Taiwan Cooperative Bank, Ltd.

Financial Statements for the
Years Ended December 31, 2019 and 2018 and
Independent Auditors' Report

INDEPENDENT AUDITORS' REPORT

The Board of Directors and Stockholder
Taiwan Cooperative Bank, Ltd.

Opinion

We have audited the accompanying financial statements of Taiwan Cooperative Bank, Ltd. (the Bank), which comprise the balance sheets as of December 31, 2019 and 2018, the statements of comprehensive income, changes in equity and cash flows for the years then ended, and the notes to the financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying financial statements present fairly, in all material respects, the financial position of Taiwan Cooperative Bank, Ltd. as of December 31, 2019 and 2018, and its financial performance and its cash flows for the years then ended in accordance with the Regulations Governing the Preparation of Financial Reports by Public Banks and Regulations Governing the Preparation of Financial Reports by Securities Firms.

Basis for Opinion

We conducted our audits in accordance with the Regulations Governing Auditing and Attestation of Financial Statements by Certified Public Accountants and auditing standards generally accepted in the Republic of China. Our responsibilities under those standards are further described in the Auditors' Responsibilities for the Audit of the Financial Statements section of our report. We are independent of Taiwan Cooperative Bank, Ltd. in accordance with The Norm of Professional Ethics for Certified Public Accountant of the Republic of China, 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.

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the financial statements of Taiwan Cooperative Bank, Ltd. for the year ended December 31, 2019. These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Key audit matters in our audit of the financial statements for the year ended December 31, 2019 were as follows:

Impairment Assessment on Discounts and Loans

The discounts and loans of Taiwan Cooperative Bank, Ltd. as of December 31, 2019 were $2,209,976,092 thousand, consisting 63% of the total assets. Therefore, the assessment on the impairment loss of discounts and loans may have significant impacts on the financial statements. The Bank was required to assess the impairment on loans in accordance with IFRS 9 "Financial Instruments" and the "Regulations Governing the Procedures for Banking Institutions to Evaluate Assets and Deal with Non-performing/Non-accrual Loans."

For the accounting policies and critical accounting judgements and estimations of the Bank's impairment assessment of loans, refer to Notes 4 and 5 to the financial statements; for the relevant information on the impairment assessment of loans, refer to Note 13 to the financial statements.

When assessing whether to recognize impairment loss on loans in accordance with the FSC guidelines, the main judgment of the management of the Bank is the assessment of possible loss of the credit assets, including whether the credit assets are classified based on the length of time the loans have been overdue and the value of the collateral when assessing the impairment loss. As the impairment assessment of loans involves many significant judgments and estimates and are material to the financial statements, it was identified as a key audit matter.

With respect to the critical judgements, estimations, and assumptions used in the assessment of impairment loss, the main audit procedures we performed were as follows:

1. Understand and test the internal controls of impairment assessment on loans performed by the Bank.

2. Test the classification of credit assets of the Bank to evaluate whether the classification of credit assets and provisions of impairment loss are appropriate and in accordance with the FSC guidelines by considering the length of time the loans have been overdue and the value of the collaterals.

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

Management is responsible for the preparation and fair presentation of the financial statements in accordance with the Regulations Governing the Preparation of Financial Reports by Public Banks and the Regulations Governing the Preparation of Financial Reports by Securities Firms, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

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

Those charged with governance, including supervisors, are responsible for overseeing the Bank's financial reporting process.

Auditors' Responsibilities for the Audit of the Financial Statements

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

As part of an audit in accordance with auditing standards generally accepted in the Republic of China, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

1. Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

2. 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 Taiwan Cooperative Bank, Ltd.'s internal control.

3. Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.

4. 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 Taiwan Cooperative Bank, Ltd.'s ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditors' report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditors' report. However, future events or conditions may cause Taiwan Cooperative Bank, Ltd. to cease to continue as a going concern.

5. Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

6. Obtain sufficient appropriate audit evidence of the financial information of the components of Taiwan Cooperative Bank, Ltd. to express an opinion on the financial statements. We are responsible for the direction, supervision, and performance of the 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.

From the matters communicated with those charged with governance, we determine those matters that were of the most significance in the audit of the financial statements for the year ended December 31, 2019 and are therefore the key audit matters. We describe these matters in our auditors' 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 partners on the audit resulting in this independent auditors' report are Yin-Chou Chen and Cheng-Hung Kuo.

Deloitte & Touche
Taipei, Taiwan
Republic of China

March 23, 2020

Notice to Readers

The accompanying financial statements are intended only to present the financial position, financial performance and cash flows in accordance with accounting principles and practices generally accepted in the Republic of China and not those of any other jurisdictions. The standards, procedures and practices to audit such financial statements are those generally applied in the Republic of China.

For the convenience of readers, the independent auditors' report and the accompanying financial statements have been translated into English from the original Chinese version prepared and used in the Republic of China. If there is any conflict between the English version and the original Chinese version or any difference in the interpretation of the two versions, the Chinese-language independent auditors' report and financial statements shall prevail.

TAIWAN COOPERATIVE BANK, LTD.

BALANCE SHEETS
DECEMBER 31, 2019 AND 2018
(In Thousands of New Taiwan Dollars)

	2019		2018	
ASSETS	**Amount**	**%**	**Amount**	**%**
CASH AND CASH EQUIVALENTS (Notes 4, 6 and 36)	$ 57,939,887	2	$ 53,883,846	2
DUE FROM THE CENTRAL BANK AND CALL LOANS TO OTHER BANKS (Notes 4, 7, 36 and 37)	275,152,522	8	271,883,276	8
FINANCIAL ASSETS AT FAIR VALUE THROUGH PROFIT OR LOSS (Notes 4, 8 and 36)	13,105,474	-	9,490,716	-
FINANCIAL ASSETS AT FAIR VALUE THROUGH OTHER COMPREHENSIVE INCOME (Notes 4 and 9)	329,128,892	9	256,663,367	8
INVESTMENTS IN DEBT INSTRUMENTS AT AMORTIZED COST (Notes 4, 10 and 37)	554,148,605	16	554,882,807	17
SECURITIES PURCHASED UNDER RESELL AGREEMENTS (Notes 4, 11 and 36)	-	-	3,521,000	-
RECEIVABLES, NET (Notes 4, 12, 36 and 43)	18,796,079	1	18,429,376	1
CURRENT TAX ASSETS (Notes 4, 33 and 36)	1,182,787	-	1,509,126	-
DISCOUNTS AND LOANS, NET (Notes 4, 13, 36 and 37)	2,182,264,644	62	2,050,071,547	62
INVESTMENTS ACCOUNTED FOR USING EQUITY METHOD (Notes 4 and 14)	2,115,170	-	2,116,666	-
OTHER FINANCIAL ASSETS, NET (Notes 4, 15, 36 and 37)	18,843,570	1	18,727,650	1
PROPERTIES AND EQUIPMENT, NET (Notes 4 and 16)	33,521,394	1	33,630,953	1
RIGHT-OF-USE ASSETS, NET (Notes 4 and 17)	1,687,382	-	-	-
INVESTMENT PROPERTIES, NET (Notes 4 and 18)	7,443,865	-	7,151,574	-
INTANGIBLE ASSETS (Notes 4 and 19)	3,635,766	-	3,551,969	-
DEFERRED TAX ASSETS (Notes 4 and 33)	2,221,537	-	1,388,293	-
OTHER ASSETS (Notes 4, 17 and 20)	1,661,390	-	1,101,315	-
TOTAL	$ 3,502,848,964	100	$ 3,288,003,481	100
LIABILITIES AND EQUITY				
DUE TO THE CENTRAL BANK AND OTHER BANKS (Notes 21 and 36)	$ 230,034,229	7	$ 211,479,593	7
FINANCIAL LIABILITIES AT FAIR VALUE THROUGH PROFIT OR LOSS (Notes 4, 8, 25 and 36)	16,021,128	1	12,953,221	1
SECURITIES SOLD UNDER REPURCHASE AGREEMENTS (Notes 4, 8, 9 and 22)	7,976,909	-	9,602,141	-
PAYABLES (Notes 23 and 36)	37,869,519	1	43,885,780	1
CURRENT TAX LIABILITIES (Notes 4, 33 and 36)	2,131,559	-	1,120,604	-
DEPOSITS AND REMITTANCES (Notes 24 and 36)	2,898,402,875	83	2,728,608,123	83
BANK DEBENTURES (Note 25)	65,000,000	2	55,000,000	2
OTHER FINANCIAL LIABILITIES (Notes 18, 26 and 36)	4,137,499	-	3,166,974	-
PROVISIONS (Notes 4, 27 and 28)	8,221,785	-	8,022,491	-
LEASE LIABILITIES (Notes 4 and 17)	1,614,958	-	-	-
DEFERRED TAX LIABILITIES (Notes 4, 16 and 33)	3,216,996	-	3,292,854	-
OTHER LIABILITIES	1,191,720	-	1,137,459	-
Total liabilities	3,275,819,177	94	3,078,269,240	94
EQUITY				
Capital stock				
Common stock	96,765,300	3	90,310,300	2
Capital surplus				
Additional paid-in capital from share issuance in excess of par value	58,664,088	1	58,664,088	2
From treasury stock transactions	103,157	-	103,157	-
Total capital surplus	58,767,245	1	58,767,245	2
Retained earnings				
Legal reserve	41,281,015	1	36,852,305	1
Special reserve	1,291,395	-	1,282,079	-
Unappropriated earnings	21,839,759	1	20,018,974	1
Total retained earnings	64,412,169	2	58,153,358	2
Other equity	7,085,073	-	2,503,338	-
Total equity	227,029,787	6	209,734,241	6
TOTAL	$ 3,502,848,964	100	$ 3,288,003,481	100

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

TAIWAN COOPERATIVE BANK, LTD.

