	(490)	—	18,738
JAEYOUNG SOLUTEC CO., LTD.	3,849	(2,865)	(836)	(148)	—	—
Partners 4th Growth Investment Fund	13,390	2,597	625	—	—	16,612
JAEYANG INDUSTRY (*1)	—	—	—	—	—	—
KTB Newlake Global Healthcare PEF	2,653	7,470	(238)	—	—	9,885
DAEKWANG SEMICONDUCTOR CO., LTD.	3,824	—	(490)	—	—	3,334
Shinhan-Neoplux Energy Newbiz Fund	1,400	2,800	(226)	—	—	3,974
Shinhan-Albatross Tech Investment Fund	2,672	6,000	(70)	306	—	8,908
Asia Pacific No.39 Ship Investment Co., Ltd.	4,682	(4,803)	121	—	—	—
KCLAVIS Meister Fund No.17	3,039	—	44	—	—	3,083
SG No.9 Corporate Recovery Private Equity Fund	3,963	(3,102)	566	—	—	1,427
Plutus-SG Private Equity Fund	4,251	(132)	133	—	—	4,252
SG ARGES Private Equity Fund No.1	6,422	(2,295)	214	—	—	4,341
OST Progress- 2 Fund	4,895	(4,895)	—	—	—	—
Eum Private Equity Fund No.3	4,925	(277)	241	—	—	4,889
Richmond Private Yong in Retail Facility Real Estate Fund No.1	8,101	(10,286)	2,185	—	—	—
KTB Confidence Private Placement	6,403	(389)	387	(1,099)	—	5,302
Meritz AI-SingA330-A Investment Type Private Placement Special Asset Fund	6,757	(1,518)	193	—	—	5,432
Meritz AI-SingA330-B Investment Type Private Placement Special Asset Fund	8,387	(305)	347	—	—	8,429
Pine Asia Unsecured Individual Rehabilitation Bond Fund 18	6,012	(6,035)	23	—	—	—
VOGO DEBT STRATEGY QUALIFIED INV PRIVATE R/E INV TR 4	1,638	3,060	133	—	—	4,831
Platform Partners Brick Save Private Investment Trust	8,069	(496)	547	—	—	8,120
Synergy-Shinhan Mezzanine New Technology Investment Fund	4,999	5,000	150	—	—	10,149
The Asia Pacific Capital Fund II L.P.	7,307	(3,004)	(656)	2,602	(5,849)	400
Shinhan Praxis K-Growth Global Private Equity Fund	₩ 18,954	(7,473)	5,046	—	—	16,527

(In millions of won)

15. Investments in associates (continued)

	2018					
Investees	Beginning balance	Investment and dividend	Equity method income (loss)	Change in other comprehensive income (loss)	Impairment loss	Ending balance
Credian Healthcare Private Equity Fund II	₩ 3,813	—	740	—	—	4,553
Kiwoom Milestone Professional Private Real Estate Trust 19	10,408	(199)	210	—	—	10,419
AIP EURO GREEN PRIVATE REAL ESTATE TRUST No.3	20,460	(1,253)	1,337	—	—	20,544
Brain Professional Private Trust No.4	5,847	(1,274)	671	—	—	5,244
Hanhwa US Equity Strategy Private Real Estate Fund No.1	25,479	(2,000)	2,753	—	—	26,232
Brain KS Qualified Privately Placed Fund No.6	4,805	—	292	—	—	5,097
M360 CRE Income Fund	153,905	(171,215)	6,183	11,127	—	—
Shinhan Global Healthcare Fund 1	3,407	—	(122)	—	—	3,285
JB Power TL Investment Type Private Placement Special Asset Fund 7	18,690	(2,075)	869	—	—	17,484
IBK AONE convertible 1	5,122	—	784	—	—	5,906
Rico synergy collabo Multi-Mezzanine 3	5,026	—	264	—	—	5,290
KB NA Hickory Private Special Asset Fund	34,091	(1,560)	1,829	—	—	34,360
GB Professional Private Investment Trust 6	8,600	—	(12)	—	—	8,588
Koramco Europe Core Private Placement Real Estate Fund No.2-2	20,760	(2,357)	213	—	—	18,616
SHBNPP Private Korea Equity Long-Short Professional Feeder	4,861	9,412	97	—	—	14,370
Shinhan-Stonebridge Petro PEF	19,201	(1,133)	613	—	—	18,681
BNP Paribas Cardif General Insurance	4,429	—	(1,026)	20	—	3,423
Axis Global Growth New Technology Investment Association	4,953	—	(78)	—	—	4,875
Polaris No7 Start up and Venture Private Equity Fund	4,359	—	(21)	—	—	4,338
Hermes Private Investment Equity Fund	17,497	(5,158)	(5,274)	—	—	7,065
Shinhan AIM FoF Fund 1a	—	4,125	226	—	—	4,351
Daishin Heim Qualified Investor Private Investment Trust No.1808	—	9,786	340	—	—	10,126
Heungkuk High Class Professional Trust Private Fund 37	—	9,178	260	—	—	9,438
IGIS Global Credit Fund 150-1	—	8,529	367	—	—	8,896
GX SHINHAN INTERVEST 1st Private Equity Fund	—	34,900	(3,069)	—	—	31,831
Soo Commerce Platform Growth Fund	₩ —	6,500	(122)	—	—	6,378

(In millions of won)

15. Investments in associates (continued)

	2018					
Investees	**Beginning balance**	**Investment and dividend**	**Equity method income (loss)**	**Change in other comprehensive income (loss)**	**Impairment loss**	**Ending balance**
Partner One Value up I Private Equity Fund	₩ —	12,000	(61)	—	—	11,939
Genesis No.1 Private Equity Fund	—	46,068	(310)	—	—	45,758
GMB ICT New Technology Investment Fund	—	8,000	(66)	—	—	7,934
Soo Delivery Platform Growth Fund	—	9,000	(17)	—	—	8,983
Genesis North America Power Company No.1 PEF	—	21,592	(768)	—	—	20,824
SHBNPP MAIN Professional Investment Type Private Mixed Asset Investment Trust No.3	—	6,300	(96)	—	—	6,204
Others (*2)	52,855	37,442	1,550	2	—	91,849
	₩631,294	17,617	17,488	10,780	(5,849)	671,330

(*1) The Group has stopped recognizing its equity method income or loss due to the investees' cumulative loss.
(*2) Included disposal by account reclassification involving non-cash transactions

(In millions of won)

15. Investments in associates (continued)

Investees	2019 Beginning balance	Investment and dividend	Equity method income (loss)	Change in other comprehensive income (loss)	Impairment loss	Ending balance
BNP Paribas Cardif Life Insurance	₩ 49,816	(373)	(517)	3,660	—	52,586
Songrim Partners. (*1)	—	—	—	—	—	—
Neoplux Technology Valuation Investment Fund	18,738	(1,661)	(693)	—	—	16,384
Partners 4th Growth Investment Fund	16,612	(1,219)	(476)	—	—	14,917
KTB Newlake Global Healthcare PEF	9,885	1,500	(105)	—	—	11,280
Daekwang Semiconductor Co., Ltd.	3,334	—	52	2	—	3,388
Shinhan-Neoplux Energy Newbiz Fund	3,974	4,200	(294)	—	—	7,880
Shinhan-Albatross tech investment Fund	8,908	—	132	(306)	—	8,734
KCLAVIS Meister Fund No.17	3,083	(1,801)	(84)	—	—	1,198
Plutus-SG Private Equity Fund	4,252	(132)	111	—	—	4,231
SG ARGES Private Equity Fund No.1	4,341	(4,796)	455	—	—	—
Eum Private Equity Fund No.3	4,889	(2,476)	1,161	—	—	3,574
KTB Confidence Private Placement	5,302	(215)	980	—	—	6,067
Meritz AI-SingA330-A Investment Type Private Placement Special Asset Fund	5,432	(1,266)	90	—	—	4,256
Meritz AI-SingA330-B Investment Type Private Placement Special Asset Fund	8,429	242	245	—	—	8,916
VOGO Debt Strategy Qualified INV Private R/E INV TR 4	4,831	4,820	279	—	—	9,930
Platform Partners brick save Private Investment trust	8,120	(8,197)	77	—	—	—
Shinhan-Midas Donga Secondary Fund	2,061	1,750	(325)	—	—	3,486
ShinHan – Soo Young Entrepreneur Investment Fund No.1	2,554	1,968	27	—	—	4,549
Synergy-Shinhan Mezzanine New Technology Investment Fund	10,149	(6,492)	255	—	—	3,912
Shinhan Praxis K-Growth Global Private Equity Fund	16,527	(8,745)	2,520	—	—	10,302
Credian Healthcare Private Equity Fund II	4,553	(2,526)	350	—	—	2,377
Kiwoom Milestone Professional Private Real Estate Trust 19	10,419	(241)	229	—	—	10,407
AIP EURO Green Private Real Estate Trust No.3	20,544	(1,248)	1,588	—	—	20,884
Brain Professional Private Trust No.4	5,244	(5,175)	(69)	—	—	—
Hanhwa US Equity Strategy Private Real Estate Fund No.1	₩ 26,232	(1,866)	1,598	—	—	25,964

(In millions of won)

15. Investments in associates (continued)

	2019					
Investees	Beginning balance	Investment and dividend	Equity method income (loss)	Change in other comprehensive income (loss)	Impairment loss	Ending balance
Brain KS Qualified Privately Placed Fund No.6	₩ 5,097	(5,041)	(56)	—	—	—
Shinhan Global Healthcare Fund 1	3,285	—	(76)	—	—	3,209
JB Power TL Investment Type Private Placement Special Asset Fund 7	17,484	(1,513)	829	—	—	16,800
IBK AONE convertible 1	5,906	—	171	—	—	6,077
Rico synergy collabo Multi-Mezzanine 3	5,290	(2,501)	428	—	—	3,217
KB NA Hickory Private Special Asset Fund	34,360	445	1,125	—	—	35,930
GB Professional Private Investment Trust 6	8,588	(8,588)	—	—	—	—
Koramco Europe Core Private Placement Real Estate Fund No.2-2	18,616	(1,458)	2,404	—	—	19,562
SHBNPP Private Korea Equity Long-Short Professional Feeder	14,370	(14,325)	(45)	—	—	—
Shinhan-Stonebridge Petro PEF	18,681	(19,589)	909	—	—	1
BNP Paribas Cardif General Insurance	3,423	—	(1,296)	(14)	—	2,113
Axis Global Growth New Technology Investment Association	4,875	(1,592)	(78)	—	—	3,205
Polaris No7 Start up and Venture Private Equity Fund	4,338	(2,300)	265	—	—	2,303
Hermes Private Investment Equity Fund	7,065	—	(689)	—	—	6,376
SHC ULMUS Fund No.1	2,890	—	259	—	—	3,149
Shinhan-Nvestor Liquidity Solution Fund	2,689	2,700	(524)	—	—	4,865
Shinhan AIM FoF Fund 1a	4,351	2,363	528	—	—	7,242
Daishin Heim Qualified Investor Private Investment Trust No.1808	10,126	(10,297)	171	—	—	—
Heungkuk High Class Professional Trust Private Fund 37	9,438	(9,505)	67	—	—	—
IGIS Global Credit Fund 150-1	8,896	781	41	—	—	9,718
GX Shinhan Intervest 1st Private Equity Fund	31,831	—	1,335	—	—	33,166
Soo Commerce Platform Growth Fund	6,378	—	(35)	—	—	6,343
Partner One Value up I Private Equity Fund	11,939	—	(48)	—	—	11,891
Genesis No.1 Private Equity Fund	45,758	404	4,988	—	—	51,150
GMB ICT New Technology Investment Fund	7,934	—	(80)	—	—	7,854
Korea Omega Project Fund III	₩ 1,992	—	1,024	—	—	3,016

(In millions of won)

15. Investments in associates (continued)

	2019					
Investees	Beginning balance	Investment and dividend	Equity method income (loss)	Change in other comprehensive income (loss)	Impairment loss	Ending balance
Soo Delivery Platform Growth Fund	₩ 8,983	(171)	110	—	—	8,922
Genesis North America Power Company No.1 PEF	20,824	(4,035)	1,486	—	—	18,275
Hyungje art printing (*1)	—	—	—	—	—	—
SHBNPP MAIN Professional Investment Type Private Mixed Asset Investment Trust No.3	6,204	14,147	361	—	—	20,712
Shinhan-Rhinos 1 Fund	—	3,000	29	—	—	3,029
Pacific Private Investment Trust No.20	—	3,819	257	—	—	4,076
Susung Mezzanine project P1 Private Investment Trust	—	4,000	1,128	—	—	5,128
Korea Finance Security (*2)	—	3,448	(213)	—	—	3,235
MIEL CO.,LTD (*3)	—	—	—	—	—	—
AIP Transportation Specialized Privately Placed Fund Trust #1	—	31,136	444	—	—	31,580
Lime Neptune Professional Private 6	—	5,000	63	—	—	5,063
PCC S/W 2nd Fund	—	3,000	1	—	—	3,001
E&Healthcare Investment Fund No.6	—	7,030	746	—	—	7,776
One Shinhan Global Fund 1	—	4,520	(79)	—	—	4,441
Kiwoom-Shinhan Innovation Fund I	—	7,500	(216)	—	—	7,284
Daishin-K&T New Technology Investment Fund	—	7,000	57	—	—	7,057
Midas Asset Global CRE Debt Private Fund No.6	—	23,194	537	—	—	23,731
Richmond Private Investment Trust No.82	—	14,569	551	—	—	15,120
Tiger Alternative Real Estate Professional Private5	—	19,876	(56)	—	—	19,820
Samchully Midstream Private Placement Special Asset Fund 5-4	—	29,436	1,306	—	—	30,742
SHBNPP Senior Loan Professional Investment Type Private Mixed Asset Investment Trust No.3	—	52,048	1,783	—	—	53,831
AUCTUS FITRIN Corporate Recovery Private Equity Fund	—	14,250	108	—	—	14,358
NH-Amundi Global Infrastructure Trust 14	—	17,769	728	—	—	18,497
Pacific Private Real Estate Fund Investment Trust No.30	—	14,236	580	—	—	14,816
Jarvis Memorial Private Investment Trust 1	₩ —	9,888	278	—	—	10,166

(In millions of won)

15. Investments in associates (continued)

	2019						
Investees		**Beginning balance**	**Investment and dividend**	**Equity method income (loss)**	**Change in other comprehensive income (loss)**	**Impairment loss**	**Ending balance**
Mastern Private Investment Trust 68	₩	—	9,764	235	—	—	9,999
Vestas Qualified Investors Private Real Estate Fund Investment Trust No.37		—	4,434	(37)	—	—	4,397
Milestone Private Real Estate Fund 3 (Derivative Type)		—	17,016	170	—	—	17,186
IGIS Private Real Estate Investment Trust 286 (2 class)		—	10,100	(332)	—	—	9,768
Nomura-Rifa Private Real Estate Investment Trust 31 (2 class)		—	9,018	(104)	—	—	8,914
Lime Pricing Private Equity Fund		—	8,400	(100)	—	—	8,300
SHBNPP Senior Loan Professional Investment Type Private Mixed Asset Investment Trust No.2		—	39,376	2,615	—	—	41,991
DS Solid.II Hedge Fund		—	4,300	(177)	—	—	4,123
Hana Semiconductor New Technology Fund		—	13,000	(144)	—	—	12,856
J&Magnet Startup Venture Specialized Private Equity Fund		—	6,000	(21)	—	—	5,979
Cape IT Fund No.3		—	10,000	(33)	—	—	9,967
Vogo Realty Partners Private Real Estate Fund V		—	10,611	(235)	—	—	10,376
IL GU FARM CO.,LTD		—	—	—	—	—	—
Korea Credit Bureau (*2)		—	4,500	2,312	—	—	6,812
SBC PFV Co., Ltd		—	20,000	—	—	—	20,000
Sprott Global Renewable Private Equity Fund II		—	20,131	(1,115)	—	—	19,016
NH-amundi global infra private fund 16		—	49,530	(1,372)	—	—	48,158
IMM Global Private Equity Fund		—	28,945	(20)	—	—	28,925
HANA Alternative Estate Professional Private122		—	28,487	(2,282)	—	—	26,205
Hanwha-Incus Plus New Technology Fund No.1		—	5,500	(1)	—	—	5,499
SHBNPP Corporate Professional Investment Type Private Security Investment Trust No.7[Bond]		—	51,293	—	—	—	51,293
SHBNPP BNCT Professional Investment Type Private Special Asset Investment Trust		—	146,045	4,272	—	—	150,317
PSA EMP Private Equity Fund	₩	—	10,000	(73)	—	—	9,927

(In millions of won)

15. Investments in associates (continued)

	2019					
Investees	**Beginning balance**	**Investment and dividend**	**Equity method income (loss)**	**Change in other comprehensive income (loss)**	**Impairment loss**	**Ending balance**
Deutsche Global Professional Investment Type Private Real Estate Investment Trust No. 24	₩ —	28,314	1,149	—	—	29,463
SHBNPP Peace of Mind TDF 2035 Security Investment Trust [Equity Balanced-FoF]	—	5,727	—	—	—	5,727
SHBNPP Peace of Mind TDF 2040 Security Investment Trust [Equity Balanced-FoF]	—	5,729	—	—	—	5,729
BRAIN DO PROFESSIONALE PRIVATE No. 27	—	3,000	65	—	—	3,065
VISION US Muni US Local Debt Opportunities Professional Private1(S)	—	9,500	369	—	—	9,869
Others	81,490	(14,513)	18,954	—	—	85,931
	₩671,330	724,902	53,287	3,342	—	1,452,861

(*1) The Group has stopped recognizing its equity method income or loss due to the investees' cumulative loss.
(*2) Classified as investments in associates without cash transactions.
(*3) No gains or losses from the equity method investees have been recognized after the acquisition of a debt-to-equity swap in 2019.

(In millions of won)

15. Investments in associates (continued)

(c) The statement of financial information as of and for the year ended December 31, 2018 and 2019 were as follows:

	2018					
Investees	**Asset**	**Liability**	**Operating revenue**	**Net profit (loss)**	**Other comprehensive income (loss)**	**Total comprehensive income (loss)**
BNP Paribas Cardif Life Insurance	₩3,995,746	3,662,567	53,756	5,191	(10,268)	(5,077)
Neoplux Technology Valuation Investment Fund	57,018	804	390	(724)	(1,969)	(2,693)
Partners 4th Growth Investment Fund	67,403	954	4,424	3,025	—	3,025
KTB Newlake Global Healthcare PEF	32,508	123	69	(793)	—	(793)
DAEKWANG SEMICONDUCTOR CO., LTD.	25,459	9,537	15,794	(2,341)	—	(2,341)
Shinhan-Neoplux Energy Newbiz Fund	17,347	315	19	(968)	—	(968)
Shinhan-Albatross Tech Investment Fund	18,009	182	299	(435)	917	482
KCLAVIS Meister Fund No.17	11,866	47	398	167	—	167
SG No.9 Corporate Recovery Private Equity Fund	5,566	181	—	2,136	—	2,136
Plutus-SG Private Equity Fund	16,012	69	778	499	—	499
SG ARGES Private Equity Fund No.1	18,085	46	—	888	—	888
Eum Private Equity Fund No.3	23,552	5	1,667	1,311	—	1,311
KTB Confidence Private Placement	38,559	21,054	506	256	(3,629)	(3,373)
Meritz AI-SingA330-A Investment Type Private Placement Special Asset Fund	22,739	1	1,451	62	—	62
Meritz AI-SingA330-B Investment Type Private Placement Special Asset Fund	41,809	2	3,027	1,044	—	1,044
VOGO DEBT STRATEGY QUALIFIED INV PRIVATE R/E INV TR 4	24,174	15	3,046	1,165	—	1,165
Platform Partners brick save Private Investment trust	8,286	64	809	763	—	763
Synergy-Shinhan Mezzanine New Technology Investment Fund	21,312	—	553	331	—	331
The Asia Pacific Capital Fund II L.P.	1,674	86	1	(25,828)	—	(25,828)
Shinhan Praxis K-Growth Global Private Equity Fund	87,897	307	31,059	26,381	—	26,381
Credian Healthcare Private Equity Fund II	13,408	47	2,364	2,171	—	2,171
Kiwoom Milestone Professional Private Real Estate Trust 19	57,678	36,839	3,383	422	—	422
AIP EURO GREEN PRIVATE REAL ESTATE TRUST No.3	96,624	86	18,700	6,287	—	6,287
Brain Professional Private Trust No.4	19,113	46	4,306	2,435	—	2,435
Hanhwa US Equity Strategy Private Real Estate Fund No.1	58,575	77	10,098	6,139	—	6,139
Brain KS Qualified Privately Placed Fund No.6	10,089	—	812	477	—	477

(In millions of won)

15. Investments in associates (continued)

Investees	2018 Asset	Liability	Operating revenue	Net profit (loss)	Other comprehensive income (loss)	Total comprehensive income (loss)
Shinhan Global Healthcare Fund 1	₩ 74,409	—	4	(2,757)	—	(2,757)
JB Power TL Investment Type Private Placement Special Asset Fund 7	52,627	174	9,878	2,607	—	2,607
IBK AONE Convertible 1	12,807	307	2,042	1,660	—	1,660
Rico Synergy Collabo Multi-Mezzanine 3	10,736	161	686	529	—	529
KB NA Hickory Private Special Asset Fund	91,694	67	9,601	4,877	—	4,877
GB Professional Private Investment Trust 6	9,088	1	1	(13)	—	(13)
Koramco Europe Core Private Placement Real Estate Fund No.2-2	44,491	2,202	6,470	878	—	878
SHBNPP Private Korea Equity Long-Short Professional Feeder	77,465	10,728	18,729	728	—	728
Shinhan-Stonebridge Petro PEF	1,025,884	807	36,968	33,616	—	33,616
BNP Paribas Cardif General Insurance	51,211	16,986	10,972	(10,264)	196	(10,068)
Axis Global Growth New Technology Investment Association	15,308	—	1	(245)	—	(245)
Polaris No7 Start up and Venture Private Equity Fund	15,193	10	—	(75)	—	(75)
Hermes Private Investment Equity Fund	24,233	8	6	(18,025)	—	(18,025)
Shinhan AIM FoF Fund 1a	17,478	11	3,004	342	—	342
Daishin Heim Qualified Investor Private Investment Trust No.1808	29,770	405	806	741	—	741
Heungkuk High Class Professional Trust Private Fund 37	20,523	1,646	1,045	1,005	—	1,005
IGIS Global Credit Fund 150-1	35,453	27	3,457	214	—	214
GX SHINHAN INTERVEST 1st Private Equity Fund	125,954	—	6	(12,146)	—	(12,146)
Soo Commerce Platform Growth Fund	25,905	3	—	(497)	—	(497)
Partner One Value up I Private Equity Fund	42,776	—	326	(224)	—	(224)
Genesis No.1 Private Equity Fund	201,103	434	—	(1,360)	—	(1,360)
GMB ICT New Technology Investment Fund	29,657	—	3	(242)	—	(242)
Soo Delivery Platform Growth Fund	29,946	2	—	(56)	—	(56)
Genesis North America Power Company No.1 PEF	52,393	223	1	(1,922)	—	(1,922)
SHBNPP MAIN Professional Investment Type Private Mixed Asset Investment Trust No.3	26,826	237	2	(411)	—	(411)

(*) Excluded the associates' financial information that are not subject to recognizing equity method income or loss or financial information is not available.

(In millions of won)

15. Investments in associates (continued)

	2019					
Investees	**Asset**	**Liability**	**Operating revenue**	**Net profit (loss)**	**Other comprehensive income (loss)**	**Total comprehensive income (loss)**
BNP Paribas Cardif Life Insurance	₩3,896,875	3,545,682	37,067	(3,919)	24,402	20,483
Neoplux Technology Valuation Investment Fund	49,890	738	3,953	(2,078)	—	(2,078)
Partners 4th Growth Investment Fund	60,775	1,106	14	(1,904)	—	(1,904)
KTB Newlake Global Healthcare PEF	37,187	151	387	(349)	—	(349)
Daekwang Semiconductor Co., Ltd.	23,507	7,328	1,248	248	9	257
Shinhan-Neoplux Energy Newbiz Fund	33,791	18	26	(1,259)	—	(1,259)
Shinhan-Albatross tech investment Fund	17,681	182	1,263	551	(917)	(366)
KCLAVIS Meister Fund No.17	4,689	96	425	(322)	—	(322)
Plutus-SG Private Equity Fund	16,006	138	700	419	—	419
Eum Private Equity Fund No.3	17,243	27	6,305	5,604	—	5,604
KTB Confidence Private Placement	19,369	64	7,328	3,122	—	3,122
Meritz AI-SingA330-A Investment Type Private Placement Special Asset Fund	17,821	1	1,280	377	—	377
Meritz AI-SingA330-B Investment Type Private Placement Special Asset Fund	44,228	2	3,445	1,217	—	1,217
VOGO Debt Strategy Qualified INV Private R/E INV TR 4	49,683	33	4,198	1,391	—	1,391
Shinhan-Midas Donga Secondary Fund	6,973	1	88	(651)	—	(651)
ShinHan – Soo Young Entrepreneur Investment Fund No.1	18,963	9	1,656	113	—	113
Synergy-Shinhan Mezzanine New Technology Investment Fund	8,266	51	834	535	—	535
Shinhan Praxis K-Growth Global Private Equity Fund	54,786	185	27,588	13,361	—	13,361
Credian Healthcare Private Equity Fund II	7,001	24	1,542	1,031	—	1,031
Kiwoom Milestone Professional Private Real Estate Trust 19	59,559	38,744	3,100	470	—	470
AIP EURO Green Private Real Estate Trust No.3	98,221	86	18,362	7,462	—	7,462
Hanhwa US Equity Strategy Private Real Estate Fund No.1	59,652	1,750	14,838	3,742	—	3,742
Shinhan Global Healthcare Fund 1	73,388	701	5,480	(1,722)	—	(1,722)
JB Power TL Investment Type Private Placement Special Asset Fund 7	50,468	66	15,476	2,487	—	2,487
IBK AONE convertible 1	12,861	—	1,515	410	—	410
Rico synergy collabo Multi-Mezzanine 3	6,433	2	1,296	856	—	856
KB NA Hickory Private Special Asset Fund	96,289	476	16,132	2,489	—	2,489
Koramco Europe Core Private Placement Real Estate Fund No.2-2	46,742	2,304	9,328	5,462	—	5,462

(In millions of won)

15. Investments in associates (continued)

Investees		2019				
	Asset	Liability	Operating revenue	Net profit (loss)	Other comprehensive income (loss)	Total comprehensive income (loss)
Shinhan-Stonebridge Petro PEF	₩ 1,388	1,350	52,928	49,878	—	49,878
BNP Paribas Cardif General Insurance	43,064	21,936	17,613	(12,962)	(136)	(13,098)
Axis Global Growth New Technology Investment Association	10,064	—	1	(244)	—	(244)
Polaris No7 Start up and Venture Private Equity Fund	8,113	52	1,037	928	—	928
Hermes Private Investment Equity Fund	21,954	95	45	(2,366)	—	(2,366)
SHC ULMUS Fund No.1	10,706	—	1,073	881	—	881
Shinhan-Nvestor Liquidity Solution Fund	19,524	—	209	(2,101)	—	(2,101)
Shinhan AIM FoF Fund 1a	28,987	20	5,556	2,111	—	2,111
IGIS Global Credit Fund 150-1	38,912	38	2,674	166	—	166
GX Shinhan Intervest 1st Private Equity Fund	131,237	—	6,689	5,283	—	5,283
Soo Commerce Platform Growth Fund	25,765	3	36	(140)	—	(140)
Partner One Value up I Private Equity Fund	42,602	—	457	(173)	—	(173)
Genesis No.1 Private Equity Fund	224,322	7	23,180	21,872	—	21,872
GMB ICT New Technology Investment Fund	29,359	—	2	(298)	—	(298)
Korea Omega Project Fund III	12,818	—	4,432	4,351	—	4,351
Soo Delivery Platform Growth Fund	29,743	3	675	367	—	367
Genesis North America Power Company No.1 PEF	46,041	281	4,323	3,756	—	3,756
SHBNPP MAIN Professional Investment Type Private Mixed Asset Investment Trust No.3	89,450	687	4,262	1,546	—	1,546
Shinhan-Rhinos 1 Fund	13,474	—	143	129	—	129
Pacific Private Investment Trust No.20	18,764	15	1,247	1,187	—	1,187
Susung Mezzanine project P1 Private Investment Trust	10,023	351	22	(91)	—	(91)
Korea Finance Security	32,079	10,386	64,964	(1,297)	—	(1,297)
AIP Transportation Specialized Privately Placed Fund Trust #1	94,437	6,042	12,473	1,242	—	1,242
Lime Neptune Professional Private 6	10,166	41	460	125	—	125
PCC S/W 2nd Fund	10,154	—	151	4	—	4
E&Healthcare Investment Fund No.6	38,181	2	4,405	3,664	—	3,664
One Shinhan Global Fund 1	22,244	—	92	(406)	—	(406)
Kiwoom-Shinhan Innovation Fund I	14,719	151	13	(432)	—	(432)
Daishin-K&T New Technology Investment Fund	55,686	33,103	1,292	183	—	183
Midas Asset Global CRE Debt Private Fund No.6	118,438	70	3,907	2,677	—	2,677

(In millions of won)

15. Investments in associates (continued)

	2019					
Investees	**Asset**	**Liability**	**Operating revenue**	**Net profit (loss)**	**Other comprehensive income (loss)**	**Total comprehensive income (loss)**
Richmond Private Investment Trust No.82	₩ 50,079	24,879	1,155	919	—	919
Tiger Alternative Real Estate Professional Private5	40,792	103	1,628	(116)	—	(116)
Samchully Midstream Private Placement Special Asset Fund 5-4	71,680	55	14,423	3,015	—	3,015
SHBNPP Senior Loan Professional Investment Type Private Mixed Asset Investment Trust No.3	269,203	48	8,854	8,289	—	8,289
AUCTUS FITRIN Corporate Recovery Private Equity Fund	67,222	218	1,187	449	—	449
NH-Amundi Global Infrastructure Trust 14	61,696	39	7,404	2,427	—	2,427
Pacific Private Real Estate Fund Investment Trust No.30	39,779	270	1,817	1,547	—	1,547
Jarvis Memorial Private Investment Trust 1	10,279	12	293	281	—	281
Mastern Private Investment Trust 68	18,600	2	533	437	—	437
Vestas Qualified Investors Private Real Estate Fund Investment Trust No.37	7,336	7	214	(61)	—	(61)
Milestone Private Real Estate Fund 3 (Derivative Type)	53,610	3	603	532	—	532
IGIS Private Real Estate Investment Trust 286 (2 class)	75,372	51,870	2,838	(798)	—	(798)
Nomura-Rifa Private Real Estate Investment Trust 31 (2 class)	99,976	71,507	2,383	(331)	—	(331)
Lime Pricing Private Equity Fund	32,231	118	10	(388)	—	(388)
SHBNPP Senior Loan Professional Investment Type Private Mixed Asset Investment Trust No.2	197,536	119	12,963	12,296	—	12,296
DS Solid.II Hedge Fund	15,042	—	4	(605)	—	(605)
Hana Semiconductor New Technology Fund	52,905	—	73	(595)	—	(595)
J&Magnet Startup Venture Specialized Private Equity Fund	24,513	—	—	(87)	—	(87)
Cape IT Fund No.3	30,333	35	—	(101)	—	(101)
Vogo Realty Partners Private Real Estate Fund V	47,992	34	281	(1,084)	—	(1,084)
Korea Credit Bureau	95,764	20,075	66,314	10,604	—	10,604
SBC PFV Co., Ltd	120,000	40,000	—	—	—	—
Sprott Global Renewable Private Equity Fund II	82,721	3	1,416	(4,833)	—	(4,833)

(In millions of won)

15. Investments in associates (continued)

	2019					
Investees	**Asset**	**Liability**	**Operating revenue**	**Net profit (loss)**	**Other comprehensive income (loss)**	**Total comprehensive income (loss)**
NH-amundi global infra private fund 16	₩ 100,513	4,197	4,128	(2,744)	—	(2,744)
IMM Global Private Equity Fund	90,870	63	—	(63)	—	(63)
HANA Alternative Estate Professional Private122	34,897	45	1,561	(3,035)	—	(3,035)
Hanwha-Incus Plus New Technology Fund No.1	12,900	1	—	(1)	—	(1)
SHBNPP Corporate Professional Investment Type Private Security Investment Trust No.7[Bond]	127,339	15,732	—	—	—	—
SHBNPP BNCT Professional Investment Type Private Special Asset Investment Trust	402,633	141,200	10,036	7,256	—	7,256
PSA EMP Private Equity Fund	34,535	285	1	(250)	—	(250)
Deutsche Global Professional Investment Type Private Real Estate Investment Trust No. 24	57,088	728	2,735	2,198	—	2,198
SHBNPP Peace of Mind TDF 2035 Security Investment Trust [Equity Balanced-FoF]	22,926	641	—	—	—	—
SHBNPP Peace of Mind TDF 2040 Security Investment Trust [Equity Balanced-FoF]	23,865	1,329	—	—	—	—
BRAIN DO PROFESSIONALE PRIVATE No. 27	10,305	10	58	(5)	—	(5)
VISION US Muni US Local Debt Opportunities Professional Private1(S)	39,175	80	1,440	1,088	—	1,088

(*) Excluded the associates' financial information that are not subject to recognizing equity method income or loss or financial information is not available.

