

Hana Financial Group Inc. and its subsidiaries

Consolidated financial statements
for the years ended December 31, 2020 and 2019
with the independent auditor's report

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Independent auditor's report

The Shareholders and Board of Directors Hana Financial Group Inc.

Opinion

We have audited the accompanying consolidated financial statements of Hana Financial Group Inc. and its subsidiaries (collectively referred to as the "Group"), which comprise the consolidated statements of financial position as of December 31, 2020 and 2019, and the consolidated statements of profit or loss and other comprehensive income, consolidated statements of changes in equity and consolidated statements of cash flows for the years then ended, and the notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Group as of December 31, 2020 and 2019, and its consolidated financial performance and its consolidated cash flows for the years then ended in accordance with Korean International Financial Reporting Standards ("KIFRS").

Basis for opinion

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

Emphasis of matter – Impact of COVID-19

The following matter is considered relevant for users in making reasonable decisions based on the accompanying consolidated financial statements. We draw attention to Note 31-8 of the consolidated financial statements, which describes the economic and social disruption the Group as a result of worldwide to prevent including movement restrictions the spread of COVID-19 which is impacting global economy. The Company is concerned about the global economic difficulties and prolonged conditions caused by COVID-19, and is periodically monitoring the uncertainties that COVID-19 could have on its operations and financial status. Our opinion is not modified in respect of this matter.

Other Matter

We draw attention to Note 3-37 on consolidated financial statements, the comparative consolidated financial statements as of and for the year ended December 31, 2019 that were restated to reflect adjustments to the presentation of derivative offsetting and the related impact on the consolidated financial statements as of and for the year ended December 31, 2018 has been disclosed.

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion

thereon, and we do not provide a separate opinion on these matters. For each matter below, our description of how our audit addressed the matter is provided in that context.

1) Assessments of loss allowances on loan receivables measured at amortized cost

As discussed in Note 3 of the consolidated financial statements ('Significant accounting policies and basis of preparation'), the Group recognizes loss allowance based on an assessment of the expected credit loss impairment model for loan receivables measured at amortized cost.

The expected credit loss impairment model requires a loss allowance for 12-month expected credit loss or life-time expected credit loss to be recognized based on changes in credit risk subsequent to the initial recognition of the financial assets.

Management's significant judgment is involved in determining factors such as the level of increase in credit risk to assess loss allowance, estimation of risk factors such as probability of default and loss given default, future cash flows and discount rates related to the estimation of forward-looking information and individual assessment. Therefore, significant attention was placed on loss allowances on loan receivables measured at amortized cost and identified it as a key audit matter

In Note 16 to the consolidated financial statements of the Group, loan receivables measured at amortized cost and loss allowances based on the expected credit loss impairment model amount to ₩308,791,815 million and ₩1,770,473 million, respectively, as of December 31, 2020. Our audit procedures performed for management's assertion on the measurement of loss allowances on loan receivables measured at amortized cost are as follows:

- We performed analytical procedures on the appropriateness of stage classification, inspected documentation and tested methodology.
- We involved a specialist to inspect documentation and perform testing of the estimation methodology of probability of default and loss given default.
- We involved a specialist to inspect documentation and perform testing of the estimation methodology of forward-looking information.
- We performed inquiries, inspected documentation and performed testing of the future cash flow estimation and discount rate used to calculate loss allowances on individual basis of assessment.

2) Assessment of fair value of financial instruments measured at FVTPL, financial assets measured at FVOCI and derivatives categorized as Level 3 of the fair value hierarchy

As discussed in Note 3 of the consolidated financial statements ('Significant accounting policies and basis of preparation'), the Group categorizes the fair value measurement of financial instruments into Level 1, 2 or 3 based on the extent at which inputs to the fair value measurements are observable and the significance of the inputs to the fair value measurement in its entirety. If the input used in the fair value measurement are significant and unobservable, the financial instruments are categorized as Level 3 of the fair value hierarchy.

As discussed in Note 5 of the consolidated financial statements, the Group uses a variety of valuation techniques and variables, the fair value measurement may vary significantly depending on management's judgement on the use of valuation techniques and unobservable inputs, thus a high level of uncertainty exists in such accounting estimates. Therefore, significant attention was placed on the fair value measurement of financial instruments at Level 3 of the fair value hierarchy and identified it as a key audit matter.

Financial assets measured at FVTPL (including derivative assets held for trading), financial assets measured at FVOCI, derivative assets used for hedging, financial liabilities measured at FVTPL (including derivative liabilities held for trading) and financial liabilities designated as measured at FVTPL

categorized at Level 3 of the fair value hierarchy amount to ₩10,301,418 million, ₩810,710 million, ₩152 million, ₩1,165,337 million, and ₩8,079,634 million, respectively, as of December 31, 2020. Our audit procedures performed for management's assertion on the fair value measurement of financial instruments measured at level 3 of the fair value hierarchy are as follows:

- We inspected documentation to evaluate whether the fair value hierarchy classification of financial instruments by type of financial instrument is categorized based on the characteristics of significant input variables used in the fair value measurement.
- We performed inquiries and inspected documentation to evaluate the professional competence and independence of external valuers engaged by the Group to measure fair value.
- We performed inquiries, inspected documentation and performed testing of assumptions and methodology of fair value measurement on unlisted equity securities.
- We involved a specialist to perform inquiries, inspect documentation and perform testing of hybrid financial instruments and derivatives.

Responsibilities of management and those charged with governance for the consolidated financial statements

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

In preparing the consolidated financial statements, management is responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

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

Auditor's responsibilities for the audit of the consolidated financial statements

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

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

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

and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

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

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

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

The engagement partner on the audit resulting in this independent auditor's report is *Tae-gu Kang*.



March 11, 2021

This audit report is effective as of March 11, 2021, the independent auditor's report date. Accordingly, certain material subsequent events or circumstances may have occurred during the period from the date of the independent auditor's report to the time this report is used. Such events and circumstances could significantly affect the accompanying consolidated financial statements and may result in modifications to this report

Consolidated Statements of Financial Position

As of December 31, 2020 and 2019

Hana Financial Group Inc. and its subsidiaries

(Korean won in millions)

Accounts	Notes	December 31, 2020	December 31, 2019 (Restated)
Assets			
I. Cash and due from banks	5, 6, 7, 9, 11, 56	27,529,815	23,719,300
II. Financial assets measured at FVTPL	5, 6, 7, 9, 12, 15	43,134,045	32,359,657
III. Financial assets measured at FVOCI	5, 6, 7, 9, 13, 15, 17	36,165,388	37,980,060
IV. Securities measured at amortized cost	5, 6, 7, 9, 14, 15, 17	18,376,657	16,854,622
V. Loans measured at amortized cost	5, 6, 7, 9, 16	308,791,815	282,305,770
VI. Derivative assets used for hedging	5, 6, 7, 9, 17	141,463	68,125
VII. Investments in associates and joint ventures	18	2,731,378	2,440,127
VIII. Property and equipment	19, 15, 21	3,304,736	3,629,387
IX. Investment properties	20	899,346	1,222,582
X. Intangible assets	22	739,138	655,234
XI. Deferred tax assets	52	161,523	168,830
XII. Current income tax assets		29,898	20,606
XIII. Non-current assets held for sale	23	82,506	57,736
XIV. Other assets	5, 6, 7, 9, 24	18,225,594	19,985,063
Total assets		460,313,302	421,467,099
Liabilities			
I. Financial liabilities measured at FVTPL	5, 6, 7, 9, 17, 25	10,860,230	5,437,389
II. Financial liabilities designated as measured at FVTPL	5, 6, 7, 9, 26	9,802,701	11,573,281
III. Deposits	5, 6, 7, 9, 27	295,509,614	272,794,314
IV. Borrowings	5, 6, 7, 9, 28	26,494,316	20,699,402
V. Debentures	5, 6, 7, 9, 29	48,761,838	43,661,177
VI. Derivative liabilities used for hedging	5, 6, 7, 9, 17	34,737	27,515
VII. Net defined benefit liabilities	30	325,169	362,936
VIII. Provisions	31	555,239	577,366
IX. Deferred tax liabilities	52	175,938	207,857
X. Current income tax liabilities		542,277	575,301

Accounts	Notes	December 31, 2020	December 31, 2019 (Restated)
XI. Other liabilities	5, 6, 7, 9, 32	35,650,955	36,565,788
Total liabilities		428,713,014	392,482,326
Equity			
I. Issued capital	33	1,501,210	1,501,210
II. Hybrid equity securities	33	2,007,927	1,244,603
III. Capital surplus	33	10,579,945	10,582,183
IV. Capital adjustment	34	(315,030)	(315,030)
V. Accumulated other comprehensive income	35	(1,001,953)	(853,546)
VI. Retained earnings	36	17,941,584	15,965,055
Equity attributable to equity holder of the parent		30,713,683	28,124,475
VII. Non-controlling shareholders' equity	1	886,605	860,298
Total equity		31,600,288	28,984,773
Total liabilities and equity		460,313,302	421,467,099

"The accompanying notes are an integral part of the consolidated financial statements."

Consolidated Statements of Profit or Loss and Other Comprehensive Income

For the years December 31, 2020 and 2019

Hana Financial Group Inc. and its subsidiaries

(Korean won in millions)

Accounts	Notes	2020		2019 (Restated)	
I. Net interest income	38, 39		5,814,291		5,773,706
1. Interest income		10,079,609		11,118,155	
2. Interest expense		(4,265,318)		(5,344,449)	
II. Net fees and commission income	38, 40		2,159,770		1,991,469
1. Fees and commission income		3,222,532		3,015,061	
2. Fees and commission expense		(1,062,762)		(1,023,592)	
III. Net gain (loss) on financial instruments measured at FVTPL	38, 41		565,179		1,485,129
IV. Net gain (loss) on financial instruments designated as measured at FVTPL	38, 42		224,095		(861,489)
V. Net gain on financial instruments measured at FVOCI	38, 43		358,076		65,773
VI. Gain on disposal of financial assets measured at amortized cost	38, 44		70,168		55,520
VII. Gain (loss) on derivative assets used for hedging	38, 45		25,767		(7,731)
VIII. Gain on foreign currencies transactions	38		317,473		355,460
IX. Total operating income			9,534,819		8,857,837
X. Impairment loss on financial assets	38, 46		(870,939)		(540,812)
XI. Net operating income			8,663,880		8,317,025
XII. General and administrative expenses	38, 47		(3,917,656)		(4,107,021)
XIII. Other operating income	38, 48		1,179,797		896,514
XIV. Other operating expenses	38, 49		(2,089,599)		(1,847,838)
XV. Operating income			3,836,422		3,258,680
XVI. Non-operating income (loss)			(107,188)		149,467
1. Net gain (loss) on valuation of investments in associates and joint ventures	18	45,668		(22,447)	
2. Other non-operating income	50	357,532		581,201	
3. Other non-operating expenses	51	(510,388)		(409,287)	
XVII. Net income before income tax expense			3,729,234		3,408,147
XVIII. Income tax expenses	52		(1,044,356)		(982,525)
XIX. Net income for the year			2,684,878		2,425,622
Equity holders of the parent		2,637,242		2,391,584	
Non-controlling interests	1	47,636		34,038	
XX. Other comprehensive income (loss)			(156,181)		(6,227)
1. Items that may be reclassified subsequently to profit or loss:		(145,949)		303,269	
Gain on valuation of debt securities measured at FVOCI		3,009		207,399	
Exchange differences on translation of foreign operations, net		(144,057)		101,653	
Changes in capital from valuation of equity method for investments in associates		(37,134)		15,343	
Gain (loss) on valuation of net investment in hedges		26,546		(18,816)	
Gain (loss) on valuation of cash flow hedges		(3,814)		23	
Gain (loss) on valuation of fair value hedges		10,121		(2,335)	
Other comprehensive income (loss) on separate accounts		(620)		2	
2. Items that will not be reclassified subsequently to profit or		(10,232)		(309,496)	

Accounts	Notes	2020		2019 (Restated)	
loss:					
Gain (loss) on valuation of equity securities measured at FVOCI		19,730		(123,491)	
Effect of changes in the credit risk of financial liabilities designated at FVTPL		(5,436)		(12,242)	
Remeasurements of the defined benefit plan		(24,526)		(173,763)	
Total comprehensive income for the year			2,528,697		2,419,395
XXI. Total comprehensive income for the year attributable to:					
Equity holder of the parent		2,495,247		2,377,125	
Non-controlling interests		33,450		42,270	
XXII. Earnings per share	54				
Basic earnings per share (Korean won)			8,858		7,898
Diluted earnings per share (Korean won)			8,858		7,877

"The accompanying notes are an integral part of the consolidated financial statements."

Consolidated Statements of Changes in Equity

For the years ended December 31, 2020 and 2019

Hana Financial Group Inc. and its subsidiaries

(Korean won in millions)

Accounts	Issued capital	Hybrid equity securities	Capital surplus	Capital adjustments	Accumulated other comprehensive income	Retained earnings	Equity attributable to equity holder of the parent	Non-controlling shareholders' equity	Total
As of January 1, 2019	1,501,210	980,304	10,602,594	(15,049)	(863,890)	14,224,003	26,429,172	679,288	27,108,460
Annual Dividends	-	-	-	-	-	(450,363)	(450,363)	-	(450,363)
Interim Dividends	-	-	-	-	-	(149,996)	(149,996)	-	(149,996)
Issuance of hybrid equity securities	-	264,299	-	-	-	-	264,299	-	264,299
Paid-in capital increases of subsidiaries	-	-	(14,502)	-	24,702	-	10,200	165,745	175,945
Purchase of common shares of subsidiaries	-	-	(6,002)	-	-	-	(6,002)	(6,180)	(12,182)
Dividends on hybrid equity securities	-	-	-	-	-	(47,748)	(47,748)	(20,824)	(68,572)
Purchase of treasury stock	-	-	-	(299,996)	-	-	(299,996)	-	(299,996)
Reclassification of equity securities measured at FVOCI	-	-	-	-	101	(101)	-	-	-
Others	-	-	93	15	-	(2,324)	(2,216)	(1)	(2,217)
Subtotal	1,501,210	1,244,603	10,582,183	(315,030)	(839,087)	13,573,471	25,747,350	818,028	26,565,378
Net income for the year	-	-	-	-	-	2,391,584	2,391,584	34,038	2,425,622
Gain on valuation of financial assets measured at FVOCI	-	-	-	-	82,403	-	82,403	1,505	83,908
Exchange differences on translation of foreign operations	-	-	-	-	94,368	-	94,368	7,285	101,653
Changes in capital from valuation of equity method for investments in associates	-	-	-	-	15,382	-	15,382	(39)	15,343
Loss on valuation of net investment hedges	-	-	-	-	(18,816)	-	(18,816)	-	(18,816)
Loss on valuation of cash flow hedges	-	-	-	-	19	-	19	4	23
Loss on valuation of fair value hedges	-	-	-	-	(2,335)	-	(2,335)	-	(2,335)
Special account other comprehensive income	-	-	-	-	2	-	2	-	2
Effect of changes in credit risk on financial liabilities designated as measured at FVTPL	-	-	-	-	(12,242)	-	(12,242)	-	(12,242)
Remeasurement of the net defined benefit plan	-	-	-	-	(173,240)	-	(173,240)	(523)	(173,763)
Total comprehensive income for the year	-	-	-	-	(14,459)	2,391,584	2,377,125	42,270	2,419,395
As of December 31, 2019 (Restated)	1,501,210	1,244,603	10,582,183	(315,030)	(853,546)	15,965,055	28,124,475	860,298	28,984,773

Accounts	Issued capital	Hybrid equity securities	Capital surplus	Capital adjustments	Accumulated other comprehensive income	Retained earnings	Equity attributable to equity holder of the parent	Non-controlling shareholders' equity	Total
As of January 1, 2020	1,501,210	1,244,603	10,582,183	(315,030)	(853,546)	15,965,055	28,124,475	860,298	28,984,773
Annual Dividends	–	–	–	–	–	(466,502)	(466,502)	–	(466,502)
Interim Dividends	–	–	–	–	–	(145,782)	(145,782)	–	(145,782)
Issuance of hybrid equity securities	–	997,654	–	–	–	–	997,654	149,578	1,147,232
Redemption of hybrid equity securities	–	(234,330)	(1,053)	–	–	–	(235,383)	(149,617)	(385,000)
Paid-in capital increases of subsidiaries	–	–	(1,176)	–	–	–	(1,176)	–	(1,176)
Purchase of common shares of subsidiaries	–	–	–	–	–	–	–	7,623	7,623
Dividends on hybrid equity securities	–	–	–	–	–	(54,598)	(54,598)	(14,727)	(69,325)
Reclassification of equity securities measured at FVOCI	–	–	–	–	(6,412)	6,412	–	–	–
Others	–	–	(9)	–	–	(243)	(252)	–	(252)
Subtotal	1,501,210	2,007,927	10,579,945	(315,030)	(859,958)	15,304,342	28,218,436	853,155	29,071,591
Net income for the year	–	–	–	–	–	2,637,242	2,637,242	47,636	2,684,878
Gain (loss) on valuation of financial assets measured at FVOCI	–	–	–	–	18,843	–	18,843	3,896	22,739
Exchange differences on translation of foreign operations	–	–	–	–	(126,689)	–	(126,689)	(17,368)	(144,057)
Changes in capital from valuation of equity method for investments in associates	–	–	–	–	(37,068)	–	(37,068)	(66)	(37,134)
Gain on valuation of net investment hedges	–	–	–	–	26,546	–	26,546	–	26,546
Loss on valuation of cash flow hedges	–	–	–	–	(3,242)	–	(3,242)	(572)	(3,814)
Gain on valuation of fair value hedges	–	–	–	–	10,121	–	10,121	–	10,121
Other comprehensive income (loss) on separate accounts	–	–	–	–	(620)	–	(620)	–	(620)
Effect of changes in credit risk on financial liabilities designated as measured at FVTPL	–	–	–	–	(5,436)	–	(5,436)	–	(5,436)
Remeasurement of the net defined benefit plan	–	–	–	–	(24,450)	–	(24,450)	(76)	(24,526)
Total comprehensive income for the year	–	–	–	–	(141,995)	2,637,242	2,495,247	33,450	2,528,697
As of December 31, 2020	1,501,210	2,007,927	10,579,945	(315,030)	(1,001,953)	17,941,584	30,713,683	886,605	31,600,288

"The accompanying notes are an integral part of the consolidated financial statements."

Consolidated Statements of Cash Flows

For the years December 31, 2020 and 2019

Hana Financial Group Inc. and its subsidiaries

(Korean won in millions)

Accounts	2020	2019 (Restated)
I. Net cash flows provided by (used in) operating activities	(7,716,525)	6,529,925
1. Net income before income tax expenses	3,729,234	3,408,147
2. Adjustments to reconcile net income before income tax expense to net cash flows provided by (used in) operating activities:	2,937,590	735,379
Net interest expense (income)	(254,919)	125,286
Net gain on valuation of financial instruments measured at FVTPL	(586,700)	(633,835)
Net gain on disposal of financial instruments measured at FVTPL	(31,694)	(28,909)
Net loss (gain) on valuation of financial instruments designated at FVTPL	(200,796)	191,204
Net gain on transaction of financial instruments measured at FVOCI	(349,746)	(57,683)
Provision for credit losses on financial assets measured at amortized cost	7,341	1,771
Net loss (gain) on derivative assets used for hedging	(29,729)	93
Transfer of credit losses on financial assets measured at FVOCI	3,589	382
Net loss (gain) on foreign currencies transactions	2,630,421	(352,455)
Provision for allowance	860,009	538,659
Depreciation and amortization	760,800	741,406
Share-based compensation expenses	17,243	13,646
Provision for post-employment benefit obligations	203,736	196,596
Net loss (gain) on valuation of investments in associates and joint ventures	(45,668)	22,447
Other loss (gain) relating to property and equipment and intangible assets	(45,879)	31,516
Net gain on disposal of assets held for sale asset	-	(488,996)
Others	(418)	434,251
3. Changes in operating assets and liabilities:	(13,278,473)	3,141,259
Due from banks	(3,631,457)	1,828,780
Financial assets measured at FVTPL (held-for-trading)	(10,173,574)	(1,813,891)
Loans measured at amortized cost	(25,945,511)	(20,361,504)
Derivative assets used for hedging	(20,824)	14,601
Investments in associates and joint ventures	32,868	10,614
Other assets	1,881,023	(3,829,545)
Financial liabilities measured at FVTPL	5,377,580	781,564
Financial liabilities designated as measured at FVTPL	(1,591,242)	(602,391)
Deposits	21,341,406	23,042,468
Derivative liabilities used for hedging	24,908	(40,511)
Net defined benefit liabilities	(274,876)	(243,539)
Net provisions	(39,842)	(28,878)
Other liabilities	(258,932)	4,383,491

Accounts	2020		2019 (Restated)	
4. Payment of income tax	(1,104,876)		(754,860)	
II. Net cash flows provided by (used in) investing activities		482,813		(6,623,344)
Net cash flows used in acquisition of subsidiary	(233,358)		(891,490)	
Purchase of financial assets measured at FVTPL (other than held-for-trading)	(9,765,768)		(9,552,148)	
Proceeds from disposal of financial assets measured at FVTPL (other than held-for-trading)	9,855,389		8,019,560	
Purchase of financial assets measured at FVOCI	(33,429,603)		(20,696,885)	
Proceeds from disposal of financial assets measured at FVOCI	35,647,659		19,898,347	
Purchase of financial assets measured at amortized cost	(5,882,068)		(3,080,514)	
Proceeds from disposal of financial assets measured at amortized cost	4,404,982		1,087,793	
Acquisition of investment in associates	(545,899)		(1,194,884)	
Proceeds from disposal of investment in subsidiaries	268,827		54,223	
Purchase of property and equipment	(382,497)		(570,557)	
Proceeds from disposal of property and equipment	226,908		132,666	
Purchase of investment properties	(19,577)		(518,903)	
Proceeds from disposal of investment properties	461,245		42,127	
Acquisition of intangible assets	(214,949)		(139,066)	
Proceeds from disposal of intangible assets	2,316		2,151	
Decrease in non-current assets held for sale, net	11,807		797,569	
Increase (decrease) in in guarantee deposit, net	77,399		(13,333)	
III. Net cash flows provided by (used in) by financing activities		8,474,770		1,355,611
Increase of borrowings, net	5,339,390		1,142,824	
Issuance of debentures	26,956,209		30,481,802	
Redemption of debentures	(23,660,633)		(29,515,123)	
Payment of lease liabilities	(249,866)		(227,122)	
Increase of treasury stock	–		(299,996)	
Dividends payment	(612,284)		(600,359)	
Issuance of hybrid equity securities	997,654		264,299	
Dividends on hybrid equity securities	(60,933)		(45,934)	
Redemption of hybrid equity securities	(235,000)		–	
Decrease (Increase) in non-controlling shareholders' equity, net	(16,995)		155,220	
Others	17,228		–	
IV. Effect of exchange rate changes on cash and cash equivalents		(393,391)		(9,350)
V. Net decrease in cash and cash equivalents		847,667		1,252,842
VI. Cash and cash equivalents as of January 1		6,509,574		5,256,732
VII. Cash and cash equivalents as of December 31 (Notes No. 56)		7,357,241		6,509,574

"The accompanying notes are an integral part of the consolidated financial statements."

Notes to the consolidated financial statements

December 31, 2020 and 2019

Hana Financial Group Inc. and its subsidiaries

1. Company information

The accompanying consolidated financial statements include Hana Financial Group Inc. (HFG or the “ Company” or the “ Parent Company”) and its controlled subsidiaries (collectively, the “ Group”). General information describing HFG and the Group is provided below.

1-1 HFG

HFG was incorporated on December 1, 2005 under the Financial Holding Companies Act, in exchange for those entities’ shares owned by the shareholders of Hana Bank, Hana Financial Investment Co., Ltd. (“ HFI”), Hana TI (Formerly Hana I &S), and Hana Institute of Finance (“ HIF”). HFG primarily engages in the management of its subsidiaries, which operate in the financial services industry or closely related sectors in the Republic of Korea. The Group’ s subsidiaries included in and excluded from the consolidation are as follows.

Date of acquisition	Subsidiaries	Notes
October 13, 2006	Hana IB Securities Co., Ltd. (“ Hana IB”)	Acquired by HFI in 2008
April 27, 2007	Hana Capital Co., Ltd. (“ Hana Capital”)	Acquired by the purchase of common shares
August 10, 2007	Hana HSBC Life Insurance Co., Ltd. (“ Hana HSBC Life Insurance”)	Acquired by the purchase of common shares
October 31, 2009	Hana SK Card Co., Ltd. (“ Hana SK Card”)	Established by the spin-off of Hana Bank’ s credit card business division, merged into Hana Card Co., Ltd in 2014
March 10, 2010	Hana Asset Trust Co., Ltd. (“ Hana Asset Trust”)	Acquired by the purchase of common shares
February 8, 2012	Hana Savings Bank Co., Ltd. (“ Hana Savings Bank”)	Established by the purchase and Assumption(P&A) agreement
February 9, 2012	Korea Exchange Bank (“ KEB”)	Acquired by the purchase of common shares

Date of acquisition	Subsidiaries	Notes
August 30, 2013	Hana Bancorp, Inc.	Acquired by the purchase of common shares
February 20, 2014	PT Bank KEB	Merged with PT Bank Hana(PT Bank KEB Hana)
September 1, 2014	KEB Hana Card (formerly, KEB Card)	Established by the spin-off of KEB credit card business division, merged with Hana SK Card Co., Ltd.
December 1, 2014	Hana SK Card Co., Ltd.	Merged with KEB Hana Card Co., Ltd.
December 15, 2014	KEB Bank(China) Co.,Ltd.	Merged with Hana Bank(China) Co.,Ltd.
September 1, 2015	Hana Bank	Merged with KEB Hana Bank
December 29, 2015	Hana Investors Services Co., Ltd. (HIS)	Acquired by the purchase of common shares held by Hana Bank
March 28, 2016	Hana Bancorp, Inc.	Sold common shares to KEB Hana Bank
May 26, 2016	Hana Asset Management Co., Ltd.	Acquired by the purchase of common shares held by Hana Asset Trust
August 1, 2016	Hana Futures Co., Ltd.	Merged with HFI Co., Ltd.
August 24, 2016	Finnq Inc.	Established by capital investment (Joint Venture)
December 14, 2017	Hana Institute of Finance (HIF)	Liquidation registration completed
October 4, 2018	Hana Ventures	Established by capital investment
December 3, 2019	Hana F&I, Inc..	Acquired by the purchase of common shares held by Hana Bank
May 27, 2020	Hana Insurance. Co., Ltd. (Formerly, The K Insurance. Co., Ltd)	Acquired by the purchase of common shares

The capital stock amounted to ₩ 1,021,281 million at the time of establishment. As of December 31, 2020, the capital stock amounted to ₩ 1,501,210 million due to stock dividends, stock exchanges and capital increase. Also, the Group's common shares were listed on the Korea Exchange (KRX) on December 12, 2005 and the Group's authorized common shares are 800,000,000 shares as at December 31, 2020.

1-2 Scope of consolidation

Details of subsidiaries in scope of consolidation as of the December 31, 2020 are as follows.

Classification	Country	Major business	Number of shares	Ownership (%) (*5)	Reporting date
Subsidiaries of HFG:					
Hana Bank	Korea	Banking	1,071,915,717	100.0	December 31, 2020
HFI	Korea	Financial investments	67,107,495	100.0	December 31, 2020
KEB Hana Card	Korea	Credit card business	226,113,162	85.0	December 31, 2020
Hana Capital	Korea	Installment credit financing	21,478,377	100.0	December 31, 2020
Hana Asset Trust	Korea	Real estate trust	10,000,000	100.0	December 31, 2020
Hana TI	Korea	System development service	20,670,290	100.0	December 31, 2020
Hana Savings Bank	Korea	Mutual savings banking	15,000,000	100.0	December 31, 2020
Hana Life Insurance	Korea	Life insurance	33,710,200	100.0	December 31, 2020
Hana Insurance. Co., Ltd.	Korea	Non-Life insurance	52,626,000	84.6	December 31, 2020
HIS	Korea	Transfer agent	510,000	100.0	December 31, 2020
Hana Alternative Asset Management	Korea	Asset management	3,471,450	100.0	December 31, 2020
Hana Ventures	Korea	New Technology Financial business	20,000,000	100.0	December 31, 2020
Hana F&I, Inc..	Korea	Investment and management service for NPL assets backed securities	34,975,341	99.7	December 31, 2020
HANA ASSET MANAGEMENT ASIA	Singapore	Asset management	250,000	100.0	December 31, 2020
Hana Professional Investment Type Private Equity Real Estate 68-1 (*1)	Korea	Private investment trust company	-	40.0	December 31, 2020
Hana Alternative BlackRock QIP Trust No.73(*1)	Korea	Private investment trust company	-	33.3	December 31, 2020
Hana Alternative Special Investment Private Trust No.90 (*1)	Korea	Private investment trust company	-	67.5	December 31, 2020
Hana Alternative UK Government Office Professional Investors' Private Real Estate Investment Feeder Trust No.1 (*1)	Korea	Private investment trust company	-	50.1	December 31, 2020
Hana Alternative Infra Special Investment Private Trust No.3-1 (*1)	Korea	Private investment trust company	-	100.0	December 31, 2020
Hana Alternative Infra Special Investment Private Trust No.3-2(*1)	Korea	Private investment trust company	-	100.0	December 31, 2020
Hana Alternative Infra Special Investment Private Trust No.3-3 (*1)	Korea	Private investment trust company	-	100.0	December 31, 2020
Hana Alternative Special Investment Private Trust No.100 (*1)	Korea	Private investment trust company	-	50.0	December 31, 2020
Hana Alternative Special Investment Private Trust No.102 (*1)	Korea	Private investment trust company	-	44.0	December 31, 2020
Hana Alternative Special Investment Private Trust No.108 (*1)	Korea	Private investment trust company	-	83.3	December 31, 2020
Hana Alternative Special Investment Private Trust No.123-1 (USD) (*1)	Korea	Private investment trust company	-	100.0	December 31, 2020
Hana Alternative Houston Private Investment Trust No.121 (*1)	Korea	Private investment trust	-	77.9	December 31,

Classification	Country	Major business	Number of shares	Ownership (%) (*5)	Reporting date
		company			2020
Hana Alternative Special Asset Private Trust No.123-2 (*1)	Korea	Private investment trust company	-	50.3	December 31, 2020
Hana Alternative Special Asset Private Trust No.126 (*1)	Korea	Private investment trust company	-	30.3	December 31, 2020
Hana Alternative Special Investment Private Trust No.116 (*1)	Korea	Private investment trust company	-	89.2	December 31, 2020
Hana Ventures New Technology Investment Association No.4 (*1)	Korea	New Technology Financial business	-	100.0	December 31, 2020
Hana Ventures New Technology Investment Association No.6 (*1)	Korea	New Technology Financial business	-	73.8	December 31, 2020
Hana Ventures New Technology Investment Association No.7 (*1)	Korea	New Technology Financial business	-	100.0	December 31, 2020
Specified Money Trust (*1) (*2)	Korea	Specified money trust	-	-	December 31, 2020
Subsidiaries of Hana Bank :					
Hana Bank (China) Co., Ltd. (*1)	China	Financial business	-	100.0	December 31, 2020
KEB Hana Bank Canada	Canada	Financial business	834,000	100.0	December 31, 2020
KEB Hana Bank Germany	Germany	Financial business	45,000	100.0	December 31, 2020
PT Bank KEB Hana	Indonesia	Financial business	2,180,624,663	69.0	December 31, 2020
Banco KEB Hana do Brasil S. A.	Brazil	Financial business	69,726,415	100.0	December 31, 2020
KEB Hana NY Financial Corp.	U.S.	Financial business	100	100.0	December 31, 2020
KEB Hana LA Financial Corp.	U.S.	Financial business	200	100.0	December 31, 2020
KEB Hana Global Finance	Hong Kong	Financial business	50,000,000	100.0	December 31, 2020
KEB Hana Russia (*1)	Russia	Financial business	-	99.9	December 31, 2020
KEB Hana Mexico	Mexico	Financial business	1,666,827,999	99.9	December 31, 2020
Hana Bancorp, Inc.	U.S.	Financial business	22,413,529	90.6	December 31, 2020
UBS Hana Power Private equity investment trust 21 [Bond] (*1)	Korea	Private investment trust company	-	100.0	December 31, 2020
Hyundai Trust PEF Invest 16 [Bond] (*1)	Korea	Private investment trust company	-	100.0	December 31, 2020
Kyobo Axa Tomorrow Private Equity K4-1[Bond] (*1)	Korea	Private investment trust company	-	100.0	December 31, 2020
DGB Leading Solution Private Bond 143 (*1)	Korea	Private investment trust company	-	100.0	December 31, 2020
Sevenstar Co., Ltd. (*1)(*3)	Korea	Other financial business	-	-	December 31, 2020
Marine Solution Co., Ltd. (*1)(*3)	Korea	Other financial business	-	-	December 31, 2020
Chungangstar Co., Ltd. (*1)(*3)	Korea	Other financial business	-	-	December 31, 2020
Antakya Co., Ltd. (*1)(*3)	Korea	Other financial business	-	-	December 31,

Classification	Country	Major business	Number of shares	Ownership (%) (*5)	Reporting date
					2020
Hana Display First Ltd. (*1)(*3)	Korea	Other financial business	-	-	December 31, 2020
Hana Indonesia Green Forest Co., Ltd. (*3)	Korea	Other financial business	-	-	December 31, 2020
Bulls Hana 1st Co., Ltd. (*1)(*3)	Korea	Other financial business	-	-	December 31, 2020
Ocean Betts The First Co., Ltd. (*3)	Korea	Other financial business	-	-	December 31, 2020
Hana H in the holdings 1st LLC (*1)(*3)	Korea	Other financial business	-	-	December 31, 2020
Hanafuturelifes 1st, Ltd. (*3)	Korea	Other financial business	-	-	December 31, 2020
Bestoneq 1st, L.L.C. (*1)(*3)	Korea	Other financial business	-	-	December 31, 2020
H-Plus 1st, L.L.C. (*1)(*3)	Korea	Other financial business	-	-	December 31, 2020
HanaGreen, 1st L.L.C. (*3)	Korea	Other financial business	-	-	December 31, 2020
YDPP 1st Co.,Ltd. (*3)	Korea	Other financial business	-	-	December 31, 2020
Hanack 1st Co.,Ltd. (*3)	Korea	Other financial business	-	-	December 31, 2020
Netoneq 1st L.L.C. (*1)(*3)	Korea	Other financial business	-	-	December 31, 2020
Dongam Tower 1st Co., LTD. (*1)(*3)	Korea	Other financial business	-	-	December 31, 2020
Hana H in the holdings 1st LLC (*1)(*3)	Korea	Other financial business	-	-	December 31, 2020
H on 1st L.L.C (*1)(*3)	Korea	Other financial business	-	-	December 31, 2020
DYONEQ1st, LLC (*1)(*3)	Korea	Other financial business	-	-	December 31, 2020
PIOTOWER1st, LLC (*1)(*3)	Korea	Other financial business	-	-	December 31, 2020
KSPARTNERSHIP 1st 2020, INC (*1)(*3)	Korea	Other financial business	-	-	December 31, 2020
Trust Agreement to Guarantee Principal and Profit (*1)	Korea	Trust Account	-	-	December 31, 2020
Subsidiaries of Hana Bancorp. Inc:					
KEB Hana Bank USA	U.S.	Banking	500,100	100.0	December 31, 2020
Subsidiaries of HFI :					
Hana the First Private Equity Fund (*1)	Korea	Private equity fund	-	48.9	December 31, 2020
Hana Daol Land Chip Heungdeok Real Estate Private Fund 35 (*1)	Korea	Private investment trust company	-	100.0	December 31, 2020
Hana Equity Investment Management (Shenzhen) Co., Ltd (Formerly, Hana Global Investment Consulting Co.,Ltd) (*1)	China	Investment consulting	-	100.0	December 31, 2020
Hana Land Chip Houston Real Estate Private Fund 59 (*1)	Korea	Private investment trust company	-	100.0	December 31, 2020
Hana the Third Private Equity Fund (*1)	Korea	Private equity fund	-	35.0	December 31, 2020

Classification	Country	Major business	Number of shares	Ownership (%) (*5)	Reporting date
Hana New Technology Fund No.1 (*1)	Korea	Private equity fund	-	50.0	December 31, 2020
Yellow Balloon 2nd Co., Ltd. (*3)	Korea	Other financial business	-	-	December 31, 2020
Citizenfyu 1st Co., Ltd. (*3)	Korea	Other financial business	-	-	December 31, 2020
Portfolio 1st Co., Ltd. (*3)	Korea	Other financial business	-	-	December 31, 2020
Yellow Balloon 3rd Co., Ltd. (*3)	Korea	Other financial business	-	-	December 31, 2020
YDL 1st Co., Ltd. (*3)	Korea	Other financial business	-	-	December 31, 2020
Areca 1st Co., Ltd. (*3)	Korea	Other financial business	-	-	December 31, 2020
Hana Charlemont Exchange (*3)	Korea	Other financial business	-	-	December 31, 2020
YDL 3rd Co., Ltd. (*3)	Korea	Other financial business	-	-	December 31, 2020
GYD 1st Co., Ltd. (*3)	Korea	Other financial business	-	-	December 31, 2020
Centaur First Co., Ltd. (*3)	Korea	Other financial business	-	-	December 31, 2020
Hana Ocean 1st (*3)	Korea	Other financial business	-	-	December 31, 2020
Hana Formula-E Private Special Asset Fund 114 (*1)	Korea	Private investment trust company	-	99.4	December 31, 2020
KB Spain Solar Energy Private Special Asset Fund (*1)	Korea	Private investment trust company	-	96.8	December 31, 2020
KB Bonaccord Private Fund(FOFS) (*1)	Korea	Private investment trust company	-	99.9	December 31, 2020
KB Mobility Solution Private Special Asset Fund 1 (*1)	Korea	Private investment trust company	-	99.9	December 31, 2020
Hana Semiconductor New Technology Fund (*1)	Korea	Private equity fund	-	28.0	December 31, 2020
San Jose Real 1st Co., Ltd. (*3)	Korea	Other financial business	-	-	December 31, 2020
GIF Rocinante Co., Ltd. (*3)	Korea	Other financial business	-	-	December 31, 2020
Hana US Emerging Office Co., Ltd. (*3)	Korea	Other financial business	-	-	December 31, 2020
Darby Hana Europe Renewable Energy Private Investment Fund (FOFS) (*1)	Korea	Private investment trust company	-	99.2	December 31, 2020
AIP Energy Infrastructure Specialized Privately Placed Fund Trust #2 (*1)	Korea	Private investment trust company	-	98.0	December 31, 2020
Hana Private Real Estate Investment Trust No.130 (*1)	Korea	Private investment trust company	-	100.0	December 31, 2020
DS Networks Private Alternative Investment Trust 2 (*1)	Korea	Private investment trust company	-	100.0	December 31, 2020
Vestas Qualified Investors Private Real Estate Fund Investment Trust No.54B (*1)	Korea	Private investment trust company	-	99.7	December 31, 2020
HERITAGE US Manhattan Qualified Investors Real Estate Private Investment Trust No.2 (USD) (*1)	Korea	Private investment trust company	-	99.8	December 31, 2020
Hana Alternative US California BESS Special Asset No. 6 (*1)	Korea	Private investment trust	-	100.0	December 31,

Classification	Country	Major business	Number of shares	Ownership (%) (*5)	Reporting date
		company			2020
IGIS U.S. Specialized Private Placement Real Estate Investment Trust NO. 350 (*1)	Korea	Private investment trust company	-	100.0	December 31, 2020
Shinhan AIM Infrastructure Fund No.6-2 (*1)	Korea	Private investment trust company	-	100.0	December 31, 2020
K-Reits Specialized Private Investment Trust No.23 (*1)	Korea	Private investment trust company	-	98.2	December 31, 2020
Shinhan AIM Infrastructure Fund No.6-A (*1)	Korea	Private investment trust company	-	100.0	December 31, 2020
KAIM Global Value Specialized Private Investment Trust No.1 (*1)	Korea	Private investment trust company	-	99.9	December 31, 2020
AIP Energy Transport Infrastructure Specialized Privately Placed Fund Trust #4 (*1)	Korea	Private investment trust company	-	99.9	December 31, 2020
Hana Trust Global Reit One Co., Ltd	Korea	Real estate management	1,000,000	100.0	December 31, 2020
Hana Global New Technology Fund No.1 (*1)	Korea	Private equity fund	-	100.0	December 31, 2020
Madrid First Co., Ltd. (*3)	Korea	Other financial business	-	-	December 31, 2020
Hana AIC 1st Co., Ltd. (*3)	Korea	Other financial business	-	-	December 31, 2020
Peach Shine 2nd Co., Ltd. (*3)	Korea	Other financial business	-	-	December 31, 2020
Hanalogis No.1 Co., Ltd. (*3)	Korea	Other financial business	-	-	December 31, 2020
GIF Boomerang Co., Ltd. (*3)	Korea	Other financial business	-	-	December 31, 2020
GIF Sowol-ro Co., Ltd. (*3)	Korea	Other financial business	-	-	December 31, 2020
Hana Runway Co., Ltd. (*3)	Korea	Other financial business	-	-	December 31, 2020
JLB Squire Co., Ltd. (*3)	Korea	Other financial business	-	-	December 31, 2020
US Smile 1st Co., Ltd. (*3)	Korea	Other financial business	-	-	December 31, 2020
US Smile 2nd Co., Ltd. (*3)	Korea	Other financial business	-	-	December 31, 2020
Hana Private Real Estate Investment Trust No.137 (*1)	Korea	Private investment trust company	-	99.9	December 31, 2020
Broadway 1st Co. Ltd (*3)	Korea	Other financial business	-	-	December 31, 2020
HANA MC ONE Co.,Ltd (*3)	Korea	Other financial business	-	-	December 31, 2020
Hana-Sinjang 1st Co.,Ltd (*3)	Korea	Other financial business	-	-	December 31, 2020
Hana Solar 1st Co., Ltd (*3)	Korea	Other financial business	-	-	December 31, 2020
YK Ho 1st., Co., Ltd (*3)	Korea	Other financial business	-	-	December 31, 2020
YK Ho 2nd., Co., Ltd (*3)	Korea	Other financial business	-	-	December 31, 2020
Hana S-Energy Co., Ltd. (*3)	Korea	Other financial business	-	-	December 31, 2020

Classification	Country	Major business	Number of shares	Ownership (%) (*5)	Reporting date
GIF Gwacheon8 2nd., Co., Ltd. (*3)	Korea	Other financial business	-	-	December 31, 2020
Hana Datacenter 1st., Co., Ltd. (*3)	Korea	Other financial business	-	-	December 31, 2020
Anseong KL 1st., Co., Ltd. (*3)	Korea	Other financial business	-	-	December 31, 2020
Achenhaim Co., Ltd. (*3)	Korea	Other financial business	-	-	December 31, 2020
Eco Clover Co., Ltd. (*3)	Korea	Other financial business	-	-	December 31, 2020
Hana 5-geori 1st., Co., Ltd. (*3)	Korea	Other financial business	-	-	December 31, 2020
Hana-Ulsan Co., Ltd. (*3)	Korea	Other financial business	-	-	December 31, 2020
Hana Port 1st., Co., Ltd. (*3)	Korea	Other financial business	-	-	December 31, 2020
HF Caribbean Co., Ltd. (*3)	Korea	Other financial business	-	-	December 31, 2020
Hana YJDL Co., Ltd. (*3)	Korea	Other financial business	-	-	December 31, 2020
GMIHB 2nd., Co., Ltd. (*3)	Korea	Other financial business	-	-	December 31, 2020
Hana In Chungmu 1st., Co., Ltd. (*3)	Korea	Other financial business	-	-	December 31, 2020
Hana Penta 1st., Co., Ltd. (*3)	Korea	Other financial business	-	-	December 31, 2020
Hangdong West 2nd., Co., Ltd. (*3)	Korea	Other financial business	-	-	December 31, 2020
Hana Unju 1st., Co., Ltd. (*3)	Korea	Other financial business	-	-	December 31, 2020
Wonderful GM 1st., Co., Ltd. (*3)	Korea	Other financial business	-	-	December 31, 2020
Magic Town 1st., Co., Ltd. (*3)	Korea	Other financial business	-	-	December 31, 2020
GIF Olympus Co., Ltd. (*3)	Korea	Other financial business	-	-	December 31, 2020
GS Solution 1st., Co., Ltd. (*3)	Korea	Other financial business	-	-	December 31, 2020
Hana Sewoon 1st., Co., Ltd. (*3)	Korea	Other financial business	-	-	December 31, 2020
Zero To One 1st., Co., Ltd. (*3)	Korea	Other financial business	-	-	December 31, 2020
Hana Heaven 1st., Co., Ltd. (*3)	Korea	Other financial business	-	-	December 31, 2020
Hanalogis No.2 Co., Ltd. (*3)	Korea	Other financial business	-	-	December 31, 2020
Hana 1Q Logis B Co., Ltd. (*3)	Korea	Other financial business	-	-	December 31, 2020
Hana Bukjincheon 1st., Co., Ltd. (*3)	Korea	Other financial business	-	-	December 31, 2020
Hana Bukjincheon 2nd., Co., Ltd. (*3)	Korea	Other financial business	-	-	December 31, 2020
Hana Seattle Prime Co., Ltd. (*3)	Korea	Other financial business	-	-	December 31,

Classification	Country	Major business	Number of shares	Ownership (%) (*5)	Reporting date
					2020
Tree Unique 1st., Co., Ltd. (*3)	Korea	Other financial business	-	-	December 31, 2020
PIS 2nd., Co., Ltd. (*3)	Korea	Other financial business	-	-	December 31, 2020
Ernest Hyun 1st., Co., Ltd. (*3)	Korea	Other financial business	-	-	December 31, 2020
Hridan 2nd., Co., Ltd. (*3)	Korea	Other financial business	-	-	December 31, 2020
GIF MD Co., Ltd. (*3)	Korea	Other financial business	-	-	December 31, 2020
Hana Alternative Investment Shipping Specialized Private Equity Fund NO. 1 (*1)	Korea	Financial business	-	99.9	December 31, 2020
IGIS U.S. Specialized Private Placement Real Estate Investment Trust NO. 380-1 (*1)	Korea	Financial business	-	100.0	December 31, 2020
Hana Alternative Specialized Private Placement Real Estate Investment Trust No. 153-2 (*1)	Korea	Financial business	-	100.0	December 31, 2020
Ramda Global Specialized Private Placement Real Estate Investment Trust (*1)	Korea	Financial business	-	100.0	December 31, 2020
Darby Hana New York Hotel Specialized Private Investment Trust No.1 (*1)	Korea	Financial business	-	99.9	December 31, 2020
Subsidiaries of Hana the 3rd PEF:					
Venus 1 SPC Co., Ltd. (*1)	Korea	SPC	-	100.0	December 31, 2020
Bareun Food Factory Co.,Ltd. (*1)	Korea	SPC	-	100.0	December 31, 2020
Titan 1 SPC LLC (*1)	Korea	SPC	-	100.0	December 31, 2020
HIT 1 SPC LLC (*1)	Korea	SPC	-	100.0	December 31, 2020
Subsidiaries of Bareun Food Factory Co.,Ltd.:					
Dduksim Co., Ltd.(*4)	Korea	Korean traditional food business	750,000	81.8	September 30, 2020
Sejoong Co., Ltd. (*4)	Korea	Meat wholesale	3,560,023	70.9	September 30, 2020
Keunrho Trading Co., Ltd. (*4)	Korea	Seafood processing business	2,507,598	67.4	September 30, 2020
Subsidiaries of Dduksim :					
Seojewon Co.,Ltd (*4)	Korea	Franchise business	700,000	70.0	September 30, 2020
Subsidiaries of Sejoong :					
Siwon Co., Ltd. (*4)	Korea	Meat wholesale	100,000	100.0	September 30, 2020
Subsidiaries of Keunrho frib:					
Keunrho seafood.Co., Ltd. (*4)	Korea	Seafood processing business	513,000	100.0	September 30, 2020
designmeal co.,Ltd (*4)	Korea	Seafood processing business	500,000	100.0	September 30, 2020
Subsidiaries of Hana Card:					
Hana Card Payment	Japan	Other financial support service	1	100.0	December 31, 2020
Hana Card 2019-1 Asset Securitization Specialty. Co., Ltd.	Korea	Asset securitization	1	0.5	December 31,

Classification	Country	Major business	Number of shares	Ownership (%) (*5)	Reporting date
					2020
Hana Card 2020-1 Asset Securitization Specialty Co., Ltd.	Korea	Asset securitization	1	0.5	December 31, 2020
Specified Money Trust (*1) (*2)	Korea	Specified money trust	-	-	December 31, 2020
Subsidiaries of Hana Capital:					
Hana Ventures No.2 Investment Fund (*1)	Korea	New Technology Financial business	-	100.0	December 31, 2020
Hana Ventures No.3 Investment Fund (*1)	Korea	New Technology Financial business	-	100.0	December 31, 2020
Hana Micro Finance, Ltd.	Myanmar	Financial business	3,891,768	100.0	December 31, 2020
Subsidiaries of Hana Life Insurance:					
Hana Land Chip Houston Real Estate Private Fund 68 (*1)	Korea	Private investment trust company	-	100.0	December 31, 2020
Subsidiaries of Hana Alternative Asset management:					
Hana Alternative Private Investment Trust No.111	Korea	Trust and collective investment	820,000,000	50.0	December 31, 2020
Subsidiaries of Hana Alternative Private Investment Trust No.111:					
Nineteen Dahlia S.A.R.L. (*4)	Luxembourg	SPC	12,000	100.0	November 30, 2020
Subsidiaries of Hana TI:					
PT Next Transformtech Indonesia	Indonesia	System development service	25,000	100.0	December 31, 2020
Subsidiaries of Hana F&I, Inc:					
KEB The Left co., Ltd. (*3)	Korea	Asset securitization	-	-	December 31, 2020
HFT Second Securitization Specialty (*3)	Korea	Asset securitization	10	5.0	December 31, 2020
Hana SH First Securitization Specialty Co., Ltd. (*3)	Korea	Asset securitization	28	14.0	December 31, 2020
HFS Second Securitization Specialty (*3)	Korea	Asset securitization	28	14.0	December 31, 2020
Hana K First Securitization Specialty (*3)	Korea	Asset securitization	28	14.0	December 31, 2020
HFD First Securitization Specialty (*3)	Korea	Asset securitization	28	14.0	December 31, 2020
HFS 73A Securitization Specialty Co., Ltd. (*3)	Korea	Asset securitization	18	9.0	December 31, 2020
HFS 73B Securitization Specialty Co., Ltd. (*3)	Korea	Asset securitization	18	9.0	December 31, 2020
HFW 73 Securitization Specialty Co., Ltd. (*3)	Korea	Asset securitization	18	9.0	December 31, 2020
HFK 74 Securitization Specialty Co., Ltd. (*3)	Korea	Asset securitization	18	9.0	December 31, 2020
HFSNB1 Securitization Specialty Co., Ltd. (*3)	Korea	Asset securitization	18	9.0	December 31, 2020
HFB81 Securitization Specialty Co., Ltd. (*3)	Korea	Asset securitization	18	9.0	December 31, 2020
Fine Fifth Securitization Specialty Co., Ltd. (*3)	Korea	Asset securitization	180	9.0	December 31, 2020
HFS 82 Securitization Specialty Co Ltd. (*3)	Korea	Asset securitization	18	9.0	December 31,

Classification	Country	Major business	Number of shares	Ownership (%) (*5)	Reporting date
					2020
HFF 82 Securitization Specialty Co., Ltd. (*3)	Korea	Asset securitization	18	9.0	December 31, 2020
HFN 82 Securitization Specialty Co., Ltd. (*3)	Korea	Asset securitization	18	9.0	December 31, 2020
HFI 83 Securitization Specialty Co., Ltd. (*3)	Korea	Asset securitization	18	9.0	December 31, 2020
HFS 84 Securitization Specialty Co., Ltd. (*3)	Korea	Asset securitization	18	9.0	December 31, 2020
HFF 84 Securitization Specialty Co., Ltd. (*3)	Korea	Asset securitization	18	9.0	December 31, 2020
HFK 84 Securitization Specialty Co., Ltd. (*3)	Korea	Asset securitization	18	9.0	December 31, 2020
HFFN 91 Securitization Specialty Co., Ltd. (*3)	Korea	Asset securitization	18	9.0	December 31, 2020
HFI 91 Securitization Specialty Co., Ltd. (*3)	Korea	Asset securitization	18	9.0	December 31, 2020
HFS 92A Securitization Specialty Co., Ltd. (*3)	Korea	Asset securitization	18	9.0	December 31, 2020
HFS 92B Securitization Specialty Co., Ltd. (*3)	Korea	Asset securitization	18	9.0	December 31, 2020
HFB 92 Securitization Specialty Co., Ltd. (*3)	Korea	Asset securitization	18	9.0	December 31, 2020
HFN 92B Securitization Specialty Co., Ltd. (*3)	Korea	Asset securitization	18	9.0	December 31, 2020
HFI 93 Securitization Specialty Co., Ltd. (*3)	Korea	Asset securitization	18	9.0	December 31, 2020
HFB 93 Securitization Specialty Co., Ltd. (*3)	Korea	Asset securitization	18	9.0	December 31, 2020
HFF 93 Securitization Specialty Co., Ltd. (*3)	Korea	Asset securitization	18	9.0	December 31, 2020
HFF94 Securitization Specialty Co., Ltd. (*3)	Korea	Asset securitization	18	9.0	December 31, 2020
HFF95 Securitization Specialty Co., Ltd. (*3)	Korea	Asset securitization	200	100.0	December 31, 2020
HFI01B Securitization Specialty Co., Ltd. (*3)	Korea	Asset securitization	18	9.0	December 31, 2020
HFI01C Securitization Specialty Co., Ltd. (*3)	Korea	Asset securitization	18	9.0	December 31, 2020
HFI02 Inc. (*3)	Korea	Asset securitization	18	9.0	December 31, 2020
HFI02A Securitization Specialty Co., Ltd. (*3)	Korea	Asset securitization	18	9.0	December 31, 2020
HFI02 ABS Ltd. (*3)	Korea	Asset securitization	-	-	December 31, 2020
HFD02 Securitization Specialty Co., Ltd. (*3)	Korea	Asset securitization	18	9.0	December 31, 2020
HFN02 Securitization Specialty Co., Ltd. (*3)	Korea	Asset securitization	18	9.0	December 31, 2020
HFK02 Securitization Specialty Co., Ltd. (*3)	Korea	Asset securitization	18	9.0	December 31, 2020
HFO03 Inc. (*3)	Korea	Asset securitization	18	9.0	December 31, 2020

Classification	Country	Major business	Number of shares	Ownership (%) (*5)	Reporting date
HFI 03B Securitization Specialty Co., Ltd. (*3)	Korea	Asset securitization	18	9.0	December 31, 2020
HFB 03 Securitization Specialty Co., Ltd. (*3)	Korea	Asset securitization	18	9.0	December 31, 2020
HFG 03 Securitization Specialty Co.,Ltd. (*3)	Korea	Asset securitization	18	9.0	December 31, 2020
HFD 03 Securitization Specialty Co.,Ltd. (*3)	Korea	Asset securitization	18	9.0	December 31, 2020
HFG 04 Securitization Specialty Co.,Ltd. (*3)	Korea	Asset securitization	18	9.0	December 31, 2020
HFI 04 Securitization Specialty Co.,Ltd. (*3)	Korea	Asset securitization	18	9.0	December 31, 2020
Specified Money Trust (*1)(*2)	Korea	Specified money trust	–	–	December 31, 2020
Subsidiaries of Hana Alternative UK Government Office Professional Investors' Private Real Estate Investment Feeder Trust No.1:					
VICTORY LIMITED PARTNERSHIP (*1)	U.K	SPC	–	100.0	December 31, 2020
VICTORY Investment Company Limited (*1)	U.K	SPC	–	100.0	December 31, 2020
VICTORY GP(Jersey) LIMITED (*1)	U.K	SPC	–	100.0	December 31, 2020
Subsidiary of Hana Alternative Special Investment Private Trust No.90:					
H&H investment (*3)	Korea	SPC	–	–	December 31, 2020
Subsidiary of Hana Alternative Special Investment Private Trust No.116:					
H&H investment 2 (*3)	Korea	SPC	–	–	December 31, 2020
Subsidiary of Hana Alternative Special investment private Trust No.123-1(USD):					
Dragon one investment Limited (*1)	Hong Kong	SPC	–	100.0	December 31, 2020
Subsidiaries of Dragon One Investment Limited:					
QFLP (*1)	China	SPC	–	100.0	December 31, 2020
Subsidiaries of QFLP:					
Beijing Shunhe Enterprise Management Co.,Ltd. (*1)	China	SPC	–	100.0	December 31, 2020
Subsidiary of Beijing Shunhe Enterprise Management Co.,Ltd.:					
Beijing Jianhao Hongji Real Estate Development Co.,Ltd. PFV (*1)	China	SPC	–	99.9	December 31, 2020
Subsidiary of Hana Alternative Special Asset Private Trust No.126:					
K-REIT LLC (*1)(*4)	U.S.	SPC	–	100.0	November 30, 2020

(*1) It was established in the form of investment, and the number of shares invested was not indicated.

(*2) Specified money trust accounts consist of different accounts, but the number of accounts is not recorded.

(*3) It is included in the scope of consolidation since the subsidiary provides gran

ting of credit.

(*4) As year end financial statements were not available, the Group used the most recent financial statements available as of December 31, 2020.

(*5) The ownership percentage was calculated based on the shareholding of the ultimate parent company.