STATEMENTS OF COMPREHENSIVE INCOME
FOR THE YEARS ENDED DECEMBER 31, 2019 AND 2018
(In Thousands of New Taiwan Dollars, Except Earnings Per Share)

	2019		2018		Percentage Increase (Decrease)
	Amount	%	Amount	%	%
INTEREST REVENUE (Notes 4, 29 and 36)	$ 58,628,871	126	$ 55,336,641	125	6
INTEREST EXPENSE (Notes 4, 29 and 36)	(24,470,797)	(53)	(21,511,337)	(49)	14
NET INTEREST	34,158,074	73	33,825,304	76	1
NET REVENUES AND GAINS OTHER THAN INTEREST					
Service fee income, net (Notes 4, 30, 36 and 43)	6,546,703	14	6,186,484	14	6
Gains on financial assets and liabilities at fair value through profit or loss (Notes 4, 31 and 36)	1,124,514	3	3,536,147	8	(68)
Realized gains on financial assets at fair value through other comprehensive income (Notes 4 and 9)	2,000,992	4	1,701,355	4	18
Gain on derecognition of financial assets at amortized cost, net (Notes 4 and 10)	18,489	-	-	-	-
Foreign exchange gains (losses), net (Note 4)	2,147,572	5	(1,726,835)	(4)	224
Impairment losses on assets (Notes 4, 9 and 10)	(20,283)	-	(18,718)	-	8
Share of gains of subsidiaries, associates and joint ventures accounted for using the equity method (Notes 4 and 14)	93,953	-	67,001	-	40
Other noninterest gains, net (Notes 18, 36 and 43)	481,841	1	757,714	2	(36)
Total net revenues and gains other than interest	12,393,781	27	10,503,148	24	18
TOTAL NET REVENUES	46,551,855	100	44,328,452	100	5

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TAIWAN COOPERATIVE BANK, LTD.

STATEMENTS OF COMPREHENSIVE INCOME
FOR THE YEARS ENDED DECEMBER 31, 2019 AND 2018
(In Thousands of New Taiwan Dollars, Except Earnings Per Share)

	2019		2018		Percentage Increase (Decrease)
	Amount	%	Amount	%	%
BAD-DEBT EXPENSES AND PROVISION FOR LOSSES ON COMMITMENT AND GUARANTEES (Notes 4 and 13)	$ (4,120,709)	(9)	$ (4,403,869)	(10)	(6)
OPERATING EXPENSES (Notes 4, 16, 17, 18, 19, 28, 32 and 36)					
Employee benefits	(15,542,841)	(33)	(15,161,606)	(34)	3
Depreciation and amortization	(1,756,382)	(4)	(1,233,886)	(3)	42
General and administrative	(6,228,680)	(13)	(6,576,110)	(15)	(5)
Total operating expenses	(23,527,903)	(50)	(22,971,602)	(52)	2
INCOME BEFORE INCOME TAX	18,903,243	41	16,952,981	38	12
INCOME TAX EXPENSE (Notes 4 and 33)	(2,907,587)	(6)	(2,190,615)	(5)	33
NET INCOME	15,995,656	35	14,762,366	33	8
OTHER COMPREHENSIVE INCOME					
Items that will not be reclassified subsequently to profit or loss (Notes 4 and 28)					
Remeasurement of defined benefit plans	(331,269)	(1)	(277,249)	-	19
Unrealized gains (losses) on investments in equity instruments at fair value through other comprehensive income	2,640,684	6	(904,885)	(2)	392
Changes in the fair value attributable to changes in the credit risk of financial liabilities designated as at fair value through profit or loss	(14,696)	-	13,252	-	(211)
Items that will not be reclassified subsequently to profit or loss, net of income tax	2,294,719	5	(1,168,882)	(2)	296

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TAIWAN COOPERATIVE BANK, LTD.

STATEMENTS OF COMPREHENSIVE INCOME
FOR THE YEARS ENDED DECEMBER 31, 2019 AND 2018
(In Thousands of New Taiwan Dollars, Except Earnings Per Share)

	2019		2018		Percentage Increase (Decrease)
	Amount	%	Amount	%	%
Items that may be reclassified subsequently to profit or loss (Notes 4, 14 and 33)					
Exchange differences on the translation of financial statements of foreign operations	$ (1,068,921)	(2)	$ 1,099,404	2	(197)
Share of other comprehensive losses of subsidiaries, associates and joint ventures accounted for using the equity method	(89,380)	-	(18,494)	-	383
Unrealized gains (losses) on investments in debt instruments at fair value through other comprehensive income	2,949,073	6	(923,759)	(2)	419
Income tax attributable to other comprehensive income	167,399	-	(169,391)	-	199
Items that may be reclassified subsequently to profit or loss, net of income tax	1,958,171	4	(12,240)	-	16,098
Other comprehensive income (losses), net of income tax	4,252,890	9	(1,181,122)	(2)	460
TOTAL COMPREHENSIVE INCOME	$ 20,248,546	44	$ 13,581,244	31	49
EARNINGS PER SHARE (NEW TAIWAN DOLLARS; Note 34)					
Basic	$1.65		$1.53		

The accompanying notes are an integral part of the financial statements. (Concluded)

TAIWAN COOPERATIVE BANK, LTD.

STATEMENTS OF CHANGES IN EQUITY
FOR THE YEARS ENDED DECEMBER 31, 2019 AND 2018
(In Thousands of New Taiwan Dollars)

	Capital Stock (Note 35)			Retained Earnings (Notes 4 and 35)			Other Equity				
	Shares (In Thousands)	Common Stock	Capital Surplus (Notes 4 and 35)	Legal Reserve	Special Reserve	Unappropriated Earnings	Exchange Differences in Translation of Financial Statement of Foreign Operations (Note 4)	Unrealized Valuation Gains (Losses) on Financial Assets at Fair Value Through Other Comprehensive Income (Notes 4 and 9)	Unrealized Gains (Losses) on Available-for-sale Financial Assets	Changes in the Fair Value Attributable to Changes in the Credit Risk of Financial Liabilities Designated as at Fair Value through Profit or Loss (Note 4)	Total Equity
BALANCE, JANUARY 1, 2018	8,808,130	$ 88,081,300	$ 58,767,245	$ 32,982,547	$ 1,280,201	$ 18,723,762	$ (1,120,071)	$ -	$ 1,543,255	$ 2,414	$ 200,260,653
Effect of retrospective application	-	-	-	-	-	(314,712)	-	4,200,311	(1,543,255)	-	2,342,344
BALANCE AT JANUARY 1, 2018, AS RESTATED	8,808,130	88,081,300	58,767,245	32,982,547	1,280,201	18,409,050	(1,120,071)	4,200,311	-	2,414	202,602,997
Reversal of special reserve	-	-	-	-	(62,618)	62,618	-	-	-	-	-
Appropriation of the 2017 earnings											
Legal reserve	-	-	-	3,869,758	-	(3,869,758)	-	-	-	-	-
Special reserve	-	-	-	-	64,496	(64,496)	-	-	-	-	-
Cash dividends	-	-	-	-	-	(6,450,000)	-	-	-	-	(6,450,000)
Stock dividends	222,900	2,229,000	-	-	-	(2,229,000)	-	-	-	-	-
Disposal of investments in equity instruments at fair value through other comprehensive income	-	-	-	-	-	(324,557)	-	324,557	-	-	-
Total comprehensive income											
Net income for the year ended December 31, 2018	-	-	-	-	-	14,762,366	-	-	-	-	14,762,366
Other comprehensive income for the year ended December 31, 2018	-	-	-	-	-	(277,249)	905,546	(1,822,671)	-	13,252	(1,181,122)
Total comprehensive income for the year ended December 31, 2018	-	-	-	-	-	14,485,117	905,546	(1,822,671)	-	13,252	13,581,244
BALANCE, DECEMBER 31, 2018	9,031,030	90,310,300	58,767,245	36,852,305	1,282,079	20,018,974	(214,525)	2,702,197	-	15,666	209,734,241
Reversal of special reserve	-	-	-	-	(64,496)	64,496	-	-	-	-	-
Appropriation of the 2018 earnings											
Legal reserve	-	-	-	4,428,710	-	(4,428,710)	-	-	-	-	-
Special reserve	-	-	-	-	73,812	(73,812)	-	-	-	-	-
Cash dividends	-	-	-	-	-	(2,953,000)	-	-	-	-	(2,953,000)
Stock dividends	645,500	6,455,000	-	-	-	(6,455,000)	-	-	-	-	-
Disposal of investments in equity instruments at fair value through other comprehensive income	-	-	-	-	-	2,424	-	(2,424)	-	-	-
Total comprehensive income											
Net income for the year ended December 31, 2019	-	-	-	-	-	15,995,656	-	-	-	-	15,995,656
Other comprehensive income for the year ended December 31, 2019	-	-	-	-	-	(331,269)	(926,641)	5,525,496	-	(14,696)	4,252,890
Total comprehensive income for the year ended December 31, 2019	-	-	-	-	-	15,664,387	(926,641)	5,525,496	-	(14,696)	20,248,546
BALANCE, DECEMBER 31, 2019	9,676,530	$ 96,765,300	$ 58,767,245	$ 41,281,015	$ 1,291,395	$ 21,839,759	$ (1,141,166)	$ 8,225,269	$ -	$ 970	$ 227,029,787