(In millions of won)

15. Investments in associates (continued)

(d) Reconciliation of the financial information to the carrying values of its interests in the associates as of December 31, 2018 and 2019 are as follows:

	2018					
Investees	Net assets (a)	Ownership (%) (b)	Interests in the net assets (a)*(b)	Intra-group transactions	Other	Carrying Value
BNP Paribas Cardif Life Insurance	₩ 333,179	14.99	49,952	(136)	—	49,816
Daewontos Co., Ltd. (*1)	(2,092)	36.33	(760)	—	760	—
Songrim Partners (*1)	(23)	35.34	(8)	—	8	—
Neoplux Technology Valuation Investment Fund	56,214	33.33	18,738	—	—	18,738
Partners 4th Growth Investment Fund	66,449	25.00	16,612	—	—	16,612
JAEYANG INDUSTRY(*2)	(2,571)	25.90	(666)	—	666	—
KTB Newlake Global Healthcare PEF (*2)	32,385	30.00	9,715	—	170	9,885
DAEKWANG SEMICONDUCTOR CO., LTD.	15,922	20.94	3,334	—	—	3,334
Shinhan-Neoplux Energy Newbiz Fund	17,032	23.33	3,974	—	—	3,974
Shinhan-Albatross Tech Investment Fund	17,827	50.00	8,908	—	—	8,908
KCLAVIS Meister Fund No.17	11,819	26.09	3,083	—	—	3,083
SG No.9 Corporate Recovery Private Equity Fund	5,385	26.49	1,427	—	—	1,427
Plutus-SG Private Equity Fund	15,943	26.67	4,252	—	—	4,252
SG ARGES Private Equity Fund No.1	18,039	24.06	4,341	—	—	4,341
Eum Private Equity Fund No.3	23,547	20.76	4,889	—	—	4,889
KTB Confidence Private Placement	17,505	30.29	5,302	—	—	5,302
Meritz AI-SingA330-A Investment Type Private Placement Special Asset Fund	22,738	23.89	5,432	—	—	5,432
Meritz AI-SingA330-B Investment Type Private Placement Special Asset Fund	41,807	20.16	8,429	—	—	8,429
VOGO DEBT STRATEGY QUALIFIED INV PRIVATE R/E INV TR 4	24,159	20.00	4,831	—	—	4,831
Platform Partners brick save Private Investment trust	8,222	98.77	8,120	—	—	8,120
Synergy-Shinhan Mezzanine New Technology Investment Fund	21,312	47.62	10,149	—	—	10,149
The Asia Pacific Capital Fund II L.P.	1,588	25.18	400	—	—	400
Shinhan Praxis K-Growth Global Private Equity Fund	87,590	18.87	16,527	—	—	16,527
Credian Healthcare Private Equity Fund II	13,361	34.07	4,553	—	—	4,553
Kiwoom Milestone Professional Private Real Estate Trust 19	20,839	50.00	10,419	—	—	10,419
AIP EURO GREEN PRIVATE REAL ESTATE TRUST No.3	96,538	21.28	20,544	—	—	20,544
Brain Professional Private Trust No.4	19,067	27.50	5,244	—	—	5,244
Hanhwa US Equity Strategy Private Real Estate Fund No.1	58,498	44.84	26,232	—	—	26,232
Brain KS Qualified Privately Placed Fund No.6	10,089	50.00	5,097	—	—	5,097
Shinhan Global Healthcare Fund 1	₩ 74,409	4.41	3,285	—	—	3,285

(In millions of won)

15. Investments in associates (continued)

Investees	2018 Net assets (a)	Ownership (%) (b)	Interests in the net assets (a)*(b)	Intra-group transactions	Other	Carrying Value
JB Power TL Investment Type Private Placement Special Asset Fund 7	₩ 52,453	33.33	17,484	—	—	17,484
IBK AONE Convertible 1	12,500	47.25	5,906	—	—	5,906
Rico Synergy Collabo Multi-Mezzanine 3	10,575	50.03	5,290	—	—	5,290
KB NA Hickory Private Special Asset Fund	91,627	37.50	34,360	—	—	34,360
GB Professional Private Investment Trust 6	9,087	94.51	8,588	—	—	8,588
Koramco Europe Core Private Placement Real Estate Fund No.2-2	42,289	44.02	18,616	—	—	18,616
SHBNPP Private Korea Equity Long-Short Professional Feeder	66,737	21.52	14,370	—	—	14,370
Shinhan-Stonebridge Petro PEF	1,025,077	1.82	18,681	—	—	18,681
BNP Paribas Cardif General Insurance	34,225	10.00	3,423	—	—	3,423
Axis Global Growth New Technology Investment Association	15,308	31.85	4,875	—	—	4,875
Polaris No7 Start up and Venture Private Equity Fund	15,183	28.57	4,338	—	—	4,338
Hermes Private Investment Equity Fund	24,225	29.17	7,065	—	—	7,065
Shinhan AIM FoF Fund 1a	17,467	24.91	4,351	—	—	4,351
Daishin Heim Qualified Investor Private Investment Trust No.1808	29,365	34.48	10,126	—	—	10,126
Heungkuk High Class Professional Trust Private Fund 37	18,877	50.00	9,438	—	—	9,438
IGIS Global Credit Fund 150-1	35,426	25.11	8,896	—	—	8,896
GX SHINHAN INTERVEST 1st Private Equity Fund	125,954	25.27	31,831	—	—	31,831
Soo Commerce Platform Growth Fund	25,902	24.62	6,378	—	—	6,378
Partner One Value up I Private Equity Fund	42,776	27.91	11,939	—	—	11,939
Genesis No.1 Private Equity Fund	200,669	22.80	45,758	—	—	45,758
GMB ICT New Technology Investment Fund	29,657	26.75	7,934	—	—	7,934
Soo Delivery Platform Growth Fund	29,944	30.00	8,983	—	—	8,983
Genesis North America Power Company No.1 PEF	52,170	39.92	20,824	—	—	20,824
SHBNPP MAIN Professional Investment Type Private Mixed Asset Investment Trust No.3	26,589	23.33	6,204	—	—	6,204
Others	315,179	—	91,483	—	366	91,849
	₩3,476,038	—	669,496	(136)	1,970	671,330

(*1) Other adjustments represent the unrecognized equity method losses because the Group has stopped recognizing its equity method losses as the balance of the investment has been reduced to zero.

(*2) Other on this investee represents the cumulative losses as the Group has stopped the equity method, and its carrying value becomes zero due to the adjustment for the difference between the cost of the investment and the Group's interests in the net carrying value of the investee's assets and liabilities at the investment date.

(*3) Other represents the adjustments of fair value when acquired.

(In millions of won)

15. Investments in associates (continued)

Investees	2019					
	Net assets (a)	Ownership (%) (b)	Interests in the net assets (a)*(b)	Intra-group transactions	Other	Carrying Value
BNP Paribas Cardif Life Insurance	₩ 351,193	14.99	52,665	(79)	—	52,586
Songrim Partners. (*1)	(62)	35.34	(22)	—	22	—
Neoplux Technology Valuation Investment Fund	49,152	33.33	16,384	—	—	16,384
Partners 4th Growth Investment Fund	59,669	25.00	14,917	—	—	14,917
KTB Newlake Global Healthcare PEF (*2)	37,036	30.00	11,110	—	170	11,280
Daekwang Semiconductor Co., Ltd.	16,179	20.94	3,388	—	—	3,388
Shinhan-Neoplux Energy Newbiz Fund	33,773	23.33	7,880	—	—	7,880
Shinhan-Albatross tech investment Fund	17,499	50.00	8,734	—	—	8,734
KCLAVIS Meister Fund No.17	4,593	26.09	1,198	—	—	1,198
Plutus-SG Private Equity Fund	15,868	26.67	4,231	—	—	4,231
Eum Private Equity Fund No.3	17,216	20.76	3,574	—	—	3,574
KTB Confidence Private Placement	19,305	31.43	6,067	—	—	6,067
Meritz AI-SingA330-A Investment Type Private Placement Special Asset Fund	17,820	23.89	4,256	—	—	4,256
Meritz AI-SingA330-B Investment Type Private Placement Special Asset Fund	44,226	20.16	8,916	—	—	8,916
VOGO Debt Strategy Qualified INV Private R/E INV TR 4	49,650	20.00	9,930	—	—	9,930
Shinhan-Midas Donga Secondary Fund	6,972	50.00	3,486	—	—	3,486
ShinHan – Soo Young Entrepreneur Investment Fund No.1	18,954	24.00	4,549	—	—	4,549
Synergy-Shinhan Mezzanine New Technology Investment Fund	8,215	47.62	3,912	—	—	3,912
Shinhan Praxis K-Growth Global Private Equity Fund	54,601	18.87	10,302	—	—	10,302
Credian Healthcare Private Equity Fund II	6,977	34.07	2,377	—	—	2,377
Kiwoom Milestone Professional Private Real Estate Trust 19	20,816	50.00	10,407	—	—	10,407
AIP EURO Green Private Real Estate Trust No.3	98,135	21.28	20,884	—	—	20,884
Hanhwa US Equity Strategy Private Real Estate Fund No.1	57,901	44.84	25,964	—	—	25,964
Shinhan Global Healthcare Fund 1	72,687	4.41	3,209	—	—	3,209
JB Power TL Investment Type Private Placement Special Asset Fund 7	50,402	33.33	16,800	—	—	16,800
IBK AONE convertible 1	12,861	47.25	6,077	—	—	6,077
Rico synergy collabo Multi-Mezzanine 3	6,431	50.03	3,217	—	—	3,217
KB NA Hickory Private Special Asset Fund	95,813	37.50	35,930	—	—	35,930
Koramco Europe Core Private Placement Real Estate Fund No.2-2	44,438	44.02	19,562	—	—	19,562
Shinhan-Stonebridge Petro PEF	₩ 38	1.82	1	—	—	1

(In millions of won)

15. Investments in associates (continued)

Investees	2019						
		Net assets (a)	Ownership (%) (b)	Interests in the net assets (a)*(b)	Intra-group transactions	Other	Carrying Value
BNP Paribas Cardif General Insurance	₩	21,128	10.00	2,113	—	—	2,113
Axis Global Growth New Technology Investment Association		10,064	31.85	3,205	—	—	3,205
Polaris No7 Start up and Venture Private Equity Fund		8,061	28.57	2,303	—	—	2,303
Hermes Private Investment Equity Fund		21,859	29.17	6,376	—	—	6,376
SHC ULMUS Fund No.1		10,706	29.41	3,149	—	—	3,149
Shinhan-Nvestor Liquidity Solution Fund		19,524	24.92	4,865	—	—	4,865
Shinhan AIM FoF Fund 1a		28,967	25.00	7,242	—	—	7,242
IGIS Global Credit Fund 150-1		38,874	25.00	9,718	—	—	9,718
GX Shinhan Intervest 1st Private Equity Fund		131,237	25.27	33,166	—	—	33,166
Soo Commerce Platform Growth Fund		25,762	24.62	6,343	—	—	6,343
Partner One Value up I Private Equity Fund		42,602	27.91	11,891	—	—	11,891
Genesis No.1 Private Equity Fund		224,315	22.80	51,150	—	—	51,150
GMB ICT New Technology Investment Fund		29,359	26.75	7,854	—	—	7,854
Korea Omega Project Fund III		12,818	23.53	3,016	—	—	3,016
Soo Delivery Platform Growth Fund		29,740	30.00	8,922	—	—	8,922
Genesis North America Power Company No.1 PEF		45,759	39.92	18,275	—	—	18,275
Hyungje art printing (*1)		(264)	31.54	(83)	—	83	—
SHBNPP MAIN Professional Investment Type Private Mixed Asset Investment Trust No.3		88,763	23.33	20,712	—	—	20,712
Shinhan-Rhinos 1 Fund		13,474	22.48	3,029	—	—	3,029
Pacific Private Investment Trust No.20		18,749	21.74	4,076	—	—	4,076
Susung Mezzanine project P1 Private Investment Trust		9,672	41.18	5,128	—	—	5,128
Korea Finance Security		21,693	14.91	3,235	—	—	3,235
MIEL CO.,LTD (*1)		(119)	28.77	(34)	—	34	—
AIP Transportation Specialized Privately Placed Fund Trust #1		88,395	35.73	31,580	—	—	31,580
Lime Neptune Professional Private 6		10,125	50.00	5,063	—	—	5,063
PCC S/W 2nd Fund		10,154	29.56	3,001	—	—	3,001
E&Healthcare Investment Fund No.6		38,179	20.37	7,776	—	—	7,776
One Shinhan Global Fund 1		22,244	19.98	4,441	—	—	4,441
Kiwoom-Shinhan Innovation Fund I		14,568	50.00	7,284	—	—	7,284
Daishin-K&T New Technology Investment Fund		22,583	31.25	7,057	—	—	7,057
Midas Asset Global CRE Debt Private Fund No.6		118,368	20.05	23,731	—	—	23,731
Richmond Private Investment Trust No.82		25,200	60.00	15,120	—	—	15,120
Tiger Alternative Real Estate Professional Private5	₩	40,689	48.71	19,820	—	—	19,820

(In millions of won)

15. Investments in associates (continued)

Investees	2019					
	Net assets (a)	Ownership (%) (b)	Interests in the net assets (a)*(b)	Intra-group transactions	Other	Carrying Value
Samchully Midstream Private Placement Special Asset Fund 5-4	₩ 71,625	42.92	30,742	—	—	30,742
SHBNPP Senior Loan Professional Investment Type Private Mixed Asset Investment Trust No.3	269,155	20.00	53,831	—	—	53,831
AUCTUS FITRIN Corporate Recovery Private Equity Fund	67,004	21.43	14,358	—	—	14,358
NH-Amundi Global Infrastructure Trust 14	61,657	30.00	18,497	—	—	18,497
Pacific Private Real Estate Fund Investment Trust No.30	39,509	37.50	14,816	—	—	14,816
Jarvis Memorial Private Investment Trust 1	10,267	99.01	10,166	—	—	10,166
Mastern Private Investment Trust 68	18,598	53.76	9,999	—	—	9,999
Vestas Qualified Investors Private Real Estate Fund Investment Trust No.37	7,329	60.00	4,397	—	—	4,397
Milestone Private Real Estate Fund 3 (Derivative Type)	53,608	32.06	17,186	—	—	17,186
IGIS Private Real Estate Investment Trust 286 (2 class)	23,502	41.56	9,768	—	—	9,768
Nomura-Rifa Private Real Estate Investment Trust 31 (2 class)	28,469	31.31	8,914	—	—	8,914
Lime Pricing Private Equity Fund	32,113	25.85	8,300	—	—	8,300
SHBNPP Senior Loan Professional Investment Type Private Mixed Asset Investment Trust No.2	197,417	21.27	41,991	—	—	41,991
DS Solid.II Hedge Fund	15,042	27.41	4,123	—	—	4,123
Hana Semiconductor New Technology Fund	52,905	24.30	12,856	—	—	12,856
J&Magnet Startup Venture Specialized Private Equity Fund	24,513	24.39	5,979	—	—	5,979
Cape IT Fund No.3	30,298	32.89	9,967	—	—	9,967
Vogo Realty Partners Private Real Estate Fund V	47,958	21.64	10,376	—	—	10,376
IL GU FARM CO.,LTD (*1)	(316)	28.47	(90)	—	90	—
Korea Credit Bureau	75,689	9.00	6,812	—	—	6,812
SBC PFV Co., Ltd	80,000	25.00	20,000	—	—	20,000
Sprott Global Renewable Private Equity Fund II	82,718	23.10	19,016	—	—	19,016
NH-amundi global infra private fund 16	96,316	50.00	48,158	—	—	48,158
IMM Global Private Equity Fund	90,807	31.85	28,925	—	—	28,925
HANA Alternative Estate Professional Private122	34,853	75.19	26,205	—	—	26,205
Hanwha-Incus Plus New Technology Fund No.1	12,899	42.64	5,499	—	—	5,499
SHBNPP Corporate Professional Investment Type Private Security Investment Trust No.7[Bond]	₩ 111,607	45.96	51,293	—	—	51,293

(In millions of won)

15. Investments in associates (continued)

Investees	2019 Net assets (a)	Ownership (%) (b)	Interests in the net assets (a)*(b)	Intra-group transactions	Other	Carrying Value
SHBNPP BNCT Professional Investment Type Private Special Asset Investment Trust	₩ 261,433	57.50	150,317	—	—	150,317
PSA EMP Private Equity Fund	34,250	28.99	9,927	—	—	9,927
Deutsche Global Professional Investment Type Private Real Estate Investment Trust No. 24	56,360	52.28	29,463	—	—	29,463
SHBNPP Peace of Mind TDF 2035 Security Investment Trust [Equity Balanced-FoF]	22,285	25.70	5,727	—	—	5,727
SHBNPP Peace of Mind TDF 2040 Security Investment Trust [Equity Balanced-FoF]	22,536	25.42	5,729	—	—	5,729
BRAIN DO PROFESSIONALE PRIVATE No. 27	10,295	29.13	3,065	—	—	3,065
VISION US Muni US Local Debt Opportunities Professional Private1(S)	39,095	25.00	9,869	—	—	9,869
Other	337,794	—	85,931	—	—	85,931
	₩4,951,196	—	1,452,541	(79)	399	1,452,861

(*1) Other adjustments represent the unrecognized equity method losses because the Group has stopped recognizing its equity method losses as the balance of the investment has been reduced to zero.
(*2) Other represents the adjustments of fair value when acquired.
(*3) Other represents the amount of preferred stock capital.

(e) The unrecognized equity method losses as of and for the years ended December 31, 2018 and 2019 are as follows:

Investees	2018 Unrecognized equity method losses	Cumulative unrecognized equity method losses
Daewontos Co., Ltd. (*)	₩—	(760)
JAEYANG INDUSTRY (*)	—	(18)
Songlim Partners.	(8)	(8)
Hyungje art printing	(38)	(38)
	₩ (46)	(824)

(In millions of won)

15. Investments in associates (continued)

	2019	
Investees	**Unrecognized equity method losses**	**Cumulative unrecognized equity method losses**
Songrim Partners.	₩ (14)	(22)
Hyungje art printing	(45)	(83)
MIEL CO.,LTD	(34)	(34)
IL GU FARM CO.,LTD	(90)	(90)
	₩(183)	(229)

(*) Since the Group has disposed the investees fully or partially, the investees were excluded from the investments in associates.

16. Investment properties

(a) Investment properties as of December 31, 2018 and 2019 are as follows:

	2018	2019
Acquisition cost	₩ 579,852	605,773
Accumulated depreciation	(105,032)	(117,163)
Carrying value	₩ 474,820	488,610

(b) Changes in investment properties for the years ended December 31, 2018 and 2019 are as follows:

	2018	2019
Beginning balance	₩418,303	474,820
Acquisitions	115,333	2,767
Disposals	(13,608)	(73,588)
Depreciation	(16,917)	(17,565)
Amounts transferred from (to) property and equipment	(28,199)	104,573
Amounts transferred to assets held for sale (*)	—	(15,795)
Foreign currency adjustment	(92)	(169)
Business combination (Note 50)	—	13,567
Ending balance	₩474,820	488,610

(*) Comprise land and buildings, etc.

(c) Income and expenses on investment property for the years ended December 31, 2017, 2018 and 2019 are as follows:

	2017	2018	2019
Rental income	₩33,023	32,488	43,777
Direct operating expenses for investment properties that generated rental income	10,998	12,191	12,107

(In millions of won)

16. Investment properties (continued)

(d) The fair value of investment property as of December 31, 2018 and 2019 is as follows:

	2018	2019
Land and buildings (*)	₩1,121,985	1,062,195

(*) Fair value of investment properties is estimated based on the recent market transactions and certain significant unobservable inputs. Accordingly, fair value of investment properties is classified as level 3.

17. Other assets

Other assets as of December 31, 2018 and 2019 are as follows:

	2018	2019
Accounts receivable	₩7,666,217	9,355,388
Domestic exchange settlement debit	6,121,332	4,337,628
Guarantee deposits	1,152,434	1,184,572
Present value discount on guarantee deposits	(44,694)	(45,316)
Accrued income	1,896,822	2,612,823
Prepaid expense	194,040	193,849
Suspense payments	73,153	71,764
Sundry assets	92,221	93,766
Separate account assets	2,650,302	8,253,351
Advance payments	616,996	317,365
Unamortized deferred acquisition cost	786,134	907,868
Other	423,759	661,998
Allowances for credit loss of other assets	(56,798)	(66,775)
	₩21,571,918	27,878,281

18. Leases

(a) Finance lease receivables of the Group as lessor as of December 31, 2018 and 2019 are as follows:

	2018		
	Gross investment	Unearned finance income	Present value of minimum lease payment
Not later than 1 year	₩ 595,427	85,333	510,094
1 ~ 5 years	1,306,571	106,333	1,200,238
Later than 5 years	16,529	38	16,491
	₩1,918,527	191,704	1,726,823

(In millions of won)

18. Leases (continued)

	2019		
	Gross investment	Unearned finance income	Present value of minimum lease payment
Not later than 1 year	₩ 529,326	94,809	434,517
1 ~ 2 years	443,708	63,226	380,482
2 ~ 3 years	469,754	37,725	432,029
3 ~ 4 years	289,798	16,773	273,025
4 ~ 5 years	150,811	4,225	146,586
Later than 5 years	16,782	44	16,738
	₩1,900,179	216,802	1,683,377

(*) Interest income on finance lease receivables recognized during the year is ₩74,933 million.

(b) The scheduled maturities of minimum lease payments for operating leases of the Group as lessor as of December 31, 2018 and 2019 are as follows:

i) Finance lease

	2018		
	Minimum lease payment	Present value adjustment	Present value of minimum lease payment
Not later than 1 year	₩ 595,427	85,333	510,094
1 ~ 5 years	1,306,571	106,333	1,200,238
Later than 5 years	16,529	38	16,491
	₩1,918,527	191,704	1,726,823

	2019		
	Minimum lease payment	Present value adjustment	Present value of minimum lease payment
Not later than 1 year	₩ 529,326	94,809	434,517
1 ~ 2 years	443,708	63,226	380,482
2 ~ 3 years	469,754	37,725	432,029
3 ~ 4 years	289,798	16,773	273,025
4 ~ 5 years	150,811	4,225	146,586
Later than 5 years	16,782	44	16,738
	₩1,900,179	216,802	1,683,377

(In millions of won)

18. Leases (continued)

ii) Operating lease

	2018
	Minimum lease payment
Not later than 1 year	₩ 94,540
1 ~ 5 years	180,304
Later than 5 years	10
	₩274,854

	2019
	Minimum lease payment
Not later than 1 year	₩142,140
1 ~ 2 years	118,781
2 ~ 3 years	76,379
3 ~ 4 years	37,047
4 ~ 5 years	14,984
Later than 5 years	83
	₩389,414

(c) The details of the changes in operating lease assets for the year ended December 31, 2019 are as follows:

	2019
Beginning balance	₩ 370,868
Acquisition	411,971
Disposition	(134,810)
Depreciation	(98,288)
Ending balance	₩ 549,741

(d) The details of the right-of-use assets by the lessee's underlying asset type as of December 31, 2019 are as follows:

	2019		
	Acquisition cost	Accumulated depreciation	Carrying value
Real estate	₩1,306,759	(228,956)	1,077,803
Vehicle	30,051	(8,057)	21,994
Others	20,396	(7,397)	12,999
	₩1,357,206	(244,410)	1,112,796

(In millions of won)

18. Leases (continued)

(e) The details of the changes in the right-of-use assets for the year ended December 31, 2019 are as follows:

	2019			
	Real estate	Vehicle	Others	Total
Beginning balance	₩ 554,478	16,528	12,570	583,576
Acquisitions	781,097	16,523	8,163	805,783
Disposals	(10,808)	(1,638)	(149)	(12,595)
Depreciation	(280,691)	(10,094)	(7,753)	(298,538)
Effects of foreign currency movements	2,890	91	—	2,981
Business combination (Note 50)	30,837	584	168	31,589
Ending balance	₩1,077,803	21,994	12,999	1,112,796

(f) The details of the maturity of the lease liability as of December 31, 2019 are as follows:

	2019						
	1 month or less	1 month ~ 3 months or less	3 months ~ 6 months or less	6 months ~ 1 year or less	1 year ~ 5 years or less	More than 5 years	Total
Real estate	₩20,967	34,357	47,644	86,228	848,699	28,973	1,066,868
Vehicle	1,378	1,542	2,178	4,108	14,410	—	23,616
Others	959	994	1,288	2,057	8,477	—	13,775
	₩23,304	36,893	51,110	92,393	871,586	28,973	1,104,259

(*) The above amounts are based on undiscounted cash flows, and have been classified at the earliest maturity that the Group has the obligation to pay.

(g) The lease payments for low-value assets and short-term leases for the year ended December 31, 2019 are as follows:

	2019
Low-value assets	₩5,045
Short-term lease (*)	907
Total	₩5,952

(*) The payments less than 1 month are included.

(In millions of won)

19. Pledged assets

(a) Assets pledged as collateral as of December 31, 2018 and 2019 are as follows:

	2018	2019
Loans		
Loans at amortized cost	₩ 129,210	128,163
Securities		
Securities at FVTPL	11,533,107	15,016,057
Securities at FVOCI	1,372,746	2,387,555
Securities at amortized cost	10,670,253	12,791,744
	23,576,106	30,195,356
Deposits		
Deposits at amortized cost	1,481,085	1,090,161
Property and Equipment (real estate)	154,490	121,446
Other financial assets	—	404
	₩25,340,891	31,535,530

The carrying amounts of assets pledged that the pledgees have the right to sell or re-pledge regardless of the Group's default as of December 31, 2018 and 2019 are ₩8,026,332 million and ₩9,696,487 million, respectively.