The financial information of subsidiaries as of December 31, 2020 and 2019 is as follows (Korean won in millions):

<December 31, 2020>

Classification	Assets	Liabilities	Equity	Revenue	Net income (loss)	Other comprehensive income (loss)	Comprehensive income
KEB Hana Bank (*1)	396,187,562	369,376,033	26,811,529	36,002,259	2,024,377	(160,117)	1,864,260
HFI (*1)	34,982,321	30,553,364	4,428,957	9,019,361	410,036	37,166	447,202
KEB Hana Card (*1)	8,211,042	6,433,428	1,777,614	1,280,176	154,457	(5,998)	148,459
Hana Capital (*1)	11,112,113	9,807,790	1,304,323	829,418	180,721	1,131	181,852
Hana Asset Trust	434,455	74,691	359,764	150,873	80,821	-	80,821
Hana TI (*1)	473,135	363,738	109,397	232,487	755	(1,262)	(507)
Hana Savings Bank	1,843,758	1,605,211	238,547	95,574	18,002	(171)	17,831
Hana Life Insurance (*1)	5,375,558	5,028,934	346,624	843,899	26,564	(19,265)	7,299
HIS	48,177	9,835	38,342	27,213	3,712	(186)	3,526
Hana Alternative Asset Management Co., Ltd. (*1)	139,931	15,221	124,710	49,552	18,610	34	18,644
Hana Ventures, Ltd.	102,901	2,953	99,948	8,657	2,930	77	3,007
Hana F&I, Inc. (*1)	1,483,337	1,293,591	189,746	72,000	15,620	2,953	18,573
Hana Insurance, Co., Ltd. (*2)	1,127,541	894,106	233,435	335,642	(5,168)	(4,171)	(9,339)
HANA ASSET MANAGEMENT ASIA (*3)	206	-	206	-	-	(8)	(8)
Hana Professional Investment Type Private Equity Real Estate 28 (*4)	-	-	-	-	-	-	-
Hana Japan Residence Professional Investment Type Private Equity Real Estate 47 (*4)	-	-	-	7,687	6,734	-	6,734
Hana Private Real Estate Investment Trust No. 68-1	36,762	11	36,751	7,696	1,465	-	1,465
Hana Alternative BlackRock QIP Trust No. 73	52,579	73	52,506	9,185	2,669	-	2,669
Hana Professional Investment Type Private Equity 90	19,409	1,587	17,822	5,924	3,616	-	3,616
Hana Alternative UK Government Office Professional Investors' Private Real Estate Investment Feeder Trust No. 1	714	1,644	(930)	12,287	6,254	(142)	6,112
Hana Alternative Infra Special Investment Private Trust No. 3-1	7,189	10	7,179	413	287	-	287
Hana Alternative Infra Special Investment Private Trust No. 3-2	20,805	30	20,775	1,824	(292)	(989)	(1,281)
Hana Alternative Infra Special Investment Private Trust No. 3-3	11,611	2	11,609	1,548	634	-	634
Hana Alternative Special Investment Private Trust No. 100	12,359	12	12,347	1,169	960	-	960
Hana Alternative Special Investment Private Trust No. 102	76,480	1,081	75,399	13,325	4,719	-	4,719
Hana Alternative Special Investment Private Trust No. 108	10,821	25	10,796	1,838	808	-	808
Hana Alternative Special Investment Private Trust No. 123-1	159,052	38,448	120,604	40	(8,490)	4,101	(4,389)
Hana Alternative Houston Private Investment Trust No. 121	34,636	23	34,613	5,984	1,853	-	1,853
Hana Alternative Special Asset Private Trust No. 123-2	40,786	950	39,836	10,637	2,561	-	2,561

Classification	Assets	Liabilities	Equity	Revenue	Net income (loss)	Other comprehensive income (loss)	Comprehensive income
Alternative Special Asset Private Trust No.126	104,885	55	104,830	2,436	(7,593)	(5,826)	(13,419)
Hana Alternative Special Investment Private Trust No.116	54,723	616	54,107	9,857	4,635	-	4,635
Hana Ventures New Technology Investment Association No.4 (*2)	5,914	2	5,912	1	(88)	-	(88)
Hana Ventures New Technology Investment Association No.6 (*2)	6,485	1	6,484	-	(16)	-	(16)
Hana Ventures New Technology Investment Association No.7 (*2)	5,485	-	5,485	-	(15)	-	(15)

(*1) Consolidated financial information of the intermediate parent company.

(*2) Included as a subsidiary during the year ended December 31, 2020, and gains and losses are gains and losses after inclusion as a subsidiary.

(*3) Hana Asset Management Asia was newly established in 2020.

(*4) Excluded from the consolidation scope during the year ended December 31, 2020

<December 31, 2019>

Classification	Assets	Liabilities	Equity	Revenue	Net income (loss)	Other comprehensive income (loss)	Comprehensive income
KEB Hana Bank (*1)	369,498,804	344,032,357	25,466,447	29,965,615	2,150,497	9,316	2,159,813
HFI (*1)	27,283,211	23,808,133	3,475,078	5,466,113	279,932	(8,843)	271,089
KEB Hana Card (*1)	8,187,106	6,557,951	1,629,155	1,285,664	56,281	(3,486)	52,795
Hana Capital (*1)	8,209,509	7,100,409	1,109,100	695,593	107,770	(63)	107,707
Hana Asset Trust	423,114	144,171	278,943	131,753	65,701	-	65,701
Hana TI (*1)	464,242	354,314	109,928	205,004	620	(732)	(112)
Hana Savings Bank	1,333,021	1,112,305	220,716	76,803	16,091	(301)	15,790
Hana Life Insurance (*1)	4,949,559	4,610,234	339,325	783,542	23,650	6,349	29,999
HIS	43,304	8,488	34,816	25,043	2,908	(67)	2,841
Hana Alternative Asset Management Co., Ltd.(*1)	117,468	11,402	106,066	35,263	11,332	15	11,347
Hana Ventures, Ltd.	98,665	1,724	96,941	1,682	(1,436)	-	(1,436)
Hana F&I, Inc.(*3)	1,001,214	825,202	176,012	-	-	-	-
Hana Professional Investment Type Private Equity Real Estate 28	12,054	4	12,050	756	702	-	702
Hana Japan Residence Professional Investment Type Private Equity Real Estate 47	1,534	-	1,534	3,845	1,996	-	1,996
Hana Private Real Estate Investment Trust No. 68-1	36,573	1,354	35,219	6,086	475	-	475
Hana Alternative BlackRock QIP Trust No.73	51,640	1,252	50,388	6,854	3,162	-	3,162
Hana Professional Investment Type Private Equity 90	19,275	3,599	15,676	3,624	(2,670)	-	(2,670)
Hana Alternative UK Government Office Professional Investors' Private Real Estate Investment Feeder Trust No.1	446,673	286,707	159,966	25,146	1,726	5	1,731
Hana Alternative Infra Special Investment Private Trust No.3-1 (*3)	71	-	71	1	1	-	1
Hana Alternative Infra Special Investment Private Trust No.3-2 (*3)	1,398	-	1,398	61	(96)	68	(28)
Hana Alternative Infra Special Investment Private Trust No.3-3 (*3)	716	1	715	37	(3)	-	(3)

Classification	Assets	Liabilities	Equity	Revenue	Net income (loss)	Other comprehensive income (loss)	Comprehensive income
)							
Hana Alternative Special Investment Private Trust No.100 (*3)	12,868	9	12,859	527	264	-	264
Hana Alternative Special Investment Private Trust No.101 (*2)(*3)	-	-	-	6,266	2,395	-	2,395
Hana Alternative Special Investment Private Trust No.102 (*3)	76,893	496	76,397	6,424	1,533	-	1,533
Hana Alternative Special Investment Private Trust No.108 (*3)	6,345	43	6,302	255	155	-	155
Hana Alternative US Power Special Asset (*2)(*3)	-	-	-	536	138	-	138
Hana Alternative Special Investment Private Trust No.123-1 (*3)	192,283	59,264	133,019	64	(730)	(2,235)	(2,965)
Hana Alternative Houston Private Investment Trust No.121 (*3)	35,606	23	35,583	1,807	(617)	-	(617)
Hana Alternative Special Asset Private Trust No.123-2 (*3)	40,009	369	39,640	1,434	(560)	-	(560)
Alternative Special Asset Private Trust No.126 (*3)	125,969	74	125,895	2,647	(1,967)	(4,138)	(6,105)
Hana Alternative Special Investment Private Trust No.116 (*3)	53,145	442	52,703	1,547	(387)	-	(387)

(*1) Consolidated financial information of the intermediate parent company.

(*2) Excluded from the consolidation scope during the year ended December 31, 2019.

(*3) Included as a subsidiary during the year ended December 31, 2019, and gains and losses are gains and losses after inclusion as a subsidiary.

Changes in scope of consolidation for the year ended December 31, 2020 are as follows:

Name of subsidiaries	Rationale
Included in scope of consolidation:	
Hana Ventures No.4 Investment Fund	Holds power as a general partner and exposed to significant variable returns
IBK Global Renewable Energy Private Fund 2	Holds power as an actual beneficiary of a private equity fund, and exposed to variable returns.
Hana Private Real Estate Investment Trust No.137	Holds power as an actual beneficiary of a private equity fund, and exposed to variable returns.
Broadway 1st Co., Ltd	Holds power as an asset manager and exposed to variable returns based on credit facility or purchase arrangements
HANA MC ONE Co.,Ltd	Holds power as an asset manager and exposed to variable returns based on credit facility or purchase arrangements
Hana-Sinjang 1st Co.,Ltd	Holds power as an asset manager and exposed to variable returns based on credit facility or purchase arrangements
HFHALCYON Co., Ltd	Holds power as an asset manager and exposed to variable returns based on credit facility or purchase arrangements
Hana Solar 1st Co., Ltd	Holds power as an asset manager and exposed to variable returns based on credit facility or purchase arrangements
YK Ho 1st., Co., Ltd	Holds power as an asset manager and exposed to variable returns based on credit facility or purchase arrangements
YK Ho 2nd., Co., Ltd	Holds power as an asset manager and exposed to variable returns based on credit facility or purchase arrangements
Hana Card 2020-1 Asset Securitization Specialty, Co., Ltd.	Exposed to variable returns as a structured company for asset securitization
HF01B Securitization Specialty Co., Ltd.	Holds power as an asset manager and exposed to variable returns based on credit facility or purchase arrangements
	Holds power as an asset manager and exposed to variable returns based on credit

Name of subsidiaries	Rationale
HFI01C Securitization Specialty Co., Ltd.	facility or purchase arrangements
Dongam Tower 1st Co., LTD.	Holds power as an asset manager and exposed to variable returns based on credit facility or purchase arrangements
HFI02 Inc.	Holds power as an asset manager and exposed to variable returns based on credit facility or purchase arrangements
HFI02A Securitization Specialty Co., Ltd.	Holds power as an asset manager and exposed to variable returns based on credit facility or purchase arrangements
HFI02 ABS Ltd.	Holds power as an asset manager and exposed to variable returns based on credit facility or purchase arrangements
HFI02 Securitization Specialty Co., Ltd.	Holds power as an asset manager and exposed to variable returns based on credit facility or purchase arrangements
HFI02 Securitization Specialty Co., Ltd.	Holds power as an asset manager and exposed to variable returns based on credit facility or purchase arrangements
Hana Alternative Private Investment Trust No.142	Obtained majority of shares with voting rights
Hana Insurance	Obtained majority of shares with voting rights
Hana Alternative US California BESS Special Asset No. 6	Holds power as an actual beneficiary of a private equity fund, and exposed to variable returns.
IGIS U.S. Specialized Private Placement Real Estate Investment Trust NO. 350	Holds power as an actual beneficiary of a private equity fund, and exposed to variable returns.
Samchully Renewable Energy Private Equity Trust II (Special Assets)	Holds power as an actual beneficiary of a private equity fund, and exposed to variable returns.
Shinhan AIM Infrastructure Fund No.6-1	Holds power as an actual beneficiary of a private equity fund, and exposed to variable returns.
Shinhan AIM Infrastructure Fund No.6-2	Holds power as an actual beneficiary of a private equity fund, and exposed to variable returns.
Capstone US Specialized Private Investment Trust No.11	Holds power as an actual beneficiary of a private equity fund, and exposed to variable returns.
Hana S-Energy Co., Ltd.	Holds power as an asset manager and exposed to variable returns based on credit facility or purchase arrangements
DS Namcheongra Co., Ltd.	Holds power as an asset manager and exposed to variable returns based on credit facility or purchase arrangements
GIFMARS 1st Co., Ltd	Holds power as an asset manager and exposed to variable returns based on credit facility or purchase arrangements
Keumho Trading CO., LTD.	Obtained majority of shares with voting rights
Keumhoseafood.CO., LTD.	Obtained majority of shares with voting rights
Hana H in the holdings 2nd L.L.C	Holds power as an asset manager and exposed to variable returns based on credit facility or purchase arrangements
H on 1st L.L.C	Holds power as an asset manager and exposed to variable returns based on credit facility or purchase arrangements
Nineteen Dahlia S.A.R.L.	Obtained majority of shares with voting rights
HANA ASSET MANAGEMENT ASIA	Obtained majority of shares with voting rights
HFC03 Inc.	Holds power as an asset manager and exposed to variable returns based on credit facility or purchase arrangements
HFI 03B Securitization Specialty Co., Ltd.	Holds power as an asset manager and exposed to variable returns based on credit facility or purchase arrangements
HFB 03 Securitization Specialty Co., Ltd.	Holds power as an asset manager and exposed to variable returns based on credit facility or purchase arrangements
HFG 03 Securitization Specialty Co.,Ltd.	Holds power as an asset manager and exposed to variable returns based on credit facility or purchase arrangements
K-Reits Specialized Private Investment Trust No.23	Holds power as an actual beneficiary of a private equity fund, and exposed to variable returns.
	Holds power as an actual beneficiary of a private equity fund, and exposed to variable returns.

Name of subsidiaries	Rationale
Shinhan AIM Infrastructure Fund No.6-A	able returns.
KAIM Global Value Specialized Private Investment Trust No.1	Holds power as an actual beneficiary of a private equity fund, and exposed to variable returns.
AIP Energy Transport Infrastructure Specialized Privately Placed Fund Trust #4	Holds power as an actual beneficiary of a private equity fund, and exposed to variable returns.
Hana Global New Technology Fund No.1	Holds power as a general partner and exposure to significant variable returns
GIF Gwacheon8 2nd., Co., Ltd.	Holds power as an asset manager and exposed to variable returns based on credit facility or purchase arrangements
Hana Datacenter 1st., Co., Ltd.	Holds power as an asset manager and exposed to variable returns based on credit facility or purchase arrangements
Anseong KL 1st., Co., Ltd.	Holds power as an asset manager and exposed to variable returns based on credit facility or purchase arrangements
Achenhaim Co., Ltd.	Holds power as an asset manager and exposed to variable returns based on credit facility or purchase arrangements
Eco Clover Co., Ltd.	Holds power as an asset manager and exposed to variable returns based on credit facility or purchase arrangements
Seojewon Co.,Ltd	Obtained majority of shares with voting rights
Hana 5-geori 1st., Co., Ltd.	Holds power as an asset manager and exposed to variable returns based on credit facility or purchase arrangements
Hana-Ulsan Co., Ltd	Holds power as an asset manager and exposed to variable returns based on credit facility or purchase arrangements
Hana Ventures No.6 Investment Fund	Holds power as a general partner and exposure to significant variable returns
Hana Ventures No.7 Investment Fund	Holds power as a general partner and exposure to significant variable returns
HFD 03 Securitization Specialty Co.,Ltd.	Holds power as an asset manager and exposed to variable returns based on credit facility or purchase arrangements
HFG 04 Securitization Specialty Co.,Ltd.	Holds power as an asset manager and exposed to variable returns based on credit facility or purchase arrangements
HFI 04 Securitization Specialty Co.,Ltd.	Holds power as an asset manager and exposed to variable returns based on credit facility or purchase arrangements
Hana Port 1st., Co., Ltd.	Holds power as an asset manager and exposed to variable returns based on credit facility or purchase arrangements
HF Caribbean Co., Ltd.	Holds power as an asset manager and exposed to variable returns based on credit facility or purchase arrangements
Hana YJDL Co., Ltd.	Holds power as an asset manager and exposed to variable returns based on credit facility or purchase arrangements
GMIHB 2nd., Co., Ltd.	Holds power as an asset manager and exposed to variable returns based on credit facility or purchase arrangements
Hana In Chungmu 1st., Co., Ltd.	Holds power as an asset manager and exposed to variable returns based on credit facility or purchase arrangements
Hana Penta 1st., Co., Ltd.	Holds power as an asset manager and exposed to variable returns based on credit facility or purchase arrangements
Hangdong West 2nd., Co., Ltd.	Holds power as an asset manager and exposed to variable returns based on credit facility or purchase arrangements
Hana Unju 1st., Co., Ltd.	Holds power as an asset manager and exposed to variable returns based on credit facility or purchase arrangements
Wonderful GM 1st., Co., Ltd.	Holds power as an asset manager and exposed to variable returns based on credit facility or purchase arrangements
Magic Town 1st., Co., Ltd.	Holds power as an asset manager and exposed to variable returns based on credit facility or purchase arrangements
GIF Olympus Co., Ltd.	Holds power as an asset manager and exposed to variable returns based on credit facility or purchase arrangements
GS Solution 1st., Co., Ltd.	Holds power as an asset manager and exposed to variable returns based on credit facility or purchase arrangements
	Holds power as an asset manager and exposed to variable returns based on credit

Name of subsidiaries	Rationale
Hana Sewoon 1st., Co., Ltd.	facility or purchase arrangements
Zero To One 1st., Co., Ltd.	Holds power as an asset manager and exposed to variable returns based on credit facility or purchase arrangements
Hana Heaven 1st., Co., Ltd.	Holds power as an asset manager and exposed to variable returns based on credit facility or purchase arrangements
Hanalogis No.2 Co., Ltd.	Holds power as an asset manager and exposed to variable returns based on credit facility or purchase arrangements
Hana 1Q Logis B Co., Ltd.	Holds power as an asset manager and exposed to variable returns based on credit facility or purchase arrangements
Hana Bukjincheon 1st., Co., Ltd.	Holds power as an asset manager and exposed to variable returns based on credit facility or purchase arrangements
Hana Bukjincheon 2nd., Co., Ltd.	Holds power as an asset manager and exposed to variable returns based on credit facility or purchase arrangements
Hana Seattle Prime Co., Ltd.	Holds power as an asset manager and exposed to variable returns based on credit facility or purchase arrangements
Tree Unique 1st., Co., Ltd.	Holds power as an asset manager and exposed to variable returns based on credit facility or purchase arrangements
PIS 2nd., Co., Ltd.	Holds power as an asset manager and exposed to variable returns based on credit facility or purchase arrangements
Ernest Hyun 1st., Co., Ltd.	Holds power as an asset manager and exposed to variable returns based on credit facility or purchase arrangements
Hmidan 2nd., Co., Ltd.	Holds power as an asset manager and exposed to variable returns based on credit facility or purchase arrangements
GIF MD Co., Ltd.	Holds power as an asset manager and exposed to variable returns based on credit facility or purchase arrangements
Hana Alternative Investment Shipping Specialized Private Equity Fund NO.1	Holds power as an actual beneficiary of a private equity fund, and exposed to variable returns.
IGIS U.S. Specialized Private Placement Real Estate Investment Trust NO. 380-1	Holds power as an actual beneficiary of a private equity fund, and exposed to variable returns.
Hana Alternative Specialized Private Placement Real Estate Investment Trust No. 153-2	Holds power as an actual beneficiary of a private equity fund, and exposed to variable returns.
Ramda Global Specialized Private Placement Real Estate Investment Trust	Holds power as an actual beneficiary of a private equity fund, and exposed to variable returns.
Darby Hana New York Hotel Specialized Private Investment Trust No.1	Holds power as an actual beneficiary of a private equity fund, and exposed to variable returns.
designmeal co.,Ltd	Obtained majority of shares with voting rights
Sprott US NOTUS Professional Private Trust No.1	Obtained majority of shares with voting rights
DYONEQ1st, LLC	Holds power as an asset manager and exposed to variable returns based on credit facility or purchase arrangements
PIOTOWER1st, LLC	Holds power as an asset manager and exposed to variable returns based on credit facility or purchase arrangements
KSPARTNERSHIP 1st 2020, Inc.	Holds power as an asset manager and exposed to variable returns based on credit facility or purchase arrangements

Name of subsidiaries	Name of subsidiaries
Excluded in scope of consolidation:	
Hana Professional Investment Type Private Equity Real Estate 28	Excluded due to the liquidation
Vestas Qualified Investors Private Real Estate Fund Investment Trust Nho.51-1	Loss of control due to disposal
Oort First Co., Ltd.	Termination of credit facility

Name of subsidiaries	Name of subsidiaries
Hana Japan Residence Professional Investment Type Private Equity Real Estate 47	Loss of control due to disposal
IBK Global Renewable Energy Private Fund 2	Loss of control due to disposal
Uno Stellar 1st Co., Ltd.	Termination of credit facility
HFHALCYON Co., Ltd	Termination of credit facility
KB Europe Renewable Private Special Asset Fund 1 (SOC-F OFS)	Loss of control due to disposal
Vestas Qualified Investors Private Real Estate Fund Investment Trust no.54A	Loss of control due to disposal
Vestas Qualified Investors Private Real Estate Fund Investment Trust no.51-2	Loss of control due to disposal
Shinhan AIM Infrastructure Fund No.6	Loss of control due to disposal
Capstone US Fund 11	Loss of control due to disposal
YDJ 2nd Co., Ltd.	Loss of control due to disposal (Termination of credit facility)
Hope Town First Co., Ltd.	Loss of control due to disposal (Termination of credit facility)
HFB First Co., Ltd.	Loss of control due to disposal (Termination of credit facility)
GIFMARS 1st Co., Ltd.	Loss of control due to disposal (Termination of credit facility)
Speedygel 1st LLC	Loss of control due to disposal (Termination of credit facility)
Racia the Third Co., Ltd.	Loss of control due to disposal (Termination of credit facility)
Racia the fourth Co., Ltd.	Loss of control due to disposal (Termination of credit facility)
Hana AI the 3rd Co., Ltd.	Loss of control due to the liquidation
Hana Alternative Private Investment Trust No.142	Loss of control due to the liquidation
KEBI First Securitization Specialty Co., Ltd.	Loss of control due to the liquidation
KEBT First Securitization Specialty Co., Ltd.	Loss of control due to the liquidation
HFS First Securitization Specialty	Loss of control due to the liquidation
Hanastone Second Inc.	Loss of control due to the liquidation
Fine Sixth Securitization Specialty Co., Ltd.	Loss of control due to the liquidation
Hana sinji First Co., Ltd.	Excluded due to the disposal
DS Namcheongra Co., Ltd.	Loss of control due to disposal (Termination of credit facility)
Samchully Renewable Energy Private Equity Trust II (Special Assets)	Loss of control due to disposal
Hyochangfood Co., Ltd	Loss of control due to disposal
Sprott US NOTUS Professional Private Trust No.1	Loss of control due to disposal
Greenline The First, Ltd.	Loss of control due to disposal (Termination of credit facility)

1-2-1 KEB Hana Bank

KEB was established on January 30, 1967, as a government-invested bank to engage in foreign exchange and trade finance business under the Korea Exchange Bank Act proclaimed on July 28, 1966. On December 30, 1989, the Korea Exchange Bank Act was repealed and KEB was converted into a corporation under the Commercial Code of the Republic of Korea. On April 4, 1994, KEB was listed on the Korean Stock Exchange. The merger between KEB and Korea Exchange Bank Credit Service Co., Ltd. was finalized on February 28, 2004. KEB primarily provides commercial banking services, trust banking services, foreign exchange, merchant banking business through the merger with Korea International Merchant Bank, a domestic subsidiary of the Bank, and other related operations as permitted under the Banking Act, the Capital Market and the Financial Investment Business Act and other relevant laws and regulations in the Republic of Korea. As of February 9, 2012, the Group purchased 57.27% interest in KEB, and acquired control over the investee. On March 15, 2013, the Group's Board of Directors approved a share swap contract to acquire a 100 percent stake of KEB. Pursuant to the contract, KEB was incorporated into the Group's wholly owned subsidiary as of April 5, 2013. As of September 1, 2014, Hana Card (formerly, KEB Card) was spun off from the credit card business unit of KEB. KEB merged with Hana Bank and changed its name to KEB Hana Bank on September 1, 2015.

1-2-2 Hana Financial Investment Co., Ltd.

Hana Financial Investment Co., Ltd. (HFI) was incorporated on January 18, 1977 pursuant to the Security Investment Trust Act of the Republic of Korea to provide a wide range of security investment trust services for its customers. H&DS combined with Hana IB as a business combination under common control (wholly-owned by HFG) on December 1, 2008, and changed its name to HFI on September 3, 2015. HFI merged with Hana Futures Co., Ltd. on August 1, 2016.

1-2-3 KEB Hana Card

Hana SK Card was merged into KEB Card on December 1, 2014 and KEB Card changed its name to KEB Hana Card. The common shares were exchanged at a rat

io of 1 common share of Hana SK Card for 1.1731316 common shares of KEB Card.

1-2-4 Hana Capital

Hana Capital (formerly, Kolon Capital Co., Ltd.) was incorporated on February 13, 1987 and changed its name to Hana Capital on April 8, 2005. Hana Capital obtained a license to engage in the installment financing business on January 9, 1996 in accordance with the Credit Card Business Act of the Republic of Korea and was registered as an installment financing company in accordance with the Credit-Specialized Financial Business Act of the Republic of Korea on January 16, 1998 to engage in leasing, installment financing and corporate and consumer loan business. The Group acquired a 50.13% ownership of Hana Capital through a stock swap transaction with Hana Bank on April 27, 2007. In February 2018, the Group acquired the remaining stake and Hana Capital became a wholly-owned subsidiary of the Group.

1-2-5 Hana Asset Trust

Hana Asset Trust was incorporated on June 15, 1999 for the purpose of conducting research and analysis of regional and local developments. On February 27, 2004, Hana Asset Trust changed its primary business to a real estate investment trust company, pursuant to the Trust Business Act. The Group acquired 58% ownership of Hana Daol Trust (formerly, Daol Trust Co., Ltd.) and incorporated Hana Daol Trust as its subsidiary as of March 10, 2010. The Group additionally acquired 7% ownership of Hana Daol Trust as of December 30, 2011, and purchased residual interest in Hana Daol Trust for the year ended December 31, 2013 and incorporated Hana Asset Trust (formerly, Hana Daol Trust) as its wholly owned subsidiary as of December 31, 2013.

1-2-6 Hana TI

Hana TI (formerly, Seoun System Inc.) was incorporated on August 30, 1990 pursuant to the laws of the Republic of Korea for the purpose of developing and maintaining software used in the financial service industry. The Group changed its nam

e to Hana I&S on March 1, 2003 and changed its name to Hana TI on June 19, 2017. The Group purchased residual interest (10.02%) in Hana TI as of November, 2019 and incorporated Hana TI as its wholly owned subsidiary.

1-2-7 Hana Savings Bank

Hana Savings Bank was incorporated on February 8, 2012 pursuant to the Depositor Protection Act of the Republic of Korea to engage in the credit business as permitted by Financial Services Commission and the Group made a purchase and assumption agreement with Korea Deposit Insurance Corporation. In accordance with the agreement, Hana Savings Bank commenced its business after purchasing assets and assuming liabilities from Ace Savings Bank and Jeil-2 Savings Bank on February 17, 2012. On September 5, 2012, Hana Savings Bank purchased assets and assumed liabilities from Korea Mutual Savings Bank in accordance with the purchase and assumption agreement with Korea Deposit Insurance Corporation after the approval of the Board of Directors held on August 21, 2012.

1-2-8 Hana Life Insurance

Hana Life Insurance Co., Ltd. (the Hana Life Insurance) was incorporated on November 25, 1991 pursuant to the laws of the Republic of Korea after obtaining permission for foreign investment to engage in the life insurance business from the Ministry of Strategy and Finance. The Group changed its business name from Franc e Life Insurance Co., Ltd. to Hana Life Insurance Co., Ltd. on March 21, 2003. The Group acquired 100% ownership of Hana Life Insurance Co., Ltd. through acquisition of Hana Bank' s equities on August 10, 2007 and the Group subsequently sold its 50% ownership minus 1 share of Hana Life Insurance on January 28, 2008 to the HSBC Group (HSBC Insurance (Asia-Pacific) Holding Ltd.). As a result, Hana Life Insurance became a joint venture and changed its name to Hana HSBC Insurance. The Group re-acquired the ownership of Hana HSBC Insurance after the Group' s Board of Directors approved a share purchase contract to acquire a 50 percent minus 1 share of Hana HSBC Insurance on April 26, 2013. Accordingly, it changed its name to Hana Life Insurance on May 10, 2013.

1-2-9 Hana Investors Services Co., Ltd.

Hana Investors Services Co., Ltd. (HIS) was established on April 1, 2003 to provide trust services for securities companies and general services including accounting and trust services for banks, pension funds and other companies under the Capital Market and Financial Investment Business Act (formerly, Indirect Investment Asset Management Business Act). The Group acquired 100% ownership of HIS from Hana Bank on December 29, 2015.

1-2-10 Hana Alternative Asset Management Co., Ltd.

Hana Alternative Asset Management Co., Ltd. (Hana Alternative Asset Management) was incorporated on April 14, 2006 to provide asset management and investment advisory services, pursuant to the Capital Market Financial Investment Business Act. Hana Alternative Asset Management changed its name from Hana Daol Fund Management to Hana Asset Management on December 12, 2013. The Group acquired a 100% ownership of Hana Asset Management through a stock swap transaction with Hana Asset Trust on May 26, 2016. It changed its name to Hana Alternative Asset Management on November 23, 2017.

1-2-11 Hana Ventures, Ltd.

Hana Ventures was incorporated as a subsidiary of Hana Financial Group on October 4, 2018. Hana Ventures provides investments to venture firms and start-up companies. Also, it organizes and provides management to new technology business investment association, Korea venture fund and private equity fund under specialized credit finance business act.

1-2-12 Hana F&I, Inc.

Hana F&I, Inc. (Hana F&I) was established on September 11, 1989, to engage in equipment rental and other relevant businesses under the Specialized Credit Financial Business Act (formerly Equipment Rental Business Act) and was listed on the Korea Securities Dealers Automated Quotation (KOSDAQ) on January 15, 1995. On May 19, 1992, the Group changed its name to KEB Lease Inc. and on June 13, 1995 again changed the name to KEB Lease Finance Inc. and finally changed the

name to KEB Capital Inc. on October 18, 2002. As HFG acquired KEB and its subsidiaries including Hana F&I, KEB is restricted to control a company which runs the specialized credit financial business in accordance with the Financial Holding Companies Act Article 19 as on and after January 31, 2014. On October 17, 2013, Hana F&I's Board of Directors approved to change business field to investment in asset backed securities and management of asset securitization firm in Asset-Backed Securitization Act. On September 30, 2015, Hana F&I changed its name to Hana F&I, Inc. resulting from the merger of Hana Bank and KEB on September 1, 2015. As of December 3, 2019, the Group acquired the ownership of Hana F&I by purchasing entire shares(99.7%) that KEB Hana Bank owned.

1-2-13 Hana Insurance. Co., Ltd.

The main business purpose of Hana Insurance Co., Ltd. (Hana Insurance) is the management of assets for property and liability insurance, reinsurance and insurance payments. Hana Insurance commenced business on December 1, 2003 as Kyo won National Automobile Insurance Co., Ltd. and on November 5, 2008, changed its name to The K Insurance Co., Ltd. On May 27, 2020, the Company acquired The K Insurance Co., Ltd. as a subsidiary by acquiring 70% of shares held by the Korean Teachers Credit Union through a resolution of the board of directors, and changed its name to Hana Insurance on June 10, 2020. On July, 28, 2020, the Company completed the payment of shares by acquiring 70% of issued shares of Hana Insurance. The Company's shareholding subsequently increased to 84.6% due to the non-participation in the stock increase by the existing shareholders, The Korean Teachers Credit Union.

1-2-14 Hana Ventures New Technology Fund No. 4 and No.6 and No.7

In accordance with the KIFRS 1110 Consolidated Financial Statements, investees are consolidated when the investor 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. Accordingly, Hana Ventures New Technology Fund No. 4 and No.6 and No.7 are included in the Group's consolidation scope.

1-2-15 Specified money trusts and private equity investment vehicles

In accordance with the KIFRS 1110 Consolidated Financial Statements, investees are consolidated when the investor is exposed, 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. Accordingly, specified money trusts and private equity investment vehicles are included in the Group's consolidation scope.

1-2-16 Subsidiaries of KEB Hana Bank

1-2-16-1 Hana Bank (China) Co., Ltd. (Hana Bank China)

Hana Bank China was incorporated in Beijing to engage in commercial banking, foreign currency exchanges and other related operations in China on December 14, 2007. On December 24, 2007, Hana Bank took investment in kind through assets and liabilities of branches in Shanghai and Syenyang and shares in Qingdao International Bank owned by Hana Bank. The branches and Qingdao International Bank were changed into the branches of Hana Bank China. Hana Bank China was merged with KEB China and incorporated into a subsidiary of Hana Bank in December, 2014 since Hana Bank acquired control over Hana Bank China after the merger.

1-2-16-2 KEB Hana Bank (Canada)

Canadian KEB Hana Bank was established in Toronto, Canada on October 6, 1981 for the purpose of providing financial services to Korean companies and Korean residents in Canada.

1-2-16-3 KEB Hana Bank (Germany)

Germany KEB Hana Bank was established in Frankfurt, Germany on December 29, 1992 for the purpose of providing financial services to Korean companies and Korean residents in Germany.

1-2-16-4 PT Bank KEB Hana

PT. Bank KEB Hana was established in Jakarta, Indonesia on November 5, 1990 to provide financial services to Korean companies and residents in Jakarta. In accordance with the regulations of the Bank Indonesia, 2 or more local banks with the same ultimate parent company are prohibited to operate as an independent entity in Indonesia. Accordingly, PT. Bank KEB Indonesia (KEBI), a subsidiary of the Bank, and PT. Bank Hana, a subsidiary of Hana Bank, have completed a merger process on February 20, 2014 and changed the name to PT. Bank KEB Hana. PT. Bank KEB Hana incorporated into a subsidiary of KEB on February 28, 2014 since KEB owned the major shares of PT. Bank KEB Hana after the acquisition. PT Bank KEB Hana has issued third-party allocation during 2019. At the end of the reporting period, Hana Bank holds 69.01% of shares.

1-2-16-5 Banco KEB do Brasil S. A. (KEBB)

KEBB was incorporated on May 21, 1999 to provide finance services for foreign clients, advisory services, finance arrangement and security investment trust services regarding overseas investment for domestic companies

1-2-16-6 KEB NY Financial Corp. (NYFinCo)

NYFinCo was established in New York, USA on April 8, 2004 to provide financial services to Korean companies and residents in New York and the surrounding area.

1-2-16-7 KEB LA Financial Corp. (LAFinCo)

LAFinCo was established in Los Angeles, USA on July 2, 2009 to provide financial services to Korean companies and residents in Los Angeles and the surrounding area.

1-2-16-8 KEB Hana Global Finance Limited

KEB Hana Global Finance Limited was established in Los Angeles, USA on July 2, 2009 to provide finance services for foreign clients, advisory services, finance arrangement and security investment trust services regarding overseas investment

for domestic companies

1-2-16-9 KEB Hana Russia

KEB launched a Moscow representative office in 2008 to provide financial information and consulting services for Korean and local companies in Russia. KEB Russia was established on August 15, 2014, after obtaining corporate business license from the Russian regulatory authority in July 2014 to expand its business scope. At the end of the reporting period, Hana Bank holds 99.99% of shares.

1-2-16-10 KEB Hana Mexico

Mexico KEB Hana Bank was established in Mexico City on November 3, 2017 to engage in provision of financial services to Korean companies and local corporations. At the end of the reporting period, KEB Hana Bank holds 99.99% interest in the entity.

1-2-16-11 Hyundai Trust PEF Invest 16 [Bond] and other 3 private equity investment vehicles

In accordance with the KIFRS 1110 Consolidated Financial Statements, investees are consolidated when the investor is exposed, 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. Accordingly, Hyundai Trust PEF Invest 16 [Bond] and 3 private equity investment vehicles have been included in the consolidation scope.

1-2-16-12 Sevenstar Co., and other 21 Special Purpose Entities

In accordance with the KIFRS 1110 Consolidated Financial Statements, the Group consolidated Sevenstar Co., Ltd. and other 21 special purpose companies because the Group is exposed, or has rights, to variable returns from its involvement with the SPEs and has the ability to affect those returns through its power over the SPEs

1-2-16-13 Hana Bancorp, Inc.

Hana Bancorp, Inc. (formerly, BNB Financial Service Corporation) was incorporated on April 8, 1988 to engage in the bank business. The Group acquired 52.29% ownership of BNB Financial Service Corporation and incorporated Hana Bancorp, Inc. as its subsidiaries as of August 30, 2013 and changed its name to Hana Bancorp, Inc. The Group sold all common shares of Hana Bancorp to Hana Bank on March 28, 2016 and Hana Bancorp became a subsidiary of Hana Bank. Hana Bancorp, Inc. holds 100% of shares of KEB Hana Bank USA as a financial holding company.

1-2-16-14 Trust Accounts

In accordance with the KIFRS 1110 Consolidated Financial Statements, investment in trust accounts are consolidated when the investor is exposed, 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.

1-2-17 Subsidiaries of HFI

1-2-17-1 Hana the First Private Equity Fund

Hana the First Private Equity Fund (Hana the First PEF) was established on December 22, 2009 as a joint-stock company under the Capital Market Financial Investment Business Act for the purpose of distributing to the partners of Hana the First PEF the profits generated from participating in control, improving financial, business and governance structures of invested companies. Hana the First PEF is owned by KEB Hana Bank (29.97% ownership) as a limited partner and HFI (18.93% ownership) as a general and management partner. Initial contributions were paid on January 13, 2010.

1-2-17-2 Hana Daol Land Chip Heungdeok Real Estate Private Fund 35

Hana Daol Land Chip Heungdeok Real Estate Private Fund 35 was incorporated on September 19, 2011 in accordance with the Financial Investment Services and Capital Markets Act and wholly owned by HFI. It manages Knowledge Industrial C

enter (apartment-style factory), Heungdeok IT Valley that was built in Heungdeok housing site development district G1 block. The collective investment company, an asset management company, is Hana Asset Management Co., Ltd., and the trustor is National Agricultural Cooperative Federation.

1-2-17-3 Hana Equity Investment Management (Shenzhen) Co., Ltd

Hana Equity Investment Management (Shenzhen) Co., Ltd. (Formerly, Hana Global Investment Consulting Co., Ltd.) was incorporated in Beijing on October 14, 2011 and engages in the advisory services on issuing bonds, listing Chinese companies on the Korean stock market, cross-border M&A transactions and others.

1-2-17-4 Hana Land Chip Houston Real Estate Private Fund 59

Hana land Chip Houston Private Equity Real Estate Investment Trust No.59, which was established on October 30, 2014 by the Financial Investment Services and Capital Markets Act, manages common stock of REITs (FG US Holdings 2 LLC), which was established to acquire the preferred stocks of 3000 Post Oak Blvd., in Houston, USA, as an item transferred to fund. A collective investment company (asset management company) was UBS Hana Asset Management Co., Ltd., and a trustor was NAFC (National Agricultural Cooperative Federation).

1-2-17-5 Hana the Third Private Equity Fund

Hana the Third Private Equity Fund (Hana the Third PEF) was established on July 29, 2016 as a joint-stock company under the Capital Market Financial Investment Business Act to distribute to the partners of Hana the First PEF the profits generated from participating in control, improving financial, business and governance structures of invested companies. Hana the Third Private Equity Fund has Venus 1 SPC LLC, Bareun Food Factory Co., Ltd, Titan 1 SPC LLC and HIT 1 SPC LLC as subsidiaries, which are special purpose entities. Bareun Food Factory Co., Ltd has Dduksim Co., Ltd. and Sejoong Co., Ltd. and Keumho Trading Co., Ltd. as subsidiaries. Dduksim Co., Ltd. and Sejoong Co., Ltd. and Keumho Trading Co., Ltd. have Seojewon Co., Ltd and Siwon Co., Ltd. and Keumhoseafood Co., Ltd. & designmeal co., Ltd as a subsidiary, respectively.

1-2-17-6 Madrid First Co., Ltd. and 62 others

Madrid First Co., Ltd. and 62 others are included in the scope of the consolidation since the Group is exposed, or has rights, to variable returns from its involvement with the investees such as credit provision, and has the ability to affect those returns through its power over the SPEs.

1-2-17-7 Hana Formula-E Private Special Asset Fund 114 and 22 others

Hana Formula-E Private Special Asset Fund 114 and 22 others are included in the scope of the consolidation since the Group is exposed, or has rights, to variable returns from its involvement with the investees and has the ability to affect those returns through its power over the SPEs.

1-2-17-8 Hana New Technology Fund No.1 and 2 others

Hana New Technology Fund No.1 and 2 others was established with the aim of distributing the profits to the members by investing and operating the fund in accordance with the Enforcement Rules of the Specialized Credit Finance Business Act, and related laws and regulations.

1-2-17-9 Hana Trust Global Reit One CO., Ltd.

It was established for the purpose of allocating profits to members by investing and operating them in accordance with the Real Estate Investment Company Act, the Enforcement Decree of the same Act, the Enforcement Rules and the related statutes.

1-2-18 Subsidiaries of KEB Hana Card

1-2-18-1 Hana Card Payment

Hana Card Payment was established on May 26, 2017 to provide electronic payment services to Chinese tourists making purchases in Japan.

1-2-18-2 Hana Card 2019-1 Asset Securitisation Specialty Co., Ltd. and 1 other
s

Hana Card 2019-1 Asset Securitisation Specialty Co., Ltd. is established to securitize the right of loans in related to existed or future lump-sum payment, paying in installment, cash advance and revolving.

1-2-18-3 Specified money trust

In accordance with the KIFRS 1110 Consolidated Financial Statements, investees are consolidated when the investor is exposed, 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. Accordingly, specified money trusts have been included in the consolidation scope.

1-2-19 Subsidiaries of Hana Capital

1-2-19-1 Hana Ventures New Technology Fund No. 2 and No.3

In accordance with the KIFRS 1110 Consolidated Financial Statements, investees are consolidated when the investor is exposed, 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. Accordingly Hana Ventures New Technology Fund No.2 and No.3 are included in the consolidated scope of Hana Capital.

1-2-19-2 Hana Micro Finance

Hana Microfinance is a subsidiary operating in the financial services business and was newly established on August 7, 2014 and is located in Yangon, Myanmar. It aims to meet demands of microfinance for the people in Myanmar and to structure the foundation for a retail market that has abundant potential for growth.

1-2-20 Subsidiaries of Hana Life Insurance

1-2-20-1 Hana Land Chip Real Estate Private Equity Fund 68

Hana Land Chip Real Estate Private Equity Fund 68 was incorporated in accordance

ce with the Financial Investment Services and Capital Markets Act. It manages a building located in Gangnam-gu for occupancy by subsidiaries of HFG. The collective investment company (operator), an asset management company, is Hana Asset Management Co., Ltd. and the trustor is NongHyup Bank.

1-2-21 Subsidiaries of Hana TI

1-2-21-1 PT.NEXT Transformtech Indonesia

PT.NEXT Transformtech Indonesia started its operations on February 23, 2017 with the purpose of providing development and maintenance of financial information system for local banks and multi-financing companies in Indonesia.

1-2-22 Subsidiaries of Hana Alternative Asset Management

1-2-22-1 Hana Alternative Private Investment Trust No.111 and 1 others

In accordance with the KIFRS 1110 Consolidated Financial Statements, investees are consolidated when the investor is exposed, 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. Accordingly, Hana Alternative Private Investment Trust No.111 and 1 others are included in the consolidated scope of Hana Alternative Asset Management.

1-2-23 Subsidiaries of Hana F&I

1-2-23-1 KEB The Left co., Ltd and other 45 SPCs etc

Hana F&I has established a special purpose company for securitization of non-performing loans (NPL), and has the power to direct related activities by investing in subordinated bonds issued by consolidated structured companies and is exposed to variable profits based on performance. Therefore, Hana F&I has recognized KEB The Left co., Ltd and other 45 special purpose companies and specified money trusts as subsidiaries.

1-2-23-2 Specified money trust

In accordance with the KIFRS 1110 Consolidated Financial Statements, investees are consolidated when the investor is exposed, 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. Accordingly, specified money trusts have been included in the consolidation scope.

1-3 Risk and the financial support to a consolidated structured entity

A structured entity is established for asset-back securitization of NPL and beneficiary interest in investment funds of property. A consolidated entity involves in buying purchasing a subordinated bonds from a consolidated structured entity or offering buyout option of ABCP or loans issued by a consolidated structured entity. It is exposed to a risk of not being able to recover the acquisition (investment) money according to the performance.

Nature and reasons of the contractual arrangements for providing the financial support to a consolidated structured entity as of December 31, 2020 are as follows:

Entity	The Characteristics and Purposes	Intention
Trust Accounts with guarantee of the repayment of principal and interest	The Group offers principal conservation commitment to trust accounts. The Group is required to conserve the deficit amount in case the trust account stands below the principal as a result of the operation.	Credit enhancement on financial management of trust account
Antakya Co., Ltd.	The Group partially purchased ABCP (purchase commitment of ₩50 billion) from Antakya Co., Ltd.	Credit facility
Hana Display the First Co., Ltd.	The Group partially purchased ABCP (purchase commitment of ₩200 billion) from Hana Display the First Co., Ltd.	Credit facility
Ocean Betts The First Co., Ltd.	The Group partially purchased ABCP (purchase commitment of ₩50 billion) from Ocean Betts The First Co., Ltd.	Credit facility
Hana H in the holdings 1st LLC	The Group partially purchased ABCP (purchase commitment of ₩150 billion) from Hana H in the holdings 1st LLC	Credit facility
Hanafuturelives 1st, Ltd.	The Group partially purchased ABCP (purchase commitment of ₩50 billion) from Hanafuturelives 1st, Ltd.	Credit facility
H-Plus 1st, L.L.C.	The Group partially purchased ABCP (purchase commitment of ₩100 billion) from H-Plus 1st, L.L.C.	Credit facility
HanaGreen, 1st L.L.C.	The Group committed acceptances and guarantees of ₩ 13.5 billion for HanaGreen, 1st L.L.C	Credit facility
YDPP 1st Co.,Ltd.	The Group partially purchased ABCP (purchase commitment of ₩71 billion) from YDPP 1st Co.,Ltd.	Credit facility
Hanack 1st Co.,Ltd.	The Group partially purchased ABCP (purchase commitment of ₩60 billion) from Hanack 1st Co.,Ltd.	Credit facility
Netoneq 1st L.L.C.	The Group partially purchased ABCP (purchase commitment of ₩13.4 billion) from Netoneq 1st L.L.C.	Credit facility
Dongam Tower 1st Co., LTD	The Group partially purchased ABCP (purchase commitment of ₩50 billion) from Dongam Tower 1st Co., LTD.	Credit facility
Hana H in the holdings 2nd L.L.C	The Group partially purchased ABCP (purchase commitment of ₩50 billion) from Hana H in the holdings 2nd L.L.C	Credit facility

Entity	The Characteristics and Purposes	Intention
H on 1st L.L.C	The Group partially purchased ABCP (purchase commitment of ₩50 billion) from H on 1st L.L.C	Credit facility
DYONEQ1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩50 billion) from H on 1st L.L.C	Credit facility
PIOTOWER1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩60 billion) from H on 1st L.L.C	Credit facility
KSPARTNERSHIP 1st 2020, INC	The Group partially purchased ABCP (purchase commitment of ₩50 billion) from H on 1st L.L.C	Credit facility
Hana Unju 1st., Co., Ltd.	The Group is obligated to acquire privately-placed bonds up to ₩30 billion.	Credit facility
Yellow Balloon 2nd Co., Ltd.	The Group is obligated to acquire privately-placed bonds up to ₩37 billion.	Credit facility
Citizenryu 1st Co., Ltd.	The Group is obligated to acquire privately-placed bonds up to ₩118.5 billion.	Credit facility
Portfolio 1st Co., Ltd.	The Group is obligated to acquire privately-placed bonds up to ₩20 billion.	Credit facility
Yellow Balloon 3rd Co., Ltd.	The Group is obligated to acquire privately-placed bonds up to ₩142.5 billion.	Credit facility
YDL 1st Co., Ltd.	The Group is obligated to acquire privately-placed bonds up to ₩11.5 billion.	Credit facility
Areca 1st Co., Ltd.	The Group is obligated to acquire privately-placed bonds up to ₩26.2 billion.	Credit facility
Hana Charlemont Exchange	The Group is obligated to acquire privately-placed bonds up to ₩11.6 billion.	Credit facility
YDL 3rd Co. Ltd.	The Group is obligated to acquire privately-placed bonds up to ₩12.5 billion.	Credit facility
Hana YDL Co., Ltd.	The Group is obligated to acquire privately-placed bonds up to ₩40.0 billion.	Credit facility
Centaur First Co., Ltd.	The Group is obligated to acquire privately-placed bonds up to ₩29.0 billion.	Credit facility
Hana In Chungmu 1st., Co., Ltd.	The Group is obligated to acquire privately-placed bonds up to ₩16.8 billion.	Credit facility
Hana Ocean 1st	The Group is obligated to acquire privately-placed bonds up to ₩20 billion.	Credit facility
Wonderful GM 1st., Co., Ltd	The Group is obligated to acquire privately-placed bonds up to ₩11.7 billion.	Credit facility
HF Caribbean Co., Ltd.	The Group is obligated to acquire privately-placed bonds up to ₩166 billion.	Credit facility
Magic Town 1st., Co., Ltd.	The Group is obligated to acquire privately-placed bonds up to ₩24 billion.	Credit facility
Hana US Emerging Office Co., Ltd.	The Group is obligated to acquire privately-placed bonds up to ₩550 billion.	Credit facility
San Jose Real 1st Co., Ltd.	The Group is obligated to acquire privately-placed bonds up to ₩5 billion.	Credit facility
GMHB 2nd., Co., Ltd.	The Group is obligated to acquire privately-placed bonds up to ₩70 billion.	Credit facility
Hana Port 1st., Co., Ltd.	The Group is obligated to acquire privately-placed bonds up to ₩46 billion.	Credit facility
GIF Rocinante Co., Ltd.	The Group is obligated to acquire privately-placed bonds up to ₩111.1 billion.	Credit facility
Madrid First Co., Ltd.	The Group is obligated to acquire privately-placed bonds up to ₩128.9 billion.	Credit facility
US Smile 1st Co., Ltd.	The Group is obligated to acquire privately-placed bonds up to ₩3 billion.	Credit facility
US Smile 2nd Co., Ltd.	The Group is obligated to acquire privately-placed bonds up to ₩17.2 billion.	Credit facility
Hana Runway Co., Ltd.	The Group is obligated to acquire privately-placed bonds up to ₩115 billion.	Credit facility
JB Squire Co., Ltd.	The Group is obligated to acquire privately-placed bonds up to ₩135 billion.	Credit facility
GIF Boomerang Co., Ltd.	The Group is obligated to acquire privately-placed bonds up to ₩62.5 billion.	Credit facility
Hana Penta 1st., Co., Ltd.	The Group is obligated to acquire privately-placed bonds up to ₩7 billion.	Credit facility

Entity	The Characteristics and Purposes	Intention
Hana AIC 1st Co., Ltd	The Group is obligated to acquire privately-placed bonds up to ₩217 billion.	Credit facility
Hanalogs No.1 Co., Ltd.	The Group is obligated to acquire privately-placed bonds up to ₩89.8 billion.	Credit facility
GIF Sowol-ro Co., Ltd.	The Group is obligated to acquire privately-placed bonds up to ₩15 billion.	Credit facility
GIF Olympus Co., Ltd.	The Group is obligated to acquire privately-placed bonds up to ₩10 billion.	Credit facility
Peach Shine 2nd Co., Ltd.	The Group is obligated to acquire privately-placed bonds up to ₩37 billion.	Credit facility
Hangdong West 2nd., Co., Ltd.	The Group is obligated to acquire privately-placed bonds up to ₩30 billion.	Credit facility
Hana Solar 1st Co., Ltd	The Group is obligated to acquire privately-placed bonds up to ₩12 billion.	Credit facility
YK Ho 1st., Co., Ltd	The Group is obligated to acquire privately-placed bonds up to ₩7.7 billion.	Credit facility
YK Ho 2nd., Co., Ltd	The Group is obligated to acquire privately-placed bonds up to ₩7.7 billion.	Credit facility
Hana-Sinjang 1st Co.,Ltd	The Group is obligated to acquire privately-placed bonds up to ₩20 billion.	Credit facility
HANA MC ONE Co.,Ltd	The Group is obligated to acquire privately-placed bonds up to ₩25 billion.	Credit facility
Hana S-Energy Co., Ltd.	The Group is obligated to acquire privately-placed bonds up to ₩32.5 billion.	Credit facility
GIF Gwacheon8 2nd., Co., Ltd.	The Group is obligated to acquire privately-placed bonds up to ₩10 billion.	Credit facility
Hana Datacenter 1st., Co., Ltd.	The Group is obligated to acquire privately-placed bonds up to ₩0.1 billion.	Credit facility
Achenhaim Co., Ltd.	The Group is obligated to acquire privately-placed bonds up to ₩125.6 billion.	Credit facility
Anseong KL 1st., Co., Ltd.	The Group is obligated to acquire privately-placed bonds up to ₩23.5 billion.	Credit facility
Eco Clover Co., Ltd.	The Group is obligated to acquire privately-placed bonds up to ₩129.7 billion.	Credit facility
Hana 5-geori 1st., Co., Ltd.	The Group is obligated to acquire privately-placed bonds up to ₩11 billion.	Credit facility
Hana-Ulsan Co., Ltd	The Group is obligated to acquire privately-placed bonds up to ₩20 billion.	Credit facility
Hana Sewoon 1st., Co., Ltd	The Group is obligated to acquire privately-placed bonds up to ₩20 billion.	Credit facility
GS Solution 1st., Co., Ltd.	The Group is obligated to acquire privately-placed bonds up to ₩102 billion.	Credit facility
Hana Heaven 1st., Co., Ltd.	The Group is obligated to acquire privately-placed bonds up to ₩32 billion.	Credit facility
Hana Bukjincheon 1st., Co., Ltd.	The Group is obligated to acquire privately-placed bonds up to ₩45 billion.	Credit facility
Hana Bukjincheon 2nd., Co., Ltd.	The Group is obligated to acquire privately-placed bonds up to ₩15 billion.	Credit facility
Hanalogs No.2 Co., Ltd.	The Group is obligated to acquire privately-placed bonds up to ₩0.5 billion.	Credit facility
Zero To One 1st., Co., Ltd.	The Group is obligated to acquire privately-placed bonds up to ₩67 billion.	Credit facility
Hana 1Q Logis B Co., Ltd.	The Group is obligated to acquire privately-placed bonds up to ₩20 billion.	Credit facility

Entity	The Characteristics and Purposes	Intention
GIF MD Co., Ltd.	The Group is obligated to acquire privately-placed bonds up to ₩26 billion.	Credit facility
PYS 2nd., Co., Ltd.	The Group is obligated to acquire privately-placed bonds up to ₩18.2 billion.	Credit facility
Tree Unique 1st., Co., Ltd.	The Group is obligated to acquire privately-placed bonds up to ₩6 billion.	Credit facility
Hana Seattle Prime Co., Ltd.	The Group is obligated to acquire privately-placed bonds up to ₩147 billion.	Credit facility
Ernest Hyun 1st., Co., Ltd.	The Group is obligated to acquire privately-placed bonds up to ₩78.5 billion.	Credit facility
Hridan 2nd., Co., Ltd.	The Group is obligated to acquire privately-placed bonds up to ₩78.5 billion.	Credit facility
KB Bonnacord Private Fund(FOFS)	The Group committed to increase investment up to ₩62.2 billion on its asset.	Investment commitment
AIP Energy Transport Infrastructure Specialized Privately Placed Fund Trust #4	The Group committed to increase investment up to ₩10.9 billion on its asset.	Investment commitment
AIP Energy Infrastructure Specialized Privately Placed Fund Trust #2	The Group committed to increase investment up to ₩7.1 billion on its asset.	Investment commitment
Darby Hana Europe Renewable Energy Private Investment Fund	The Group committed to increase investment up to ₩8.4 billion on its asset.	Investment commitment
Hana Formula-E Private Special Asset Fund 114	The Group committed to increase investment up to ₩3.9 billion on its asset.	Investment commitment
K-Reits Specialized Private Investment Trust No.23	The Group committed to increase investment up to ₩56.3 billion on its asset.	Investment commitment
IGIS U.S. Specialized Private Placement Real Estate Investment Trust NO. 380-1	The Group committed to increase investment up to ₩53 billion on its asset.	Investment commitment
Darby Hana New York Hotel Specialized Private Investment Trust No. 1	The Group committed to increase investment up to ₩67.2 billion on its asset.	Investment commitment
Hana Alternative Energy Infrastructure Special Asset No.3-1/3-2/3-3	The Group committed to increase investment up to ₩100 billion on its asset.	Investment commitment
Hana Card 2019-1 Asset Securitization Specialty Co., Ltd.	In related to asset securitization, the transferred beneficial interest is required to be above a certain rate. If asset shortage is constant, additional asset transfer shall be held.	Asset securitization
Hana Card 2020-1 Asset Securitization Specialty Co., Ltd.	In related to asset securitization, the transferred beneficial interest is required to be above a certain rate. If asset shortage is constant, additional asset transfer shall be held.	Asset securitization
Hana Alternative Infrastructure Special Investment Private Trust	The Group committed to increase investment up to ₩100 billion on its asset.	Investment commitment

1-4 Non-controlling interest of subsidiaries

1-4-1 Major non-controlling interests' share of the equity of the subsidiaries as of December 31, 2020 and 2019 are as follows:

Classification	December 31, 2020	December 31, 2019
Hana Bank (*1)	179,737	179,737
KEB Hana Card	270,667	252,114
Hana Capital (*1)	149,578	149,617
Hana F&I, Inc. (*1)	29,835	29,835
Hana F&I, Inc.	477	436
PT Bank KEB Hana	239,876	238,145
Hana Bancorp	3,873	4,632
Others (*2)	12,562	5,782
Total	886,605	860,298

(*1) The carrying amount of hybrid bonds issued by the subsidiary.

(*2) The carrying amounts of non-controlling interest of Dduksim Co., Ltd., Sejoong Co., Ltd., and Keumho Trading Co., Ltd.

1-4-2 Major non-controlling interest share of profit or loss of the subsidiaries for the year ended December 31, 2020 and 2019 are as follows:

Classification	2020	2019
Hana Bank (*1)	8,000	9,814
KEB Hana Card	19,453	4,727
Hana Capital (*1)	4,969	9,000
Hana F&I, Inc. (*1)	1,759	2,010
Hana F&I, Inc.	41	41
Hana TI	–	128
PT Bank KEB Hana	14,735	9,291
Hana Bancorp	(447)	(604)
Others (*2)	(874)	(369)

Classification	2020	2019
Total	47,636	34,038

(*1) The carrying amount of dividends from hybrid bonds issued by the subsidiary.

(*2) Non-controlling interest share of profit or loss of Dduksim Co., Ltd., Sejoong Co., Ltd., Keumho Trading Co., Ltd.