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

TAIWAN COOPERATIVE BANK, LTD.

STATEMENTS OF CASH FLOWS
FOR THE YEARS ENDED DECEMBER 31, 2019 AND 2018
(In Thousands of New Taiwan Dollars)

	2019	2018
CASH FLOWS FROM OPERATING ACTIVITIES		
Income before income tax	$ 18,903,243	$ 16,952,981
Adjustments for:		
Depreciation expenses	1,598,856	1,089,226
Amortization expenses	157,526	144,660
Expected credit losses/bad-debt expenses	3,987,095	4,292,019
Gains on financial assets and liabilities at fair value through profit or loss	(1,124,514)	(3,536,147)
Interest expense	24,470,797	21,511,337
Gain on derecognition of financial assets at amortized cost	(18,489)	-
Interest revenue	(58,628,871)	(55,336,641)
Dividend income	(981,973)	(617,800)
Provision for losses on guarantees	79,661	103,036
Net changes in reserves for other liabilities	53,953	8,814
Share of gains of subsidiaries, associates and joint ventures accounted for using equity method	(93,953)	(67,001)
Losses on disposal of properties and equipment	2,686	2,034
Gains on disposal of investment properties	-	(258)
Gains on disposal of investments	(1,019,019)	(1,083,555)
Impairment losses on financial assets	20,283	18,718
Other lease gains	(45)	-
Net changes in operating assets and liabilities		
Decrease (increase) in due from the Central Bank and call loans to other banks	14,132,204	(27,373,863)
Decrease in financial assets at fair value through profit or loss	9,920,133	18,631,853
Increase in financial assets at fair value through other comprehensive income	(69,198,924)	(17,063,086)
Increase in investments in debt instruments at amortized cost	(1,551,086)	(39,052,478)
Decrease (increase) in receivables	(265,300)	1,402,242
Increase in discount and loans	(135,649,157)	(60,334,280)
Decrease (increase) in other financial assets	(284,944)	1,713,336
Increase in other assets	(987,706)	(52,882)
Increase (decrease) in due to the Central Bank and other banks	18,554,636	(820,472)
Decrease in financial liabilities at fair value through profit or loss	(8,652,243)	(12,893,386)
Decrease in securities sold under repurchase agreements	(1,625,232)	(775,001)
Decrease in payables	(6,917,060)	(2,273,022)
Increase in deposits and remittances	169,794,752	104,009,788
Increase (decrease) in other financial liabilities	630,352	(241,078)
Decrease in provision for employee benefits	(262,807)	(148,244)
Increase in other liabilities	64,800	16,680
Cash used in operations	(24,890,346)	(51,772,470)
Interest received	60,022,776	55,422,572
Dividends received	1,030,896	639,178

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TAIWAN COOPERATIVE BANK, LTD.

STATEMENTS OF CASH FLOWS
FOR THE YEARS ENDED DECEMBER 31, 2019 AND 2018
(In Thousands of New Taiwan Dollars)

	2019	2018
Interest paid	$ (24,154,254)	$ (21,098,716)
Income tax paid	(2,302,335)	(2,344,864)
Net cash generated from (used in) operating activities	9,706,737	(19,154,300)
CASH FLOWS FROM INVESTING ACTIVITIES		
Acquisition of properties and equipment	(1,218,225)	(966,457)
Increase in refundable deposits	-	(441,938)
Decrease in refundable deposits	350,779	-
Acquisition of intangible assets	(234,771)	(194,214)
Acquisition of investment properties	(30,604)	(95)
Proceeds of the disposal of investment properties	-	379
Increase in other assets	(15,621)	(12)
Net cash used in investing activities	(1,148,442)	(1,602,337)
CASH FLOWS FROM FINANCING ACTIVITIES		
Proceeds of the issuance of bank debentures	11,000,000	5,000,000
Repayment of bank debentures	(1,000,000)	(14,610,000)
Increase in guarantee deposits received	362,034	-
Decrease in guarantee deposits received	-	(341,493)
Repayments of the principal portion of lease liabilities	(569,384)	-
Dividends paid	(2,953,000)	(6,450,000)
Net cash generated from (used in) financing activities	6,839,650	(16,401,493)
EFFECTS OF EXCHANGE RATE CHANGES ON CASH AND CASH EQUIVALENTS	2,411,136	929,469
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	17,809,081	(36,228,661)
CASH AND CASH EQUIVALENTS, BEGINNING OF THE YEAR	73,578,616	109,807,277
CASH AND CASH EQUIVALENTS, END OF THE YEAR	$ 91,387,697	$ 73,578,616

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TAIWAN COOPERATIVE BANK, LTD.

STATEMENTS OF CASH FLOWS
FOR THE YEARS ENDED DECEMBER 31, 2019 AND 2018
(In Thousands of New Taiwan Dollars)

Cash and cash equivalent reconciliations:

	December 31	
	2019	**2018**
Cash and cash equivalents in the balance sheets	$ 57,939,887	$ 53,883,846
Due from the Central Bank and call loans to other banks in accordance with the definition of cash and cash equivalents under IAS 7 "Statement of Cash Flows"	33,267,870	15,866,420
Securities purchased under resell agreements in accordance with the definition of cash and cash equivalents under IAS 7 "Statement of Cash Flows"	-	3,521,000
Other items in accordance with the definition of cash and cash equivalents under IAS 7 "Statement of Cash Flows"	179,940	307,350
Cash and cash equivalents, end of the year	$ 91,387,697	$ 73,578,616

The accompanying notes are an integral part of the financial statements. (Concluded)

1. ORGANIZATION AND OPERATIONS

Taiwan Cooperative Bank, Ltd. (the Bank) was officially established on October 5, 1946 to regulate the supply of and demand for funds for cooperative organizations by accepting their surplus funds as deposits and extending working funds to them. On February 10, 2006, the Bank changed its Chinese name upon approval by the Ministry of Economic Affairs. However, the Bank's English name remains unchanged. The Bank became a legal entity in 1985 in accordance with the Banking Law. At the start of 2001, the Bank was converted into a corporate entity engaged in (a) all commercial banking operations allowed under the Banking Law; (b) international banking operations; (c) overseas branch operations as authorized by the respective foreign governments; and (d) other operations as authorized by the central authority-in-charge.

The Bank's shares have been listed on the Taiwan Stock Exchange since November 17, 2004.

The Bank merged with the Farmers Bank of China (FBC) on May 1, 2006, with the Bank as the survivor entity.

On June 24, 2011, the Bank's stockholders approved the establishment of Taiwan Cooperative Financial Holding Company, Ltd. (TCFHC) by swapping the Bank's shares with those Co-operative Asset Management Co., Ltd. (CAM) and Taiwan Cooperative Bills Finance Corporation Ltd. (TCBF) in accordance with the "Financial Holding Company Act" and other regulations. The boards of directors of the Bank, CAM and TCBF designated December 1, 2011 as the effective date of the share swap. After the shares transfer, the Bank became a 100% subsidiary of TCFHC. Also on December 1, 2011, the trading of the Bank's stock on the Taiwan Stock Exchange (TSE) was stopped, and TCFHC's stock started to be traded on the TSE.

On December 2, 2011, the Bank reduced its capital by NT$3 billion and spun off its Security Department to incorporate Taiwan Cooperative Securities Corp. (TCS), which became a 100% subsidiary of TCFHC.