(b) The fair value of collateral held that the Group has the right to sell or re-pledge regardless of pledger's default as of December 31, 2018 and 2019 are as follows:

	2018	
	Collateral held	
	Assets pledged as collateral	Assets received as collateral
Securities	₩7,342,239	5,190,387

	2019	
	Collateral held	
	Assets pledged as collateral	Assets received as collateral
Securities	₩9,240,573	2,007,036

(In millions of won)

20. Deposits

Deposits as of December 31, 2018 and 2019 are as follows:

	2018	2019
Demand deposits:		
Korean won	₩ 94,210,806	103,048,895
Foreign currencies	11,950,027	13,233,812
	106,160,833	116,282,707
Time deposits:		
Korean won	123,572,793	139,824,896
Foreign currencies	16,071,970	18,602,551
	139,644,763	158,427,447
Negotiable certificates of deposits	9,247,088	9,707,791
Note discount deposits	4,087,530	4,579,587
CMA	4,084,709	3,987,372
Others	1,775,267	1,889,352
	₩265,000,190	294,874,256

21. Financial liabilities at fair value through profit or loss

Financial liabilities at fair value through profit or loss as of December 31, 2018 and 2019 are as follows:

	2018	2019
Securities sold:		
Stocks	₩ 488,873	298,008
Bonds	440,382	825,942
Others	32,117	40,747
	961,372	1,164,697
Gold deposits	458,934	467,760
	₩1,420,306	1,632,457

22. Financial liabilities designated at fair value through profit or loss

Financial liabilities designated at fair value through profit or loss as of December 31, 2018 and 2019 are as follows:

	2018	2019	Reason for designation
Equity-linked securities sold	₩6,439,292	6,880,811	Combined instrument
Securities sold with embedded derivatives	2,096,508	2,528,645	Combined instrument
	₩8,535,800	9,409,456	

(*) The Group designated the financial liabilities at the initial recognition (or subsequently) in accordance with paragraph 6.7.1 of IFRS 9 as financial liabilities at fair value through profit or loss.

(In millions of won)

22. Financial liabilities designated at fair value through profit or loss (continued)

Maximum credit risk exposure of the financial liabilities designated at fair value through profit or loss amounts to ₩9,409,456 million as of December 31, 2019. Decrease in values of the liability due to credit risk changes are ₩11,621 million for the year ended December 31, 2019 and the accumulated changes in values are ₩(-)11,386 million as of December 31, 2019.

23. Borrowings

Borrowings as of December 31, 2018 and 2019 are as follows:

	2018		2019	
	Interest rate (%)	Amount	Interest rate (%)	Amount
Call money	0.00~6.85	₩ 1,425,162	0.00~ 5.25	₩ 712,247
Bill sold	0.75~1.70	14,536	0.80~ 1.60	19,070
Bonds sold under repurchase agreements:	0.50~6.50	7,614,659	0.95~ 5.40	9,089,736
Borrowings in Korean won:				
Borrowings from Bank of Korea	0.50~0.75	2,329,946	0.50~0.75	2,429,346
Others	0.00~4.25	12,108,741	0.00~6.00	14,202,096
		14,438,687		16,631,442
Borrowings in foreign currencies:				
Overdraft due to banks	0.00	77,673	0.00	86,791
Borrowings from banks	0.00~12.00	4,653,055	0.11~7.50	6,576,849
Others	2.60~7.90	1,596,626	1.94~13.65	1,748,031
		6,327,354		8,411,671
Deferred origination costs		(1,856)		(1,010)
		₩29,818,542		₩34,863,156

(In millions of won)

24. Debt securities issued

Debt securities issued as of December 31, 2018 and 2019 were as follows:

	2018		2019	
	Interest rate (%)	Amount	Interest rate (%)	Amount
Debt securities issued in Korean won:				
Debt securities issued	0.00~8.00	₩50,661,472	0.71~8.00	₩60,501,093
Subordinated debt securities issued	2.20~4.60	4,400,145	2.20~4.60	4,370,145
Loss on fair value hedges		(206,985)		(87,692)
Discount on debt securities issued		(84,962)		(66,334)
		54,769,670		64,717,212
Debt securities issued in foreign currencies:				
Debt securities issued	0.20~4.01	6,278,680	0.01~7.59	6,750,085
Subordinated debt securities issued	3.75~5.00	2,271,799	3.34~5.10	3,797,536
Gain (Loss) on fair value hedges		(55,251)		141,264
Discount on debt securities issued		(37,199)		(42,733)
		8,458,029		10,646,152
		₩63,227,699		₩75,363,364

25. Employee benefits

(a) Defined benefit obligations and plan assets

Defined benefit obligations and plan assets as of December 31, 2018 and 2019 are as follows:

	2018	2019
Present value of defined benefit obligations	₩ 1,841,982	2,063,102
Fair value of plan assets	(1,714,634)	(1,943,644)
Recognized liabilities for defined benefit obligations (*)	₩ 127,348	119,458

(*) The net defined benefit liability of ₩119,458 million as of December 31, 2019 is the net defined benefit liability of ₩121,140 million less the net plan assets of ₩1,682 million.

(In millions of won)

25. Employee benefits (continued)

(b) Changes in the present value of defined benefit obligation and plan assets for the years ended December 31, 2018 and 2019 are as follows:

	2018		
	Defined benefit obligation	Plan assets	Net defined benefit liability
Beginning balance	₩1,695,191	(1,688,047)	7,144
Included in profit or loss:			
Current service cost	144,923	—	144,923
Past service cost	54	—	54
Interest expense (income)	59,836	(66,676)	(6,840)
	204,813	(66,676)	138,137
Included in other comprehensive income:			
Remeasurement loss (gain):			
- Actuarial gains (losses) arising from :			
Demographic assumptions	18,399	—	18,399
Financial assumptions	79,038	—	79,038
Experience adjustment	(10,762)	—	(10,762)
- Return on plan assets excluding interest income	—	41,701	41,701
	86,675	41,701	128,376
Other:			
Benefits paid by the plan	(142,938)	137,335	(5,603)
Contributions paid into the plan	—	(139,348)	(139,348)
Settlement gain or loss	407	—	407
Effect of movements in exchange rates	(1,273)	—	(1,273)
Others (*2)	(893)	401	(492)
	(144,697)	(1,612)	(146,309)
Ending balance	₩1,841,982	(1,714,634)	127,348

(*1) Profit or loss arising from defined benefit plans is included in general and administrative expenses.
(*2) Others represent the change amounts due to the conversion to defined contribution.

(In millions of won)

25. Employee benefits (continued)

	2019		
	Defined benefit obligation	Plan assets	Net defined benefit liability
Beginning balance	₩1,841,982	(1,714,634)	127,348
Included in profit or loss:			
Current service cost	172,490	—	172,490
Past service cost	(1,588)	—	(1,588)
Interest expense (income)	57,253	(54,336)	2,917
Settlement expense (income)	(29)	—	(29)
	228,126	(54,336)	173,790
Included in other comprehensive income:			
Remeasurement loss (gain):			
- Actuarial gains (losses) arising from :			
Demographic assumptions	(7,584)	—	(7,584)
Financial assumptions	53,475	—	53,475
Experience adjustment	8,001	—	8,001
- Return on plan assets excluding interest income	—	21,719	21,719
	53,892	21,719	75,611
Other:			
Benefits paid by the plan	(87,066)	80,063	(7,003)
Contributions paid into the plan	—	(252,858)	(252,858)
Settlement gain or loss	216	—	216
Business combination (Note 50)	25,965	(23,598)	2,367
Effect of movements in exchange rates	(13)	—	(13)
	(60,898)	(196,393)	(257,291)
Ending balance	₩2,063,102	(1,943,644)	119,458

(*) Profit and loss related to defined benefit plans are included in the general administrative expense.

(c) The composition of plan assets as of December 31, 2018 and 2019 are as follows:

	2018	2019
Plan assets comprise:		
Equity securities	₩ 257,581	256,353
Debt securities	817	28,094
Due from banks	1,394,634	1,577,274
Other	61,602	81,923
	₩1,714,634	1,943,644

(In millions of won)

25. Employee benefits (continued)

(d) Actuarial assumptions as of December 31, 2018 and 2019 are as follows:

	2018	2019	Description
Discount rate	3.02%~3.22%	2.71%~3.17%	AA0 corporate bond yields
Future salary increase rate	0.99%~3.40% + Upgrade rate	1.80%~4.00% + Upgrade rate	Average for 5 years
Weighted average maturity	7.7 years ~ 9.9 years	8.2 years ~ 16.2 years	

(e) Sensitivity analysis

As of December 31, 2018 and 2019, reasonably possible changes in one of the relevant actuarial assumptions, holding other assumptions constant, would have affected the defined benefit obligation by the amounts shown below.

	2018	
	Defined benefit obligation	
	Increase	Decrease
Discount rate (1%p movement)	₩(159,549)	180,542
Future salary increase rate (1%p movement)	176,924	(159,169)

	2019	
	Defined benefit obligation	
	Increase	Decrease
Discount rate (1%p movement)	₩(201,770)	233,057
Future salary increase rate (1%p movement)	231,967	(204,242)

26. Provisions

(a) Provisions as of December 31, 2018 and 2019 are as follows:

	2018	2019
Asset retirement obligations	₩ 49,183	64,922
Expected loss related to litigation	25,554	8,789
Unused credit commitments	232,347	263,752
Financial guarantee contracts issued	115,325	100,430
Others	86,007	119,131
	₩508,416	557,024

(In millions of won)

26. Provisions (continued)

(b) Changes in provision for unused credit commitments and financial guarantee contracts issued for the years ended December 31, 2018 and 2019 are as follows:.

	2018						
	Unused credit commitments			Financial guarantee contracts issued			
	12 months expected credit loss	Life time expected credit loss	Impaired financial asset	12 months expected credit loss	Life time expected credit loss	Impaired financial asset	Total
Beginning allowance	₩124,492	96,010	2,137	31,456	3,368	2,464	259,927
Transfer to 12 months expected credit loss	42,514	(42,057)	(457)	1,140	(1,140)	—	—
Transfer to life time expected credit loss	(8,899)	8,976	(77)	(1,804)	1,804	—	—
Transfer to impaired financial asset	(213)	(802)	1,015	(13)	—	13	—
Provided (reversed)	(32,070)	38,576	2,519	(3,964)	455	(690)	4,826
FX change	578	105	—	758	481	449	2,371
Others (*)	—	—	—	36,621	936	(479)	37,078
Ending balance	₩126,402	100,808	5,137	64,194	5,904	1,757	304,202

(*) Others include effects of the provision from the new financial guarantee contracts measured at fair value, and the expired contracts, and the change of discount rate.

	2019						
	Unused credit commitments			Financial guarantee contracts issued			
	12 months expected credit loss	Life time expected credit loss	Impaired financial asset	12 months expected credit loss	Life time expected credit loss	Impaired financial asset	Total
Beginning allowance	₩126,402	100,808	5,137	64,194	5,904	1,757	304,202
Transfer to 12 months expected credit loss	42,838	(42,728)	(110)	2,629	(2,629)	—	—
Transfer to life time expected credit loss	(9,286)	9,314	(28)	(1,245)	1,245	—	—
Transfer to impaired financial asset	(229)	(752)	981	(12)	—	12	—
Provided (reversed)	(28,611)	53,076	5,905	(4)	96	(943)	29,519
FX change	914	121	—	1,302	323	102	2,762
Others (*)	—	—	—	1,603	630	(117)	2,116
Ending balance	₩132,028	119,839	11,885	68,467	5,569	811	338,599

(*) Others include effects of the provision from the new financial guarantee contracts measured at fair value, and the expired contracts, and the change of discount rate.

(In millions of won)

26. Provisions (continued)

(c) Changes in provisions for the years ended December 31, 2018 and 2019 are as follows:

	2018				
	Asset retirement	Litigation	Guarantee	Other	Total
Beginning balance (*1)	₩45,495	32,650	46,340	75,512	199,997
Provision (reversal)	4,789	(1,138)	(2,833)	4,900	5,718
Provision used	(4,210)	(6,343)	—	(7,554)	(18,107)
Foreign exchange translation	—	385	1,677	(1,006)	1,056
Others (*2)	3,109	—	(1,714)	14,155	15,550
Ending balance	₩49,183	25,554	43,470	86,007	204,214

(*1) In accordance with IFRS 15, the Group has adjusted all bonus card point reward program related to customer loyalty programs.
(*2) Others include the effects of unwinding and changes in discount rate.

	2019				
	Asset retirement	Litigation	Guarantee	Other	Total
Beginning balance	₩49,183	25,554	43,470	86,007	204,214
Provision (reversal)	(1,280)	(981)	(19,329)	(5,753)	(27,343)
Provision used	(1,930)	(17,365)	—	(47,217)	(66,512)
Foreign exchange translation	—	—	1,420	382	1,802
Others (*)	4,476	—	22	3,784	8,282
Business combination (Note 50)	14,473	1,581	—	81,928	97,982
Ending balance	₩64,922	8,789	25,583	119,131	218,425

(*) Others include the effects of unwinding and changes in discount rate.

(d) Asset retirement obligation liabilities represent the estimated cost to restore the existing leased properties which is discounted to the present value using the appropriate discount rate at the end of the reporting period. Disbursements of such costs are expected to incur at the end of lease contract. Such costs are reasonably estimated using the average lease year and the average restoration expenses. The average lease year is calculated based on the past ten-year historical data of the expired leases. The average restoration expense is calculated based on the actual costs incurred for the past three years using the three-year average inflation rate.

(e) Allowance for guarantees and acceptances as of December 31, 2018 and 2019 are as follows:

	2018	2019
Guarantees and acceptances outstanding	₩ 9,437,691	9,317,412
Contingent guarantees and acceptances	3,985,532	3,669,681
ABS and ABCP purchase commitments	2,083,522	2,116,354
Endorsed bill	37,667	11,287
	₩15,544,412	15,114,734
Allowance for loss on guarantees and acceptances	₩ 115,325	100,430
Ratio	% 0.74	0.66

(In millions of won)

27. Liability under insurance contracts

(a) Insurance liabilities as of December 31, 2018 and 2019 are as follows:

	2018	2019
Policy reserve	₩26,211,044	52,086,132
Policyholder's equity adjustment	7,838	77,285
	₩26,218,882	52,163,417

(b) Policy reserve as of December 31, 2018 and 2019 are as follows:

	2018	2019
Interest rate linked	₩17,328,353	30,058,020
Fixed interest rate	8,882,691	22,028,112
	₩26,211,044	52,086,132

(In millions of won)

27. Liability under insurance contracts (continued)

(c) The details of policy reserves as of December 31, 2018 and 2019 are as follows:

	2018							
	Individual insurance				Group insurance			
	Pure endowment	Death	Endowment	Subtotal	Pure protection	Savings	Subtotal	Total
Premium reserve	₩5,729,045	11,722,964	7,482,084	24,934,093	24,422	58	24,480	24,958,573
Guarantee reserve	10,148	64,978	124	75,250	—	—	—	75,250
Unearned premium reserve	3	301	—	304	506	—	506	810
Reserve for outstanding claims	99,676	837,317	185,328	1,122,321	18,089	—	18,089	1,140,410
Interest rate difference guarantee reserve	2,068	148	11	2,227	—	—	—	2,227
Mortality gains reserve	7,026	4,741	176	11,943	3	—	3	11,946
Interest gains reserve	18,662	254	19	18,935	—	—	—	18,935
Long term duration dividend reserve	52	9	1	62	—	—	—	62
Reserve for policyholder's profit dividend	1,773	—	—	1,773	—	—	—	1,773
Reserve for losses on dividend insurance contract	1,058	—	—	1,058	—	—	—	1,058
	₩5,869,511	12,630,712	7,667,743	26,167,966	43,020	58	43,078	26,211,044

(In millions of won)

27. Liability under insurance contracts (continued)

	2019							
	Individual insurance				Group insurance			
	Pure endowment	Death	Endowment	Subtotal	Pure protection	Savings	Subtotal	Total
Premium reserve	₩14,668,777	24,979,936	10,443,287	50,092,000	21,912	60	21,972	50,113,972
Guarantee reserve	29,400	249,845	744	279,989	—	—	—	279,989
Unearned premium reserve	2	945	—	947	291	—	291	1,238
Reserve for outstanding claims	212,641	1,084,472	233,259	1,530,372	16,858	—	16,858	1,547,230
Interest rate difference guarantee reserve	2,158	149	10	2,317	—	—	—	2,317
Mortality gains reserve	8,945	42,173	153	51,271	2	—	2	51,273
Interest gains reserve	24,486	267	17	24,770	—	—	—	24,770
Expense gains reserve	6,211	9,434	1	15,646	—	—	—	15,646
Long term duration dividend reserve	31,202	15,388	13	46,603	—	—	—	46,603
Reserve for policyholder's profit dividend	2,268	—	—	2,268	—	—	—	2,268
Reserve for losses on dividend insurance contract	826	—	—	826	—	—	—	826
	₩14,986,916	26,382,609	10,677,484	52,047,009	39,063	60	39,123	52,086,132

(In millions of won)

27. Liability under insurance contracts (continued)

(d) Reinsurance credit risk as of December 31, 2018 and 2019 are as follows:

	2018		2019	
	Reinsurance assets	Reinsurance account receivable	Reinsurance assets	Reinsurance account receivable
AAA	₩ —	—	11,477	18,192
AA- to AA+	2,451	4,416	34,498	46,302
A- to A+	1,622	3,598	2,287	4,113
	₩4,073	8,014	48,262	68,607

(e) Income or expenses on insurance for the years ended December 31, 2017, 2018 and 2019 are as follows:

	2017	2018	2019
Insurance income:			
Premium income	₩4,550,277	4,348,745	7,386,854
Reinsurance income	10,532	15,222	146,564
Separate account income	38,999	34,771	36,007
	4,599,808	4,398,738	7,569,425
Insurance expenses:			
Claims paid	2,213,285	2,549,147	5,436,069
Reinsurance premium expenses	13,220	18,482	165,979
Provision for policy reserves (*)	2,147,139	1,694,716	1,724,816
Separate account expenses	38,999	34,770	36,007
Discount charge	632	669	657
Acquisition costs	543,752	454,479	805,508
Collection expenses	15,716	16,046	19,049
Deferred acquisition costs	(336,851)	(283,665)	(495,534)
Amortization of deferred acquisition costs	423,955	385,793	373,800
	5,059,847	4,870,437	8,066,351
Net loss on insurance	₩ (460,039)	(471,699)	(496,926)

(*) Interest expenses on savings insurance contracts are included. (Accumulated ₩ 960,927 million as of December 31, 2017, accumulated ₩964,816 million as of December 31, 2018 and accumulated ₩1,907,954 million as of December 31, 2019)

(In millions of won)

27. Liability under insurance contracts (continued)

(f) Maturity of premium reserve as of December 31, 2018 and 2019 are as follows:

	2018						
	Less than 1 year	1 ~ 3 years	3 ~ 7 years	7 ~ 10 years	10 ~ 20 years	More than 20 years	Total
Fixed interest rate	₩111,102	247,619	741,222	502,572	1,288,815	5,284,548	8,175,878
Interest rate linked	195,843	922,832	1,247,871	343,562	1,500,893	12,571,694	16,782,695
Ending balance	₩306,945	1,170,451	1,989,093	846,134	2,789,708	17,856,242	24,958,573

	2019						
	Less than 1 year	1 ~ 3 years	3 ~ 7 years	7 ~ 10 years	10 ~ 20 years	More than 20 years	Total
Fixed interest rate	₩ 845,304	2,079,125	2,118,652	941,413	2,236,313	20,732,908	28,953,715
Interest rate linked	213,892	329,647	1,032,366	572,153	2,058,859	16,953,340	21,160,257
Ending balance	₩1,059,196	2,408,772	3,151,018	1,513,566	4,295,172	37,686,248	50,113,972

(g) Liability adequacy test, LAT – Shinhan Life Insurance Co., Ltd.

i) Scope

Liability adequacy tests were performed on the premium reserve, unearned premium reserve and guarantee reserve for the contracts held at December 31, 2018 and 2019. The premium reserve considered the amount net level premium reserve less, where appropriate, deferred acquisition cost in accordance with the article 6-3 of Regulation on Supervision of Insurance Business Act.

ii) Output overview

In the debt appraisal system, the insurance premium surplus method is applied to calculate premium deficits.

Premium deficiency refers to deficiency when the amount of accumulated reserve is insufficient due to a decrease in the interest rate after the sale of the product or an increase in the risk rate compared with the expected basic rate at the time of product development.

The insurance premium standard inspection method is a method of calculating the reserve amount based on the present value of total income reflecting the interest rate, the risk rate, the business ratio, the cancellation rate, etc. and the present value of the total expenditure, that is, (discount rate), business ratio, risk rate, and cancellation rate calculated based on the Group’s own experience, which reflects company-specific characteristics, and does not reflect subjective factors such as management’s willingness to improve management.

(In millions of won)

27. Liability under insurance contracts (continued)

iii) The assumptions of the current estimation used to assessment and their basis for calculation was as follows:

	Assumptions 2018	Assumptions 2019	Measurement basis
Discount rate	2.25% ~ 8.32%	2.02% ~ 8.35%	The scenario adding liquidity premium to risk-free rate, which is suggested from Financial Supervisory Service
Mortality rate	2.58% ~ 247.65%	11.36% ~ 497.99%	Ratio by claims paid per premium paid on risk premium based on experience-based rate by products, collateral of last 5 years.
Operating expense rate	Acquisition cost - The first time : 90.00% ~ 982.70% - From the second time : 0.00% ~ 193.50% Maintenance expense (each case): 207 won ~ 3,531 won Collection expenses (on gross premium): 0.04% ~ 1.10%	Acquisition cost - The first time : 90.00% ~ 1,022.75% - From the second time : 0.00% ~ 193.50% Maintenance expense (each case): 1,229 won ~ 3,332 won Collection expenses (on gross premium): 0.05% ~ 1.27%	Business rate on insurance premium or expenses per contract based on experience-based rate of last 1 year
Surrender ratio	0.95% ~ 48.35%	0.76% ~ 33.03%	Surrender ratio by elapsed period, classes of sales channel, product of last 5 years

iv) The result of liability adequacy test as of December 31, 2018 and 2019 are as follows:

	2018		
	Provisions for test	LAT base (*)	Premium loss (surplus)
Participating:			
Fixed interest	₩ 589,618	1,322,481	732,863
Variable interest	859,858	939,791	79,933
	1,449,476	2,262,272	812,796
Non- Participating:			
Fixed interest	6,009,771	2,822,160	(3,187,611)
Variable interest	14,149,581	12,037,953	(2,111,628)
	20,159,352	14,860,113	(5,299,239)
	₩21,608,828	17,122,385	(4,486,443)

(*) It is recalculated in accordance with the revised discount rate calculation rules for the year December 31, 2019.

(In millions of won)

27. Liability under insurance contracts (continued)

	2019		
	Provisions for test	LAT base	Premium loss (surplus)
Participating:			
Fixed interest	₩ 595,317	1,248,489	653,172
Variable interest	900,378	1,002,149	101,771
	1,495,695	2,250,638	754,943
Non- Participating:			
Fixed interest	6,608,221	3,079,715	(3,528,506)
Variable interest	14,563,065	12,340,762	(2,222,303)
	21,171,286	15,420,477	(5,750,809)
	₩22,666,981	17,671,115	(4,995,866)

v) Sensitivity analysis as of December 31, 2018 and 2019 are as follows:

	LAT fluctuation	
	2018 (*)	2019
Discount rate increased by 0.5%	₩(1,610,988)	(1,582,746)
Discount rate decreased by 0.5%	1,938,357	1,906,134
Operating expense increased by 10%	229,339	292,246
Mortality rate increased by 10%	837,453	873,184
Mortality rate increased by 5%	420,774	438,685
Surrender ratio increased by 10%	291,806	373,062

(*) It is recalculated in accordance with the revised discount rate calculation rules for the year December 31, 2019.

(h) Liability adequacy test, LAT – Orange Life Insurance Co., Ltd.

i) Scope

Liability adequacy tests were performed on the premium reserve, unearned premium reserve and guarantee reserve for the contracts held at December 31, 2019. The premium reserve considered the amount net level premium reserve less, where appropriate, deferred acquisition cost in accordance with the article 6-3 of Regulation on Supervision of Insurance Business Act.

ii) Output overview

In the debt appraisal system, the insurance premium surplus method is applied to calculate premium deficits.

Premium deficiency refers to deficiency when the amount of accumulated reserve is insufficient due to a decrease in the interest rate after the sale of the product or an increase in the risk rate compared with the expected basic rate at the time of product development.

The insurance premium standard inspection method is a method of calculating the reserve amount based on the present value of total income reflecting the interest rate, the risk rate, the business ratio, the cancellation

(In millions of won)

27. Liability under insurance contracts (continued)

rate, etc. and the present value of the total expenditure, that is, (discount rate), business ratio, risk rate, and cancellation rate calculated based on the Group's own experience, which reflects company-specific characteristics, and does not reflect subjective factors such as management's willingness to improve management.

iii) The assumptions of the current estimation used to assessment and their basis for calculation was as follows:

	Assumptions	
	2019	Measurement basis
Discount rate	2.07% ~ 10.86%	The scenario adding liquidity premium to risk-free rate, which is suggested from Financial Supervisory Service
Mortality rate	20.00% ~ 255.00%	Ratio by claims paid per premium paid on risk premium based on experience-based rate by products, collateral of last 5 years.
Operating expense rate	Acquisition cost (each case): 5,500 won ~ 1,227,000 won - Proportional to annualized premium: 0.00% ~ 12.55% Maintenance expense (each case): 50 won ~ 32,500 won - Proportional to premium income: 0.42% ~ 3.45% - Proportional to surrender value: 0.12%	Based on the recent one-year experience statistics, the Company reflects the company's future business cost policy to calculate the unit business cost by cost driver by division (new contract cost / maintenance cost) and sales channel. However, temporary expenses incurred unusually is excluded.
Surrender ratio	0.00% ~ 50.00%	Based on experience statistics for the last five years or more, annual premiums are calculated based on product group, payment method, channel, and elapsed period. Payment status (full payment and pension initiation) and tax benefits are included.

(In millions of won)

27. Liability under insurance contracts (continued)

iv) The result of liability adequacy test as of December 31, 2019 are as follows:

	2019		
	Provisions for test	LAT base	Premium loss (surplus)
Participating:			
Fixed interest	₩ 716,607	644,715	(71,892)
Variable interest	1,134,245	1,541,967	407,722
	1,850,852	2,186,682	335,830
Non- Participating:			
Fixed interest	9,296,542	4,629,266	(4,667,276)
Variable interest	9,236,731	8,635,022	(601,709)
Variable type (*)	(268,818)	(1,882,573)	(1,613,755)
	18,264,455	11,381,715	(6,882,740)
	₩20,115,307	13,568,397	(6,546,910)

(*) Variable type refers to a variable insurance.

v) Sensitivity analysis as of December 31, 2019 is as follows:

	LAT fluctuation
	2019
Discount rate increased by 0.5%	₩(1,203,136)
Discount rate decreased by 0.5%	1,686,867
Operating expense increased by 10%	245,181
Mortality rate increased by 10%	877,624
Mortality rate increased by 5%	440,025
Surrender ratio increased by 10%	421,767

(In millions of won)

28. Other liabilities

Other liabilities as of December 31, 2018 and 2019 are as follows:

	2018	2019
Lease liabilities	₩ —	1,104,259
Accounts payable	9,748,168	11,894,764
Accrued expenses	3,267,188	3,502,538
Dividend payable	49,486	31,599
Advance receipts	131,386	173,850
Unearned income	236,827	294,710
Withholding value-added tax and other taxes	547,097	720,053
Securities deposit received	651,153	1,903,119
Foreign exchange remittances pending	225,956	243,532
Domestic exchange remittances pending	1,115,939	1,452,955
Borrowing from trust account	2,999,445	5,350,285
Due to agencies	779,473	744,660
Deposits for subscription	76,019	60,500
Separate account liabilities	2,845,380	8,700,695
Sundry liabilities	2,496,169	1,968,823
Other	50,881	151,056
Present value discount	(20,888)	(59,840)
	₩25,199,679	38,237,558

(*) As of December 31, 2019, the Group accounts for the lease liabilities as other liabilities. During the year ended December 31, 2019, the amount of variable lease payments that are not included in the measurement of lease liabilities is ₩189 million, cash outflows from leases are ₩275,218 million, and interest expense on lease liabilities is ₩11,291 million

(In millions of won)

29. Equity

(a) Equity as of December 31, 2018 and 2019 are as follows:

	2018	2019
Capital stock:		
Common stock	₩ 2,370,998	2,370,998
Preferred stock (*1)	274,055	361,465
	2,645,053	2,732,463
Hybrid bond	1,531,759	1,731,235
Capital surplus:		
Share premium (*1)	9,494,769	10,155,150
Others	400,719	410,203
	9,895,488	10,565,353
Capital adjustments (*2)	(552,895)	(1,116,770)
Accumulated other comprehensive income, net of tax:		
Gain on financial assets at fair value through other comprehensive income	2,958	306,470
Gain(Loss) on financial assets at fair value through profit or loss (overlay approach)	(79,057)	71,621
Equity in other comprehensive income of associates	4,883	8,177
Foreign currency translation adjustments for foreign operations	(321,853)	(217,465)
Net loss from cash flow hedges	(17,751)	(33,711)
Other comprehensive income of separate account	4,112	14,539
Actuarial losses	(346,682)	(401,532)
Changes in own credit risk on financial liabilities designated under fair value option	170	(8,255)
	(753,220)	(260,156)
Retained earnings (*3),(*4),(*5)	22,959,440	25,525,821
Non-controlling interest (*6),(*7)	925,805	2,752,435
	₩36,651,430	41,930,381

(*1) For the year ended December 31, 2019, ₩750,000 million scale of convertible preferred share was issued. Investors may claim the conversion after one year from the date of issue to the day before the fourth year from the date of issue and convertible shares not converted until the fourth year from the date of issue will be automatically converted on the day of the fourth year from the date of issue.

(*2) The Group acquired treasury stocks through a treasury stock trust for the years ended December 31, 2018 and 2019 and has recognized the consideration paid in equity, directly. The Group entered into a shareholders' agreement to acquire additional shares in the Asia Trust Co., Ltd., resulting in decrease of ₩125,829 million in capital adjustment for the year ended December 31, 2019.

(*3) As of December 31, 2018 and 2019, profits reserved by the Group as of Article 53 of the Financial Holding Companies Act amounted to ₩2,068,190 million and ₩2,191,677 million, respectively.