2. Unconsolidated structured entities

2-1 Nature of the Group's interests in unconsolidated structured entities

Details of the nature of the Group's interests in unconsolidated structured entities as of December 31, 2020 and 2019 are as follows (Korean won in millions):

Classification	Purpose	Financing arrangement	Total assets	
			December 31, 2020	December 31, 2019
Special purpose company	Financing through asset liquidation and securitization	Issuing ABL/ABCP and others	9,398,854	12,395,795
Real estate finance	Operation for real estate (including SOC) development	Investment and borrowing	27,258,324	20,718,801
Shipping finance and primary market finance	Financing to purchase ships, NPL and ownership	Investment and borrowing	18,954,245	33,280,607
Investment fund	Managing investment fund and trust	Issuing beneficiary certificates	180,489,761	137,429,566

2-2 Risks from its interests in unconsolidated structured entities (Korean won in millions):

<December 31, 2020>

Classification	Special purpose company	Real estate finance	Shipping finance and primary market finance	Investment fund
Assets:				
Loans receivable (A)	608,143	1,368,442	1,065,186	1,087,215
Securities (B)	1	108,484	25,150	12,313,544
Derivatives (C)	18,571	13,953	4,799	–
Others (D)	1,459	2,930	4,495	87,189
Liabilities:				
Derivatives	3,137	2,278	11,263	–
Provision	1,795	2,119	361	31
Others	118	197	50	–
Net asset	623,124	1,489,215	1,087,956	13,490,176
Maximum exposure to loss				
Financial assets (A+B+C+D)	628,174	1,493,809	1,099,630	13,487,948
Credit and other commitment	1,512,445	692,456	271,854	716,393

<December 31, 2019>

Classification	Special purpose company	Real estate finance	Shipping finance and primary market finance	Investment fund
Assets:				
Loans receivable (A)	761,059	1,444,895	917,956	1,039,377
Securities (B)	1	79,929	–	9,876,413
Derivatives (C)	13,976	11,670	8,868	53
Others (D)	1,517	2,935	3,838	95,054
Liabilities:				
Derivatives	390	2,133	435	–
Provision	437	1,443	325	21
Others	182	30	41	1
Net asset	775,544	1,535,823	929,861	11,010,875
Maximum exposure to loss				
Financial assets (A+B+C+D)	776,553	1,539,429	930,662	11,010,897
Credit and other commitment	3,182,870	470,102	259,729	342,470

3. Summary of significant accounting policies

3-1 Basis of preparation

The Group prepares statutory consolidated financial statements in the Korean language in accordance with KIFRS. The accompanying consolidated financial statements have been translated into English from the Korean language financial statements. In the event of any differences in interpreting the financial statements or the independent auditors' review report thereon, the Korean version, which is used for regulatory reporting purposes, shall prevail.

3-2 Principles of consolidation

The significant accounting methods of consolidation that the Group adopts in preparing the consolidated financial statements are as follows.

3-2-1 Subsidiaries

Subsidiaries are the companies controlled by the Group, and the Group has rights to determine the financial and operational policies of the subsidiaries. Generally, it has at least 50% voting rights, and special purpose vehicles are included. When the Group evaluates whether a company falls under a subsidiary, it considers the existence of an exercisable or convertible potential voting right and its effect. When the Group controls a subsidiary, the subsidiary is subject to consolidation; when the Group loses the control, it is eliminated from the consolidation.

3-2-2 Offsetting investment account against equity account

The investment accounts of the Group and the corresponding equity accounts of the subsidiaries were offset and eliminated as of the date of acquiring control.

3-2-3 Difference between net assets of an investee and acquisition costs

When offsetting the investment of the Parent Company and the equity of a subsidiary, the Group applies an acquisition method in accounting treatment. When applying the acquisition method, if the purchase price to acquire shares of the subsidiary's assets and liabilities at fair value exceeds the investment as of the date o

f acquiring control, the excess is recognized as goodwill and recorded as an intangible asset, and the Group tests goodwill for impairment annually at the end of reporting period.

If the parent acquires additional shares of the subsidiary after acquiring the control of the subsidiary, the investment of the Parent Company and the equity of the subsidiary are offset and eliminated as of the initial acquisition date: at this time, if the investment and the corresponding equity are not equal, the difference is recorded as consolidated capital surplus (or consolidated capital adjustments).

3-2-4 Elimination of related party transactions and unrealized gains or losses

The Group offset and eliminated intercompany accounts receivable-payable, and intercompany revenues-expenses, and interest incomes or expenses arising from intercompany loans by applying an interest rate for the current term.

3-2-5 Application of equity method

According to the sources of changes in net assets of an investee under equity method, the Group differently records the changes in accounting treatments. If the net assets of an investee are changed due to a net profit or loss for the current term, the change is recorded as an investment income or loss under equity method; if the net assets are changed due to an increase or decrease in retained earnings carried over from the previous term, the change is recorded as a positive or negative change in retained earnings under equity method; if the net assets are changed due to an increase or decrease in equity other than the net profit or loss for the current term or the change in retained earnings carried over from the previous term, the change is recorded as a positive or negative change in equity under equity method.

3-2-6 Special reserve of trust account

In the trusts with stipulations of preserving principals and interests, which are consolidated, special reserves accumulated in accordance with the terms and conditions of the trusts are adjusted in the consolidated retained earnings in accordance

with the detailed enforcement regulations on banking supervision.

3-2-7 Non-controlling interests

The Group recognizes equity in a subsidiary not attributable to a parent as non-controlling interests. The Group also attributes total comprehensive income to the non-controlling interests even if this results in the non-controlling interests having a deficit balance. The Group presents the deficit balance as a negative number in equity.

3-2-8 Business combinations

3-2-8-1 Business combinations

Acquisition method is applied to business combinations except a business combination between entities or business under the control of the same ultimate parent company. The Group recognizes identifiable assets acquired and liabilities taken over at fair value on the acquisition date except the following cases.

- Lease contracts: classified by the terms and conditions of contracts on the date of contract
- Contingent liabilities: recognized as the liabilities that can be reliably measured as current obligations
- Deferred tax assets and liabilities: recognized and measured in accordance with KIFRS 1012 Income taxes.
- Employee benefits: recognized and measured in accordance with KIFRS 1019 Employee benefits
- Compensable assets: recognized and measured in accordance with standards applicable to compensable items
- Reacquired rights: measured in accordance with special regulations
- Stock options: stock option related debt or equity securities are measured in accordance with KIFRS 1102 Share-based payment
- Assets held-for-sale: measured at net fair value in accordance with KIFRS 1105 Non-current assets held-for-sale and discontinued operations

In business combination, consideration for transfer is measured at fair value, which is a sum of the fair values of assets transferred by the Group, liabilities that the Group bears for the previous owner of a company being acquired, and equity instruments issued by the Group on the acquisition date. However, the stock options included in the consideration for transfer, which the acquirer grants to exchange for the compensations that are held by the employees of the acquiree, are not measured at fair value but evaluated in the way described above.

The acquisition-related costs are costs the acquirer has incurred to achieve effects of business combination. Those costs include brokerage fees – in other words, advisory, legal, accounting, valuation and other professional or consulting fees – general administrative costs including costs of maintaining an internal acquisitions department, and costs to register and issue debt securities and equity securities. Except the costs of issuing debt and equity securities under KIFRS 1032 and KIFRS 1109, the acquirer recognizes acquisition related costs as expenses in the periods in which the costs are incurred and the services are received.

3-2-8-2 Goodwill or gain on bargain purchase

The Group recognizes goodwill as of the acquisition date measured as the excess of (a) the aggregate of (i) the consideration transferred measured which generally requires acquisition-date fair value and (ii) the amount of any non-controlling interest in the acquiree over (b) the net of the acquisition-date amounts of the identifiable assets acquired and the liabilities assumed in accordance with KIFRS 1103 Business combinations. If (b) exceeds (a), the Group reassess whether it has correctly identified all of the assets acquired and all of the liabilities assumed. After reassessments, the Group recognizes the resulting gain in profit or loss (a gain on bargain purchase) on the acquisition date.

Additional acquisition of non-controlling interest is taken into account as transactions between the shareholders, and the resulting goodwill, etc. is not recognized.

3-3 Foreign exchange

3-3-1 Functional currency

When the Group prepares the financial statements, it measures and recognizes all transactions according to the functional currency. The functional currency is the currency of the primary economic environment in which the entity operates and entities with different functional currencies measures and recognizes in its own functional currencies.

3-3-2 Translation of foreign currency transactions and balances at the end of the reporting period

Transactions in foreign currencies are initially recorded at the functional currency rate of exchange ruling at the date of the transaction. Monetary assets and liabilities denominated in foreign currencies are translated at the exchange rate at the reporting date and the exchange difference is recognized as profit or loss. Non-monetary items measured at fair value in a foreign currency are translated at the exchange rates at the end of reporting date. When a gain or loss on a non-monetary item is recognized in other comprehensive income, any exchange component of that gain or loss is recognized in other comprehensive income. Conversely, when a gain or loss on a non-monetary item is recognized in profit or loss, any exchange component of that gain or loss is recognized in profit or loss. Non-monetary items that are measured in terms of historical cost in a foreign currency are translated using the exchange rates as of the dates of the initial transactions.

The Group may have a monetary item that is receivable from or payable to a foreign operation. An item for which settlement is neither planned nor likely to occur in the foreseeable future is, in substance, a part of the entity's net investment in that foreign operation. Exchange differences arising on a monetary item that forms part of a reporting entity's net investment in a foreign operation are recognized initially in other comprehensive income and reclassified from equity to profit o

r loss on disposal of the net investment

3-3-3 Translation to the presentation currency

The Group translates the results and financial position of overseas branches and subsidiaries recorded on its own functional currencies into the presentation currency of the Group, Korean Won (KRW). The Group translates (i) assets and liabilities for each statement of financial position at the closing rate at the date of that statement of financial position and (ii) income and expenses for each statement presenting profit or loss and other comprehensive income at exchange rates at the dates of the transactions or an average rate of the period. The Group recognizes all resulting exchange differences as other comprehensive income.

3-4 Cash and cash equivalents

Cash and cash equivalent comprise of cash at banks and on hand and short-term demand deposits. The purpose of cash and cash equivalents are to make short-term investments and to meet short-term cash demands. Cash equivalents are short-term, highly liquid investments that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value.

3-5 Classification and measurement of financial assets

The classification of financial assets at initial recognition depends on the financial asset's contractual cash flow characteristics and the Group's business model for managing them. Financial assets are classified, at initial recognition, as fair value through profit or loss, fair value through other comprehensive income (OCI), and subsequently measured at amortized cost, and financial liabilities are classified as fair value through profit of loss, and subsequently measured at amortized cost.

Purchase or sale of financial assets is recognized at the date of settlement. However

er, purchases or sales of financial assets that require delivery of assets within a time frame established by regulation or convention in the market place (regular way trades) are recognized on the trade date, i.e., the date that the Group commits to purchase or sell the asset.

The Group initially measures a financial asset and a financial liability at its fair value plus (minus), in the case of a financial asset (financial liability) not at fair value through profit or loss, transaction costs. Fair value is defined as the amount by which an asset can be exchanged or a liability settled in a transaction between an independent party with a reasonable judgment and a willingness to trade. The fair value of a financial instrument at initial recognition is generally the transaction price (the fair value provided or received).

3-5-1 Financial assets at fair value through profit or loss

Financial assets at fair value through profit or loss include financial assets held for trading, financial assets designated upon initial recognition at fair value through profit or loss and financial assets not classified as fair value through OCI or subsequently measured at amortized cost.

In addition, if the designation of a financial asset eliminates or significantly reduces the recognition and measurement inconsistencies that may arise from the measurement of assets or liabilities on a different basis or recognition of gains or losses, a financial asset can be designated as fair value through profit or loss.

Financial assets at fair value through profit or loss are measured at fair value and the gains or losses arising from changes in fair value are recognized in profit or loss. Dividends and interest income from financial assets are also recognized in profit or loss.

3-5-2 Financial assets at fair value through OCI

The Group measures debt instruments at fair value through OCI if both of the following conditions are met:

- a. The financial asset is held within a business model with the objective of both holding to collect contractual cash flows and selling
- b. The contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding

The Group can elect to classify irrevocably its equity investments as equity instruments designated at fair value through OCI when they are held strategically not for short-term trading. Financial assets at fair value through OCI are measured at fair value after initial recognition. For debt instruments at fair value through OCI, interest income, foreign exchange revaluation and impairment losses or reversals are recognized in the statement of profit or loss and computed in the same manner as for financial assets measured at amortized cost. The remaining fair value changes are recognized in OCI.

Upon derecognition, the cumulative fair value change recognized in OCI is recycled to profit or loss. However, the cumulative fair value change from equity instruments designated at fair value through OCI is never recycled to profit or loss when derecognized.

The fair value of financial assets at fair value through OCI is measured in the foreign currency and translated at the exchange rate at the end of the reporting period. The part of changes in fair value arising from changes in the amortized cost is recognized in profit or loss and other changes are recognized in equity.

3-5-3 Financial assets at amortized cost

The Group measures financial assets at amortized cost if both of the following conditions are met:

- a. The financial asset is held within a business model with the objective to hold financial assets in order to collect contractual cash flows
- b. The contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding

Financial assets at amortized cost are subsequently measured using the effective interest (EIR) method and are subject to impairment. Interest income is recognized using the EIR method.

The Group defers LOF/LOCs associated with originating loans and LOCs that have future economic benefits. Loan balances are reported net of these LOF/LOCs. The deferred LOF/LOCs are amortized based on the effective interest rate method with the amortization recognized as adjustments to interest income.

3-6 Derivative financial instruments and hedge accounting

The Group measures derivative financial instruments at fair value at initial recognition. The Group classifies derivative financial instruments as derivative financial instruments held for trading purpose or hedging instruments. After initial recognition, the Group measures derivative financial instruments at fair value and gains or loss arising from changes in the fair value as profit or loss, except the following cases. When the derivative financial instruments are previously a designated and effective hedging instrument in a cash flow hedge or net investment hedge no longer qualifies, the Group recognizes the portion of the gain or loss on the hedging instrument that is determined to be an effective hedge as other comprehensive income.

The Group applies fair value hedge accounting for a hedge of the exposure to changes in fair value of a recognized asset or liability or an unrecognized firm commitment, or an identified portion of such an asset, liability or firm commitment, that is attributable to a particular risk and could affect profit or loss.

The Group applies cash flow hedge for a hedge of the exposure to variability in cash flows that is attributable to a particular risk associated with a recognized asset or liability (such as all or some future interest payments on variable rate debt) or a highly probable forecast transaction.

The Group formally documents the hedging relationship, Group's risk management objective and strategy for undertaking the hedge, the risk being hedged and how to assess the hedging instrument's effectiveness for applying hedge accounting. The effectiveness of the hedge is the hedging instrument's effectiveness in offsetting the exposure to changes in the hedged item's fair value or cash flows attributable to the hedged risk. The Group assesses the hedge on an ongoing basis and determined actually to have been highly effective throughout the financial reporting periods for which the hedge was designated and documents the result of assessment.

3-6-1 Fair value hedges

For fair value hedge accounting, the Group recognizes a gain or a loss on valuation of the hedging instrument and the hedged item as profit or loss for offsetting the changes in the fair value of the hedging instrument and the hedged item. The Group discontinues prospectively the hedge accounting if the hedge no longer meets the criteria for hedge accounting. Any adjustment arising from the change in the fair value of the hedged financial instrument for which the effective interest method is used is amortized to profit or loss fully by maturity of the hedged financial instrument.

3-6-2 Cash flow hedges

For cash flow hedge accounting, the Group recognizes the effective portion of the gain or loss on the hedging instrument directly as other comprehensive income or offsetting the exposure to changes in cash flows of the hedging instrument and the hedged item attributable to the hedged risk. The Group reclassified from equity to profit or loss the associated gain or loss that was recognized in other comprehensive income in the same period during which the hedged forecast cash flows affect profit or loss. The Group discontinues prospectively the cash flow hedge accounting if the hedge no longer meets the criteria for hedge accounting.

3-6-3 Hedges of a net investment

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 accounted for in a way gains or losses on the hedging instrument relating to the effective portion of the hedge are recognized as OCI while any gains or losses relating to the ineffective portion are recognized in the statement of profit or loss. On disposal of the foreign operation, the cumulative value of any such gains or losses recorded in equity is transferred to the statement of comprehensive income in accordance with KIFRS 1021 The Effects of Changes in Foreign Exchange Rates.

3-6-4 Embedded derivatives

An embedded derivative is a component of a hybrid (combined) instrument that also includes a non-derivative host contract—with the effect that some of the cash flows of the combined instrument vary in a way similar to a stand-alone derivative. The Group separates an embedded derivative from the host contract and accounted for as a derivative only if the requirements of separation are met.

3-6-5 ‘ Day 1 ’ profit or loss

In case of derivatives in level 3, whose fair value is determined using data which is not observable from markets, the difference between the transaction price and fair value at initial recognition (a ‘ Day 1 ’ profit or loss) is deferred and amortized over the life of the associated instrument using the straight-line method and th

e amortization is recognized in the statement of comprehensive income.

3-6-6 Credit risk valuation adjustment

When measuring derivatives at fair value, credit risk valuation adjustment is calculated to reflect the effectiveness of the adjustment for counterparties.

3-7 Investments in associates and joint ventures

Investments in entities over which the Group has joint control or significant influence (investments in associates and joint ventures) are accounted for using the equity method. Under the equity method, on initial recognition the Group recognizes investments in associates and joint ventures cost. Subsequently, the Group adjusts the carrying amount of the investments in associates and joint ventures to recognize the Group's share of the profit or loss of the investee as profit or loss in the statement of comprehensive income. The Group recognizes the Group's share of changes in equity (except for profit or loss of the investee) directly in the related equity account to the statement of financial position.

If the Group's share of losses of the investee equals or exceeds its interest in the associates and joint ventures, it suspends recognizing its share of further losses. However, if the Group has other long-term interests in the investee, it continues recognizing its share of further losses to the extent of the carrying amount of such long-term interests. Such items include preference shares and long-term receivables or loans. The Group resumes the application of the equity method if the Group's share of income or change in equity of an investee exceeds the Group's share of losses accumulated during the period of suspension of the equity method.

On acquisition of the investment, the excess of the cost of the investment over the Group's share of the net fair value of the investee's identifiable assets and liabilities is accounted for as goodwill. The Group does not amortize goodwill relating to an associates or a joint venture and tests the investment for impairment if there is an indication which the investment is impaired. Further, the Group's sha

re of any difference between the net fair value of the investee' s identifiable assets and liabilities, and the net book value of such assets and liabilities is amortized based on the investee' s accounting treatments on the related assets and liabilities and charged or credited to the valuation gain or loss on the equity method investments in the statement of comprehensive income

The Group' s share in the investee' s unrealized profits and losses resulting from transactions between the Group and its investee are eliminated to the extent of the interest in the investee.

3-8 Impairment of financial assets

The Group evaluates expected credit losses (ECLs) of financial assets at amortized cost and fair value through OCI except financial assets at fair value through profit or loss at the end of each reporting period, and an allowance for ECLs is recognized.

The expected credit loss (ECL) is the weighted average amount of possible outcomes within a certain range, reflecting the time value of money, estimates on the past, current and future situations, and information accessible without excessive cost of effort.

The ECL can be measured in three following ways:

- General approach: when financial assets do not fall into below two categories and are off-balance-sheet undrawn commitments
- Simplified approach: when financial assets are trade receivables, contract assets or lease receivables
- Credit-impaired approach: when financial assets are credit-impaired at initial recognition

The general approach is applied differently depending on the significance of the increase of the credit risk. If, at the reporting date, the credit risk on a financial ins

trument has not increased significantly since initial recognition, an entity shall measure the loss allowance for that financial instrument at an amount equal to 12-month expected credit losses. If the credit risk on that financial instrument has increased significantly since initial recognition, an entity shall measure the loss allowance for a financial instrument at an amount equal to the lifetime expected credit losses at each reporting date.

The loss allowance is measured at an amount equal to lifetime expected credit losses for the simplified approach, and an entity shall only recognize the cumulative changes in lifetime expected credit losses since initial recognition as a loss allowance for purchased or originated credit-impaired financial assets at each reporting date for the credit-impaired approach.

The following non-exhaustive list of information may be relevant in assessing changes in credit risk:

- Significant changes in internal price indicators of credit risk as a result of a change in credit risk since inception
- Other changes in the rates or terms of an existing financial instrument that would be significantly different
- An actual or expected significant change in the financial instrument's external credit rating.
- An actual or expected internal credit rating downgrade for the borrower or decrease in behavioral scoring used to assess credit risk internally
- An actual or expected significant change in the operating results of the borrower
- Past due information

1) Forward-looking information

The Group measures the significance of the increase of the credit risk and the expected credit loss using forward-looking information.

The Group assumes that the risk component is correlated with changes in market conditions, and calculates the expected credit loss using the forward-looking information by modelling macroeconomic variables and risk components.

The forward-looking information used to measure the expected credit loss is derived from 'stress-case' or 'worst-case' scenarios.

2) Measurement of expected credit loss for financial assets measured at amortized cost

Expected credit loss for financial assets measured at amortized cost is measured as the difference between the present value of the cash flows expected to be received and the cash flow expected to be paid. For this purpose, the Group calculates expected cash flows for individually significant financial assets. (Individual valuation allowance)

Financial assets insignificant in value individually are measured on a collective basis with financial assets with similar credit risks (collective loss allowance).

① Loss allowance on an individual assessment basis

Loss allowance on an individual assessment basis is based on the best estimates of management in regards to the present value of cash flows expected to be recovered from receivables. In estimating the cash flows, the Group uses all available information including the financial conditions such as the operating cash flows of counterparties and the net realizable value of collateral provided.

② Loss allowance on a collective assessment basis

Loss allowance on a collective assessment basis uses the estimation model that accounts for the forward-looking information based on the past loss rate to measure the expected credit loss. The model considers the probability of default (PD) and the loss given default (LGD) reflecting the type of instruments and borrowers

, credit rating, portfolio size and collection period. Also, certain assumptions are applied to model the expected credit loss measurement and to determine input variables based on past experiences and forward-looking information. Methodologies and assumptions for this model are regularly reviewed to minimize the difference between the loss allowance and the actual loss.

The expected credit loss for financial assets measured at amortized cost is recognized as the loss allowance, and when the financial asset is determined to be irrecoverable, the carrying amount and loss allowance are decreased. If financial assets previously written off are recovered, the loss allowance is increased and the difference is recognized in the current profit or loss.

3) Expected credit loss measurement for financial assets measured at fair value through other comprehensive income

The measurement method is the same as the one for financial assets measured at amortized cost, but the change in the loss allowance is recognized as other comprehensive income. The loss allowance for financial assets measured at fair value through other comprehensive income is reclassified from other comprehensive income to current profit or loss when the assets are disposed of or repaid.

3-9 Derecognition of financial assets

A financial asset (or, where applicable a part of a financial asset or part of a group of similar financial assets) is derecognized when (i) the rights to receive cash flows from the asset have expired or, (ii) the Group has transferred substantially all the risks and rewards of the asset. If the Group has neither transferred nor retained substantially all the risks and rewards of the asset, but has transferred control of the asset, the Group recognizes the asset and the associated liability to the extent of the Group's continuing involvement in the asset. If the Group has retained substantially all the risks and rewards of ownership of the transferred asset, the Group continues to recognize the transferred asset and recognizes a collateralized borrowing for the consideration received.

3-10 Classification and measurement of financial liabilities

Financial liabilities are classified, at initial recognition, as financial liabilities at fair value through profit or loss, or borrowings. All financial liabilities are recognized initially at fair value and, except for financial liabilities at fair value through profit or loss, net of directly attributable transaction costs.

3-10-1 Financial liabilities at fair value through profit or loss

Financial liabilities at fair value through profit or loss include financial liabilities held for trading and financial liabilities designated upon initial recognition as of fair value through profit or loss. Financial liabilities are classified as held for trading if they are incurred for the purpose of repurchasing in the near term. This category also includes derivative financial instruments entered into by the Group that are not designated as hedging instruments in hedge relationships as defined by KIFRS 1109. Separated embedded derivatives are also classified as held for trading unless they are designated as effective hedging instruments. Financial liabilities at fair value through profit or loss are subsequently measured at fair value and the related gain and income expense are recognized in the statement of profit or loss.

The Group performs securities lending and borrowing classified to financial liabilities at fair value through profit or loss. When the Group borrows securities from Korea Securities Depository, securities borrowed are managed as memorandum value and when selling them, they are recorded as securities sold. At closing, the difference in the price securities are sold and the market price prevailing on the closing date is taken into account as valuation gain or loss on securities sold, and at the time of selling the securities, the difference in book value and the price securities are purchased is recorded as trading gain or loss on securities sold.

3-10-2 Deposits, borrowings, and debentures

After initial recognition, interest bearing deposits, borrowings and debentures are subsequently measured at amortized cost using the effective interest rate method. Gains and losses are recognized in the statement of comprehensive income when

en the liabilities are derecognized as well as through the EIR method amortization process.

3-11 Derecognition of financial liabilities

A financial liability is derecognized when the obligation under the liability is discharged or cancelled or expires. When an existing financial liability is replaced by another from the same lender on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification is treated as of the original liability and the recognition of a new liability, and the difference in the respective carrying amounts is recognized in the statement of comprehensive income.

3-12 Offsetting of financial instruments

Financial assets and financial liabilities are offset and the net amount reported in the statement of financial position if, and only if, there is a currently enforceable legal right to offset the recognized amounts and there is an intention to settle on a net basis, or to realize the asset and settle the liability simultaneously.

3-13 Provisions

Provisions are recognized when the Group has a present obligation (legal or constructive) 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 provision is used only for expenditures for which the provision was originally recognized. If a present obligation is not probable that an outflow of resources embodying economic benefits will be required to settle the obligation or the amount of the obligation cannot be measured with sufficient reliability, the Group discloses the obligation as a contingent liability. If the effect of the time value of money is material, provisions are measured at present value, the amount of a provision is measured at the present value of the expenditures expected to be required to settle the obligation.

The Group recognizes a provision for confirmed acceptances and guarantees, unc

onfirmed acceptances and guarantees, bills endorsed, unused credit line and cash advance commitments on credit cards by applying credit conversion factor (CCF). The Group measures provisions for such off-statement of financial position items in the same way that is applied to collective assessments of loans and receivables.

3-14 Financial guarantee contracts

A financial guarantee contract is a contract that requires the issuer 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 and is measured at fair value on date of initial recognition. After initial recognition, the Group, as an issuer of such a contract, measures it at the higher of (i) the amount determined in accordance with KIFRS 1109 Financial instruments and (ii) the amount initially recognized less, when appropriate, cumulative amortization recognized in accordance with KIFRS 1115 Revenues from contracts with customers.

3-15 Bonds purchased under resale agreements and bonds sold under repurchase agreements

Bonds purchased under resale agreements and bonds sold under repurchase agreements are included in loans receivable and borrowings, respectively, in the accompanying statement of financial position. Interest income and expense from purchase or sale are recognized as interest income on loan receivables and interest expense on borrowings.

3-16 Property and equipment

An item of property and equipment is measured at its cost less any accumulated depreciation. The cost of an item of property and equipment includes any costs directly attributable to acquisition of an item.

Subsequent cost is recognized as an asset if, and only if it is probable that future

economic benefits associated with the cost will follow to the Group and the cost can be measured reliably. The carrying amount of parts that are replaced is derecognized. The Group recognizes other repair and maintenance costs as profit or loss for the current period.

Land is not depreciated. Depreciation of other item of property and equipment is calculated using methods listed below to write down the cost of property and equipment to their residual values over their estimated useful lives. The depreciation methods and estimated useful lives are as follows:

Classification	Depreciation method	Years
Buildings for business purpose, equipment attached to the building and Construction structures	Straight-line method	5 to 55
Vehicles, furniture and fixtures, leasehold improvements	Straight-line method or declining balance method	3 to 20

When the carrying amount of an asset exceeds its recoverable amount, the asset is written down to its recoverable amount. The residual value of and useful life of an asset is reviewed at each financial year end and, if expectations differ from previous estimates, the Group applies change in estimates. Any gain or loss arising on derecognition of the asset (calculated as the difference between the net disposal proceeds and the carrying amount of the asset) is included in non-operating income in the statements of comprehensive income.

Government grants are recognized where there is reasonable assurance that the grant will be received and all attached conditions will be complied with. When the grant relates to an expense item, it is recognized as income on a systematic basis over the periods that the related costs, for which it is intended to compensate, are expensed. When the grant relates to an asset, it is recognized as income in equal amounts over the expected useful life of the related asset.

3-17 Investment properties

An item of investment properties is measured at its cost less any accumulated depreciation. The cost of an item of investment properties includes any costs directly attributable to acquisition of an item. After initial recognition, the Group measures all of its investment properties in accordance with the cost model in IAS 40.

Land is not depreciated. Depreciation of other item of investment properties is calculated using methods listed below to write down the cost of investment properties to their residual values over their estimated useful lives. The depreciation methods and estimated useful lives are as follows:

Classification	Depreciation method	Years
Buildings	Straight-line method	5 to 55

Investment properties are derecognized when either they have been disposed of or when the investment property is permanently withdrawn from use and no future economic benefit is expected from its disposal. The difference between the net disposal proceeds and the carrying amount of the asset is recognized in the statement of comprehensive income in the period of derecognition. Transfers to, or from, investment properties are made when, and only when, there is a change in use.

3-18 Intangible assets

An intangible asset is recognized only when its cost can be measured reliably and it is probable that the expected future economic benefits that are attributable to it will flow to the Group. Intangible assets include industrial right, software, development cost and others.

Amortization of items of intangible assets is calculated using methods listed below to write down the cost of items to their residual values over their estimated useful lives. The amortization methods and estimated useful lives are as follows:

Classification	Depreciation method	Years
Industrial property, software, system development, trademark rights	Straight-line method	5
Core deposit	Straight-line method	7
Client membership	Straight-line method	10
Others	Straight-line method	1 to 27

Intangible assets acquired separately are measured on initial recognition at cost. The cost of intangible assets acquired in a business combination is their fair value as of the date of acquisition in accordance with KIFRS 1103 Business Combinations. Following initial recognition, the carrying amount of intangible assets with finite useful lives is allocated on a systematic basis over their useful lives. The intangible assets with indefinite useful lives are not amortized and the Group tests those assets for impairment annually and whenever there is an indication that the intangible asset may be impaired. The assessment of indefinite life is reviewed annually to determine whether the indefinite life continues to be supportable.

3-19 Non-current assets held for sale

The Group classifies a non-current asset or disposal group as held for sale if its carrying amount will be recovered principally through a sale transaction rather than through continuing use. For this to be the case, the asset or disposal group must be available for immediate sale in its present condition and its sale must be highly probable. The asset (or disposal group) must be available for immediate sale in its present condition subject only to terms that are usual and customary for sales of such assets (or disposal groups) and its sale must be highly probable.

The Group measures a non-current asset (or disposal group) classified as held for sale at the lower of its carrying amount and fair value less costs to sell.

3-20 Impairment of non-financial assets

The Group tests the depreciable asset for impairment whenever there is a change of environment or an event that the carrying amount may not be recoverable. The

e Group recognizes an excess of the carrying amount over the recoverable amount as an impairment loss. The Group defines recoverable amount as the higher of an asset's or cash-generating unit's fair value less costs to sell and its value in use. For measuring the impairment of assets, the Group identifies the lowest aggregation of assets that generate largely independent cash inflows (CGU). The Group assesses reversal of an impairment loss recognized for the non-financial assets other than goodwill at the end of reporting period.

3-21 Retirement benefits

The Group has both defined benefit (DB plan) and defined contribution (DC plan) plans. A defined contribution plan is a pension plan under which the Group pays fixed contributions into a separate entity. The Group has no legal or constructive obligations to pay further contributions if the fund does not hold sufficient assets to pay all employees the benefits relating to employee service rendered in the current and prior periods. Defined benefit plans are all post-employment benefit plans except for defined contribution plans. A defined benefit plan is a pension plan that defines an amount of pension benefit that an employee will receive on retirement, usually dependent on one or more factors, such as age, years of service and compensation.

The defined benefit liability is the present value of the defined benefit obligation less the fair value of plan assets. The cost of providing benefits under the defined benefit plan is determined separately using the projected unit credit actuarial valuation method. The present value of the defined benefit liability is recorded in the same currency as the payment itself and is calculated by discounting the expected future cash flow and using the interest rate of other reputable companies with similar payment and end of reporting dates.

Changes in the actuarial estimates and actuarial gains and losses between estimates and results are recognized in the period they occur as part of other comprehensive income. The past service cost is recognized immediately.

The Group has no further payment obligations once the contributions have been paid. The contributions are recognized as employee benefit expense when they are due. Prepaid contributions are recognized as an asset to the extent that a cash refund or a reduction in the future payments is available.

3-22 Share-based payment transactions

The Group grants share options to its employees in the form of share-based payment transactions. For equity-settled share-based payment transactions, the Group measures the goods or services received, and the corresponding increase in equity, directly, at the fair value of the goods or services received, and recognizes the cost as employee benefits expense and other capital adjustment in equity. If the Group cannot estimate reliably the fair value of the goods or services received, the Group measures their value, and the corresponding increase in equity, indirectly, by reference to the fair value of the equity instruments granted and recognizes the cost as employee benefits expense and other capital adjustment in equity. For cash-settled share-based payment transactions, the Group measures the goods or services acquired and the liability incurred at the fair value of the liability. Until the liability is settled, the Group remeasures the fair value of the liability at the end of each reporting period and at the date of settlement, with any changes in fair value recognized in profit or loss for the period. For share-based payment transactions in which the terms of the arrangement provide the counterparty with a choice of settlement, the Group accounted for the transactions in accordance with their commercial substance.

3-23 Income tax expenses and deferred tax assets and liabilities

Income taxes comprise of current and deferred taxes. All items related to taxes, other than those recognized directly in equity, are accounted for in the statement of comprehensive income. Accordingly, items recognized directly in equity and the related taxes are accounted for as other comprehensive income in the consolidated statements of comprehensive income.

Current income tax expenses are computed based on the tax rates and tax laws e

nacted or substantively enacted in the jurisdictions that the Group operates in and generates taxable income at the end of the reporting period. If application of related tax law or regulation depends on the interpretation, the Group measures the current tax liabilities at the amount expected to be paid to the taxation authorities based on its interpretation and assesses its initial interpretation periodically.

Deferred tax is provided on the temporary differences at the reporting date between the tax bases of assets and liabilities and their carrying amounts for financial reporting purposes.

When the initial recognition of an asset or liability in a transaction which is not a business and at the time of the transaction, affects neither accounting profit nor taxable profit, the Group does not recognize a deferred tax asset or liability. The Group measures deferred tax assets and liabilities 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 Group recognizes a deferred tax asset for all deductible temporary differences to the extent that it is probable that taxable profit will be available against which the deductible temporary difference can be utilized.

The Group recognizes a deferred tax liability for all taxable temporary differences with investments in subsidiaries, except to the extent that both of the following conditions are satisfied: (a) the parent is able to control the timing of the reversal of the temporary difference; and (b) it is probable that the temporary difference will not reverse in the foreseeable future.

The Group offsets deferred assets and liabilities if, and only if (a) the Group has a legally enforceable right to set off current tax assets against current tax liabilities and, (b) the deferred tax assets and the deferred tax liabilities relate to income taxes levied by the same taxation authority on either (i) the same taxable entity

or (ii) different taxable entities which intend either to settle current tax liabilities and assets on a net basis, or to realize the assets and settle the liabilities simultaneously, in each future period in which significant amounts of deferred tax liabilities or assets are expected to be settled or recovered.

3-24 Insurance contracts

Hana Life Insurance's significant accounting policies relating to insurance contracts are as follows.

3-24-1 Reinsurance assets

The Group does not offset the reinsurance assets against the related reinsurance liabilities. If a reinsurance asset is impaired, the Group reduces its carrying amount accordingly and recognizes that impairment loss in profit or loss.

3-24-2 Deferred acquisition costs

The Group amortized the acquisition costs arising from long-duration contracts during the term of the contracts in the straight-line method in accordance with accounting standards for insurance business article 31 and article 3 of the supplementary provisions. If the acquisition costs exceed the expected amount or the additional premiums are settled highly for earlier term of the contracts to collect the acquisition costs in early stage, the acquisition costs are recognized in the period they occur as profit or loss. The deferred acquisition costs are amortized over the term of the contracts within the limits of 7 years. The unamortized costs of surrendered insurance contract are amortized in the period it is surrendered.

3-24-3 Liabilities reserves

The Group recognizes liabilities reserves by types of insurance contracts as of the reporting date in accordance with the Insurance Business Act and the related regulations. The liabilities reserves refer to an amount calculated pursuant to the premiums and liabilities reserves calculation manual for payment of claims, bonus return and policyholders dividend.

3-24-4 Valuation of special accounts assets and liabilities

The Group designates and operates any of the retirement insurance contracts, retirement dividend insurance contracts and variable insurance contracts (including variable universal insurance contracts) as special accounts pursuant to Article 108 (1) of the Insurance Business Act and Article 52 of the Regulations on Supervision of Insurance Business.

3-25 Equity

3-25-1 Classification of equity

The Group classifies a financial instrument on initial recognition as a financial liability or an equity instrument in accordance with the substance of the contractual arrangement. If the Group has the right to avoid contractual obligation relating to an issued financial instrument, the Group classifies the financial instrument as an equity instrument in accordance with the substance of the contractual arrangement. The Group classifies a hybrid equity security on initial recognition as equity if it meets the condition of an equity instrument.

3-25-2 Stock issuance costs

Additional stock issuance costs or incremental costs related to the stock issuance for business combinations are recorded as a deduction from issued capital net of tax effects.

3-25-3 Dividends on common stock

Dividends from common stock are deducted from the Group's equity and recognized as a liability upon approval of dividend distributions at the shareholders' meeting (the board of directors for the interim dividends). Dividends declared for the year that is approved after the reporting date are disclosed as a subsequent event.

3-25-4 Treasury stock

Equity instruments of the Group which are acquired by the Group or any of its su

bsidiaries are deducted from its equity and recorded at acquisition cost, including transaction costs. Consideration received on the sale or issuance of the Group's own equity instruments is recognized directly in equity.

3-26 Earnings per share

Basic and diluted earnings per share are computed by dividing net income by the weighted-average number of shares of common stock outstanding during the year.

3-27 Accounting basis for trust accounts

The Group separates trust properties from proprietary properties in accordance with the Supervisory Regulations on Financial Investment Business. The Group recognizes funds lent or borrowed to trust accounts as accounts receivables or account payables, respectively. The Group recognizes trust commissions earned from trust accounts as income from trust operations. When a loss is incurred on a trust account that includes a guarantee of principal repayment, the corresponding loss is recognized as a loss from trust operations.

3-28 Lease accounting

In accordance with KIFRS 1116, the Group applies a single recognition and measurement approach for all leases, except for leases of low-value assets. . KIFRS 1116 provides guidance on specific transition requirements and practical expedients that an entity may apply.

The Group recognized right-of-use assets and lease liabilities for those leases previously classified as operating leases, except leases of low-value assets . The right-of-use assets for most leases were recognized based on the carrying amount as if the standard had always been applied, apart from the use of incremental borrowing rate at the date of initial application.. In some leases, the right-of-use assets were recognized based on the amount equal to the lease liabilities, adjusted for any related prepaid and accrued lease payments previously recognized. Lease liabilities were recognized based on the present value of the remaining lease payments

ts, discounted using the incremental borrowing rate at the date of initial application.

The Group also applied the available practical expedients wherein it:

- Used a single discount rate to a portfolio of leases with reasonably similar characteristics
- Relied on its assessment of whether leases are onerous immediately before the date of initial application
- Applied the short-term leases exemptions to leases with lease term that ends within 12 months of the date of initial application
- Excluded the initial direct costs from the measurement of the right-of-use asset at the date of initial application
- Used hindsight in determining the lease term where the contract contained options to extend or terminate the lease

3-29 Merchant banking accounts

As permitted by the Restructuring of Financial Institutions Act, the Group may continue its merchant banking operations, including business affairs of bill management accounts, until the existing contracts acquired from Korea International Merchant Bank upon merger are terminated.

Significant accounting policies applied to the Group's merchant banking operations are summarized as follows:

3-29-1 Revenue recognition on discounted notes

Interest income on discounted notes is accrued over the term of the notes. Income from the sale of the discounted notes is recognized at the date of sale based on the difference between the purchase and sales prices of the notes, adjusted for interest earned during the holding period.

3-29-2 Cash Management Accounts (CMA)

The Group recognizes interest income from CMA investments and interest expense from CMA deposits as other income and other expenses, respectively.

3-30 Interest income and interest expense

The Group recognizes interest income and expense using the effective interest method by the passage of time.

The effective interest method is a method of calculating the amortized cost of a financial asset or a financial liability (or group of financial assets or financial liabilities) and of allocating the interest income or interest expense over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash payments or receipts through the expected life of the financial instrument or, when appropriate, a shorter period to the net carrying amount of the financial asset or financial liability. The Group estimates cash flows considering all contractual terms of the financial instrument but do not consider future credit losses. The cash flows include all fees and points paid or received by the Group including transaction costs, and all other premiums or discounts.

If it is probable that interest income arising from a financial asset will flow to the Group, the interest income is recognized as income when the Group receives interest payments. For the impaired loans and receivable that are individually assessed, the Group recognizes the adjustment as interest income if recoverability of the assets subsequently increases.

3-31 Fee and commission income

The Group earns fees and commissions income from a diverse range of services it provides to its customers. Fee income, which is part of the effective interest rate of a financial instrument, is adjusted to an effective interest rate and recognized as interest income.

Under the new KIFRS 1115, the commission income charged by providing service

s is recognized by applying a five-stage revenue recognition model (Identification of a contract with a customer → Identification of performance obligations in the contract → Determination of the transaction price → Allocation of the transaction price to the separate performance obligations in the contract → Recognition of revenue upon satisfying the performance obligations) to all of its contracts with customers.

3-32 Dividend income

Dividend income is recognized when the Group's right to receive the payment is established.

3-33 Transaction under common control

The Group conducted accounting treatment of transactions under common control based on book value. Therefore, the Group recognized (eliminated) asset, liability and capital as at merger and spinoff date as book value and didn't recognize transaction gain (loss).

3-34 New and amended standards and interpretations

The nature and the impact of each new and amended standards and interpretations are described below:

3-34-1 Amendments to KIFRS 1107, KIFRS 1109 and KIFRS 1039 Interest Rate Benchmark Reform

The amendments to KIFRS 1109 and KIFRS 1039 Financial Instruments: Recognition and Measurement provide a number of reliefs, which apply to all hedging relationships that are directly affected by interest rate benchmark reform. A hedging relationship is affected if the reform gives rise to uncertainty about the timing and/or amount of benchmark-based cash flows of the hedged item or the hedging instrument. These amendments had no material impact on the consolidated financial statements of the Group.

3-34-2 KIFRS 1103 Definition of a business

The amendment to KIFRS 1103 Business Combinations clarifies that to be considered a business, an integrated set of activities and assets must include, at a minimum, an input and a substantive process that, together, significantly contribute to the ability to create output. Furthermore, it clarifies that a business can exist without including all of the inputs and processes needed to create outputs. These amendments had no material impact on the consolidated financial statements of the Group.

3-34-3 Amendments to KIFRS 1001 and KIFRS 1008 Definition of Material

The amendments provide a new definition of material that states, “ information is material if omitting, misstating or obscuring it could reasonably be expected to influence decisions that the primary users of general purpose financial statements make on the basis of those financial statements, which provide financial information about a specific reporting entity.” The amendments clarify that materiality will depend on the nature or magnitude of information, either individually or in combination with other information, in the context of the financial statements. A misstatement of information is material if it could reasonably be expected to influence decisions made by the primary users. These amendments had no material impact on the consolidated financial statements of the Group.

3-34-4 Conceptual Framework for Financial Reporting(2018)

The Conceptual Framework is not a standard, and none of the concepts therein override the concepts or requirements in any standard. The purpose of the Conceptual Framework is to assist the Accounting Standards Board in enacting and amending KIFRS, to help preparers develop consistent accounting policies where there is no applicable standard in place and to assist all parties to understand and interpret the standards.

The revised Conceptual Framework includes some new concepts, updated definitions and recognition criteria for assets and liabilities and clarifies some important concepts. These amendments had no material impact on the consolidated financial statements of the Group.

3-34-5 Amendments to KIFRS 1116 Covid-19 Related Rent Concessions

The amendments provide relief to lessees from applying KIFRS 1116 guidance on lease modification accounting for rent concessions arising as a direct consequence of the Covid-19 pandemic. As a practical expedient, a lessee may elect not to assess whether a Covid-19 related rent concession from a lessor is a lease modification. A lessee that makes this election accounts for any change in lease payments resulting from the Covid-19 related rent concession the same way it would account for the change under KIFRS 1116 if the change were not a lease modification. This amendment had no material impact on the consolidated financial statements of the Group.

3-35 Standards issued but not yet effective are as follow:

The standards and interpretations that are issued, but not yet effective, up to the date of issuance of the Group's consolidated financial statements are disclosed below.

3-35-1 Amendments to KIFRS 1001: Classification of Liabilities as Current or Non-current

Amendments to paragraphs 69 to 76 of KIFRS 1001 specify the requirements for classifying liabilities as current or non-current. The amendments clarify:

- What is meant by a right to defer settlement
- That a right to defer must exist at the end of the reporting period
- That classification is unaffected by the likelihood that an entity will exercise its deferral right

- That only if an embedded derivative in a convertible liability is itself an equity instrument would the terms of a liability not impact its classification

The amendments are effective for annual reporting periods beginning on or after January 1, 2023 and must be applied retrospectively. The Group is currently assessing the impact the amendments will have on current practice and whether existing loan agreements may require renegotiation.

3-35-2 Reference to the Conceptual Framework ? Amendments to KIFRS 1103

The amendments are intended to replace a reference to the Framework for the Preparation and Presentation of Financial Statements, issued in 1989, with a reference to the Conceptual Framework for Financial Reporting issued in March 2018 without significantly changing its requirements. An exception to the recognition principle of KIFRS 1103 was also added to avoid the issue of potential 'day 2' gains or losses arising for liabilities and contingent liabilities that would be within the scope of KIFRS 1037 or KIFRS 2121 Levies, if incurred separately. At the same time, the Board decided to clarify existing guidance in KIFRS 1103 for contingent assets that would not be affected by replacing the reference to the Framework for the Preparation and Presentation of Financial Statements. The amendments are effective for annual reporting periods beginning on or after January 1, 2022 and apply prospectively.

3-35-3 Property, Plant and Equipment: Proceeds before Intended Use – Amendments to KIFRS 1016

The amendments prohibit entities deducting from the cost of an item of property, plant and equipment, any proceeds from selling items produced while bringing that asset to the location and condition necessary for it to be capable of operating in the manner intended by management. Instead, an entity recognizes the proceeds from selling such items, and the costs of producing those items, in profit or loss.

The amendment is effective for annual reporting periods beginning on or after January 1, 2022 and must be applied retrospectively to items of property, plant and equipment made available for use on or after the beginning of the earliest period presented when the entity first applies the amendment. The amendments are not expected to have a material impact on the Group.

3-35-4 Onerous Contracts Costs of Fulfilling a Contract Amendments to KIFRS 1037

The amendments specify which costs an entity needs to include when assessing whether a contract is onerous or loss-making. The amendments apply a “ directly related cost approach” . The costs that relate directly to a contract to provide goods or services include both incremental costs and an allocation of costs directly related to contract activities. General and administrative costs do not relate directly to a contract and are excluded unless they are explicitly chargeable to the counterparty under the contract. The amendments are effective for annual reporting periods beginning on or after January 1, 2022. The Group will apply these amendments to contracts for which it has not yet fulfilled all its obligations at the beginning of the annual reporting period in which it first applies the amendments.

3-35-5 KIFRS 1101 First-time Adoption of International Financial Reporting Standards – Subsidiary as a first-time adopter

The amendment permits a subsidiary that elects to apply paragraph D16(1) of KIFRS 1101 to measure cumulative translation differences using the amounts reported by the parent, based on the parent’s date of transition to KIFRS. This amendment is also applied to an associate or joint venture that elects to apply paragraph D16(1) of KIFRS 1101. The amendment is effective for annual reporting periods beginning on or after January 1, 2022 with earlier adoption permitted.

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3-35-6 KIFRS 1109 Financial Instruments ? Fees in the ' 10 per cent' test for derecognition of financial liabilities

The amendment clarifies the fees that an entity includes when assessing whether the terms of a new or modified financial liability are substantially different from the terms of the original financial liability. These fees include only those paid or received between the borrower and the lender, including fees paid or received by either the borrower or lender on the other's behalf. An entity applies the amendment to financial liabilities that are modified or exchanged on or after the beginning of the annual reporting period in which the entity first applies the amendment.

The amendment is effective for annual reporting periods beginning on or after January 1, 2022 with earlier adoption permitted. The Group will apply the amendments to financial liabilities that are modified or exchanged on or after the beginning of the annual reporting period in which the entity first applies the amendment. The amendments are not expected to have a material impact on the Group.

3-35-7 KIFRS 1041 Agriculture ? Taxation in fair value measurements

The amendment removes the requirement in paragraph 22 of KIFRS 1041 that entities exclude cash flows for taxation when measuring the fair value of assets within the scope of KIFRS 1041. An entity applies the amendment prospectively to fair value measurements on or after the beginning of the first annual reporting period beginning on or after January 1, 2022 with earlier adoption permitted. The amendments are not expected to have a material impact on the Group.

3-36 Consolidated Comprehensive Income Statement Account Reclassification

The Group reclassified general and administrative expenses and other operating income and losses, that had been recognized as of December 31, 2019, as commission income and expense. The consolidated statements of comprehensive income for comparative purpose of the Group as of December 31, 2019 were restated and

d there was no impact on the net assets or net income of the Group as of December 31, 2019. Details of the impact on comprehensive income as of December 31, 2019 due to account reclassification is as follows (Korean won in millions):

Classification	Amount before restatement	Amount changes	Amount after restatement
Net Income	2,097,147	(105,678)	1,991,469
Fees and commission – income	3,034,355	(19,294)	3,015,061
Fees and commission – expense	(937,208)	(86,384)	(1,023,592)
General administration fee	(4,174,417)	67,396	(4,107,021)
Other operating income	900,607	(4,093)	896,514
Other operating expense	(1,890,213)	42,375	(1,847,838)
Operating Income	3,258,680	–	3,258,680

3-37 Correction of prior period errors

Upon early settlement of currency forwards the Group presented the gross amount of original transactions and counter-transactions until the maturity of the original contract, however the Group restated its comparative consolidated financial statements to show the net amount. The impact of the change in presentation of the currency forwards on the consolidated financial statements for 2019 and 2018 are as follows:

<December 31, 2019>

Description	Before Restatement	After Restatement (*)	Restated Amount
Financial assets measured at FVPL	32,398,705	32,359,657	(39,048)
Derivative assets held-for-trading	5,560,562	5,521,514	(39,048)
Total Assets	421,506,147	421,467,099	(39,048)
Financial liabilities measured at FVPL	5,476,437	5,437,389	(39,048)
Derivative liabilities held-for-trading	4,955,365	4,916,317	(39,048)
Total Liabilities	392,521,374	392,482,326	(39,048)
Total liabilities and equity	421,506,147	421,467,099	(39,048)
Gains on financial instruments at FVPL	18,896,104	18,650,852	(245,252)
Loss on financial instruments at FVPL	17,410,975	17,165,723	(245,252)

(*) The amendments do not affect consolidated net income and consolidated other

r comprehensive income and consolidated cash flows.

<December 31, 2018>

Description	Before Restatement	After Restatement (*)	Restated Amount
Financial assets measured at FVPL	26,149,112	26,103,298	(45,814)
Derivative assets held-for-trading	4,342,755	4,296,941	(45,814)
Total Assets	385,008,620	384,962,806	(45,814)
Financial liabilities measured at FVPL	4,693,618	4,647,804	(45,814)
Derivative liabilities held-for-trading	4,443,002	4,397,188	(45,814)
Total Liabilities	357,900,160	357,854,346	(45,814)
Total liabilities and equity	385,008,620	384,962,806	(45,814)
Gains on financial instruments at FVPL	13,861,856	13,698,497	(163,359)
Loss on financial instruments at FVPL	13,601,928	13,438,569	(163,359)

(*) The amendments do not affect consolidated profit or loss and other comprehensive income and consolidated cash flows.

4. Significant judgments and accounting estimates

For applying accounting policies of the Group's consolidated financial statements, management are required to make judgments, estimates and assumptions that affect the amount of assets and liabilities which are difficult to identify through other resources. The estimates and assumptions are based on the other factors considered that they are related to historical experience. Actual results may differ from these estimations.

Management reviews these estimates and assumptions regularly. The effect of a change in an accounting estimate is recognized in profit or loss in the period of the change, if the change affects that period only and the effect of a change in an accounting estimate is recognized in profit or loss in the period of the change and the future periods, if the change affects both.

In the process of applying the Group's accounting policies, management has made the following judgments that have a significant effect on the amounts recognized in the consolidated financial statements.

4-1 Fair value of financial instruments

Where the fair values of financial assets and financial liabilities recorded on the statement of financial position cannot be derived from active markets, they are determined using a variety of valuation techniques that include the use of mathematical models. The inputs to these models are derived from observable market data where possible, but where observable market data is not available, a degree of judgment is required to establish fair values. The judgments include considerations of liquidity and model inputs such as volatility for longer dated derivatives and discount rates, prepayment rates and default rate assumptions for asset backed securities.

4-2 Impairment losses on financial assets

The Group recognizes impairment losses on debt instruments, lease receivables, contract assets, loan commitment, and financial guarantee contracts that were accounted for at amortized cost, or FVOCI, based on the expected credit loss (ECL) impairment model using a three-stage model for 12-month expected credit losses, or lifetime expected credit losses based on changes in credit risk since initial recognition of financial assets.

Classification		Loss allowance
STAGE 1	Credit risk on a financial instrument has not increased significantly since initial recognition.	12-month ECL: Expected credit losses that result from default events that are possible within 12 months after the reporting date
STAGE 2	Credit risk on a financial instrument has increased significantly since initial recognition.	Lifetime ECL: Expected credit losses that result from all possible default events over the expected life of the financial instrument
STAGE 3	Credit-impaired	

The cumulative changes in lifetime expected credit losses since initial recognition are recognized as loss allowance for a financial asset that is considered credit-impaired at initial recognition.

4-3 Provision for severance and retirement benefits

The cost of providing benefits under the defined benefit plans is determined separately for each plan using the projected unit credit method. Actuarial assumptions were made for the discount rate, the overall expected rates of return on assets, and an increase in the future pay rate. Severance and retirement benefits include significant uncertainties in the estimates due to the long duration of the period.

4-4 Impairment of non-financial assets

The Group assesses at the end of the reporting period whether there is any indication that a non-financial assets may be impaired. The Group tests an intangible a

asset with an indefinite useful life for impairment annually or if any such indication exists. The Group tests an intangible asset with definite useful life for impairment if any such indication exists. Management estimates future cash flow associated with an asset or a cash-generating unit, and selects the adequate discount rate to compute present value of future cash flow.

4-5 Income taxes

Different taxation laws that the Group's foreign subsidiaries are exposed to require judgment in determining the amount of tax expenses that can be recognized. In addition, there has been various transactions and tax accounting methods which have made computing the final tax expenses for the period uncertain. The contingent liability from any future tax assessments is based on the estimates of the likelihood of additional taxes imposed and has been included in the Group's consolidated financial statements for the current period. When the finalized tax expense assessments are different from the appropriated amounts, the differences, if any, are recognized in current deferred tax assets, liabilities, and expenses for the period.

5. Significant judgments and accounting estimates

The following standards are applied in measuring the fair value of financial assets and financial liabilities

- a. Financial assets and financial liabilities traded in active markets at the reporting date is based on their quoted market price or dealer price quotations (bid price for long positions and ask price for short positions), without any deduction for transaction costs.
- b. For all other financial instruments not traded in an active market, the fair value is determined by using appropriate valuation techniques. Valuation techniques include the discounted cash flow method, comparison to similar instruments for which market observable prices exist, options pricing models, credit models and other relevant valuation models. These techniques incorporate the Group's estimate of assumptions that a market participant would make when valuing the instruments. Valuation techniques which provide reliable estimates on market-to-market prices are applied.
- c. When determining fair value by the use of valuation techniques, comparison of current market transaction of another instrument that is substantially the same to the financial instrument needs to be objectively substantiated or inclusion of variables in the marketable data must be performed. Not all the significant market variables are observable and therefore in determining fair value, reasonable estimates or assumptions are required.
- d. 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, which are measured at cost, will be accounted for using the cost method.