In order to integrate resources and enhance operating effectiveness, the board of directors of the Bank and Cooperative Insurance Brokers Co., Ltd. (CIB) decided to merge the Bank and CIB on April 25, 2016. The effective date of the merger was June 24, 2016. In this merger, the Bank was the surviving entity.

The Bank has its Head Office in Taipei. It had a Business, International Banking, Finance, Credit Card, Trust and Insurance Agent Departments as well as 269 domestic branches, an offshore banking unit (OBU), 12 overseas branches, 8 overseas sub-branches and 2 representative offices as of December 31, 2019.

The operations of the Bank's Trust Department are (1) planning, managing and operating the trust business and (2) custodianship of nondiscretionary trust fund in domestic and overseas securities and mutual funds. These operations are regulated under the Banking Law and Trust Law of the Republic of China (ROC).

As of December 31, 2019 and 2018, the Bank had 8,574 and 8,273 employees, respectively.

The operating units of the Bank maintain their accounts in their respective functional currencies. The financial statements are presented in New Taiwan dollars.

2. APPROVAL OF FINANCIAL STATEMENTS

The parent company only financial statements were approved by the Bank's board of directors on March 23, 2020.

3. APPLICATION OF NEW, AMENDED AND REVISED STANDARDS AND INTERPRETATIONS

a. Effects of initial application of the amended Regulations Governing the Preparation of Financial Reports by Public Banks, Regulations Governing the Preparation of Financial Reports by Securities Firms, and the International Financial Reporting Standards (IFRS), International Accounting Standards (IAS), Interpretations of IFRS (IFRIC), and Interpretations of IAS (SIC) endorsed and issued into effect by the Financial Supervisory Commission (FSC)

Except for the following, the initial application of the above New IFRSs in 2019 and related amendments to the Regulations Governing the Preparation of Financial Reports by Public Banks, and Regulations Governing the Preparation of Financial Reports by Securities Firms did not have any material impact on the Bank's accounting policies:

- IFRS 16 "Leases"

IFRS 16 provides a comprehensive model for the identification of lease arrangements and their treatment in the financial statements of both lessee and lessor. It supersedes IAS 17 "Leases", IFRIC 4 "Determining whether an Arrangement contains a Lease", and a number of related interpretations. Refer to Note 4 for information relating to the relevant accounting policies.

Definition of a lease

Upon initial application of IFRS 16, the Bank reassesses whether a contract is, or contains, a lease in accordance with the definition of a lease under IFRS 16. Contracts that are reassessed as containing leases are accounted for in accordance with the transitional provisions under IFRS 16.

The Bank as lessee

The Bank recognizes right-of-use assets or investment properties if the right-of-use assets meet the definition of investment properties, and lease liabilities for all leases on the balance sheets except for those whose payments under low-value asset and short-term leases are recognized as expenses on a straight-line basis. On the statements of comprehensive income, the Bank presents the depreciation expense charged on right-of-use assets separately from the interest expense accrued on lease liabilities; interest is computed using the effective interest method. On the statements of cash flows, cash payments for the principal portion of lease liabilities are classified within financing activities; cash payments for the interest portion are classified within operating activities. Prior to the application of IFRS 16, payments under operating lease contracts, were recognized as expenses on a straight-line basis. Cash flows for operating leases were classified within operating activities on the statements of cash flows. Leased assets and finance lease payables were recognized on the balance sheets for contracts classified as finance leases.

The Bank elects to apply IFRS 16 retrospectively with the cumulative effect of the initial application of this standard recognized in retained earnings on January 1, 2019. Comparative information is not restated. However, the Bank do not adjust retained earnings on January 1, 2019 due to effect of IFRS 16 retrospective application.

Lease liabilities were recognized on January 1, 2019 for leases previously classified as operating leases under IAS 17. Lease liabilities were measured at the present value of the remaining lease payments, discounted using the lessee's incremental borrowing rate on January 1, 2019. Right-of-use assets are measured at an amount equal to the lease liabilities, adjusted by the amount of any prepaid or accrued lease payments, the Bank applies IAS 36 to all right-of-use assets.

The Bank also applies the following practical expedients:

1) The Bank applies a single discount rate to a portfolio of leases with reasonably similar characteristics to measure lease liabilities.

2) The Bank accounts for those leases for which the lease term ends on or before December 31, 2019 as short-term leases.

3) The Bank excludes initial direct costs from the measurement of right-of-use assets on January 1, 2019.

4) The Bank uses hindsight, such as in determining lease terms, to measure lease liabilities.

For leases previously classified as finance leases under IAS 17, the carrying amounts of right-of-use assets and lease liabilities on January 1, 2019 are determined as at the carrying amounts of the respective leased assets and finance lease payables on December 31, 2018.

The weighted average lessee's incremental borrowing rate applied to lease liabilities recognized on January 1, 2019 is 3.027%. The difference between the (i) lease liabilities recognized and (ii) operating lease commitments disclosed under IAS 17 on December 31, 2018 is explained as follows:

The future minimum lease payments of operating lease commitments on December 31, 2018	$ 1,888,261
Less: The future minimum lease payments of cancellable operating lease commitments on December 31, 2018	(197,814)
The future minimum lease payments of non-cancellable operating lease commitments on December 31, 2018	1,690,447
Less: Recognition exemption for short-term leases and leases of low-value assets	(61,326)
Undiscounted amounts on January 1, 2019	$ 1,629,121
Discounted amounts using the incremental borrowing rate on January 1, 2019	$ 1,423,034
Add: Lease payables on December 31, 2018	21,861
Add: Others	39,428
Lease liabilities recognized on January 1, 2019	$ 1,484,323

The Bank as lessor

The Bank does not make any adjustments for leases in which it is a lessor and it account for those leases with the application of IFRS 16 starting from January 1, 2019.

The impact on assets, liabilities and equity as of January 1, 2019 from the initial application of IFRS 16 is set out as follows:

	Carrying Amount as of December 31, 2018	Adjustments Arising from Initial Application	Adjusted Carrying Amount as of January 1, 2019
Property and equipment, net	$ 33,630,953	$ (21,298)	$ 33,609,655
Right-of-use assets	$ -	1,563,844	$ 1,563,844
Other assets	$ 1,101,315	(92,452)	$ 1,008,863
Total effect on assets		$ 1,450,094	
Lease liabilities	$ -	$ 1,484,323	$ 1,484,323
Accounts payable	$ 43,885,780	(12,368)	$ 43,873,412
Other financial liabilities - lease payables	$ 21,861	(21,861)	$ -
Total effect on liabilities		$ 1,450,094	
Retained earnings	$ 58,153,358	$ -	$ 58,153,358
Other equity	$ 2,503,338	-	$ 2,503,338
Total effect on equity		$ -	

b. Impact of IFRSs endorsed by the FSC for application starting from 2020, but not yet applied by the Bank

New IFRSs	Effective Date Announced by IASB
Amendments to IFRS 3 "Definition of a Business"	January 1, 2020 (Note 1)
Amendments to IFRS 9, IAS 39 and IFRS 7 "Interest Rate Benchmark Reform"	January 1, 2020 (Note 2)
Amendments to IAS 1 and IAS 8 "Definition of Material"	January 1, 2020 (Note 3)

Note 1: The Bank shall apply these amendments to business combinations for which the acquisition date is on or after the beginning of the first annual reporting period beginning on or after January 1, 2020 and to asset acquisitions that occur on or after the beginning of that period.

Note 2: The Bank shall apply these amendments retrospectively for annual reporting periods beginning on or after January 1, 2020.

Note 3: The Bank shall apply these amendments prospectively for annual reporting periods beginning on or after January 1, 2020.

The Bank assessed the application of the standards above would not have any material impact on the Bank's financial position and financial performance. As of the date the financial statements were authorized for issue, the Bank is continuously assessing the possible impact that the application of other standards and interpretations will have on the Bank's financial position and financial performance and will disclose the relevant impact when the assessment is completed.

c. Impact of the new IFRSs announced by IASB but not yet endorsed and issued into effect by the FSC and not yet applied by the Bank

New IFRSs	Effective Date Announced by IASB (Note)
Amendments to IFRS 10 and IAS 28 "Sale or Contribution of Assets between an Investor and its Associate or Joint Venture"	To be determined by IASB
IFRS 17 "Insurance Contracts"	January 1, 2021
Amendments to IAS 1 "Classification of Liabilities as Current or Non-current"	January 1, 2022

Note: Unless stated otherwise, the above New IFRSs are effective for annual reporting periods beginning on or after their respective effective dates.

As of the date the financial statements were authorized for issue, the Bank assessed that the above amendments have no significant impact on the Bank. The Bank is continuously assessing the possible impact that the application of other standards and interpretations will have on the Bank's financial position and financial performance and will disclose the relevant impact when the assessment is completed.

4. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Statement of Compliance

The financial statements have been prepared in accordance with the Regulations Governing the Preparation of Financial Reports by Public Banks and Regulations Governing the Preparation of Financial Reports by Securities Firms.