(In millions of won)

29. Equity (continued)

(*4) As of December 31, 2018 and 2019, the regulatory reserves for loan losses the Group appropriated in retained earnings are ₩7,572 million and ₩8,728 million, respectively.

(*5) As of December 31, 2019, profit dividends within retained earnings of subsidiaries of the Group subject to a restricted dividend in accordance with laws, etc. are amounted to ₩6,419,934 million.

(*6) As of December 31, 2018 and 2019, the total amounts of hybrid bonds that Shinhan Bank, Jeju Bank and Shinhan Capital have recognized as non-controlling interests were ₩748,497 million and ₩1,147,635 million, respectively. And, as of December 31, 2018 and 2019, the amounts of dividends paid for the hybrid bonds by Shinhan Bank, Jeju Bank, and Shinhan Capital, ₩27,546 million and ₩36,729 million, respectively, are allocated to the net income of non-controlling interest.

(*7) The non-controlling interest of ₩1,250,333 million increased due to business combination with Orange Life Insurance Co., Ltd and Asia Trust Co., Ltd. for the year ended December 31, 2019. (Note 50)

(b) Capital stock

Capital stock of the Group as of December 31, 2018 and 2019 are as follows:

Number of authorized shares	1,000,000,000
Par value per share in won	₩ 5,000
Number of issued common stocks outstanding	474,199,587
Number of issued preferred stocks outstanding as of December 31,2019	17,482,000

(c) Hybrid bonds

Hybrid bonds classified as other equity instruments as of December 31, 2018 and December 31, 2019 are as follows:

Issue date	Currency	Maturity date	Interest rate (%)	**2018**	**2019**
June 25, 2015	KRW	June 25, 2045	4.38	₩ 199,455	199,455
September 15, 2017	”	—	3.77	134,683	134,683
September 15, 2017	”	—	4.25	89,783	89,783
April 13, 2018	”	—	4.08	134,678	134,678
April 13, 2018	”	—	4.56	14,955	14,955
August 29, 2018	”	—	4.15	398,679	398,679
June 28, 2019	”	—	3.27	—	199,476
August 13, 2018	USD	—	5.88	559,526	559,526
				₩1,531,759	1,731,235

The Group can make advanced redemption for the above bonds, after 5 or 10 years from the issuance date; and has unconditional rights to extend the maturity under the same condition. In addition, if the determination has been made that dividend is not paid for common shares, then the interest for the above bonds is also not paid.

(In millions of won)

29. Equity (continued)

(d) Capital adjustments

Changes in capital adjustments for the years ended December 31, 2018 and 2019 are as follows:

	2018	2019
Beginning balance	₩(398,035)	(552,895)
Acquisition of stocks	(155,923)	(444,077)
The Acquisition commitment amount for subsidiaries' remaining shares	—	(125,830)
Other transactions with owners	1,063	6,032
Ending balance	₩(552,895)	(1,116,770)

(In millions of won)

29. Equity (continued)

(e) Accumulated other comprehensive income

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

	2018										
	Items that are or may be reclassified to profit or loss						Items that will never be reclassified to profit or loss				
	Gain (loss) on financial asset at fair value through other comprehensive income	Gain (loss) on valuation of financial asset measured at FVTPL (overlay approach)	Equity in other comprehensive income of associates	Foreign currency translation adjustments for foreign operations	Net gain (loss) from cash flow hedges	Other comprehend-sive income of separate account	Remeasure-ments of the defined benefit plans	Equity in other comprehensive income of associates	Gain (loss) on financial asset at fair value through other comprehe-nsive income	Gain (loss) on financial Liabilities measured at FVTPL attributable to changes in credit risk	Total
Beginning balance	₩(211,003)	(24,724)	(2,516)	(342,318)	2,441	(4,564)	(253,995)	(46)	31,533	(1,553)	(806,745)
Change due to fair value	225,173	(74,942)	(2,327)	—	—	11,967	—	39	25,077	2,376	187,363
Reclassification:											
Change due to impairment or disposal	15,812	—	13,103	—	—	—	—	—	—	—	28,915
Effect of hedge accounting	—	—	—	—	(92,272)	—	—	—	—	—	(92,272)
Hedging	(2,365)	—	—	(35,879)	60,501	—	—	—	—	—	22,257
Effects from exchange rate fluctuations	1,733	—	—	45,904	—	—	—	—	423	—	48,060
Remeasurements of the defined benefit plans	—	—	—	—	—	—	(128,139)	—	—	—	(128,139)
Deferred income taxes	(79,345)	20,609	(3,369)	9,958	11,579	(3,291)	35,041	(11)	(5,410)	(653)	(14,892)
Transfer to other account	—	—	—	—	—	—	—	10	2,635	—	2,645
Non-controlling interests	(1,305)	—	—	482	—	—	411	—	—	—	(412)
Ending balance	₩ (51,300)	(79,057)	4,891	(321,853)	(17,751)	4,112	(346,682)	(8)	54,258	170	(753,220)

(In millions of won)

29. Equity (continued)

	2019										
	Items that are or may be reclassified to profit or loss						Items that will never be reclassified to profit or loss				
	Gain (loss) on financial asset at fair value through other comprehensive income	Gain (loss) on valuation of financial asset measured at FVTPL (overlay approach)	Equity in other comprehensive income of associates	Foreign currency translation adjustments for foreign operations	Net gain (loss) from cash flow hedges	Other comprehend-sive income of separate account	Remeasure-ments of the defined benefit plans	Equity in other comprehensive income of associates	Gain (loss) on financial asset at fair value through other comprehe-nsive income	Gain (loss) on financial Liabilities measured at FVTPL attributable to changes in credit risk	Total
Beginning balance	₩ (51,300)	(79,057)	4,891	(321,853)	(17,751)	4,112	(346,682)	(8)	54,258	170	(753,220)
Change due to fair value	491,953	225,706	3,353	—	—	14,382	—	(11)	19,935	(11,621)	743,697
Reclassification:											
Change due to impairment or disposal	(23,281)	—	—	—	—	—	—	—	—	—	(23,281)
Effect of hedge accounting	—	—	—	—	(75,020)	—	—	—	—	—	(75,020)
Hedging	(731)	—	—	(49,361)	50,083	—	—	—	—	—	(9)
Effects from exchange rate fluctuations	—	—	—	147,899	—	—	—	—	293	—	148,192
Remeasurements of the defined benefit plans	—	—	—	—	—	—	(75,595)	—	—	—	(75,595)
Deferred income taxes	(115,856)	(62,739)	(51)	7,233	6,348	(3,955)	20,951	3	(7,204)	3,196	(152,074)
Transfer to other account	—	—	—	—	—	—	—	—	5,860	—	5,860
Non-controlling interests	(67,457)	(12,289)	—	(1,383)	2,629	—	(206)	—	—	—	(78,706)
Ending balance	₩ 233,328	71,621	8,193	(217,465)	(33,711)	14,539	(401,532)	(16)	73,142	(8,255)	(260,156)

(In millions of won)

29. Equity (continued)

(f) Appropriation of retained earnings

Statements of appropriation of retained earnings for the years ended December 31, 2018 and 2019 are as follows:

	2018	2019
Date of appropriation:	March 27, 2019	March 26, 2020
Unappropriated retained earnings:		
Balance at beginning of year	₩4,867,521	5,184,339
Net effect due to change in accounting policy	(23)	—
Dividend to hybrid bonds	(40,357)	(61,993)
Net income	1,234,883	1,129,173
	6,062,024	6,251,519
Appropriation of retained earnings:		
Legal reserve	(123,488)	(112,917)
Dividends		
Dividends on common stocks paid	(753,041)	(851,587)
Dividends on preferred stocks paid	—	(32,342)
Regulatory reserve for loan losses	(1,156)	(3,260)
	(877,685)	(1,000,106)
Unappropriated retained earnings to be carried over to subsequent year	₩5,184,339	5,251,413

(*) These statements of appropriation of retained earnings are based on the separate financial statements of Shinhan Finance Group.

(g) Regulatory reserve for loan losses

In accordance with Regulations for the Supervision of Financial Institutions, the Group reserves the difference between allowance for credit losses by IFRS and that as required by the Regulations at the account of regulatory reserve for loan losses in retained earnings.

i) Changes in regulatory reserve for loan losses including non-controlling interests for the years ended December 31, 2018 and 2019 are as follows:

	2018	2019
Beginning balance	₩2,885,018	2,844,690
IFRS 9 adoption	(388,551)	—
Business combination	—	25,608
Planned regulatory reversal of loan losses	348,223	290,872
Ending balance	₩2,844,690	3,161,170

(In millions of won)

29. Equity (continued)

ii) Profit attributable to equity holders of Shinhan Financial Group and earnings per share after factoring in regulatory reserve for loan losses for the years ended December 31, 2018 and 2019 are as follows:

	2018	2019
Profit attributable to equity holders of Shinhan Financial Group	₩3,156,722	3,403,497
Provision for regulatory reserve for loan losses (*1)	(348,127)	(292,728)
Profit attributable to equity holders of Shinhan Financial Group adjusted for regulatory reserve	₩2,808,595	3,110,769
Basic and diluted earnings per share adjusted for regulatory reserve in won (*2)	5,844	6,387

(*1) The increase in reserve for credit losses, ₩25,608 million, due to the business combination with Orange Life insurance and Asia Trust during the year is excluded.
(*2) Dividends for hybrid bonds are deducted.

(h) Treasury stock

The acquisitions of treasury stock as of December 31, 2018 and 2019 are as follows:

	2018		
	Beginning balance	Acquisition	Ending balance
The number of share	—	3,648,659	3,648,659
Carrying value	₩—	155,923	155,923

	2019		
	Beginning balance	Acquisition	Ending balance
The number of share	3,648,659	10,233,403	13,882,062
Carrying value	₩ 155,923	444,077	600,000

(*) The Group entered into a treasury stock trust agreement with Samsung Securities Co., Ltd., and acquired treasury stocks.

(In millions of won)

30. Dividends

(a) Details of dividends recognized as distributions to stockholders for the years ended December 31, 2018 and 2019 are as follows:

	2018	2019 (*1)
Common Stock		
Total number of shares issued and outstanding	₩474,199,587	474,199,587
Par value per share in won	5,000	5,000
Dividend per share in won	1,600	1,850
Dividends (*2)	₩ 753,041	851,587
Dividend rate per share	% 32.0	37.0
Preferred Stock		
Total number of shares issued and outstanding	₩ —	17,482,000
Par value per share in won	—	5,000
Dividend per share in won	—	1,850
Dividends	₩ —	32,342
Dividend rate per share	% —	37.0

(*1) The dividend is the amount of dividend that will be paid on March 26, 2020 and is not recognized as a distribution to the owners during the year.
(*2) Dividends on own shares held by the Group are excluded.

(b) Dividend for hybrid bond was calculated as follows for the years ended December 31, 2018 and 2019:

	2018	2019
Amount of hybrid bond	₩ 1,538,150	1,738,150
Interest rate	% 3.77 ~ 5.88	3.27 ~ 5.88
Dividend	₩ 40,357	61,993

(In millions of won)

31. Net interest income

Net interest income for the years ended December 31, 2017, 2018 and 2019 are as follows:

	2017	2018	2019
Interest income:			
Cash and due from banks	₩ 167,793	—	—
Cash and deposits at amortized cost	—	155,075	210,415
Deposits at FVTPL	—	33,845	31,506
Trading assets	489,836	—	—
Financial assets designated at fair value through profit or loss	57,899	—	—
Securities at FVTPL	—	623,651	740,378
Securities at FVOCI	—	759,301	1,077,995
Securities at amortized cost	—	730,382	1,061,262
Available-for-sale financial assets	671,912	—	—
Held-to-maturity financial assets	651,107	—	—
Loans	9,673,635	—	—
Loans at amortized cost	—	11,158,558	12,435,302
Loans at FVTPL	—	23,110	56,961
Others	86,472	88,534	93,543
	11,798,654	13,572,456	15,707,362
Interest expense:			
Deposits	(2,482,415)	(3,091,659)	(3,644,632)
Borrowings	(352,069)	(468,068)	(551,416)
Debt securities issued	(1,085,366)	(1,336,840)	(1,666,257)
Others	(35,851)	(95,800)	(107,093)
	(3,955,701)	(4,992,367)	(5,969,398)
Net interest income	₩ 7,842,953	8,580,089	9,737,964

(In millions of won)

32. Net fees and commission income

Net fees and commission income for the years ended December 31, 2017, 2018 and 2019 are as follows:

	2017	2018	2019
Fees and commission income:			
Credit placement fees	₩ 59,133	62,766	66,666
Commission received as electronic charge receipt	142,755	146,309	151,584
Brokerage fees	373,108	412,165	353,382
Commission received as agency	129,460	120,508	140,484
Investment banking fees	66,191	91,273	151,031
Commission received in foreign exchange activities	197,705	214,395	244,325
Asset management fees	190,802	235,275	307,167
Credit card fees	2,369,745	1,360,322	1,234,239
Operating lease fees (*)	28,033	82,141	142,025
Others	488,023	570,102	766,110
	4,044,955	3,295,256	3,557,013
Fees and commission expense:			
Credit-related fee	(35,665)	(36,817)	(42,023)
Credit card fees	(1,988,826)	(944,533)	(915,521)
Others	(309,510)	(374,909)	(458,950)
	(2,334,001)	(1,356,259)	(1,416,494)
Net fees and commission income	₩ 1,710,954	1,938,997	2,140,519

(*) Among operating lease fees recognized during the current period, there is no variable lease fee income which does not vary by index or rate.

33. Dividend income

Dividend income for the years ended December 31, 2017, 2018 and 2019 are as follows:

	2017	2018	2019
Securities at FVTPL	₩ —	70,955	65,572
Trading assets	57,615	—	—
Securities at FVOCI	—	16,871	16,586
Available-for-sale financial assets	199,691	—	—
	₩257,306	87,826	82,158

(In millions of won)

34. Net gain (loss) on financial instruments measured at fair value through profit or loss

Net gain (loss) on financial instruments measured at fair value through profit or loss for the ended December 31, 2018 and 2019 are as follows:

	2018	2019
Net gain (loss) on deposits measured at FVTPL		
Gain (loss) on valuation	₩ (61,848)	87,374
Gain on sale	—	13,400
	(61,848)	100,774
Net gain (loss) on loans measured at FVTPL		
Gain (loss) on valuation	916	(248,032)
Gain on sale	9,133	10,395
	10,049	(237,637)
Net gain (loss) on securities measured at FVTPL		
Debt securities		
Gain on valuation	111,029	137,181
Gain on sale	78,718	125,431
Other gains	223,731	297,024
	413,478	559,636
Equity securities		
Gain on valuation	286,801	141,246
Gain (loss) on sale	(275,356)	183,969
	11,445	325,215
Other		
Gain on valuation	19,086	28,803
Net gain (loss) on financial liabilities measured at FVTPL		
Debt securities		
Loss on valuation	(115,667)	(16,810)
Gain (loss) on disposition	268,932	(35,710)
	153,265	(52,520)
Other		
Loss on valuation	(14,892)	(91,025)
Gain on disposition	1,394	4,169
	(13,498)	(86,856)
Derivatives		
Gain (loss) on valuation	(291,879)	388,880
Gain on transaction	179,928	359,187
	(111,951)	748,067
	₩ 420,026	1,385,482

(In millions of won)

35. Net trading income (loss)

Net trading income (loss) for the year ended December 31, 2017 are as follows:

	2017
Trading assets:	
Debt securities:	
Loss on valuation	₩ (90,442)
Gain (loss) on sale	(93,528)
	(183,970)
Equity securities:	
Gain on valuation	187,442
Gain on sale	128,118
	315,560
Other:	
Gain (loss) on valuation	5,782
Trading liabilities:	
Debt securities:	
Gain (loss) on valuation	(138,134)
Gain (loss) on disposition	(20,610)
	(158,744)
Other:	
Gain (loss) on valuation	260
Gain on disposition	2,440
	2,700
Derivatives:	
Gain (loss) on valuation	369,225
Gain on transaction	612,670
	981,895
	₩ 963,223

(In millions of won)

36. Net gain (loss) on financial instruments designated at fair value through profit or loss (IFSR9)

Net gain (loss) on financial instruments designated at fair value through profit or loss for the years ended December 31, 2018 and 2019 are as follows:

	2018	2019
Financial assets designated at fair value through profit or loss:		
Equity securities:		
Loss on sale	₩ (4,737)	—
Financial liabilities designated at fair value through profit or loss:		
Borrowings:		
Gain (loss) on valuation	382,667	(33,871)
Loss on sale and redemption	(404,573)	(812,175)
	₩ (26,643)	(846,046)

37. Net gain (loss) on financial instruments designated at fair value through profit or loss (IAS39)

Net gain (loss) on financial instruments designated at fair value through profit or loss for the year ended December 31, 2017 were as follows:

	2017
Financial assets designated at fair value through profit or loss:	
Other securities:	
Gain on valuation	₩ 13,020
Debt securities:	
Gain (loss) on valuation	(65,475)
Gain on sale and redemption	11,673
	(53,802)
Equity securities:	
Dividend income	51
Loss on valuation	(78,633)
Gain on sale	5,622
	(72,960)
Financial liabilities designated at fair value through profit or loss:	
Other securities:	
Gain (loss) on valuation	—
Loss on disposal and redemption	(43)
	(43)
Borrowings:	
Gain (loss) on valuation	(100,685)
Loss on disposal and redemption	(845,356)
	(946,041)
	₩(1,059,826)

(In millions of won)

38. Provision for allowance for credit loss

Provision for allowance for credit loss on financial assets for the years ended December 31, 2018 and 2019 are as follows:

	2018	2019
Loans at amortized cost	₩(704,515)	(910,898)
Other financial assets at amortized cost	(24,070)	(33,945)
Securities at fair value through other comprehensive income	(12,066)	(5,787)
Others (unused credit line and financial guarantee, etc)	(4,826)	(29,519)
Securities at amortized cost	(2,400)	(543)
	₩(747,877)	(980,692)

39. Net impairment loss on financial assets

Net impairment loss on financial assets for the year ended December 31, 2017 were as follows:

	2017 (*)
Impairment losses on:	
Loans	₩ (799,577)
Available-for-sale financial assets	(202,360)
Other financial assets	(15,672)
	(1,017,609)
Reversal of impairment losses on:	
Available-for-sale financial assets	4,061
	₩(1,013,548)

(*) As the acquisition of ANZ Retail business by Shinhan Bank of Vietnam was completed, the amount was adjusted retrospectively.

(In millions of won)

40. General and administrative expenses

General and administrative expenses for the years ended December 31, 2017, 2018 and 2019 are as follows:

	2017	2018	2019
Employee benefits:			
Salaries	₩2,668,224	2,736,604	2,918,065
Severance benefits:			
Defined contribution	21,040	23,745	35,972
Defined benefit	173,080	133,749	168,732
Termination benefits	285,158	115,275	122,732
	3,147,502	3,009,373	3,245,501
Entertainment	29,039	30,442	36,931
Depreciation	173,541	171,771	479,657
Amortization	66,860	73,575	99,208
Taxes and dues	165,689	176,133	197,691
Advertising	271,819	287,688	265,739
Research	14,093	13,928	17,742
Others	942,655	978,665	792,205
	₩4,811,198	4,741,575	5,134,674

(In millions of won)

41. Share-based payments

(a) Stock options granted as of December 31, 2019 are as follows:

	5th grant (*1)	6th grant (*1)	7th grant (*1)(*2)
Type	Cash payment	Cash payment	Cash payment
Grant date	March 21, 2006	March 20, 2007	March 19, 2008
Exercise price in won	₩38,829	₩54,560	₩49,053
Number of shares granted	3,296,200	1,301,050	808,700
Options expiry dates	August 21, 2019	August 19, 2020	May 17, 2021/ September 17,2021
Changes in number of shares granted:			
Balance at January 1, 2019	2,500	58,764	45,628
Exercised and cancelled	2,500	—	9,466
Balance at December 31, 2019	—	58,764	36,162
Fair value per share in won	—	₩ 88	₩1,122 (Expiration of contractual exercise period : May 17, 2021) ₩1,301 (Expiration of contractual exercise period : Sep 17, 2021)

(*1) The weighted average exercise price for 94,926 stock options outstanding at December 31, 2019 is ₩52,462.
(*2) As of December 31, 2019, the exercise of the remaining for 9,466 stock options (7th grant) was cancelled.

(b) Performance shares granted as of December 31, 2019 are as follows:

	Expired	Not expired
Type	Cash-settled share-based payment	
Performance conditions	Increase rate of the stock price and achievement of target ROE	
Operating period	4 or 5 years	
Estimated number of shares vested at December 31, 2019	20,427	2,074,713
Fair value per share in won	₩40,889, ₩45,766, ₩49,405, ₩40,580, ₩44,222, for the expiration of operating period from 2015 to 2019	₩43,350

(In millions of won)

41. Share-based payments (continued)

The amount of cash payment for the Group's cash-settled share-based payment arrangements with performance conditions is determined at the fourth anniversary date from the grant date based on the share price which is an arithmetic mean of weighted average share prices of the past two-months, past one-month and past one-week. Share price to be paid in the future is evaluated using the share price as of the end of the reporting period. For share-based payment transactions among the controlling company and its subsidiaries, the controlling company and its subsidiaries receiving the services shall measure the services received as a cash-settled and an equity-settled share-based payment transaction, respectively.

(c) Share-based compensation costs for the years ended December 31, 2017, 2018 and 2019 are as follows:

	2017		
	Employees of		
	The controlling company	The subsidiaries	Total
Stock options granted:			
4th	₩ 67	413	480
5th	48	757	805
6th	26	159	185
7th	83	120	203
Performance share	1,782	15,717	17,499
	₩2,006	17,166	19,172

	2018		
	Employees of		
	The controlling company	The subsidiaries	Total
Stock options granted:			
4th	₩ —	(14)	(14)
5th	—	(19)	(19)
6th	(23)	(139)	(162)
7th	(59)	(86)	(145)
Performance share	1,154	9,768	10,922
	₩1,072	9,510	10,582

	2019		
	Employees of		
	The controlling company	The subsidiaries	Total
Stock options granted:			
5th	₩ —	9	9
6th	(3)	(15)	(18)
7th	(5)	(6)	(11)
Performance share	4,678	32,646	37,324
	₩4,670	32,634	37,304

(In millions of won)

41. Share-based payments (continued)

(d) Accrued expenses and the intrinsic value as of December 31, 2018 and 2019 are as follows:

	2018		
	Accrued expenses (*)		
	The controlling company	The subsidiaries	Total
Stock options granted:			
5th	₩ —	7	7
6th	3	20	23
7th	24	33	57
Performance share	7,328	61,790	69,118
	₩7,355	61,850	69,205

(*) The intrinsic value of share-based payments is ₩69,120 million as of December 31, 2018. For calculating, the quoted market price ₩39,600 per share was used for stock options and the fair value was considered as intrinsic value for performance shares, respectively.

	2019		
	Accrued expenses (*)		
	The controlling company	The subsidiaries	Total
Stock options granted:			
6th	₩ 1	4	5
7th	19	27	46
Performance share	10,003	81,352	91,355
	₩10,023	81,383	91,406

(*) The intrinsic value of share-based payments is ₩91,355 million as of December 31, 2019. For calculating, the quoted market price ₩43,350 per share was used for stock options and the fair value was considered as intrinsic value for performance shares, respectively.

(In millions of won)

42. Net other operating expense

Other operating income and other operating expense for the years ended December 31, 2017, 2018 and 2019 are as follows:

	2017	2018	2019
Other operating income			
Gain on sale of assets:			
Loans	₩ 50,707	—	—
Loans at amortized cost	—	40,624	18,298
Others:			
Gain on hedged items	634,695	418,390	564,438
Reversal of allowance for acceptances and guarantee	—	2,834	19,329
Gain on trust account	14	—	27
Reversal of other allowance	286,932	5,033	11,194
Others	82,375	131,345	97,777
	1,004,016	557,602	692,765
	1,054,723	598,226	711,063
Other operating expense			
Loss on sale of assets:			
Loans	(8,394)	—	—
Loans at amortized cost	—	(14,271)	(27,291)
Others:			
Loss on hedged items	(629,754)	(406,872)	(596,533)
Contribution	(252,419)	(283,331)	(311,336)
Provision for acceptances and guarantee allowance	(2,548)	—	—
Provision for other allowance	(12,133)	(13,036)	(6,939)
Depreciation of operating lease assets	(12,943)	(56,570)	(98,288)
Others	(599,524)	(653,501)	(857,918)
	(1,509,321)	(1,413,310)	(1,871,014)
	(1,517,715)	(1,427,581)	(1,898,305)
Net other operating expenses	₩ (462,992)	(829,355)	(1,187,242)

(In millions of won)

43. Net other non-operating income

Other non-operating income and other non-operating expense for the years ended December 31, 2017, 2018 and 2019 are as follows:

	2017	2018	2019
Other non-operating income			
Gain on disposal of assets:			
Property and equipment (*)	₩ 5,278	12,611	1,452
Investment property	219	4,783	12,640
Assets held for sale	22,748	—	—
Lease assets	605	1,153	1,681
Right-of-use assets	—	—	1,112
Others	125	—	407
	28,975	18,547	17,292
Gain on disposal of Investments in associates	8,891	17,427	3,461
Others:			
Rental income on investment property	33,023	32,488	43,777
Reversal of impairment losses on intangible asset	91	62	438
Gain from assets contributed	1,067	77	86
Others	67,535	49,276	82,879
	101,716	81,903	127,180
	139,582	117,877	147,933
Other non-operating expense			
Loss on disposal of assets:			
Property and equipment (*)	(2,642)	(3,082)	(870)
Investment property	(1,627)	(2,958)	—
Lease assets	(1,282)	(3,964)	(3,221)
Right-of-use assets	—	—	(306)
Others	(149)	(3)	—
	(5,700)	(10,007)	(4,397)
Loss on disposal of investments in associates	(1,332)	(11,546)	(3,974)
Impairment loss on investments in associates	(144)	(5,849)	—
	(1,476)	(17,395)	(3,974)
Others:			
Donations	(140,243)	(88,650)	(94,937)
Depreciation of investment properties	(16,095)	(16,917)	(17,565)
Impaired loss on property and equipment	(16)	—	—
Impaired loss on intangible assets	(271)	(771)	(152,081)
Write-off of intangible assets	(1,210)	(1,537)	(9,221)
Collecting of written-off expenses	(7,162)	(6,048)	(7,322)
Others	(20,220)	(26,844)	(46,465)
	(185,217)	(140,767)	(327,591)
	(192,393)	(168,169)	(335,962)
Net other non-operating income (loss)	₩ (52,811)	(50,292)	(188,029)

(In millions of won)

43. Net other non-operating income (continued)

(*) Gains or losses on sale and leaseback transactions are included in gains or losses on disposal of property and equipment respectively, and there are no gains or losses recognized on sale and leaseback transactions for the year ended December 31, 2019

44. Income tax expense

(a) Income tax expense for the years ended December 31, 2017, 2018 and 2019 are as follows:

	2017 (*)	2018	2019
Current income tax expense	₩726,384	896,755	1,115,724
Temporary differences	46,468	383,190	296,244
Income tax recognized in other comprehensive income	75,551	(11,600)	(142,844)
Income tax expenses	₩848,403	1,268,345	1,269,124

(*) As the acquisition of ANZ Retail business by Shinhan Bank of Vietnam was completed, the amount was adjusted retrospectively.

(b) Income tax expense calculated by multiplying net income before tax with the tax rate for the years ended December 31, 2017, 2018 and 2019 are as follows:

	2017 (*)	2018	2019
Profit before income taxes	₩3,797,608	4,466,610	4,911,508
Income taxes at statutory tax rates	917,802	1,222,840	1,345,187
Adjustments:			
Non-taxable income	(33,879)	(9,561)	8,500
Non-deductible expense	12,772	12,854	18,461
Tax credit	(195)	(23,317)	(2,289)
Changes in deferred tax due to change in tax rate	(72,985)	—	—
Other	24,888	65,529	(100,735)
Income tax expense	₩ 848,403	1,268,345	1,269,124
Effective tax rate	% 22.34	28.40	25.84

(*) As the acquisition of ANZ Retail business by Shinhan Bank of Vietnam was completed, the amount was adjusted retrospectively.

(In millions of won)

44. Income tax expense (continued)

(c) Deferred tax expenses by origination and reversal of deferred assets and liabilities and temporary differences for the years ended December 31, 2018 and 2019 are as follows:

	2018			
	Beginning Balance (*1)	Profit or loss	Other comprehensive income	Ending Balance (*2)
Unearned income	₩(202,069)	(53,267)	—	(255,336)
Account receivable	(19,267)	(4,872)	—	(24,139)
Financial assets at fair value through profit or loss	(47,548)	79,000	16,825	48,277
Securities at fair value through other comprehensive income	307,729	(47,548)	(82,823)	177,358
Investment in associates	24,918	3,205	(3,380)	24,743
Valuation and depreciation of property and equipment	(163,313)	1,317	—	(161,996)
Derivative asset (liability)	(70,828)	171,000	11,579	111,751
Deposits	27,904	132	—	28,036
Accrued expenses	171,310	(38,621)	—	132,689
Defined benefit obligation	408,266	6,965	32,427	447,658
Plan assets	(411,935)	(37,117)	2,729	(446,323)
Other provisions	191,298	3,177	—	194,475
Allowance for acceptances and guarantees	23,929	5,228	—	29,157
Allowance related to asset revaluation	(52,886)	3,173	—	(49,713)
Allowance for expensing depreciation	(529)	64	—	(465)
Deemed dividend	5,317	(5,317)	—	—
Accrued contributions	11,904	9,807	—	21,711
Financial instruments designated at fair value through profit of loss	(7,194)	(80,214)	—	(87,408)
Allowances	131,222	(82,438)	—	48,784
Fictitious dividend	4,990	(3,665)	—	1,325
Liability under insurance contracts	18,105	4,488	—	22,593
Deficit carried over	1,505	(1,505)	—	—
Other	59,471	(296,190)	11,043	(225,676)
	412,299	(363,198)	(11,600)	37,501
Expired unused tax losses:				
Extinguishment of deposit and insurance liabilities	375,807	(8,363)	—	367,444
	₩ 788,106	(371,561)	(11,600)	404,945

(*1) Changes in the scope of application of IFRS 9 and 15 have been reflected.
(*2) Deferred tax assets from overseas subsidiaries were increased by ₩29 million due to foreign exchange rate movements.