5-1 Fair value hierarchy of financial instruments

The fair value hierarchy of financial assets and liabilities as of December 31, 2020 and December 31, 2019 are as follows (Korean won in millions):

<December 31, 2020>

Classification	Fair Value Hierarchy			Total
	Level 1	Level 2	Level 3	
Financial assets:				
Financial assets held-for-trading				
Debt securities	4,092,184	18,309,516	5,298,892	27,700,592
Equity securities	253,951	33,723	1,178,769	1,466,443
Derivative assets held-for-trading	85,338	10,057,915	646,350	10,789,603
Loans	—	—	1,492,111	1,492,111
Others	—	—	1,685,296	1,685,296
Subtotal	4,431,473	28,401,154	10,301,418	43,134,045
Financial assets designated at FVOCI:				
Debt securities	10,601,136	24,282,196	—	34,883,332
Equity securities	471,346	—	810,710	1,282,056
Subtotal	11,072,482	24,282,196	810,710	36,165,388
Derivative assets used for hedging	—	141,311	152	141,463
Merchant banking accounts asset	—	3,465,306	—	3,465,306
Total	15,503,955	56,289,967	11,112,280	82,906,202
Financial liabilities:				
Financial liabilities measured at FVTPL				
Derivative liabilities held-for-trading	105,270	9,423,962	1,165,337	10,694,569
Securities sold	165,661	—	—	165,661
Subtotal	270,931	9,423,962	1,165,337	10,860,230
Financial liabilities designated as measured at FTVPL	208,010	1,515,057	8,079,634	9,802,701
Derivative liabilities used for hedging	—	34,737	—	34,737
Total	478,941	10,973,756	9,244,971	20,697,668

<December 31, 2019>

Classification	Fair Value Hierarchy			Total
	Level 1	Level 2	Level 3	
Financial assets:				
Financial assets held-for-trading				
Debt securities	3,724,700	15,467,847	4,866,007	24,058,554
Equity securities	117,195	23,591	878,956	1,019,742
Derivative assets held-for-trading	65,631	4,865,139	590,744	5,521,514
Loans	–	–	803,661	803,661
Others	–	–	956,186	956,186
Subtotal	3,907,526	20,356,577	8,095,554	32,359,657
Financial assets designated at FVOCI:				
Debt securities	15,818,539	20,962,946	–	36,781,485
Equity securities	378,466	–	820,109	1,198,575
Subtotal	16,197,005	20,962,946	820,109	37,980,060
Derivative assets used for hedging	–	66,893	1,232	68,125
Merchant banking accounts asset	–	3,255,106	–	3,255,106
Total	20,104,531	44,641,522	8,916,895	73,662,948
Financial liabilities:				
Financial liabilities measured at FVTPL				
Derivative liabilities held-for-trading	103,776	4,227,386	585,155	4,916,317
Securities sold	330,086	190,986	–	521,072
Subtotal	433,862	4,418,372	585,155	5,437,389
Financial liabilities designated as measured at FTVPL	231,750	2,580,851	8,760,680	11,573,281
Derivative liabilities used for hedging	–	26,987	528	27,515
Total	665,612	7,026,210	9,346,363	17,038,185

The Group uses the following hierarchy for determining and disclosing the fair value of financial instruments by valuation technique:

- a. Level 1: Quoted (unadjusted) prices in active markets for similar assets or liabilities
- b. Level 2: Other techniques for which all inputs which have a significant effect on the recorded fair value are observable, either directly or indirectly

- c. Level 3: Techniques which use inputs which have a significant effect on the recorded fair value that are not based on observable market data

Fair value, valuation method, and input variables used to measure fair value of financial instruments classified as fair value hierarchy Level 2 as of December 31, 2020 and 2019 are as follows (Korean won in millions):

<December 31, 2020>

Classification	Fair value	Valuation method	Input variable
Financial assets:			
Financial assets measured at FVTPL			
Debt securities	18,309,516	Black-Scholes model, Hull-White 1 factor model, DCF model, Gaussian 1 factor model, Net asset value model, etc.	Volatility, Discount rate, Stock price, exchange rate, interest rate, CDS premium, price of underlying asset such as bond, stock, etc.
Equity securities	33,723	Hull & White Monte Carlo Simulation	Discount rate, etc.
Derivative assets held-for-trading	10,057,915	Black-Scholes model, Hull-White 1 factor model, Black model, DCF Model, Gaussian 1 factor model, etc.	Volatility, discount rate, stock price, exchange rate, interest rate, CDS premium, yield curve of swap, volatility of swaption, yield curve of currency etc.
Subtotal	28,401,154		
Financial assets measured at FVOCI			
Debt securities	24,282,196	DCF model	Discount rate, etc.
Derivative assets used for hedging	141,311	Hull-White 1 factor model	Exchange rate, yield curve of swap, volatility of swaption, yield curve of currency,
Merchant banking account asset	3,465,306	DCF model	Discount rate
Total	56,289,967		
Financial liabilities :			
Financial liabilities measured at FVTPL			
Derivative liabilities held-for-trading	9,423,962	Black-Scholes model, Hull-White 1 factor model, DCF model, Black model, Gaussian 1 factor model, etc.	Volatility, discount rate, stock price, exchange rate, interest rate, CDS premium, yield curve of swap, volatility of swaption, yield curve of currency etc.
Financial liabilities designated as measured at FVTPL	1,515,057	Black-Scholes model, Hull-White 1 factor model, DCF model, Gaussian 1 factor model, etc.	Yield curve of KRW swap, volatility of KRW swaption, discount rate, stock price, exchange rate, interest rate, CDS premium etc.
			Exchange rate, discount rate, yield

Classification	Fair value	Valuation method	Input variable
Derivative liabilities used for hedging	34,737	Hull-White 1 factor model	curve of swap, yield curve of currency
Total	10,973,756		

<December 31, 2019>

Classification	Fair value	Valuation method	Input variable
Financial assets:			
Financial assets measured at FVTPL			
Debt securities	15,467,847	Black-Scholes model, Hull-White 1 factor model, DCF model, Gaussian 1 factor model, Net asset value model, etc.	Volatility, Discount rate, Stock price, exchange rate, interest rate, CDS premium, price of underlying asset such as bond, stock, etc.
Equity securities	23,591	Hull & White Monte Carlo Simulation	Discount rate, etc.
Derivative assets held-for-trading	4,865,139	Black-Scholes model, Hull-White 1 factor model, Black model, DCF Model, Gaussian 1 factor model, etc.	Volatility, discount rate, stock price, exchange rate, interest rate, CDS premium, yield curve of swap, volatility of swaption, yield curve of currency etc.
Subtotal	20,356,577		
Financial assets measured at FVOCI			
Debt securities	20,962,946	DCF model	Discount rate, etc.
Derivative assets used for hedging	66,893	Hull-White 1 factor model	Exchange rate, yield curve of swap, volatility of swaption, yield curve of currency,
Merchant banking account asset	3,255,106	Net asset method	Price of underlying asset such as bond, stock, etc.
Total	44,641,522		
Financial liabilities :			
Financial liabilities measured at FVTPL			
Derivative liabilities held-for-trading	4,227,386	Black-Scholes model, Hull-White 1 factor model, DCF model, Black model, Gaussian 1 factor model, etc.	Volatility, discount rate, stock price, exchange rate, interest rate, CDS premium, yield curve of swap, volatility of swaption, yield curve of currency etc.
Securities sold	190,986	DCF model.	Discount rate etc.
Subtotal	4,418,372		
Financial liabilities designated as measured at FVTPL	2,580,851	Black-Scholes model, Hull-White 1 factor model, DCF model, Gaussian 1 factor model, etc	Yield curve of KRW swap, volatility of KRW swaption, volatility, discount rate, stock price, exchange rate, interest rate, CDS premium etc.
Derivative liabilities used for hedging	26,987	Hull-White 1 factor model	Exchange rate, discount rate, yield curve of swap, yield curve of currency

Classification	Fair value	Valuation method	Input variable
Total	7,026,210		

Fair value, valuation method, input variables and significant unobservable input variables information used to measure fair value of financial instruments classified as fair value hierarchy Level 3 as of December 31, 2020 and 2019 are as follows (Korean won in millions):

<December 31, 2020>

Classification	Fair value	Valuation method	Input variable	Significant unobservable inputs used in the fair value measurement	Range	The effect of changes in unobservable inputs on fair value
Financial assets :						
Financial assets measured at FVTPL						
Debt securities	5,298,892	Black-scholes model, Hull-White 1 factor model, DCF model, Gaussian 1 factor model, income approach LSMC, etc	Volatility, discount rate, stock price, exchange rate, interest rate, CDS premium, correlation, price and volatility of underlying assets, liquidating value, etc	Volatility, correlation, discount rate, liquidating value, Price of underlying assets, Volatility of underlying asset, etc	Volatility: 0~100% Correlation: -1~+1 Discount rate : 6.02~21.37% Liquidating value : 0 Volatility of underlying asset : 18.99	Volatility of underlying assets : Positive Correlation : Positive (Negative in some cases) Discount rate : Negative Liquidating value: Positive Fair value volatility increases when price of underlying assets volatility increases
Equity securities	1,178,769	Monte Carlo Simulation model, Hull-White 1 factor model, DCF model, etc.	stock price, interest rate, striking price, Growth rate, discount rate, liquidating value, etc	Volatility, Growth rate, Discount rate, liquidating value etc.	Volatility: 1~25% Growth rate: 0~1% Discount rate: 9.41~24.93% Liquidating value : 0	Volatility of underlying assets : Positive Growth rate : Positive Discount rate : Negative Liquidating value: Positive
Derivative assets held-for-trading	646,350	Black-Scholes model, Hull-White 1 factor model, Hull-White 2 factor model, DCF model, Gaussian 1 factor model, etc.	Volatility, discount rate, stock price, Exchange rate, interest rate, CDS premium, correlation, yield curve of swap, volatility of swap, correlation between valuation models, etc.	Volatility, correlation, etc	Volatility: 0~100% Correlation: -1~+1	Volatility: Positive Correlation: Positive (Negative in some cases)
Loans	1,492,111	LSMC, DCF model, etc.	Volatility and price of underlying asset, discount rate, etc.	Price of underlying asset, Volatility of underlying asset, Discount rate, etc.	Volatility: 17.61~45.68% Discount rate: 3.11~9.63%	Volatility: Positive Discount rate: Negative
Others	1,685,296	DCF model, etc.	Discount rate, etc.	Discount rate, etc.		
Subtotal	10,301,418					
Financial assets measured at						

Classification	Fair value	Valuation method	Input variable	Significant unobservable inputs used in the fair value measurement	Range	The effect of changes in unobservable inputs on fair value
FVOCI						
Equity securities	810,710	DCF model, utilization of market price, Asset approach, Income approach, Binominal trees, LSMC etc	Growth rate, discount rate, Volatility and price of underlying asset etc.	Growth rate, discount rate, Volatility of underlying asset	Growth rate: -1.0~2.0% Discount rate: 7.64~19.05% Volatility of underlying asset: 22.11~24.16%	Growth rate: Positive Discount rate: Negative Volatility of underlying asset: Positive
Derivative assets used for hedging	152	Hull-White 2 factor model	Swap yield curve, volatility of swaption, correlation between valuation models	Correlations between KRW IRS rates	99	Volatility of correlation because of products and market condition is positive or negative
Total	11,112,280					
Financial liabilities :						
Financial liabilities measured at FVTPL						
Derivative liabilities held-for-trading	1,165,337	Black-Scholes model, Hull-White 1 factor model, Hull-White 2 factor model, DCF model, Gaussian 1 factor model, etc.	Volatility, discount rate, stock price, Exchange rate, interest rate, CDS premium, correlation, Swap yield curve, volatility of swaption, correlation between valuation models, etc.	Volatility, correlation	Volatility: 0~100% Correlation: -1~+1	Volatility : Positive Correlation : Positive (negative in some cases)
Financial liabilities designated as measured at FVTPL	8,079,634	Black-Scholes model, Hull-White 1 factor model, DCF model, Gaussian 1 factor model, etc.	Volatility, discount rate, Stock price, exchange rate, interest rate, CDS premium, correlation, etc.	Volatility, correlation	Volatility: 0~100% Correlation: -1~+1	Volatility : Positive Correlation : Positive (negative in some cases)
Total	9,244,971					

<December 31, 2019>

Classification	Fair value	Valuation method	Input variable	Significant unobservable inputs used in the fair value measurement	Range	The effect of changes in unobservable inputs on fair value
Financial assets :						
Financial assets measured at FVTPL						
Debt securities	4,866,007	DCF model, Net asset value model, Binominal Model, Dividend discount model, Black-scholes model, Hull-White 1 factor model, Gaussian 1 factor model, etc.	Volatility, exchange rate, interest rate, CDS premium, correlation, discount rate, price and volatility of underlying assets, stock price, liquidating value	Volatility, correlation, liquidating value, etc.	Volatility: 0~100% Correlation: -1~+1 Liquidating value: 0	Volatility of underlying assets : Positive Correlation : Positive (Negative in some cases) Liquidating value: Positive
Equity securities	878,957	DCF model, Similar model, Comparison method, Dividend discount model, Binominal Model, Monte Carlo Simulation model, Hull-White 1 factor model etc.	Growth rate, discount rate, stock price, striking price, interest rate, liquidating value price and volatility of underlying assets etc.	Volatility, Growth rate, Discount rate, liquidating value etc.	Volatility: 1~35% Discount rate: 3.82~18.34% Growth rate: 0~1% Liquidating value: 0	Volatility: 1~35% Discount rate: 3.82~18.34% Growth rate: 0~1% Liquidating value: 0
		Black-Scholes model, Hull	Exchange rate, yield curve of swap, volatility of sw		Volatility: 0~100	

Classification	Fair value	Valuation method	Input variable	Significant unobservable inputs used in the fair value measurement	Range	The effect of changes in unobservable inputs on fair value
Derivative assets held-for-trading	590,744	Hull-White 1 factor model, Hull-White 2 factor model, DCF model, Gaussian 1 factor model, etc.	ap, correlation between valuation models, discount rate, stock price, CDS premium, correlation, etc.	Volatility, correlation	% Correlation: -1~+1	Volatility: Positive Correlation: Positive (Negative in some cases)
Loans	803,661	Binomial model, DCF model, etc.	Volatility and price of underlying asset, discount rate, etc.	Price of underlying asset, Volatility of underlying asset, Discount rate, etc.	Volatility: 13.14~46.36% Discount rate: 1.32~1.47%	Volatility: Positive Discount rate: Negative
Others	956,185	DCF model, etc.	Discount rate, etc.	Discount rate, etc.		
Subtotal	8,095,554					
Financial assets measured at FVOCI						
Equity securities	820,109	DCF model, comparison with similar business, Dividend discount model, Binomial model, Net asset value model, utilization of market price	Growth rate, liquidating value, Volatility and price of underlying asset, discount rate etc.	Growth rate, liquidating value, discount rate, Volatility of underlying asset	Growth rate: 0~3% Liquidating value: 0 Discount rate: 6.79~19.21% Volatility of underlying asset: 20.14~20.97%	Growth rate: Positive Liquidating value: Positive Discount rate: Negative Volatility of underlying asset: Positive
Derivative assets used for hedging	1,232	Hull-White 2 factor model	Exchange rate, Swap yield curve, volatility of swaption, yield curve of each currency, correlation between valuation models, etc.	Correlation between Dollar IRS rates	80	Volatility of correlation because of products and market condition is positive or negative
Total	8,916,895					
Financial liabilities :						
Financial liabilities measured at FVTPL						
Derivative liabilities held-for-trading	585,155	Black-Scholes model, Hull-White 1 factor model, Hull-White 2 factor model, DCF model, Gaussian 1 factor model, etc.	Exchange rate, Swap yield curve, volatility of swaption, currency yield curve, correlation between valuation models, discount rate, stock price, CDS premium, correlation, etc.	Volatility, correlation	Volatility: 0~100% Correlation: -1~+1	Volatility : Positive Correlation : Positive (negative in some cases)
Financial liabilities designated as measured at FVTPL	8,760,680	DCF model, Black-Scholes model, Hull-White 1 factor model, Gaussian 1 factor model, etc.	Volatility, discount rate, Stock price, exchange rate, interest rate, CDS premium, correlation, etc.	Volatility, Correlation	Volatility: 0~100% Correlation: -1~+1	Volatility : Positive Correlation : Positive (negative in some cases)
Derivative liabilities used for hedging	528	Hull-White 2 factor model	Exchange rate, Swap yield curve, volatility of swaption, currency yield curve, correlation between valuation models, etc.	Correlation between Won IRS rates	92.00~99.00	Volatility of correlation because of products and market condition is positive or negative
Total	9,346,363					

5-2 Changes in the fair value of Level 3

Changes in the fair value of Level 3 financial instruments for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

◁December 31, 2020▷

Classification	Financial assets measured at FVTPL				Financial assets measured at FVOCI		Financial liabilities designated as measured at FVTPL	Net derivative instruments	
	Debt securities	Equity securities	Loans	Others	Debt securities	Equity securities		Held-for-trading	Held-for-hedging
January 1, 2020	4,866,007	878,957	803,661	956,186	—	820,109	8,760,680	5,589	704
Increase due to business combination (*)	542,292	117,670	300,982	—	—	—	—	—	—
Net income	201,481	(45,286)	(20,393)	13,633	—	—	(178,563)	(286,796)	(552)
Other comprehensive income	—	—	—	—	—	(83,892)	(6,451)	—	—
Buy / Issue	3,014,362	1,145,293	1,627,616	6,145,146	—	79,278	6,983,182	(345,317)	—
Sell / Settlement	(3,426,618)	(890,468)	(1,219,755)	(5,429,669)	—	(4,785)	(7,479,214)	107,537	—
Others	101,368	(27,397)	—	—	—	—	—	—	—
December 31, 2020	5,298,892	1,178,769	1,492,111	1,685,296	—	810,710	8,079,634	(518,987)	152

◁December 31, 2019▷

Classification	Financial assets measured at FVTPL				Financial assets measured at FVOCI		Financial liabilities designated as measured at FVTPL	Net derivative instruments	
	Debt securities	Equity securities	Loans	Others	Debt securities	Equity securities		Held-for-trading	Held-for-hedging
January 1, 2019	3,068,173	277,870	520,029	883,079	4,615	769,191	8,683,309	(262,150)	(16,215)
Increase due to business combination (*)	1,346,942	343,877	72,014	—	—	—	—	—	—
Net income	(40,180)	24,699	(3,786)	16,744	1,206	—	837,440	607,939	16,919
Other comprehensive income	—	—	—	—	(821)	(42,703)	(11,008)	—	—
Buy / Issue	2,769,771	1,010,211	1,377,853	3,516,394	—	97,251	6,043,942	1,680	—
Sell / Settlement	(2,231,204)	(772,134)	(1,162,449)	(3,460,031)	(5,000)	(3,630)	(6,793,003)	(341,880)	—
Others	(47,495)	(5,566)	—	—	—	—	—	—	—
December 31, 2019	4,866,007	878,957	803,661	956,186	—	820,109	8,760,680	5,589	704

(*) It includes the changes of subsidiaries incorporated as of credit provision or purchase agreements.

5-3 Total gains or losses recognized in profit or loss

Total gains or losses recognized in profit or loss, and the line item in profit or loss in which those gains or losses are recognized for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

<December 31, 2020>

Classification	Total gains or losses recognized in profit or loss	The line item in profit or loss in which those gains or losses are recognized
Net gain or loss on financial instruments measured at FVTPL	(137,357)	(49,692)
Net gain or loss related to financial instruments designated as measured at FVTPL	178,563	177,400
Net gain or loss related to derivative instruments used for hedging	(552)	451
Total	40,654	128,159

<December 31, 2019>

Classification	Total gains or losses recognized in profit or loss	The line item in profit or loss in which those gains or losses are recognized
Net gain or loss on financial instruments measured at FVTPL	605,416	24,553
Net gain or loss related to financial instruments designated as measured at FVTPL	(837,440)	(112,713)
Net gain or loss related to derivative instruments used for hedging	16,919	9,984
Net gain or loss related to financial instruments measured at FVOCI	1,206	—
Total	(213,899)	(78,176)

5-4 Transfer into or out between the fair value hierarchy

There are no transfers into or out of level 3 of the fair value hierarchy for the years ended December 31, 2020 and 2019 .

5-5 Sensitivity

Sensitivity of the fair value measurement for the each level 3 financial instrument upon the changes in significant unobservable input, whose results are favorable and unfavorable changes in profit or loss or other comprehensive income or loss as of December 31, 2020 and 2019 are as follows (Korean won in millions):

<December 31, 2020>

Classification	Favorable changes	Unfavorable changes
Financial assets :		
Financial instruments measured at FVTPL		
Debt securities (*3)	38,025	(37,710)
Equity securities (*2)	13,296	(12,352)
Derivative assets held-for-trading (*1)	1,990	(2,062)
Loans (*4)	11,573	(11,336)
Subtotal	64,884	(63,460)
Financial assets measured at FVOCI		
Equity securities (*2)	22,295	(16,365)
Derivative assets used for hedging (*1)	–	(792)
Total	87,179	(80,617)
Financial liabilities :		
Financial liabilities measured at FVPL		
Derivative liabilities held-for-trading (*1)	5,303	(5,231)
Financial liabilities designated as measured at FVTPL	5,159	(5,159)
Total	10,462	(10,390)

<December 31, 2019>

Classification	Favorable changes	Unfavorable changes
Financial assets :		
Financial instruments measured at FVTPL		
Debt securities (*3)	37,530	(37,033)
Equity securities (*2)	7,801	(6,948)
Derivative assets held-for-trading (*1)	2,673	(2,746)
Loans (*4)	5,527	(5,164)
Subtotal	53,531	(51,891)
Financial assets measured at FVOCI		
Equity securities (*2)	123,160	(47,052)
Derivative assets used for hedging (*1)	78	(133)
Total	176,769	(99,076)
Financial liabilities :		
Financial liabilities measured at FVPL		
Derivative liabilities held-for-trading (*1)	3,013	(2,936)
Financial liabilities designated as measured at FVTPL	6,863	(6,863)
Subtotal	9,876	(9,799)
Derivative liabilities used for hedging (*1)	464	(1,656)
Total	10,340	(11,455)

(*1) 1) Correlation between rates of IRS of KRW, 2) Correlation between rates of KRW-USD IRS, 3) Correlation between KRW/USD exchange rate and rate of US D IRS, 4) Correlation between stock price index and individual stock, 5) Favorable and unfavorable changes are calculated by taking 10% fluctuation of correlation within the valuation model.

(*2) Changes in fair value of equity securities are calculated by changing growth rate (0.0~1.0%) and discount rate, which are main unobservable inputs.

(*3) Changes in fair value of debt securities are calculated by changing discount rate (-1.0~1.0%), which is the main unobservable input. Favorable changes and unfavorable changes in fair value of beneficiary securities are calculated by changing discount rate of lease cash flow (-1.0~1.0%) and growth rate of selling price of

real estate (-1.0~1.0%), under limited circumstances when it is consisted of real estate. However it is impossible to calculate sensitivity of beneficiary securities based on changes in inputs.

(*4) Changes in loans are calculated by changing the prices and volatility of underlying assets (-10.0~-10.0%, -10.0~10.0%, respectively), which are the main unobservable input.

5-6 Financial assets and liabilities that are not measured with fair values

The fair values of financial assets and liabilities whose fair values are not readily determinable as of December 31, 2020 and 2019 are as follows (Korean won in millions):

<December 31, 2020>

Classification	Levels of the fair value hierarchy			Total
	Level 1	Level 2	Level 3	
Financial assets:				
Cash and due from banks	2,226,065	25,303,750	–	27,529,815
Securities measured at amortized cost	3,324,056	15,290,556	–	18,614,612
Loans measured at amortized cost	–	–	308,926,740	308,926,740
Others	–	–	12,892,923	12,892,923
Total	5,550,121	40,594,306	321,819,663	367,964,090
Financial liabilities:				
Deposits	–	43,104,066	253,493,893	296,597,959
Borrowings	–	9,222,459	17,242,896	26,465,355
Debentures	–	42,207,895	7,300,203	49,508,098
Merchant banking account liabilities	–	–	2,246,273	2,246,273
Others	–	–	26,778,970	26,778,970
Total	–	94,534,420	307,062,235	401,596,655

<December 31, 2019>

Classification	Levels of the fair value hierarchy			Total
	Level 1	Level 2	Level 3	
Financial assets:				
Cash and due from banks	2,342,687	21,376,613	–	23,719,300
Securities measured at amortized cost	2,295,199	14,758,218	6,328	17,059,745
Loans measured at amortized cost	–	–	283,031,997	283,031,997
Others	–	–	15,306,333	15,306,333
Total	4,637,886	36,134,831	298,344,658	339,117,375
Financial liabilities:				
Deposits	–	32,838,506	241,133,789	273,972,295
Borrowings	–	6,252,317	14,441,918	20,694,235
Debentures	–	41,431,802	2,801,883	44,233,685
Merchant banking account liabilities	–	–	2,088,517	2,088,517
Others	–	–	28,812,253	28,812,253
Total	–	80,522,625	289,278,360	369,800,985

Details of fair value, valuation technique, and inputs used to develop those measurements classified into level 2 assets and liabilities that are not measured at fair value as of December 31, 2020 and 2019 are as follows (Korean won in millions):

<December 31, 2020>

Classification	Fair value	Valuation method	Input variables
Financial assets :			
Cash and due from banks	25,319,172	DCF model, etc	Discount rate, credit and other spread, etc.
Securities measured at amortized cost	15,290,556	DCF model, etc	Discount rate
Total	40,609,728		

Classification	Fair value	Valuation method	Input variables
Financial liabilities :			
Deposits	43,104,066	DCF model, etc	Discount rate
Borrowings	9,222,459	DCF model, etc	Discount rate, other spread
Debentures	42,207,895	DCF model, etc	Discount rate, other spread, rate of inheritance bankruptcy
Total	94,534,420		

<December 31, 2019>

Classification	Fair value	Valuation method	Input variables
Financial assets :			
Cash and due from banks	21,376,613	DCF model, etc	Discount rate, credit and other spread, etc.
Securities measured at amortized cost	14,758,218	DCF model, etc	Discount rate
Total	36,134,831		
Financial liabilities :			
Deposits	32,838,506	DCF model, etc	Discount rate
Borrowings	6,252,317	DCF model, etc	Discount rate, other spread
Debentures	41,431,802	DCF model, etc	Discount rate, other spread, rate of inheritance bankruptcy
Total	80,522,625		

Fair value, valuation method, and input variables of financial instruments disclosed as fair value though it cannot be measured as fair value and the fair value hierarchy Level 3 as of December 31, 2020 and 2019 are as follows (Korean won in millions):

<December 31, 2020>

Classification	Fair value	Valuation method	Input variables
Financial assets :			
Amortized cost Loans measured at Amortized cost	308,926,740	DCF model etc.	Credit and other spread, rate of advanced redemption, discount rate, etc.
Others	12,892,923	DCF model etc.	Discount rate, etc.
Total	321,819,663		
Financial liabilities :			
Deposits	253,493,893	DCF model etc.	Other spread, rate of advanced redemption, discount rate
Borrowings	17,242,896	DCF model etc.	Other spread, discount rate
Debentures	7,300,203	DCF model etc.	Other spread, rate of inheritance bankruptcy, Discount rate, etc.
Merchant banking account liabilities	2,246,273	(*)	
Others	26,778,970	DCF model etc.	Discount rate, etc.
Total	307,062,235		

(*) The carrying amount is considered fair value without applying the DCF method because it is derived from various transactions and has a relatively short or no maturity

<December 31, 2019>

Classification	Fair value	Valuation method	Input variables
Financial assets :			
Securities measured at	6,328	DCF model	Discount rate
Amortized cost Loans measured at Amortized cost	283,031,997	DCF model etc.	Credit and other spread, rate of advanced redemption, discount rate, etc.
Others	15,306,333	DCF model etc.	Discount rate, etc.
Total	298,344,658		
Financial liabilities :			
Deposits	241,133,789	DCF model etc.	Other spread, rate of advanced redemption, discount rate
Borrowings	14,441,918	DCF model etc.	Other spread, discount rate
Debentures	2,801,883	DCF model etc.	Other spread, rate of inheritance bankruptcy, Discount rate, etc.
Merchant banking account liabilities	2,088,517	(*)	
Others	28,812,253	DCF model etc.	Discount rate, etc.
Total	289,278,360		

(*) The carrying amount is considered fair value without applying the DCF method because it is derived from various transactions and has a relatively short or no maturity

5-7 Deferred Day 1 loss

Changes in deferred Day 1 loss, for the years ended December 31, 2020 and 2019 are summarized as follows (Korean won in millions):

Classification	December 31, 2020	December 31, 2019
Beginning balance	(49,192)	(37,689)
Increase(decrease)	(136,343)	(75,851)
Profit or loss	77,717	64,348
Ending balance	(107,818)	(49,192)

5-8 Details of transferred financial assets that are not derecognized in entirety as of December 31, 2020 and 2019 are as follows (Korean won in millions):

<December 31, 2020>

Classification	Book value	Fair value
Assets:		
Financial assets measured at FVTPL (*)	5,664,048	5,664,048
Financial assets measured at FVOCI (*)	2,746,558	2,746,558
Securities measured at amortized cost (*)	581,617	601,707
Liabilities:		
Securities sold under repurchase agreements	7,283,399	7,256,385

(*) The leased financial assets at FVTPL and FVOCI and leased securities measured at amortized cost, of which related liabilities are not recognized, amounting to ₩50,221 million ₩1,053,479 million and ₩90,035 million, respectively, as of December 31, 2020, are included.

<December 31, 2019>

Classification	Book value	Fair value
Assets:		
Financial assets measured at FVTPL	3,761,403	3,761,403
Financial assets measured at FVOCI (*)	896,465	896,465
Securities measured at amortized cost (*)	183,742	187,918
Liabilities:		
Securities sold under repurchase agreements	4,182,414	4,181,092

(*) The leased financial assets at FVOCI and leased securities measured at amortized cost, of which related liabilities are not recognized, amounting to ₩423,964 million and ₩9,534 million, respectively, as of December 31, 2019, are included.

6. Fair value of financial instruments

Details of carrying amount and fair value of financial instruments as of December 31, 2020 and 2019 are as follows (Korean won in millions):

Classification	December 31, 2020		December 31, 2019	
	Book value	Fair value	Book value	Fair value
Financial assets:				
Cash and due from banks	27,529,815	27,529,815	23,719,300	23,719,300
Financial assets measured at FVTPL	43,134,045	43,134,045	32,359,657	32,359,657
Financial assets measured at FVOCI	36,165,388	36,165,388	37,980,060	37,980,060
Securities measured at amortized cost	18,376,657	18,614,612	16,854,622	17,059,745
Loans measured at amortized cost	308,791,815	308,926,740	282,305,770	283,031,997
Derivative assets used for hedging	141,463	141,463	68,125	68,125
Merchant banking account asset	3,465,306	3,465,306	3,255,106	3,255,106
Others	12,893,069	12,892,923	15,305,417	15,306,333
Total	450,497,558	450,870,292	411,848,057	412,780,323
Financial liabilities:				
Financial liabilities measured at FVTPL	10,860,230	10,860,230	5,437,389	5,437,389
Financial liabilities designated as measured at FVTPL	9,802,701	9,802,701	11,573,281	11,573,281
Deposits	295,509,614	296,597,959	272,794,314	273,972,295
Borrowings	26,494,316	26,465,355	20,699,402	20,694,235
Debentures	48,761,838	49,508,098	43,661,177	44,233,685
Derivative liabilities used for hedging	34,737	34,737	27,515	27,515
Merchant banking account liabilities	2,246,273	2,246,273	2,088,517	2,088,517
Others	26,777,313	26,778,970	28,826,794	28,812,253
Total	420,487,022	422,294,323	385,108,389	386,839,170

The following standards are applied in measuring the fair value of financial instruments

- a. Loans measured at Amortized cost : Expected cash flows, current market interest rates and discount rates including borrowers' credit risks are factors to calculate the fair value of loans. For lines of credit and loans that have a short term maturity (less than three months), it is assumed that the carrying amounts approximate to their fair value.
- b. Financial investment assets: The fair value of securities measured at amortized cost are as stated by the market, broker, or by credible sources. If none of the

information from these entities is usable, published market price of financial instruments with similar credit rating, maturity, and ROI is used to estimate the fair value.

c. Deposits : For deposits without an explicit maturity period including deposits with no interests, deposits that have a short term maturity (less than three months), and deposits with a floating rate readjustment period of less than three months, it is assumed that the carrying amounts approximate to their fair value. The estimated fair value of fixed interest bearing deposits is based on discounted cash flows using prevailing money-market interest rates for debts with similar credit risk and maturity.

d. Borrowings: For borrowings that have a short term maturity (less than three months) and borrowings with floating rate readjustment period of less than three months, it is assumed that the carrying amounts approximate to their fair value. The estimated fair value of fixed interest bearing borrowings is based on and discounted cash flows using prevailing money-market interest rates for debts with similar credit risk and maturity.

e. Debentures: For quoted debt issued, the fair values are determined based on quoted market prices. For those notes issued where quoted market prices are not available, a discounted cash flow model is used based on a current interest rate yield curve appropriate for the remaining term to maturity and credit spreads.

7. Categories of financial assets and financial liabilities

Categories of financial assets and financial liabilities as of December 31, 2020 and 2019 are as follows (Korean won in millions):

<December 31, 2020>

Classification	Financial assets measured at FVTPL	Financial assets measured at FVOCI	Financial assets measured at amortized cost	Derivatives for hedging	Total
Financial assets					
Cash and due from banks	-	-	27,529,815	-	27,529,815
Financial assets measured at FVTPL	43,134,045	-	-	-	43,134,045
Financial assets measured at FVOCI	-	36,165,388	-	-	36,165,388
Securities measured at amortized cost	-	-	18,376,657	-	18,376,657
Loans measured at amortized cost	-	-	308,791,815	-	308,791,815
Derivative assets used for hedging	-	-	-	141,463	141,463
Merchant banking account asset	3,465,306	-	-	-	3,465,306
Others	-	-	12,893,069	-	12,893,069
Total	46,599,351	36,165,388	367,591,356	141,463	450,497,558

Classification	Financial liabilities measured at FVTPL	Financial liabilities designated as measured at FVTPL	Financial liabilities measured at amortized cost	Derivatives for hedging	Total
Financial liabilities					
Financial liabilities measured at FVTPL	10,860,230	-	-	-	10,860,230
Financial liabilities designated as measured at FVTPL	-	9,802,701	-	-	9,802,701
Deposits	-	-	295,509,614	-	295,509,614
Borrowings	-	-	26,494,316	-	26,494,316
Debentures	-	-	48,761,838	-	48,761,838
Derivative liabilities used for hedging	-	-	-	34,737	34,737
Merchant banking account liabilities	-	-	2,246,273	-	2,246,273
Others	-	-	26,777,313	-	26,777,313
Total	10,860,230	9,802,701	399,789,354	34,737	420,487,022

<December 31, 2019>

Classification	Financial assets measured at FVTPL	Financial assets measured at FVOCI	Financial assets measured at amortized cost	Derivatives for hedging	Total
Financial assets					
Cash and due from banks	–	–	23,719,300	–	23,719,300
Financial assets measured at FVTPL	32,359,657	–	–	–	32,359,657
Financial assets measured at FVOCI	–	37,980,060	–	–	37,980,060
Securities measured at amortized cost	–	–	16,854,622	–	16,854,622
Loans measured at amortized cost	–	–	282,305,770	–	282,305,770
Derivative assets used for hedging	–	–	–	68,125	68,125
Merchant banking account asset	3,255,106	–	–	–	3,255,106
Others	–	–	15,305,417	–	15,305,417
Total	35,614,763	37,980,060	338,185,109	68,125	411,848,057

Classification	Financial liabilities measured at FVTPL	Financial liabilities designated as measured at FVTPL	Financial liabilities measured at amortized cost	Derivatives for hedging	Total
Financial liabilities					
Financial liabilities measured at FVTPL	5,437,389	–	–	–	5,437,389
Financial liabilities designated as measured at FVTPL	–	11,573,281	–	–	11,573,281
Deposits	–	–	272,794,314	–	272,794,314
Borrowings	–	–	20,699,402	–	20,699,402
Debentures	–	–	43,661,177	–	43,661,177
Derivative liabilities used for hedging	–	–	–	27,515	27,515
Merchant banking account liabilities	–	–	2,088,517	–	2,088,517
Others	–	–	28,826,794	–	28,826,794
Total	5,437,389	11,573,281	368,070,204	27,515	385,108,389

8. Offsetting financial assets and liabilities

8-1 Details of financial assets subject to offsetting, enforceable master netting arrangements and similar agreements as of December 31, 2020 and 2019 are as follows (Korean won in millions):

<December 31, 2020>

Classification	Gross amounts of recognized financial assets	Gross amounts of recognized financial liabilities offset	Net amounts of financial assets presented in the financial statements	Related amounts not off set in the statement of financial position		Net amount
				Financial instruments (*)	Cash collateral	
Derivatives	10,949,704	(135,661)	10,814,043	(8,364,658)	(1,218,095)	1,231,290
Securities lent	1,193,735	—	1,193,735	(1,193,735)	—	—
Bonds purchased under resale agreement	12,369,466	—	12,369,466	(12,369,466)	—	—
Unsettled spot exchanges	6,223,651	—	6,223,651	(6,218,704)	—	4,947
Domestic exchange settlement debts	26,352,865	(23,565,466)	2,787,399	—	—	2,787,399
Other accounts receivable	1,371,969	(626,147)	745,822	—	—	745,822
Total	58,461,390	(24,327,274)	34,134,116	(28,146,563)	(1,218,095)	4,769,458

<December 31, 2019>

Classification	Gross amounts of recognized financial assets	Gross amounts of recognized financial liabilities offset	Net amounts of financial assets presented in the financial statements	Related amounts not off set in the statement of financial position		Net amount
				Financial instruments (*)	Cash collateral	
Derivatives	5,520,778	(39,048)	5,481,730	(3,851,203)	(373,477)	1,257,050
Securities lent	433,498	—	433,498	(433,498)	—	—
Bonds purchased under resale agreement	11,837,603	—	11,837,603	(11,837,603)	—	—
Unsettled spot exchanges	9,656,526	—	9,656,526	(9,647,044)	—	9,482
Domestic exchange settlement debts	23,037,691	(21,407,571)	1,630,120	—	—	1,630,120
Other accounts						

Classification	Gross amounts of recognized financial assets	Gross amounts of recognized financial liabilities offset	Net amounts of financial assets presented in the financial statements	Related amounts not off set in the statement of financial position		Net amount
				Financial instruments (*)	Cash collateral	
receivable	462,118	(233,801)	228,317	–	–	228,317
Total	50,948,214	(21,680,420)	29,267,794	(25,769,348)	(373,477)	3,124,969

(*) The rights to offset exist only in case of default, insolvency or bankruptcy. Accordingly, the amounts are not offset in the statement of financial position as they do not meet the criteria for offsetting.

8-2 Details of financial liabilities subject to offsetting, enforceable master netting arrangements and similar agreements as of December 31, 2020 and 2019 are as follows (Korean won in millions):

<December 31, 2020>

Classification	Gross amounts of recognized financial liabilities	Gross amounts of recognized financial assets offset	Net amounts of financial liabilities presented in the financial statements	Related amounts not off set in the statement of financial position		Net amount
				Financial instruments (*)	Cash collateral	
Derivatives	10,614,633	(135,661)	10,478,972	(8,527,670)	(431,956)	1,519,346
Bonds sold under repurchase agreements	7,283,399	–	7,283,399	(7,283,399)	–	–
Unsettled spot exchanges	6,223,975	–	6,223,975	(6,218,777)	–	5,198
Domestic exchange settlement credit	27,654,736	(23,565,466)	4,089,270	(4,085,686)	–	3,584
Other accounts payable	1,367,681	(626,147)	741,534	–	–	741,534
Securities lent	165,661	–	165,661	(165,661)	–	–
Total	53,310,085	(24,327,274)	28,982,811	(26,281,193)	(431,956)	2,269,662

<December 31, 2019>

Classification	Gross amounts of recognized financial liabilities	Gross amounts of recognized financial assets offset	Net amounts of financial liabilities presented in the financial statements	Related amounts not off set in the statement of financial position		Net amount
				Financial instruments (*)	Cash collateral	
Derivatives	4,758,558	(39,048)	4,719,510	(3,977,089)	(70,563)	671,858
Bonds sold under repurchase agreements	4,182,414	—	4,182,414	(4,182,414)	—	—
Unsettled spot exchanges	9,651,691	—	9,651,691	(9,647,085)	—	4,606
Domestic exchange settlement credit	25,036,660	(21,407,571)	3,629,089	(3,624,430)	—	4,659
Other accounts payable	457,785	(233,801)	223,984	—	—	223,984
Securities lent	521,072	—	521,072	(521,072)	—	—
Total	44,608,180	(21,680,420)	22,927,760	(21,952,090)	(70,563)	905,107

(*) The rights to offset exist only in case of default, insolvency or bankruptcy. Accordingly, the amounts are not offset in the statement of financial position as they do not meet the criteria for offsetting.

9. Risk management

The Group is exposed to credit risk, liquidity risk, market risk and operational risk of its financial instruments. Risk management is the basic activities to use the Group's limited capital effectively under the rapidly changing financial circumstances. The ultimate goal of risk management is to maximize the Group's shareholder value with minimizing the sudden fluctuation of its income through a proper balance between risks and returns.

To keep the consistent risk management on a group level basis, the Group establishes and manages the group risk management policies and each of its subsidiaries also establishes its own risk management systems and policies suitable for the subsidiaries' industry through the risk committees and working-level councils under the group risk management policies. The Group identifies improvements by diagnosing the subsidiaries' risk management performance if necessary, and continuously enforces the subsidiaries' risk management activities to make them reflect the improvements.

The Group risk management committee is the top decision-making organization of the group risk management and has responsibilities to establish and monitor risk management strategies and policies, allowable risk limits and investment limits, and capital allocation, which are required to be managed on a group level basis. The subsidiaries' risk management committees (or board of directors) are responsible for its own risk management strategies, policies and monitoring. If necessary, the group risk management committee or group risk management execution committee can apply separate risk management standards considering distinct characteristics of each subsidiary.

9-1 Credit risk

9-1-1 Credit risk management

Credit risk is the risk that the Group will incur a loss because its customers' or counterparties' credit rating goes down or fail to discharge their contractual obligations. Credit risk is the highest risk exposed to the Group. Credit risk arises from on-balance and off-balance accounts including loans, financial guarantees, securities and derivatives. The purpose of managing credit risk is to control the relevant losses upon counterparties' default, for a certain period, within the allowable range.

The Group's group risk management committee and group risk management execution committee examines its credit risk on a regular basis. The Group continuously monitors whether credit limits set for each individual, corporation, borrower, subsidiary and major shareholder are complied and reviews the subsidiaries' asset quality. The Group also checks the status of change of risk exposure, residual limit, profitability, delinquency rate and change of loan loss provision, etc. at least on a quarterly basis.

The Group classifies expected loss and unexpected loss calculating the credit risk. The expected loss is assessed based on estimated LGD (Loss Given Default). The LGD is calculated by using EAD (Exposure at Default), estimated PD (Probability of Default), which is based on a historical default rate, and historical collection rate. The assessed expected loss is reflected on the interest rates on new or rolled over loans and loan loss provision. The unexpected loss, which means a potential volatility between estimate loss and actual loss, is estimated as a credit risk exposure of a portfolio using statistical models. The unexpected loss is used for the Group's internal management purpose.

9-1-2 Degree of exposure to credit risk

The maximum exposure to credit risk as of December 31, 2020 and 2019 are as follows. The following table shows the maximum exposure to credit risk for the items in the statement of financial position, including derivatives, by geography of counterparty and by industry before the effect of mitigation through the use of master netting and collateral agreements. Equity securities in financial assets measured at FVTPL and financial assets held-for-trading, financial assets measured at FVOCI are excluded (Korean won in millions):

Classification	December 31, 2020	December 31, 2019
On-balance-sheet items		
Due from banks	25,330,834	21,438,353
Financial assets measured at FVTPL		
Debt securities	18,471,744	16,160,946
Derivative assets measured at FVTPL	10,789,603	5,521,514
Loans	1,492,111	803,661
Others	1,685,297	956,186
Subtotal	32,438,755	23,442,307
Financial assets measured at FVOCI	34,883,332	36,781,485
Securities measured at amortized cost	18,376,657	16,854,622
Derivative assets used for hedging	141,463	68,125
Loans measured at amortized cost	308,791,815	282,305,770
Merchant banking account asset	3,465,306	3,255,106
Others	12,893,069	15,305,417
Total	436,321,231	399,451,185
Off-balance-sheet items		
Financial guarantees	2,156,627	2,791,478
Guarantee contracts	13,698,873	16,827,269
Commitment	116,526,573	116,288,162
Commitment to merchant banking account	950,000	955,000
Total	133,332,073	136,861,909

9-1-3 Collateral management and credit risk mitigation

Details of collateral management and credit risk mitigation as of December 31, 2020 and 2019 are as follows (Korean won in millions):

<December 31, 2020>

Classification	Impaired loan		Total
	Individual assessment	Collective assessment	
Guarantees	22,780	90,066	112,846
Deposit	105	8,590	8,695
Real estate	313,438	202,349	515,787
Securities	–	33	33
Movables and others	4,700	26,483	31,183
Total	341,023	327,521	668,544

<December 31, 2019>

Classification	Impaired loan		Total
	Individual assessment	Collective assessment	
Guarantees	17,375	92,448	109,823
Deposit	2,465	5,180	7,645
Real estate	328,689	209,167	537,856
Securities	–	78	78
Movables and others	11,526	12,834	24,360
Total	360,055	319,707	679,762

9-1-3-1 As of December 31, 2020 and 2019, financial assets that have collateral and do not recognize a loss allowance are ₩420,415 million and ₩1,022,413 million, respectively.

9-1-4 Credit risk exposure

9-1-4-1 Loans

As of December 31, 2020 and 2019 carrying amounts of debt securities by internal credit rating in accordance with the loss allowance measurement method are as follows (Korean won in millions):

<December 31, 2020>

Classification	12-month expected credit loss	Lifetime expected credit loss		Subject to the application of credit-impaired approach	Total
		Non credit-impaired loan	Credit-impaired loans		
Household loans					
Grade 1	106,946,346	16,670,047	–	–	123,616,393
Grade 2	5,905,988	2,200,039	–	–	8,106,027
Grade 3	44,967	124,832	289,698	–	459,497
Unrated (*)	1,566,888	359	6,940	–	1,574,187
Subtotal	114,464,189	18,995,277	296,638	–	133,756,104
Corporate loans					
Grade 1	101,002,672	2,089,254	–	–	103,091,926
Grade 2	54,871,473	6,326,103	–	–	61,197,576
Grade 3	133,741	2,045,943	826,794	1,362,101	4,368,579
Unrated (*)	264,578	–	11,239	–	275,817
Subtotal	156,272,464	10,461,300	838,033	1,362,101	168,933,898
Credit Card loans					
Grade 1	3,580,031	305,112	–	–	3,885,143
Grade 2	3,025,533	355,664	–	–	3,381,197
Grade 3	1,011	35,891	164,852	–	201,754
Subtotal	6,606,575	696,667	164,852	–	7,468,094
Total	277,343,228	30,153,244	1,299,523	1,362,101	310,158,096

<December 31, 2019>

Classification	12-month expected credit loss	Lifetime expected credit loss		Subject to the application of credit-impaired approach	Total
		Non credit-impaired loan	Credit-impaired loans		
Household loans					
Grade 1	92,270,987	19,394,142	–	–	111,665,129
Grade 2	5,225,136	2,250,346	–	–	7,475,482
Grade 3	86,768	191,592	280,454	–	558,814
Unrated (*)	1,165,801	–	3,344	–	1,169,145
Subtotal	98,748,692	21,836,080	283,798	–	120,868,570
Corporate loans					
Grade 1	89,823,589	3,250,480	–	–	93,074,069
Grade 2	52,159,969	5,980,577	–	–	58,140,546
Grade 3	38,204	1,781,158	1,077,131	851,956	3,748,449
Unrated (*)	66,571	–	3,205	–	69,776
Subtotal	142,088,333	11,012,215	1,080,336	851,956	155,032,840
Credit Card loans					
Grade 1	3,147,532	217,994	–	–	3,365,526
Grade 2	3,604,901	407,568	–	–	4,012,469
Grade 3	2,905	58,870	208,319	–	270,094
Subtotal	6,755,338	684,432	208,319	–	7,648,089
Total	247,592,363	33,532,727	1,572,453	851,956	283,549,499

(*) The amounts of items that are internally unrated

The above book amount does not reflect the loan origination deferred asset, provision for loss and present value discount.

The credit rating classification of the loans is as follows for the years ended December 31, 2020 and 2019.

<December 31, 2020>

Classification	Household loans	Corporate loans	SOHO
Grade 1	Less or equal to 1.53% of PD	Less or equal to 0.58% of PD	Less or equal to 2.06% of PD
Grade 2	Less or equal to 34.35% of PD	Less or equal to 13.69% of PD	Less or equal to 25.89% of PD
	From 34.35% to	From 13.69% to	From 25.89% to

Classification	Household loans	Corporate loans	SOHO
Grade 3	100% of PD	100% of PD	100% of PD

<December 31, 2019>

Classification	Household loans	Corporate loans	SOHO
Grade 1	Less or equal to 0.88% of PD	Less or equal to 0.57% of PD	Less or equal to 1.56% of PD
Grade 2	Less or equal to 20.34% of PD	Less or equal to 12.88% of PD	Less or equal to 19.62% of PD
Grade 3	From 20.34% to 100% of PD	From 12.88% to 100% of PD	From 19.62% to 100% of PD

9-1-4-2 Off-balance-sheet items

As of December 31, 2020 and 2019, exposures of off-balance-sheet items by internal credit rating in accordance with the loss allowance measurement method are as follows (Korean won in millions):

<December 31, 2020>

Classification	12 month expected credit loss	Lifetime expected credit losses		Total
		Non credit-impaired loans	Credit-impaired loans	
Financial guarantees				
Grade 1	1,617,314	93,930	–	1,711,244
Grade 2	413,478	27,308	–	440,786
Grade 3	4,597	–	–	4,597
Subtotal	2,035,389	121,238	–	2,156,627
Guarantee contracts				
Grade 1	9,762,223	528,103	–	10,290,326
Grade 2	2,557,372	439,826	–	2,997,198
Grade 3	981	368,396	41,972	411,349
Subtotal	12,320,576	1,336,325	41,972	13,698,873
Commitment				
Grade 1	95,005,024	5,637,196	–	100,642,220
Grade 2	12,443,723	2,930,428	–	15,374,151
Grade 3	6,252	354,444	46,110	406,806
Unrated (*)	103,396	–	–	103,396

Classification	12 month expected credit loss	Lifetime expected credit losses		Total
		Non credit-impaired loans	Credit-impaired loans	
Subtotal	107,558,395	8,922,068	46,110	116,526,573
Total	121,914,360	10,379,631	88,082	132,382,073

<December 31, 2019>

Classification	12 month expected credit loss	Lifetime expected credit losses		Total
		Non credit-impaired loans	Credit-impaired loans	
Financial guarantees				
Grade 1	1,914,183	112,082	–	2,026,265
Grade 2	728,453	36,580	–	765,033
Grade 3	–	180	–	180
Subtotal	2,642,636	148,842	–	2,791,478
Guarantee contracts				
Grade 1	12,173,238	702,454	–	12,875,692
Grade 2	2,792,550	811,468	–	3,604,018
Grade 3	5,683	283,938	57,938	347,559
Subtotal	14,971,471	1,797,860	57,938	16,827,269
Commitment				
Grade 1	92,354,880	7,054,934	–	99,409,814
Grade 2	12,528,911	3,379,729	–	15,908,640
Grade 3	3,227	333,045	84,457	420,729
Unrated (*)	547,821	1,158	–	548,979
Subtotal	105,434,839	10,768,866	84,457	116,288,162
Total	123,048,946	12,715,568	142,395	135,906,909

(*) The amounts of items that are internally unrated

The credit rating classification of the off-balance-sheet items is as follows for the years ended December 31, 2020 and 2019.

<December 31, 2020>

Classification	Household loans	Corporate loans	SOHO
Grade 1	Less or equal to 1.53% of PD	Less or equal to 0.58% of PD	Less or equal to 2.06% of PD
Grade 2	Less or equal to 34.35% of PD	Less or equal to 13.69% of PD	Less or equal to 25.89% of PD

Classification	Household loans	Corporate loans	SOHO
Grade 3	From 34.35% to 100% of PD	From 13.69% to 100% of PD	From 25.89% to 100% of PD

<December 31, 2019>

Classification	Household loans	Corporate loans	SOHO
Grade 1	Less or equal to 0.88% of PD	Less or equal to 0.57% of PD	Less or equal to 1.56% of PD
Grade 2	Less or equal to 20.34% of PD	Less or equal to 12.88% of PD	Less or equal to 19.62% of PD
Grade 3	From 20.34% to 100% of PD	From 12.88% to 100% of PD	From 19.62% to 100% of PD

9-1-5 Internal credit rating of debt securities

9-1-5-1 As of December 31, 2020 and 2019, the carrying amounts of debt securities by internal credit rating in accordance with the loss allowance measurement method are as follows (Korean won in millions):

<December 31, 2020>

Classification	12 month expected credit loss	Lifetime expected credit losses		Total
		Non credit-impaired loans	Credit-impaired loans	
Financial assets measured at FVOCI				
Grade 1	34,883,331	—	—	34,883,331
Subtotal	34,883,331	—	—	34,883,331
Financial assets measured at amortized cost				
Grade 1	18,386,747	—	—	18,386,747
Subtotal	18,386,747	—	—	18,386,747
Total	53,270,078	—	—	53,270,078

<December 31, 2019>

Classification	12 month expected credit loss	Lifetime expected credit losses		Total
		Non credit-impaired loans	Credit-impaired loans	
Financial assets measured at FVOCI				
Grade 1	36,781,485	–	–	36,781,485
Subtotal	36,781,485	–	–	36,781,485
Financial assets measured at amortized cost				
Grade 1	16,852,433	–	–	16,852,433
Grade 2	6,200	–	–	6,200
Subtotal	16,858,633	–	–	16,858,633
Total	53,640,118	–	–	53,640,118

The credit ratings of debt securities based on the internal rating used by Hana bank and credit ratings by external credit rating agencies are as follows.

Classification	Internal credit rating	Domestic rating agencies	Overseas rating agencies	
			Moody's	Fitch
Grade 1	A1 ~ A7	AAA ~ A-	Aaa ~ Baa2	AAA ~ BBB
Grade 2	B1 ~ B6	BBB+ ~ BB	Baa3 ~ B3	BBB- ~ B-
Grade 3	C1 ~ C3	BB- ~ B-	Caa1 ~ Caa3	CCC+ ~ CCC-

9-1-6 Credit risk concentration

9-1-6-1 Credit risk concentration in each major industry as of December 31, 2020 and 2019 are as follows (Korean won in millions):

Classification	Industry	December 31, 2020		December 31, 2019	
		Amounts	Ratio(%)	Amounts	Ratio(%)
On-balance-sheet items					
Due from banks	Financial services	25,330,834	100.0	21,438,353	100.0
Financial assets measured at FVTPL (*)	Financial services	10,625,681	53.2	8,640,878	50.9
	Manufacturing	1,865,222	9.3	2,082,357	12.3
	Public administration	4,120,474	20.6	3,597,827	21.2
	Construction	163,965	0.8	84,232	0.5
	Wholesale & retail	270,581	1.4	326,659	1.9
	Others	2,917,932	14.7	2,232,654	13.2
	Subtotal	19,963,855	100.0	16,964,607	100.0
	Financial services	16,615,268	47.6	15,945,324	43.4

Classification	Industry	December 31, 2020		December 31, 2019	
		Amounts	Ratio(%)	Amounts	Ratio(%)
Financial assets measured at FVOCI	Manufacturing	136,413	0.4	243,385	0.7
	Public administration	14,662,927	42.0	18,073,293	49.1
	Construction	284,603	0.8	235,700	0.6
	Wholesale & retail	43,101	0.1	26,463	0.1
	Others	3,141,019	9.1	2,257,320	6.1
	Subtotal	34,883,331	100.0	36,781,485	100.0
Securities measured at amortized cost	Financial services	9,121,248	49.6	9,363,839	55.6
	Manufacturing	34,546	0.2	46,351	0.3
	Public administration	5,103,812	27.8	3,923,302	23.3
	Construction	250,018	1.4	319,995	1.9
	Others	3,877,123	21.1	3,205,146	18.9
	Subtotal	18,386,747	100.1	16,858,633	100.0
	Allowance for credit loss	(10,090)	(0.1)	(4,011)	–
	Total	18,376,657	100.0	16,854,622	100.0
Loans measured at amortized cost	Household loans	133,933,246	43.4	120,868,570	42.8
	Credit card loans	7,468,094	2.4	7,648,089	2.7
	Corporate loans				
	Manufacturing	42,112,572	13.6	38,886,662	13.8
	Construction	3,595,727	1.2	3,615,878	1.3
	Wholesale & retail	18,997,088	6.2	17,415,816	6.2
	Financial services	21,879,009	7.1	23,911,270	8.5
	Real estate rental	38,768,504	12.6	37,422,613	13.3
	Others	43,403,856	13.9	33,780,601	11.8
	Subtotal	310,158,096	100.4	283,549,499	100.4
	Deferred loan fees	407,149	0.1	370,514	0.1
	Present value discount	(2,957)	–	(4,709)	–
	Provision for loss	(1,770,473)	(0.5)	(1,609,534)	(0.5)
	Subtotal	(1,366,281)	(0.4)	(1,243,729)	(0.4)
	Total	308,791,815	100.0	282,305,770	100.0
Merchant banking account	Financial services	991,046	28.6	1,259,136	38.7
	Manufacturing	49,903	1.4	262,366	8.1
	Wholesale & retail	–	–	19,928	0.6
	Real estate rental	829,705	23.9	489,496	15.0
	Others	1,594,652	46.1	1,224,180	37.6
	Subtotal	3,465,306	100.0	3,255,106	100.0
Total		410,811,798		377,599,943	
Off-balance-sheet items					
	Manufacturing	237,531	11.0	183,242	6.6
	Construction	47,538	2.2	7,351	0.3
	Wholesale & retail	66,786	3.1	84,663	3.0

Classification	Industry	December 31, 2020		December 31, 2019	
		Amounts	Ratio(%)	Amounts	Ratio(%)
Financial guarantees	Financial services	394,237	18.3	420,915	15.1
	Real estate rental	153,688	7.1	429,006	15.4
	Others	1,256,847	58.3	1,666,301	59.6
	Subtotal	2,156,627	100.0	2,791,478	100.0
Guarantee contracts	Household loans	57,352	0.4	57,504	0.3
	Manufacturing	7,911,867	57.8	8,621,432	51.2
	Construction	1,411,452	10.3	1,495,536	8.9
	Wholesale & retail	1,062,535	7.8	2,657,283	15.8
	Financial services	1,543,619	11.3	1,390,648	8.3
	Real estate rental	111,833	0.8	142,156	0.8
	Others	1,600,215	11.6	2,462,710	14.7
	Subtotal	13,698,873	100.0	16,827,269	100.0
Commitment	Household loans	53,212,610	45.7	50,137,089	43.1
	Manufacturing	25,645,138	22.0	29,169,631	25.1
	Construction	2,493,568	2.1	2,648,532	2.3
	Wholesale & retail	7,654,699	6.6	8,765,997	7.5
	Financial services	8,533,170	7.3	8,496,445	7.3
	Real estate rental	3,311,379	2.8	2,644,773	2.3
	Others	15,676,009	13.5	14,425,695	12.4
	Subtotal	116,526,573	100.0	116,288,162	100.0
Merchant banking account	Financial services	510,000	53.7	510,000	53.4
	Manufacturing	80,000	8.4	45,000	4.7
	Wholesale & retail	260,000	27.4	250,000	26.2
	Real estate rental	60,000	6.3	100,000	10.5
	Others	40,000	4.2	50,000	5.2
	Subtotal	950,000	100.0	955,000	100.0
Total		133,332,073		136,861,909	

(*) Financial assets measured at FVTPL consist of debt securities and loans.