Basis of Preparation

The financial statements have been prepared on the historical cost basis except for financial instruments that are measured at fair value and net defined benefit liabilities which are measured at the present value of the defined benefit obligation less the fair value of plan assets.

The fair value measurements are grouped into Levels 1 to 3 based on the degree to which the fair value measurement inputs are observable and the significance of the inputs to the fair value measurement in its entirety, which are described as follows:

a. Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities;

b. Level 2 inputs are inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices); and

c. Level 3 inputs are unobservable inputs for the asset or liability.

When preparing its financial statements, the Bank used equity method to account for its investment in subsidiary, associates and joint ventures. In order for the amounts of the net profit for the year, other comprehensive income for the year and total equity in the parent company only financial statements to be the same with the amounts attributable to the owner of the Bank in its consolidated financial statements, adjustments arising from the differences in accounting treatment between the parent company only basis and the consolidated basis were made to investments accounted for using equity method, share of profit or loss of subsidiary, associates and joint ventures, share of other comprehensive income of subsidiary, associates and joint ventures and related equity items, as appropriate, in the parent company only financial statements.

The financial statements also include accounts of the Bank's Head Office, OBU, and all branches. All interoffice account balances and transactions have been eliminated.

Foreign-currency Transactions

The Bank records foreign-currency transactions in the respective currencies in which these are denominated. Every month-end, foreign currency income and expenses are translated into New Taiwan dollars at the prevailing exchange rates. At month-end, monetary assets and liabilities denominated in foreign currencies are reported using the prevailing exchange rates, and exchange differences are recognized in profit or loss. Nonmonetary assets and liabilities measured at fair value are translated using the prevailing exchange rates at month-end. Translation differences on nonmonetary assets and liabilities measured at fair value are recognized in profit or loss, except for translation difference arising from nonmonetary items of which the change in fair values is recognized in other comprehensive income, in which case, the translation differences are also recognized directly in other comprehensive income. Nonmonetary assets and liabilities that are classified as carried at cost are recognized at the exchange rate on the transaction date.

In preparing the financial statements, foreign operations' financial statements are translated at the following rates: Assets and liabilities - the prevailing exchange rates on the balance sheet date; and income and expenses - at the average exchange rate for the year. Translation difference net of income tax is recorded as "other comprehensive income" and accumulated in equity.

Classification of Current and Noncurrent Assets and Liabilities

Since the operating cycle in the banking industry cannot be reasonably identified, accounts included in the Bank's financial statements are not classified as current or noncurrent. Nevertheless, these accounts are properly categorized in accordance with the nature of each account and sequenced by liquidity.

Cash and Cash Equivalents

In the balance sheet, cash and cash equivalents comprise cash on hand and demand deposits, together with short-term, highly liquid investments that are readily convertible to a known amount of cash and are subject to an insignificant risk of changes in value. In the statement of cash flows, cash and cash equivalents comprise cash and cash equivalents defined in the balance sheet, due from the Central Bank and call loans to other banks, securities purchased under resell agreements, and call loans to securities firms that correspond to the definition of cash and cash equivalents in IAS 7 "Cash Flow Statements," as endorsed by the FSC.

Financial Instruments

Financial assets and financial liabilities are recognized when the Bank becomes a party to the contractual provisions of the instruments.

Financial assets and financial liabilities are initially measured at fair value. Transaction costs that are directly attributable to the acquisition or issue of financial assets and financial liabilities (other than financial assets and financial liabilities at fair value through profit or loss) are added to or deducted from the fair value of the financial assets or financial liabilities, as appropriate, on initial recognition. Transaction costs directly attributable to the acquisition of financial assets or financial liabilities at fair value through profit or loss are recognized immediately in profit or loss.

Financial assets

All regular way purchases or sales of financial assets are recognized and derecognized on a trade date basis.

a. Measurement category

Financial assets are classified into the following categories: Financial assets at FVTPL, financial assets at amortized cost, investments in debt instruments at FVTOCI and equity instruments at FVTOCI.

1) Financial asset at FVTPL

Financial asset is classified as at FVTPL when the financial asset is mandatorily classified or it is designated as at FVTPL.

Financial assets mandatorily classified as at FVTPL include investments in equity instruments which are not designated as at FVTOCI and debt instruments that do not meet the amortized cost criteria or the FVTOCI criteria.

A financial asset may be designated as at FVTPL upon initial recognition if such designation eliminates or significantly reduces a measurement or recognition inconsistency that would otherwise arise.

Financial assets at FVTPL are subsequently measured at fair value, with any gains or losses arising on remeasurement recognized in profit or loss. The net gain or loss recognized in profit or loss incorporates any dividend or interest earned on the financial asset. Fair value is determined in the manner described in Note 39.

2) Financial assets at amortized cost

Financial assets that meet the following conditions are subsequently measured at amortized cost:

a) The financial asset is held within a business model whose objective is to hold financial assets in order to collect contractual cash flows; and

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.

Subsequent to initial recognition, financial assets at amortized cost, including cash and cash equivalents, due from the Central Bank and call loans to other bank, call loans to securities firms, receivables and discounts and debt instruments are measured at amortized cost, which equals to gross carrying amount determined by the effective interest method less any impairment loss. Exchange differences are recognized in profit or loss.

Interest revenue is calculated by applying the effective interest rate to the gross carrying amount of a financial asset, except for:

a) Purchased or originated credit-impaired financial asset, for which interest revenue is calculated by applying the credit-adjusted effective interest rate to the amortized cost of the financial asset; and

b) Financial asset that has subsequently become credit-impaired, for which interest revenue is calculated by applying the effective interest rate to the amortized cost of the financial asset.

A financial asset is credit impaired when one or more of the following events have occurred:

i. Significant financial difficulty of the issuer or the borrower;

ii. Breach of contract, such as a default;

iii. It is becoming probable that the borrower will enter bankruptcy or undergo a financial reorganization; or

iv. The disappearance of an active market for that financial asset because of financial difficulties.

3) Investments in debt instruments at FVTOCI

Debt instruments that meet the following conditions are subsequently measured at FVTOCI:

a) The financial asset is held within a business model whose objective is achieved by both the collecting of contractual cash flows and the selling of the financial assets; and

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.

Investments in debt instruments at FVTOCI are subsequently measured at fair value. Changes in the carrying amounts of these debt instruments relating to changes in foreign currency exchange rates, interest income calculated using the effective interest method and impairment losses or reversals are recognized in profit or loss. Other changes in the carrying amount of these debt instruments are recognized in other comprehensive income and will be reclassified to profit or loss when the investment is disposed of.

4) Investments in equity instruments at FVTOCI

On initial recognition, the Bank may make an irrevocable election to designate investments in equity instruments as at FVTOCI. Designation at FVTOCI is not permitted if the equity investment is held for trading or if it is contingent consideration recognized by an acquirer in a business combination.

Investments in equity instruments at FVTOCI are subsequently measured at fair value with gains and losses arising from changes in fair value recognized in other comprehensive income and accumulated in other equity. The cumulative gain or loss will not be reclassified to profit or loss on disposal of the equity investments, instead, they will be transferred to retained earnings.

Dividends on these investments in equity instruments are recognized in profit or loss when the Bank's right to receive the dividends is established, unless the dividends clearly represent a recovery of part of the cost of the investment.

b. Impairment of financial assets

The Bank recognizes a loss allowance for expected credit losses on financial assets at amortized cost (including loans and receivables), investments in debt instruments that are measured at FVTOCI, lease receivables, as well as contract assets.

The Bank always recognizes lifetime Expected Credit Loss for receivables (excluding receivables of credits and credit cards and accrued interest from debt instruments), and lease receivables. For all other financial instruments, the Bank recognizes lifetime ECL when there has been a significant increase in credit risk since initial recognition. If, on the other hand, the credit risk on the financial instrument has not increased significantly since initial recognition, the Bank measures the loss allowance for that financial instrument at an amount equal to 12-month ECL.

Expected credit losses reflect the weighted average of credit losses with the respective risks of a default occurring as the weights. Lifetime ECL represents the expected credit losses that will result from all possible default events over the expected life of a financial instrument. In contrast, 12-month ECL represents the portion of lifetime ECL that is expected to result from default events on a financial instrument that are possible within 12 months after the reporting date.

For internal credit risk management purposes, the Bank determines that the following situations indicate that a financial asset is in default (without taking into account any collateral held by the Bank):

1) Internal or external information show that the debtor is unlikely to pay its creditors.

2) When a financial asset is overdue for at least 90 days unless the Bank has reasonable and corroborative information to support a more lagged default criterion.

The Bank recognizes an impairment gain or loss in profit or loss for all financial instruments with a corresponding adjustment to their carrying amount through a loss allowance account, except for investments in debt instruments that are measured at FVTOCI, for which the loss allowance is recognized in other comprehensive income and does not reduce the carrying amount of the financial asset.