(In millions of won)

44. Income tax expense (continued)

	2019				
	Beginning Balance	Business combination	Profit or loss	Other comprehensive income (loss)	Ending Balance (*)
Unearned income	₩(255,336)	(62,077)	(14,266)	—	(331,679)
Account receivable	(24,139)	—	(2,185)	—	(26,324)
Financial assets at fair value through profit or loss	48,277	9,284	(20,972)	(56,654)	(20,065)
Securities at fair value through other comprehensive income	177,358	(554,017)	425,491	(130,344)	(81,512)
Investment in associates	24,743	—	(5,937)	(48)	18,758
Valuation and depreciation of property and equipment	(161,996)	—	10,950	—	(151,046)
Derivative asset (liability)	111,751	(1,132)	(97,147)	7,533	21,005
Deposits	28,036	—	2,605	—	30,641
Accrued expenses	132,689	15,298	(2,493)	—	145,494
Defined benefit obligation	447,658	4,805	33,321	20,348	506,132
Plan assets	(446,323)	(4,610)	(57,165)	958	(507,140)
Other provisions	194,475	2,283	16,297	—	213,055
Allowance for acceptances and guarantees	29,157	42,234	8,623	—	80,014
Allowance related to asset revaluation	(49,713)	—	—	—	(49,713)
Allowance for expensing depreciation	(465)	—	64	—	(401)
Deemed dividend	—	—	—	—	—
Accrued contributions	21,711	—	15,107	—	36,818
Financial instruments designated at fair value through profit of loss	(87,408)	—	130,225	—	42,817
Allowances	48,784	—	(10,716)	—	38,068
Fictitious dividend	1,325	—	16	—	1,341
Liability under insurance contracts	22,593	—	1,554	—	24,147
Deficit carried over	—	—	—	—	—
Other	(225,676)	204,351	(537,808)	15,363	(543,770)
	37,501	(343,581)	(104,436)	(142,844)	(553,360)
Expired unused tax losses:					
Extinguishment of deposit and insurance liabilities	367,444	—	(47,433)	—	320,011
	₩ 404,945	(343,581)	(151,869)	(142,844)	(233,349)

(*) Deferred tax assets from overseas subsidiaries were increased by ₩1,530 million due to foreign exchange rate movements.

(In millions of won)

44. Income tax expense (continued)

(d) Deferred tax assets and liabilities that were directly charged or credited to equity for the years ended December 31, 2018 and 2019 are as follows:

	January 1, 2018		Changes		December 31, 2018	
	OCI	Tax effect	OCI	Tax effect	OCI	Tax effect
Gain (loss) on valuation of financial assets measured at FVOCI	₩(255,593)	76,124	267,306	(84,878)	11,713	(8,754)
Gain (loss) on financial liabilities measured at FVTPL attributable to changes in credit risk	(2,141)	588	2,376	(653)	235	(65)
Foreign currency translation adjustments for foreign operations	(317,264)	(25,054)	10,498	9,967	(306,766)	(15,087)
Gain (loss) on cash flow hedge	7,286	(4,845)	(31,771)	11,578	(24,485)	6,733
Equity in other comprehensive income of associates	(5,868)	3,306	10,825	(3,380)	4,957	(74)
The accumulated other comprehensive income in separate account (*)	(6,295)	1,731	11,967	(3,291)	5,672	(1,560)
Remeasurements of the defined benefit liability	(349,538)	95,543	(127,844)	35,157	(477,382)	130,700
Gain (loss) on valuation of financial asset measured at FVTPL (Overlay approach)	(33,713)	8,988	(74,942)	20,609	(108,655)	29,597
Income tax charged or credited directly to equity	₩(963,126)	156,381	68,415	(14,891)	(894,711)	141,490

	January 1, 2019		Changes		December 31, 2019	
	OCI	Tax effect	OCI	Tax effect	OCI	Tax effect
Gain (loss) on valuation of financial assets measured at FVOCI	₩ 11,713	(8,754)	427,657	(124,147)	439,370	(132,901)
Gain (loss) on financial liabilities measured at FVTPL attributable to changes in credit risk	235	(65)	(11,621)	3,196	(11,386)	3,131
Foreign currency translation adjustments for foreign operations	(306,766)	(15,087)	98,418	5,970	(208,348)	(9,117)
Gain (loss) on cash flow hedge	(24,485)	6,733	(23,492)	7,533	(47,977)	14,266
Equity in other comprehensive income of associates	4,957	(74)	3,343	(48)	8,300	(122)
The accumulated other comprehensive income in separate account (*)	5,672	(1,560)	14,382	(3,955)	20,054	(5,515)
Remeasurements of the defined benefit liability	(477,382)	130,700	(76,156)	21,306	(553,538)	152,006
Gain (loss) on valuation of financial asset measured at FVTPL (Overlay approach)	(108,655)	29,597	207,333	(56,654)	98,678	(27,057)
Income tax charged or credited directly to equity	₩(894,711)	141,490	639,864	(146,799)	(254,847)	(5,309)

(*) Deferred tax effects, which are originated from the accumulated other comprehensive income in separate account, were included in the other liabilities of separate account's financial statement.

(In millions of won)

44. Income tax expense (continued)

(e) The amount of deductible temporary differences, unused tax losses, and unused tax credits that are not recognized as deferred tax assets as of December 31, 2018 and 2019 are as follows:

	2018	2019
Tax loss carry forward	₩99,449	—

(f) The amount of temporary difference regarding investment in subsidiaries that are not recognized as deferred tax liabilities as of December 31, 2018 and 2019 are as follows:

	2018	2019
Investment in associates	₩(686,107)	(766,888)

(g) The Group set off a deferred tax asset against a deferred tax liability of the same taxable entity if, and only if, they relate to income taxes levied by the same taxation authority and the entity has a legally enforceable right to set off current tax assets against current tax liabilities. Deferred tax assets and liabilities presented on a gross basis prior to any offsetting as of December 31, 2018 and 2019 are as follows:

	2018	2019
Deferred tax assets	₩483,517	518,337
Deferred tax liabilities	(78,572)	(751,686)

(h) As of December 31, 2019, the Group has filed a dispute against the tax authorities and the courts for the refund of the corporate tax on seven cases (claim amount: ₩ 34,449 million). If the likelihood of winning a lawsuit increases, the Group will recognize the related assets.

45. Earnings per share

Basic and diluted earnings per share for the years ended December 31, 2017, 2018 and 2019 are as follows:

	2017 (*2)	2018	2019
Profit attributable to equity holders of Shinhan Financial Group	₩ 2,918,816	3,156,722	3,403,497
Less:			
Dividends to hybrid bond	(17,678)	(40,357)	(61,993)
Net profit available for common stock	₩ 2,901,138	3,116,365	3,341,504
Weighted average number of common shares outstanding (*1)	474,199,587	473,649,076	477,346,731
Basic and diluted earnings per share in won	₩ 6,118	6,579	7,000

(*1) The number of basic ordinary shares outstanding is 474,199,587 shares and the above weighted-average stocks are calculated by reflecting treasury stocks issued and 17,482,000 shares of convertible preferred shares issued on May 1, 2019. If the convertible preferred shares issued during the year are not included in common stocks, the basic and diluted earnings per share of the net profit of the Group is ₩7,176.

(*2) As the acquisition of ANZ Retail business by Shinhan Bank of Vietnam was completed, the amount was adjusted retrospectively.

(In millions of won)

46. Commitments and contingencies

(a) Guarantees, acceptances and credit commitments as of December 31, 2018 and 2019 are as follows:

	2018	2019
Guarantees:		
Guarantees outstanding	₩ 9,437,691	9,319,885
Contingent guarantees	3,985,532	3,669,697
	13,423,223	12,989,582
Commitments to extend credit:		
Loan commitments in won	69,906,336	74,393,722
Loan commitments in foreign currency	19,967,297	22,542,776
ABS and ABCP commitments	2,083,522	2,116,354
Others	73,816,233	81,387,165
	165,773,388	180,440,017
Endorsed bills:		
Secured endorsed bills	37,667	11,287
Unsecured endorsed bills	7,758,242	6,737,097
	7,795,909	6,748,384
Loans sold with recourse	2,099	2,099
	₩186,994,619	200,180,082

(In millions of won)

46. Commitments and contingencies (continued)

(b) Legal contingencies

The Group's pending lawsuits as a defendant as of December 31, 2019 are as follows:

Case	Number of claim	Descriptions	Claim amount
Payment Guarantee	1	The plaintiff filed claims against the Group for guarantee deposit of receivable-backed ABL of KT ENS. The case are currently pending in its second appeal.	₩ 10,767
Compensation for a loss	1	According to the asset custody contract, the plaintiff is liable for damages caused by a fire in the property of the real estate investment company in which the Group is holding assets. In 2015 and 2017, the plaintiffs prevailed, but the first and second decisions were different.	6,893
Confirm deposit accounts	1	Hanwha Savings Bank, a party to the lender of Meat Loan, filed a lawsuit against all creditors to confirm deposit accounts for the sale of frozen meat. As a result, the lawsuit has been commissioned by the legal firm proceed a Matron's private lawsuit related the Group.	5,575
Others	425	Compensation for a loss claim, etc.	234,131
	428		₩257,366

As of the December 31, 2019, the Group has recorded ₩8,789 million and ₩1,727 million, respectively, as other provisions and insurance contract liabilities (reserve for claims) for litigations, etc., The outcome of the lawsuits is not expected to have a material impact on the consolidated financial statements, but additional losses may result from future litigation.

(c) The Group entered into an agreement with Asia Trust Co., Ltd. (60% of its total shares) to acquire remaining stake in the Group. In accordance with the agreement, the Group has the right to purchase shares held by the shareholders of Asia Trust Co., Ltd. In response, the shareholders of Asia Trust Co., Ltd. have the right to demand to purchase the shares to the Group.

(d) In relation to Asia Trust Co., Ltd., ("Asia Trust") a subsidiary of the Group, a number of complaints have arisen due to misuse of the seals discarded by employees prior to the Group's acquisition of Asia Trust. Some of them filed a lawsuit against the Group (claim amount of ₩50.3 billion) during the current year, and a special inspection was conducted by the Financial Supervisory Service in February 2019. The Group did not reflect these financial effects in the consolidated financial statements as of December 31, 2019 because the Group could not reliably measure the likelihood of loss and extent of loss.

(e) Regarding the currency option contracts, the Group has received the dispute arbitration request from the Financial Dispute Arbitration Committee on December 19, 2019; the Group will proceed with Board of Directors' decision. The Group's management anticipates that the result of the adjustment will not have a significant impact on the Group's financial position.

(In millions of won)

46. Commitments and contingencies (continued)

(f) The Group as the Prime Brokerage Service provider has performed the TRS transactions (Total Return Swap: Derivatives that exchange risk with income from underlying assets, such as stocks, bonds, funds, etc.) as per the TRS Agreement with a fund managed by Lime Asset Management ("Lime Fund").

Through the TRS Agreement with the Group, Lime Fund indirectly invested about $200 million of IIG Global Trade Finance Fund, IIG Trade Finance Fund and IIG Trade Finance Fund-FX Hedged (collectively, "IIG Funds") from May 2017 to September 2017.

In accordance with the Lime Fund's directions in 2019, the Group invested IIG Fund in kind in LAM Enhanced Finance III L.P. ("LAM III Fund") and acquired the LAM III Fund's beneficiary certificates. The recoverable amount on the LAM III Fund beneficiary certificates is affected by the recoverable amounts of the IIG funds contributed in kind. The IIG Funds received cancellation of registration and asset freeze order from the U.S Securities and Exchange Commission in November 2019.

The Financial Supervisory Service ("FSS") announced in February 2020 that the Group was suspected of being involved in misconduct and fraudulent activities while the Group made the TRS transactions with the Lime Asset Management. The related prosecutors' investigations on Lime Asset Management are also underway. As of now whether the Group as the Prime Brokerage Service provider is legally responsible depends on the FSS's additional inspections, prosecutors' inspections and the future litigation; and the legal obligation of the Group relating to the suspected involvement in the fraudulent activities is not determined.

In addition, some of the private equity funds sold by the Group and managed by Lime Asset management are being inspected for whether any mis-selling has been involved by the supervisory authority. Depending on the results of the inspection, proceedings for dispute settlement and loss compensation on the miss-selling, if any, may take place. Whether a mis-selling has happened or the amount of compensation cannot be estimated reliably, the Group did not recognized a provision.

47. Statement of cash flows

(a) Cash and cash equivalents in the consolidated statements of cash flows as of December 31, 2017, 2018 and 2019 are as follows:

	2017	2018	2019
Cash and due from banks	₩ 22,682,652	—	—
Cash and due from banks at amortized cost	—	17,363,450	28,435,818
Adjustments:			
Due from financial institutions with a maturity over three months from date of acquisition	(3,010,471)	(3,008,188)	(3,349,719)
Restricted due from banks	(13,435,531)	(6,175,506)	(16,506,925)
	₩ 6,236,650	8,179,756	8,579,174

(In millions of won)

47. Statement of cash flows (continued)

(b) Significant non-cash activities for the years ended December 31, 2017, 2018 and 2019 are as follows:

	2017	2018	2019
Debt-equity swap	₩32,530	28,759	224,093
Transfers from construction-in-progress to property and equipment	14,285	6,319	76,004
Transfers between property and equipment and investment property	91,782	28,199	104,573
Transfers between assets held for sale and property and equipment	5,336	80	455
Transfers between investment property and assets held for sale	6,306	—	15,795
Accounts payable for purchase of intangible assets, etc.	—	1,047	472,798
Transaction for right-of-use assets	—	—	1,376,764

(c) Changes in assets and liabilities arising from financing activities for the years ended December 31, 2018 and 2019 are as follows:

	2018				
	Assets	Liabilities			
	Derivative assets	Derivative liabilities	Borrowings	Debentures	Total
Balance at January 1, 2018	₩ 3,966	146,278	27,586,610	51,340,821	79,077,675
Changes from cash flows	(5,845)	(12,002)	1,772,203	11,798,466	13,552,822
Changes from non-cash flows					
Amortization of discount on borrowings and debentures	—	—	181,050	335,935	516,985
Changes in foreign currency exchange rate	—	—	955,512	229,277	1,184,789
Others	9,356	(49,697)	(676,833)	(476,800)	(1,193,974)
Balance at December 31, 2018	₩ 7,477	84,579	29,818,542	63,227,699	93,138,297

(In millions of won)

47. Statement of cash flows (continued)

	2019					
	Assets	Liabilities				
	Derivative assets	Derivative liabilities	Borrowings	Debentures	Lease liabilities (*)	Total
Balance at January 1, 2019	₩ 7,477	84,579	29,818,542	63,227,699	536,842	93,675,139
Changes from cash flows	—	(21,958)	5,017,269	11,201,673	(269,362)	15,927,622
Changes from non-cash flows						
Amortization of discount on borrowings and debentures	—	—	58,320	352,524	11,291	422,135
Changes in foreign currency exchange rate	—	—	173,623	282,534	—	456,157
Others	47,020	(13,946)	(204,598)	298,934	792,901	920,311
Business combination(Note 50)	—	—	—	—	32,587	32,587
Balance at December 31, 2019	₩54,497	48,675	34,863,156	75,363,364	1,104,259	111,433,951

(*) At the beginning balance of 2019, the lease liabilities are included due to the adoption of IFRS 16.

48. Related parties

Intra-group balances, and income and expenses arising from intra-group transactions are eliminated in preparing the consolidated financial statements.

(a) Balances with the related parties as of December 31, 2018 and 2019 are as follows:

Related party	Account	2018	2019
Investments in associates:			
BNP Paribas Cardif Life Insurance	Other assets	₩9,860	92
”	Credit card loans	116	173
”	Deposits	444	402
Partners 4th Growth Investment Fund	Deposits	1,855	1,443
BNP Paribas Cardif General Insurance	Credit card loans	29	26
”	Allowances for credit Loss (“ACL”)	(2)	—
”	Other assets	—	401
”	Deposits	157	17
Shinhan Praxis K-Growth Global Private Equity Fund	Other assets	151	91
Dream High Fund III	Deposits	4	5
Midas Dong-A Snowball Venture Fund (*1)	Deposits	159	—
Credian Healthcare Private Equity Fund II	Deposits	45	4
Midas Dong-A Snowball Venture Fund 2	Deposits	354	233
IBKS-Shinhan Creative Economy New Technology Fund II (*1)	Deposits	672	—
Eum Private Equity Fund No.3	Deposits	49	353

(In millions of won)

48. Related parties (continued)

Related party	Account	2018	2019
SHBNPP Private Korea Equity Long-Short Professional Feeder (*2)	Other assets	133	—
Shinhan Global Healthcare Fund 1	Unearned revenue	360	—
Shinhan Fintech New Technology Fund No.1 (*1)	Unearned revenue	123	—
Taihan Industrial System Co., Ltd. (*3)	Deposits	85	—
Incorporated association Finance Saving Information Center	Credit card loans	3	—
	Deposits	4	6
GX Shinhan interest 1st Private Equity Fund	Unearned revenue	278	248
Nomura investment property trust No.19	Loans	11,966	11,973
”	Other assets	45	42
SHBNPP MAIN Professional Investment Type Private Mixed Asset Investment Trust No.3	Other assets	236	678
Shinhan-Stonebridge Petro Private Equity Fund	Other assets	484	810
Korea Finance Security	Deposits	—	362
SHINHAN-CORE TREND GLOBAL FUND 1	Unearned revenue	—	9
Hermes Private Investment Equity Fund	Deposits	—	275
Multimedia Tech Co.Ltd	Deposits	—	3
Korea Credit Bureau	Deposits	—	80
Goduck Gangil1 PFV Co., Ltd	Loans	—	24,000
”	ACL	—	(78)
SBC PFV Co., Ltd	Deposits	—	5,142
GMG Development Co,. Ltd	Deposits	—	300
Sprott Global Renewable Private Equity Fund I	Deposits	—	342
IMM Global Private Equity Fund	Loans	—	800
”	ACL	—	(3)
”	Deposits	—	7,598
Key management personnel and their immediate relatives:	Loans	3,313	4,426
	Assets	26,334	43,431
	Liabilities	₩ 4,589	16,822

(*1) Excluded from related parties due to the disposal or liquidation.
(*2) As the Group held control due to increases in the equity ratio during the year, it was changed from an associates to a consolidated subsidiary.
(*3) As the Group does not have significant influence to this entity, this has been removed from the related parties for the year ended December 31, 2019.

(In millions of won)

48. Related parties (continued)

(b) Transactions with the related parties for the years ended December 31, 2017, 2018 and 2019 are as follows:

Related party	Account	2017	2018	2019
Investments in associates				
BNP Paribas Cardif Life Insurance	Fees and commission income	₩4,631	3,716	4,230
”	Reversal of credit losses	—	4	3
”	Provision for credit losses	(3)	—	—
”	Other operating expenses	—	—	(1)
”	General and administrative expenses	(10)	(17)	(9)
Shinhan Praxis K-Growth Global Private Equity Fund	Fees and commission income	689	685	448
BNP Paribas Cardif General Insurance	Fees and commission income	4	9	11
”	Reversal of credit losses	1	—	—
”	Provision for credit losses	—	(2)	—
”	Other operating income	—	—	468
Midas Dong-A Snowball Venture Fund (*1)	Fees and commission income	38	47	119
”	Interest expense	(3)	(2)	(1)
SP New Technology Business investment Fund I (*2)	Fees and commission income	41	317	—
IBKS-Shinhan Creative Economy New Technology Fund (*2)	Fees and commission income	₩ 37	13	380
”	Interest expense	(2)	—	—
IBKS-Shinhan Creative Economy New Technology Fund 2 (*1)	Fees and commission income	25	16	8
SM New Technology Business Investment Fund I	Fees and commission income	55	55	14
JAEYOUNG SOLUTEC CO., LTD. (*2)	Interest income	654	523	—
”	Fees and commission income	1	2	—
”	Other operating income	3	3	—
”	Reversal of credit losses	1	—	—
”	Interest expense	(4)	(2)	—
”	Provision for credit losses	(55)	(1)	—
The Asia Pacific Capital Fund II L.P.	Fees and commission income	85	—	—
Partners 4th Growth Investment Fund	Interest expense	(16)	(19)	(7)
Shinhan-Albatross Technology Investment	Fees and commission income	152	216	216

(In millions of won)

48. Related parties (continued)

Related party	Account	2017	2018	2019
”	Interest expense	(21)	—	—
SHBNPP Private Korea Equity Long-Short Professional Feeder (*3)	Fees and commission income	892	975	363
Branbuil CO., LTD.	Fees and commission income	2	—	—
KDBC Midas Dong-A Snowball Venture Fund 2	Interest expense	—	(2)	—
STI-New Growth Engines Investment (*2)	Fees and commission income	30	16	—
Shinhan Fintech New Technology Fund No.1 (*1)	Fees and commission income	30	153	38
KTB New lake medical Global Investment	Interest income	10	—	—
”	Other operating expenses	(13)	—	—
Shinhan Global health Care Investment No.1	Fees and commission income	282	785	360
Taihan Industrial System Co., Ltd. (*4)	Fees and commission income	2	1	—
Shinhan capital-Cape FN Fund No.1 (*1)	Fees and commission income	—	82	101
SHC-K2 Global Material Fund	Fees and commission income	—	20	19
Synergy-Shinhan Mezzanine New Technology Investment Fund	Fees and commission income	—	127	94
Shinhan-Midas Dong-A Secondary Venture Fund	Fees and commission income	₩ —	71	187
GX Shinhan interest 1st Private Equity Fund	Fees and commission income	—	412	545
Shinhan-Nvestor Liquidity Solution Fund	Fees and commission income	—	214	361
SHC ULMUS Fund No.1	Fees and commission income	—	51	76
Shinhan-PS Investment Fund No.1	Fees and commission income	—	12	20
Nomura investment property trust No.19	Interest income	—	312	519
”	Other operating income	—	—	7
”	Provision for credit loss	—	(34)	—
SHBNPP MAIN Professional Investment Type Private Mixed Asset Investment Trust No.3	Fees and commission income	—	236	2,694
Shinhan-Stonebridge Petro Private Equity Fund	Fees and commission income	—	1,920	1,762
Korea Finance Security	Fees and commission income	—	—	10

(In millions of won)

48. Related parties (continued)

Related party	Account	2017	2018	2019
ShinHan – Soo Young Entrepreneur Investment Fund No.1	Fees and commission income	—	—	275
Shinhan-Rhinos 1 Fund	Fees and commission income	—	—	64
SHINHAN-CORE TREND GLOBAL FUND 1	Fees and commission income	—	—	45
Kiwoom-Shinhan Innovation Fund I	Fees and commission income	—	—	67
One Shinhan Global Fund 1	Fees and commission income	—	—	151
Yeollim-Shinhan Portfolio Fund I	Fees and commission income	—	—	59
FuturePlay-Shinhan TechInnovation Fund 1	Fees and commission income	—	—	7
WON JIN HOME PLAN CO.,LTD	Interest income	—	—	186
Korea Credit Bureau	Fees and commission income	—	—	13
”	Interest expense	—	—	(5)
Goduck Gangil1 PFV Co., Ltd	Interest income	—	—	328
”	Fees and commission income	—	—	1,120
”	Provision for credit loss	—	—	(78)
SBC PFV Co., Ltd	Interest expense	—	—	(3)
IMM Global Private Equity Fund	Interest income	—	—	28
”	Interest expense	—	—	(25)
”	Provision for credit loss	—	—	(3)
Key management personnel and their immediate relatives				
Interest income		101	101	161
		₩7,639	11,015	15,425

(*1) Excluded from the associates due to disposal and liquidation for the year ended December 31, 2019.
(*2) Excluded from the associates due to disposal and liquidation for the year ended December 31, 2018
(*3) Included in the related party due to the additional acquisition for the year ended December 31, 2019.
(*4) As the Group does not have significant influence to this entity, this has been removed from the related parties for the year ended December 31, 2019.

(In millions of won)

48. Related parties (continued)

(c) Key management personnel compensation

Key management personnel compensation for the years ended December 31, 2017, 2018 and 2019 were as follows:

	2017	2018	2019
Short-term employee benefits	₩17,112	22,502	21,237
Severance benefits	979	419	731
Share-based payment transactions (*)	6,787	4,944	12,343
	₩24,878	27,865	34,311

(*) The expenses of share-based payment transactions are the remuneration expenses during the vesting period.

(d) The guarantees provided between the related parties as of December 31, 2018 and 2019 are as follows:

Guarantor	Guaranteed Parties	Amount of guarantees 2018	Amount of guarantees 2019	Account
Shinhan Bank	BNP Paribas Cardif Life Insurance	₩10,000	10,000	Unused credit line

(e) Details of collaterals provided by the related parties as of December 31, 2018 and December 31, 2019 are as follows:

Provided to	Provided by	Pledged assets	2018	2019
Shinhan Bank	BNP Paribas Cardif Life Insurance	Government bonds	₩12,000	12,000
”	Hyungje art printing	Properties	—	120
”	Goduck Gangil1 PFV Co., Ltd	Guarantee insurance policy	—	28,800
			₩12,000	40,920

(f) Details of significant loan transactions with related parties as of December 31, 2018 and 2019 are as follows:

		2018				
Classification	Company	Beginning	Loan	Recover	Other (*)	Ending
Investments in associates	Nomura investment property trust No.19	₩—	12,000	—	(34)	11,966

(In millions of won)

48. Related parties (continued)

(*) The effect on changes in allowance for credit loss is included.

		2019				
Classification	**Company**	**Beginning**	**Loan**	**Recover**	**Other (*)**	**Ending**
Investments in associates	Nomura investment property trust No.19	₩11,966	—	—	7	11,973
”	Goduck Gangil1 PFV Co., Ltd	—	24,000	—	—	24,000
”	IMM Global Private Equity Fund	—	800	—	—	800
	Total	₩11,966	24,800	—	7	36,773

(*) The effect on changes in allowance for credit loss is included.

49. Interests in unconsolidated structured entities

(a) The nature and extent of interests in unconsolidated structured entities

The Group involved in assets-backed securitization, structured financing, beneficiary certificates (primarily investment funds) and other structured entities and characteristics of these structured entities are as follows:

	Description
Assets-backed securitization	Securitization vehicles are established to buy assets from originators and issue asset-backed securities in order to facilitate the originators’ funding activities and enhance their financial soundness. The Group is involved in the securitization vehicles by purchasing (or committing to purchase) the asset-backed securities issued and/or providing other forms of credit enhancement. The Group does not consolidate a securitization vehicle if (i) the Group is unable to make or approve decisions as to the modification of the terms and conditions of the securities issued by such vehicle or disposal of such vehicles’ assets, (ii) (even if the Group is so able) if the Group does not have the exclusive or primary power to do so, or (iii) if the Group does not have exposure, or right, to a significant amount of variable returns from such entity due to the purchase (or commitment to purchase) of asset-backed securities so issued or subordinated obligations or by providing other forms of credit support.
Structured financing	Structured entities for project financing are established to raise funds and invest in a specific project such as M&A (mergers and acquisitions), BTL (build-transfer-lease), shipping finance, etc. The Group is involved in the structured entities by originating loans, investing in equity, or providing credit enhancement.

(In millions of won)

49. Interests in unconsolidated structured entities (continued)

	Description
Investment fund	Investment fund means an investment trust, a PEF (private equity fund) or a partnership which invests in a group of assets such as stocks or bonds by issuing a type of beneficiary certificates to raise funds from the general public, and distributes its income and capital gains to their investors. The Group manages assets by investing in shares of investment fund or playing a role of an operator or a GP (general partner) of investment fund, on behalf of other investors.