9-1-6-2 Credit risk concentration in each country as of December 31, 2020 and 2019 are as follows (Korean won in millions):

Classification	Country	December 31, 2020		December 31, 2019	
		Amounts	Ratio(%)	Amounts	Ratio(%)
On balance accounts:					
Due from banks	Korea	17,538,691	69.2	15,568,704	72.6
	U.S	1,910,954	7.5	1,423,659	6.6
	China	1,123,704	4.4	1,761,165	8.2
	Japan	359,361	1.4	415,675	1.9
	Singapore	369,493	1.5	195,931	0.9

Classification	Country	December 31, 2020		December 31, 2019	
		Amounts	Ratio(%)	Amounts	Ratio(%)
	Hong Kong	154,960	0.6	88,513	0.4
	Others	3,873,671	15.4	1,984,706	9.4
	Subtotal	25,330,834	100.0	21,438,353	100.0
Financial assets measured at FVTPL (*)	Korea	18,528,621	92.8	15,798,654	93.1
	U.S	578,269	2.9	292,352	1.7
	China	25,872	0.1	69,970	0.4
	Japan	146,149	0.7	189,712	1.1
	Singapore	17,443	0.1	126,126	0.7
	Hong Kong	13,681	0.1	48,592	0.3
	Others	653,820	3.3	439,201	2.7
	Subtotal	19,963,855	100.0	16,964,607	100.0
Financial assets measured at FVOCI	Korea	29,491,427	84.5	31,983,240	87.0
	U.S	269,774	0.8	831,790	2.3
	China	2,333,428	6.7	1,834,454	5.0
	Japan	48,639	0.1	165,596	0.5
	Hong Kong	138,822	0.4	59,039	0.2
	Others	2,601,241	7.5	1,907,366	5.0
	Subtotal	34,883,331	100.0	36,781,485	100.0
Securities measured at amortized cost	Korea	17,438,440	94.9	15,940,563	94.6
	U.S	103,830	0.6	127,344	0.8
	China	113,084	0.6	356,247	2.1
	Others	731,393	4.0	434,479	2.5
	Subtotal	18,386,747	100.1	16,858,633	100.0
	Allowance for credit loss	(10,090)	(0.100)	(4,011)	—
	Total	18,376,657	100.0	16,854,622	100.0
Loans measured at amortized cost	Korea	286,368,036	92.7	259,714,688	92.0
	U.S	3,180,983	1.0	3,063,857	1.1
	China	4,707,307	1.5	3,702,376	1.3
	Japan	1,774,538	0.6	1,554,909	0.6
	Hong Kong	2,253,697	0.7	2,688,247	1.0
	Others	11,873,535	3.9	12,825,422	4.4
	Subtotal	310,158,096	100.4	283,549,499	100.4
	Deferred loan fees and expenses	407,149	0.1	370,514	0.1
	Present value discount	(2,957)	—	(4,709)	—
	Allowance for possible loan losses	(1,770,473)	(0.5)	(1,609,534)	(0.5)
	Subtotal	(1,366,281)	(0.4)	(1,243,729)	(0.4)
	Total	308,791,815	100.0	282,305,770	100.0
Merchant banking accounts asset	Korea	3,465,306	100.0	3,255,106	100.0

Classification	Country	December 31, 2020		December 31, 2019	
		Amounts	Ratio(%)	Amounts	Ratio(%)
Total		410,811,798		377,599,943	
Off-balance accounts:					
Financial guarantees	Korea	2,156,627	100.0	2,791,478	100.0
Guarantee contracts	Korea	9,819,333	71.7	12,712,195	75.5
	U.S	69,885	0.5	76,017	0.5
	China	2,193,753	16.0	2,487,191	14.8
	Japan	26,743	0.2	29,750	0.2
	Others	1,589,159	11.6	1,522,116	9.0
	Subtotal	13,698,873	100.0	16,827,269	100.0
Commitment	Korea	111,397,974	95.6	111,451,307	95.8
	U.S	416,905	0.4	570,201	0.5
	China	2,415,127	2.1	1,761,027	1.5
	Japan	265,269	0.2	157,182	0.1
	Others	2,031,298	1.7	2,348,445	2.1
	Subtotal	116,526,573	100.0	116,288,162	100.0
Merchant banking accounts	Korea	950,000	100.0	955,000	100.0
Total		133,332,073		136,861,909	

(*) Financial assets measured at FVTPL consist of debt securities and loans.

9-1-7 Details of the Group's corporate loans by industry affected by the spread of COVID-19 as of December 31, 2020 are as follows. The effect on the industries may vary significantly based on future economic conditions. Household loan debtors subject to measurement of lifetime expected credit loss as disclosed in Note 9-1-4-1, may be impacted by the spread of COVID-19. The effect may vary significantly based on future economic conditions. (Korean won in millions):

<December 31, 2020>

Industry	Financial assets at FVPL	Financial assets at FVOCI	Securities measured at amortized cost	Loans at amortized cost	Off-balance-sheet items	Total
Air transportation	97,845	-	-	542,293	670,841	1,310,979
Lodging	314,804	-	-	3,211,611	303,843	3,830,258
Food	1,284	-	-	4,219,340	238,925	4,459,549
Automobile	116,555	-	12,347	6,168,455	4,848,850	11,146,207
Petroleum refining	37,349	9,980	-	460,588	2,659,204	3,167,121
Travel	-	-	-	120,369	48,078	168,447
Total	567,837	9,980	12,347	14,722,656	8,769,741	24,082,561

9-2 Liquidity risk

9-2-1 Liquidity risk management

Liquidity risk is defined as the risk that the Group will encounter difficulty in meeting obligations associated with financial liabilities. The purpose to manage liquidity risk is to early identify the potential risk factors upon raising and operating the Group' s funds and to obtain a stable revenue base through maintaining an appropriate level of the Group' s liquidity by systematically managing the risk. The targets of liquidity risk management are all assets and liabilities outstanding in the Group' s statements of financial position.

The Group' s principles regarding liquidity risk management are as follows:

- Set up and comply with tolerable limits to liquidity risk
- Maintain liquidity by regularly forecasting cash requirements on a regular basis

Each associate assesses and manages liquidity coverage ratios (LCR) and liquidity ratio of the relevant assets and liabilities by applying the relevant supervisory regulations. The Group manages an acceptable limit on each associate' s liquidity risk through the group risk management executive committee and performs liquidity stress test periodically and establishes a contingent funding plan based on the test results to be prepared for liquidity crisis.

9-2-2 Maturity of financial instruments analysis

9-2-2-1 Reporting standard

The details of the remaining contractual maturities of financial liabilities are analyzed by the earliest maturity date when the Group would be required to pay, based on the undiscounted cash outflows of the Group's financial liabilities. In addition, financial liabilities at fair value through profit or loss and depository liabilities (payment on demand) are shown at fair value in the immediate payment column.

9-2-2-2 Maturity of the financial liabilities

The table below summarizes the maturity profile of the contractual undiscounted cash flows of the Group's financial liabilities. The maturity of financial liabilities as of December 31, 2020 and 2019 is summarized as follows (Korean won in millions):

<December 31, 2020>

Classification	On demand	Within 1 month	After 1 month ~ but no later than 3 months	After 3 months ~ but no later than 1 year	After 1 year ~ but no later than 5 years	After 5 years	Total
On balance accounts:							
Financial liabilities measured at FVTPL	10,860,230	–	–	–	–	–	10,860,230
Financial liabilities designated as measured at FVTPL	–	303,565	404,663	1,132,104	5,177,426	2,861,993	9,879,751
Deposits	147,924,038	18,861,130	29,963,166	86,931,576	11,442,498	2,401,347	297,523,755
Borrowings	7,076,841	6,653,737	3,267,376	5,780,305	3,327,429	462,318	26,568,006
Debentures	339	2,694,455	2,847,222	11,348,811	28,316,888	4,555,090	49,762,805
Derivative liabilities used for hedging	–	618	971	4,360	41,332	(93,949)	(46,668)
Merchant banking account liabilities	453,146	1,793,036	–	–	–	–	2,246,182
Others	8,091,321	15,177,589	135,005	281,507	846,923	264,901	24,797,246
Total	174,405,915	45,484,130	36,618,403	105,478,663	49,152,496	10,451,700	421,591,307
Off balance accounts:							
Financial guarantees	2,156,627	–	–	–	–	–	2,156,627
Acceptances and guarantees	13,698,873	–	–	–	–	–	13,698,873
Commitment	116,526,573	–	–	–	–	–	116,526,573
Commitment to merchant banking account	950,000	–	–	–	–	–	950,000
Total	133,332,073	–	–	–	–	–	133,332,073

<December 31, 2019>

Classification	On demand	Within 1 month	After 1 month ~ but no later than 3 months	After 3 months ~ but no later than 1 year	After 1 year ~ but no later than 5 years	After 5 years	Total
On balance accounts:							
Financial liabilities measured at FVTPL	5,437,389	–	–	–	–	–	5,437,389
Financial liabilities designated as measured at FVTPL	–	112,301	544,822	839,342	6,772,666	3,486,651	11,755,782
Deposits	116,940,594	23,517,984	28,785,491	90,271,792	13,766,006	2,296,509	275,578,376
Borrowings	4,894,698	4,328,058	2,075,224	5,924,082	3,123,857	461,667	20,807,586
Debentures	349	2,018,636	3,666,084	8,353,858	26,778,506	4,253,610	45,071,043
Derivative liabilities used for hedging	–	787	2,043	6,196	32,575	(188,530)	(146,929)
Merchant banking account liabilities	893,191	1,195,050	–	–	–	–	2,088,241
Others	6,902,191	18,181,346	132,038	332,944	757,294	273,916	26,579,729
Total	135,068,412	49,354,162	35,205,702	105,728,214	51,230,904	10,583,823	387,171,217
Off balance accounts:							
Financial guarantees	2,791,478	–	–	–	–	–	2,791,478
Acceptances and guarantees	16,827,269	–	–	–	–	–	16,827,269
Commitment	116,288,162	–	–	–	–	–	116,288,162
Commitment to merchant banking account	955,000	–	–	–	–	–	955,000
Total	136,861,909	–	–	–	–	–	136,861,909

Derivative liabilities used for hedging are denominated based on the net cash flow . Available assets that exist in redeeming financial liabilities and unused loan commitments are cash and due from banks, debt securities, equity securities, loans, etc. In addition, the Group is able to cope with unexpected cash flows through the sale of securities and additional sources of funding, similar to asset backed securitization.

9-3 Market risk

Market risk is the risk that the fair value or future cash flows of financial instruments will fluctuate due to the changes in market variables such as interest rates, equity prices, and exchange ratios in the market.

The purpose of market risk management is to maintain the loss of assets and liabilities incurred due to changes in market variables such as interest rates, foreign exchanges and equity prices within the allowable limits in order to ensure profitability and stability. Market risk management targets include securities held-for-trading, foreign currency net positions, derivatives and other assets and liabilities with embedded market risks. Significant risks exposed to the Group as of the reporting date are interest rate risk, foreign exchange risk and equity price risk.

For market risk management, the Group measures and monitors the relevant risk exposures on a regular basis. The Group also established and complies with market risk limits, whereby it can manage the exposures arising from changes of market variables within an adequate level. The subsidiaries exposed to market risks, such as Hana Bank and H&DS, set up and operate their own market risk management system. The group-level market risk exposures are consistently calculated through the Group-integrated risk management system. The Group reports its current status of market risk management to the group risk management execution committee and group risk management committee on a monthly and quarterly basis.

9-3-1 Trading position

The trading position includes interest rate positions, equity price positions, commodity positions, and all foreign exchange positions:

- a. Financial instruments for the purpose of acquiring the differences incurred due to short-term trading or price fluctuations.

- b. Financial instruments for the purpose of hedging risks
- c. Financial instruments for the purpose of acquiring arbitrages
- d. Financial instruments for the purpose of acquisition, mediation and market creation

The Group regularly measures the degree of market risks and complies with the allowable limits set for the various areas of the trading position. In addition, the Group reviews the adequacy of the risk-reward ratio by evaluating risks and related profits and losses on a regular basis and complies with the established trading policy regulations.

9-3-1-1 Value at Risk (VaR)

Value at Risk (“ VaR”) is a primary method that manages and measures the degree of market risks of the trading portfolio subject to exposure, which estimates the potential loss of the trading portfolio that is not expected to be exceeded if the current market risk positions were to be held unchanged for one day. The Group calculates the VaR for a standard 10 days in the 99% confidence level. In addition, to account for the method’s limited use, stress tests are performed in order to measure the extent of the loss in extreme cases.

9-3-1-2 Risk types of VaR

Risk types of VaR as of December 31, 2020 and 2019 are summarized as follows (Korean won in millions):

Classification	December 31, 2020	Average	Min	Max	December 31, 2019
Interest rates risk	84,666	78,009	36,577	121,752	42,112
Foreign exchange rates risk	378,562	353,422	240,068	413,634	277,741
Stock price risk	56,273	43,061	17,506	96,542	32,604
Total risk(*)	391,341	383,257	261,607	463,678	299,453

(*) The calculation of the total risk VaR takes into consideration the correlation and diversification effects between each risk factor and therefore, is not the same as the arithmetic additions of all the VaRs.

9-3-2 Non-trading position

9-3-2-1 Interest rate risk

Interest rate risk of non-trading position is a risk of losses in financial assets and liabilities with interest rates due to adverse changes in interest rates and is incurred when maturity structure does not match interest rate setting cycle of the related assets and liabilities. The Group manages interest rate risks in order to maintain the stability of net interest income and net asset value.

Interest rate risk establish limits and monitors interest rate EVEs according to IR RBB methodology. The interest rate VaR is an estimated maximum loss of net asset due to adverse changes of interest rate.

Interest rate EVE means the maximum decrease in net asset value when interest rate changes, and details of Δ EVE as of December 31, 2020 and interest rate VaR of the Group as of December 31, 2019 are as follows (Korean won in millions):

Classification	December 31, 2020	December 31, 2019
Δ EVE	276,409	420,719

9-3-2-2 Equity price risk

Equity price risk is the risk that the fair value of equities results in changes in the level of related revenue and capital. Effects on capital due to fluctuations in equity price risk as of December 31, 2020 and 2019 are as follows (Korean won in millions):

<December 31, 2020>

Classification	20% decline	10% decline	10% rise	20% rise
Equity price risk	(119,479)	(59,740)	59,740	119,479

<December 31, 2019>

Classification	20% decline	10% decline	10% rise	20% rise
Equity price risk	(88,230)	(44,115)	44,115	88,230

The Group measures the equity price risk on the domestic listed equity securities only.

9-3-3 Currency risk concentration

Currency risk is a risk incurred when the value of a financial instrument or future cash flows fluctuates due to the changes in foreign exchange rates. Currency risk arises from the financial instruments expressed in currencies other than the functional currency. Currency risk does not arise from the financial instruments expressed in the functional currency, measured based on historical currency, or in non-monetary items measured by using the historical foreign exchange rates. The Group manages the foreign exchange net exposure amount of the trading and non-trading positions by each currency.

Significant foreign currency assets and liabilities denominated in Korean won as of December 31, 2020 and 2019 are as follows (Korean won in millions):

<December 31, 2020>

Classification	USD	JPY	EUR	CNY	IDR	기타	Total
Assets							
Cash and due from bank	8,868,857	784,436	740,629	846,842	53,218	1,599,568	12,893,550
Financial assets measured at FVTPL	4,708,681	191,405	865,801	77,483	195,715	345,473	6,384,558
Financial assets measured at FVOCI	3,430,292	-	85,421	2,266,646	265,932	1,574,386	7,622,677
Securities measured at amortized cost	1,364,334	-	137,814	109,021	154,279	263,268	2,028,716

Classification	USD	JPY	EUR	CNY	IDR	기타	Total
Loans measured at amortized cost	18,813,525	1,827,492	4,917,215	5,457,334	1,434,089	3,082,061	35,531,716
Derivative assets used for hedging	111,088	–	182	–	–	–	111,270
Others	4,036,697	288,152	209,216	291,439	39,001	497,285	5,361,790
Total	41,333,474	3,091,485	6,956,278	9,048,765	2,142,234	7,362,041	69,934,277
Liabilities							
Financial liabilities measured at FVTPL	1,489,002	79,432	63,760	3,431	876	105,024	1,741,525
Financial liabilities designated as measured at FVTPL	1,868,854	–	41,817	–	–	6,739	1,917,410
Deposits	26,090,583	2,210,903	4,036,595	7,479,150	1,194,896	4,294,490	45,306,617
Borrowings	6,848,220	177,286	1,007,763	295,001	139,080	709,487	9,176,837
Debentures	4,938,245	–	–	215,211	74,500	338,063	5,566,019
Derivative liabilities used for hedging	–	–	89	–	–	–	89
Others	4,938,884	189,698	711,998	431,569	16,941	361,922	6,651,012
Total	46,173,788	2,657,319	5,862,022	8,424,362	1,426,293	5,815,725	70,359,509

<December 31, 2019>

Classification	USD	JPY	EUR	CNY	IDR	기타	Total
Assets							
Cash and due from bank	4,061,685	594,735	629,326	1,624,487	139,149	1,300,417	8,349,799
Financial assets measured at FVTPL	3,624,312	79,659	653,569	457,950	1,796	104,728	4,922,014
Financial assets measured at FVOCI	4,901,525	–	–	1,781,899	340,813	777,666	7,801,903
Securities measured at amortized cost	1,077,255	–	46,151	355,483	134,222	190,383	1,803,494
Loans measured at amortized cost	20,543,440	1,524,469	3,848,959	4,117,614	1,796,749	2,773,152	34,604,383
Derivative assets used for hedging	57,729	–	–	–	–	–	57,729
Others	4,304,083	1,339,116	174,028	490,240	28,327	586,179	6,921,973
Total	38,570,029	3,537,979	5,352,033	8,827,673	2,441,056	5,732,525	64,461,295
Liabilities							
Financial liabilities measured at FVTPL	550,272	42,777	56,983	1,608	365	58,614	710,619
Financial liabilities designated as measured at FVTPL	2,642,130	436	53,491	–	–	–	2,696,057
Deposits	21,603,807	1,973,079	4,142,106	7,082,370	1,572,954	3,551,956	39,926,272
Borrowings	7,618,956	116,212	903,115	37,244	139,662	783,023	9,598,212
Debentures	5,402,880	–	152,346	215,281	84,286	472,563	6,327,356
Derivative liabilities used for hedging	7,277	–	–	–	–	–	7,277
Others	7,442,164	243,504	256,534	675,470	18,409	429,456	9,065,537
Total	45,267,486	2,376,008	5,564,575	8,011,973	1,815,676	5,295,612	68,331,330

9-4 Operational risk

Operational risk is the risk of loss arising from systems failure, human error, fraud or other external events. Risks related to strategy or damaging reputation are excluded but legal or regulatory implications are identified as operational risks. Operational risk includes non-financial risks related to losses due to internal operational problems and externalities such as natural disasters and terrorist attacks. Operational risk does not have a direct correlation with income and the Group needs to mitigate such risk through internal controls and insurance.

The Group measures and monitors its operational risk on a regular basis and complies with the predetermined risk limits, whereby the Group manages and controls its operational risk arising from changes of its operation environments and internal controls within an appropriate level. The Group's subsidiaries measure the operational risk exposures using their own approaches suitable to the relevant supervisory regulations of each industry and the group-level operational risk exposures are consistently calculated through the group-integrated risk management system. The Group reports its current status of operational risk management to the group risk management execution committee and group risk management committee on a monthly and quarterly basis.

9-5 Capital management

The Group implements the BIS capital requirement system in order to secure capital adequacy and comply with the supervisory regulations. The Group maintains appropriate capital ratio in accordance with BIS capital requirement system. In addition, the Group performs a capital adequacy assessment in order to cope with an unexpected loss.

Risk-weighted assets calculated per each risk type when calculating BIS ratio are as follows:

- a. Credit risk incurs when potential loss arises from default of a borrower or counterparty or downgrading of its credit rating. Risk-weighted assets of credit risk of bank subsidiaries are calculated using the internal model approved by Financial Supervisory Service. Risk-weighted assets of credit risk are calculated by multiplying risk weights reflecting counterparty credit rating, maturity, collateral and guarantees granted according to the standardized model of Basel III.
- b. Market risk incurs when potential loss arises from the fluctuation of market price of stocks, interest rates and foreign currency rates. Risk-weighted assets of market risk are calculated by multiplying 12.5 to the required capital of market risk, which consists of the interest rate risk, equity price risk, foreign currency risk, commodity risk and option risk, according to the standardized model of Supervisory Regulations on Financial Holding Companies.
- c. Operational risk incurs when loss arises from systems failure, human error, and business process. Risk-weighted assets of operational risk are calculated by multiplying 12.5 to the required capital of operational risk according to Detailed Regulations on Supervisory of Banking Business.

Regulatory capital in accordance with the Regulations on the Supervision of Banking Business for calculating BIS ratio is as follows:

- a. Common Equity Tier 1: common shares issued by the bank that meet the criteria

- ria for classification as common shares for regulatory purposes, stock surplus (share premium) resulting from the issue of instruments included in Common Equity Tier 1, retained earnings, Accumulated other comprehensive income and other disclosed reserves, common shares issued by consolidated subsidiaries of the bank and held by third parties (i.e. minority interest) that meet the criteria for inclusion in Common Equity Tier 1 capital, regulatory adjustments applied in the calculation of Common Equity Tier 1
- b. Additional Tier 1: instruments issued by the bank that meet the criteria for inclusion in Additional Tier 1 capital, stock surplus (share premium) resulting from the issue of instruments included in Additional Tier 1 capital, instruments issued by consolidated subsidiaries of the bank and held by third parties that meet the criteria for inclusion in Additional Tier 1 capital and are not included in Common Equity Tier 1, regulatory adjustments applied in the calculation of Additional Tier 1
- c. Tier 2 capital: Instruments issued by the bank that meet the criteria for inclusion in Tier 2 capital (and are not included in Tier 1 capital), stock surplus (share premium) resulting from the issue of instruments included in Tier 2 capital, instruments issued by consolidated subsidiaries of the bank and held by third parties that meet the criteria for inclusion in Tier 2 capital and are not included in Tier 1 capital, certain loan loss provisions, Regulatory adjustments applied in the calculation of Tier 2 Capital

Regulatory capital and BIS ratios as of December 31, 2020 and 2019 are as follows (Korean won in millions):

Classification	December 31, 2020	December 31, 2019
Common Equity Tier 1 capital	27,236,650	25,131,916
Additional Tier 1 capital	2,222,295	1,491,552
Subtotal(Tier 1 Capital)	29,458,945	26,623,468
Tier 2 capital	2,642,271	2,675,756
Total(Total Capital)	32,101,216	29,299,224
Risk-weighted assets:		

Classification	December 31, 2020	December 31, 2019
Credit risk-weighted assets	199,177,817	184,073,580
Market risk-weighted assets	11,583,065	11,362,555
Operational risk-weighted assets	15,377,702	14,631,160
Total	226,138,584	210,067,295
BIS capital ratio:		
Common Equity Tier 1 ratio	12.04%	11.96%
Additional Tier 1 capital ratio	13.03%	12.67%
Total capital ratio	14.20%	13.95%

9-5-1 Assessing reasonableness and managing internal capital

Internal capital is the amount that allows for continuous operation of business while accounting for all risks. Internal capital is defined as the size of capital needed to cope with unexpected loss under a certain rate. The purpose of managing the internal capital is to compare the size of internal capital and available capital (“Tier 1”) and to serve as a measure of financial strength. Managing the internal capital also provides the amount of risk-adjusted capital and the basis for measurement. The indicators consist of risk appetite ratio as well as exhaustion ratio of foreign holding limits. The risk appetite ratio is an internal capital ratio established after taking into consideration a capital buffer in Tier 1 capital. The exhaustion ratio of foreign holding limits is a ratio used to measure the amount of internal capital used against the internal capital limits.

Internal capital limits are established after accounting for the size of current and subsequent Tier 1 capital as well as the components, quality, risk appetite, target credit rating, operational strategy and business plans. The Risk Committee determines risk types and internal capital limits for HFG and each subsidiary more than once a year. In the case where new operations or expansion of operations result in the amount exceeding the internal capital limits, an approval from the Risk Committee is needed beforehand. If such a situation occurs in cases outlined as exce

ptions, an approval from the Risk Committee is needed for the information on exceeded amount, post hoc results, as well as subsequent plans.

10. Operating segments information

10-1 General information

The Group is organized into four operating segments based on their financial information of each legal entity used for making decisions about resources to be allocated to the segment and assessing its performance. Details of operating segments are presented as follows; 1) Hana Bank and its subsidiaries (Banking) 2) HFI and its subsidiaries (Financial Investing) 3) KEB Hana Card and its subsidiaries (Credit Card) 4) Others (consist of Hana Financial Group's separate performance and its other subsidiaries such as Hana Capital, Hana Asset Trust, Hana TI, Hana Ventures, Hana Savings Bank, Hana Life Insurance, Hana Alternative Asset Management, HIS, Hana Insurance and others)

10-2 Income or loss by operating segments

10-2-1 Details of net income, assets and liabilities by operating segments for end of the year December 31, 2020 and 2019 are as follows (Korean won in millions)

:

<2020>

Classification	Hana Bank	HFI	KEB Hana Card	Others	Subtotal	Adjustments	Total
Operating segment Income and loss(*):							
Net interest income(loss)	5,307,790	244,191	(116,878)	384,250	5,819,353	(5,062)	5,814,291
Interest income	8,816,550	530,062	6,469	747,246	10,100,327	(20,718)	10,079,609
Interest expense	(3,508,760)	(285,871)	(123,347)	(362,996)	(4,280,974)	15,656	(4,265,318)
Net fee and commission income(loss)	574,898	516,096	745,040	332,536	2,168,570	(8,800)	2,159,770
Fee and commission income	812,576	633,268	1,225,462	631,418	3,302,724	(80,192)	3,222,532
Fee and commission expense	(237,678)	(117,172)	(480,422)	(298,882)	(1,134,154)	71,392	(1,062,762)
Others	1,070,189	374,762	39,728	160,391	1,645,070	(84,312)	1,560,758

Classification	Hana Bank	HFI	KEB Hana Card	Others	Subtotal	Adjustments	Total
Total Operating income(loss)	6,952,877	1,135,049	667,890	877,177	9,632,993	(98,174)	9,534,819
Impairment loss on financial assets	(528,942)	(37,156)	(224,377)	(80,662)	(871,137)	198	(870,939)
Net operating income(loss)	6,423,935	1,097,893	443,513	796,515	8,761,856	(97,976)	8,663,880
General and administrative expenses	(2,973,870)	(497,568)	(226,902)	(350,334)	(4,048,674)	131,018	(3,917,656)
Net other operating income (loss)	(522,080)	(119,008)	(4,075)	(148,493)	(793,656)	(116,146)	(909,802)
Operating income(loss)	2,927,985	481,317	212,536	297,688	3,919,526	(83,104)	3,836,422
Net other non-operating income(loss)	(181,884)	93,562	(1,719)	507,305	417,264	(524,452)	(107,188)
Income tax expenses	(721,724)	(164,843)	(56,360)	(119,085)	(1,062,012)	17,656	(1,044,356)
Net income(loss)	2,024,377	410,036	154,457	685,908	3,274,778	(589,900)	2,684,878
Total assets(*)	396,187,562	34,982,321	8,211,042	45,634,565	485,015,490	(24,702,188)	460,313,302
Total liabilities(*)	369,376,033	30,553,364	6,433,428	24,801,118	431,163,943	(2,450,929)	428,713,014

<2019>

Classification	Hana Bank	HFI	KEB Hana Card	Others	Subtotal	Adjustments	Total
Operating segment Income and loss(*):							
Net interest income(loss)	5,414,012	219,715	(123,058)	273,343	5,784,012	(10,306)	5,773,706
Interest income	10,053,972	500,212	10,778	577,083	11,142,045	(23,890)	11,118,155
Interest expense	(4,639,960)	(280,497)	(133,836)	(303,740)	(5,358,033)	13,584	(5,344,449)
Net fee and commission income(loss)	675,321	395,602	612,395	319,481	2,002,799	(11,330)	1,991,469
Fee and commission income	882,305	488,377	1,207,456	556,179	3,134,317	(119,256)	3,015,061
Fee and commission expense	(206,984)	(92,775)	(595,061)	(236,698)	(1,131,518)	107,926	(1,023,592)
Others	784,027	162,545	55,925	95,320	1,097,817	(5,155)	1,092,662
Total Operating income(loss)	6,873,360	777,862	545,262	688,144	8,884,628	(26,791)	8,857,837
Impairment loss on financial assets	(228,031)	(4,174)	(229,373)	(79,995)	(541,573)	761	(540,812)
Net operating income(loss)	6,645,329	773,688	315,889	608,149	8,343,055	(26,030)	8,317,025
General and administrative expenses	(3,311,402)	(433,573)	(230,906)	(245,210)	(4,221,091)	114,070	(4,107,021)
Net other operating income (loss)	(618,018)	9,409	(7,948)	(200,819)	(817,376)	(133,948)	(951,324)
Operating income(loss)	2,715,909	349,524	77,035	162,120	3,304,588	(45,908)	3,258,680
Net other non-operating income(loss)	215,387	29,515	(2,693)	1,325,427	1,567,636	(1,418,169)	149,467
Income tax expenses	(780,799)	(99,107)	(18,061)	(94,638)	(992,605)	10,080	(982,525)
Net income(loss)	2,150,497	279,932	56,281	1,392,909	3,879,619	(1,453,997)	2,425,622

Classification	Hana Bank	HFI	KEB Hana Card	Others	Subtotal	Adjustments	Total
Total assets(*)	369,498,804	27,283,211	8,187,106	39,612,172	444,581,293	(23,114,194)	421,467,099
Total liabilities(*)	344,032,357	23,808,133	6,557,951	19,802,842	394,201,283	(1,718,957)	392,482,326

(*) The amount of net income or loss, asset and liabilities by the operating segments does not consider the transaction amount between the segments

10-2-2 The operating income or loss from external customers and internal transactions for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

<2020>

Classification	Hana Bank	HFI	KEB Hana Card	Others	Subtotal	Adjustments	Total
Revenue (expense) from external customers	6,952,583	1,085,831	717,060	779,345	9,534,819	–	9,534,819
Revenue (expense) from internal transactions	294	49,218	(49,170)	97,832	98,174	(98,174)	–
Total	6,952,877	1,135,049	667,890	877,177	9,632,993	(98,174)	9,534,819

<2019>

Classification	Hana Bank	HFI	KEB Hana Card	Others	Subtotal	Adjustments	Total
Revenue (expense) from external customers	6,805,560	761,209	621,247	669,822	8,857,838	–	8,857,838
Revenue (expense) from internal transactions	67,800	16,653	(75,985)	18,323	26,791	(26,791)	–
Total	6,873,360	777,862	545,262	688,145	8,884,629	(26,791)	8,857,838

10-2-3 Significant non-cash transactions included in income of operating segments for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

<2020>

Classification	Hana Bank	HFI	KEB Hana Card	Others	Subtotal	Adjustments	Total
Gain(loss) on equity method	56,471	(5)	1,258	(1,533)	56,191	(10,523)	45,668

Classification	Hana Bank	HFI	KEB Hana Card	Others	Subtotal	Adjustments	Total
Depreciation and amortization	(450,959)	(44,085)	(36,650)	(226,038)	(757,732)	(3,068)	(760,800)

<2019>

Classification	Hana Bank	HFI	KEB Hana Card	Others	Subtotal	Adjustments	Total
Gain(loss) on equity method	(27,414)	11,765	271	204	(15,174)	(7,273)	(22,447)
Depreciation and amortization	(430,751)	(42,471)	(42,350)	(215,776)	(731,348)	(10,058)	(741,406)

10-3 Information about regions

Revenue by region from the external customers for the years ended December 31, 2020 and 2019 and non-current assets by region as of December 31, 2020 and 2019 are as follows (Korean won in millions):

Classification	Revenue from external customers		Non-current assets	
	2020	2019	December 31, 2020	December 31, 2019
Domestic	8,882,579	8,176,088	4,869,505	5,056,177
Foreign:				
Hong Kong	64,552	78,043	6,748	9,780
Singapore	33,984	29,835	1,095	2,143
U.S	45,706	41,833	7,256	6,421
Japan	36,168	30,885	4,979	6,966
China	202,709	168,355	202,641	192,413
Indonesia	180,894	147,563	65,193	99,696
U.K	22,489	29,453	3,346	5,152
Canada	29,324	36,510	10,299	12,949
Others	134,588	146,064	8,519	11,725
Subtotal	750,414	708,541	310,076	347,245
Adjustments	(98,174)	(26,791)	(236,362)	103,781

Classification	Revenue from external customers		Non-current assets	
	2020	2019	December 31, 2020	December 31, 2019
Total	9,534,819	8,857,838	4,943,219	5,507,203

Non-current assets consist of property and equipment, investment properties, and intangible assets and are classified as either domestic or overseas depending on its geographic proximity.

11. Cash and due from banks

11-1 Cash and due from banks as of December 31, 2020 and 2019 are as follows (Korean won in millions):

Classification	Counterparty	December 31, 2020	December 31, 2019
Cash		2,198,981	2,280,946
Due from banks in Korean won			
Reserve deposits with BOK, etc.	Bank of Korea ("BOK"), etc.	11,038,294	10,319,182
Time deposits, etc.	Other banks	702,753	2,251,791
Other deposits	Other financial institutions	1,274,985	1,222,348
Subtotal		13,016,032	13,793,321
Due from banks in foreign currencies			
Due from banks on demand	BOK, etc.	7,408,869	4,403,034
Time deposits	Bayern LB and Others	1,385,988	1,019,004
Other deposits	Other financial Institutions	3,519,945	2,222,995
Subtotal		12,314,802	7,645,033

Classification	Counterparty	December 31, 2020	December 31, 2019
Total		27,529,815	23,719,300

11-2 Restricted balances in due from banks as of December 31, 2020 and 2019 are summarized as follows (Korean won in millions):

Classification	December 31, 2020	December 31, 2019	Restrictions
Due from banks in Korean won			
Reserve deposits with BOK, etc.	11,038,294	10,319,182	Reserve deposits from the Banking Act and the Bank of Korea Act, currency stabilization account, reserve, domestic exchange transaction collateral
Reserve for futures trading	364	234	Margin for trading account
Reserve for claims of customers' deposits	343,199	271,753	Capital market law, regulation on brokerage business of securities company, etc.
Other deposits	315,125	1,017,790	For the right of pledge, etc.
Subtotal	11,696,982	11,608,959	
Due from banks in foreign currencies			
Deposits in foreign currencies in other branches	5,993,187	2,266,281	Reserve for payment of deposits from the Banking Act and the Bank of Korea Act
Other deposits	1,580,111	1,304,434	OTC derivative contracts, etc.
Subtotal	7,573,298	3,570,715	
Total	19,270,280	15,179,674	

12. Financial assets measured at FVPL

Financial assets measured at FVTPL as of December 31, 2020 and 2019 are as follows (Korean won in millions):

Classification	December 31, 2020	December 31, 2019
Stocks	377,249	220,754
Investments in partnerships	357,781	329,821
Government and public bonds	3,530,704	3,079,606
Financial bonds	7,473,379	5,525,279
Corporate bonds and others	5,202,047	4,630,759
Beneficiary certificates	7,479,753	6,040,064
Other securities denominated in Korean won	174,193	209,198
Securities denominated in foreign currencies	4,259,531	4,678,369
Derivative linked securities	312,397	364,446
Derivative assets held for trading (*)	10,789,603	5,521,514
Loans	1,492,111	803,661
Others	1,685,297	956,186
Total	43,134,045	32,359,657

(*) Refers to Note 17. Derivatives Reference

13. Financial assets measured at FVOCI

13-1 Details of financial assets measured at fair value through other comprehensive income as of December 31, 2020 and 2019 are as follows (Korean won in millions):

Classification	December 31, 2020	December 31, 2019
Stocks	1,114,110	927,894
Investments in partnerships	786	793
Government and public bonds	11,007,981	15,094,023
Financial bonds	10,128,914	9,012,844
Corporate bonds	6,113,830	4,872,716
Other securities denominated in Korean won	105,871	96,589
Securities denominated in foreign currencies	7,693,896	7,975,201
Total	36,165,388	37,980,060

13-2 Details of shares (including shares in foreign currencies) included in financial assets measured at FVOCI as of December 31, 2020 and 2019 are as follows

<December 31, 2020>

Counterparty	Book value (Fair value)
Daewoo Shipbuilding & Marine Engineering Co., Ltd. etc.	247,026
UAMCO., Ltd.	150,244
Consumer Credit Assistant Fund Co., Ltd.	118,096
The Korea Securities Finance Corporation	135,591
KCI	74,632
CM International	65,498
Taihan Electric Wire Co., Ltd.	58,063
HMM	55,698
Hanjin Heavy Industries & Construction Co., Ltd.	54,260
KG Dongbu Steel Co., Ltd.	22,881

Counterparty	Book value (Fair value)
STX Engine(perpetual convertible bonds)	21,310
ChinHung international, Inc	15,931
Korea Asset Management Corporation	15,737
Korea Enterprise Data	14,642
Korea Money Brokerage Corp	12,980
BC Card Co., Ltd.	9,710
Kumho Tire Co., Inc.	9,188
Koramco REITs & Trust	8,703
HJC CORP.	7,299
Daelim Construction Co.	5,161
POSCO PLANTEC CO.,LTD	4,570
DB ASSET MANAGEMENT CO., LTD	4,094
Korea Securities Depository	7,901
Others	162,841
Total	1,282,056

<December 31, 2019>

Counterparty	Book value (Fair value)
Daewoo Shipbuilding & Marine Engineering Co., Ltd. etc.	251,083
CM International	167,649
Consumer Credit Assistant Fund Co., Ltd.	129,364
UAMCO., Ltd.	122,850
Korea Exchange	109,311
The Korea Securities Finance Corporation	85,645
Taihan Electric Wire Co., Ltd.	26,107
STX Engine	16,295
Korea Asset Management Corporation	15,737
Dongbu Steel Co., Ltd.	15,385
ChinHung international, Inc.	14,182
Hyundai Merchant Marine Co., Ltd.	14,174

Counterparty	Book value (Fair value)
Korea Enterprise Data	11,227
BC Card Co., Ltd.	11,051
Koramco REITs & Trust	10,655
Kunho Tire Co., Inc.	10,183
Kunho Electric, Inc.	2,715
Others	184,962
Total	1,198,575

Equity instruments that are held for strategic alliances, not for trading, converted from debt instruments and acquired for access rights of systems and facilities are designated as measured at FVOCI.

13-3 Details of shares (including shares in foreign currencies) included in financial assets measured at FVOCI as of December 31, 2020 and 2019 are as follows (Korean won in millions):

<December 31, 2020>

Counterparty	Book value	Cumulative valuation gain (loss) (*)	Reason for disposal
NHN KCP Corp.	10,024	9,609	Stock disposal because of deterioration of VAN market
Korea Credit-card Electronic-settlement Service Co., Ltd	4,763	3,866	Stock disposal because of deterioration of VAN market
STX Heavy Industry Co., Ltd	155	102	Sale of the debt equity swap stock
Huvexel	35	35	Sale of the debt equity swap stock
Others	49	(3,926)	
Total	15,026	9,686	

<December 31, 2019>

Counterparty	Book value	Cumulative valuation gain (loss) (*)	Reason for disposal
Daiyang Metal Co., Ltd.	6,237	(381)	Decision on the Board of Bond Financial Institutions for debt-for-equity swap securities
Zyle Motoer Sales Co.	1,392	107	Sale to board

Counterparty	Book value	Cumulative valuation gain (loss) (*)	Reason for disposal
Ajin P&P Co., Ltd.	618	28	Exercise the right to stock sale by Board of Directors
KSP	255	215	Sale of the debt equity swap stock
Taihan Electric Wire Co., Ltd.	128	(265)	Decision of the Board of Directors
Daehan i.m	105	105	Sale of the debt equity swap stock
Microfinance & Badbank Harmony Co., Ltd.	62	62	Capital reduction
Others	32	12	
Total	8,829	(117)	

(*) Cumulative gain or loss is replaced with retained earnings.

13-4 Dividends recognized from financial assets measured at FVOCI during the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

Classification	2020	2019
Dividends recognized from equity instruments held as of December 31 2020 and 2019	8,296	8,090
Dividends recognized from equity instruments derecognized	34	—
Total	8,330	8,090

13-5 Changes in the loss allowance in relation to financial assets measured at FVOCI during the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

<2020>

Classification	12 month expected credit loss	Lifetime expected credit losses		Total
		Non credit-impaired debt securities	Credit-impaired debt securities	
Beginning balance	7,458	—	—	7,458
Increase due to business combination	6	—	—	6
Provision (reversal) for possible loan losses	8,161	—	—	8,161
New financial assets executed or purchased	681	—	—	681
Disposal financial assets	(5,253)	—	—	(5,253)
Exchange rate fluctuation and others	(194)	—	—	(194)

Classification	12 month expected credit loss	Lifetime expected credit losses		Total
		Non credit-impaired debt securities	Credit-impaired debt securities	
Ending balance	10,859	–	–	10,859

<2019>

Classification	12 month expected credit loss	Lifetime expected credit losses		Total
		Non credit-impaired debt securities	Credit-impaired debt securities	
Beginning balance	7,009	–	–	7,009
Provision (reversal) for possible loan losses	3,046	–	–	3,046
New financial assets executed or purchased	316	–	–	316
Disposal financial assets	(2,981)	–	–	(2,981)
Exchange rate fluctuation and others	68	–	–	68
Ending balance	7,458	–	–	7,458

13-6 Changes in the carrying amount in relation to financial assets measured at FVOCI during the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

<2020>

Classification	12 month expected credit loss	Lifetime expected credit losses		Total
		Non credit-impaired debt securities	Credit-impaired debt securities	
Beginning balance	36,781,485	–	–	36,781,485
Increase due to business combination	228,401	–	–	228,401
New financial assets executed or purchased	33,345,608	–	–	33,345,608
Disposed financial assets	(35,246,716)	–	–	(35,246,716)
Exchange rate fluctuation and others	(225,446)	–	–	(225,446)
Ending balance	34,883,332	–	–	34,883,332

<2019>

Classification	12 month expected credit loss	Lifetime expected credit losses		Total
		Non credit-impaired debt securities	Credit-impaired debt securities	
Beginning balance	35,582,350	–	–	35,582,350
New financial assets executed or purchased	21,670,780	–	–	21,670,780
Disposed financial assets	(20,359,875)	–	–	(20,359,875)

Classification	12 month expected credit loss	Lifetime expected credit losses		Total
		Non credit-impaired debt securities	Credit-impaired debt securities	
Exchange rate fluctuation and others	(111,770)	–	–	(111,770)
Ending balance	36,781,485	–	–	36,781,485

14. Securities measured at amortized cost

14-1 Details of securities measured at amortized cost as of December 31, 2020 and 2019 are as follows (Korean won in millions):

Classification	December 31, 2020	December 31, 2019
Government and public bonds	4,031,947	2,676,805
Financial bonds	2,146,316	3,215,657
Corporate bonds and others	10,174,991	9,161,622
Securities denominated in foreign currencies	2,033,493	1,804,549
Allowance for credit losses	(10,090)	(4,011)
Total	18,376,657	16,854,622

14-2 There is no income or loss due to the disposal of securities measured at amortized cost during the years ended December 31, 2020 and 2019.

14-3 Changes in provision for possible loan losses in relation to securities measured at amortized cost during the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

<2020>

Classification	12 month expected credit loss	Lifetime expected credit losses		Total
		Non credit-impaired loans	Credit-impaired loans	
Beginning balance	4,011	—	—	4,011
Increase due to business combination	29	—	—	29
Provision (reversal) for possible loan losses	8,208	—	—	8,208
New financial assets executed or purchased	1	—	—	1
Disposed financial assets	(868)	—	—	(868)
Exchange rate fluctuation and others	(1,291)	—	—	(1,291)
Ending balance	10,090	—	—	10,090

<2019>

Classification	12 month expected credit loss	Lifetime expected credit losses		Total
		Non credit-impaired loans	Credit-impaired loans	
Beginning balance	3,190	–	–	3,190
Provision (reversal) for possible loan losses	1,940	–	–	1,940
New financial assets executed or purchased	20	–	–	20
Disposed financial assets	(189)	–	–	(189)
Ex change rate fluctuation and others	(950)	–	–	(950)
Ending balance	4,011	–	–	4,011

14-4 Changes in the carrying amount in relation to securities measured at amortized cost during years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

<2020>

Classification	12 month expected credit loss	Lifetime expected credit losses		Total
		Non credit-impaired loans	Credit-impaired loans	
Beginning balance	16,858,632	–	–	16,858,632
Increase due to business combination	81,956	–	–	81,956
New financial assets executed or purchased	5,835,696	–	–	5,835,696
Disposed financial assets	(4,321,152)	–	–	(4,321,152)
Ex change rate fluctuation and others	(68,385)	–	–	(68,385)
Ending balance	18,386,747	–	–	18,386,747

<2019>

Classification	12 month expected credit loss	Lifetime expected credit losses		Total
		Non credit-impaired loans	Credit-impaired loans	
Beginning balance	14,785,856	–	–	14,785,856
New financial assets executed or purchased	3,120,514	–	–	3,120,514
Disposed financial assets	(1,100,676)	–	–	(1,100,676)
Ex change rate fluctuation and others	52,938	–	–	52,938
Ending balance	16,858,632	–	–	16,858,632

15. Pledged asset

15-1 The details of assets provided as collateral as of the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

<December 31, 2020>

Classification	Details	Book Value
Financial assets measured at FVTPL	Pledged securities	3,662,080
	Derivative instruments	1,868,548
	KRX, etc.	380,273
	Client RP	5,613,828
	Others	5,242
	Subtotal	11,529,971
Financial assets measured at FVOCI	Futures	79,860
	Daylight credit	543,533
	Client RP	915,924
	Foreign currency	777,154
	Pledged securities	1,061,613
	BOK payment	2,193,151
	Borrowings from BOK	1,207,402
	Others	575,390
	Subtotal	7,354,027
Securities measured at amortized cost	Foreign currency borrowing	491,286
	Establishment of a pledge right	10,242
	Futures	298,597
	BOK payment	1,649,843
	Daylight credit	116,809
	Client RP	296
	Borrowings from BOK	3,098,593
	Pledged securities	183,482
	Others	356,108
	Subtotal	6,205,256

Classification	Details	Book Value
Property and equipment	Rental deposit	763
Total		25,090,017

<December 31, 2019>

Classification	Details	Book Value
Financial assets measured at FVTPL	Pledged securities	4,133,303
	Derivative instruments	1,726,033
	KRX, etc.	227,551
	Client RP	3,826,020
	Others	240,777
	Subtotal	10,153,684
Financial assets measured at FVOCI	Futures	79,552
	Daylight credit	617,090
	Client RP	89,831
	Foreign currency	347,854
	Pledged securities	422,258
	Borrowings	991,175
	BOK payment	3,208,211
	Others	236,554
	Subtotal	5,992,525
Securities measured at amortized cost	Foreign currency borrowing	173,914
	Establishment of a pledge right	20,287
	Futures	290,393
	BOK payment	1,020,615
	Daylight credit	55,617
	Borrowings	981,225
	Client RP	294
	Securities paid	4,935
	Others	73,838
	Subtotal	2,621,118
Property and equipment	Rental deposit	763

Classification	Details	Book Value
Total		18,768,090

15-2 The fair value of collateral that is available-for-sale and re-pledge, irrespective of default, is as follows (Korean won in millions):

<December 31, 2020>

Classification	Fair value of collateral	Fair value of collateral sold or re-pledged
Securities	13,818,912	1,081,816
Deposits	350,047	—

<December 31, 2019>

Classification	Fair value of collateral	Fair value of collateral sold or re-pledged
Securities	15,593,244	1,303,649

16. Loans and receivables measured at amortized cost

16-1 Details of loans and receivables measured at amortized cost as of December 31, 2020 and 2019 are as follows (Korean won in millions):

Classification	December 31, 2020	December 31, 2019
Loans and receivables:		
Loans in Korean won	251,403,242	226,328,349
Loans in foreign currencies	24,226,188	23,280,577
Domestic import usance	2,756,392	3,411,632
Call loans	946,689	1,246,055
Bills purchased in Korean won	37,026	318,479
Bills purchased in foreign currencies	5,936,779	5,005,813
Advance payments on acceptances and guarantees	10,182	35,345
Credit card loans	7,468,094	7,648,089
Bonds purchased under resale agreement	12,369,466	11,837,603
Installment receivables purchased	496,441	682,387
Privately-placed corporate bonds	2,368,818	1,925,036
Lease receivables	2,138,779	1,830,134
Subtotal	310,158,096	283,549,499
Plus (less):		
Deferred loan fees	407,149	370,514
Present value discount	(2,957)	(4,709)
Allowance for loan losses	(1,770,473)	(1,609,534)
Total	308,791,815	282,305,770

16-2 Loans measured at amortized cost to customer as of December 31, 2020 and 2019 are listed as follows (Korean won in millions):

Classification	December 31, 2020	December 31, 2019
Corporate loans:		
Large business	36,535,621	34,477,962
Small and medium business	109,120,077	96,993,144
Public sector and others	23,278,200	23,561,734
Subtotal	168,933,898	155,032,840
Household loans	133,756,104	120,868,570
Credit card loans	7,468,094	7,648,089
Subtotal	310,158,096	283,549,499
Plus (less):		
Deferred loan fees	407,149	370,514
Present value discount	(2,957)	(4,709)
Allowance for loan losses	(1,770,473)	(1,609,534)
Total	308,791,815	282,305,770

16-3 Changes in allowance for possible loan losses for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

<2020>

Classification	12 month expected credit	Lifetime expected credit losses		Credit impairment model	Total
		Non credit-impaired loan	Credit-impaired loan		
As of January 1, 2020	477,717	418,223	700,518	13,076	1,609,534
Increase due to business combination	195	33	316	–	544
Transfer to 12 month expected credit loss	52,447	(47,615)	(4,832)	–	–
Transfer to non credit-impaired financial assets	(36,130)	40,141	(4,011)	–	–
Transfer to credit-impaired loan	(128,247)	(90,394)	219,018	(377)	–
Provisions of allowance of possible loan losses	229,441	263,013	358,085	10,704	861,243
Write-offs	(114)	(338)	(679,887)	–	(680,339)
Collection of loans written-off	–	–	176,525	–	176,525
Disposal of non performing loans	–	–	(55,236)	(2,063)	(57,299)
Changes in exchange rate, etc.	(57,040)	(2,522)	(80,173)	–	(139,735)
As of December 31, 2020	538,269	580,541	630,323	21,340	1,770,473

<2019>

Classification	12 month expected credit	Lifetime expected credit losses		Credit impairment model	Total
		Non credit-impaired loan	Credit-impaired loan		
As of January 1, 2019	418,327	485,088	814,285	9,861	1,727,561
Transfer to 12 month expected credit loss	40,118	(36,251)	(3,867)	–	–
Transfer to non credit-impaired financial assets	(26,444)	71,223	(44,779)	–	–
Transfer to credit-impaired loan	(102,105)	(95,012)	197,063	54	–
Provisions of allowance of possible loan losses	168,534	(6,651)	360,968	7,286	530,137
Write-offs	(27)	(605)	(675,899)	–	(676,531)
Collection of loans written-off	–	–	190,620	–	190,620
Disposal of non performing loans	–	(553)	(44,020)	(4,125)	(48,698)
Changes in exchange rate, etc.	(20,686)	984	(93,853)	–	(113,555)
As of December 31, 2019	477,717	418,223	700,518	13,076	1,609,534

16-4 Changes in the carrying amounts of allowance for possible loan losses for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

<2020>

Classification	12 month expected credit	Lifetime expected credit losses		Credit impairment model	Total
		Non credit-impaired loan	Credit-impaired loan		
As of January 1, 2020	247,592,363	33,532,727	1,572,453	851,956	283,549,499
Increase due to business combination	112,474	8,210	11,758	–	132,442
Transfer to 12 month expected credit loss	3,707,669	(3,688,605)	(19,064)	–	–
Transfer to non credit-impaired financial assets	(8,397,962)	8,460,192	(62,230)	–	–
Transfer to credit-impaired loan	(807,094)	(538,154)	1,348,170	(2,922)	–
Write-offs	(3)	(338)	(679,887)	–	(680,228)
Net increase and decrease	35,135,781	(7,620,788)	(557,931)	515,129	27,472,191
Disposal of non-performing loans	–	–	(313,746)	(2,062)	(315,808)
As of December 31, 2020	277,343,228	30,153,244	1,299,523	1,362,101	310,158,096

<2019>

Classification	12 month expected credit	Lifetime expected credit losses		Credit impairment model	Total
		Non credit-impaired loan	Credit-impaired loan		
As of January 1, 2019	216,366,200	43,104,583	1,813,290	777,180	262,061,253
Transfer to 12 month expected credit loss	5,198,952	(5,158,587)	(40,365)	–	–
Transfer to non credit-impaired financial assets	(6,305,081)	6,471,138	(166,057)	–	–
Transfer to credit-impaired loan	(758,803)	(622,389)	1,376,543	4,649	–
Write-offs	(26)	(606)	(674,173)	(1,726)	(676,531)
Net increase and decrease	33,091,121	(10,259,809)	(369,350)	75,978	22,537,940
Disposal of non-performing loans	–	(1,603)	(367,435)	(4,125)	(373,163)
As of December 31, 2019	247,592,363	33,532,727	1,572,453	851,956	283,549,499

16-5 Amortized cost before change and net gain or loss due to change from cash flows of contract of loans, whose allowance for possible loan losses were measured based on the life-time expected credit loss for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

Classification	2020	2019
Amortized cost before change	140,093	208,027
Net gain or loss due to change	20,918	526

16-6 Loans whose contractual cash flows changed for which the measurement of allowance for doubtful accounts changed from the lifetime ECL to 12-month ECL on initial recognition during the reporting period are no loans as of December 31, 2020 and December 31, 2019, respectively.

16-7 The contractual non-recoverable amount of the loan receivable that has been fully amortized as of the end of the reporting period but is still trying to recover is ₩ 4,920,853 million and ₩ 4,960,930 as of December 31, 2020, and 2019 respectively.

17. Derivative instruments

17-1 Details of amounts of the unsettled derivative contract and fair value of derivatives held by the Group as of December 31, 2020 and 2019 are as follows (Korean won in millions):

<December 31, 2020>

Classification	Notional amounts	Net valuation gain	Net valuation loss	Assets	Liabilities
Currency:					
Forward	204,879,584	5,735,343	6,037,009	5,867,571	6,052,314
Swap	83,303,438	3,057,577	2,538,056	2,957,837	2,392,080
Call option	455,357	2,797	–	3,337	–
Put option	383,230	–	3,517	–	6,421
Future	1,634,898	46	1,189	46	1,189
Subtotal	290,656,507	8,795,763	8,579,771	8,828,791	8,452,004
Interest:					
Swap	166,773,776	540,227	490,812	1,094,676	980,603
Call option	487,326	2,840	–	59,168	–
Put option	1,165,000	–	1,344	–	27,771
Future	5,114,440	1,332	936	1,333	936
Subtotal	173,540,542	544,399	493,092	1,155,177	1,009,310
Stock:					
Swap	4,461,906	80,899	171,167	387,013	749,728
Call option	2,953,391	72,708	23,797	141,499	–
Put option	5,512,212	61,996	27,342	–	114,742
Future	572,116	5,097	2,134	5,097	2,134
Subtotal	13,499,625	220,700	224,440	533,609	866,604
Credit:					
Swap(CDS)	14,998,965	38,611	50,834	117,178	123,795
Total revenue swap (TRS)	936,946	19,120	27,089	19,489	29,643
	15,935,911	57,731	77,923	136,667	153,438
Others:					
Credit risk valuation adjustment	–	–	3,214	(14,188)	–
Profit or loss on the trade date (unamortized)	–	–	–	30,516	58,223
Other forwards	490,780	10,996	13,526	10,996	13,526
Other swaps	1,469,088	41,509	60,578	93,604	130,015
Other call options	397,801	13,850	10,128	14,431	–
Other put options	56,435	194	644	–	11,449

Classification	Notional amounts	Net valuation gain	Net valuation loss	Assets	Liabilities
Subtotal	2,414,104	66,549	88,090	135,359	213,213
Total	496,046,689	9,685,142	9,463,316	10,789,603	10,694,569

<December 31, 2019>

Classification	Notional amounts	Net valuation gain	Net valuation loss	Assets	Liabilities
Currency:					
Forward	241,676,294	2,722,610	2,248,643	2,750,537	2,296,294
Swap	86,120,142	977,179	1,110,776	1,105,771	1,076,835
Call option	625,814	2,085	–	4,330	–
Put option	628,551	–	1,726	–	5,277
Future	1,612,358	47	104	47	104
Subtotal	330,663,159	3,701,921	3,361,249	3,860,685	3,378,510
Interest:					
Swap	156,740,245	590,600	551,787	965,544	844,613
Call option	566,957	2,960	–	58,265	–
Put option	1,497,730	–	11,752	–	44,028
Future	5,907,478	4,718	520	4,718	519
Subtotal	164,712,410	598,278	564,059	1,028,527	889,160
Stock:					
Swap	3,266,859	136,644	28,832	271,832	264,571
Call option	1,955,815	57,512	14,790	74,384	–
Put option	3,937,689	51,421	33,550	–	106,991
Future	412,635	2,710	726	2,710	726
Subtotal	9,572,998	248,287	77,898	348,926	372,288
Credit:					
Swap(CDS)	16,427,324	101,915	118,119	137,635	135,611
Total revenue swap (TRS)	333,869	46	6,704	1,454	4,355
	16,761,193	101,961	124,823	139,089	139,966
Others:					
Credit risk valuation adjustment	–	235	1,336	(10,974)	–
Profit or loss on the trade date (unamortized)	–	–	–	35,461	33,419
Other Derivatives	2,776,411	87,435	58,468	119,800	102,974
Subtotal	2,776,411	87,670	59,804	144,287	136,393
Total	524,486,171	4,738,117	4,187,833	5,521,514	4,916,317

17-2 Unsettled derivative contracts held for hedging purpose as of December 31, 2020 and 2019 are as follows (Korean won in millions):

<December 31, 2020>

Classification	Notional amounts	Net valuation gain	Net valuation loss	Assets	Liabilities
Fair value hedge					
Currency forward	50,050	3,152	–	2,796	89
Currency swap	502,941	27,719	–	28,125	395
Interest swap	2,805,680	60,929	2,088	110,542	7,830
Subtotal	3,358,671	91,800	2,088	141,463	8,314
Cash flow hedge					
Currency swap	326,400	–	4,418	–	25,718
Interest swap	80,000	–	584	–	705
Subtotal	406,400	–	5,002	–	26,423
Total	3,765,071	91,800	7,090	141,463	34,737

<December 31, 2019>

Classification	Notional amounts	Net valuation gain	Net valuation loss	Assets	Liabilities
Fair value hedge					
Currency forward	61,045	1,537	–	1,537	–
Currency swap	611,636	4,674	5,827	7,599	8,200
Interest swap	3,732,922	118,916	11,357	58,897	19,103
Subtotal	4,405,603	125,127	17,184	68,033	27,303
Cash flow hedge					
Interest swap	150,000	92	90	92	212
Total	4,555,603	125,219	17,274	68,125	27,515

For derivative transactions involving both Korean won and foreign currency such as currency forwards, currency futures and currency swap, the fair value of the unsettled amount for such transaction is presented using the proper foreign exchange rate of the contract amount in foreign currency at the reporting date. For a derivative transaction involving only foreign currency, the fair value of the unsettled amount is presented using the proper foreign exchange rate of the foreign currency purchased at the reporting date.