Under FSC guidelines, the Bank should classify credit assets as sound credit assets or unsound credit assets, with the unsound assets further categorized as special mention, substandard, with collectability highly doubtful and uncollectable, on the basis of the customers' financial position, valuation of collaterals and the length of time of the principal repayments or interest payments have become overdue.

The Bank made 100%, 50%, 10%, 2% and 1% provisions for credits deemed uncollectable, with collectability highly doubtful, substandard, special mention and sound credit assets (excluding assets that represent claims against an ROC government agency), respectively, as minimum provisions. In addition, the Bank was required to make provisions of at least 1.5% each for the sound credit assets on loans granted to Mainland China clients (including short-term trading financing) and for mortgage loans granted for housing acquisition, renovation and construction.

Credits deemed uncollectable may be written off if the write-off is approved by the board of directors.

c. Derecognition of financial assets

The Bank derecognizes a financial asset only when the contractual rights to the cash flows from the asset expire, or when it transfers the financial asset and substantially all the risks and rewards of ownership of the asset to another party.

If the Bank neither transfers nor retains substantially all the risks and rewards of ownership and continues to control the transferred asset, the Bank recognizes its retained interest in the asset and any associated liability for amounts it may have to pay. If the Bank retains substantially all the risks and rewards of ownership of a transferred financial asset, the Bank continues to recognize the financial asset and also recognizes a collateralized borrowing for the proceeds received.

On derecognition of a financial asset at amortized cost in its entirety, the difference between the asset's carrying amount and the sum of the consideration received and receivable is recognized in profit or loss. On derecognition of an investment in a debt instrument at FVTOCI, the difference between the asset's carrying amount and the sum of the consideration received and receivable and the cumulative gain or loss that had been recognized in other comprehensive income is recognized in profit or loss. However, on derecognition of an investment in an equity instrument at FVTOCI, the difference between the asset's carrying amount and the sum of the consideration received and receivable is recognized in profit or loss, and the cumulative gain or loss that had been recognized in other comprehensive income is transferred directly to retained earnings, without recycling through profit or loss.

Equity instruments

The Bank classifies the debt and equity instruments issued either as financial liabilities or as equity in accordance with the substance of the contractual agreements and the definitions of a financial liability or an equity instrument.

Equity instruments issued by the Bank are recognized at the proceeds received, net of direct issue costs.

Repurchase of the Bank's own equity instruments is recognized and deducted directly in equity. No gain or loss is recognized in profit or loss on the purchase, sale, issue or cancellation of the Bank's own equity instruments.

Financial liabilities

a. Subsequent measurement

Except for the cases stated below, all financial liabilities are measured at amortized cost using the effective interest method:

1) Financial liabilities at FVTPL

Financial liabilities are classified as at FVTPL when the financial liability is either held for trading or designated as at FVTPL.

A financial liability is classified as designated as at FVTPL upon initial recognition if:

a) Such designation eliminates or significantly reduces a measurement or recognition inconsistency that would otherwise arise; or

b) The financial liability forms part of a group of financial assets or financial liabilities or both, which is managed and its performance is evaluated on a fair value basis, in accordance with the Bank's documented risk management or investment strategy, and information about the grouping is provided internally on that basis; or

c) The contract contains one or more embedded derivatives so that the entire combined contract (asset or liability) can be designated as at fair value through profit or loss.

Financial liabilities at FVTPL are stated at fair value, with any gains or losses arising on remeasurement recognized in other profit or loss. The net gain or loss recognized in profit or loss incorporates any interest paid on the financial liability. For a financial liability designated as at fair value through profit or loss, the amount of changes in fair value attributable to changes in the credit risk of the liability is presented in other comprehensive income, and it will not be subsequently reclassified to profit or loss. The gain or loss accumulated in other comprehensive income will be transferred to retained earnings when the financial liabilities are derecognized. If this accounting treatment related to credit risk would create or enlarge an accounting mismatch, all changes in fair value of the liability are presented in profit or loss. Fair value is determined in the manner described in Note 39.

2) Financial guarantee contracts

The Bank measures financial guarantee contract issued at the higher of:

a) The amount of the loss allowance determined in accordance with IFRS 9 endorsed by the FSC; and

b) The amount initially recognized less, where appropriate, cumulative amount of income recognized in accordance with IFRS 15 endorsed by the FSC.

Besides subsequently measuring financial guarantee contracts at the higher of the abovementioned amounts as IFRS assessment result, assessment is also performed under the "Regulations Governing the Procedures for Banking Institutions to Evaluate Assets and Deal with Non-performing/Non-accrual Loans", as regulatory assessment result. The higher adequacy provision between above IFRS and regulatory assessment results is recognized.

Financial guarantee contracts issued by the Bank are measured at their fair values and, if not designated as at fair value through profit or loss, are subsequently measured at the higher of the amount of the expected credit loss allowance or the amount initially recognized less cumulative amortization recognized.

b. Derecognition of financial liabilities

The Bank derecognizes financial liabilities only when the Bank's obligations are discharged or cancelled or expired. The difference between the carrying amount of the financial liability derecognized and the consideration paid, including any non-cash assets transferred or liabilities assumed, is recognized in profit or loss.

Derivatives

Derivatives are initially recognized at fair value at the date the derivative contracts are entered into and are subsequently remeasured to their fair value at the balance sheet date. The resulting gain or loss is recognized in profit or loss immediately. If the fair value of a derivative is a positive number, the derivative is recognized as an asset and if the fair value is a negative number, the derivative is recognized as a liability.

Derivatives embedded in hybrid contracts that contain financial asset hosts within the scope of IFRS 9 are not separated; instead, the classification is determined in accordance with the entire hybrid contract. Derivatives embedded in non-derivative host contracts that are not financial assets within the scope of IFRS 9 (e.g. financial liabilities) are treated as separate derivatives when they meet the definition of a derivative, their risks and characteristics are not closely related to those of the host contracts and the host contracts are not measured at FVTPL.

Overdue Loans

Loans and other credits (including accrued interest) that are overdue for at least six months are classified as overdue loans in accordance with the guideline issued by the FSC.

Overdue loans (except other credits) are classified as discounts and loans, and the remaining are classified as other financial assets.

Securities Purchased/Sold Under Resell/Repurchase Agreements

Securities purchased under resell agreements and securities sold under repurchase agreements are generally treated as collateralized financing transactions. Interest earned on resell agreements or interest incurred on repurchase agreements is recognized as interest revenue or interest expense on an accrual basis.

Investments Accounted for Using Equity Method

Investments in subsidiaries, associates and joint ventures are accounted for by the equity method.

Investment in subsidiaries

Subsidiaries (including structured entities) are the entities controlled by the Bank.

Under the equity method, the investment is initially recognized at cost and the carrying amount is increased or decreased to recognize the Bank's share of the profit or loss and other comprehensive income of the subsidiary after the date of acquisition. Besides, the Bank also recognizes the Bank's share of the change in other equity of the subsidiary.

Changes in the Bank's ownership interests in subsidiaries that do not result in the Bank's loss of control over the subsidiaries are accounted for as equity transactions. Any difference between the carrying amounts of the investment and the fair value of the consideration paid or received is recognized directly in equity.

When the Bank's share of losses of a subsidiary equals or exceeds its interest in that subsidiary (which includes any carrying amount of the investment in subsidiary accounted for by the equity method and long-term interests that, in substance, form part of the Bank's net investment in the subsidiary), the Bank continues recognizing its share of further losses.

The acquisition cost in excess of the acquisition-date fair value of the identifiable net assets acquired is recognized as goodwill. Goodwill is not amortized. The acquisition-date fair value of the net identifiable assets acquired in excess of the acquisition cost is recognized immediately in profit or loss.

When the Bank ceases to have control over a subsidiary, any retained investment is measured at fair value at that date and the difference between the previous carrying amount of the subsidiary attributable to the retained interest and its fair value is included in the determination of the gain or loss. Furthermore, the Bank accounts for all amounts previously recognized in other comprehensive income in relation to that subsidiary on the same basis as would be required if the Bank had directly disposed of the related assets or liabilities.

Profits and losses from downstream transactions with a subsidiary are eliminated in full. Profits and losses from upstream transactions with a subsidiary and sidestream transactions between subsidiaries are recognized in the Bank's financial statements only to the extent of interests in the subsidiary that are not related to the Bank.

Investment in associates and joint ventures

An associate is an entity over which the Bank has significant influence and that is neither a subsidiary nor an interest in a joint venture. Joint venture is a joint arrangement whereby the Bank and other parties that have joint control of the arrangement have rights to the net assets of the arrangement.

The Bank uses the equity method to account for investments in associates and joint ventures. Under the equity method, investment in an associate or a joint ventures entity is initially recognized at cost and adjusted thereafter to recognize the Bank's share of the profit or loss and other comprehensive income of the associate or jointly controlled entity. The Bank also recognizes the changes in the Bank's share of equity of associates or joint ventures.