The size of unconsolidated structured entities as of December 31, 2018 and 2019 are as follows:

	2018	2019
Total assets:		
Asset-backed securitization	₩196,108,655	208,441,947
Structured financing	132,050,391	195,374,046
Investment fund	71,487,406	215,371,530
	₩399,646,452	619,187,523

(b) Nature of risks

i) The carrying amounts of the assets and liabilities relating to its interests in unconsolidated structured entities as of December 31, 2018 and 2019 are as follows:

	2018			
	Assets-backed securitization	Structured financing	Investment fund	Total
Assets:				
Loans measured at fair value through profit or loss	₩ 292	504,571	802,825	1,307,688
Loan at amortized cost	478,998	6,925,438	33,500	7,437,936
Securities at fair value through profit or loss	4,263,817	288,757	5,293,807	9,846,381
Derivate assets	16,390	578	—	16,968
Securities at fair value through other comprehensive income	2,244,364	91,316	32,279	2,367,959
Securities at amortized cost	4,277,675	—	—	4,277,675
Other assets	5,453	48,457	34,333	88,243
	₩11,286,989	7,859,117	6,196,744	25,342,850
Liabilities:				
Derivative liabilities	₩ 111	—	—	111
Other	5,368	4,128	—	9,496
	₩ 5,479	4,128	—	9,607

(In millions of won)

49. Interests in unconsolidated structured entities (continued)

	2019			
	Assets-backed securitization	Structured financing	Investment fund	Total
Assets:				
Loans measured at fair value through profit or loss	₩ 10,646	69,727	—	80,373
Loan at amortized cost	785,134	10,207,866	664,024	11,657,024
Securities at fair value through profit or loss	3,705,565	70,407	9,378,374	13,154,346
Derivate assets	21,494	1,027	—	22,521
Securities at fair value through other comprehensive income	2,144,846	188,429	—	2,333,275
Securities at amortized cost	4,894,942	—	—	4,894,942
Other assets	3,244	14,776	58,948	76,968
	₩11,565,871	10,552,232	10,101,346	32,219,449
Liabilities:				
Other liabilities	₩ 682	10,457	—	11,139

ii) Exposure to risk relating to its interests in unconsolidated structured entities as of December 31, 2018 and 2019 are as follows:

	2018			
	Assets-backed securitization	Structured financing	Investment fund	Total
Assets held	₩11,286,989	7,859,117	6,196,744	25,342,850
ABS and ABCP commitments	1,395,417	2,300	602,594	2,000,311
Loan commitments	1,791,650	815,910	26,100	2,633,660
Guarantees	88,810	142,032	—	230,842
Others	—	49,464	—	49,464
	₩14,562,866	8,868,823	6,825,438	30,257,127

	2019			
	Assets-backed securitization	Structured financing	Investment fund	Total
Assets held	₩11,565,871	10,552,232	10,101,346	32,219,449
ABS and ABCP commitments	1,208,707	2,300	868,498	2,079,505
Loan commitments	845,904	855,520	—	1,701,424
Guarantees	139,522	4,000	—	143,522
Others	—	118,969	—	118,969
	₩13,760,004	11,533,021	10,969,844	36,262,869

(In millions of won)

50. Business combination

(a) Orange Life Insurance Co., Ltd

i) General information

On February 1, 2019, the Group obtained control over Orange Life Insurance Co., Ltd. by acquiring 59.15% of its shares after obtaining approval from the Financial Services Commission on January 16, 2019. The primary reason for the acquisition is to strengthen the life insurance business in response to changes in the financial market environment.

ii) Identifiable net assets

Fair values of assets acquired and liabilities assumed as of acquisition date are as follows:

	Amount (*1)
Assets:	
Cash and due from banks at amortized cost	₩ 739,071
Financial assets at fair value through profit or loss	1,573,453
Securities at fair value through other comprehensive income	11,111,395
Securities at amortized cost	11,273,999
Loans at amortized cost	2,588,588
Derivatives	13,934
Properties and equipment	35,489
Intangible assets (*2)	38,475
Other assets	5,847,621
	33,222,025
Liabilities:	
Liabilities under insurance contracts (*3)	24,187,474
Derivative liabilities	3,991
Other liabilities	6,098,301
	30,289,766
Fair value of the identifiable net assets	₩ 2,932,259

(*1) The Group measured the identifiable assets and liabilities of the acquirer at fair value at the date of the business combination for the allocation of the consideration transferred. The fair value was measured at the price that would be received at the date of the business combination when the asset was sold, or when the liability was transferred in an orderly transaction between market participants, and in case the price was not directly observed, it was estimated using appropriate valuation techniques.

(*2) Includes membership, software, and development costs that Orange Life Insurance Co., Ltd. holds.

(*3) The Group has reflected VOBA (Value of Business Acquired), which was measured separately by applying the indirect method based on the intrinsic value, to the carrying value of the liabilities under insurance contracts that the Orange Life Insurance Co., Ltd. had.

(In millions of won)

50. Business combination (continued)

iii) Goodwill

Goodwill recognized as a result of business combination is as follows:

	Amount
Consideration paid in cash	₩ 2,298,900
Fair value of identifiable net assets	(2,932,259)
Non-controlling interests (*)	1,197,935
Goodwill	₩ 564,576

(*) The non-controlling interests in Orange Life Insurance Co., Ltd was measured as a proportionate shares of the non-controlling interests in the identifiable net assets at acquisition date.

iv) Cost related to business combination

In connection with the business combination, the Group incurred expenses of ₩8,415 million, including legal fees and due diligence fees, which were recognized as fees and commission expense in the consolidated statement of comprehensive income.

v) Net cash outflows due to business combination

Net cash outflows due to business combination for the year ended December 31, 2019 are as follows:

	Amount
Consideration transferred in cash	₩2,298,900
Acquired cash and cash equivalents	(154,754)
	₩2,144,146

Operating income and net profit for the year ended December 31, 2019 from Orange Life Insurance Co., Ltd, are ₩387,440 million and ₩271,455 million, respectively, which are reflected in the consolidated statement of comprehensive income after the acquisition date.

(b) Asia Trust Co., Ltd

i) General information

On May 2, 2019, the Group obtained control over Asia Trust Co., Ltd. by acquiring 60% of its shares after obtaining approval from the Financial Services Commission on April 17, 2019. The primary reason for the acquisition is to strengthen the non-banking portfolio through real estate business line.

(In millions of won)

50. Business combination (continued)

ii) Identifiable net assets

Fair values of assets acquired and liabilities assumed as of acquisition date are as follows:

	Amount
Assets:	
Cash and due from banks at amortized cost	₩ 27,647
Financial assets at fair value through profit or loss	53,477
Loans at amortized cost (*1)(*3)	26,197
Properties and equipment	662
Intangible assets (*2)	40,649
Investment property	13,567
Other assets	13,367
	175,566
Liabilities:	
Other liabilities (*3)	44,571
Fair value of the identifiable net assets	₩130,995

(*1) Acquired loans were measured at fair value. The total amount of loans under contract is ₩44,356 million, and the cash flows that are not expected to be collected as of the acquisition date is ₩18,159 million.

(*2) Includes the value of contract balance of ₩36,584 million. The Group has considered the contracts that Asia Trust Co., Ltd held to be significant enough to generate future additional revenue, and evaluated them by incremental cash flow method.

(*3) In regard to the land trust project at Ramada Hotel in Gampo, Gyeongju, some owners of parcels filed a lawsuit to return the down payments, and the intermediate payments. The loan financial institution of the business has filed a suit against Asia Trust Co., Ltd for the balance of the loans delinquent based on the intermediate payment loan agreement and subsequent agreement with the Group. The Group recorded the expected loss as allowance and provision for the trust business loans. In addition, the creditor of the constructor filed a suit claiming the construction fee; however, the Group did not reflect the effect in the consolidated financial statements as of December 31, 2019 since the potential and extent of the losses regarding the lawsuit is not reliably estimated.

iii) Goodwill

Goodwill recognized as a result of the business combination is as follows:

	Amount
Consideration paid in cash	₩ 193,400
Fair value of identifiable net assets	(130,995)
Non-controlling interests (*)	52,398
Goodwill	₩ 114,803

(In millions of won)

50. Business combination (continued)

(*) The non-controlling interests in Asia Trust Co., Ltd was measured as a proportionate shares of the non-controlling interests in the identifiable net assets at acquisition date.

iv) Cost related to business combination

In connection with the business combination, the Group incurred expenses of ₩2,124 million, including legal fees and due diligence fees, which were recognized as fees and commission expense in the consolidated statement of comprehensive income.

v) Net cash outflows due to business combination

Net cash outflows due to business combination for the year ended December 31, 2019 are as follows:

	Amount
Consideration transferred	₩193,400
Acquired cash and cash equivalents	(18,647)
	₩174,753

Operating income and profit for the year ended December 31, 2019 from Asia Trust Co., Ltd. are ₩29,394 million and ₩18,098 million, respectively, which are reflected in the consolidated statement of comprehensive income after the acquisition date.

(c) Shinhan Vietnam Finance Company Limited

i) General information

On January 22, 2019, the Group has acquired control over Prudential Vietnam Finance Co., Ltd in Vietnam by acquiring 100% of its shares, and changed the name to Shinhan Vietnam Finance Co., Ltd. The primary reason for the acquisition is to expand its new market through credit loan business in Vietnam.

ii) Identifiable net assets

Fair values of assets acquired and liabilities assumed as follows:

	Amount
Assets:	
Cash and due from banks at amortized cost	₩ 12,271
Loans at amortized cost	259,082
Properties and equipment	4,163
Intangible assets	5,629
Other assets	12,258
	293,403
Liabilities:	
Deposits	211,325
Other liabilities	19,036
	230,361
Fair value of the identifiable net assets	₩ 63,042

(In millions of won)

50. Business combination (continued)

iii) Goodwill

Goodwill recognized as a result of the business combination is as follows:

	Amount
Consideration paid in cash	₩170,194
Fair value of identifiable net assets	(63,042)
Goodwill	₩107,152

The Group assessed the goodwill based on the financial information as of January 1, 2019 (“assessment date”) as reliable financial information as of the acquisition date, January 22, 2019, were not available.

Between the assessment date and the acquisition date, no significant transactions that affected the fair value of the identifiable net assets were identified.

iv) Cost related to business combination

In connection with the business combination, the Group incurred expenses of ₩92 million, including legal fees and due diligence fees, which were recognized as fees and commission expense in the consolidated statement of comprehensive income.

v) Net cash outflows due to business combination

Net cash outflows due to business combination for the year ended December 31, 2019 are as follows:

	Amount
Consideration transferred	₩170,194
Acquired cash and cash equivalents	(12,271)
	₩157,923

Operating income and profit for the year ended December 31, 2019 from Shinhan Vietnam Finance Company Limited are ₩22,912 million and ₩18,363 million, respectively, which are reflected in the consolidated statement of comprehensive income after the acquisition date.

(d) If the business combination had been consolidated from the beginning of 2019, the operating income and net income that would have been included in the consolidated statement of comprehensive income do not differ materially from the current operating income and net income recognised from the acquisition date of the business combination.

(In millions of won)

51. Transition effects arising from changes in accounting policies

Upon adoption of IFRS 16 'Leases', the Group recognized lease liabilities in relation to leases that had previously been classified as operating leases in accordance with IAS 17. These liabilities were measured at the present value of the future lease payments at the lessee's incremental borrowing rate on January 1, 2019. The lessee's incremental borrowing rates applied to the lease liabilities are between 2.06% and 8.96% on January 1, 2019. The difference between the amount of operating lease agreements disclosed as of December 31, 2018 discounted at the Group's incremental borrowing rate and the lease liabilities recognized at the date of initial application is as follows:

	Amount
Operating lease agreement commitment disclosed as of December 31, 2018	₩610,080
Amount discounted using the Group's incremental borrowing rate	591,725
Less:	
Low-value leases recognized as current expenses through the straight-line method	(3,454)
Value-added Tax	(51,429)
Lease liabilities recognized at the beginning of 2019	₩536,842

Right-of-use assets were measured by adjusting the amount of prepaid or unpaid lease payments in relation to leases recognized in the consolidated statement of financial position at the same amount as the lease liability. As a result, property, plant and equipment increased by ₩573,823 million at the beginning of 2019, and prepaid expense, unearned revenue and accrued expenses decreased by ₩42,196 million, ₩5,197 million and ₩17 million, respectively.

The Group has changed its accounting policies as applying IFRS 9, *Financial Instruments*, and IFRS 15, *Revenue from Contracts with Customers*. With respect to classification, measurement and impairment of financial instruments, the financial statements as of and for the year ended December 31, 2017 have not been restated in accordance with the clause waiving the requirement to restate comparative financial statements.

IFRS 9 replaces IAS 39, *Financial Instruments: Recognition and Measurement*, relating to recognition, classification and measurement of financial assets and financial liabilities, derecognition of financial instruments, impairment of financial assets and hedge accounting. Additionally, IFRS 9 have made amendments to other standards relating to financial instruments such as IFRS 7, *Financial Instruments: Disclosures*.

(In millions of won)

51. Transition effects arising from changes in accounting policies (continued)

(i) Changes in equity due to application of IFRS 9 and 15

Changes in equity as of January 1, 2018 due to the initial application date of IFRS 9 and 15 are as follows:

	Amounts
Retained earnings at January 1, 2018 before changes	₩20,791,681
Adjustments of retained earnings due to the application of IFRS 9 :	
Reclassification from financial assets at amortized cost to financial assets measured at fair value through profit or loss	(74,061)
Reclassification from available-for-sale financial assets to financial assets measured at fair value through profit or loss	178,518
Reclassification from available-for-sale financial assets to financial assets measured at fair value through other comprehensive income (*1)	204,457
Increase in loss allowance for financial assets measured at amortized cost	(573,088)
Increase in loss allowance for loan commitments and financial guarantee contracts	(55,274)
Increase in loss allowance for debt instruments measured at fair value through other comprehensive income	(18,976)
Effect of overlay approach application	34,102
Others (*2)	(40,063)
	(344,385)
Adjustments of retained earnings due to the application of IFRS 15 (*3)	(2,896)
Tax effects (*4)	95,426
Retained earnings at January 1, 2018 after changes	₩20,539,826

(*1) With the application of IFRS 9, the effect of retained earnings of the recognized impairment from equity securities has reclassified to other comprehensive income.
(*2) Include translation of foreign currencies, etc.
(*3) The Group has divided the trust fees into trust sales fees and trust managing fees and recognition of trust managing fees are deferred.
(*4) Tax effects due to the application of IFRS 9 are separately shown.

	Amounts
Accumulated other comprehensive loss at January 1, 2018 before changes	₩(529,734)
Adjustments of accumulated other comprehensive income due to the application of IFRS 9:	
Reclassification from available-for-sale financial assets to financial assets measured at fair value through profit or loss	(178,518)
Reclassification from available-for-sale financial assets to financial assets measured at fair value through other comprehensive income (*1)	(204,457)
Increase in loss allowance for debt instruments measured at fair value through other comprehensive income	18,976
Effect of overlay approach application	(34,102)
Others (*2)	11,039
	(387,062)
Tax effects (*3)	110,051
Accumulated other comprehensive loss at January 1, 2018 after changes	₩(806,745)

(In millions of won)

51. Transition effects arising from changes in accounting policies (continued)

(*1) The effect on retained earnings arising from the recognition of impairment losses related to equity securities in the prior periods was transferred to other comprehensive income upon the application of IFRS 9.
(*2) Other adjustments include foreign currency translation and changes in non-controlling interests, resulting from the adoption of IFRS 9.
(*3) Tax effects due to the application of IFRS 9 are separately shown.

(ii) Reclassification of financial instruments upon adoption of IFRS 9

Details of reclassification of financial instruments as of January 1, 2018, the initial application date of IFRS 9, are as follows:

IAS 39		IFRS 9 (*2)	Carrying value under IAS 39 (*1)	Carrying value under IFRS 9 (*1)	Difference
Financial assets:					
Due from banks	Loans and receivables	Financial assets measured at FVTPL (*2)	₩ 902,124	833,942	(68,182)
	Loans and receivables	Amortized cost	19,988,001	19,988,001	—
Loan receivables	Loans and receivables	Financial assets measured at FVTPL (*2)	750,342	778,985	28,643
	Loans and receivables	Amortized cost	277,126,029	277,126,029	—
Other financial assets	Loans and receivables	Amortized cost	12,090,983	12,090,983	—
Trading assets (debt securities)	Financial assets at FVTPL	Financial assets measured at FVTPL	23,640,646	23,640,646	—
Trading assets (equity securities)	Financial assets at FVTPL	Financial assets measured at FVTPL	4,634,353	4,634,353	—
Trading assets (deposit in gold and silver)	Financial assets at FVTPL	Financial assets measured at FVTPL	189,297	189,297	—
Financial assets designated as at FVTPL (debt securities)	Financial assets at FVTPL	Financial assets measured at FVTPL (*3)	2,030,522	2,030,522	—
	Financial assets at FVTPL	Financial assets designated as at FVTPL	80,288	80,288	—
Financial assets designated as at FVTPL (equity securities)	Financial assets at FVTPL	Financial assets measured at FVTPL (*3)	1,162,553	1,162,553	—
	Financial assets at FVTPL	Financial assets designated as at FVTPL	71,803	71,803	—
Financial assets designated as at FVTPL (other securities – compound financial instruments)	Financial assets at FVTPL	Financial assets measured at FVTPL (*3)	233,892	233,892	—
Derivatives	Financial assets at FVTPL	Financial assets measured at FVTPL (*3)	3,400,178	3,348,803	(51,375)
AFS financial assets (debt securities)	AFS financial assets	Financial assets measured at FVTPL (*2)	528,745	533,452	4,707
	AFS financial assets	Financial assets measured at FVOCI	36,657,807	36,657,807	—
AFS financial assets (equity securities)	AFS financial assets	Financial assets measured at FVTPL (*2)	4,339,979	4,350,969	10,990

(In millions of won)

51. Transition effects arising from changes in accounting policies (continued)

IAS 39		IFRS 9 (*2)	Carrying value under IAS 39 (*1)	Carrying value under IFRS 9 (*1)	Difference
	AFS financial assets	Financial assets measured at FVOCI	590,405	590,405	—
HTM financial assets (debt securities)	HTM financial assets	Financial assets measured at FVTPL (*2)	565,813	529,906	(35,907)
	HTM financial assets	Amortized cost	24,424,867	24,424,867	—
			₩ 413,408,627	413,297,503	(111,124)
Financial Liabilities:					
Deposits	Financial liability measured at amortized cost	Financial liabilities measured at amortized cost	₩ 249,419,224	249,419,224	—
Trading liabilities	Financial liabilities at FVTPL	Financial liabilities measured at FVTPL	1,848,490	1,848,490	—
Financial liabilities designated as at FVTPL	Financial liabilities at FVTPL	Financial liabilities designated as at FVTPL	8,260,636	8,260,636	—
	Financial liabilities at FVTPL	Financial liabilities measured at FVTPL (*3)	36,973	36,973	—
Derivatives	Financial liabilities at FVTPL	Financial liabilities measured at FVTPL (*3)	3,487,661	3,483,642	(4,019)
Borrowings	Financial liabilities measured at amortized cost	Financial liabilities measured at amortized cost	27,586,610	27,586,313	(297)
Debt securities issued	Financial liabilities measured at amortized cost	Financial liabilities measured at amortized cost	51,340,821	51,340,821	—
Others	Financial liabilities measured at amortized cost	Financial liabilities measured at amortized cost	20,124,451	20,124,432	(19)
			₩ 362,104,866	362,100,531	(4,335)

(*1) Gross carrying amounts that are before netting allowance for loan losses or credit loss allowance.
(*2) Under IFRS 9, these financial instruments were categorized as financial assets or liabilities – FVTPL, as 1) the instruments are not held within a business model whose objective is achieved by both collecting contractual cash flows and selling them, or 2) the contractual terms of them does not give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.
(*3) For hybrid contracts including embedded derivatives, the host contract and the derivatives are separated in accordance with IFRS 9.

(In millions of won)

51. Transition effects arising from changes in accounting policies (continued)

(iii) Impairment of financial assets upon adoption of IFRS 9

Changes of credit loss allowance as of January 1, 2018, the initial application date of IFRS 9, are as follows:

Classification based on IAS 39	Classification based on IFRS 9	Loss allowance based on IAS 39	Loss allowance based on IFRS 9
Loans and receivables			
Due from banks	Financial assets at amortized cost	₩ 14,054	15,062
Loan receivables	Financial assets at amortized cost	2,307,275	2,871,986
	Financial assets measured at FVTPL	3,329	—
Other financial assets	Financial assets at amortized cost	49,679	51,818
AFS financial assets			
Debt securities	Financial assets measured at FVOCI	—	18,976
HTM financial assets			
Debt securities	Financial assets at amortized cost	—	8,559
		₩ 2,374,337	2,966,401
Financial guarantee	Financial guarantee	₩ 36,506	37,289
Unused credit line and other credit commitment	Unused credit line and other credit commitment	168,006	222,498
		₩ 204,512	259,787

(iv) The reclassification applying business model

For the financial assets as of January 1, 2018, the date of the initial application of IFRS 9, the management of the Group has assessed business model of those, and classified those applying the IFRS.

(In millions of won)

51. Transition effects arising from changes in accounting policies (continued)

The effect of reclassification is as follows:

1) Gross carrying amounts

	Carrying value based on the current standard	Amount reclassified	Amount remeasured	Carrying value based on the new standard	Changes in retained earnings	Changes in other comprehensive income
Financial assets :						
Due from banks						
Carrying value under IAS 39 as of January 1, 2018	₩ 20,890,125	—	—	20,890,125	—	—
Reclassification to financial assets measured at FVTPL	—	(902,124)	—	(902,124)	—	—
	20,890,125	(902,124)	—	19,988,001	—	—
Loans						
Carrying value under IAS 39 as of January 1, 2018	277,876,371	—	—	277,876,371	—	—
Reclassification to financial assets measured at FVTPL	—	(750,342)	—	(750,342)	—	—
	277,876,371	(750,342)	—	277,126,029	—	—
Other financial assets						
Carrying value under IAS 39 as of January 1, 2018	12,090,983	—	—	12,090,983	—	—
Trading assets (debt instruments) (*1)						
Carrying value under IAS 39 as of January 1, 2018	23,640,646	—	—	23,640,646	—	—
Reclassification to financial assets measured at FVTPL	—	(23,640,646)	—	(23,640,646)	—	—
	23,640,646	(23,640,646)	—	—	—	—
Trading assets (equity instruments)						
Carrying value under IAS 39 as of January 1, 2018	4,634,353	—	—	4,634,353	—	—
Reclassification to financial assets measured at FVTPL	—	(4,634,353)	—	(4,634,353)	—	—
	4,634,353	(4,634,353)	—	—	—	—
Trading assets (gold deposit) (*1)						
Carrying value under IAS 39 as of January 1, 2018	189,297	—	—	189,297	—	—
Reclassification to financial assets measured at FVTPL	—	(189,297)	—	(189,297)	—	—
	189,297	(189,297)	—	—	—	—

(In millions of won)

51. Transition effects arising from changes in accounting policies (continued)

	Carrying value based on the current standard	Amount reclassified	Amount remeasured	Carrying value based on the new standard	Changes in retained earnings	Changes in other comprehensive income
Derivatives (*1)						
Carrying value under IAS 39 as of January 1, 2018	3,400,178	—	—	3,400,178	—	—
Reclassification to financial assets measured at FVTPL	—	(51,375)	—	(51,375)	—	—
	3,400,178	(51,375)	—	3,348,803	—	—
Financial assets designated at FVTPL (*1)						
Carrying value under IAS 39 as of January 1, 2018	3,579,057	—	—	3,579,057	—	—
Reclassification to financial assets measured at FVTPL	—	(3,426,966)	—	(3,426,966)	—	—
Reclassification to financial assets designated at FVTPL	—	(152,091)	—	(152,091)	—	—
	₩ 3,579,057	(3,579,057)	—	—	—	—

	Carrying value based on the current standard	Amount reclassified	Amount remeasured	Carrying value based on the new standard	Changes in retained earnings (*3)	Changes in other comprehensive income (*3)
AFS (debt securities)						
Carrying value under IAS 39 as of January 1, 2018	₩ 37,186,552	—	—	37,186,552	—	—
Reclassification to financial assets measured at FVTPL	—	(528,745)	—	(528,745)	—	—
Reclassification to financial assets measured at FVOCI	—	(36,657,807)	—	(36,657,807)	—	—
	37,186,552	(37,186,552)	—	—	—	—
AFS (equity securities)						
Carrying value under IAS 39 as of January 1, 2018	4,930,385	—	—	4,930,385	—	—
Reclassification to financial assets measured at FVTPL	—	(4,339,979)	—	(4,339,979)	—	—
Reclassification to financial assets measured at FVOCI	—	(590,405)	—	(590,405)	—	—
	4,930,385	(4,930,385)	—	—	—	—
HTM (debt securities)						
Carrying value under IAS 39 as of January 1, 2018	24,990,680	—	—	24,990,680	—	—
Reclassification to financial assets measured at FVTPL	—	(565,813)	—	(565,813)	—	—

(In millions of won)

51. Transition effects arising from changes in accounting policies (continued)

	Carrying value based on the current standard	Amount reclassified	Amount remeasured	Carrying value based on the new standard	Changes in retained earnings (*3)	Changes in other comprehensive income (*3)
Reclassification to financial assets measured at amortized cost	—	(24,424,867)	—	(24,424,867)	—	—
	24,990,680	(24,990,680)	—	—	—	—
Financial assets as measured at FVTPL						
Carrying value under IAS 39 as of January 1, 2018	—	—	—	—	—	—
Transfer from due from banks	—	902,124	(68,182)	833,942	—	(68,182)
Transfer from loans and other receivables	—	750,342	30,027	780,369	30,027	—
Transfer from trading assets	—	28,464,296	—	28,464,296	—	—
Transfer from financial assets designated at FVTPL	—	3,426,967	—	3,426,967	—	—
Transfer from AFS	—	4,868,724	7,708	4,876,432	108,532	(108,532)
Transfer from HTM	—	565,813	(35,907)	529,906	—	(35,907)
Transfer from derivative assets	—	51,375	(42,195)	9,180	—	—
	—	—	(2,575)	(2,575)	—	—
	—	39,029,641	(111,124)	38,918,517	138,559	(212,620)
Financial assets designated at FVTPL (IFRS 9)						
Carrying value under IAS 39 as of January 1, 2018	—	—	—	—	—	—
Transfer from financial assets designated at FVTPL (IAS 39)	—	152,091	—	152,091	—	—
	—	152,091	—	152,091	—	—
Financial assets measured at FVOCI (*2)						
Carrying value under IAS 39 as of January 1, 2018	—	—	—	—	—	—
Transfer from AFS	—	37,248,212	—	37,248,212	204,457	(204,457)
	—	37,248,212	—	37,248,212	204,457	(204,457)
Financial assets measured at amortized cost (*2)						
Carrying value under IAS 39 as of January 1, 2018	—	—	—	—	—	—
Transfer from HTM	—	24,424,867	—	24,424,867	—	—
	—	24,424,867	—	24,424,867	—	—
	₩ 413,408,627	—	(111,124)	413,297,503	343,016	(417,077)

(In millions of won)

51. Transition effects arising from changes in accounting policies (continued)

Financial liabilities :	Carrying value based on the current standard	Amount reclassified	Amount remeasured	Carrying value based on the new standard	Changes in retained earnings	Changes in other comprehensive income
Deposits						
Carrying value under IAS 39 as of January 1, 2018	₩ 249,419,224	—	—	249,419,224	—	—
	249,419,224	—	—	249,419,224	—	—
Trading liabilities (*1)						
Carrying value under IAS 39 as of January 1, 2018	1,848,490	—	—	1,848,490	—	—
Reclassification to financial liabilities measured at FVTPL	—	(1,848,490)	—	(1,848,490)	—	—
	1,848,490	(1,848,490)	—	—	—	—
Financial liabilities designated at FVTPL						
Carrying value under IAS 39 as of January 1, 2018	8,297,609	—	—	8,297,609	—	—
Reclassification to financial liabilities designated at FVTPL	—	(8,260,636)	—	(8,260,636)	—	—
Reclassification to financial liabilities measured at FVTPL	—	(36,973)	—	(36,973)	—	—
	8,297,609	(8,297,609)	—	—	—	—
Financial liabilities measured at FVTPL						
Carrying value under IAS 39 as of January 1, 2018	—	—	—	—	—	—
Transfer from trading liabilities	—	1,848,490	—	1,848,490	—	—
Transfer from financial liabilities designated at FVTPL	—	36,973	—	36,973	—	—
	—	1,885,463	—	1,885,463	—	—
Financial liabilities designated at FVTPL						
Carrying value under IAS 39 as of January 1, 2018	—	—	—	—	—	—
Transfer from financial liabilities designated at FVTPL	—	8,260,636	—	8,260,636	—	—
	—	8,260,636	—	8,260,636	—	—

(In millions of won)

51. Transition effects arising from changes in accounting policies (continued)

Financial liabilities :	Carrying value based on the current standard	Amount reclassified	Amount remeasured	Carrying value based on the new standard	Changes in retained earnings	Changes in other comprehensive income
Derivative liabilities						
Carrying value under IAS 39 as of January 1, 2018	3,487,661	—	—	3,487,661	—	—
Other	—	—	(4,019)	(4,019)	—	—
	3,487,661	—	(4,019)	3,483,642	—	—
Borrowings						
Carrying value under IAS 39 as of January 1, 2018	27,586,610	—	—	27,586,610	—	—
Other	—	—	(297)	(297)	—	—
	27,586,610	—	(297)	27,586,313	—	—
Debt securities issued						
Carrying value under IAS 39 as of January 1, 2018	51,340,821	—	—	51,340,821	—	—
Other financial liabilities						
Carrying value under IAS 39 as of January 1, 2018	20,124,451	—	—	20,124,451	—	—
Other	—	—	(19)	(19)	—	—
	20,124,451	—	(19)	20,124,432	—	—
	₩ 362,104,866	—	(4,335)	362,100,531	—	—

(*1) With respect to financial assets and financial liabilities reclassified from the category of fair value through profit or loss, effective interest rates calculated on the initial application date of IFRS 9 and interest income or expense recognized shall be disclosed. Such reclassification has not occurred as a result of the IFRS 9 adoption.

(*2) With respect to financial assets and financial liabilities reclassified to financial instruments measured at amortized cost, and financial assets measured at fair value through profit or loss reclassified to the category of fair value through other comprehensive income, the gain or loss on fair value measurement that would otherwise have been recognized in profit or loss or other comprehensive income in the reporting period, and the fair value of the financial assets or financial liabilities, shall be disclosed. Such reclassification has not occurred as a result of the IFRS 9 adoption.

(In millions of won)

51. Transition effects arising from changes in accounting policies (continued)

2) Credit loss allowance

	Carrying value based on the current standard	Amount reclassified	Amount remeasured	Carrying value based on the new standard	Changes in retained earnings	Changes in other comprehensive income
Credit loss allowance for						
Due from banks	₩ 14,054	—	1,008	15,062	(1,008)	—
Loans	2,310,604	(3,328)	564,710	2,871,986	(561,382)	—
Financial asset measured at FVOCI (Debt securities)	—	—	18,976	18,976	(18,976)	18,976
Financial asset measured at amortized cost (Debt securities)	—	—	8,559	8,559	(8,559)	—
Other assets	49,679	—	2,139	51,818	(2,139)	—
Financial guarantee	36,506	—	783	37,289	(783)	—
Unused credit line and other credit commitment	168,006	—	54,492	222,498	(54,492)	—
	₩2,578,849	(3,328)	650,667	3,226,188	(647,339)	18,976

(v) Hedge accounting

IFRS 9 maintains the mechanics of hedge accounting (i.e. fair value hedge, cash flow hedge, hedge of a net investment in a foreign operation) as defined in IAS 39, whereas a principle-based hedge accounting requirements that focuses on an entity's risk replaced complex and rule-based hedge accounting requirements in IAS 39. Additionally, qualifying hedged items and qualifying hedging instruments have been expanded and hedge accounting requirements have been eased by eliminating a subsequent hedge effectiveness assessment and a quantitative test (80~125%). Hedge accounting can be applied to certain transactions that fail to qualify for hedge accounting requirements under IAS 39 when applying IFRS 9, and thus alleviates profit or loss volatility.