Non derivative contracts held for hedging purpose as of December 31, 2020 and 2019 are as follows (Korean won in millions):

Classification	December 31, 2020		December 31, 2019	
	Book value	Net valuation gain or loss	Book value	Net valuation gain or loss
Fair value hedge accounting:				
Foreign currency loans	217,600	(13,960)	231,560	(7,940)
Net investment in foreign operations hedge accounting:				
Foreign currency loans	732,885	36,615	657,192	(25,953)

17-2-1 Details of fair value hedge as of December 31, 2020 and 2019 are as follows (Korean won in millions):

<December 31, 2020>

Risk	Hedged item	Book value		Accumulated Adjusted Fair value hedge amount		Adjusted Fair value hedge amount	
		Asset	Liability	Asset	Liability	Asset	Liability
Foreign currency risk	Securities measured at FVOCI	84,531	–	(1,390)	–	(16,497)	–
Foreign currency risk	Securities measured at amortized cost	28,350	–	172	–	190	–
Interest rate risk	Depository liabilities in Korean won	–	376,907	–	(3,093)	–	1,637
Interest rate risk	Depository liabilities in foreign currency	–	124,939	–	5,259	–	3,552
Interest rate risk	Financial debentures in Korean won	–	125,848	–	(4,152)	–	(796)
Interest rate risk	Financial debentures in foreign currency	–	2,280,266	–	104,266	–	54,562
Interest rate and Foreign currency risk	Financial debentures in foreign currency	–	511,736	–	8,795	–	1,028
Total		112,881	3,419,696	(1,218)	111,075	(16,307)	59,983

<December 31, 2019>

Risk	Hedged item	Book value		Accumulated Adjusted Fair value hedge amount		Adjusted Fair value hedge amount	
		Asset	Liability	Asset	Liability	Asset	Liability
Foreign currency risk	Securities measured at FVOCI	227,468	–	11,426	–	6,806	–
Foreign currency risk	Securities measured at amortized cost	13,085	–	(402)	–	(402)	–
Interest rate risk	Depository liabilities in Korean won	–	762,732	–	(7,299)	–	(879)
Interest rate risk	Depository liabilities in foreign currency	–	533,659	–	1,071	–	33,974
Interest rate risk	Financial debentures in Korean won	–	76,644	–	(3,356)	–	(3,356)
Interest rate risk	Financial debentures in foreign currency	–	2,399,169	–	48,835	–	77,572
Interest rate and Foreign currency risk	Financial debentures in foreign currency	–	620,269	–	8,633	–	725
Total		240,553	4,392,473	11,024	47,884	6,404	108,036

17-2-2 The details of the fair value hedge target items and the fair value hedge method of the consolidated entity as of the end of the year December 31, 2020 and 2019 are as follows (Korean won in millions) :

<December 31, 2020>

Hedged item	Hedging instrument	Gain (loss) on valuation of hedged item	Gain (loss) on valuation of hedging instrument	Ineffective portion of hedge recognized in profit or loss
Securities measured at FVOCI	Financial debentures in foreign currency	(13,960)	13,960	–
Securities measured at FVOCI	Currency forwards	(2,537)	3,020	483
Securities measured at amortized cost	Currency forwards	190	132	322
Depository liabilities in Korean won	Interest swap	(1,637)	1,637	–
Depository liabilities in foreign currency	Interest swap	(3,552)	3,552	–
Financial debentures in Korean won	Interest swap	796	(796)	–
Financial debentures in foreign currency	Interest swap	(54,562)	54,448	(114)
Financial debentures in foreign currency	Currency swap	(1,028)	27,719	26,691
Total		(76,290)	103,672	27,382

<December 31, 2019>

Hedged item	Hedging instrument	Gain (loss) on valuation of hedged item	Gain (loss) on valuation of hedging instrument	Ineffective portion of hedge recognized in profit or loss
Securities measured at FVOCI	Financial debentures in foreign currency	7,940	(7,940)	—
Securities measured at FVOCI	Currency forwards	(1,134)	1,134	—
Securities measured at amortized cost	Currency forwards	(402)	402	—
Depository liabilities in Korean won	Interest swap	879	(882)	(3)
Depository liabilities in foreign currency	Interest swap	(33,974)	33,974	—
Financial debentures in Korean won	Interest swap	3,356	(3,356)	—
Financial debentures in foreign currency	Interest swap	(77,572)	77,823	251
Financial debentures in foreign currency	Currency swap	(725)	(1,152)	(1,877)
Total		(101,632)	100,003	(1,629)

17-2-3 Details of items subject to cash flow hedge as of December 31, 2020 and 2019 are as follows (Korean won in millions):

<December 31, 2020>

Risk	Hedged item	Book value		Accumulated cash flow hedge adjustments		Cash flow hedging effect	
		Asset	Liability	Asset	Liability	Asset	Liability
Interest rate risk	Variable interest rate debentures denominated in Korean won	—	79,983	—	(704)	—	(584)
Interest rate and foreign exchange risk	Variable interest rate debentures denominated in foreign currency	—	325,883	—	(25,718)	—	(4,441)
Total		—	405,866	—	(26,422)	—	(5,025)

<December 31, 2019>

Risk	Hedged item	Book value		Accumulated cash flow hedge adjustments		Cash flow hedging effect	
		Asset	Liability	Asset	Liability	Asset	Liability
Interest rate risk	Variable interest rate debentures denominated in Korean won	–	150,000	–	(121)	–	2

17-2-4 Cash flow hedged items and gain or loss on valuation of items subject to cash flow hedge for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

<December 31, 2020>

Hedged item	Hedging instrument	Gain (loss) on valuation of hedged item	Gain (loss) on valuation of hedging instrument	Ineffective portion of hedge recognized in profit or loss
Variable interest rate debentures denominated in Korean won, Borrowings	Interest swap	584	(584)	–
Variable interest rate debentures denominated in foreign currency	Currency swap	4,441	(4,441)	–
Total		5,025	(5,025)	–

<December 31, 2019>

Hedged item	Hedging instrument	Gain (loss) on valuation of hedged item	Gain (loss) on valuation of hedging instrument	Ineffective portion of hedge recognized in profit or loss
Variable interest rate debentures denominated in Korean won	Interest swap	(2)	2	–

17-2-5 Net investment hedged items and gain or loss on valuation of items subject to net investment hedge for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

<December 31, 2020>

Hedged item	Hedging instrument	Gain (loss) on valuation of hedged item	Gain (loss) on valuation of hedging instrument	Ineffective portion of hedge recognized in profit or loss
Net investment in foreign operation (Foreign currency risk)	Debentures denominated in foreign currencies	(36,615)	36,615	–

<December 31, 2019>

Hedged item	Hedging instrument	Gain (loss) on valuation of hedged item	Gain (loss) on valuation of hedging instrument	Ineffective portion of hedge recognized in profit or loss
Net investment in foreign operation (Foreign currency risk)	Debentures denominated in foreign currencies	25,953	(25,953)	—

17-3 Details of the average hedging ratio of future cash flow as of December 31, 2020 and 2019 are as follows (Korean won in millions):

<December 31, 2020>

Classification	1 year	2 years	2 years	4 years	5 years	After 5 years	Total
Fair value hedge:							
Nominal value of hedged items	987,834	326,400	432,501	979,200	—	847,280	3,573,215
Nominal value of hedging instrument	990,891	326,400	432,501	979,200	—	847,280	3,576,272
Rate of average hedging	99.88%	100.00%	99.81%	99.65%	—	100.00%	99.90%
Cash flow hedge:							
Nominal value of cash flow hedge	—	216,000	190,400	—	—	—	406,400
Nominal value of hedging instrument	—	216,000	190,400	—	—	—	406,400
Rate of average hedging	—	100.00%	100.00%	—	—	—	100.00%
Net investment hedges of foreign operations:							
Nominal value of hedged items	—	—	—	—	—	732,885	732,885
Nominal value of hedging instrument	—	—	—	—	—	732,885	732,885
Rate of average hedging	—	—	—	—	—	100.00%	100.00%

<December 31, 2019>

Classification	1 year	2 years	2 years	4 years	5 years	After 5 years	Total
Fair value hedge:							
Nominal value of hedged items	185,024	987,925	347,340	445,552	1,042,020	1,638,882	4,646,743
Nominal value of hedging instrument	187,507	987,925	347,340	445,552	1,042,020	1,638,882	4,649,226
Rate of average hedging	98.70%	99.70%	100.00%	99.65%	99.16%	99.99%	99.83%

Classification	1 year	2 years	2 years	4 years	5 years	After 5 years	Total
Cash flow hedge:							
Nominal value of cash flow hedge	70,000	–	80,000	–	–	–	150,000
Nominal value of hedging instrument	70,000	–	80,000	–	–	–	150,000
Rate of average hedging	100.00%	–	100.00%	–	–	–	100.00%
Net investment hedges of foreign operations:							
Nominal value of hedged items	–	–	–	–	–	657,192	657,192
Nominal value of hedging instrument	–	–	–	–	–	657,192	657,192
Rate of average hedging	–	–	–	–	–	100.00%	100.00%

17-4 Hedging relationships affected by IBOR Reform

17-4-1 The exposure to hedging relationships due to the Group's IBOR reform as of December 31, 2020 is as follows. The USD LIBOR interest rate will be replaced by a Secure Overnight Financing Rate (SOFR) based on actual transactions starting in 2022. In this hedging relationship, the Group assumed that the spread changed on a SOFR basis in 2022 would be similar to that included in the interest rate swap used as a hedging instrument, and no other changes were assumed. It also excluded exposure to interest rate index reform that would expire before the transition to SOFR.

<December 31, 2020>

Interest index	Currency	Book value of non-derivative financial liabilities	Nominal value of hedging instruments
KRW 91 CD	KRW	670,000	590,000
USD 1M LIBOR	USD	326,400	326,400
USD 3M LIBOR	USD	1,749,298	1,642,880
CHF 3M LIBOR	CHF	127,905	123,433
CNY 3M LIBOR	CNY	37,829	36,731
HKD 3M LIBOR	HKD	57,943	54,737

17-4-2 The nominal amount and weighted average maturity of derivatives that will be affected by the IBOR reform as financial instruments analyzed on an interest rate basis are converted to a SOFR basis as of December 31, 2020:

<December 31, 2020>

Interest index	Currency	Nominal value of derivatives	Weighted average of remaining life
KRW 91 CD	KRW	590,000	15.87
USD 1M LIBOR	USD	326,400	2.07
USD 3M LIBOR	USD	1,642,880	4.65
CHF 3M LIBOR	CHF	123,433	2.75
CNY 3M LIBOR	CNY	36,731	2.67
HKD 3M LIBOR	HKD	54,737	2.67

18. Investments in associates and joint ventures

18-1 Details of investments in associates and joint ventures

Details of investments in associates and joint ventures as of December 31, 2020 and 2019 are as follows (Korean won in millions):

<December 31, 2020>

Classification	Type	Country	Number of shares	Ownership (%)	Book value
Bank of Jilin (*1)	Associates	China	1,200,000,000	12.7	758,816
Korea Credit Bureau (*1)	Associates	Korea	180,000	9.0	7,819
CM International Financing Leases	Associates	China	1,125,000,000	25.0	2,777
Beijing Langa Asset Management Co., Ltd.	Associates	China	395,500,000	21.9	82,176
Company KStartup Winwin Fund	Associates	Korea	10,000	23.8	5,487
KEB Hana-KMC Unicom Fund of Funds (*3)(*5)	Associates	Korea	–	90.9	55,812
Ourcrowd International Invest Co., Ltd. (*2)(*3)	Associates	Virgin Island	–	22.2	13,970
Bank for Investment and Development of Vietnam (*1)	Associates	Vietnam	603,302,706	15.0	1,194,183
PT. SINARIMAS HANA FINANCE (*4)	Joint ventures	Indonesia	2,375	85.0	20,213
Hana UBS Asset Management	Associates	Korea	4,410,000	49.0	35,107
Hana Power Infra 1st Private Equity Fund (*1)(*3)	Associates	Korea	–	7.0	22,469
KOCREF REIT 30 (*1)	Associates	Korea	400,000	19.1	36,609
Lotte Accelerator	Associates	Korea	999,800	20.0	5,229
Petra 6's Alpa Private Equity Fund (*3)(*5)	Associates	Korea	–	55.7	14,503
Myoungshin Co., Ltd. (*1)(*2)	Associates	Korea	3,996,739	9.1	22,059
2018 HANA-MAGNA start-up fund (*3)	Associates	Korea	–	21.9	6,616
Dream Island (*1)(*2)	Associates	Korea	1,400,000	10.2	6,910
Fresheasy Co., Ltd. (*1)(*2)	Associates	Korea	248,467	16.9	20,811
Hana Digital Transformation Fund (*3)(*5)	Associates	Korea	–	57.9	52,880
Mirae Credit Information Services Corp	Associates	Korea	186,000	31.0	10,072
Finnq Co., Ltd. (*4)	Joint ventures	Korea	6,630,000	51.0	13,716
Lakebridge The Growth Capital PEF1 (*3)	Associates	Korea	–	23.5	5,949
All Together Korea Fund5 (*3)(*5)	Associates	Korea	–	100.0	10,023
HORIZON PRIVATE EQUITY FUND (*5)	Associates	Korea	144,420,000	80.2	215,652
Others	Associates				111,520
Total					2,731,378

<December 31, 2019>

Classification	Type	Country	Number of shares	Ownership (%)	Book value
Bank of Jilin (*1)	Associates	China	1,200,000,000	14.0	731,457
Korea Credit Bureau (*1)	Associates	Korea	180,000	9.0	6,657
CM International Financing Leases	Associates	China	1,125,000,000	25.0	6,429
Beijing Langa Asset Management Co., Ltd. (*2)	Associates	China	395,500,000	23.1	77,084
Company KStartup Winwin Fund	Associates	Korea	10,000	23.8	5,621
PT. SINARMAS Hana Finance (*4)	Joint ventures	Indonesia	1,275	85.0	8,975
Ourcrowd International Invest Co., Ltd. (*2)(*3)	Associates	Virgin Island	-	22.2	14,971
Bank for Investment and Development of Vietnam (*1)	Associates	Vietnam	603,302,706	15.0	1,272,969
Hana UBS Asset Management	Associates	Korea	4,410,000	49.0	35,477
Hana Power Infra 1st Private Equity Fund (*1)(*3)	Associates	Korea	-	7.0	22,337
KOCREF REIT 30 (*1)	Associates	Korea	400,000	10.9	19,285
Lotte Accelerator	Associates	Korea	999,800	20.0	5,358
Petra 6's Alpa Private Equity Fund (*3)(*5)	Associates	Korea	-	87.1	46,406
Myoungshin Co., Ltd. (*1)(*2)	Associates	Korea	596,107	16.8	25,851
2018 HANA-MAGNA start-up fund (*3)	Associates	Korea	-	21.9	6,761
Dream Island (*1)(*2)	Associates	Korea	1,400,000	10.2	6,822
Fresheasy Co., Ltd. (*1)(*2)	Associates	Korea	128,615	18.8	10,928
Sprott Global Renewable Private Equity Fund II (*3)	Associates	Korea	-	21.9	19,407
Mirae Credit Information Services Corp	Associates	Korea	186,000	31.0	9,591
Hana Digital Transformation Fund (*3)(*5)	Associates	Korea	-	57.9	34,135
Finnq Co., Ltd. (*4)	Joint ventures	Korea	6,630,000	51.0	23,683
Others					49,923
Total					2,440,127

(*1) The Group exercises significant influence on the investee's Board of Directors and therefore, is included as part of affiliated companies under the equity method.

(*2) The financial statements for the current period were not available therefore the financial statements from the recent period were used and the effect from all material transactions or events from the current period were evaluated and appropriately reflected.

(*3) The Group does not own shares in the investees as they were incorporated as either a private equity investment vehicle or others.

(*4) Equity method is applied since the Group cannot individually control the investees, and other shareholders' consent is required to make important decisions

for the company.

(*5) Because the Group cannot exercise control over the company in the decision-making body, it was classified as an investment in the associates.

Balances of investment accounts became zero so equity method was no longer applied. In this regard, unrecognized amount of changes in equity for the year ended December 31, 2020 and unrecognized accumulated amount of changes in equity for the prior year ended December 31, 2019 are as follows (Korean won in millions):

Classification	Number of shares	Ownership (%)	Unrecognized changes in equity as of December 31, 2020	Unrecognized accumulated changes in equity as of December 31, 2019
Sorresevit Co., Ltd.	165,000	1.9	(419)	(927)
Midan City Development Co.,	387,800	2.2	–	(523)
GMHB Co., Ltd. (*)	199,000	46.0	41,624	(44,911)
Gunsan Bio Energy Co., Ltd.	200,000	18.9	(146)	(3,292)
Odin 2 LLC	13,990,992	26.7	–	(58,062)

(*) The stake is 19.9% but the profit share is 46.0%.

18-2 Financial information of investments in associates and joint ventures

The financial information of investments in associates and joint ventures as of December 31, 2020 and 2019 is as follows (Korean won in millions):

<December 31, 2020>

Classification	Assets	Liabilities	Equity	Revenue	Net income (loss)	Other comprehensive income (loss)	Comprehensive income (loss)
Bank of Jilin	70,071,749	64,195,991	5,875,758	7,432,297	211,144	132	211,276
Korea Credit Bureau	117,077	37,599	79,478	107,810	13,391	-	13,391
OM International Financing Leases	2,776,436	2,218,213	558,223	68,082	(26,177)	(628)	(26,805)
Beijing Langa Asset Management Co., Ltd.	413,249	33,896	379,353	47,452	25,703	-	25,703
Company KStartup Winwin Fund	23,506	459	23,047	2	(991)	1,270	279
KEB Hana-KMC Unicorn Fund of Funds	61,618	224	61,394	5	(439)	-	(439)
Ourcrowd International Invest Co., Ltd.	58,528	638	57,890	830	339	(2,686)	(2,347)
Bank for Investment and Development of Vietnam	71,582,341	67,812,198	3,770,143	6,368,462	365,761	(8,692)	357,069
PT. SINARIMAS Hana Finance	78,266	54,771	23,495	13,032	(1,534)	(2,280)	(3,814)
Hana UBS Asset Management	124,528	52,882	71,646	27,655	8,130	21	8,151
Hana Power Infra 1st Private Equity Fund	321,598	619	320,979	10,785	8,305	-	8,305
KOCREF REIT 30	523,621	407,376	116,245	12,708	(3,819)	-	(3,819)
Lotte Accelerator	19,930	640	19,290	2,514	(308)	57	(251)
Petra 6th Alpa Private Equity Fund	26,410	367	26,043	902	57	-	57
Myoungshin Co., Ltd.	432,393	293,183	139,210	553,665	24,572	2,956	27,528
2018 HANA-MAGNA start-up fund	30,246	-	30,246	178	(664)	-	(664)
Dream Island	127,537	61,138	66,399	-	(432)	-	(432)
Fresheasy Co., Ltd.	152,266	97,427	54,839	97,836	(31,118)	-	(31,118)
Hana Digital Transformation Fund	91,460	50	91,410	1,112	(2,596)	-	(2,596)
Mirae Credit Information Services Corp	44,606	12,115	32,491	73,893	2,153	-	2,153
Finnq Co., Ltd.	35,311	8,416	26,895	3,937	(19,302)	-	(19,302)
Lakebridge The Growth Capital PEF1	25,235	-	25,235	429	38	-	38
All Together Korea Fund5	10,025	1	10,024	187	150	-	150
HORIZON PRIVATE EQUITY FUND	269,280	279	269,001	-	(3,276)	-	(3,276)

<December 31, 2019>

Classification	Assets	Liabilities	Equity	Revenue	Net income (loss)	Other comprehensive income (loss)	Comprehensive income (loss)
Bank of Jilin	60,301,995	55,164,821	5,137,174	6,416,462	207,496	(2,528)	204,968
Korea Credit Bureau	96,855	30,289	66,566	91,200	1,480	-	1,480
OM International Financing Leases	3,148,490	2,577,430	571,060	168,690	(101,214)	(1,017)	(102,231)
Beijing Langa Asset Management Co., Ltd.	379,934	45,318	334,616	34,779	14,257	(436)	13,821
Company KStartup Winwin Fund	24,126	518	23,608	1,236	672	(1,934)	(1,262)
PT. SINARMAS Hana Finance	75,554	65,049	10,505	12,318	(434)	190	(244)
Ourcrowd International Invest Co., Ltd.	68,603	1,136	67,467	(2,803)	(3,420)	5,141	1,721
Bank for Investment and Development of Vietnam	74,505,238	70,616,924	3,888,314	6,059,114	434,111	-	434,111
Hana UBS Asset Management	118,972	46,570	72,402	29,026	9,531	(2)	9,529
Hana Power Infra 1st Private Equity Fund	319,712	606	319,106	9,532	7,053	-	7,053
KOCREF REIT 30	433,578	256,155	177,423	26,751	10,722	-	10,722
Lotte Accelerator	20,245	309	19,936	1,692	(1,075)	1,024	(51)
Petra 6th Alpa Private Equity Fund	54,277	983	53,294	1,865	632	-	632
Myoungshin Co., Ltd.	451,574	368,447	83,127	551,136	37,168	(396)	36,772
2018 HANA-MAGNA start-up fund	30,910	-	30,910	41	(779)	-	(779)
Dream Island	96,739	31,203	65,536	-	(1,556)	-	(1,556)
Fresheasy Co., Ltd.	95,588	47,739	47,849	48,192	(7,423)	-	(7,423)
Sprott Global Renewable Private Equity Fund II	88,489	3	88,486	1,233	934	-	934
Mirae Credit Information Services Corp	42,337	11,399	30,938	69,292	1,308	-	1,308
Hana Digital Transformation Fund	59,406	401	59,005	104	(995)	-	(995)
Finnq Co., Ltd.	54,382	7,944	46,438	1,968	(17,318)	(289)	(17,607)

18-3 Changes in investments in associates and joint ventures

Details of changes in investments in associates and joint ventures for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

<2020>

Classification	Owner-ship (%)	Initial book value	Purchase	Replacement	Dividend	Book value before valuation	Valuation of equity method		Disposal	Impairment loss	Book Value
							Gain or loss	Changes in equity			
Bank of Jilin	12.7	731,457	-	-	-	731,457	28,358	4,028	(5,027)	-	758,816
Korea Credit Bureau	9.0	6,657	-	-	(90)	6,567	1,252	-	-	-	7,819
OM International Financing Leases	25.0	6,429	-	-	-	6,429	-	-	-	(3,652)	2,777
Beijing Langa Asset Management Co., Ltd.	21.9	77,084	-	-	(1,719)	75,365	6,553	373	(115)	-	82,176
Company KStartup Winwin Fund	23.8	5,621	-	-	-	5,621	(237)	303	(200)	-	5,487
KEB Hana-KMC Unicorn Fund of Funds	90.9	5,669	50,670	-	-	56,339	(527)	-	-	-	55,812
OurCrowd International Invest	22.2	14,971	-	-	(308)	14,663	75	(426)	(342)	-	13,970
Bank for Investment and Development of Vietnam	15.0	1,272,969	-	-	(22,829)	1,250,140	20,441	(76,398)	-	-	1,194,183
PT. SINARMAS Hana Finance	85.0	8,975	14,216	-	-	23,191	(1,372)	(1,606)	-	-	20,213
Hana UBS Asset Management	49.0	35,477	-	-	(4,239)	31,238	3,859	10	-	-	35,107
Hana Power Infra 1st Private Equity Fund	7.0	22,337	-	-	-	22,337	591	(459)	-	-	22,469
KOCREF REIT 30	19.1	19,285	20,000	-	(1,506)	37,779	794	16,869	(18,833)	-	36,609
Lotte Accelerator	20.0	5,358	-	-	-	5,358	(141)	12	-	-	5,229
Petra 6th Alpa Private Equity Fund	55.7	46,406	-	-	-	46,406	189	-	(32,092)	-	14,503
Myoungshin Co., Ltd.	9.1	25,851	1,481	11,753	(400)	38,685	3,942	4,624	(25,192)	-	22,059
2018 HANA-MAGNA start-up fund	21.9	6,761	-	-	-	6,761	(145)	-	-	-	6,616
Dream Island	10.2	6,822	-	-	-	6,822	88	-	-	-	6,910
Fresheasy Co., Ltd.	16.9	10,928	15,421	-	-	26,349	(7,494)	1,956	-	-	20,811
Hana Digital Transformation Fund	57.9	34,135	20,248	-	-	54,383	(1,503)	-	-	-	52,880
Mirae Credit Information Services Corp	31.0	9,591	-	-	(186)	9,405	667	-	-	-	10,072
Finnq Co., Ltd.	51.0	23,683	-	-	-	23,683	(9,844)	(123)	-	-	13,716
Lakebridge The Growth Capital PEF1	23.5	-	-	5,940	-	5,940	9	-	-	-	5,949
All Together Korea Fund5	100.0	-	100,000	-	-	100,000	23	-	(90,000)	-	10,023
HORIZON PRIVATE EQUITY FUND	80.2	-	222,598	-	-	222,598	(2,432)	(4,514)	-	-	215,652
Others		63,661	101,265	5,712	(1,591)	169,047	2,522	284	(60,388)	55	111,520
Total		2,440,127	545,899	23,405	(32,868)	2,976,563	45,668	(55,067)	(232,189)	(3,597)	2,731,378

<2019>

Classification	Owner-ship (%)	Initial book value	Purchase	Replacement	Dividend	Book value before valuation	Valuation of equity method		Disposal	Impairment loss	Book Value
							Gain or loss	Changes in equity			
Bank of Jilin	14.0	694,609	-	-	-	694,609	31,859	12,519	(7,530)	-	731,457
Korea Credit Bureau	9.0	6,606	-	-	(135)	6,471	186	-	-	-	6,657
OM International Financing Leases	25.0	202,173	-	-	-	202,173	(64,223)	4,815	-	(136,336)	6,429
Beijing Langa Asset Management Co., Ltd.	23.1	46,258	31,778	-	(1,674)	76,362	3,407	994	(3,679)	-	77,084
Company KStartup Winwin Fund	23.8	6,931	-	-	-	6,931	161	(461)	(1,010)	-	5,621
PT. SINARIMAS Hana Finance	85.0	8,776	-	-	-	8,776	(510)	709	-	-	8,975
OurCrowd International Invest	22.2	14,049	-	-	-	14,049	-	922	-	-	14,971
Bank for Investment and Development of Vietnam	15.0	-	1,272,969	-	-	1,272,969	-	-	-	-	1,272,969
Hana UBS Asset Management	49.0	35,600	-	-	(4,792)	30,808	4,670	(1)	-	-	35,477
Hana Power Infra 1st Private Equity Fund	7.0	22,302	-	-	-	22,302	493	(458)	-	-	22,337
KOCREF REIT 30	10.9	19,567	-	-	(1,447)	18,120	1,165	-	-	-	19,285
Lotte Accelerator	20.0	5,368	-	-	-	5,368	(214)	204	-	-	5,358
Petra 6th Alpa Private Equity Fund	87.1	76,825	-	-	-	76,825	464	-	(30,883)	-	46,406
Myoungshin Co., Ltd.	16.8	20,000	-	-	(400)	19,600	7,450	294	(1,493)	-	25,851
2018 HANA-MAGNA start-up fund	21.9	2,032	4,900	-	-	6,932	(171)	-	-	-	6,761
Dream Island	10.2	-	7,000	-	-	7,000	(159)	(19)	-	-	6,822
Fresheasy Co., Ltd.	18.8	-	7,927	-	-	7,927	(1,197)	-	4,198	-	10,928
Sprott Global Renewable Private Equity Fund II	21.9	-	19,443	-	(241)	19,202	205	-	-	-	19,407
Mirae Credit Information Services Corp	31.0	9,372	-	-	(186)	9,186	405	-	-	-	9,591
Hana Digital Transformation Fund	57.9	-	34,710	-	-	34,710	(575)	-	-	-	34,135
Finnq Co., Ltd.	51.0	7,533	25,500	-	-	33,033	(8,832)	(518)	-	-	23,683
Others		46,882	19,250	(622)	(1,739)	63,771	2,969	(413)	(15,226)	(1,178)	49,923
Total		1,224,883	1,423,477	(622)	(10,614)	2,637,124	(22,447)	18,587	(55,623)	(137,514)	2,440,127

18-4 The details of net assets of related companies as of December 31, 2020 and 2019 are as follows (Korean won in million) :

<December 31, 2020>

Classification	Net assets	Ownership (%)	Interest in net assets	Goodwill and others	Book value
Bank of Jilin	5,875,758	12.7	747,984	10,832	758,816
Korea Credit Bureau	79,478	9	7,153	666	7,819
OM International Financing Leases	558,223	25	139,556	(136,779)	2,777
Beijing Langa Asset Management Co., Ltd.	379,352	21.9	83,192	(1,016)	82,176
Company KStartup Winwin Fund	23,047	23.8	5,487	–	5,487
KEB Hana-KMC Unicorn Fund of Funds	61,394	90.9	55,812	–	55,812
Our Crowd International Invest III	57,890	22.2	12,846	1,124	13,970
Bank for Investment and Development of Vietnam	3,770,142	15	565,521	628,662	1,194,183
PT. SINARIMAS Hana Finance	23,495	85	19,971	242	20,213
Hana UBS Asset Management	71,646	49	35,107	–	35,107
Hana Power Infra 1st Private Equity Fund	320,979	7	22,469	–	22,469
KOCREF REIT 30	116,245	19.1	22,248	14,361	36,609
Lotte Accelerator	19,291	20	3,854	1,375	5,229
Petra 6th Alpa Private Equity Fund	26,044	55.7	14,503	–	14,503
Myoung Shin Industrial Co., Ltd.	139,210	9.1	12,629	9,430	22,059
2018 HANA-MAGNA start-up fund	30,246	21.9	6,616	–	6,616
Dream Island	66,400	10.2	6,755	155	6,910
Fresheasy Co., Ltd.	54,839	16.9	9,251	11,560	20,811
Hana Digital Transformation Fund	91,410	57.9	52,880	–	52,880
Mirae Credit Information Services Corp	32,492	31	10,072	–	10,072
Finnq Co., Ltd.	26,895	51	13,716	–	13,716
Lakebridge The Growth Capital PEF1	25,235	23.5	5,926	23	5,949
All Together Korea Fund5	10,024	100	10,023	–	10,023
HORIZON PRIVATE EQUITY FUND	269,001	80.2	215,652	–	215,652
Others	–	–	–	111,520	111,520
Total					2,731,378

<December 31, 2019>

Classification	Net assets	Ownership (%)	Interest in net assets	Goodwill and others	Book value
Bank of Jilin	5,137,174	14.0	719,578	11,879	731,457
Korea Credit Bureau	66,566	9.0	5,991	666	6,657
OM International Financing Leases	571,060	25.0	142,765	(136,336)	6,429
Beijing Langa Asset Management Co., Ltd.	334,615	23.1	77,257	2,845	80,102
Company KStartup Winwin Fund	23,607	23.8	5,621	–	5,621
PT. SINARIMAS Hana Finance	10,505	85.0	8,929	46	8,975
Our Crowd International Invest III	67,467	22.2	14,971	–	14,971
Bank for Investment and Development of Vietnam	3,888,314	15.0	583,247	689,722	1,272,969
Hana UBS Asset Management	72,402	49.0	35,477	–	35,477
Hana Power Infra 1st Private Equity Fund	319,106	7.0	22,337	–	22,337
KOCREF REIT 30	177,423	10.9	19,285	–	19,285
Lotte Accelerator	19,937	20.0	3,983	1,375	5,358
Petra 6th Alpa Private Equity Fund	53,294	87.1	46,406	–	46,406
Myoung Shin Industrial Co., Ltd.	83,127	16.8	13,944	11,907	25,851
2018 HANA-MAGNA start-up fund	30,910	21.9	6,761	–	6,761
Dream Island	65,535	10.2	6,667	155	6,822
Fresheasy Co., Ltd.	47,849	18.8	8,972	1,956	10,928
Sprott Global Renewable Private Equity Fund II	88,486	21.9	19,407	–	19,407
Mirae Credit Information Services Corp	30,938	31.0	9,591	–	9,591
Hana Digital Transformation Fund	59,005	57.9	34,135	–	34,135
Finnq Co., Ltd.	46,438	51.0	23,683	–	23,683
Others					46,905
Total					2,440,127

18-5 The details of marketable investment shares in related companies as of the end of the year December 31, 2020 and 2019 are as follows (Korean won in million, price per share in won) :

<December 31, 2020>

Classification	Market price	Price per share
Bank for Investment and Development of Vietnam	1,361,105	2,256

<December 31, 2019>

Classification	Market price	Price per share
Bank for Investment and Development of Vietnam	1,392,121	2,308

19. Property and equipment

19-1 Details of property and equipment as of December 31, 2020 and 2019 are as follows (Korean won in millions):

<December 31, 2020>

Classification	Acquisition cost	Accumulated depreciation	Accumulated impairment loss	Book value
Property and equipment				
Land	1,045,200	–	(6,451)	1,038,749
Buildings	1,027,736	(216,314)	(5,365)	806,057
Leasehold improvements	369,780	(295,450)	–	74,330
Vehicles, furniture and fixtures	1,097,101	(866,874)	–	230,227
Construction in progress	25,421	–	–	25,421
Operating lease assets	1,066,559	(358,926)	–	707,633
Subtotal	4,631,797	(1,737,564)	(11,816)	2,882,417
Right-of-use Assets				
Real estate for business	786,640	(379,992)	–	406,648
Vehicles	27,892	(12,638)	–	15,254
Others	1,518	(1,101)	–	417
Subtotal	816,050	(393,731)	–	422,319
Total	5,447,847	(2,131,295)	(11,816)	3,304,736

<December 31, 2019>

Classification	Acquisition cost	Accumulated depreciation	Accumulated impairment loss	Book value
Property and equipment				
Land	1,118,185	–	(6,454)	1,111,731
Buildings	1,049,714	(206,533)	(5,379)	837,802
Leasehold improvements	396,500	(314,569)	–	81,931
Vehicles, furniture and fixtures	1,100,508	(867,105)	–	233,403
Construction in progress	19,049	–	–	19,049
Operating lease assets	1,079,022	(312,457)	–	766,565
Subtotal	4,762,978	(1,700,664)	(11,833)	3,050,481
Right-of-use Assets				
Real estate for business	770,419	(208,830)	–	561,589
Vehicles	23,833	(7,497)	–	16,336
Others	1,533	(552)	–	981
Subtotal	795,785	(216,879)	–	578,906
Total	5,558,763	(1,917,543)	(11,833)	3,629,387

19-2 Changes in property and equipment for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

<2020>

Classification	January 1	Due to business combination	Acquisition	Disposal	Depreciation	Impairment loss	Transfer in (out)	Others	December 31
Property and equipment									
Land	1,111,731	32,319	1,149	(69,378)	–	–	(38,659)	1,587	1,038,749
Buildings	837,802	19,798	24,145	(14,507)	(31,201)	(6)	(29,330)	(644)	806,057
Leasehold improvements	81,931	570	21,170	(1,233)	(28,173)	–	2,269	(2,204)	74,330
Vehicles, furniture and fixtures	233,403	6,862	77,818	(4,637)	(88,978)	–	7,237	(1,478)	230,227
Construction in progress	19,049	278	24,892	–	–	–	(17,651)	(1,147)	25,421
Operating lease assets	766,565	–	231,703	(113,910)	(176,725)	–	–	–	707,633
Subtotal	3,050,481	59,827	380,877	(203,665)	(325,077)	(6)	(76,134)	(3,886)	2,882,417
Right-of-use Assets									
Real estate for business	561,589	1,803	118,682	(24,288)	(221,728)	–	–	(29,410)	406,648
Vehicles	16,336	96	8,360	(1,640)	(7,467)	–	–	(431)	15,254
Others	981	–	–	–	(556)	–	–	(8)	417
Subtotal	578,906	1,899	127,042	(25,928)	(229,751)	–	–	(29,849)	422,319
Total	3,629,387	61,726	507,919	(229,593)	(554,828)	(6)	(76,134)	(33,735)	3,304,736

<2019>

Classification	January 1	Due to business combination	Acquisition	Disposal	Depreciation	Impairment loss	Transfer in (out)	Others	December 31
Property and equipment									
Land	1,120,583	1,158	4,097	(11)	–	(2,896)	(11,303)	103	1,111,731
Buildings	885,771	521	17,095	(124)	(29,738)	(5,402)	(30,325)	4	837,802
Leasehold improvements	76,627	–	32,891	(2,318)	(29,678)	–	4,457	(48)	81,931
Vehicles, furniture and fixtures	233,921	559	86,504	(2,492)	(86,607)	–	1,516	2	233,403
Construction in progress	40,282	–	16,987	(349)	–	–	(37,873)	2	19,049
Operating lease assets	659,578	–	409,524	(127,505)	(175,031)	–	–	(1)	766,565
Subtotal	3,016,762	2,238	567,098	(132,799)	(321,054)	(8,298)	(73,528)	62	3,050,481
Right-of-use Assets									

Classification	January 1	Due to business combination	Acquisition	Disposal	Depreciation	Impairment loss	Transfer in (out)	Others	December 31
Real estate for business	600,548	–	258,995	(89,714)	(216,046)	–	–	7,806	561,589
Vehicles	18,490	125	7,462	(1,511)	(8,539)	–	–	309	16,336
Others	728	–	778	–	(551)	–	–	26	981
Subtotal	619,766	125	267,235	(91,225)	(225,136)	–	–	8,141	578,906
Total	3,636,528	2,363	834,333	(224,024)	(546,190)	(8,298)	(73,528)	8,203	3,629,387

20. Investment properties

20-1 Details of investment properties as of December 31, 2020 and 2019 are summarized as follows (Korean won in millions):

<December 31, 2020>

Classification	Acquisition cost	Accumulated depreciation	Accumulated impairment loss	Book value
Land	671,418	–	(5,761)	665,657
Buildings	343,781	(106,283)	(3,809)	233,689
Total	1,015,199	(106,283)	(9,570)	899,346

<December 31, 2019>

Classification	Acquisition cost	Accumulated depreciation	Accumulated impairment loss	Book value
Land	621,637	–	(5,405)	616,232
Buildings	695,143	(85,954)	(2,839)	606,350
Total	1,316,780	(85,954)	(8,244)	1,222,582

20-2 Changes in investment properties for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

<2020>

Classification	January 1	Due to business combination	Acquisition	Disposal	Depreciation	Impairment loss	Transfer in (out)	Others	December 31
Land	616,232	20,174	16,802	(27,270)	–	(444)	39,028	1,135	665,657
Buildings	606,350	9,548	2,775	(404,409)	(17,224)	(1,082)	37,605	126	233,689
Total	1,222,582	29,722	19,577	(431,679)	(17,224)	(1,526)	76,633	1,261	899,346

<2019>

Classification	January 1	Acquisition	Disposal	Depreciation	Impairment loss	Transfer in (out)	Others	December 31
Land	511,563	132,578	(34,686)	–	(5,403)	12,180	–	616,232
Buildings	199,585	386,325	(19,169)	(15,780)	(2,809)	60,999	(2,801)	606,350
Total	711,148	518,903	(53,855)	(15,780)	(8,212)	73,179	(2,801)	1,222,582

20-3 Rental income and operating expenses arising from the Group's investment properties for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

Classification	2020	2019
Rental income	16,871	14,404
Operating expenses	6,931	4,023

20-4 Details and fair value, Valuation method, Input variables of investment properties for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

<December 31, 2020>

Classification	Fair value(*)	Valuation method	Input variables
Land and Buildings	907,978	Officially appraised land price and Estimated value by cost method	Officially appraised land price and Re-procurement cost

<December 31, 2019>

Classification	Fair value(*)	Valuation method	Input variables
Land and Buildings	1,273,528	Officially appraised land price and Estimated value by cost method	Officially appraised land price and Re-procurement cost

(*) The fair value of the investment property was measured on the basis of market-based value by an independent appraisal agency with professional qualifications.

All investment properties are classified as level 3 in the fair value hierarchy described in Note 5-1.

21. Financial lease and operating lease

21-1 The total amount of investment in leases on financial lease receivables and the net investment in leases and the minimum lease payments to be recovered as of December 31, 2020 and 2019 are as follows (Korean won in millions):

<December 31, 2020>

Description	Present value of minimum lease payments	Direct cost	Net investment in lease	Unrealized interest income	Total amount of investment
Within 1 year	477,645	2,322	479,967	94,751	574,718
After 1 year ~ but no later than 2 years	367,595	9,374	376,969	64,574	441,543
After 2 years ~ but no later than 3 years	1,097,844	17,640	1,115,484	38,225	1,153,709
After 3 year ~ but no later than 5 years	109,188	56,126	165,314	22,976	188,290
After 5 years	693	352	1,045	15	1,060
Total	2,052,965	85,814	2,138,779	220,541	2,359,320

<December 31, 2019>

Description	Present value of minimum lease payments	Direct cost	Net investment in lease	Unrealized interest income	Total amount of investment
Within 1 year	420,774	1,773	422,547	83,148	505,695
After 1 year ~ but no later than 2 years	374,474	7,873	382,347	55,827	438,174
After 2 years ~ but no later than 3 years	859,135	18,063	877,198	32,520	909,718
After 3 year ~ but no later than 5 years	105,676	40,235	145,911	18,589	164,500
After 5 years	1,633	498	2,131	32	2,163
Total	1,761,692	68,442	1,830,134	190,116	2,020,250

21-2 The details of operating lease assets for each type of underlying asset as of December 31, 2020 and 2019 are as follows (Korean won in millions):

<December 31, 2020>

Classification	Real estate for business	Vehicles	Equipment	Other assets	Total
Operating lease assets(*)	-	1,066,559	-	-	1,066,559
Accumulated depreciation	-	(358,926)	-	-	(358,926)
Accumulated impairment loss	-	-	-	-	-
Total	-	707,633	-	-	707,633

(*) The operating lease asset includes the direct cost of commencing the lease of ₩61,882 million.

<December 31, 2019>

Classification	Real estate for business	Vehicles	Equipment	Other assets	Total
Operating lease assets(*)	-	1,079,022	-	-	1,079,022
Accumulated depreciation	-	(312,457)	-	-	(312,457)
Accumulated impairment loss	-	-	-	-	-
Total	-	766,565	-	-	766,565

(*) The operating lease asset includes the direct cost of commencing the lease of ₩61,637 million.

21-3 The details of operating lease assets by type of underlying asset classified by industry based on acquisition costs as of December 31, 2020 and 2019 are as follows (Korean won in millions):

<December 31, 2020>

Classification	Real estate for business	Vehicles	Equipment	Other assets	Total
Manufacturing	-	160,480	-	-	160,480
Wholesale & retail, Lodging	-	127,115	-	-	127,115

Classification	Real estate for business	Vehicles	Equipment	Other assets	Total
Logistics, Storing	-	1,196	-	-	1,196
Private service	-	4,750	-	-	4,750
Others	-	773,018	-	-	773,018
Total	-	1,066,559	-	-	1,066,559

<December 31, 2019>

Classification	Real estate for business	Vehicles	Equipment	Other assets	Total
Manufacturing	-	198,199	-	-	198,199
Wholesale & retail, Lodging	-	197,558	-	-	197,558
Logistics, Storing	-	8,036	-	-	8,036
Private service	-	102,990	-	-	102,990
Others	-	572,240	-	-	572,240
Total	-	1,079,023	-	-	1,079,023

21-4 The details of changes in operating lease assets by type of underlying asset for the year ended December 31, 2020 and 2019 are as follows (Korean won in millions):

<2020>

Classification	Beginning	Acquisition	Disposal	Depreciation	Impairment	Ending
Real estate for business	-	-	-	-	-	-
Vehicles	766,565	231,703	(113,910)	(176,725)	-	707,633
Equipment	-	-	-	-	-	-
Other Assets	-	-	-	-	-	-
Total	766,565	231,703	(113,910)	(176,725)	-	707,633

<2019>

Classification	Beginning	Acquisition	Disposal	Depreciation	Impairment	Ending
Real estate for business	-	-	-	-	-	-
Vehicles	659,578	409,524	(127,505)	(175,031)	-	766,566
Equipment	-	-	-	-	-	-
Other assets	-	-	-	-	-	-
Total	659,578	409,524	(127,505)	(175,031)	-	766,566

21-5 The annual lease collection plan for operating lease contracts executed as of December 31, 2020 and 2019 are as follows (Korean won in millions):

◁December 31, 2020▷

Classification	Real estate for business	Vehicles	Equipment	Other Assets	Total
Within 1 year	-	181,229	-	-	181,229
After 1 year ~ but no later than 2 years	-	124,228	-	-	124,228
After 2 years ~ but no later than 3 years	-	68,656	-	-	68,656
After 3 year ~ but no later than 5 years	-	36,775	-	-	36,775
After 5 years	-	11	-	-	11
Total	-	410,899	-	-	410,899

◁December 31, 2019▷

Classification	Real estate for business	Vehicles	Equipment	Other Assets	Total
Within 1 year	-	191,563	-	-	191,563
After 1 year ~ but no later than 2 years	-	147,440	-	-	147,440
After 2 years ~ but no later than 3 years	-	92,053	-	-	92,053
After 3 year ~ but no later than 5 years	-	47,067	-	-	47,067
After 5 years	-	7	-	-	7
Total	-	478,130	-	-	478,130

22. Intangible assets

22-1 Details of intangible assets as of December 31, 2020 and 2019 are summarized as follows (Korean won in millions):

<December 31, 2020>

Classification	Acquisition cost	Accumulated amortization	Accumulated impairment loss	Book value
Goodwill	104,066	–	(18,722)	85,344
Industrial property	58,711	(58,055)	–	656
Core deposits	991,739	(986,149)	(3,116)	2,474
Client relationship	423,113	(309,520)	–	113,593
Software and system development	1,680,295	(1,313,375)	(368)	366,552
Membership	44,521	(162)	(6,526)	37,833
Others	278,666	(145,980)	–	132,686
Total	3,581,111	(2,813,241)	(28,732)	739,138

<December 31, 2019>

Classification	Acquisition cost	Accumulated amortization	Accumulated impairment loss	Book value
Goodwill	103,894	–	(18,722)	85,172
Industrial property	58,434	(57,747)	–	687
Core deposits	992,029	(985,915)	(3,116)	2,998
Client relationship	388,486	(272,426)	–	116,060
Software and system development	1,465,550	(1,175,993)	(368)	289,189
Membership	42,212	–	(6,534)	35,678
Others	250,313	(124,834)	(29)	125,450
Total	3,300,918	(2,616,915)	(28,769)	655,234

22-2 Details of goodwill as of December 31, 2020 and 2019 are as follows (Korean won in millions):

<December 31, 2020>

Classification	Acquisition cost	Accumulated impairment loss	Book value
Hana Savings Bank	75,229	(18,722)	56,507
Hana Asset Trust (*1)	22,377	—	22,377
HFI	5,568	—	5,568
KEB Hana Bank	892	—	892
Total	104,066	(18,722)	85,344

<December 31, 2019>

Classification	Acquisition cost	Accumulated impairment loss	Book value
Hana Savings Bank	75,229	(18,722)	56,507
Hana Asset Trust (*1)	22,377	—	22,377
HFI	5,396	—	5,396
KEB Hana Bank	892	—	892
Total	103,894	(18,722)	85,172

(*1) Includes goodwill relating to Hana Alternative Asset Management Co., Ltd.

22-3 The method of goodwill impairment test

The Group allocated goodwill to cash-generating units which are composed of operating segments or its sub-segments. Impairment test was performed regularly on an annual basis and at times there is any indication of impairment through comparing the carrying amount of cash-generating units including goodwill with its recoverable amount.

The recoverable amount of a cash-generating unit is estimated to be the higher of the cash-generating unit's fair value and its value in use. The fair value is base

d on the best information available to reflect the amount that the Group could obtain, at the end of the reporting period, from the disposal of the assets or the transfer of the liabilities in formal transaction between participants, after deducting the costs of disposal. However, if the fair value could not be measured with sufficient reliability, it is possible applying the value in use which is present value of future cash flows. The Group estimates future cash flows based on the financial budget authorized by management. The estimation period cannot exceed 5 years without reasonable causes.

22-4 Result of goodwill impairment test

The goodwill allocated by cash-generating unit for the impairment test as of December 31, 2020 is as follows (Korean won in millions):

Classification	Hana Savings Bank	Hana Asset Trust	Hana Alternative Asset Management
Value in use (recoverable amount)	272,480	503,942	165,983
Carrying amount of net assets	237,363	377,266	127,052
Value in use which exceeds carrying amount of net assets	35,117	126,676	38,931
Discount rate (%)	13.11	12.06	12.06
Permanent growth rate (%)	1.00	0.50	0.50

The Group estimates future cash flows based on the assumption that cash flows will continue to grow at 0.5%~1.0% over 5 years referred to a recent macroeconomic indicator provided by EIU (Economist Intelligence Unit). The pre-tax discount rate used for discounting future cash flows is calculated based on the assumption of risk-free interest rate, market risk premium, systematic risk of cash generating unit and other factors.

22-5 Changes in the carrying amount of intangible assets for the years ended December 31, 2020 and 2019 are as follows

<2020>

Classification	January 1	Due to business combination	Acquisition	Disposal	Amortization	Impairment loss	Reclassification	Others (*)	December 31
Goodwill	85,172	799	—	(628)	—	—	—	1	85,344
Industrial property	687	—	278	—	(309)	—	—	—	656
Core deposits	2,998	—	—	—	(350)	—	—	(174)	2,474
Client relationship	116,060	34,627	—	—	(37,094)	—	—	—	113,593
Software and system development	289,189	9,828	183,557	(278)	(126,448)	—	9,817	887	366,552
Membership	35,678	101	2,619	(808)	(24)	32	—	235	37,833
Others	125,450	1,616	37,885	(623)	(24,523)	—	(6,671)	(448)	132,686
Total	655,234	46,971	224,339	(2,337)	(188,748)	32	3,146	501	739,138

<2019>

Classification	January 1	Due to business combination	Acquisition	Disposal	Amortization	Impairment loss	Reclassification	Others (*)	December 31
Goodwill	84,007	1,136	—	—	—	—	—	29	85,172
Industrial property	807	—	166	—	(286)	—	—	—	687
Core deposits	14,928	—	—	—	(12,164)	—	1	233	2,998
Client relationship	150,794	—	—	—	(34,734)	—	—	—	116,060
Software and system development	282,833	8	98,447	—	(110,343)	—	13,529	4,715	289,189
Membership	34,350	—	4,051	(1,794)	—	(435)	(511)	17	35,678
Others	117,997	2,307	42,025	(19)	(21,909)	—	(13,002)	(1,949)	125,450
Total	685,716	3,451	144,689	(1,813)	(179,436)	(435)	17	3,045	655,234

(*) Includes the effect of exchange rate differences.

23. Non-current assets held for sale

23-1 Current status of non-current assets held for sale

Details of non-current assets held for sale as of December 31, 2020 and 2019 are as follows (Korean won in millions):

Classification	December 31, 2020	December 31, 2019
Acquisition cost (*)	82,506	57,736
Accumulated impairment loss	–	–
Book value	82,506	57,736

(*) The accumulated depreciation expense before the classification as non-current assets is excluded.

As of December 31, 2020, Non-current assets held for sale consist of 166 collateral acquired for credit repayment purposes. These assets were classified as held for sale in accordance with the management's decision to sell, but were not disposed as of December 31, 2020.

23-2. Fair value, valuation method, and input variables of non-current assets held for sale as of December 31, 2020 and 2019 are as follows (Korean won in millions):

<December 31, 2020>

Classification	Fair value	Valuation method	Input variables
Buildings and Land	90,309	Estimated value by cost method and Public land base method and Transaction case comparison method	Officially appraised land price and, Re-procurement cost

<December 31, 2019>

Classification	Fair value	Valuation method	Input variables
Buildings and Land	90,093	Estimated value by cost method and Public land base method and Transaction case comparison method	Officially appraised land price and, Re-procurement cost

The fair market values of non-current assets held-for-sale are based on the valuation report of a qualified, independent appraisal and assessment institution, and all of them are classified as the level 3 in the fair value hierarchy described in Note 5-1.

24. Other assets

24-1 Other assets as of December 31, 2020 and 2019 are as follows (Korean won in millions):

Classification	December 31, 2020	December 31, 2019
Guarantee deposits	834,126	902,824
Accounts receivable	8,106,966	11,393,005
Accrued income	1,069,599	1,268,004
Prepaid expenses	140,581	155,025
Advance payments	103,600	105,606
Reinsurance assets	25,895	3,427
Unamortized new contract	32,552	25,301
Separate account assets	1,270,056	998,834
Domestic exchange unsettlement debts	2,787,399	1,630,120
Merchant banking account assets	3,465,306	3,255,106
Others	421,000	280,737
Allowance for possible losses	(31,486)	(32,926)
Total	18,225,594	19,985,063

24-2 Details of merchant banking account assets as of December 31, 2020 and 2019 are as follows (Korean won in millions):

Classification	December 31, 2020	December 31, 2019
On balance accounts:		
Financial assets measured at FVTPL-Loans	69,987	47,837
Financial assets measured at FVTPL-Debt securities	2,985,286	2,443,148
CMA asset FVTPL debt instruments	410,033	764,121
Total	3,465,306	3,255,106
Off balance accounts:		
Commitment	950,000	955,000

24-3 Changes in the allowance for possible losses for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

Classification	2020	2019
Beginning balance	32,926	28,395
Increase due to business combination	307	–
Write-offs	(3,552)	(5,628)
Debt-for-equity swap/dispose non-performing loans	(375)	(255)
Provision for possible losses	(1,234)	8,522
Interest income from impaired assets	(19)	(30)
Others	3,433	1,922
Ending balance	31,486	32,926

24-4 Changes in reinsurance assets and unamortized new contract fee for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

<2020>

Classification	January 1	Increase due to business combination	Increase	Decrease	December 31
Reinsurance assets	3,427	27,378	47,404	(52,314)	25,895
Unamortized new contract fee	25,301	–	24,331	(17,080)	32,552
Total	28,728	27,378	71,735	(69,394)	58,447

<2019>

Classification	January 1	Increase	Decrease	December 31
Reinsurance assets	2,855	1,075	(503)	3,427
Unamortized new contract fee	19,504	27,094	(21,297)	25,301
Total	22,359	28,169	(21,800)	28,728

25. Financial liabilities measured at FVTPL

Financial liabilities measured at FVTPL as of December 31, 2020 and 2019 are as follows (Korean won in millions):

Classification	December 31, 2020	December 31, 2019
Derivative liabilities held-for-trading (*)	10,694,569	4,916,317
Securities sold	165,661	521,072
Total	10,860,230	5,437,389

(*) Refer to Note 17. Derivatives Reference

26. Financial liabilities designated as measured at FVTPL

26-1 Financial liabilities designated as measured at FVTPL as of December 31, 2020 and 2019 are as follows (Korean won in millions):

Classification	December 31, 2020	December 31, 2019
Derivatives linked securities sold	9,388,375	10,920,813
Deposits	325,258	537,253
Borrowings	—	57,995
Deferred day 1 profit or loss	89,068	57,220
Total	9,802,701	11,573,281

With respect to derivative linked securities and structured deposits, the Group does not separate embedded derivatives from main contracts but designates them as fair value through profit or loss.