When the Bank subscribes for additional new shares of the associate or joint ventures at a percentage different from its existing ownership percentage, the resulting carrying amount of the investment differs from the amount of the Bank's proportionate interest in the associate or joint ventures. The Bank records such a difference as an adjustment to investments with the corresponding amount charged or credited to capital surplus. If the Bank's ownership interest is reduced due to the additional subscription of the new shares of the associate or joint ventures, the proportionate amount of the gains or losses previously recognized in other comprehensive income in relation to that associate or joint ventures is reclassified to profit or loss on the same basis as would be required if the investee had directly disposed of the related assets or liabilities. When the adjustment should be debited to capital surplus, but the capital surplus recognized from investments accounted for by the equity method is insufficient, the shortage is debited to retained earnings.

When the Bank's share of losses of an associate or a joint ventures equals or exceeds its interest in that associate or joint ventures, which includes any carrying amount of the investment accounted for by the equity method and long-term interests that, in substance, form part of the Bank's net investment in the associate or joint ventures, the Bank discontinues recognizing its share of further losses. Additional losses and liabilities are recognized only to the extent that the Bank has incurred legal obligations, or constructive obligations, or made payments on behalf of that associate or joint ventures.

Any excess of the cost of acquisition over the Bank's share of the net fair value of the identifiable assets and liabilities of an associate or a joint ventures recognized at the date of acquisition is recognized as goodwill, which is included within the carrying amount of the investment and is not amortized. Any excess of the Bank's share of the net fair value of the identifiable assets and liabilities over the cost of acquisition, after reassessment, is recognized immediately in profit or loss.

The entire carrying amount of the investment (including goodwill) is tested for impairment as a single asset by comparing its recoverable amount with its carrying amount. Any impairment loss recognized is deducted from the carrying amount of the investment. Any reversal of that impairment loss is recognized to the extent that the recoverable amount of the investment subsequently increases.

The Bank discontinues the use of the equity method from the date on which its investment ceases to be an associate and a joint venture. Any retained investment is measured at fair value at that date and the fair value is regarded as its fair value on initial recognition as a financial asset. The difference between the previous carrying amount of the associate and the joint venture attributable to the retained interest and its fair value is included in the determination of the gain or loss on disposal of the associate and the joint venture. The Bank accounts for all amounts previously recognized in other comprehensive income in relation to that associate and the joint venture on the same basis as would be required if that associate had directly disposed of the related assets or liabilities. If an investment in an associate becomes an investment in a joint venture or an investment in a joint venture becomes an investment in an associate, the Bank continues to apply the equity method and does not remeasure the retained interest.

When the Bank transacts with its associate or joint ventures, profits and losses resulting from the transactions with the associate or joint ventures are recognized in the Bank's financial statements only to the extent of interests in the associate or joint ventures that are not related to the Bank.

Investment Properties

Investment properties are properties held to earn rentals and/or for capital appreciation. Investment properties also include land held for a currently undetermined future use.

Investment properties are measured initially at cost, including transaction costs. Subsequent to initial recognition, investment properties are measured at cost less accumulated depreciation and accumulated impairment loss. Depreciation is recognized using the straight-line method.

Any gain or loss arising on derecognition of the property is calculated as the difference between the net disposal proceeds and the carrying amount of the asset and is included in profit or loss in the year in which the property is derecognized.

Properties and Equipment

Properties and equipment are initially measured at cost and subsequently measured at cost less accumulated depreciation and accumulated impairment loss. Before January 1, 2019, properties and equipment also included assets held under finance leases.

Except for freehold land which is not depreciated, the depreciation of properties and equipment is recognized using the straight-line method. Each significant part is depreciated separately. The estimated useful lives, residual values and depreciation methods are reviewed at the end of each reporting period, with the effects of any changes in the estimates accounted for on a prospective basis.

On derecognition of an item of properties and equipment, the difference between the sales proceeds and the carrying amount of the asset is recognized in profit or loss.

Leasing

2019

At the inception of a contract, the Bank assesses whether the contract is, or contains, a lease.

For a contract that contains a lease component and non-lease components, the Bank allocates the consideration in the contract to each component on the basis of the relative stand-alone price and accounts for each component separately.

a. The Bank as lessor

Leases are classified as finance leases whenever the terms of a lease transfer substantially all the risks and rewards of ownership to the lessee. All other leases are classified as operating leases.

Lease payments (less any lease incentives payable) from operating leases are recognized as income on a straight-line basis over the terms of the relevant leases. Initial direct costs incurred in obtaining operating leases are added to the carrying amounts of the underlying assets and recognized as expenses on a straight-line basis over the lease terms.

Variable lease payments that do not depend on an index or a rate are recognized as income in the periods in which they are incurred.

b. The Bank as lessee

The Bank recognizes right-of-use assets and lease liabilities for all leases at the commencement date of a lease, except for short-term leases and low-value asset leases accounted for applying a recognition exemption where lease payments are recognized as expenses on a straight-line basis over the lease terms.

Right-of-use assets are initially measured at cost, which comprises the initial measurement of lease liabilities adjusted for lease payments made at or before the commencement date, plus any initial direct costs incurred and an estimate of costs needed to restore the underlying assets, and less any lease incentives received. Right-of-use assets are subsequently measured at cost less accumulated depreciation and impairment losses and adjusted for any remeasurement of the lease liabilities. Right-of-use assets are presented on a separate line in the balance sheets.

Right-of-use assets are depreciated using the straight-line method from the commencement dates to the earlier of the end of the useful lives of the right-of-use assets or the end of the lease terms. However, if leases transfer ownership of the underlying assets to the Bank by the end of the lease terms or if the costs of right-of-use assets reflect that the Bank will exercise a purchase option, the Bank depreciates the right-of-use assets from the commencement dates to the end of the useful lives of the underlying assets.

Lease liabilities are initially measured at the present value of the lease payments, which comprise fixed payments, in-substance fixed payments, variable lease payments which depend on an index or a rate, residual value guarantees, the exercise price of a purchase option if the Bank is reasonably certain to exercise that option, and payments of penalties for terminating a lease if the lease term reflects such termination, less any lease incentives receivable. The lease payments are discounted using the interest rate implicit in a lease, if that rate can be readily determined. If that rate cannot be readily determined, the Bank uses the lessee’s incremental borrowing rate.

Subsequently, lease liabilities are measured at amortized cost using the effective interest method, with interest expense recognized over the lease terms. When there is a change in a lease term, a change in the amounts expected to be payable under a residual value guarantee, a change in the assessment of an option to purchase an underlying asset, or a change in future lease payments resulting from a change in an index or rate used to determine those payments, the Bank remeasures the lease liabilities with a corresponding adjustment to the right-of-use-assets. However, if the carrying amount of the right-of-use assets is reduced to zero, any remaining amount of the remeasurement is recognized in profit or loss. Lease liabilities are presented on a separate line in the balance sheets.

Variable lease payments that do not depend on an index or a rate are recognized as expenses in the periods in which they are incurred.

For sale and leaseback transactions, if the transfer of an asset satisfies the requirements of IFRS 15 to be accounted for as a sale, the Bank recognizes only the amount of any gain or loss which relates to the rights transferred to the buyer-lessor, and adjusts the off-market terms to measure the sale proceeds at fair value. If the transfer does not satisfy the requirements of IFRS 15 to be accounted for as a sale, it is accounted for as a financing transaction. However, for sale and leaseback transactions, if the transfer of an asset satisfies the requirements of IFRS 15 to be accounted for as a sale, the Bank should defer the amount recognized of which sales price exceeds the carrying amount and allocate to the lease periods. If the lease periods are uncertain, the Bank should recognize the amount within 10 years.

2018

Leases are classified as finance leases whenever the terms of a lease transfer substantially all the risks and rewards of ownership to the lessee. All other leases are classified as operating leases.

a. The Bank as lessor

Rental income from operating leases is recognized on a straight-line basis over the term of the relevant lease. Initial direct costs incurred in negotiating and arranging an operating lease are added to the carrying amount of the leased asset and amortized on a straight-line basis over the lease term.

Lease incentives included in an operating lease are recognized as an asset. The aggregate cost of incentives is recognized as a reduction of rental income on a straight-line basis. Lease incentives included in a finance lease are recognized as a reduction of minimum lease payments.

b. The Bank as lessee

Assets held under finance leases are initially recognized as assets of the Bank at their fair value at the inception of the lease or, if lower, at the present value of the minimum lease payments. The corresponding liability to the lessor is included in the consolidated balance sheets as a finance lease obligation.

Finance expenses implicit in lease payments for each period are recognized immediately in profit or loss, unless they are directly attributable to qualifying assets; in which case, they are capitalized.