(vi) Financial impact with IFRS 15

As of December 31, 2018, the effect of applying IFRS 15 is as follows in the statement of comprehensive income of the Group as of December 31, 2018 (excluding trust fees reflected by the conversion effect). The effect on the terminated cash flow statement is not significant.

The effect on the consolidated statement of financial position as of December 31, 2018 is as follows.

	Disclosed amount	Adjustments	Amount before implementation of IFRS 15
Liabilities:			
Provisions:			
Credit card	₩ —	(24,700)	24,700
Other liabilities:			
Accounts payable	9,748,168	(41,758)	9,789,926
Unearned revenues	236,827	(209,241)	446,068
Others	2,496,169	275,698	2,220,471

(In millions of won)

51. Transition effects arising from changes in accounting policies (continued)

The effect on the consolidated statement of comprehensive income is as follows.

	Disclosed amount	Adjustments	Amount before implementation of IFRS 15
Net fee and commission income (*1)(*2):			
Fee and commission income:			
Credit card	₩1,360,322	(1,135,515)	2,495,837
Fee and commission incomes			
Credit card payment	(944,533)	1,135,515	(2,080,048)

(*1) Before adopting IFRS 15, the Group defers and recognizes the amount allocated to the credit card points as unearned revenue and revenue is recognized only when the points are redeemed and the Group has fulfilled its obligation to provide the benefits. In addition, a provision for onerous contracts is recognized when the expected benefits to be derived by the Group from customer loyalty program are lower than the unavoidable cost of meeting its obligations under the programmes. However under IFRS 15, the amount allocated to the credit card points is regarded as consideration payable to the customers and recognized as a reduction of fee and commission income, estimated as fair value of the monetary benefits taking into account the expected redemption rate.

(*2) The Group has changed the recognition of card holder service fee paid to a customer recognized as fee and commission expense before adopting IFRS 15, to reduction of fee and commission income under IFRS 15.

52. Subsequent events occurred after reporting period

(a) Acquisition of residual interest in Orange Life Insurance Co. Ltd.

The Group, pursuant to its Board of Directors' resolution on November 14, 2019, reached a decision on exchanging of the common shares of Shinhan Financial Group Co., Ltd. (the "Company") and Orange Life Insurance Co. Ltd. ("Orange Life") by means of a small-scale stock exchange, with the purpose to enable the Group to hold 100% of the stock of Orange Life. The stock exchange was consummated on January 28, 2020, at an exchange ratio of 0.6601483 shares of the Company for each share of Orange Life. As a result, the shares issued by Orange Life and owned by shareholders of Orange Life other than the Company were transferred to the Company on January 28, 2020 and such shareholders became shareholders of the Group by acquiring 8,232,906 newly issued shares in exchange for 13,882,062 treasury shares of the Group. Upon the share exchange, Orange Life became a wholly owned subsidiary of the Group.

(b) Coronavirus disease (COVID-19)

The rapid spread of the recent coronavirus (COVID-19) pandemic has had far-reaching negative consequences on global economy, which could impact our ability to generate revenues and negatively impact specific portfolios through negative rating migrations, higher than expected credit losses and potential impairments of assets. The ECL at December 31, 2019 was estimated based on a range of forecast economic conditions as at that date. The impact on GDP and other key indicators will be considered when determining the severity and likelihood of downside economic scenarios that will be used to estimate ECL under IFRS 9 in 2020. Even though the Group is closely monitoring the situation, the impact on the Group resulting from the virus cannot be estimated as of the issuance date.

(In millions of won)

53. Condensed Shinhan Financial Group (Parent Company only) Financial Statements

STATEMENTS OF FINANCIAL POSITION

	2018	2019
Assets		
Deposits		
Banking subsidiaries	₩ 24	167
Other	48,572	—
Receivables from subsidiaries:		
Non-banking subsidiaries	1,644,666	2,219,698
Investment (at equity) in subsidiaries:		
Banking subsidiaries	13,792,072	13,797,222
Non-banking subsidiaries	11,983,360	15,183,053
Financial assets at FVTPL	1,927,150	443,377
Derivative assets	—	24,352
Property, equipment and intangible assets, net	7,983	11,106
Other assets		
Banking subsidiaries	311,052	408,436
Non-banking subsidiaries	162,695	171,321
Other	236,658	2,590
Total assets	₩30,114,232	32,261,322
Liabilities and equity		
Borrowings	₩ 125,000	—
Debt securities issued	7,812,358	9,147,640
Derivative liabilities	—	17,687
Accrued expenses & other liabilities	526,806	630,569
Total liabilities	8,464,164	9,795,896
Equity	21,650,068	22,465,426
Total liabilities and equity	₩30,114,232	32,261,322

(In millions of won)

53. Condensed Shinhan Financial Group (Parent Company only) Financial Statements (continued)

CONDENSED STATEMENTS OF INCOME

	2017	2018	2019
Income			
Dividends from banking subsidiaries	₩ 481,524	541,524	892,310
Dividends from non-banking subsidiaries	448,588	866,150	428,634
Interest income from banking subsidiaries	228	268	263
Interest income from non-banking subsidiaries	27,111	31,224	38,968
Other income	51,953	74,215	125,324
Total income	1,009,404	1,513,381	1,485,499
Expenses			
Interest expense	(179,330)	(187,882)	(206,815)
Other expense	(74,733)	(89,145)	(147,589)
Total expenses	(254,063)	(277,027)	(354,404)
Profit before income tax expense	755,341	1,236,354	1,131,095
Income tax expense	614	1,471	1,922
Profit for the year	₩ 754,727	1,234,883	1,129,173

(In millions of won)

53. Condensed Shinhan Financial Group (Parent Company only) Financial Statements (continued)

CONDENSED STATEMENTS OF CASH FLOWS

	2017	2018	2019
Cash flows from operating activities			
Profit before income taxes	₩ 755,341	1,236,354	1,131,095
Non-cash items included in profit before tax	(774,385)	(1,251,379)	(1,164,022)
Changes in operating assets and liabilities	(66,339)	(1,671,189)	1,475,702
Net interest paid	(149,642)	(153,926)	(154,765)
Dividend received from subsidiaries	930,112	1,407,674	1,320,944
Income tax refunds (paid)	100	—	(194)
Net cash provided by (used in) operating activities	695,187	(432,466)	2,608,760
Cash flows from investing activities			
Net loan origination to non-banking subsidiaries	(300,000)	(412,630)	(575,936)
Acquisition of subsidiary	(30,000)	(42,273)	(2,977,196)
Other, net	(715)	(231,281)	(660)
Net cash used in investing activities	(330,715)	(686,184)	(3,553,792)
Cash flows from financing activities			
Issuance of convertible preferred shares	—	—	747,791
Issuance of hybrid bonds	224,466	1,107,838	199,476
Redemption of hybrid bonds	(300,000)	—	—
Net changes in borrowings	—	120,000	(125,000)
Issuance of debt securities issued	1,497,588	2,396,138	3,194,764
Repayments of debt securities issued	(1,080,000)	(1,590,000)	(1,844,000)
Dividend paid	(706,565)	(714,705)	(830,772)
Acquisition of treasury stock	—	(151,993)	(444,077)
Redemption of lease liabilities	—	—	(1,614)
Net cash provided by (used in) financing activities	(364,511)	1,167,278	896,568
Net increase (decrease) in cash and cash equivalents	(39)	48,628	(48,464)
Cash and cash equivalents at beginning of year	39	—	48,628
Cash and cash equivalents at end of year	₩ —	48,628	164

EXHIBITS 1.1

[Translation]

ARTICLES OF INCORPORATION

CHAPTER I
GENERAL PROVISIONS

Article 1 (Corporate Name)

The name of this company shall be "Chusik Hoesa Shinhan-Kumyoong-Jijoo-Hoesa" (the "Company"), which shall be "Shinhan Financial Group Co., Ltd." in English.

Article 2 (Objective)

The objective of the Company shall be to engage in the following business activities:

(1) To control or manage a financial company or a company having close relation with the financial business;

(2) To provide financial support to its subsidiary, etc. (which expression shall include the subsidiary, sub-subsidiary, and the company under the control of sub-subsidiary; hereinafter the same shall apply);

(3) To invest in the subsidiary or to raise funds for the financial support of its subsidiary, etc.;

(4) To develop and sell joint products with its subsidiary, etc., and to provide the necessary resources for the business operation of its subsidiary, etc.;

(5) To provide business support including computer, legal, accounting support, etc., entrusted by its subsidiary, etc.;

(6) To engage in the other business incidental or related to the foregoing.

Article 3 (Location of Head Office and Establishment of Branch, etc.)

(1) The Company shall have its head office in Seoul.

(2) The Company may establish branches, liaison offices, representative offices or subsidiaries within or outside Korea, by the resolution of the Board of Directors, when it deems necessary.

Article 4 (Method of Public Notices)

Public notices of the Company shall be published on its internet homepage (http://www.shinhangroup.com). Provided, however, that if technical difficulties or other issues disrupt publication of notices on the Company's internet homepage, notices will be published in Hankuk Kyongje Shinmun and Maeil Kyongje Shinmun, daily newspapers published in Seoul.

CHAPTER II
SHARES OF STOCK

Article 5 (Total Number of Authorized Shares)

The total number of shares to be issued by the Company shall be 1,000,000,000 shares.

Article 6 (Par Value per Share)

The par value per share to be issued by the Company shall be five thousand (5,000) Won.

Article 7 (Number of Shares Issued at the Time of Incorporation)

The total number of shares issued at the time of incorporation of the Company shall be _284,453,152 shares of common stock in registered form plus the number of common shares in registered form to be issued and delivered upon the exercise of warrant by the holders of the bonds with warrants issued by Shinhan Bank on December 2, 1998 during the period from July 15, 2001 to August 31, 2001.

Article 8 (Types of Shares)

(1) The shares to be issued by the Company shall be common shares in registered form and preferred shares in registered form.

(2) Registered preferred shares shall have preference over common shares in dividend distribution and liquidation of assets of the Company. The amount of distribution upon liquidation of the Company to preferred shares with liquidation preference shall be no greater than the sum of their initial issue price and accrued but unpaid dividend.

Article 9 (Number and Rights of Preferred Shares)

(1) Preferred shares to be issued by the Company shall be non-voting, and the number thereof shall not exceed one half (1/2) of the total number of issued and outstanding shares.

(2) The dividends on non-voting preferred shares shall be determined by the Board of Directors at the time of issuance; provided that when issuing preferred shares whose dividend ratio may be adjusted, the following must be determined at the time of issuance: acknowledgement of the fact that the Board of Directors may adjust the preferred dividend ratio, the reasons for such adjustment, the base date for adjustment and the method of adjustment.

(3) Preferred shares to be issued by the Company may be participating or non- participating, and accumulating or non-accumulating by the resolution of the Board of Directors.

(4) If a resolution not to distribute dividends on preferred shares is adopted, then the preferred shares shall be deemed to have voting rights from the next General Meeting of Shareholders immediately following the general meeting at which such resolution not to distribute dividends on preferred shares is adopted to the end of the general meeting of the shareholders at which a resolution to distribute dividends on such preferred shares is adopted.

(5) In case the Company issues new shares by rights offering or bonus issue, then the new shares issued with respect to the preferred shares shall be (i) common shares in the case of rights offering and (ii) the shares of the same type in the case of bonus issue.

(6) Whether or not to specify the duration of preferred shares shall be determined by the resolution of the Board of Directors. If there is any duration of preferred shares, such duration shall be no less than 1 year and no more than 10 years from the date of issuance, and such duration period shall be determined by the Board of Directors at the time of issuance. Preferred shares shall be converted into common shares upon the expiration of the duration period. However, if the holders of the preferred shares do not receive dividends entitled to them during the duration period, then the duration period shall be extended until such holders receive dividends entitled to them in full. In such a case, Article 15 shall apply mutatis mutandis with respect to the distribution of dividends for new shares issued upon conversion.

Article 10 (Electronic Registration of Rights to be Indicated on Shares and Certificate of Warrants)

The Company shall effect the electronic registration of the rights to be indicated on shares and certificate of warrants in the electronic register of the electronic registry instead of issuing share certificates and certificate of warrants.

Article 11 (Convertible Stock)

(1) The Company may issue stocks which can be converted into the common stock or preferred stock, by the resolution of the Board of Directors.

(2) Issue price of new shares to be issued upon conversion shall be the issue price of share prior to such conversion, and the number of shares to be issued upon conversion shall be the same number as that of common shares or preferred shares prior to such conversion.

(3) The conversion period shall be no less than 1 year and no more than 10 years from the date of issuance, and such conversion period shall be determined by the Board of Directors.

(4) In case of issuance of stocks which can be converted into the common stock under Paragraph (1), such stocks may be issued on the condition that they shall be converted into common stock issued by the Company upon the occurrence of the event described in any of the sub-paragraphs of Article 23(2) hereof to the extent that the sum of the aggregate face value thereof and the issue amount of the convertible bonds under Article 20(1) and the issue amount of the Contingent Convertible Capital Securities under Article 23-2(1) hereof shall not exceed one (1) trillion Won. In such case, Article 23-2 hereof shall apply *mutatis mutandis* with respect to the detailed terms and conditions for the conversion and the allocation of shares. (Newly established)

(5) For the purpose of any distribution of dividends on the shares issued upon conversion, Article 15 hereof shall apply *mutatis mutandis*.

Article 12 (Redeemable Stock)

(1) In case of issuance of preferred stock, the Company may, by the resolution of the Board of Directors, issue the redeemable one which can be redeemed with the profits at the discretion of the Company.

(2) The redemption price of the redeemable shares shall be calculated by the sum of the issue price and the premium, and the premium amount shall be determined at the time of issuance by a resolution of the Board of Directors in consideration of the interest rate, market conditions and other circumstances related to such issuance.

(3) The redemption period shall be determined by the Board of Directors as a period within the period from the date immediately following the end of the Ordinary General Meeting of Shareholders convened in respect of the fiscal year during which the shares are issued, to the end of one month following the end of the Ordinary General Meeting of Shareholders convened in respect of the fiscal year during which the 20th anniversary of the issue date falls; provided that, in respect of redeemable shares which must be redeemed by the Company at the end of the redemption period, the redemption period shall be extended in the event of any of the following until full resolution thereof:

1. If the holders of the redeemable shares do not receive dividends entitled to them; or
2. If the redemption is not made within the redemption period due to insufficient profits of the Company.

(4) The Company may redeem all of its redeemable shares in lump sum or any portion thereof. Provided that, in case of partial redemption, the Company may determine the shares to be redeemed, by means of lottery or proportional allotment. Any fractional shares resulting from the proportional allotment shall not be redeemed.

(5) If the Company intends to redeem redeemable shares, the Company shall give notice to the shareholders and pledgees recorded in the shareholders' registry of such intention, the subject shares and the fact that the subject stock certificates must be submitted to the Company during the specified period, which shall be determined by the company to the extent not less than two weeks, and upon the expiry of such period, the subject shares shall be redeemed compulsorily; provided that such notice may be substituted with a public notice.

(6) The redeemable shares may, by the determination of the Board of Directors at the time of issuance, be issued as the convertible shares as set forth in Article 11.

Article 13 (Pre-emptive Rights)

(1) The shareholders of the Company shall have pre-emptive rights to subscribe for new shares to be issued by the Company in proportion to their respective shareholdings.

(2) Notwithstanding the provision of Paragraph (1) above, the Company may allocate new shares to persons other than existing shareholders of the Company, in the event of any of the following:

1. If the Company issues new shares by way of general public offering, to the extent not exceeding 50/100 of the total number of issued and outstanding shares of the Company;
2. If the Company preferentially allocates new shares to members of the Employee Stock Ownership Association in accordance with Article 165-7 of the Financial Investment Services and Capital Market Act.
3. If the Company issues new shares for the issuance of depositary receipts (“DR”s), to the extent not exceeding 50/100 of the total number of issued and outstanding shares of the Company;
4. If the Company issues new shares upon the exercise of stock options in accordance with Article 340-2 and Article 542-3 of the Commercial Law;
5. If the Company issues new shares to investment companies, private equity funds, special purpose companies pursuant to the Financial Investment Services and Capital Market Act; or
6. If the Company issues new shares to foreign investors, foreign or domestic financial institutions, allied companies, etc. for the necessity of management, such as introduction of advanced technology, improvement of financial structure of or financial support to the Company or its subsidiary, strategic business alliance, etc., to the extent not exceeding 50/100 of the total number of issued and outstanding shares of the Company.

(3) When allotting newly-issued shares to those who are not shareholders in accordance with Paragraph (2), the matters set forth in Paragraphs (1), (2), (2)_2, (3) and (4) of Article 416 of the Commercial Act shall be publicly announced or notified to the shareholders no later than by 2 weeks prior to the payment deadline.

(4) In the case in which new shares are issued pursuant to Paragraph (2), the type, number, issue price, etc. of shares to be issued shall be determined by the resolution of the Board of Directors.

(5) In the case of abandonment or loss of the pre-emptive right to subscribe for new shares by any shareholder, the forfeited shares resulting from such abandonment or loss of the pre-emptive right shall be disposed by the resolution of the Board of Directors. If fractional shares result from the allocation of new shares, such shares shall also be disposed of by the resolution of the Board of Directors.

Article 14 (Stock Options)

(1) The Company may grant stock options to its officers and employees pursuant to the provisions of the Commercial Code, by a special resolution of the General Meeting of Shareholders, to the extent not exceeding 20/100 of the total number of issued and outstanding shares of the Company. Notwithstanding the foregoing, the Company may, by the resolution of the Board of Directors, grant stock options in numbers equal to or less than 1/100 of the total number of outstanding shares, provided that such action shall be approved at the first Ordinary Shareholders Meeting to be held after the date of such grant.

(2) The Company may impose conditions of specific goals and achievement for the exercise of stock options, and may postpone or cancel the exercise of stock options if such conditions are not satisfied.

(3) The persons who are entitled to receive such stock options shall be officers and employees of the Company or its subsidiaries or sub-subsidiaries as prescribed in the relevant laws and ordinances including the Commercial Code, etc. who have contributed, or are capable of contributing, to the establishment,

management or technical innovation of the Company, except for officers or employees in any of the following cases:

1. The largest shareholder of the Company and Specially Related Persons thereof (as defined in the Commercial Code and the Enforcement Decree of the Commercial Code; hereinafter the same shall apply), except for such persons who have been regarded as Specially Related Persons by becoming officers of the Company (including an officer who is the non-executive officer of the affiliate);

2. Major Shareholders of the Company (as defined in the Commercial Code; hereinafter the same shall apply), and Specially Related Persons thereof, except for such persons who have been regarded as Specially Related Persons by becoming officers of the Company (including an officer who is the non-executive officer of the affiliate); and

3. The persons who become the Major Shareholders of the Company by the exercise of stock option.

(4) The shares to be issued upon the exercise of stock options (in case the Company pays the difference between the exercise price of stock options and the market price of such shares in cash or treasury shares, the shares which shall be the basis of the calculation of such differences) shall be common shares in registered form.

(5) The total number of shares to be given to one (1) officer or employee pursuant to the stock option shall not exceed 1/100 of the total number of shares issued and outstanding.

(6) The exercise price per share for the stock option shall be determined in accordance with the relevant laws, such as the Commercial Code, etc.

(7) Stock options may be exercised within seven (7) years commencing from two (2) years after the date specified in Paragraph (1) above at which a resolution to grant such stock options was adopted.

(8) Stock option is exercisable by a person who has served for the Company two (2) years or more from the date specified in Paragraph (1) above at which a resolution to grant such stock option was adopted. If the grantee’s continuous service terminates by reason of the grantee’s death, attainment of mandatory retirement age, or for reasons other than by the fault of the grantee within two (2) years from the said date of resolution, the option may be exercisable within the exercise period.

(9) Article 15 shall apply *mutatis mutandis* with respect to the distribution of dividends for new shares issued upon the exercise of stock options.

(10) In the following instances, the Company may, by a resolution of the Board of Directors, cancel the stock options granted to an officer or an employee:

1. When the relevant officer or employee voluntarily resigns or is removed from his or her position at the Company after receiving the stock option;

2. When the relevant officer or employee inflicts material damages or losses on the Company due to the willful conduct or negligence of such person;

3. When the Company cannot respond to the exercise of stock options due to its bankruptcy, dissolution, etc.; or

4. When there occurs any other event for cancellation of the stock option pursuant to the stock option agreement.

Article 15 (Issuance Date of New Shares for the Purpose of Dividends)

In case the Company issues new shares through rights offering, bonus issue and stock dividend, the new shares shall be deemed to have been issued at the end of the fiscal year immediately prior to the fiscal year during which the new shares are issued for purpose of distribution of dividends for such new shares.

Article 16 (Transfer Agent)

(1) The Company may designate a transfer agent for its shares.

(2) The transfer agent, its office and its duties shall be determined by a resolution of the Board of Directors of the Company and shall be notified to the public.

(3) The Company's registry of shareholders or a copy of it shall be kept at the office of the transfer agent. The transfer agent shall handle the electronic registration of shares, management of the registry of shareholders and other activities relating to shares.

(4) The relevant procedures for conducting activities referred to in Paragraph (3) above shall be carried out in accordance with the Regulation on the Securities Transfer Agency Business and other Regulations generally applicable to transfer agents.

Article 17 (Deleted)

Article 18 (Close of Shareholders' Registry and Record Date)

(1) During the period of January 1 through January 15 of each year, the Company shall refrain from making any changes in the shareholders registry in respect of rights.

(2) The shareholders registered in the shareholders' registry as of December 31 of each fiscal year shall be entitled to exercise the rights as shareholders at the Ordinary General Meeting of Shareholders convened for such fiscal year.

(3) The Company may, if necessary for convening of an Extraordinary General Meeting of Shareholders or any other necessary cases, suspend any entry into the shareholders' registry with respect to shareholders' rights for a period not exceeding three (3) months as determined by a resolution of the Board of Directors, or cause the shareholders whose names appear in the shareholders' registry on a record date set by a resolution of the Board of Directors to exercise the rights as shareholders. If the Board of Directors deems it necessary, the Company may suspend any entry into the shareholders' registry and set the record date at the same time. The Company shall give at least two (2) weeks prior notice to the public.

(4) Notwithstanding the provision of Paragraph (3), if otherwise set forth in the FHCA or other relevant laws, the Company may follow such different provisions.

CHAPTER III
BONDS

Article 19 (Issuance of Corporate Bonds)

(1) The Company may issue corporate bonds upon the approval of the Board of Directors.

(2) The Board of Directors may delegate to the Representative Director its authority to determine the bond type, amount and timing of the issuance, which shall occur within 1 year from the approval of such delegation.

(3) Articles 16 shall apply to the issuance of corporate bonds.

(4) (Deleted)

Article 19-2 (Electronic Registration of Rights to be Indicated on Corporate Bonds)

The Company shall effect the electronic registration of the rights to be indicated on corporate bond certificates and certificate of warrants in the electronic register of the electronic registry instead of issuing the corporate bond certificates and certificate of warrants set forth in Chapter 3. (Newly established)

Article 20 (Issuance of Convertible Bonds)

(1) The Company may issue convertible bonds to persons other than existing shareholders of the Company, by the resolution of the Board of Directors, to the extent that the sum of the aggregate face value of the bonds and the issue amount of the convertible stocks under Article 11(4) and the issue amount of the Contingent Convertible Capital Securities under Article 23-2(1) hereof shall not exceed one (1) trillion Won, in any of the following cases:

1. If the convertible bonds are issued through general public offering;
2. If the Company issues convertible bonds to the securities investment company that runs exclusively the banking business, as set forth in the FHCA;
3. If the Company issues convertible bonds to foreign investors, foreign or domestic financial institutions, allied companies, etc. for the necessity of management, such as introduction of advanced technology, improvement of financial structure of or financial support to the Company or its subsidiary, strategic business alliance, etc.; or
4. If the Company issues convertible bonds in a foreign country.

(2) The Board of Directors may determine that the convertible bonds referred to in Paragraph (1) may be issued on the condition that conversion rights will be attached to only a portion of the convertible bonds.

(3) The shares to be issued upon conversion shall be common shares. The conversion price, which shall be equal to or more than the face value of the shares, shall be determined by the Board of Directors at the time of issuance of convertible bonds.

(4) The conversion period shall commence on the date following three (3) months from the issue date of the convertible bonds and end on the date immediately preceding the redemption date thereof. However, the conversion period may be adjusted within the above period by a resolution of the Board of Directors.

(5) For the purpose of any distribution of dividends on the shares issued upon conversion, and any payment of accrued interest on the convertible bonds, Article 15 hereof shall apply *mutatis mutandis*.

Article 21 (Bonds with Warrants)

(1) The Company may issue to persons other than existing shareholders of the Company bonds with warrants, by the resolution of the Board of Directors, to the extent that the total face value of the bonds shall not exceed one (1) trillion Won, in any of the following cases:

1. If the bonds with warrants are issued through general public offering;
2. If the Company issues bonds with warrants to the securities investment company that runs exclusively the banking business, as set forth in the FHCA;
3. If the Company issues bonds with warrants to foreign investors, foreign or domestic financial institutions, allied companies, etc. for the necessity of management, such as introduction of advanced technology, improvement of financial structure of or financial support to the Company or its subsidiary, strategic business alliance, etc.; or
4. If the Company issues bonds with warrants in foreign country.

(2) The amount of new shares which can be subscribed for by the holders of the bonds with warrants shall be determined by the Board of Directors to the extent that the maximum amount of such new shares shall not exceed the face value of the bonds with warrants.

(3) The shares to be issued upon exercise of warrants shall be common shares. The issue price, which shall be equal to or more than the face value of the shares, shall be determined by the Board of Directors at the time of issuance of bonds with warrants.

(4) The warrant exercise period shall commence on the date following three (3) months from the issue date of the relevant bonds and end on the date immediately preceding the redemption date thereof. However, the warrant period may be adjusted within the above period by a resolution of the Board of Directors.

(5) For the purpose of any distribution of dividends on the shares issued upon exercise of warrants, Article 15 hereof shall apply *mutatis mutandis*.

Article 22 (Issuance of Participating Bonds)

(1) The Company may issue to persons other than existing shareholders of the Company participating bonds, by the resolution of the Board of Directors, to the extent that the total face value of the bonds shall not exceed 1 trillion Won, in any of the following cases:

1. If the participating bonds are issued through general public offering;
2. If the Company issues participating bonds to foreign investors, foreign or domestic financial institutions, allied companies, etc. for the necessity of management, such as introduction of advanced technology, improvement of financial structure of or financial support to the Company or its subsidiary, strategic business alliance, etc.; or
3. If the Company issues participating bonds in foreign country.

(2) Matters regarding the dividend participation of bonds issued pursuant to Paragraph (1) shall be determined by the resolution of the Board of Directors at the time of issuance, based on the dividend on common stock.

Article 23 (Issuance of Write-down Contingent Capital Securities)

(1) The Company may, by resolution of the Board of Directors, issue corporate bonds whose terms provide that the obligation to repay the principal and pay the interest thereon shall be waived upon the occurrence of a contingency event as determined at the time of the issuance of such bonds based on reasonable and objective criteria; provided that the aggregate face value of such bonds do not exceed 10 trillion Won (such bonds hereinafter referred to as the “Write-down Contingent Capital Securities”).

(2) The obligation to repay the principal and pay the interest on the Write-down Contingent Capital Securities shall be waived upon the occurrence of the event described in any of the following sub-paragraphs (such waiver hereinafter referred to as “Debt Modification”):

1. If the Company issues participating bonds to foreign investors, foreign or domestic financial institutions, allied companies, etc. for the necessity of management, such as introduction of advanced technology, improvement of financial structure of or financial support to the Company or its subsidiary, strategic business alliance, etc.; or
2. The Company receives a directive in the form of ‘management improvement order’ from the Financial Services Commission pursuant to the Supervisory Regulations on Financial Holding Companies.

(3) The Board of Directors of the Company may, to the extent permitted by applicable law and at the time of the issuance, determine the scope of changes to be made to the terms and conditions of the Write-down Contingent Capital Securities as a result of the Debt Modification.

Article 23-2 (Issuance of Contingent Convertible Capital Securities)

(1) The Company may, by resolution of the Board of Directors, issue corporate bonds whose terms provide that they shall be convertible into common stock of the Company upon the occurrence of a contingency event as determined at the time of the issuance of such bonds based on reasonable and objective criteria; provided that the sum of the aggregate face value of such bonds and the issue amount of the convertible stocks under Article 11(4) and the issue amount of the convertible bonds under Article 20(1) hereof shall not exceed one (1) trillion Won (the “Contingent Convertible Capital Securities”).

(2) The Contingent Convertible Capital Securities shall be converted into registered common stock issued by the Company upon the occurrence of the event described in any of the sub-paragraphs of Article 23(2) and the detailed matters shall be determined by resolution of the Board of Directors.

(3) The terms and conditions for conversion not set forth in this Article such as the conversion price, etc. shall be as provided in the relevant laws, but the detailed matters with respect thereto shall be determined by resolution of the Board of Directors at the time of issuance of the Contingent Convertible Capital Securities.

(4) The Company may grant pre-emptive rights in proportion to the number of shares owned by the shareholders to the extent not exceeding the aggregate face value under Paragraph (1) and in the case of abandonment or loss of the pre-emptive right by any shareholder or fractional shares resulting from the allocation, the method for disposal thereof shall be determined by the resolution of the Board of Directors as set forth in the relevant laws.