26-2 The difference between the book value and the maturity repayment amount as of the end of the year December 31, 2020 and 2019 are as follows (Korean won in millions):

Classification	December 31, 2020	December 31, 2019
Book Value	9,802,701	11,573,281
Maturity repayment amount	9,985,879	11,631,421
Difference	(183,178)	(58,140)

26-3 Credit risk for the financial liabilities designated as measured at FVTPL as of December 31, 2020 and 2019 are as follows (Korean won in millions):

Classification	December 31, 2020	December 31, 2019
Financial liabilities designated at FVTPL OCI:		
Changes in FV price from credit risk fluctuation	(7,498)	(15,335)
Changes in FV price from credit risk fluctuation (Accumulated)	(25,137)	(34,876)

27. Deposits

27-1 Details of deposits as of December 31, 2020 and 2019 are as follows (Korean won in millions):

Classification	December 31, 2020	December 31, 2019
Demand deposits:		
Demand deposits in Korean won	16,033,393	11,470,844
Demand deposits in foreign currency	29,772,610	22,516,996
Subtotal	45,806,003	33,987,840
Time and saving deposits:		
Time and saving deposits in Korean won	234,021,045	218,534,223
Time and saving deposits in foreign currency	15,534,007	17,409,276
Subtotal	249,555,052	235,943,499
Certificate of deposits	148,559	2,862,975
Total	295,509,614	272,794,314

27-2 Allocations of deposits by customer as of December 31, 2020 and 2019 are listed as follows (Korean won in millions):

Classification	December 31, 2020	December 31, 2019
Individuals	105,403,829	93,999,891
Corporations	101,165,167	92,155,856
Other banks	19,593,678	18,457,008
Public institutions	9,291,447	7,998,185
Other financial institutions	34,337,061	34,534,543
Government	7,768,929	7,351,665
Non-profit corporations	11,102,641	10,815,724
Foreign corporations	2,016,383	2,198,851
Others	4,830,479	5,282,591
Total	295,509,614	272,794,314

28. Borrowings

Borrowings as of December 31, 2020 and 2019 are as follows (Korean won in millions):

Type	Lender	Interest rate (%)	December 31, 2020	December 31, 2019
Borrowings in Korean won:				
BOK borrowings	BOK	0~0.3	3,838,276	1,610,197
Government borrowings	Korea Development Bank, etc	0.5~2	1,597,040	1,502,220
Other borrowings	Korean Energy Management Corporation, etc.	0~4	6,401,150	4,548,368
Subtotal			11,836,466	7,660,785
Borrowings in foreign currencies:				
Bank overdrafts	Foreign bank, etc.	1.1~9.1	932,610	232,624
Other borrowings	JP Morgan, etc	-0.3~14.5	5,706,480	7,821,658
Subtotal			6,639,090	8,054,282
Call money:				
Call money in foreign currencies	Vietcombank, etc	-1.3~18.5	701,536	768,282
Subtotal			701,536	768,282
Bonds sold under repurchase agreements:				
Bonds sold under repurchase agreements in Korean won	General customers, etc	0~0.9	5,447,188	3,406,766
Bonds sold under repurchase agreements in foreign currencies	BBVA, etc	0.4~1.1	1,836,211	775,648
Subtotal			7,283,399	4,182,414
Other borrowings:				
Bills sold	General customers, etc	0~1.0	33,825	33,639
Total			26,494,316	20,699,402

29. Debentures

Debentures as of December 31, 2020 and December 31, 2019 are as follows (Korean won in millions):

Type of debentures	Lender	Interest rate (%)	December31, 2020	December31, 2019
Korean won:				
Debentures	Financial institutions, etc	0.7~3.1	36,849,706	31,469,600
Subordinated bonds	Financial institutions, etc	2.1~7.8	6,380,859	5,891,980
Net gain (loss) on fair value hedges (this term)			(796)	(3,356)
Net gain (loss) on fair value hedges (before the previous period)			(3,356)	—
Present value discount			(30,594)	(24,403)
Subtotal			43,195,819	37,333,821
Foreign currencies:				
Debentures	Financial institutions, etc	0.6~1.4	4,505,089	5,254,764
Subordinated bonds	Financial institutions, etc	2.0~10.0	956,960	1,028,942
Net gain on fair value hedges (this period)			55,590	78,297
Net gain (loss) on fair value hedges (before the previous period)			57,471	(20,828)
Present value discount			(9,091)	(13,819)
Subtotal			5,566,019	6,327,356
Total			48,761,838	43,661,177

30. Net defined benefit liabilities

30-1 Actuarial assumptions as of December 31, 2020 and 2019 are as follows:

Classification	December 31, 2020 (%)	December 31, 2019 (%)	Notes
Demographic assumptions:			
Mortality	0.0~0.1	0.0~0.1	Table from Korea insurance development institute, etc.
Rates of employee turnover	0.0~49.5	0.0~45.2	Table from Korea insurance development institute, etc.
Financial assumptions:			
Expected salary increase rate	0.0~9.3	0.0~13.5	The average of the past five years, etc.
Discount rate	1.7~2.3	1.9~2.3	Return on corporate bond with the same credit rating

30-2 Details of net defined benefit liabilities as of December 31, 2020 and 2019 are as follows (Korean won in millions):

Classification	December 31, 2020	December 31, 2019
Present value of defined benefit obligation	2,328,212	2,175,101
Fair value of plan assets (-)	(2,003,043)	(1,812,165)
Net defined benefit liabilities	325,169	362,936

30-3 Changes in present value of defined benefit obligation for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

Classification	2020	2019
Beginning balance	2,175,101	1,809,070
Acquired in business combination	28,731	270

Classification	2020	2019
Current service cost	194,364	182,260
Past service cost	–	7,989
Interest cost on benefit obligation	42,027	40,372
Remeasurements of the net defined benefit liability	34,030	234,285
Benefits paid	(145,917)	(99,527)
Others	(124)	382
Ending balance	2,328,212	2,175,101

30-4 Details of losses incurred from severance and retirement benefit plan for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

Classification	2020	2019
Current service cost	194,364	182,260
Past service cost	–	7,989
Net interest on the net defined benefit liability	9,372	6,347
Subtotal	203,736	196,596
Benefits paid for the defined contribution plan	3,581	2,999
Long-term employee payment and others	(444)	216
Total	206,873	199,811

30-5 Plan assets for severance benefit as of December 31, 2020 and 2019 consist of the followings (Korean won in millions):

<December 31, 2020>

Classification	Existence of active market price	Inexistence of active market price	Total
Time deposit	–	1,860,356	1,860,356
ELB	–	32,200	32,200
Beneficiary certificates	–	1,262	1,262

Classification	Existence of active market price	Inexistence of active market price	Total
Others	–	109,225	109,225
Total	–	2,003,043	2,003,043

<December 31, 2019>

Classification	Existence of active market price	Inexistence of active market price	Total
Time deposit	–	1,717,790	1,717,790
ELB	–	22,960	22,960
Others	–	71,415	71,415
Total	–	1,812,165	1,812,165

30-6 Changes in the fair value of plan assets for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

Classification	2020	2019
Beginning balance of fair value of plan assets	1,812,165	1,638,808
Acquired in business combination	21,595	–
Employer contributions	243,758	236,656
Expected return on plan assets	32,655	34,025
Remeasurements of the plan assets	(688)	(4,330)
Benefits paid	(106,658)	(93,705)
Others	216	711
Ending balance of fair value of plan assets	2,003,043	1,812,165

30-7 Details of remeasurement accompanied by the application of actuarial assumptions for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

Classification	2020	2019
Actual gains (losses):		
Changes in demographic assumptions	24,800	(113,839)
Changes in financial assumptions	(60,163)	(37,114)
Experience adjustments	1,333	(83,235)

Classification	2020	2019
Subtotal	(34,030)	(234,188)
Income on planned assets:		
Actual income on planned assets	33,987	32,268
Amounts included in net interest on the net defined benefit liability	34,675	36,598
Subtotal	(688)	(4,330)
Total	(34,718)	(238,518)

30-8 The quantitative sensitivity analysis for significant actuarial assumptions as of December 31, 2020 and 2019 is as follows (Korea won in millions):

30-8-1 Discount rate

<December 31, 2020>

Classification	December 31, 2020	1% point increase	1% point decrease
Present value of defined benefit obligation	2,328,212	2,072,426	2,533,744

<December 31, 2019>

Classification	December 31, 2019	1% point increase	1% point decrease
Present value of defined benefit obligation	2,175,101	1,927,881	2,377,856

30-8-2 Expected rate of salary increase

<December 31, 2020>

Classification	December 31, 2020	1% point increase	1% point decrease
Present value of defined benefit obligation	2,328,212	2,530,394	2,071,076

<December 31, 2019>

Classification	December 31, 2019	1% point increase	1% point decrease
Present value of defined benefit obligation	2,175,101	2,374,352	1,927,477

The sensitivity analyses above has been determined based on a method that extrapolates the impact on defined benefit obligation as a result of reasonable changes in key assumptions occurring at the end of the reporting period.

30-8-3 Employer contributions for the years ended December 31, 2020 and 2019 are reasonably estimated to be ₩185,727 million and ₩188,577 million, respectively, and the average durations of the defined benefit plan obligation as of December 31, 2020 and 2019 are 6.42~11.26 years and 6.76~11.99 years, respectively.

31. Provisions and Commitments

31-1 Details of provisions as of December 31, 2020 and 2019 are as follows (Korean won in millions):

Classification	December 31, 2020	December 31, 2019
Allowance for possible losses on acceptances and guarantees:		
Financial acceptances and guarantees (*)	2,310	3,505
Non-financial acceptances and guarantees	32,527	46,480
Bills endorsed	13	14
Subtotal	34,850	49,999
Allowances for unused commitments	131,001	114,014
Other allowance:		
Allowances for restoration cost	75,257	80,814
Allowances for reward points	1	121
Allowance for lawsuits	62,500	52,639

Classification	December 31, 2020	December 31, 2019
Others	251,630	279,779
Subtotal	389,388	413,353
Total	555,239	577,366

(*) The Group recognizes the amount of financial guarantee contracts subsequently measured that exceed the unamortized balance as provisions for acceptances and guarantees on initial recognition. The unamortized balance amounts to ₩17,516 million and ₩19,986 million as of December 31, 2020 and 2019 respectively and is categorized as financial guarantee contract liability.

31-2 Changes in allowances for unused commitments for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

<2020>

Classification	Allowances for unused commitments			Total
	12month expected credit loss	Lifetime expected credit losses		
		Non credit-impaired financial assets	Credit-impaired financial assets	
Beginning balance	71,569	33,905	8,540	114,014
Increase due to business combination	12	–	–	12
Transfer to 12 month expected credit loss	9,028	(7,723)	(1,305)	–
Transfer to non credit-impaired financial assets	(2,291)	4,798	(2,507)	–
Transfer to credit-impaired financial assets	(264)	(140)	404	–
Provision (reversal)	8,998	8,693	(800)	16,891
Exchange rate fluctuation	96	(12)	–	84
Ending balance	87,148	39,521	4,332	131,001

<2019>

Classification	Allowances for unused commitments			Total
	12month expected credit loss	Lifetime expected credit losses		
		Non credit-impaired financial assets	Credit-impaired financial assets	
Beginning balance	64,511	33,427	14,041	111,979
Transfer to 12 month expected credit loss	6,399	(6,201)	(198)	–
Transfer to non credit-impaired financial assets	(2,185)	5,533	(3,348)	–

Classification	Allowances for unused commitments			Total
	12month expected credit loss	Lifetime expected credit losses		
		Non credit-impaired financial assets	Credit-impaired financial assets	
Transfer to credit-impaired financial assets	(344)	(220)	564	–
Provision (reversal)	3,040	1,362	(2,519)	1,883
Ex change rate fluctuation	148	4	–	152
Ending balance	71,569	33,905	8,540	114,014

31-3 Changes in provision for financial guarantees for the years ended December 31, 2020 December 31, 2019 are as follows (Korean won in millions):

<2020>

Classification	Provision for financial guarantees			Total
	12month expected credit loss	Lifetime expected credit losses		
		Non credit-impaired financial assets	Credit-impaired financial assets	
Beginning balance	3,488	17	—	3,505
Transfer to 12 month expected credit loss	5	(5)	—	—
Transfer to non credit-impaired financial assets	(1)	1	—	—
Transfer to credit-impaired loan	(26)	26	—	—
Provision (reversal)	36	2	—	38
Used	(1,192)	(26)	—	(1,218)
Exchange rate fluctuation	(14)	(1)	—	(15)
Ending balance	2,296	14	—	2,310

<2019>

Classification	Provision for financial guarantees			Total
	12month expected credit loss	Lifetime expected credit losses		
		Non credit-impaired financial assets	Credit-impaired financial assets	
Beginning balance	1,267	24	–	1,291
Transfer to 12 month expected credit loss	5	(5)	–	–
Transfer to non credit-impaired financial assets	(4)	4	–	–
Provision (reversal)	2,211	(6)	–	2,205
Exchange rate fluctuation	9	–	–	9
Ending balance	3,488	17	–	3,505

31-4 Changes in other provisions for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

<2020>

Classification	January 1, 2020	Increase due to business combination	Provision (reversal)	Allowance used	Others	December 31, 2020
Non-financial acceptances and guarantees	46,494	–	(11,557)	–	(2,397)	32,540
Other allowance:						
Allowances for restoration cost	80,814	49	(219)	(7,404)	2,017	75,257
Allowances for reward points	121	–	(119)	(1)	–	1
Allowance for lawsuits	52,639	–	10,141	(59)	(221)	62,500
Others	279,779	–	224,259	(197,584)	(54,824)	251,630
Subtotal	413,353	49	234,062	(205,048)	(53,028)	389,388
Total	459,847	49	222,505	(205,048)	(55,425)	421,928

<2019>

Classification	January 1, 2019	Provision (reversal)	Allowance used	Others	December 31, 2019
Non-financial acceptances and guarantees	66,795	(22,234)	–	1,933	46,494
Other allowance:					
Allowances for restoration cost	71,122	(331)	(2,312)	12,335	80,814
Allowances for reward points	1,271	(1,097)	(53)	–	121
Allowance for lawsuits	9,473	43,232	(623)	557	52,639
Others	90,567	229,608	(40,713)	317	279,779
Subtotal	172,433	271,412	(43,701)	13,209	413,353
Total	239,228	249,178	(43,701)	15,142	459,847

31-5 Details of guarantees as of December 31, 2020 and December 31, 2019 are as follows (Korean won in millions):

Classification	Amount of guarantee	
	December 31, 2020	December 31, 2019
Financial acceptances and guarantees in Korean won:		
Private bond issue payment guarantee	45,000	50,700
Collateral for loans	122,229	96,622
Loans for purchase	302,218	262,892
Loan commitment	1,042,630	2,004,419
Commitment to acquire securities	641,667	376,845
Subtotal	2,153,744	2,791,478
Financial acceptances and guarantees in foreign currencies	2,883	–
Confirmed acceptances and guarantees in Korean won	1,620,210	1,532,188
Confirmed acceptances and guarantees in foreign currencies:		
Acceptance on letter of credit	1,786,159	1,493,756
Acceptance on letter of guarantees	80,787	94,087
Others	6,500,509	9,280,037
Subtotal	8,367,455	10,867,880
Contingent acceptances and guarantees:		
Letters of credit	3,236,751	3,683,083
Others	558,248	731,864
Subtotal	3,794,999	4,414,947
Bills endorsed	8,735	12,254
Total	15,948,026	19,618,747

31-6 Unused commitments

Details of unused commitments as of December 31, 2020 and 2019 are as follows (Korean won in millions):

Classification	Unused commitments	
	December 31, 2020	December 31, 2019
Commitments on loans in Korean won	84,757,913	82,363,379
Commitments on loans in foreign currencies	22,060,087	25,556,946
Commitments on credit lines on asset-backed securities	279,496	661,352
Commitments on purchase of securities	9,428,533	7,705,906
Merchant banking account-commitment	950,000	955,000
Others	544	579
Total	117,476,573	117,243,162

31-7 As of December 31, 2020, the Group is involved in 1,106 lawsuits as a plaintiff and 445 lawsuits as a defendant. The aggregate amounts of claims as a plaintiff and a defendant are approximately ₩415,237 million and ₩455,722 million, respectively. The Group's material lawsuits in progress as a defendant are as follows (Korean won in millions):

Defendant	Plaintiff	Amount	Status of lawsuit			Content
			First trial	second trial	third trial	
Hana Bank	PT *****	95,531	Some loss in a litigation	Won	In-progress	Compensation for damages
Hana Bank	Bankruptcy trustee(F*****)	36,549	Won	In-progress	-	Restitution of unjust enrichment
Hana Bank	**** Securities Co., Ltd	37,136	In-progress	-	-	Compensation for damages
Hana Bank	**** Investment Co., Ltd	16,798	In-progress	-	-	Compensation for damages
Hana Bank	PT *****	38,777	In-progress	-	-	Restitution of unjust enrichment
HFI	H*****, etc.	5,005	In-progress	-	-	Compensation for damages
Hana Alternative Asset Management	*** Korea Federation of Community Credit Cooperatives, etc.	5,498	Won	In-progress	-	Compensation for damages

31-8 COVID-19 impact

Due to the spread of COVID-19 in 2020, major economic factors are expected to worsen due to the domestic and international economic slowdown in domestic and ripple effects of financial instability. Considering the possibility of entering a global recession caused by the global spread of COVID-19, the economic forecast scenario used to estimate expected credit losses for financial instruments has been reset. As of December 31, 2020, the Group has remeasured forward-looking information by using macro variables and estimated default rates based on the scenario. In addition, the key assumptions used by financial instruments were based on fair values calculated based on the estimated assumptions taking into account the impact of COVID-19 as of the end of the current year. The Group has prepared the consolidated financial statements by reasonably estimating the impact of COVID-19 on the consolidated financial statements for the reporting period ending on December 31, 2020. However, the ultimate impact of the future spread of COVID-19 on the consolidated financial position, financial performance and cash flows of the Group's cannot be predicted.

32. Other liabilities

32-1 Details of other liabilities as of December 31, 2020 and December 31, 2019 are as follows (Korean won in millions):

Classification	December 31, 2020	December 31, 2019
Accounts payable	8,861,629	12,401,984
Accrued expense payables	1,741,694	2,252,384
Advances	163,967	164,295
Income in advance	664,182	388,528
Policy reserve	4,076,484	3,340,195
Separate account liabilities	1,314,178	1,027,062
Borrowing from trust accounts	6,003,766	5,570,526
Foreign exchanges settlement credits	555,514	432,992
Domestic exchange settlement credits	4,089,270	3,629,089
Deposits for letter of guarantees and others	1,883,286	1,106,148
Taxes withheld	197,776	170,641
Security deposits received	75,440	41,519
Accounts for agency businesses	289,447	367,060
Agency	2,012,854	2,021,069
Lease liabilities	416,477	583,007
Merchant banking account liabilities	2,246,273	2,088,517
Others	1,077,613	1,000,367
Present value discount	(18,895)	(19,595)
Total	35,650,955	36,565,788

32-2 Details of merchant banking account liabilities as of December 31, 2020 and 2019 are as follows (Korean won in millions):

Classification	December 31, 2020	December 31, 2019
Merchant banking account deposits	2,246,181	2,088,241
Merchant banking account others(*)	92	276
Total	2,246,273	2,088,517

(*) Merchant banking account others consist of accrued expense payables.

32-3 Details of insurance liabilities as of December 31, 2020 and 2019 are as follows (Korean won in millions):

Classification	December 31, 2020	December 31, 2019
Premium reserve	3,669,316	3,276,859
Prepaid premium reserve	208,455	1,390
Guaranteed reserve	5,122	4,909
Outstanding claim	193,591	57,037
Total	4,076,484	3,340,195

32-4 Changes in the policy reserve for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

<2020>

Classification	January 1, 2020	Increase due to business combination	Changes	December 31, 2020
Premium reserve	3,276,859	515,879	(123,422)	3,669,316
Prepaid premium reserve	1,390	214,510	(7,445)	208,455
Guaranteed reserve	4,909	—	213	5,122
Outstanding claim	57,037	97,634	38,920	193,591
Total	3,340,195	828,023	(91,734)	4,076,484

<2019>

Classification	January 1, 2019	Changes	December 31, 2019
Premium reserve	3,383,293	(106,434)	3,276,859
Prepaid premium reserve	1,097	293	1,390
Guaranteed reserve	5,132	(223)	4,909
Outstanding claim	43,307	13,730	57,037
Total	3,432,829	(92,634)	3,340,195

32-5 Details of lease liabilities as of December 31, 2020 and 2019 are as follows (Korean won in millions):

<December 31, 2020>

Classification	Nominal value	Present value discount	Book value
Real-estate	410,668	(10,441)	400,227
Vehicles	16,164	(343)	15,821
Others	435	(6)	429
Total	427,267	(10,790)	416,477

<December 31, 2019>

Classification	Nominal value	Present value discount	Book value
Real-estate	601,227	(35,934)	565,293
Vehicles	17,204	(464)	16,740
Others	1,016	(42)	974
Total	619,447	(36,440)	583,007

32-6 Changes in lease liabilities as of December 31, 2020 and 2019 are as follows (Korea won in millions):

<2020>

Classification	January 1, 2020	Increase due to business combination	Increase	Amortization	Payment (*)	Other	December 31, 2020
Real-estate	565,293	1,436	106,067	10,640	(239,846)	(43,363)	400,227
Vehicles	16,740	41	8,341	300	(9,073)	(528)	15,821
Others	974	—	—	35	(572)	(8)	429
Total	583,007	1,477	114,408	10,975	(249,491)	(43,899)	416,477

(*) The total cash outflow related to lease liabilities for the year ended December 31, 2020 is ₩ 249,866 million.

<2019>

Classification	January 1, 2019	Increase	Amortization	Payment (*)	Other	December 31, 2019
Real-estate	545,586	218,515	10,991	(217,446)	7,647	565,293
Vehicles	18,490	7,280	380	(9,550)	140	16,740
Others	728	778	13	(460)	(85)	974
Total	564,804	226,573	11,384	(227,456)	7,702	583,007

(*) The total cash outflow related to lease liabilities for the year ended December 31, 2019 is ₩ 227,122 million.

32-7 The details of the composition by maturity of the contractual cash flows before discounting the lease liability as of December 31, 2020 and 2019 are as follows:

<December 31, 2020>

Classification	Not more than 1 month	Not more than 3 month	Not more than 6 month	Not more than 1 year	Not more than 5 year	More than 5 year	Total
Real-estate	15,635	36,096	48,112	88,594	265,531	(43,300)	410,668
Vehicles	727	1,316	1,785	3,403	8,933	–	16,164
Others	22	44	66	133	170	–	435
Total	16,384	37,456	49,963	92,130	274,634	(43,300)	427,267

<December 31, 2019>

Classification	Not more than 1 month	Not more than 3 month	Not more than 6 month	Not more than 1 year	Not more than 5 year	More than 5 year	Total
Real-estate	17,299	34,987	49,907	95,139	268,514	135,381	601,227
Vehicles	710	1,373	1,958	3,648	9,088	427	17,204
Others	39	77	116	232	552	–	1,016
Total	18,048	36,437	51,981	99,019	278,154	135,808	619,447

32-8 Assessment of the adequacy of liabilities

32-8-1 The experience rates and calculation basis used by the Group for the liability adequacy test are as follows

Classification		Calculation methodology
Hana Life Insurance	Discount rate	200 scenarios suggested by the Governor of the Financial Supervisory Service are applied.
	Business expense rate	Based on the last year experience statistics, business expense rate is estimated by calculating the ratio of detailed business expenses to total business expense categorized by types of product, premium payment method, business expense (new acquisition cost or maintenance cost) and elapsed time. Besides the experience statistics, the Group reasonably estimated the trend of business expense by considering the variability arising from inflation, changes in management policies. Temporary expenses that are not expected to incur is excluded from the assumption for calculation of the business expense rate.
	Surrender ratio	Based on the last five years' experience statistics, surrender ratio is estimated by calculating the ratios of elapsed or cancelled contracts to total contracts held by the Group by types of product, premium payment method, sales channel and lapse of time. The ratio is calculated on the basis of fifty or more historical data to ensure statistical reliability. If the historical data is insufficient, the Group applies surrender ratio of similar type of contract, uses trends by elapsed time or reclassifies the categories for the surrender ratio to ensure statistical reliability. The Group considers elapsed time, premium payment status, employee benefit policy, the period of tax benefit for an insurance contract, trend on the market interest rate which can be influential on surrender ratio. The Group applies the same surrender ratio after the specific period of elapsed time to the end of the projected period. If there are temporary increases in surrender ratio due to tax benefit, the Group calculates the final surrender ratio by eliminating the tax benefit effect or by applying the surrender ratio for the period in which there is no effect.
	Risk rate	Based on the last five years' experience statistics, risk rate is calculated based on the ratio of payment of premium to risk premium by collateral, time of sales (by experience life table), and elapsed time. Risk rate is reasonably calculated after reviewing and applying increase rate/trend rate compared to previous year or on a yearly basis. When risk rate is applied, at least 10 years of risk rate should be applied. But in case of decline in cash flow stability due to extreme fluctuation in risk rate by elapsed time caused by shortage of statistics after 5 years, risk rate can be calculated by adding statistics by elapsed time. In order to retain statistical reliability by category, there should be at least 50 experience statistics. For sections that are short of such experience statistics, similar risk rates of other categories are applied. In case the reliability of the calculation results is not guaranteed due to shortage of experience statistics, trends by elapsed time of similar risk rates or upper-level category may be applied.
	Discount rate	The discount rate for calculating the present value of future net cash flows is the future operating asset return rate, and the future operating asset return rate is calculated by reflecting future prospects, such as future trends, risk rates, and the Group's operational strategy.
		-Long-term insurance

Classification		Calculation methodology
Hana Insurance Co., Ltd.	Business expense rate	Based on the prior year experience statistics, business expense rate is estimated by calculating the ratio of detailed business expenses to total business expenses categorized by types of product, premium payment method, business expenses (new acquisition costs or maintenance costs) and elapsed time. Besides the experience statistics, the Group reasonably estimated the trend of business expenses by considering the variability arising from inflation and changes in management policies. Temporary expenses that are not expected to incur is excluded from the assumption for calculation of the business expense rate. -General insurance : General insurance is assessed based on the "large classification criteria set forth in <Appendix 2. Types of Insurance> in the standard business method of [Attachment 14] of the Insurance Business Supervision Regulations", as the evaluation unit, and the costs of maintaining the contract compared to the prior year's premium was calculated as an assumption of the business expense rate. Temporary expenses is excluded from the assumption for calculation of the business expense rate. -Automobile insurance For automobile insurance, the cost of maintaining the contract compared to the prior year's premium for each collateral (personal, property, descendant, vehicle, uninsured, etc.) was calculated as an assumption of business expense rate. Temporary expenses are excluded from the assumption for calculation of the business expense rate.
	Surrender ratio	Based on the last five years' experience statistics, surrender ratio is estimated by calculating the ratios of elapsed or cancelled contracts to total contracts held by the Group by types of product, premium payment method, sales channel and lapse of time. The ratio is calculated on the basis of fifty or more historical data to ensure statistical reliability. If the historical data is insufficient, the Group applies surrender ratio of similar type of contract, uses trends by elapsed time or reclassifies the categories for the surrender ratio to ensure statistical reliability. The Group considers elapsed time, premium payment status, employee benefit policy, the period of tax benefit for an insurance contract, trend on the market interest rate which can be influential on surrender ratio. The Group applies the same surrender ratio after the specific period of elapsed time to the end of the projected period. If there are temporary increases in surrender ratio due to tax benefit, the Group calculates the final surrender ratio by eliminating the tax benefit effect or by applying the surrender ratio for the period in which there is no effect.
	Risk rate	Based on the last five years' experience statistics, risk rate is calculated based on the ratio of payment of premium to risk premium by collateral, time of sales (by experience life table), and elapsed time. Risk rate is reasonably calculated after reviewing and applying increase rate/trend rate compared to previous year or on a yearly basis. When risk rate is applied, at least 10 years of risk rate should be applied. But in case of decline in cash flow stability due to extreme fluctuation in risk rate by elapsed time caused by shortage of statistics after 5 years, risk rate can be calculated by adding statistics by elapsed time. In order to retain statistical reliability by category, there should be at least 50 experience statistics. For sections that are short of such experience statistics, similar risk rates of other categories are applied. In case the reliability of the calculation results is not guaranteed due to shortage of experience statistics, trends by elapsed time of similar risk rates or upper-level category may be applied.
		-General insurance : General insurance is assessed based on the "large classification criteria set forth in <Appendix 2. Types of Insurance> in the standard business method of [Attachment 14] of the Insurance Business Supervision Regulations", as the evaluation unit, and the costs of maintaining the contract compared to the prior year's premium was calculated as an assumption of the business expense rate. Temporary expenses is excluded from the assumption for calculation of the business expense rate.

Classification		Calculation methodology
	Loss ratio	ment 14] of the Insurance Business Supervision Regulations", as the evaluation unit, and the loss ratio assumption was calculated by analyzing the experience statistics for the previous five years and calculating the loss ratio applied to future cash flows and the cash-out ratio for each period of progress. -Automobile insurance Automobile insurance is assessed based on each collateral (personal, property, descendant, vehicle, uninsured, etc.), as the evaluation unit, and the loss ratio assumption was calculated by analyzing the experience statistics for the previous five years and calculating the loss ratio applied to future cash flows and the cash-out ratio for each period of progress.
	Loss investigation ratio	-General insurance : General insurance is assessed based on the "large classification criteria set forth in <Appendix 2. Types of Insurance> in the standard business method of [Attachment 14] of the Insurance Business Supervision Regulations", as the evaluation unit, and the loss investigation costs relative to the insurance payment for the previous three years are used as the assumption for the calculation of the loss investigation ratio. -Automobile insurance Automobile insurance is assessed based on each collateral (personal, property, descendant, vehicle, uninsured, etc.), as the evaluation unit, and the loss investigation costs relative to the insurance payment for the previous three years are used as the assumption for the calculation of the loss investigation ratio.

32-8-2 The result of LAT as of December 31, 2020 and 2019 are as follows (Korean won in millions):

<December 31, 2020>

Classification		Reserve for test	LAT base (*1)	Premium surplus (loss) (*2)
Hana Life Insurance	Interest rate-linked	2,418,796	2,364,513	54,283
	Interest rate-fixed	571,031	550,234	20,797
	Variable life insurance	(3,511)	(49,211)	45,700
Subtotal		2,986,316	2,865,536	120,780
Hana Insurance Co., Ltd.	General insurance	16,192	3,254	12,938
	Automobile insurance	183,949	184,418	(469)
	Long-term insurance (*3)	526,210	368,611	157,599
Subtotal		726,351	556,283	170,068

Classification	Reserve for test	LAT base (*1)	Premium surplus (loss) (*2)
Total (*4)	3,712,667	3,421,819	290,848

(*1) LAT of the Group is conducted at the end of reporting period, and surplus to reserve for the test is calculated as of December 31, 2020.

(*2) Surplus= Reserve for test - LAT base((-) is loss, (+) is surplus)

(*3) For the long-term insurance calculation, the amount is calculated by adding or subtracting new acquisition costs from the insurance premium reserve. For the calculation of general insurance and automobile insurance, unpaid insurance premiums based on the original insurance are considered.

(*4) The Group did not record additional reserve since the surplus exceeded the deficit based on the result of LAT.

<December 31, 2019>

Classification		Reserve for test	LAT base (*1)	Premium surplus (loss) (*2)
Non-participating	Interest rate-linked	2,704,473	2,673,136	31,337
	Interest rate-fixed	445,057	411,350	33,707
	Variable life insurance	(9,671)	(49,806)	40,135
Total (*3)		3,139,859	3,034,680	105,179

(*1) LAT of the Group is conducted at the end of reporting period, and surplus to reserve for the test is calculated as of December 31, 2019.

(*2) Surplus= Reserve for test - LAT base((-) is loss, (+) is surplus)

(*3) The Group did not record additional reserve since the surplus exceeded the deficit based on the result of LAT.

33. Capital stock and capital surplus

33-1 Details of capital stock as of December 31, 2020 and December 31, 2019 are as follows (Korean won):

Classification	December 31, 2020	December 31, 2019
Number of shares authorized	800,000,000 shares	800,000,000 shares
Par value per share	₩5,000	₩5,000

Classification	December 31, 2020	December 31, 2019
Number of shares issued	300,242,062 shares	300,242,062 shares

33-2 Changes in capital stock and capital surplus from December 1, 2005 (inception) to December 31, 2020 are as follows (Korean won in millions except for number of shares):

Classification	Date	Shares	Common stock	Capital surplus
Incorporation	Dec. 1, 2005	204,256,243	1,021,281	5,075,488
Stock dividends	Mar. 24, 2006	2,042,562	10,213	–
Shares swap (*1)	Oct. 13, 2006	5,552,788	27,764	215,427
Paid-in capital increase	Feb. 21, 2011	31,198,170	155,991	1,168,759
Shares swap (*2)	Apr. 5, 2013	46,844,299	234,221	1,511,856
Paid-in capital increase	Apr. 21, 2015	6,109,000	30,545	149,298
Paid-in capital increase	Mar. 9, 2018	4,239,000	21,195	178,688
Total		300,242,062	1,501,210	8,299,516

(*1) Represents transactions that the Group conducted to incorporate HFI (formerly, Hana IB) into its subsidiaries.

(*2) Represents transactions that the Group conducted to incorporate Hana bank into its wholly owned subsidiaries

33-3 Details of hybrid equity securities classified as equity attributable to equity holders of the parent company as of December 31, 2020 and 2019 are as follows (Korean won in millions):

Classification	Issuance date	Maturity	Interest rate (%)	Amount	
				December 31, 2020	December 31, 2019
The 1-1st hybrid debentures (*3)	May. 29, 2015	May. 29, 2045	3.95	–	80,000
The 1-2nd hybrid debentures (*2)	May. 29, 2015	May. 29, 2045	4.445	190,000	190,000
The 2-1st hybrid debentures (*3)	Nov. 6, 2015	Nov. 6, 2045	4.238	–	155,000
The 2-2nd hybrid debentures (*2)	Nov. 6, 2015	Nov. 6, 2045	4.612	20,000	20,000
The 3-1st hybrid debentures	Mar. 9, 2018	–	4.225	192,000	192,000

Classification	Issuance date	Maturity	Interest rate (%)	Amount	
				December 31, 2020	December 31, 2019
(*1)					
The 3-2nd hybrid debentures (*2)	Mar. 9, 2018	–	4.680	50,000	50,000
The 4 hybrid debentures (*1)	Nov. 8, 2018	–	4.040	296,000	296,000
The 5 hybrid debentures (*1)	April 15, 2019	–	3.340	265,000	265,000
The 6-1st hybrid debentures (*1)	May 28, 2020	–	3.200	450,000	–
The 6-2st hybrid debentures (*2)	May 28, 2020	–	3.500	50,000	–
The 7-1st hybrid debentures (*1)	August 28, 2020	–	3.200	410,000	–
The 7-2st hybrid debentures (*2)	August 28, 2020	–	3.550	90,000	–
Subtotal				2,013,000	1,248,000
Issuance cost				(5,073)	(3,397)
Total				2,007,927	1,244,603

(*1) 5 years after the hybrid equity securities are issued, these can be redeemed at any point before the maturity date with an approval of the governor of the Financial Supervisory Service.

(*2) 10 years after the hybrid equity securities are issued, these can be redeemed at any point before the maturity date with an approval of the governor of the Financial Supervisory Service.

(*3) This financial instrument was redeemed during the current term because it met the mid-term repayment requirement with Hybrid bond, which has been five years since the date of issuance.

33-4 Capital surplus as of December 31 2020 and 2019 consists of the followings (Korean won in millions):

Classification	December 31, 2020	December 31, 2019
Paid-in capital in excess of par value	8,299,516	8,299,516
Gain on disposal of treasury stock	76,372	76,372

Classification	December 31, 2020	December 31, 2019
Other capital surplus	2,204,057	2,206,295
Total	10,579,945	10,582,183

34. Capital adjustment

34-1 Details of capital adjustment as of December 31, 2020 and 2019 are summarized as follows (Korean won in millions):

Classification	December 31, 2020	December 31, 2019
Treasury stock	(299,996)	(299,996)
Other capital adjustment	(15,034)	(15,034)
Total	(315,030)	(315,030)

34-2 Fluctuations of the Hana Financial Group stock and of subsidiary held by us during the current term as follows (Korean won in millions and number of shares in unit):

<2020>

Classification	January 1, 2020	Acquisition : Treasury stock	Disposal : Treasury stock	December 31, 2020
Number of shares	8,678,586	—	—	8,678,586
Amount	299,996	—	—	299,996

<2019>

Classification	January 1, 2020	Acquisition : Treasury stock	Disposal : Treasury stock	December 31, 2019
Number of shares	—	8,678,586	—	8,678,586
Amount	—	299,996	—	299,996

35. Accumulated other comprehensive income

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

<2020>

Classification	Gain (loss) on valuation of Financial assets measured at FVOCI	Changes in equities of investments in associates	Gain (loss) on valuation of fair value hedges	Gain (loss) on valuation of net investment hedges of foreign operations	Gain (loss) on cash flow hedge	Credit risk fluctuation effect of financial liabilities designated at FVPTL	Special account other comprehensive income	Gain (loss) on Exchange differences on translation of foreign operations	Remeasurement of the net defined benefit plan	Total
January 1, 2020	9,797	(217,584)	(46,249)	(15,053)	1,402	(9,107)	2	(32,095)	(544,659)	(853,546)
Changes in gain (loss) on valuation of financial assets measured at FVOCI	143,923	—	—	—	—	—	—	—	—	143,923
Reclassified from financial debt security measured at FVOCI to financial assets measured at FVPL	(118,351)	—	—	—	—	—	—	—	—	(118,351)
Reclassified from financial debt security measured at FVOCI to retained gain	(9,130)	—	—	—	—	—	—	—	—	(9,130)
Credit risk fluctuation of financial debt security measured at FVOCI	3,743	—	—	—	—	—	—	—	—	3,743
Changes in exchange differences on translation of foreign operations	—	(140,083)	—	—	—	—	—	—	—	(140,083)
Changes in unrealized gain on valuation of equity method investments	—	—	(53,227)	—	—	—	—	—	—	(53,227)
Changes in loss on valuation of net investment hedges of foreign operations	—	(142)	—	36,615	—	—	—	—	—	36,473
Changes in loss on cash flow hedge	—	—	—	—	(4,452)	—	—	—	—	(4,452)
Changes in loss on valuation of fair value hedges	—	—	—	—	—	13,960	—	—	—	13,960
Changes in special account other comprehensive income	—	—	—	—	—	—	(855)	—	—	(855)
Changes in credit risk fluctuation effect of financial liabilities designated at FVPL	—	—	—	—	—	—	—	(7,498)	—	(7,498)
Remeasurements of the net defined benefit liabilities (assets)	—	—	—	—	—	—	—	—	(33,908)	(33,908)
Tax effect	(7,754)	13,536	16,159	(10,069)	1,210	(3,839)	235	2,062	9,458	20,998
December 31, 2020	22,228	(344,273)	(83,317)	11,493	(1,840)	1,014	(618)	(37,531)	(569,109)	(1,001,953)

<2019>

Classification	Gain (loss) on valuation of financial assets measured at FVOCI	Changes in equities of investments in associates	Gain (loss) on valuation of fair value hedges	Gain (loss) on valuation of net investment hedges of foreign operations	Gain (loss) on cash flow hedge	Credit risk fluctuation effect of financial liabilities designated at FVPTL	Special account other comprehensive income	Gain (loss) on Exchange differences on translation of foreign operations	Remeasurement of the net defined benefit plan	Total
January 1, 2019	(73,342)	3,763	(61,631)	(336,170)	1,383	(6,772)	—	(19,853)	(371,268)	(863,890)
Changes in gain (loss) on valuation of financial assets measured at FVOCI	119,753	—	—	—	—	—	—	—	—	119,753
Reclassified from financial debt security measured at FVOCI to financial assets measured at FVPL	(5,003)	—	—	—	—	—	—	—	—	(5,003)
Reclassified from financial debt security measured at FVOCI to retained gain	140	—	—	—	—	—	—	—	—	140
Credit risk fluctuation of financial debt security measured at FVOCI	(27)	—	—	—	—	—	—	—	—	(27)
Changes in exchange differences on translation of foreign operations	—	(25,953)	—	—	—	—	—	—	—	(25,953)
Changes in unrealized gain on valuation of equity method investments	—	—	21,289	—	—	—	—	—	—	21,289
Changes in loss on valuation of net investment hedges of foreign operations	—	—	—	90,193	—	—	—	—	—	90,193
Changes in loss on cash flow hedge	—	—	—	—	(2)	—	—	—	—	(2)
Changes in loss on valuation of fair value hedges	—	—	—	—	—	(3,220)	—	—	—	(3,220)
Changes in special account other comprehensive income	—	—	—	—	—	—	2	—	—	2
Changes in credit risk fluctuation effect of financial liabilities designated at FVPL	—	—	—	—	—	—	—	(16,886)	—	(16,886)
Remeasurements of the net defined benefit liabilities (assets)	—	—	—	—	—	—	—	—	(238,412)	(238,412)
Tax effect	(31,724)	7,137	(5,907)	28,393	21	885	—	4,644	65,021	68,470
December 31, 2019	9,797	(15,053)	(46,249)	(217,584)	1,402	(9,107)	2	(32,095)	(544,659)	(853,546)

36. Retained earnings

36-1 Retained earnings as of December 31, 2020 and 2019 consist of the following (Korean won in millions):

Classification	December 31, 2020	December 31, 2019
Legal reserve (*)	781,200	665,100
compensation for damages	2,000	2,000
Voluntary reserve	3,653,670	3,652,488
Unappropriated retained earnings	13,504,714	11,645,467
Total	17,941,584	15,965,055

(*) In accordance with the Financial Holding Company Act, whenever dividends are paid, an amount equal to at least 10% of net income is required to be appropriated as a legal reserve until the reserve amount equals the aggregate par value of common stock. The legal reserve may not be utilized for cash dividends but may only be used to offset a deficit, if any, or be transferred to capital.

36-2 Changes in retained earnings for years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

Classification	2020	2019
Beginning balance	15,965,055	14,224,003
Net income attributable to equity holders of the parent	2,637,242	2,391,584
Dividends	(612,284)	(600,359)
Dividends on hybrid equity securities	(54,598)	(47,748)
Reclassification of gain on valuation of FVOCI securities	6,412	(101)
Others	(243)	(2,324)
Ending balance	17,941,584	15,965,055

37. Regulatory reserve for bad debts

Regulatory reserve for bad debt is calculated and disclosed in accordance with Article 27, Section 1 and 2 of the Financial Holding Company Act.

37-1 Regulatory reserve for bad debt reserve as of December 31, 2020 and December 31, 2019 is as follows (Korean won in million):

Classification	December 31, 2020	December 31, 2019
Beginning balance	2,717,618	2,478,505
Additional planned reserve for bad debts	49,997	239,113
Ending balance	2,767,615	2,717,618
Attributable to equity holders of the parent	2,719,169	2,660,133
Attributable to non-controlling interests	48,446	57,485

37-2 Provisions for bad debt reserve and income adjusted for deductions of provisions for bad debt for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions and per share amounts in units):

Classification	2020	2019
Net income attributable to equity holders of the parent before deducting provisions for bad debt reserve	2,637,242	2,391,584
Provision of bad debt reserve	59,036	230,848
Adjusted income after deducting provisions for bad debt reserve	2,578,206	2,160,736
Basic earnings per share on adjustment (Korean won)	₩8,655	₩7,120
Diluted earnings per share on adjustment (Korean won)	₩8,655	₩7,101

38. Operating income and expenses

38-1 Total operating income for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

Classification	2020	2019
Interest income	10,079,609	11,118,155
Fee and commission income	3,222,532	3,015,061
Gains on financial instruments at FVPL	26,746,603	18,650,852
Gains on financial instruments designated at FVPL	644,351	391,170
Gains on financial instruments measured at FVOCI	367,604	67,458
Gains on disposal on securities measured at amortized cost	82,426	61,692
Gain on derivative instruments used for hedging	105,647	171,228
Gain on foreign currency transactions	5,786,059	4,009,374
Recovery of impairment loss on financial assets	1,234	–
Other operating income	1,179,797	896,514
Total	48,215,862	38,381,504

38-2 Total operating expense for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

Classification	2020	2019
Interest expense	4,265,318	5,344,449
Fee and commission expense	1,062,762	1,023,592
Loss on financial instruments at FVTPL	26,181,424	17,165,723
Loss on financial instruments designated as measured at FVTPL	420,256	1,252,659
Loss on financial instruments measured at FVOCI	9,528	1,685
Loss on disposal on securities measured at amortized cost	12,258	6,172
Loss on derivative instruments used for hedging purpose	79,880	178,959
Loss on foreign currency transactions	5,468,586	3,653,914
Impairment loss on financial assets	872,173	540,812
General and administrative expense	3,917,656	4,107,021
Other operating expense	2,089,599	1,847,838
Total	44,379,440	35,122,824

39. Net interest income

39-1 Interest income for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

Classification	2020	2019
Interest income on due from banks	125,245	214,411
Interest income on financial assets measured at FVOCI	621,717	708,852
Interest income on financial assets measured at amortized cost	388,569	376,465
Interest income on loans receivable	8,542,995	9,320,949
Subtotal	9,678,526	10,620,677
Interest income on financial assets measured at FVTPL	341,856	420,431
Others	59,227	77,047
Total	10,079,609	11,118,155

39-2 Interest expense for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

Classification	2020	2019
Interest expense on deposit liabilities	2,782,659	3,603,366
Interest expense on borrowings	274,374	350,111
Interest expense on debentures	983,085	1,099,502
Subtotal	4,040,118	5,052,979
Interest income on financial assets held-for-trading	103,219	151,064
Others	121,981	140,406
Total	4,265,318	5,344,449

40. Net fee and commission income

40-1 Fee and commission income for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

Classification	2020	2019
Fee and commission received from loans and others	1,692,599	1,483,775
Fee and commission received on credit card	1,224,746	1,206,096
Fee and commission received on guarantee	78,837	74,294
Fee and commission received from redemption before maturity	2,462	2,910
Fee and commission related foreign exchange	223,888	247,986
Total	3,222,532	3,015,061

40-2 Fee and commission expense for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

Classification	2020	2019
Commission paid borrowings and others	593,554	459,037
Commission paid on credit card	429,650	521,092
Commission related foreign exchange	39,480	43,390
Commission paid trust	78	73
Total	1,062,762	1,023,592

41. Gain (loss) on financial instruments measured at FVTPL

Gain (loss) on financial instruments measured at FVTPL and held-for-trading for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

Classification	2020	2019
Gain on financial instruments measured at FVTPL:		
Securities measured at FVTPL:		
Gain on valuation	544,258	200,273
Gain on disposal	346,145	307,640
Gain on redemption	17,591	1,783
Others	297,245	215,931
Subtotal	1,205,239	725,627
Loans measured at FVTPL:	23,419	28,530
Derivatives-linked securities	3,953	23,664
Derivatives held for trading:		
Gain on valuation of derivatives:		
Currency related derivatives	8,795,763	3,701,921
Interest related derivatives	544,399	598,278
Stock related derivatives	220,700	248,287
Credit related derivatives	57,731	101,961
Others related derivatives	66,549	87,670
Subtotal	9,685,142	4,738,117
Gain on transactions of derivatives:		
Currency related derivatives	11,870,513	9,592,176
Interest related derivatives	2,412,832	2,033,893
Stock related derivatives	1,109,571	1,225,757
Credit related derivatives	170,162	64,114
Others related derivatives	238,203	189,237
Subtotal	15,801,281	13,105,177
Gain on securities sold	14,241	13,516

Classification	2020	2019
Gain on other financial instruments measured at FVTPL	13,328	16,221
Total	26,746,603	18,650,852
Loss on financial instruments measured at FVTPL:		
Securities measured at FVTPL:		
Loss on valuation	168,697	125,280
Loss on disposal	285,566	195,294
Loss on redemption	8,420	4,486
Transaction cost	141	228
Subtotal	462,824	325,288
Loans measured at FVTPL:	7,937	27,801
Derivatives-linked securities	36,165	19,707
Derivatives held for trading:		
Loss on valuation of derivatives:		
Currency related derivatives	8,579,771	3,361,249
Interest related derivatives	493,092	564,059
Stock related derivatives	224,440	77,898
Credit related derivatives	77,923	124,823
Others related derivatives	88,090	59,804
Subtotal	9,463,316	4,187,833
Loss on transactions of derivatives:		
Currency related derivatives	11,928,824	9,775,780
Interest related derivatives	2,842,074	2,216,192
Stock related derivatives	1,070,139	389,144
Credit related derivatives	101,845	46,049
Others related derivatives	244,769	168,088
Subtotal	16,187,651	12,595,253
Loss on securities sold	23,531	9,841
Total	26,181,424	17,165,723
Net amount	565,179	1,485,129

42. Gain (loss) on financial instruments designated as measured at FVPL

Gain (loss) on financial assets and liabilities designated as measured at FVPL for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

Classification	2020	2019
Gain on financial instruments designated as measured at FVTPL:		
Deposits:		
Gain(loss) on valuation	5,135	2,190
Gain on redemption	101	–
Borrowings:		
Gain on redemption	112	316
Derivatives linked securities sold:		
Gain on valuation	360,007	212,693
Gain on redemption	278,996	175,971
Total	644,351	391,170
Loss on financial instruments designated as measured at FVTPL:		
Deposits:		
Loss on valuation	12	6,392
Loss on redemption	3,228	2,358
Borrowings:		
Loss on valuation	–	105
Loss on redemption	–	6
Derivatives linked securities sold:		
Loss on valuation	164,334	399,590
Loss on redemption	252,682	844,208
Total	420,256	1,252,659
Net amount	224,095	(861,489)

43. Gain (loss) on financial assets measured at FVOCI

Gain (loss) on financial assets measured at FVOCI for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

Classification	2020	2019
Gain on financial assets measured at FVOCI		
Gain on disposal	359,274	59,368
Dividend income	8,330	8,090
Total	367,604	67,458
Loss on financial assets measured at FVOCI		
Loss on disposal	9,501	1,685
Loss on redemption	27	–
Total	9,528	1,685
Net amount	358,076	65,773

44. Gains (losses) on disposal of financial assets measured at amortized cost

Gain(loss) on disposal of financial assets measured at amortized cost for the years ended December 31, 2020 December 31, 2019 are as follows (Korean won in millions):

Classification	2020	2019
Gain on disposal of financial assets measured at amortized cost :		
Loans measured at amortized cost:		
Gain on disposal	82,426	61,692
Loss on disposal of financial assets measured at amortized cost :		
Loans measured at amortized cost:		
Loss on disposal	12,258	6,172
Net amount	70,168	55,520

45. Gains (losses) on derivative instruments used for hedging

Gain (loss) on derivative instruments used for hedging purpose for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

Classification	2020	2019
Gain on derivative instruments used for hedging purposes:		
Hedged item:		
Gain on valuation of hedged item:		
Debentures	3,322	4,541
Deposits	473	7,998
Subtotal	3,795	12,539
Gain on disposal of hedged item:		
Debentures	866	6,989
Deposits	2,192	727
Subtotal	3,058	7,716
Derivative instruments used for hedging purposes:		
Gain on valuation of derivatives:		
Currency related derivatives	30,871	6,211
Interest related derivatives	60,929	118,916
Subtotal	91,800	125,127
Gain on settlement of derivatives:		
Currency related derivatives	726	3,398
Interest related derivatives	6,268	22,448
Subtotal	6,994	25,846
Total	105,647	171,228
Loss on derivative instruments used for hedging purposes:		
Hedged item:		
Loss on valuation of hedged item:		
Debentures	58,116	79,482

Classification	2020	2019
Deposits	5,662	41,093
Subtotal	63,778	120,575
Loss on disposal of hedged item:		
Debtentures	869	14,632
Deposits	5,396	6,953
Subtotal	6,265	21,585
Derivative instruments used for hedging purposes:		
Loss on valuation of derivatives:		
Currency related derivatives	–	5,827
Interest related derivatives	2,088	11,357
Subtotal	2,088	17,184
Loss on settlement of derivatives:		
Currency related derivatives	5,526	18,687
Interest related derivatives	2,223	928
Subtotal	7,749	19,615
Total	79,880	178,959
Net amount	25,767	(7,731)

46. Impairment losses of financial instruments

Impairment loss on financial instruments for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

Classification	2020	2019
Provision(reversal) of credit loss on debt securities measured at FVOCI	3,589	382
Provision for loan losses on debt securities measured at amortized cost	7,341	1,771
Provision of allowances for possible loan losses for loans	861,243	530,137
Provision(reversal) of allowances for possible loan losses for other assets	(1,234)	8,522
Total	870,939	540,812

47. General and administrative expenses

General and administrative expenses for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

Classification	2020	2019
Salaries	1,935,492	2,008,705
Provision for severance and retirement benefits	201,712	195,509
Provision for severance (defined contributions)	4,725	5,421
Provision for severance (defined benefits)	196,987	190,088
Termination benefits	193,987	316,366
Employee benefits	112,331	124,044
Rental expenses(*)	75,304	77,846
Entertainment expenses	29,538	30,932
Depreciation on property and equipment	145,092	142,785
Depreciation on investment property	10,949	9,445
Amortization	186,489	177,483

Classification	2020	2019
Depreciation for right-of-use assets	228,683	224,115
Taxes and dues	154,689	156,774
Advertising expenses	148,140	139,396
Servicing expenses	228,396	224,471
Supplies expense	10,691	9,354
Others	256,163	269,796
Total	3,917,656	4,107,021

(*) It includes ₩2,113 million and ₩2,008 million of small lease expenses for the year ended December 31, 2020 and 2019.

48. Other operating income

Other operating income for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

Classification	2020	2019
Reversal of allowance for possible losses on acceptances and guarantees	12,738	20,029
Reversal of allowance for restoration cost	219	331
Reversal of allowances for mileage points	119	1,098
Trust commissions	272,654	334,413
Gain on conversion	–	2,561
Insurance profit	728,924	407,964
Non-controlling interest	22,813	5,920
Merchant banking accounts profit	54,644	69,732
Others	87,686	54,466
Total	1,179,797	896,514

49. Other operating expense

Other operating expenses for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

Classification	2020	2019
Transfer of unused provisions for provisions	16,891	1,884
Provision of allowance for lawsuits	10,141	43,232
Provision of other allowance	3,693	191,327
Contribution to guarantee fund	207,911	189,489
Insurance fee on deposit	402,810	353,536
Contribution to housing credit guarantee fund	102,560	120,475
Debenture repayment loss	–	55
Insurance cost	847,821	578,965
Provision for (Reversal of) policy reserves	(83,867)	(92,635)
Non-controlling liability adjustment loss	134,892	10,087
Non-controlling Interest Debt Repayment Loss	–	599
Merchant banking accounts expense	20,535	45,756
Others	426,212	405,068
Total	2,089,599	1,847,838

50. Other non-operating income

Other non-operating income for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

Classification	2020	2019
Rental fee income	17,992	12,689
Gains of disposal of property, equipment and intangible assets	26,072	2,002
Gains of disposal of investment property	36,663	3,317
Gains on disposal of investment in associates	41,498	10,551
Reversal of impairment loss on investments in associates	55	–
Gains on disposal of non-current assets held for sale	–	447,680
Others	235,252	104,962
Total	357,532	581,201

51. Other non-operating expenses

Other non-operating expenses for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

Classification	2020	2019
Disposal of property, equipment and intangible assets	2,850	2,017
Disposal of investment property	7,097	15,045
Disposal of investment in associates	8,334	11,951
Contribution	87,153	125,212
Impairment loss on property, equipment and intangible assets	572	8,733
Impairment loss on stock of related parties	3,652	137,514
Commissions received on collection of special bond	7,285	6,187
Others	393,445	102,628
Total	510,388	409,287

52. Income taxes

52-1 The major components of income tax expense for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

Classification	2020	2019
Tax burden		
Current income taxes	1,077,536	1,012,449
Additional refund of prior year' s income tax	(27,004)	(18,092)
Changes of deferred income taxes due to the tax effect of temporary differences	(24,612)	(70,439)
Current and deferred income taxes recognized directly to equity	18,436	58,607
Income tax expense	1,044,356	982,525

52-2 Reconciliations of income tax expense applicable to income before income tax at the Korea statutory tax rate to income tax expense at the effective income tax rate of the Group for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

Classification	2020	2019
Income before income tax	3,729,234	3,408,147
Tax at domestic statutory income tax rate of 27.5%	961,744	894,700
Tax exempt income	(191,009)	(25,012)
Expenses not deductible for tax purposes	223,099	64,394
Tax deduction	(23,096)	(20,635)
Deduction of tax loss carryforwards	656	—
Income tax expense of foreign branches and subsidiaries	51,664	56,304
Tax effect of consolidated tax return	7,559	978
Additional refund of prior year' s income tax	(28,957)	(10,403)
Others	42,696	22,199
Income tax expense	1,044,356	982,525
Effective income tax rate (%)	28.0	28.8

52-3 Temporary differences and deferred income tax assets (liabilities) as of December 31, 2020 and 2019 are as follows (Korean won in millions):

<December 31, 2020>

Classification	Deductible (taxable) temporary differences	Deferred income tax assets (liabilities)
Loss on valuation of securities	340,960	116,234
Impairment loss on securities	75,703	19,554
Securities measured at FVOCI	(70,440)	(19,371)
Gain on valuation of investments in subsidiaries	(581,896)	(182,683)
Gain on valuation of derivatives	(705,494)	(194,180)
Deemed dividends	154,378	42,454
Deferred loan fees and expenses	(534,553)	(147,002)
Accrued income	(284,198)	(78,154)
Accrued expenses	260,701	70,378
Allowance for acceptance guarantees	85,669	23,559
Defined benefit obligation	2,021,203	555,923
Plan assets for severance benefit	(1,839,880)	(506,549)
Allowance for other losses	481,884	131,271
Bad debt expenses	733,659	199,512
Depreciation	10,568	2,827
Dormant deposits	21,356	5,873
Advanced depreciation provision	(180,315)	(49,587)
Deemed cost for property and equipment	(716,568)	(197,056)
Investment in kind	18,479	5,082
Financial acceptances and guarantees	3,377	929
Deferred point income	214,612	51,940
Fair value valuation resulting from merger	11,750	3,231
Fair value differences due to the business combination	(98,963)	(23,986)
Others	579,184	158,483
Tax loss carryforwards	96,245	21,369

Classification	Deductible (taxable) temporary differences	Deferred income tax assets (liabilities)
Total	97,421	10,051
Domestic deferred income tax assets		134,272
Domestic deferred income tax liabilities		(124,221)
Foreign deferred income tax assets (*)		32,346
Foreign deferred income tax liabilities (*)		(56,812)
Deferred income tax assets		(14,415)

The Group did not recognize deductible(add up) temporary differences of ₩41,226 million as deferred income tax assets(liability) as of December 31, 2020 due to uncertainty in realization.

<December 31, 2019>

Classification	Deductible (taxable) temporary differences	Deferred income tax assets (liabilities)
Loss on valuation of securities	446,076	122,270
Impairment loss on securities	71,772	18,485
Gain on valuation of investments in subsidiaries	(588,604)	(161,866)
Gain on valuation of derivatives	(673,316)	(185,166)
Deemed dividends	156,585	43,061
Deferred loan fees and expenses	(490,089)	(134,774)
Accrued income	(465,265)	(127,948)
Accrued expenses	230,845	62,047
Allowance for acceptance guarantees	43,993	12,098
Plan assets for severance benefit	(1,794,974)	(490,530)
Defined benefit obligation	2,120,718	579,602
Allowance for other losses	384,558	104,251
Bad debt expenses	734,879	200,862
Depreciation	15,169	4,133
Fair value valuation resulting from merger	11,838	3,255
Dormant deposits	32,830	9,028

Classification	Deductible (taxable) temporary differences	Deferred income tax assets (liabilities)
Advanced depreciation provision	(180,315)	(49,587)
Deemed cost for property and equipment	(741,037)	(203,785)
Securities measured at FVOCI	(53,652)	(14,754)
Tax loss carryforwards	69,962	15,732
Investment in kind	18,479	5,082
Financial acceptances and guarantees	2,706	744
Deferred point income	202,676	49,053
Fair value differences due to the business combination	(126,005)	(31,704)
Others	594,067	158,983
Total	23,896	(11,428)
Domestic deferred income tax assets		129,235
Domestic deferred income tax liabilities		(140,663)
Foreign deferred income tax assets (*)		39,595
Foreign deferred income tax liabilities (*)		(67,194)
Deferred income tax assets		(39,027)

The Group did not recognize deductible(add up) temporary differences of ₩(-)17,585 million as deferred income tax assets(liability) as of December 31, 2019 due to uncertainty in realization.

(*) Deferred income tax assets of foreign branches are not offset against the deferred income tax liabilities due to differences in tax jurisdictions.