(5) If the Company issues the Contingent Convertible Capital Securities to foreign investors, foreign or domestic financial institutions, institutional investors or partner companies, etc. for business reasons, such as introduction of advanced technology, improvement of financial structure or to provide financial support to the Company or its subsidiary, or strategic business alliance, etc., it may issue such securities to any person other than the shareholders of the Company to the extent not exceeding the aggregate face value under Paragraph (1).

(6) Article 15 shall apply *mutatis mutandis* with respect to the distribution of dividends for the new shares issued upon conversion and the payment of the interest on the Contingent Convertible Capital Securities. (Newly established)

CHAPTER IV
GENERAL MEETINGS OF SHAREHOLDERS

Article 24 (Convening of General Meetings of Shareholders)

(1) General Meetings of Shareholders of the Company shall be of two types: (i) Ordinary and (ii) Extraordinary.

(2) The Ordinary General Meeting of Shareholders shall be held within three (3) months after the end of each fiscal year and the Extraordinary General Meeting of Shareholders may be convened whenever deemed to be necessary.

Article 25 (Authority to Convene)

(1) The Representative Director-Chairman of the Company shall convene the General Meeting of Shareholders in accordance with a resolution of the Board of Directors, unless otherwise prescribed by other laws and ordinances.

(2) If the Representative Director-Chairman is unable to perform his/her duties, the General Meeting of Shareholders shall be convened by a Director designated by the Board of Directors.

Article 26 (Personal or Public Notices for Convening)

(1) Written notice of the General Meeting of Shareholders of the Company shall state the date, time, place of the Meeting, the purposes for which the Meeting has been called, and other matters set forth in the relevant laws. The written notice shall be sent to all shareholders two (2) weeks prior to the date set for the Meeting.

(2) The written notice of a General Meeting of Shareholders to be given to shareholders holding one-hundredth (1/100) or less of the total issued and outstanding voting shares may be substituted by giving public notice of the convening of the General Meeting of Shareholders in *Hankuk Kyongje Shinmun* and *Maeil Kyongje Shinmun* which are published in the city of Seoul, at least two (2) notices are made in the said publications or by using an electronic method defined by the Commercial Law and related regulations two (2) weeks prior to the date set for such Meeting.

(3) Notwithstanding the provisions of Paragraphs (1) and (2), if otherwise set forth in the FHCA or other relevant laws, the Company may follow such different provisions.

Article 27 (Place of Meeting)

The General Meeting of Shareholders shall be held in the city where the head office is located, or any other places adjacent thereto as required.

Article 28 (Chairman of the General Meeting of Shareholders)

The Chairman of the General Meetings of Shareholders shall be the person entitled to convene the Meeting pursuant to Article 25.

Article 29 (Chairman's Authority to Maintain Order)

(1) The Chairman may order persons who purposely speak or act in a manner to prevent or disrupt the deliberations of the General Meeting of Shareholders or disturb the public order of the General Meeting of Shareholders to stop or retract his/her remarks or to leave the place of meeting.

(2) The Chairman may restrict the length and frequency of the speech of shareholders if it is necessary for the smooth deliberations of the General Meeting of Shareholders.

Article 30 (Voting Rights)

Each shareholder shall have one (1) vote for each share he/she owns.

Article 31 (Split Voting)

(1) If any shareholder who holds two (2) or more votes wishes to split his/her votes, he/she shall notify the Company in written form of such intent and the reasons therefor no later than three (3) days before the date set for the General Meeting of Shareholders.

(2) The Company may refuse to allow the shareholder to split his/her votes unless the shareholder acquired the shares in trust or otherwise holds the shares for and on behalf of some other person.

Article 32 (Voting by Proxy)

(1) A shareholder may exercise his/her vote through a proxy.

(2) In the case of Paragraph (1) above, the proxy holder shall file with the Company the documents evidencing the authority to act as a proxy before the General Meeting of Shareholders.

Article 33 (Method of Resolution)

Except as otherwise provided in the applicable laws and regulations or these Articles of Incorporation, all resolutions of the General Meeting of Shareholders shall be adopted by the affirmative vote of a majority of the shareholders present; provided that such votes shall, in any event, represent not less than one-fourth (1/4) of the total number of issued and outstanding shares.

Article 34 (Exercise of Voting Rights in Writing)

(1) If the method of resolution in writing at the General Meeting of Shareholders is adopted by the resolution of the Board of Directors, the shareholders may exercise their voting rights without participating in the meeting.

(2) In the case of Paragraph (1), the Company shall attach the documents and references necessary for exercise of voting rights to the convening notice.

(3) If a shareholder intends to exercise his/her voting rights in writing, the shareholder shall fill in and submit to the Company the documents referred to in Paragraph (2) by the date preceding the date set for the General Meeting of Shareholders.

Article 35 (Minutes of the General Meetings of Shareholders)

The substance of the course of the proceedings of the General Meeting of Shareholders and the results thereof shall be recorded in the minutes and shall be preserved at the head office and branches of the Company, after being affixed with the names and seal impressions or signatures of the Chairman and the Directors present.

CHAPTER V
OFFICERS AND BOARD OF DIRECTORS

Article 36 (Officers)

(1) The Company shall have not less than three (3) but not more than fifteen (15) Directors, of which the number of Outside Directors shall not be less than 3 persons and 50/100 of the total number of Directors.

(2) In cases where the number of Outside Directors does not meet the quorum required for the establishment of the Board of Directors under paragraph (1) due to a cause such as resignation or death of any Outside Director, the Company shall appoint Outside Directors at the first General Meeting of Shareholders convened after the occurrence of such cause, to satisfy the requirements prescribed therein. (Newly established)

Article 37 (Election of Director)

(1) Directors shall be elected at the General Meeting of Shareholders.

Article 38 (Term of Director)

(1) The term of office of the Director shall be determined at the General Meeting of Shareholders to the extent not exceeding three years, and the Director may be re-appointed. Provided that, the term of office of the Outside Director shall be no more than two years (or, in the case of reappointment, no more than one year), and the Outside Director may not serve as an outside director of the Company for a total of more than six years, or as an outside director of the Company or any of its subsidiaries for a total of more than nine years.

(2) The term of office under Paragraph (1) above shall be until the closure of the ordinary General Meeting of Shareholders convened in respect of such fiscal year.

Article 39 (Eligibility of Outside Director)

(1) The Company shall appoint a person with expertise and general knowledge as an outside director considering the qualifications set forth in each of the following subparagraphs.

   1. Whether such person possesses sufficient work experience or expert knowledge in relevant areas of financial businesses of financial institutions, such as finance, economy, business administration, accounting, legal affairs, consumer protection or information technology, to the extent necessary to perform duties as an Outside Director;

   2. Whether as an Outside Director such person is not bound to any special interests and is able to perform the relevant duties fairly in the interest of the entire shareholders' group and consumers of financial services;

3. Whether such person has a sense of ethics and responsibility that is appropriate to perform duties as an Outside Director; and

4. Whether such person is able to dedicate sufficient time and efforts in order to faithfully perform duties as an Outside Director.

(2) An Outside Director may not be appointed as an outside director for other companies during his/her term as an Outside Director, except where such Outside Director concurrently serves as an outside director of a subsidiary, etc. of the Company.

Article 40 (By-election of Directors)

(1) In the event of any interim vacancy in the office of the Director, a substitute Director shall be elected at the General Meeting of Shareholders; provided, however, that the foregoing shall not apply if the number of remaining Directors satisfies the requirement of Article 36 hereof and such vacancy does not cause any difficulties in the business operation of the Company.

(2) If the number of Outside Directors does not satisfy the requirement referred to in Article 36 due to the death or resignation of Outside Directors or any other reason, the Outside Directors shall be elected to fill the vacancy at the first Ordinary General Meeting of Shareholders after such cause to satisfy the required number of Outside Directors.

(3) The term of office of the Director appointed pursuant to Paragraphs (1) and (2) shall commence from the date of taking office.

Article 41 (Appointment of Representative Director)

The Company may, by resolution of the Board of Directors, appoint one Director as a Representative Director-Chairman.

Article 42 (Duties of Directors)

(1) The Representative Director-Chairman shall represent the Company, perform the matters resolved by the Board of Directors and oversee the business operations of the Company as determined by the Board of Directors.

(2) Directors shall assist the Representative Director, and divide and perform business operations as delegated to them by the Board of Directors.

Article 43 (Director's Obligations)

(1) The Directors shall perform their respective duties faithfully for the benefits of the Company, in accordance with the laws and these Articles of Incorporation.

(2) If any Director finds any facts which may cause substantial losses to the Company, such Director shall promptly report to the Audit Committee thereof.

Article 44 (Composition and Convening of the Meeting of Board of Directors)

(1) The Board of Directors shall consist of Directors, and shall resolve important matters regarding the business affairs of the Company.

(2) The Meeting of the Board of Directors shall be of two types: (i) Ordinary and (ii) Extraordinary. The Ordinary Meeting of the Board of Directors shall be held at least once per fiscal quarter and the Extraordinary Meeting of the Board of Directors may be convened whenever deemed to be necessary.

(3) The Meeting of the Board of Directors shall be convened by the Chairman of the Board of Director by giving notice to each Director at least seven (7) days prior to the scheduled date of such Meeting. However, such period may be reduced upon occurrence of urgent events, and the said procedures may be omitted with the consent thereon of all Directors.

Article 45 (Chairman of the Meeting of the Board of Directors)

(1) The Chairman of the Board of Directors shall be elected every year among the Outside Directors by a resolution of the Board of Directors.

(2) Notwithstanding Paragraph (1), the Board of Directors may appoint a person who is not an Outside Director as the Chairman of the Board of Directors, in which case, in addition to the Chairman of the Board of Directors, a Senior Outside Director representing the Outside Directors shall be appointed by a resolution of the Board of Directors.

Article 46 (Resolutions of the Board of Directors)

(1) The quorum for the Board of Directors shall be the presence of at least more than one half (1/2) of the Directors, and all resolutions of the Board of Directors shall require the affirmative votes of a majority of the Directors present at the meeting of the Board of Directors.

(2) The Board meetings may be held by means of a telephone conference or other similar arrangement whereby all or part of the Directors may participate in the meeting and vote on matters at the same time. In such case, a Director participating in the meeting by such arrangement shall be considered present at the meeting.

(3) Any Director who has a related interest in the matters to be resolved at the Meeting of the Board of Directors shall be abstained from voting at such Meeting.

(4) The Board of Directors shall deliberate and decide on the following matters.

1. Matters concerning the management objectives and evaluation of performance;
2. Matters concerning the amendment of the Articles of Incorporation;
3. Matters concerning the budget and settlement of accounts;
4. Matters concerning important changes to the organization of the Company such as dissolution, business transfer, merger, etc.;
5. Matters concerning the enactment, amendment and abolition of the risk management standards and internal control standards;
6. Matters concerning the establishment of governance policies such as a plan for succession of CEO, etc.;
7. Matters concerning the supervision of conflicts of interest between the Company and major shareholders or executive officers; and
8. Other matters determined by the Board of Directors

Article 47 (Minutes of the Meeting of Board of Directors)

(1) The proceedings of a Board meeting shall be recorded in the minutes.

(2) The minutes for a Board meeting should record the agenda, proceedings, resolutions, the identity of dissenting directors (if any) and the reasons for such dissent and must be signed or affixed a seal by the Directors present at the meeting.

Article 48 (Committees under the Board of Directors)

(1) The Company shall maintain committees set forth in each of the following subparagraphs as its Committees under the Board of Directors on an ongoing basis.

1. Governance and CEO Recommendation Committee;
2. Board Steering Committee;
3. Audit Committee;
4. Outside Director Recommendation Committee;
5. Risk Management Committee;
6. Remuneration Committee;
7. Audit Committee Member Recommendation Committee; and
8. Corporate Social Responsibility Committee

(2) Details regarding composition, authority, operation, etc. of each Committee under the Board of Directors shall be determined by the resolution of the Board of Directors.

(3) Articles 44, 46 and 47 shall apply *mutatis mutandis* with respect to the committees.

Article 49 (Remuneration for Directors)

The remuneration for the Directors shall be determined by a resolution of the General Meeting of Shareholders.

Article 50 (Consultants)

By a resolution of the Board of Directors, the Company may retain several consultants, honorary directors and advisors.

CHAPTER VI
AUDIT COMMITTEE

Article 51 (Constitution of Audit Committee)

(1) The Company shall have the Audit Committee, as prescribed by article 41 paragraph 1 of the Act on Corporate Governance of Financial Companies.

(2) Candidates for the Audit Committee shall be recommended by the Audit Committee Member Recommendation Committee comprised entirely of Outside directors. The Audit Committee Member Recommendation Committee shall make resolution by an affirmative vote of at least two-thirds (2/3) of the members.

(3) The Audit Committee shall consist of not less than three (3) but no more than five (5) directors, of whom at least two-thirds shall be Outside Directors.

(4) At least one member shall be an expert in the area of accounting or finance, as defined by relevant laws and regulations.

(5) The Audit Committee shall by its resolution elect one of its Outside Director members as its Chairman.

(6) In cases where the number of the Audit Committee members does not meet the quorum required for the establishment of the Audit Committee under this Article due to a cause such as resignation or death of any member, the Company shall take actions at the first General Meeting of Shareholders convened after the occurrence of such cause, to satisfy the requirements. (Newly established)

Article 52 (Duties of Audit Committee)

(1) The Audit Committee shall examine the operation and accounting of the Company.

(2) The Audit Committee may request the Board of Directors to convene the Extraordinary General Meeting of Shareholders by submitting documents stating the agenda and reasons for convening such meeting.

(3) If determined necessary, the Audit Committee may request convocation of a meeting of the Board of Directors by submitting the purpose and agenda of such meeting in writing to the person with the authority to convene such meeting.

(4) If the request was submitted as set forth above in Paragraph (3), but the person with the authority to convene the meeting fails to do so, the Audit Committee may convene the meeting itself.

(5) The Audit Committee may request business reports from any subsidiary of the Company when it is necessary to perform its duties. In this case, if such subsidiary does not report to the Audit Committee immediately or the Audit Committee needs to verify the contents of the reports, it may investigate the status of business and the financial condition of the subsidiary.

(6) The Audit Committee shall select the external auditor of the Company.

(7) In addition to the matters referred to in Paragraphs (1) through (4), the Audit Committee shall dispose of the matters delegated by the Board of Directors.

Article 53 (Audit Committee's Record)

The Audit Committee shall record the substance and results of its audit in the Audit Committee's record, on which the name and seal of the Audit Committee member who has performed such audit shall be affixed or shall be signed by such Audit Committee member.

CHAPTER VII
ACCOUNTING

Article 54 (Fiscal Year)

The fiscal year of the Company shall begin on January 1 and end on December 31 of each year.

Article 55 (Preparation and Display of Financial Statements and Business Report)

(1) The Representative Director-Chairman of the Company shall prepare the following documents to be submitted to the Ordinary General Meeting of Shareholders, together with supplementary data and business reports, and have such documents audited by the Audit Committee no later than six (6) weeks before the date of the Ordinary General Meeting of Shareholders:

1. balance sheet;
2. statements of profit and loss; and
3. other documents that reflect the Company's financial position and management performance according to the Enforcement Decree to the Commercial Act

(2) If the Company is required to prepare consolidated financial statements under the Enforcement Decree to the Commercial Act, the documents set forth in each Subparagraph of Paragraph (1) shall include consolidated financial statements.

(3) The Audit Committee shall submit an audit report to the Representative Director-President no later than one (1) week before the date of the Ordinary General Meeting of Shareholders.

(4) The Representative Director-Chairman shall keep file copies of the documents described in Paragraph (1) and Audit Committee's audit report thereon, at the head office of the Company for five (5) years and certified copies of all such documents at the branches of the Company for three (3) years, beginning from one (1) week before the date of the Ordinary General Meeting of Shareholders.

(5) Immediately upon obtaining approval for the documents mentioned in Paragraph (1) above from the General Meeting of Shareholders, the Representative Director- Chairman shall make a public notice of the balance sheet, income statement, consolidated balance sheet and income statement, and the opinion of an external auditor.

Article 56 (Appointment of External Auditor)

The Company shall appoint the external auditor selected by the Audit Committee and either report such fact to the Ordinary General Meeting of Shareholders to be held first after such appointment or notify the shareholders or make a public announcement thereof as prescribed in the Enforcement Decree of the Act on External Audit of Stock Companies, Etc.

Article 57 (Disposal of Profits)

The Company shall dispose of the unappropriated retained earnings as of the end of each fiscal year as follows:

1. earned surplus reserves;
2. other statutory reserves;
3. dividends;
4. temporary reserves; and
5. other appropriation of earned surplus.

Article 58 [Deleted]

Article 59 (Dividends)

(1) Dividends may be distributed in cash or stock.

(2) In the case where the dividends are to be distributed in stock and the Company has several classes of shares, the stock dividend distribution may be made in shares of different classes by a resolution of the General Meeting of Shareholders.

(3) Dividends of Paragraph (1) above shall be paid to the shareholders registered in the Company's registry of shareholders or the registered pledgees as of the last day of each fiscal year.

Article 59-2 (Interim dividends)

(1) The Company may distribute interim dividends to its shareholders as of 00:00, July 1 in accordance with the relevant laws including Article 462-3 of the Commercial Law. Such interim dividends shall be made in cash.

(2) Interim dividends provided under Paragraph (1) shall be decided by resolution of the Board of Directors, which resolution shall be made within forty-five (45) days from the date specified in Paragraph (1).

(3) The maximum amount to be paid as interim dividends shall be calculated by deducting the following amounts from the net asset amounts recorded in the balance sheet of the fiscal year immediately prior to the fiscal year concerned:

1. Capital stock of the company for the fiscal year immediately prior to the fiscal year concerned;

2. The aggregate amount of capital reserves and legal reserves which had been accumulated up until the fiscal year immediately prior to the fiscal year concerned;

3. The amount which was resolved to be distributed as dividends at an ordinary General Meeting of Shareholders of the fiscal year immediately prior to the fiscal year concerned;

4. Voluntary reserves which had been accumulated for specific purposes in accordance with the relevant provisions of the Articles of Incorporation or by resolution of a General Meeting of Shareholders until the fiscal year immediately prior to the fiscal year concerned;

5. Eared surplus reserves to be accumulated for the fiscal year concerned as a result of the interim dividends.

(4) In the event the Company has issued new shares (including those shares issued by way of conversion of reserves into capital stock, stock dividends, request of conversion of convertible bonds or exercise of warrants) prior to the date set forth in Paragraph (1) above, but after the commencement date of the fiscal year concerned, the new shares shall be deemed to have been issued at the end of the fiscal year immediately prior to the fiscal year for the purpose of interim dividends.

(5) When distributing interim dividends the same dividend rate as that of the common shares of the Company shall be applied to the preferred shares. However, if the Board of Directors had decided otherwise at the time of the issuance of such preferred shares, the dividend rate shall be in accordance with such decision by the Board of Directors.

Article 60 (Expiration of Right to Payment of Dividends)

(1) The right to demand payment of dividends shall extinguish by prescription if not exercised within five (5) years.

(2) The dividends, of which the right has been extinguished under Paragraph (1) above, shall be kept by the Company.

Article 61 (Supplementary Provision)

Matters not specified in these Articles of Incorporation shall be determined by the resolution of the Board of Directors or the General Meeting of Shareholders, or in accordance with the Commercial Code or other laws.

ADDENDA

Article 1 (Effective Date)

These Articles of Incorporation shall become effective from the date of registration of incorporation.

Article 2 (Initial Fiscal Year after Incorporation)

Notwithstanding the provisions of Article 54, the initial fiscal year of the Company after incorporation shall be from the date of incorporation to December 31, 2001.

Article 3 (Initial Transfer Agent after Incorporation)

Notwithstanding the provisions of Article 16, Paragraph (2), the initial transfer agent of the Company after incorporation shall be Korea Securities Depository.

Article 4 (Appointment of Initial Representative Director, et al. after Incorporation)

Notwithstanding the provisions of Article 41, the initial Representative Director-Chairman and the initial Representative Director-Chairman of the Company after incorporation shall be one person appointed at the General Meetings of Shareholders of the Share Transferring Companies, at which the resolution to approve the share transfer is adopted.

Article 5 (Appointment of Initial Outside Director after Incorporation)

Notwithstanding the provisions of Article 36, Paragraph (2), the initial Outside Director of the Company after incorporation shall be appointed at the General Meetings of Shareholders of the Share Transferring Companies, at which the resolution to approve the share transfer is adopted, without recommendation of the Operation Committee.

Article 6 (Appointment of Initial Members of Audit Committee after Incorporation)

The initial members of Audit Committee shall be appointed at the General Meetings of Shareholders of the Share Transferring Companies, at which the resolution to approve the share transfer is adopted.

Article 7 (Remuneration of Directors in Initial Fiscal Year after Incorporation)

Notwithstanding the provisions of Article 49, the remuneration of Directors in initial fiscal year after incorporation shall be determined at the first meeting of the Board of Directors after incorporation, to the extent not exceeding 1 billion Won.

Article 8 (Share Transferring Companies)

In order to incorporate the Company, the following share transferring companies prepare these Articles of Incorporation and affix their respective names and seals hereon on August 10, 2001.

Shinhan Bank
120, Taepyongro 2ga, Jung-gu, Seoul
Representative Director, President   In Ho Lee

Shinhan Securities Co., Ltd.
24-4, Yoido-dong, Youngdeungpo-gu, Seoul
Representative Director, President   Yang Sang Yoo

Shinhan Capital Co., Ltd.
526-3, Kojan-dong, Ansan, Kyonggido
Representative Director, President   Shin Jung Kang

Shinhan Investment Trust Management Co., Ltd.
24-4, Yoido-dong, Youngdeungpo-gu, Seoul
Representative Director, President   Bo Gil Baek

ADDENDA (1)

Article 1 (Effective Date)

These Articles of Incorporation shall become effective as of March 20, 2002.

ADDENDA (2)

Article 1 (Effective Date)

These Articles of Incorporation shall become effective as of March 31, 2003.

ADDENDA (3)

Article 1 (Effective Date)

These Articles of Incorporation shall become effective as of March 25, 2004.

ADDENDA (4)

Article 1 (Effective Date)

These Articles of Incorporation shall take effect as of March 21, 2006.

Article 2 (Application to Preferred Shares)

Articles 9-2, 12-2 and 12-3 shall take effect only with respect to the preferred shares issued after the effective date of this amendment.

ADDENDA (5)

Article 1 (Effective Date)

These Articles of Incorporation shall become effective as of March 19, 2008.

ADDENDA (6)

Article 1 (Effective Date)

These Articles of Incorporation shall become effective as of March 17, 2009.

ADDENDA (7)

Article 1 (Effective Date)

These Articles of Incorporation shall become effective as of March 24, 2010.

ADDENDA (8)

Article 1 (Effective Date)

These Articles of Incorporation shall become effective as of March 23, 2011.

ADDENDA (9)

Article 1 (Effective Date)

These Articles shall take effect on April 15, 2012, except for Article 36, Article 47 Paragraph(1) Subparagraph 1 and Article 55 which shall take effect on March 29, 2012.

ADDENDA (10)

Article 1 (Effective Date)

These Articles of Incorporation shall become effective as of March 25, 2015.

ADDENDA (11)

Article 1 (Effective Date)

These Articles of Incorporation shall become effective as of August 1, 2016.

ADDENDA (12)

Article 1 (Effective Date)

These Articles of Incorporation shall become effective as of March 23, 2017.

ADDENDA (13)

Article 1 (Effective Date)

These Articles of Incorporation shall become effective as of the date of the 18^{th} Ordinary General Meeting of Shareholders. Provided, however, that the amendments to Articles 10, 16, 17, 19 and 19-2 shall become effective as of September 16, 2019, the date of enforcement of the Enforcement Decree of the Act on Electronic Registration of Stocks, Bonds, Etc.

ADDENDA (14)

Article 1 (Effective Date)

These Articles of Incorporation shall become effective as of the date of the 19^{th} Annual General Meeting of Shareholders.

EXHIBIT 8.1

List of Subsidiaries of Shinhan Financial Group Co., Ltd.

Shinhan Bank Co., Ltd
Shinhan Card Co., Ltd
Shinhan Investment Corp.
Shinhan Life Insurance Co., Ltd.
Orange Life Insurance, Ltd.
Shinhan BNP Paribas Asset Management Co., Ltd.
Shinhan Capital Co., Ltd.
Jeju Bank
Shinhan Savings Bank
Shinhan DS
Shinhan AITAS Co., Ltd.
Shinhan Credit Information Co., Ltd.
Shinhan Alternative Investment Management Inc.
Asia Trust Co., Ltd.
Shinhan REITs Asset Management Co., Ltd.
Shinhan AI. Co., Ltd.
SHC Management Co., Ltd.
Shinhan Asia Limited (incorporated in Hong Kong)
Shinhan Bank America (incorporated in United States)
Shinhan Bank Canada (incorporated in Canada)
Shinhan Bank (China) Limited (incorporated in People's Republic China)
Shinhan Bank Europe GmbH (incorporated in Germany)
Shinhan Bank Japan (incorporated in Japan)
Shinhan Bank Vietnam Ltd. (incorporated in Vietnam)
Shinhan Bank Kazakhstan Limited (incorporated in Kazakhstan)
Shinhan Bank (Cambodia) PLC. (incorporated in Cambodia)
PT Bank Shinhan Indonesia (incorporated in Indonesia)
Banco Shinhan de Mexico (incorporated in Mexico)
LLP MFO Shinhan Finance (incorporated in Kazakhstan)
PT Shinhan Indo Finance (incorporated in Indonesia)
Shinhan Microfinance Co., Ltd. (incorporated in Myanmar)
Shinhan Investment Corp. Asia Ltd (incorporated in Hong Kong)
Shinhan Investment Corp. USA Inc. (incorporated in United States)
Shinhan Securities Vietnam (incorporated in Vietnam)
PT Shinhan Securities Indonesia (incorporated in Indonesia)
Shinhan BNP Paribas Asset Management (Hong Kong) Limited (incorporated in Hong Kong)
Shinhan Vietnam Finance Company Ltd. (incorporated in Vietnam)
Shinhan Private Equity Fund 2nd
KOFC Shinhan Frontier Champ 2010-4 PEF
Shinhan Stonebridge Petro Private Equity Fund
Shinhan Praxis K-Growth Global Private Equity Fund
GX Shinhan Intervest 1st Private Equity Fund

Other than as otherwise noted herein, all of our subsidiaries are incorporated in Korea.

EXHIBIT 12.1

CERTIFICATIONS

I, Cho Yong-byoung, certify that:

1. I have reviewed this annual report on Form 20-F of Shinhan Financial Group (the "Company");
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the Company as of, and for, the periods presented in this report;
4. The Company's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the Company and have:

    (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the Company, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

    (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

    (c) Evaluated the effectiveness of the Company's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

    (d) Disclosed in this report any change in the Company's internal control over financial reporting that occurred during the period covered by this report that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting.

5. The Company's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Company's auditors and the audit committee of the Company's board of directors (or persons performing the equivalent functions):

    (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the Company's ability to record, process, summarize and report financial information; and

    (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the Company's internal control over financial reporting.

Date: April 29, 2020

By: /s/ Cho Yong-byoung

Name: Cho Yong-byoung
Title: Chairman and Chief Executive Officer

EXHIBIT 12.2

CERTIFICATIONS

I, Roh Yong-hoon, certify that:

1. I have reviewed this annual report on Form 20-F of Shinhan Financial Group (the “Company”);
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the Company as of, and for, the periods presented in this report;
4. The Company’s other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the Company and have:
   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the Company, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
   (c) Evaluated the effectiveness of the Company’s disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
   (d) Disclosed in this report any change in the Company’s internal control over financial reporting that occurred during the period covered by this report that has materially affected, or is reasonably likely to materially affect, the Company’s internal control over financial reporting.
5. The Company’s other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Company’s auditors and the audit committee of the Company’s board of directors (or persons performing the equivalent functions):
   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the Company’s ability to record, process, summarize and report financial information; and
   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the Company’s internal control over financial reporting.

Date: April 29, 2020

By: /s/ Roh Yong-hoon

Name: Roh Yong-hoon
Title: Chief Financial Officer

EXHIBIT 13.1

CHIEF EXECUTIVE OFFICER CERTIFICATION
PURSUANT TO 18 U.S.C. SECTION 1350

In connection with the Annual Report of Shinhan Financial Group (the "Company") on Form 20-F for the fiscal year ended December 31, 2019 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Cho Yong-byoung, Chairman and Chief Executive Officer of the Company, hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, to the best of my knowledge, that:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: April 29, 2020

By: /s/ Cho Yong-byoung
Name: Cho Yong-byoung
Title: Chairman and Chief Executive Officer

EXHIBIT 13.2

CHIEF FINANCIAL OFFICER CERTIFICATION
PURSUANT TO 18 U.S.C. SECTION 1350

In connection with the Annual Report of Shinhan Financial Group (the "Company") on Form 20-F for the fiscal year ended December 31, 2019 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Roh Yong-hoon, Chief Financial Officer of the Company, hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, to the best of my knowledge, that:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: April 29, 2020

By: /s/ Roh Yong-hoon

Name: Roh Yong-hoon
Title: Chief Financial Officer

EXHIBIT 15.1

April 29, 2020
Securities and Exchange Commission
Division of Corporate Finance
100 F Street, N.E.
Washington, D.C. 20549-7561

Dear Sirs/Madams:

We have read the information required by Item 16F of Form 20-F dated April 29, 2020 of Shinhan Financial Group Co., Ltd. and confirm that we agree with the statements concerning our Firm made under Item 16F "Change in Registrant's Certifying Accountant" therein. We are not in a position to agree or disagree with the other statements contained therein.

Yours sincerely,

/s/ KPMG Samjong Accounting Corp.