The effective income tax rate of 27.5% is applied when calculating deferred income tax assets or liabilities that will be realized. Also, deferred income tax assets are recognized when it is foreseeable that future taxable income will be incurred and that future tax credits will be realized

52-4 Details of deferred income taxes charged (credited) directly to equity as of December 31, 2020 and 2019 are as follows (Korean won in millions):

<December 31, 2020>

Classification	Before tax amounts	Deferred income tax assets (liabilities)
Gain (loss) on valuation of financial assets measured at FVOCI	460,237	(126,324)
Changes in valuation of equity method investments	(138,795)	37,870
Gain(loss) on fair value hedge	–	(1)
Profit or loss on hedge valuation of net investment in overseas operations	39	(5)
Gain (loss) on valuation of cash flow hedges	(5,123)	1,240
Changes in credit risk of financial liabilities designated as measured at FVTPL	(7,498)	2,062
Exchange differences on translation of foreign operations	(76,530)	20,946
Remeasurements of the net defined benefit liability (asset)	(26,481)	6,543
Others	(6,292)	1,692
Total	199,557	(55,977)

<December 31, 2019>

Classification	Before tax amounts	Deferred income tax assets (liabilities)
Gain (loss) on valuation of financial assets measured at FVOCI	586,485	(156,019)
Changes in valuation of equity method investments	(63,394)	17,272
Gain(loss) on fair value hedge	–	(1)

Classification	Before tax amounts	Deferred income tax assets (liabilities)
Profit or loss on hedge valuation of net investment in overseas operations	17	(2)
Gain (loss) on valuation of cash flow hedges	(121)	51
Changes in credit risk of financial liabilities designated as measured at FVTPL	(34,876)	9,591
Exchange differences on translation of foreign operations	(27,440)	7,546
Remeasurements of the net defined benefit liability (asset)	(31,277)	7,956
Others	(1,080)	263
Total	428,314	(113,343)

53. Dividends

53-1 Details of the Group's dividend including interim dividend for the years ended December 31, 2020 and 2019 are as follows (Korean won):

<2020>

Type of dividend	Number of shares	Dividend per share	Share ratio (%)	Dividends (Korea won in millions)
Cash dividend (interim)	291,563,476	500	10.0	145,782
Cash dividend (annual)	291,563,476	1,350	27.0	393,611
Total				539,393

<2019>

Type of dividend	Number of shares	Dividend per share	Share ratio (%)	Dividends (Korea won in millions)
Cash dividend (interim)	299,992,062	500	10.0	149,996
Cash dividend (annual)	291,563,476	1,600	32.0	466,502
Total				616,498

53-2 Details of dividends on hybrid equity securities for the years ended December 31, 2020 and 2019 are summarized as follows (Korean won in millions):

Classification	2020	2019
Average balance of hybrid equity securities	1,125,552	1,172,493
Weighted-average interest rate	3.88%	4.08%
Total dividends	54,597	47,748

54. Earning per share

54-1 Weighted-average numbers of common shares for the years ended December 31, 2020 and 2019 are calculated as follows (shares in units):

Classification	2020	2019
Beginning	291,563,476	300,242,062
Acquisition of treasury shares	–	(3,466,273)
Weighted-average number of shares of common stocks outstanding	291,563,476	296,775,789

54-2 The Group's basic earnings per share for the years ended December 31, 2020 and 2019 are calculated as follows (Korean won in millions and per share amounts in units):

Classification	2020	2019
Net income attributable to equity holders of the parent	2,637,242	2,391,584
Dividends on hybrid equity securities	(54,598)	(47,748)
Net income attributable to common stock	2,582,644	2,343,836
Weighted-average number of shares of common stocks outstanding	291,563,476	296,775,789
Basic earnings per share (Korean won in units)	8,858	7,898

54-3 Weighted-average numbers of common shares adjusted for the effect of dilution for the years ended December 31, 2020 and 2019 are calculated as follows (shares in units):

Classification	2020	2019
Weighted-average number of common shares of outstanding for basic earnings per share	291,563,476	296,775,789
Dilution effect due to:		
Stock grants	–	788,440
Weighted-average number of common shares (diluted)	291,563,476	297,564,229

54-4 The Group's diluted earnings per share for the years ended December 31, 2020 and 2019 are computed as follows (Korean won in millions and number of shares in units):

Classification	2020	2019
Net income attributable to common stock holders	2,582,644	2,343,836
Weighted-average number of shares of common stocks outstanding (Diluted)	291,563,476	297,564,229
Diluted earnings per share (Korean won in units)	8,858	7,877

55. Share-based payment transactions

The Group has granted employees and directors of HFG and its subsidiaries the share options, which may be settled by the issuance of additional shares or by cash payment equal to the difference between the market value and exercise price.

55-1 Stock options

As of the end of the current term, there are no exercisable stock options granted to executives and employees.

55-2 Performance-based stock grants

55-2-1 The details of performance-based stock grants as of December 31, 2019 are summarized as follows (number of shares in units):

Classification	Grant date	Settlement method	Exercisable period (appraisal period)	Payment date	Estimated vested shares as of December 31, 2020
Grant in 2017(*1)	2017. 1. 1	Cash settlement	2017. 1. 1 ~ 2019. 12. 31	2019. 12. 31	574,375
Grant in 2018(*1)	2018. 1. 1	Cash settlement	2018. 1. 1 ~ 2020. 12. 31	2020. 12. 31	308,712
Grant in 2019(*1)	2019. 1. 1	Cash settlement	2019. 1. 1 ~ 2021. 12. 31	2021. 12. 31	336,097
Grant in 2020(*1)	2020. 1. 1	Cash settlement	2020. 1. 1 ~ 2022. 12. 31	2022. 12. 31	162,720

(*1) The maximum number of shares to be compensated is pre-determined before the grant date, and vested shares are determined by performance measures. Performance is evaluated as 40% of group performance (relative shareholder return), 55% of group performance (subsidiary ROE and net profit target achievement rate) and 5% of soundness evaluation.

55-2-2 The performance-based stock grant liabilities in accounts payable are in the amount ₩49,748 million and ₩61,754 million as of December 31, 2020 and 2019, respectively. The Group uses the cash settlement method in connection with the performance-based stock grant liabilities based on past practice, and compensation costs are recorded by re-measuring fair value of liabilities at the end of every vesting year.

55-2-3 Compensation costs for performance-linked stock compensation for the year ended December 31, 2020 and 2019 are as follows (Korean won in millions):

<2020>

Classification	HFG	Subsidiary	Total
Compensation cost	2,555	14,688	17,243

<2019>

Classification	HFG	Subsidiary	Total
Compensation cost	1,594	12,080	13,674

56. Cash flow information

56-1 Cash and cash equivalents on hand as of December 31, 2020 and 2019 are as follows (Korean won in millions):

Classification	December 31, 2020	December 31, 2019
Cash	2,198,981	2,280,946
Due from banks in Korean won	13,016,032	13,793,321
Due from banks in foreign currencies	12,314,802	7,645,033
Total	27,529,815	23,719,300
Restricted balances	19,270,280	15,179,674
Due from banks with original maturities exceeding three months from the date of acquisition	902,294	2,030,052
Total	20,172,574	17,209,726
Cash and cash equivalents	7,357,241	6,509,574

56-2 Significant non-cash transactions for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

Description	2020	2019
Changes in gain on valuation of financial assets measured at FVOCI, net	20,185	114,863
Debt-to-equity swap	3,811	24,066
Replacement from loan, etc. to non-current assets held for sale	39,094	–
Replacement from current assets to non-current assets held for sale	–	135,226
Replacement from current assets to investment properties	76,633	73,179
Replacement from properties to prepaid assets	13,686	5,032
Recognition of right-of-use assets and lease liability	–	564,804
Replacement from prepaid expenses to right-of-use assets	–	35,298
Changes in right-of-use assets	156,587	40,860
Changes in lease liability	81,484	245,658
Gain(loss) on conversion of overseas operations	153,753	106,196

56-3 Cash flows from interest and dividend for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

Description	2020	2019
Interest receipts	10,356,005	11,172,447
Interest payments	(4,796,632)	(5,273,455)
Dividend receipts	146,995	56,457

56-4 Changes in liabilities arising from financing activities for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions):

<2020>

Classification	January 1, 2020	Cash flows	Foreign exchange movement	Changes in fair values	Other	December 31, 2020
Borrowings	20,699,402	5,339,390	313,581	–	141,943	26,494,316
Debentures	43,661,177	3,295,576	441,327	4,219	1,359,539	48,761,838
Lease liability	583,007	(249,866)	–	–	83,336	416,477
Total	64,943,586	8,385,100	754,908	4,219	1,584,818	75,672,631

<2019>

Classification	January 1, 2019	Cash flows	Foreign exchange movement	Changes in fair values	Other	December 31, 2019
Borrowings	19,182,273	1,142,824	369,670	–	4,635	20,699,402
Debentures	41,018,021	966,679	95,477	104,114	1,476,886	43,661,177
Lease liability	564,804	(227,122)	–	–	245,325	583,007
Total	60,765,098	1,882,381	465,147	104,114	1,726,846	64,943,586

57. Related party transactions

57-1 Details of significant transactions with related parties for the years ended December 31, 2020 and 2019 are summarized as follows (Korean won in millions):

<2020>

Related party	Type	Income			Provisions (reversals) of allowance for possible loan losses	Expenses		
		Interest income	Fee and commission income	Other income		Interest expenses	Fee and commission expenses	Other expenses
Bank of Jilin	Associate	72	1	5	-	-	-	4
CM International Financing Leases	Associate	8,048	-	-	(14,785)	-	-	-
Beijing Langa Asset Management Co., Ltd.	Associate	1,412	243	85	4	37	-	40
PT. SINARIMAS Hana Finance	Joint venture	2,023	1	340	2	97	-	5
BSK-6 Patent Technology Investment Association	Associate	-	-	-	-	-	-	-
MIDAN City Development Co., Ltd.	Associate	-	-	-	-	-	-	-
Company KStartup Winwin fund	Associate	-	-	-	-	-	-	-
Somesevit Co., Ltd.	Associate	-	-	-	-	-	-	-
Korea Credit Bureau	Associate	-	59	-	-	17	3,413	2
KORAMOO 73 Professional Investment Type Private Real Estate Investment	Associate	-	-	-	-	-	-	-
KEB Hana-KMC Unicorn Fund of Funds	Associate	-	-	-	-	5	-	-
KORAMOO 87 Professional Investment Type Private Real Estate Investment	Associate	-	-	-	-	-	-	-
Our Crowd International Invest III	Associate	-	-	319	-	-	-	-
Darby-Hana Infrastructure Fund Management	Associate	-	7	1	-	254	-	-
Bank for Investment and Development of Vietnam	Associate	530	-	-	-	826	-	-
Harvest Private Equity Fund Specializing in Start-Up and Venture Business I	Associate	-	-	-	-	-	-	-
All Together Korea Fund5	Associate	-	-	-	-	-	-	-
TOSS INNOVATION CO., LTD.	Associate	-	-	-	-	-	-	-
Finqq Co., Ltd.	Joint venture	-	892	60	(4)	16	3	21
Mirae Credit Information Services Corp.	Associate	68	16	141	(1)	14	7,815	34
Apollon Private Equity Fund	Associate	-	-	-	-	-	-	-
Heat Private Equity Fund	Associate	-	-	-	-	-	-	-
Lakebridge The Growth Capital PEF1	Associate	-	-	-	-	-	-	-
KiwoomSecurities - Friend 1 New Technology Business Investment Fund	Associate	-	-	-	-	-	-	-
KOCREF REIT 30	Associate	75	10,591	-	-	107	-	14,992
Gunsan BIO Energy Co., Ltd.	Associate	-	-	-	-	2	-	-
GMHB Co., Ltd.	Associate	2,667	326	33	7	1	-	-
Lotte Accelerator	Associate	-	-	-	-	26	-	-
Hana Power Infra 1st Private Equity Fund	Associate	-	2,372	-	-	-	-	-
Hana UBS Asset Management	Associate	-	2,546	38	-	104	-	-

Related party	Type	Income			Provisions (reversals) of allowance for possible loan losses	Expenses		
		Interest income	Fee and commission income	Other income		Interest expenses	Fee and commission expenses	Other expenses
Axis Bio Fund	Associate	-	-	-	-	-	-	-
DA Value-up Fund No. 2	Associate	-	-	-	-	-	-	-
Smartscore Co., Ltd.	Associate	64	4	8	-	-	2	-
2018 Hana- Magna Startup Fund	Associate	-	398	-	-	-	-	-
Petra 6th Alpa Private Equity Fund	Associate	-	-	-	-	-	-	-
Gwacheon Jisan Octa PFV., Ltd.	Associate	-	4,082	-	-	-	-	-
Hana Financial Strategic the 1st Private Equity Fund	Associate	-	277	-	-	-	-	-
DangsandongPFV Co., Ltd.	Associate	-	877	-	-	-	-	-
Fresheasy Co., Ltd.	Associate	510	85	-	(94)	3	-	-
World HansSang Dream Island	Associate	43	526	-	(5)	-	-	-
Dream Island Leisure	Associate	-	-	-	-	-	-	-
EBEST Hitech Fund No.1	Associate	-	-	-	-	-	-	-
UBI+HBIC New Technology Investment Partnership II	Associate	-	-	-	-	-	-	-
UNION Proptech Fund I	Associate	-	-	-	-	-	-	-
Daegu MBC development PFV Co. Ltd.	Associate	-	37	-	-	-	-	-
NPTK Emerging Asia Fund1 PEF	Associate	-	-	-	-	-	-	-
Genesis Environment No.1 Private Equity Fund	Associate	-	-	-	-	-	-	-
YH Leisure Development Co., Ltd.	Associate	1,725	1,219	-	363	1	-	-
Changio Innovation CO., Ltd.	Associate	1,205	9,012	-	-	-	-	-
SMKCENTER PFV Co., Ltd.	Associate	-	-	-	-	-	-	-
Hana Bio New Technology Fund No.1	Associate	-	8	-	-	-	-	-
Dowon Asset development Co., Ltd.	Associate	-	26,751	-	-	-	-	-
HORIZON PRIVATE EQUITY FUND	Associate	-	2,765	-	-	-	-	-
Curious Solution NO.1 Corporate Recovery Private Equity Fund	Associate	-	-	-	-	-	-	-
MERITZ-KCLAWS Fund No.1	Associate	-	-	-	-	-	-	-
Hana Must Seven Special Purpose Acquisition Company	Associate	-	-	-	-	-	-	-
Hana Must Sixth Special Purpose Acquisition Company	Associate	-	-	-	-	-	-	-
Hana Financial Fourteen Special Purpose Acquisition Company	Associate	-	-	-	-	-	-	-
Hana Financial Fifteenth Special Purpose Acquisition Company	Associate	-	150	-	-	-	-	-
Hana Financial Sixteenth Special Purpose Acquisition Company	Associate	-	150	-	-	-	-	-
Hana Financial Seventeen Special Purpose Acquisition Company	Associate	-	-	-	-	-	-	-
Odin 2 LLC	Associate	-	-	-	-	-	-	-
Myoungshin Co., Ltd.	Associate	232	-	-	-	-	-	-
Hana Qualified Investor Private Real Estate Investment Trust No.41-2	Associate	-	7	-	-	-	-	-
A&D credit information Co.,Ltd.	Associate	-	-	-	-	-	6	-
Hyoje PFC CO., LTD	Associate	-	1,060	-	-	-	-	-

Related party	Type	Income			Provisions (reversals) of allowance for possible loan losses	Expenses		
		Interest income	Fee and commission income	Other income		Interest expenses	Fee and commission expenses	Other expenses
F&J Credit Information	Associate	–	764	–	(1)	6	18,444	5
Hana Ventures No.1 Investment Fund	Associate	–	33	–	–	–	–	–
Hana Digital Transformation Fund	Associate	–	2,000	–	–	–	–	–
HS INVESTMENTS EU11 L.P.	Associate	–	–	–	–	–	–	–
Hana Ventures No.2 Investment Fund	Associate	–	25	18	–	1	–	–
Hana Innovation Venture Scale-up Fund	Associate	–	331	–	–	5	–	–
Synergy-Incus Venture Business Fund No. 1	Associate	–	–	–	–	–	–	–
Fidelis-2 private equity joint venture (*)	Associate	–	–	–	–	–	–	–
Sprott Global Renewable Private Equity Fund II (*)	Associate	–	–	–	–	–	–	–
Dowon development Co., Ltd. (*)	Associate	295	4,853	–	(64)	–	–	–
Hana Lantern Energy Factory PEF (*)	Associate	–	431	–	–	–	–	–
2010 KIF-Tube IT Professional Investment Partnership (*)	Associate	–	–	–	–	–	–	91
Genesis Environment No.2 Private Equity Fund (*)	Associate	–	–	–	–	–	–	–
Hana Cybernaut international Limited (*)	Associate	–	–	–	–	–	–	–
OM International Financing Leases	Related party's associate	–	–	–	–	–	–	–
Alan (Hong Kong) Investment Management Limited	Related party's associate	–	–	–	–	–	6	–
Hana Power Package LC	Related party's associate	565	60	–	(98)	11	–	–
SIMWON DEVELOPMENT CO., LTD.	Related party's associate	24	–	–	9	–	–	–
Wellfood Co., Ltd.	Related party's associate	–	–	–	–	–	–	–
MCKAYSON Co., Ltd.	Related party's associate	–	–	–	–	–	–	–
Key management personnel		28	106	124	1	11	8	–
Total		19,586	73,065	1,172	(14,666)	1,544	29,697	15,194

(*) It is excluded from the related party for the year ended December 31, 2020.

<2019>

Related party	Type	Income			Provisions (reversals) of allowance for possible loan losses	Expenses		
		Interest income	Fee and commission income	Other income		Interest expenses	Fee and commission expenses	Other expenses
Bank of Jilin	Associate	162	1	7	—	—	—	49
OM International Financing Leases	Associate	6,024	—	—	38,635	1	—	—
Beijing Langa Asset Management Co., Ltd.	Associate	1,014	282	32	(149)	9	—	(3)
PT. SINARMAS Hana Finance	Joint venture	2,006	3	233	40	65	—	2
Fidelis-2 private equity joint venture	Associate	—	—	246	—	—	—	—
Company KStartup Winwin fund	Associate	—	—	—	—	4	—	—
Korea Credit Bureau	Associate	—	31	—	—	78	2,975	2
KEB Hana-KVC Unicorn Fund of Funds	Associate	—	—	—	—	13	—	—
Darby-Hana Infrastructure Fund Management	Associate	—	1,354	1	—	280	—	—
Fingq Co., Ltd.	Joint venture	—	653	56	8	10	65	—
Mirae Credit Information Services Corp.	Associate	77	11	92	—	32	7,686	407
2010 KIF-Tube IT Professional Investment Partnership	Associate	—	—	841	—	—	—	—
KOCREF REIT 30	Associate	—	—	—	—	—	—	14,846
Gunsan BIO Energy Co., Ltd.	Associate	—	—	—	—	17	—	—
GMHB Co., Ltd.	Associate	1,653	5,645	31	486	—	—	—
Lotte Accelerator	Associate	—	—	—	—	36	—	—
Hana Lantern Energy Factory PEF	Associate	—	124	—	—	—	—	—
Hana Power Infra 1st Private Equity Fund	Associate	—	2,372	—	—	—	—	—
Hana UBS Asset Management	Associate	—	2,490	121	—	158	1	—
Srrartscore Co., Ltd.	Associate	—	—	—	—	1	—	—
2018 Hana- Magna Startup Fund	Associate	—	398	—	—	—	—	—
DangsandongPFV Co., Ltd.	Associate	—	61	—	—	1	—	—
Fresheasy Co., Ltd.	Associate	387	—	—	101	8	—	—
World HansSang Dream Island	Associate	3	3,622	—	17	—	—	—
Dowon development Co., Ltd.	Associate	69	25,702	5	68	—	—	—
Daegu MBC development PFV Co. Ltd.	Associate	—	1,155	—	—	—	—	—
Sprott Global Renewable Private Equity Fund II	Associate	—	969	—	—	—	—	—
Myoungshin Co., Ltd.	Associate	401	—	—	—	—	—	—
Hana Qualified Investor Private Real Estate Investment Trust No.41-2	Associate	—	7	—	—	—	—	—
F&U Credit Information	Associate	—	754	—	(1)	8	8,096	9,508
Hana Ventures No.1 Investment Fund	Associate	—	—	27	—	—	—	—
Hana Digital Transformation Fund	Associate	—	—	1,022	—	—	—	—
B&P Asset Development (formerly, HN housing Co., Ltd. (*))	Associate	115	1	—	—	—	—	—
Hanon Private Investment Co.,Ltd. (*)	Associate	—	—	—	—	2	—	—
Masan Marine New Town Co.,Ltd. (*)	Associate	89	—	—	(2)	4	—	—
Alan (Hong Kong) Investment Management Limited	Related party's associate	—	—	—	—	61	—	—
Hana Power Package LC	Related party's associate	659	60	—	(250)	62	—	—
Key management personnel		196	26	204	3	164	2	—

Related party	Type	Income			Provisions (reversals) of allowance for possible loan losses	Expenses		
		Interest income	Fee and commission income	Other income		Interest expenses	Fee and commission expenses	Other expenses
Total		12,855	45,721	2,918	38,956	1,014	18,825	24,811

(*) It is excluded from the related party for the year ended December 31, 2019.

57-2 Outstanding balances with related parties arising from the below significant transactions as of December 31, 2020 and December 31, 2019 are summarized as follows (Korean won in millions):

<December 31, 2020>

Related party	Type	Assets		Allowance for possible loan losses	Liabilities		
		Loans receivables	Other receivables		Deposits	Borrowings	Other payables
Bank of Jilin	Associate	10,600	—	—	2,348	—	—
OM International Financing Leases	Associate	56,793	—	24,409	16	—	—
Beijing Langa Asset Management Co., Ltd.	Associate	11,675	—	66	18,198	—	—
PT. SINARIMAS Hana Finance	Joint venture	18,578	28	66	12	—	—
BSK-6 Patent Technology Investment Association	Associate	—	—	—	—	—	—
MIDAN City Development Co., Ltd.	Associate	—	—	—	2	—	—
Company KStartup Winwin fund	Associate	—	—	—	—	—	—
Somesevit Co., Ltd.	Associate	—	—	—	—	—	—
Korea Credit Bureau	Associate	63	7	—	3,322	—	194
KORAMCO 73 Professional Investment Type Private Real Estate Investment	Associate	—	—	—	—	—	—
KEB Hana-KVIC Unicorn Fund of Funds	Associate	—	—	—	21,921	—	—
KORAMCO 87 Professional Investment Type Private Real Estate Investment	Associate	—	—	—	—	—	—
Our Crowd International Invest III	Associate	—	—	—	—	—	—
Darby-Hana Infrastructure Fund Management	Associate	—	—	—	19,045	—	—
Bank for Investment and Development of Vietnam	Associate	16,320	856	141	2,288	48,513	—
Harvest Private Equity Fund Specializing in Start-Up and Venture Business I	Associate	—	—	—	—	—	—
All Together Korea Fund5	Associate	—	—	—	—	—	—
TOSS INNOVATION CO., LTD.	Associate	60	—	—	30,327	—	—
Finq Co., Ltd.	Joint venture	33	7	5	23,507	—	31
Mirae Credit Information Services Corp.	Associate	156	—	1	4,998	—	21
Apollon Private Equity Fund	Associate	—	—	—	—	—	—
Heat Private Equity Fund	Associate	—	—	—	1	—	—
Lakebridge The Growth Capital PEF1	Associate	—	—	—	235	—	—
Kiwoom Securities – Friend 1 New Technology Business Investment Fund	Associate	—	—	—	—	—	—

Related party	Type	Assets		Allowance for possible loan losses	Liabilities		
		Loans receivables	Other receivables		Deposits	Borrowings	Other payables
KOCREF REIT 30	Associate	50,000	55,332	–	–	–	41,170
Gunsan BIO Energy Co., Ltd.	Associate	2	2,617	2,617	1,251	–	–
GMHB Co., Ltd.	Associate	52,500	35	410	100	–	239
Lotte Accelerator	Associate	–	–	–	1,140	–	–
Hana Power Infra 1st Private Equity Fund	Associate	–	596	–	–	–	–
Hana UBS Asset Management	Associate	8	687	–	18,163	–	–
Axis Bio Fund	Associate	–	–	–	–	–	–
DA Value-up Fund No. 2	Associate	–	–	–	–	–	–
Smartscore Co., Ltd.	Associate	2	2,308	–	102	–	35
2018 Hana- Magna Startup Fund	Associate	–	–	–	–	–	–
Petra 6th Alpa Private Equity Fund	Associate	–	–	–	–	–	–
Gwacheon Jisan Octa PFV., Ltd.	Associate	–	–	–	–	–	8
Hana Financial Strategic the 1st Private Equity Fund	Associate	–	472	–	–	–	162
DangsandongPFV Co., Ltd.	Associate	–	–	–	–	–	55
Fresheasy Co., Ltd.	Associate	9,353	18,030	7	1,213	–	–
World HansSang Dream Island	Associate	1,450	–	12	15	–	122
Dream Island Leisure	Associate	–	–	–	–	–	–
EBEST Hitech Fund No. 1	Associate	–	–	–	–	–	–
UBI+HBIC New Technology Investment Partners hip II	Associate	–	–	–	–	–	–
UNION Proptech Fund I	Associate	–	–	–	–	–	–
Daegu MBC development PFV Co. Ltd.	Associate	–	–	–	2	–	21
NPTK Emerging Asia Fund1 PEF	Associate	–	–	–	1,302	–	–
Genesis Environment No.1 Private Equity Fund	Associate	–	–	–	–	–	–
YH Leisure Development Co., Ltd.	Associate	116,949	–	363	1,210	–	–
Changio Innovation CO., Ltd.	Associate	40,008	–	–	28	–	66
SMKCENTER PFV Co., Ltd.	Associate	–	–	–	–	–	–
Hana Bio New Technology Fund No. 1	Associate	–	–	–	–	–	–
Dowon Asset development Co., Ltd.	Associate	8,000	–	–	1,015	–	9
HORIZON PRIVATE EQUITY FUND	Associate	–	3,685	–	–	–	–
Curious Solution NO.1 Corporate Recovery Private Equity Fund	Associate	–	–	–	–	–	–
MERITZ-KCLAMS Fund No.1	Associate	–	–	–	–	–	–
Hana Must Seven Special Purpose Acquisition Company	Associate	–	796	–	–	–	–
Hana Must Sixth Special Purpose Acquisition Company	Associate	–	760	–	–	–	–
Hana Financial Fourteen Special Purpose Acquisition Company	Associate	–	990	–	–	–	–
Hana Financial Fifteenth Special Purpose Acquisition Company	Associate	–	1,390	–	–	–	–
Hana Financial Sixteenth Special Purpose Acquisition Company	Associate	–	990	–	–	–	–
Hana Financial Seventeen Special Purpose Acquisition Company	Associate	–	1,790	–	–	–	–
Odin 2 LLC	Associate	–	–	–	–	–	–
Myoungshin Co., Ltd.	Associate	–	9,007	–	622	–	–
Hana Qualified Investor Private Real Estate Inve							

Related party	Type	Assets		Allowance for possible loan losses	Liabilities		
		Loans receivables	Other receivables		Deposits	Borrowings	Other payables
stment Trust No.41-2	Associate	-	1	-	-	-	-
A&D credit information Co., Ltd.	Associate	-	-	-	-	-	-
Hyoje PFC CO., LTD	Associate	-	-	-	-	-	1,000
F&J Credit Information	Associate	96	-	-	1,321	-	-
Hana Ventures No.1 Investment Fund	Associate	-	-	-	-	-	-
Hana Digital Transformation Fund	Associate	-	3,800	-	-	-	-
HS INVESTMENTS EU11 L.P.	Associate	-	-	-	-	-	-
Hana Ventures No.5 Investment Fund	Associate	-	-	-	756	-	-
Hana Innovation Venture Scale-up Fund	Associate	-	331	-	3,867	-	-
Synergy-Incus Venture Business Fund No. 1	Associate	-	-	-	-	-	-
OM International Financing Leases	Related party's associate	-	-	-	-	-	-
Alan (Hong Kong) Investment Management Limited	Related party's associate	-	-	-	9	-	-
Hana Power Package LC	Related party's associate	14,186	-	343	16,742	-	-
SIMWON DEVELOPMENT CO., LTD.	Related party's associate	1,000	-	9	40	-	-
Wellfood Co., Ltd.	Related party's associate	-	-	-	-	-	-
Key management personnel		12,155	-	-	-	-	3
Total		419,987	104,515	28,449	175,118	48,513	43,136

<December 31, 2019>

Related party	Type	Assets		Allowance for possible loan losses	Liabilities		
		Loans receivables	Other receivables		Deposits	Borrowings	Other payables
Bank of Jilin	Associate	3,400	-	-	3,236	-	-
OM International Financing Leases	Associate	81,014	-	39,194	16	-	-
Beijing Langa Asset Management Co., Ltd.	Associate	29,278	-	62	31,621	-	77
PT. SINARIMAS Hana Finance	Joint venture	30,582	53	64	906	-	-
Fidelis-2 private equity joint venture	Associate	-	-	-	55	-	-
MIDAN City Development Co., Ltd.	Associate	-	-	-	2	-	-
Korea Credit Bureau	Associate	3	1	-	153	-	30
KEB Hana-KMC Unicorn Fund of Funds	Associate	-	-	-	957	-	-
Darby-Hana Infrastructure Fund Management	Associate	-	-	-	17,463	-	-
Bank for Investment and Development of Vietnam	Associate	11,578	2,504	-	3,380	-	-
Finqq Co., Ltd.	Joint venture	63	18	9	39,653	-	28
Mirae Credit Information Services Corp.	Associate	2,214	4	2	2,021	-	95
2010 KIF-Tube IT Professional Investment Partnership	Associate	-	855	-	-	-	-
KOCREF REIT 30	Associate	-	20,705	-	-	-	9,166

Related party	Type	Assets		Allowance for possible loan losses	Liabilities		
		Loans receivables	Other receivables		Deposits	Borrowings	Other payables
Gunsan BIO Energy Co., Ltd.	Associate	7	2,617	–	2,047	–	–
GMHB Co., Ltd.	Associate	49,000	127	406	100	–	222
Lotte Accelerator	Associate	–	–	–	3,274	–	–
Hana Lantern Energy Factory PEF	Associate	–	62	–	3	–	–
Hana Power Infra 1st Private Equity Fund	Associate	–	598	–	–	–	–
Hana UBS Asset Management	Associate	22	2,210	–	9,347	–	–
Smartscore Co., Ltd.	Associate	–	–	–	135	–	–
Hana Financial Strategic the 1st Private Equity Fund	Associate	–	33	–	–	–	–
DangsandongPFV Co., Ltd.	Associate	–	–	–	76	–	8
Fresheasy Co., Ltd.	Associate	10,278	18,030	101	1,501	–	–
World HansSang Dream Island	Associate	250	–	17	3	–	123
Dowon development Co., Ltd.	Associate	15,315	–	68	2	–	400
Daegu MBC development PFV Co. Ltd.	Associate	–	1	–	–	–	–
NPTK Emerging Asia Fund1 PEF	Associate	–	–	–	3	–	–
Myoungshin Co., Ltd.	Associate	–	20,015	–	–	–	–
Hana Qualified Investor Private Real Estate Investment Trust No.41-2	Associate	–	1	–	–	–	–
F&J Credit Information	Associate	194	–	1	519	–	814
Alan (Hong Kong) Investment Management Limited	Related party's associate	–	–	–	1,135	–	–
Eco 1 Co., Ltd.	Related party's associate	–	–	–	5	–	–
Hana Power Package LC	Related party's associate	15,349	–	441	26,765	–	–
Key management personnel		7,316	–	6	13,713	–	3
Total		255,863	67,834	40,371	158,091	–	10,966

57-3 The Group engages in financing activities and transactions with related parties as part of normal business activities. Money transactions between related parties for the years ended December 31, 2020 and 2019 are as follows (Korean won in millions).

<2020>

Related Party	Type	Loans Receivables(*1)			Deposits(*1) and Borrowings			Capital Contribution		
		Lend	Collect	Difference	Increase	Decrease	Difference	Increase	Decrease	Difference
Bank of Jilin	Associate	382,600	(375,400)	7,200	-	-	-	-	-	-
OM International Financing Leases	Associate	-	(24,749)	(24,749)	-	-	-	-	-	-
Beijing Langa Asset Management Co., Ltd.	Associate	-	(17,794)	(17,794)	-	-	-	-	-	-
PT. SINARIMAS Hana Finance	Joint venture	9,343	(19,249)	(9,906)	14,009	(14,848)	(839)	9,410	-	9,410
BSK 6 Patent Technology Investment Partnership	Associate	-	-	-	-	-	-	900	(633)	267
MIDAN City Development Co., Ltd.	Associate	-	-	-	-	-	-	-	-	-
Company KStartup Winwin fund	Associate	-	-	-	-	-	-	-	(200)	(200)
Somesevit Co., Ltd.	Associate	-	-	-	-	-	-	-	-	-
Korea Credit Bureau	Associate	415	(355)	60	3,000	-	3,000	-	-	-
KORAMOO 73 Professional Investment Type Private Real Estate Investment	Associate	-	-	-	-	-	-	-	-	-
KEB Hana-KMC Unicorn Fund of Funds	Associate	-	-	-	-	-	-	50,670	-	50,670
KORAMOO 87 Professional Investment Type Private Real Estate Investment	Associate	-	-	-	-	-	-	-	-	-
Our Crowd International Invest III	Associate	-	-	-	-	-	-	-	(342)	(342)
Darby-Hana Infrastructure Fund Management	Associate	-	-	-	18,000	(16,500)	1,500	-	-	-
Bank for Investment and Development of Vietnam	Associate	814,258	(808,818)	5,440	1,246,409	(1,197,896)	48,513	-	-	-
Harvest Private Equity Fund Specializing in Start-Up and Venture Business I	Associate	-	-	-	-	-	-	-	-	-
All Together Korea Fund5	Associate	-	-	-	-	-	-	100,000	(90,000)	10,000
TOSS INNOVATION CO., LTD.	Associate	62	(2)	60	-	-	-	7,500	-	7,500
Finqq Co., Ltd.	Joint venture	538	(568)	(30)	-	-	-	-	-	-
Mirae Credit Information Services Corp.	Associate	1,961	(4,019)	(2,058)	-	-	-	-	-	-
Apollon Private Equity Fund	Associate	-	-	-	-	-	-	-	-	-
Heat Private Equity Fund	Associate	-	-	-	-	-	-	-	-	-
Lakebridge The Growth Capital PEF1	Associate	-	-	-	-	-	-	-	-	-
Kiwoom Securities - Friend 1 New Technology Business Investment Fund	Associate	-	-	-	-	-	-	-	(2,148)	(2,148)
KOCREF REIT 30	Associate	50,000	-	50,000	-	-	-	20,000	(20,000)	-
Gunsan BIO Energy Co., Ltd.	Associate	39	(43)	(4)	-	-	-	-	-	-
GMHB Co., Ltd.	Associate	3,500	-	3,500	-	-	-	-	-	-
Lotte Accelerator	Associate	-	-	-	1,000	(3,000)	(2,000)	-	-	-
Hana Power Infra 1st Private Equity Fund	Associate	-	-	-	-	-	-	-	-	-
Hana UBS Asset Management	Associate	263	(276)	(13)	35,000	(26,000)	9,000	-	-	-
Axis Bio Fund	Associate	-	-	-	-	-	-	-	-	-
DA Value-up Fund No. 2	Associate	-	-	-	-	-	-	-	-	-
Smartscore Co., Ltd.	Associate	13	(11)	2	-	(72)	(72)	-	-	-

Related Party	Type	Loans Receivables(*1)			Deposits(*1) and Borrowings			Capital Contribution		
		Lend	Collect	Difference	Increase	Decrease	Difference	Increase	Decrease	Difference
2018 Hana- Magna Startup Fund	Associate	-	-	-	-	-	-	-	-	-
Petra 6 Alph Private Equity Fund	Associate	-	-	-	-	-	-	-	(31,921)	(31,921)
Gwacheon Jisan Octa PFV., Ltd.	Associate	-	-	-	-	-	-	-	-	-
Hana Financial Strategic the 1st Private Equity Fund	Associate	-	-	-	-	-	-	-	-	-
DangsandongPFV Co., Ltd.	Associate	-	-	-	-	-	-	-	-	-
Fresheasy Co., Ltd.	Associate	20,961	(21,885)	(924)	90	-	90	-	-	-
World HansSang Dream Island	Associate	1,200	-	1,200	-	-	-	-	-	-
Dream Island Leisure	Associate	-	-	-	-	-	-	-	-	-
EBEST Hitech Fund No.1	Associate	-	-	-	-	-	-	-	-	-
UBI+HIC New Technology Investment Partnership II	Associate	-	-	-	-	-	-	-	(130)	(130)
UNION Proptech Fund I	Associate	-	-	-	-	-	-	-	-	-
Daegu MBC development PFV Co. Ltd.	Associate	-	-	-	-	-	-	-	(1,990)	(1,990)
NPTK Emerging Asia Fund I PEF	Associate	-	-	-	-	-	-	-	-	-
Genesis Environment No.1 Private Equity Fund	Associate	-	-	-	-	-	-	8,168	(3,267)	4,901
YH Leisure Development Co., Ltd.	Associate	128,658	(11,709)	116,949	-	-	-	10,000	-	10,000
Changio Innovation CO., Ltd.	Associate	50,113	(10,105)	40,008	-	-	-	50	(10)	40
SMKCENTER PFV Co., Ltd.	Associate	-	-	-	-	-	-	7,800	-	7,800
Hana Bio New Technology Fund No.1	Associate	-	-	-	-	-	-	1,000	-	1,000
Dowon Asset development Co., Ltd.	Associate	8,000	-	8,000	-	-	-	1,242	-	1,242
HORIZON PRIVATE EQUITY FUND	Associate	-	-	-	-	-	-	62,008	-	62,008
Curious Solution NO.1 Corporate Recovery Private Equity Fund	Associate	-	-	-	-	-	-	16,000	-	16,000
MERITZ-KOLAMS Fund No.1	Associate	-	-	-	-	-	-	1,000	-	1,000
Hana Must Seven Special Purpose Acquisition Company	Associate	-	-	-	-	-	-	4	-	4
Hana Must Sixth Special Purpose Acquisition Company	Associate	-	-	-	-	-	-	86	-	86
Hana Financial Fourteen Special Purpose Acquisition Company	Associate	-	-	-	-	-	-	21	-	21
Hana Financial Fifteenth Special Purpose Acquisition Company	Associate	-	-	-	-	-	-	21	-	21
Hana Financial Sixteenth Special Purpose Acquisition Company	Associate	-	-	-	-	-	-	21	-	21
Hana Financial Seventeen Special Purpose Acquisition Company	Associate	-	-	-	-	-	-	810	-	810
Odin 2 LLC	Associate	-	-	-	-	-	-	-	-	-
Myoungshin Co., Ltd.	Associate	-	-	-	-	-	-	-	-	-
Hana Qualified Investor Private Real Estate Investment Trust No.41-2	Associate	-	-	-	-	-	-	-	-	-
A&D credit information Co., Ltd.	Associate	-	-	-	-	-	-	-	-	-
Hyoje PFV CO., LTD	Associate	-	-	-	-	-	-	5,000	-	5,000
F&U Credit Information	Associate	1,265	(1,364)	(99)	-	6	6	-	-	-
Hana Ventures No.1 Investment Fund	Associate	-	-	-	-	-	-	-	-	-
Hana Digital Transformation Fund	Associate	-	-	-	-	-	-	17,448	-	17,448
HS INVESTMENTS EU11 L.P.	Associate	-	-	-	-	-	-	2,934	-	2,934
Hana Ventures No.5 Investment Fund	Associate	-	-	-	-	-	-	2,025	-	2,025
Hana Innovation Venture Scale-up Fund	Associate	-	-	-	-	-	-	9,000	-	9,000

Related Party	Type	Loans Receivables(*1)			Deposits(*1) and Borrowings			Capital Contribution		
		Lend	Collect	Difference	Increase	Decrease	Difference	Increase	Decrease	Difference
Synergy-Incus Venture Business Fund No. 1	Associate	-	-	-	-	-	-	-	(22)	(22)
Fidelis-2 private equity joint venture (*2)	Associate	-	-	-	-	-	-	-	(3,009)	(3,009)
Sprott Global Renewable Private Equity Fund II (*2)	Associate	-	-	-	-	-	-	-	(10,000)	(10,000)
Dowon development Co., Ltd. (*2)	Associate	1,765	(17,080)	(15,315)	-	-	-	-	(149)	(149)
Hana Lantern Energy Factory PEF (*2)	Associate	-	-	-	-	-	-	-	(416)	(416)
2010 KIF-Tube IT Professional Investment Partnership (*2)	Associate	-	-	-	-	-	-	-	855	855
Genesis Environment No.2 Private Equity Fund (*2)	Associate	-	-	-	-	-	-	28,488	(28,488)	-
Hana Cybernaut international Limited (*2)	Associate	-	-	-	-	-	-	-	-	-
Hana Power Package LC	Related party's associate	-	(1,163)	(1,163)	-	-	-	-	-	-
SIMWON DEVELOPMENT CO., LTD.	Related party's associate	1,000	-	1,000	40	-	40	-	-	-
Wellfood Co., Ltd.	Related party's associate	-	-	-	-	-	-	-	-	-
Key management personnel (*3)		4,880	-	4,880	3,314	-	3,314	-	-	-
Total		1,480,834	(1,314,590)	166,244	1,320,862	(1,258,310)	62,552	361,606	(191,870)	169,736

(*1) Overdrawn account in daily basis is excluded from the lending and collection of loans, and the amount of frequent deposits and borrowings is excluded from the changes in deposits.

(*2) It is excluded from a related party for the year ended December 31, 2020.

(*3) Financial transactions with key major management personnel are shown as net amounts.

<2019>

Related Party	Type	Loans Receivables(*1)			Deposits(*1) and Borrowings			Capital Contribution		
		Lend	Collect	Difference	Increase	Decrease	Difference	Increase	Decrease	Difference
Bank of Jilin	Associate	255,621	(253,421)	2,200	-	-	-	-	(7,530)	(7,530)
OM International Financing Leases	Associate	-	(50,219)	(50,219)	-	-	-	-	-	-
Beijing Langa Asset Management Co., Ltd.	Associate	16,022	(1,657)	14,365	-	-	-	-	(3,679)	(3,679)
PT. SINARIMAS Hana Finance	Joint venture	20,161	(8,652)	11,509	-	-	-	-	-	-
BSK 6 Patent Technology Investment Partnership	Associate	-	-	-	-	-	-	1,200	-	1,200
Fidelis-2 private equity joint venture	Associate	-	-	-	-	-	-	-	(600)	(600)
Company KStartup Winwin fund	Associate	-	-	-	3,000	(3,000)	-	-	(1,010)	(1,010)
Korea Credit Bureau	Associate	42	(41)	1	-	(11,000)	(11,000)	-	-	-
KEB Hana-KMC Unicorn Fund of Funds	Associate	-	-	-	-	-	-	5,200	-	5,200
Darby-Hana Infrastructure Fund Management	Associate	-	-	-	14,500	(12,000)	2,500	-	-	-
Bank for Investment and Development of Vietn										

Related Party	Type	Loans Receivables(*1)			Deposits(*1) and Borrowings			Capital Contribution		
		Lend	Collect	Difference	Increase	Decrease	Difference	Increase	Decrease	Difference
am	Associate	11,578	–	11,578	–	–	–	1,272,969	–	1,272,969
Harvest Private Equity Fund Specializing in Start-Up and Venture Business I	Associate	–	–	–	–	–	–	3,000	–	3,000
Finco Co., Ltd.	Joint venture	717	(702)	15	–	–	–	25,500	–	25,500
Mirae Credit Information Services Corp.	Associate	1,415	(1,372)	43	–	–	–	–	–	–
2010 KIF-Tube IT Professional Investment Partnership	Associate	–	–	–	–	–	–	–	697	697
Synergy-Incus Venture Business Fund No. 1	Associate	–	–	–	–	–	–	–	(88)	(88)
Gunsan BIO Energy Co., Ltd.	Associate	63	(62)	1	–	–	–	–	–	–
GMI-B Co., Ltd.	Associate	49,000	–	49,000	100	–	100	–	–	–
Lotte Accelerator	Associate	–	–	–	6,500	(6,500)	–	–	–	–
Hana Lantern Energy Factory PEF	Associate	–	–	–	–	–	–	–	(416)	(416)
Hana UBS Asset Management	Associate	340	(339)	1	38,500	(29,500)	9,000	–	–	–
Smartscore Co., Ltd.	Associate	3	(3)	–	–	(30)	(30)	–	–	–
2018 Hana- Magna Startup Fund	Associate	–	–	–	–	–	–	4,900	–	4,900
Petra 6 Alph Private Equity Fund	Associate	–	–	–	–	–	–	–	(26,007)	(26,007)
Dangsandong PFV Co., Ltd.	Associate	–	–	–	–	–	–	250	–	250
Fresheasy Co., Ltd.	Associate	11,340	(1,062)	10,278	–	–	–	7,927	–	7,927
World HansSang Dream Island	Associate	250	–	250	–	–	–	7,000	–	7,000
Dream Island Leisure	Associate	–	–	–	–	–	–	1	–	1
Dowon development Co., Ltd.	Associate	15,373	(58)	15,315	–	–	–	149	–	149
EBEST Hitech Fund No. 1	Associate	–	–	–	–	–	–	1,000	–	1,000
UBI-HIC New Technology Investment Partnership II	Associate	–	–	–	–	–	–	1,000	–	1,000
UNION Proptech Fund I	Associate	–	–	–	–	–	–	3,000	–	3,000
Daegu MBC development PFV Co. Ltd.	Associate	–	–	–	–	–	–	3,500	–	3,500
NPTK Emerging Asia Fund I PEF	Associate	–	–	–	–	–	–	1,000	–	1,000
Sprott Global Renewable Private Equity Fund I	Associate	–	–	–	–	–	–	19,443	–	19,443
Odin 2 LLC	Associate	–	(2,237)	(2,237)	–	–	–	–	–	–
Myounghsin Co., Ltd.	Associate	–	(184)	(184)	–	–	–	–	–	–
F&J Credit Information	Associate	1,061	(1,196)	(135)	500	(500)	–	–	–	–
Hana Ventures No.1 Investment Fund	Associate	–	–	–	–	–	–	200	–	200
Hana Digital Transformation Fund	Associate	–	–	–	–	–	–	34,710	–	34,710
Tigris-Aurum Fund 1 (*2)	Associate	–	–	–	–	–	–	–	(1,500)	(1,500)
IBKC-History 2018-2 Bio Fund (*2)	Associate	–	–	–	–	–	–	–	(1,000)	(1,000)
B&P Asset Development (formerly, HN housing Co., Ltd.) (*2)	Associate	–	(30)	(30)	–	(10)	(10)	–	–	–
Hanon Private Investment Co., Ltd. (*2)	Associate	–	–	–	230	(230)	–	–	(10,000)	(10,000)
Masan Marine New Town Co., Ltd. (*2)	Associate	–	(1,513)	(1,513)	–	–	–	–	(100)	(100)
Hana Power Package LC	Related party's associate	–	(1,163)	(1,163)	–	–	–	–	–	–
Wellfood Co., Ltd.	Related party's associate	3	(3)	–	–	–	–	–	–	–
Key management personnel (*3)		–	(140)	(140)	–	(288)	(288)	–	–	–
Total		382,989	(324,054)	58,935	63,330	(63,058)	272	1,391,949	(51,233)	1,340,716

(*1) Overdrawn account in daily basis is excluded from the lending and collection

of loans, and the amount of frequent deposits and borrowings is excluded from the changes in deposits.

(*2) It is excluded from a related party for the year ended December 31, 2019.

(*3) Financing transactions with key management personnel are shown as net amounts.

57-4 Significant guarantee contracts, Commitment and collateral provided between related parties as of December 31, 2020 and 2019 are summarized as follows (Korean won in millions):

<December 31, 2020>

Related parties		Transactions	Amounts
Benefactor	Beneficiary		
KEB Hana Bank	GMHB Co., Ltd.	Unused limit (Loans in Korean won)	25,000
KEB Hana Bank	All Together Korea Fund5	Securities purchase contract	990,000
KEB Hana Bank	Freasheasy	Unused limit (Loans in Korean won)	2
KEB Hana Bank	Hana Digital Transformation Fund	Securities purchase contract	1,000
KEB Hana Bank	Hana Innovation Venture Scale-up Fund	Securities purchase contract	3,640
KEB Hana Bank	Heat Private Equity Fund	Securities purchase contract	892
KEB Hana Bank	KEB Hana-KVC Unicorn Fund of Funds	Securities purchase contract	43,130
PT Bank KEB Hana	PT. SINARMAS HANA FINANCE	Unused limit (Loans in foreign currency)	10,834
HFI	GMHB Co., Ltd.	Commitments to purchase private equity	70,000
HFI	Hana Digital Transformation Fund	Securities purchase contract	400
KEB Hana Card	Gunsan BIO Energy Co., Ltd.	Unused limit(Credit card)	28
KEB Hana Card	Mirae Credit Information Services Corp.	Unused limit(Credit card)	394
KEB Hana Card	Smart score Co., Ltd.	Unused limit(Credit card)	5
KEB Hana Card	F&U Credit Information	Unused limit(Credit card)	894
KEB Hana Card	YH Leisure Development Co., Ltd.	Unused limit(Credit card)	15
KEB Hana Card	Changjo Innovation CO., Ltd.	Unused limit(Credit card)	22
KEB Hana Card	Korea Credit Bureau	Unused limit(Credit card)	237
KEB Hana Card	TOSS INNOVATION CO., LTD.	Unused limit(Credit card)	940
KEB Hana Card	Freasheasy	Unused limit(Credit card)	547
KEB Hana Card	Fingq Co., Ltd.	Unused limit(Credit card)	167
KEB Hana Card	Hana Digital Transformation Fund	Securities purchase contract	250

Related parties		Transactions	Amounts
Benefactor	Beneficiary		
Hana Capital	Hana UBS Asset Management	Unused limit(Credit card)	492
Hana Savings Bank	World HansSang Dream Island	Unused limit (Loans in Korean won)	3,550
Hana Savings Bank	Hana Digital Transformation Fund	Securities purchase contract	200
Hana Savings Bank	Hana Innovation Venture Scale-up Fund	Securities purchase contract	700
Hana Asset Trust	Hana Digital Transformation Fund	Securities purchase contract	100
Hana Asset Trust	Hana Innovation Venture Scale-up Fund	Securities purchase contract	1,400
Hana Capital	Hana Digital Transformation Fund	Securities purchase contract	250
Hana Capital	Hana Innovation Venture Scale-up Fund	Securities purchase contract	4,200
Hana Capital	PT SINARMAS HANA FINANCE	Payment Guarantee	20,124
Hana Life Insurance	Dowon Asset development Co., Ltd.	Loan Commitment	2,000
Hana Life Insurance	Hana Digital Transformation Fund	Securities purchase contract	150
Hana Life Insurance	Hana Innovation Venture Scale-up Fund	Securities purchase contract	1,400
Hana Alternative Asset Management	Hana Digital Transformation Fund	Securities purchase contract	150
Hana Alternative Asset Management	Hana Innovation Venture Scale-up Fund	Securities purchase contract	700
Hana Ventures	Hana Digital Transformation Fund	Securities purchase contract	393
Hana Ventures	Hana Innovation Venture Scale-up Fund	Securities purchase contract	8,960
Total			1,193,166

<December 31, 2019>

Related parties		Transactions	Amounts
Benefactor	Beneficiary		
KEB Hana Bank	GMHB Co., Ltd.	Unused limit (Loans in Korean won)	34,000
KEB Hana Bank	Dowon Development Co., Ltd.	Unused limit (Loans in Korean won)	4,700
KEB Hana Bank	Freasheasy	Unused limit (Loans in Korean won)	8,792
KEB Hana Bank	Myoungshin Co., Ltd.	Unused limit (Loans in Korean won)	223
KEB Hana Bank	BSK-6 Patent Technology Investment	Securitie purchase contract	900
KEB Hana Bank	KEB Hana-KVC Unicorn Fund of Funds	Securitie purchase contract	93,800
KEB Hana Bank	Hana Digital Transformation Fund	Securitie purchase contract	8,000
KEB Hana Bank	Langa Asset Management CO., Ltd.	Foreign currency Payment Guarantee	21,542
PT Bank KEB Hana	PT. SINARMAS HANA FINANCE	Unused limit (Loan in foreign currency)	996
		Foreign currency Payment G	

Related parties		Transactions	Amounts
Benefactor	Beneficiary		
Bank of Jilin	KEB Hana Bank	uarantee	29,828
HFI	GMHB Co., Ltd.	Commitments to purchase private equity	70,000
HFI	Hana Digital Transformation Fund	Securitie purchase contract	3,200
KEB Hana Card	Gunsan BIO Energy Co., Ltd.	Unused limit(Credit card)	23
KEB Hana Card	Dowon development Co., Ltd.	Unused limit(Credit card)	5
KEB Hana Card	Mirae Credit Information Services Corp.	Unused limit(Credit card)	336
KEB Hana Card	Smart score Co., Ltd.	Unused limit(Credit card)	7
KEB Hana Card	F&U Credit Information	Unused limit(Credit card)	796
KEB Hana Card	Wellfood Co., Ltd.	Unused limit(Credit card)	1
KEB Hana Card	Korea Credit Bureau	Unused limit(Credit card)	197
KEB Hana Card	Fresheasy Co., Ltd.	Unused limit(Credit card)	171
KEB Hana Card	Finqq Co., Ltd.	Unused limit(Credit card)	137
Hana Capital	Hana Digital Transformation Fund	Securitie purchase contract	2,000
KEB Hana Card	Hana UBS Asset Management	Unused limit(Credit card)	478
Hana Savings Bank	World HansSang Dream Island	Unused limit	4,750
Hana Savings Bank	Hana Digital Transformation	Securitie purchase contract	1,600
Hana Asset Trust	Hana Digital Transformation	Securitie purchase contract	800
KEB Hana Card	Hana Digital Transformation	Securitie purchase contract	2,000
Hana Capital	PT. SINARMAS HANA FINANCE	Foreign currency Payment Guarantee	16,620
Hana Life Insurance	Hana Digital Transformation Fund	Securitie purchase contract	1,200
Hana Alternative Asset Management	Hana Digital Transformation Fund	Securitie purchase contract	1,200
Hana Ventures	Hana Digital Transformation Fund	Securitie purchase contract	3,140
Total			311,442

57-5 Details of compensation paid to key management personnel for the years ended December 31, 2020 and 2019 are summarized as follows (Korean won in millions):

Classification	2020	2019
Employee payment	36,674	39,135
Severance payment	4,896	2,575
Share-based compensation expenses	7,921	9,208
Total	49,491	50,918

57-6 The defined benefit plans between entities belonging to the Group as of December 31, 2020 and 2019 are as follows:

Classification	December 31, 2020	December 31, 2019	Description
KEB Hana Bank	161,728	138,163	Trust account
HFI	119,766	89,407	Trust account
Total	281,494	227,570	

58. Business combination

58-1 Summary

The Group was approved to incorporate Hana Insurance Co., Ltd. as a subsidiary from the Financial Services Commission on April 29, 2020, and acquired 22,400,000 common stocks (70% equity ratio) of Hana Insurance Co., Ltd. from the Korea Teachers' Credit Union on May 27, 2020. The purpose of the acquisition is to expand its business as a comprehensive financial group based on entry into the non-life insurance industry.

58-2 The consideration transferred in connection with the acquisition of shares in Hana Insurance, assets and liabilities acquired on the acquisition date, and non-controlling interests on the acquisition date of the Group are as follows (Korean won in millions):

Classification	Amount	
Transfer consideration		72,930
Cash and cash equivalent	72,930	
Fair value of acquired assets (*1)		
Cash and deposit	48,697	
Financial assets measured at FVPL	365,436	
Securities measured at FVOCI	228,401	
Securities measured at Amortized cost	81,928	
Loan receivables measured at amortized		

Classification	Amount	
cost (*2)	52,715	
Property, plant and equipment	50,388	
Investment property	29,722	
Intangible assets (*3)	44,512	
Others	76,502	
Total		978,301
Fair value of acquired liabilities (*1)		
Insurance contract liability	824,880	
Derivative liabilities used for hedging	1,824	
Others	29,155	
Total		855,859
Fair value of identifiable net assets		122,442
Non-controlling interest (*4)		36,733
Gain from bargain purchase (*5)		(12,779)

(*1) The Group measured the identifiable assets and liabilities of the investee at fair value as of the acquisition date in order to allocate consideration for the acquisition.

(*2) Details of acquired loan receivables are as follows (Korean won in millions):

Classification	Amount
Fair value of loan receivables	52,715
Total contractual amount of loan receivables	66,210
Best estimate as of the acquisition date for contractual cashflows not expected to be recovered	(13,495)

(*3) VOBA (Value Of Business Acquired), which was separately measured, was adjusted by applying an indirect method based on intrinsic value to evaluate the fair value of the insurance contract and the details of software, development costs, membership rights, etc., that Hana Insurance already owned.

(*4) Non-controlling interests are measured as proportionate interests of non-controlling interests among the recognized amount of identifiable net assets of the a

cquiree.

(*5) A gain from bargain purchase occurred as a result of the business combination, and the Group recognized this as other operating income in the consolidated statement of comprehensive income.

58-3 In connection with the business combination, the Group incurred legal fees and due diligence fees of ₩938 million, and these are recognized in operating expenses in the consolidated statement of profit or loss and other comprehensive income.

58-4 Operating income and profit or loss for Hana Insurance Co., Ltd after the acquisition date included in the Group's consolidated statement of profit or loss and other comprehensive income are as follows:

Classification	Operating income	Net income
Amount recorded in the consolidated statement of profit or loss and other comprehensive income	335,642	(5,168)

58-5 Assuming that Hana Insurance Co., Ltd's acquisition date is January 1, 2020, the Group's operating income and profit or loss are as follows:

Classification	Operating income	Net income
Amount recorded in the consolidated statement of comprehensive income	584,878	(1,606)

58-6 Net cash outflow due to business combination

Net cash outflows from business combinations during the current term are as follows:

Classification	Amount
Total acquisition consideration paid in cash	72,930
Cash and cash equivalents acquired	(48,697)

Classification	Amount
Net cash outflow	24,233

59. Approval of the consolidated financial statements

The Group's consolidated financial statements for the year ended December 31, 2020 were approved by the Board of Directors on February 5, 2021, and will receive final approval at the shareholders' meeting to be held on March 26, 2021.