Operating lease payments are recognized as expenses on a straight-line basis over the lease term.

Lease incentives received under operating leases are recognized as liabilities. The aggregate benefit of incentives is recognized as a reduction of rental expenses on a straight-line basis. Lease incentives received under a finance lease are recognized as a reduction of minimum lease payments.

For sale and leaseback transactions of real estate, the Bank should defer the amount recognized of which sales price exceeds the carrying amount and allocate to the lease periods. If the lease periods are uncertain, the Bank should recognize the amount within 10 years.

Goodwill

Goodwill (part of intangible assets) from business combination is recorded at acquisition cost and subsequently measured at cost less accumulated impairment.

For the purposes of impairment testing, goodwill is allocated to each of the Bank's cash-generating units or groups of cash-generating units (referred to as cash-generating units (CGU)) that is expected to benefit from the synergies of the combination.

In testing assets for impairment, the Bank compares the carrying amounts of operating segments (CGUs with allocated goodwill) to their recoverable amounts on a yearly basis (or when impairment indicators exist). CGUs with allocated goodwill arise from the current year should be tested for impairment before the end of the year. When the recoverable amount of CGUs is below the carrying amount, an impairment loss should be recognized to reduce first the carrying amount of goodwill of the CGU and then the carrying amounts of other assets of the CGU proportionately. Any impairment loss should be directly recognized as loss in the current year, and subsequent reversal of impairment loss is not allowed.

On disposal of the relevant cash-generating unit, the amount attributable to goodwill is included in the determination of the profit or loss on disposal.

Intangible Assets Other Than Goodwill

Separate acquisition

Intangible assets with finite useful lives that are acquired separately are initially measured at cost and subsequently measured at cost less accumulated amortization and accumulated impairment losses. Amortization is recognized on a straight-line basis. At year-end, the Bank examines its estimates of the useful lives, residual values and amortization method of the assets, and any changes in estimates are accounted for prospectively. Unless the Bank expects to dispose of an intangible asset before the end of its useful life, the residual value of an intangible asset with limited useful life is estimated to be zero. The effect of any changes in estimates accounted for on a prospective basis.

Acquisition as part of a business combination

Intangible asset acquired through business combination is measured at its fair value on the acquisition date, and is recognized separately from goodwill. Subsequent to initial recognition, they are measured on the same basis as intangible assets that are acquired separately.

Derecognition

Gains or losses arising from derecognition of an intangible asset, measured as the difference between the net disposal proceeds and the carrying amount of the asset, are recognized in profit or loss when the assets is derecognized.

Impairment of Tangible and Intangible Assets Other Than Goodwill

At the balance sheet date, the Bank reviews the carrying amounts of its tangible and intangible assets (except goodwill) for any indication of impairment loss. If any such indication exists, the recoverable amount of the asset is estimated in order to determine the extent of the impairment loss. Corporate assets are allocated to the individual cash-generating units or a reasonable and consistent basis of allocation. The recoverable amount is the higher of fair value less selling costs or value in use.

If the recoverable amount of an asset or cash-generating unit is estimated to be less than its carrying amount, the carrying amount is reduced to its recoverable amount. If asset impairment loss reverses, the increase in the carrying amount resulting from reversal is credited to earnings. However, loss reversal should not be more than the carrying amount (net of depreciation or amortization) had the impairment loss not been recognized.

Foreclosed Collaterals

Foreclosed collaterals (part of other assets) are recorded at the fair value on recognition and recorded at the lower of cost or net fair value as of the balance sheet dates. Net fair value falling below book value indicates impairment, and impairment loss should be recognized. If the net fair value recovers, the recovery of impairment loss is recognized in gains. For foreclosed collaterals that should have been disposed of in the statutory term, unless the disposal period is prolonged, additional provision for losses should be made and impairment loss should be recognized, as required under a FSC directive.

Provisions

Provisions are the best estimate of the consideration required to settle the present obligation at the balance sheet date, taking into account the risks and uncertainties on the obligation. A provision is measured using the cash flows estimated to settle the present obligation.

When some or all of the economic benefits required to settle a provision are expected to be recovered from a third party, a receivable is recognized as an asset if it is virtually certain that reimbursement will be received and the amount of the receivable can be measured reliably.

Recognition of Revenue

Interest revenue on loans is recorded on an accrual basis. Under the guidance of the FSC, no interest revenue is recognized on loans that are classified as overdue loans. The interest revenue on these loans is recognized upon collection of the loans and credits.

Service fees are recognized when a major part of the earnings process is completed and cash is collected.

Dividend income from investments is recognized when the stockholder's right to receive payment has been established (provided that it is probable that the economic benefits will flow to the Bank and the amount of income can be measured reliably).

Service that results in award credits for customers, under the Bank's award scheme, is accounted for as multiple element revenue transactions and the fair value of the consideration received or receivable is allocated between the service rendered and the award credits granted. The consideration allocated to the award credits is measured by reference to their fair value. Such consideration is not recognized as revenue at the time of the initial sale transaction but is deferred and recognized as revenue when the award credits are redeemed and the Bank's obligations have been fulfilled.

Employee Benefits

Short-term employee benefits

Short-term and non-discounted employee benefits are recognized as expenses in the current year as services are rendered.

Retirement benefits

Payments to defined contribution retirement benefit plans are recognized as an expense when employees have rendered services entitling them to the contributions.

Defined benefit costs (including service cost, net interest and remeasurement) under the defined benefit retirement benefit plans are determined using the projected unit credit method. Service cost and net interest on the net defined benefit liability (asset) are recognized as employee benefits expense in the period they occur. Remeasurement, comprising actuarial gains and losses and the return on plan assets (excluding interest), is recognized in other comprehensive income in the period in which they occur. Remeasurement recognized in other comprehensive income is reflected immediately in retained earnings and will not be reclassified to profit or loss.

Net defined benefit liability (asset) represents the actual deficit (surplus) in the Bank's defined benefit plan. Any surplus resulting from this calculation is limited to the present value of any refunds from the plans or reductions in future contributions to the plans.

Preferential interest deposits for employees

The Bank provides preferential interest deposits to current and retired employees, and these deposits, including payments of the preferential interest deposits, are within certain amounts. The preferential rates for employees' deposits in excess of market rate should be treated as employee benefits.

Under the Guidelines Governing the Preparation of Financial Reports by Public Banks, the Bank should follow the requirement of IAS 19 "Employee Benefits" endorsed by FSC to determine the excess interest on the preferential interest deposits of retired employees by applying an actuarial valuation method when the employees retire. The actuarial assumptions should be in accordance with the requirements set by the authorities.

Termination benefits

A liability for a termination benefit is recognized at the earlier of when the Bank can no longer withdraw the offer of the termination benefit and when the Bank recognizes any related restructuring costs.

Share-based Payment

The Bank's employees subscribed for the reserved shares of Taiwan Cooperative Financial Holding Company, Ltd. (TCFHC) in accordance with the Financial Holding Company Act, and the Bank recognized the fair value of the stock options under salary expenses and under capital surplus for share-based payment on the grant date, i.e., the date when the Bank and its employees made an agreement for the employees to subscribe for TCFHC's shares.

Taxation

Income tax expense represents the sum of the tax currently payable and deferred tax.

Current tax

According to the Income Tax Law, an additional tax of unappropriated earnings is provided for as income tax in the year the stockholders approve to retain the earnings.

Adjustments of prior years' tax liabilities are added to or deducted from the current year's tax provision.

Deferred tax

Deferred tax is recognized on temporary differences between the carrying amounts of assets and liabilities in the financial statements and the corresponding tax bases used in the computation of taxable profit.

Deferred tax liabilities are generally recognized for all taxable temporary differences. Deferred tax assets are generally recognized for all deductible temporary differences and unused loss carryforwards to the extent that it is probable that taxable profits will be available against which these deductible temporary differences can be used. If the temporary difference arises from the initial recognition (other than in a business combination) of assets and liabilities in a transaction that affects neither the taxable profit nor the accounting profit, the resulting deferred tax asset or liability is not recognized. In addition, a deferred tax liability is not recognized on taxable temporary difference arising from the initial recognition of goodwill.

Deferred tax liabilities are recognized for taxable temporary differences associated with investments in subsidiaries and associates, and interests in joint ventures, except where the Bank is able to control the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future. Deferred tax assets arising from deductible temporary differences associated with such investments and interests are only recognized to the extent that it is probable that there will be sufficient taxable profits against which to utilize the benefits of the temporary differences and these differences are expected to reverse in the foreseeable future.

The carrying amount of deferred tax assets is reviewed at each balance sheet date and reduced to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the asset to be recovered. A previously unrecognized deferred tax asset is also reviewed at each balance sheet date and recognized to the extent that it has become probable that future taxable profit will allow the deferred tax asset to be recovered.

Deferred tax liabilities and assets are measured at the tax rates that are expected to apply in the period in which the assets are realized or the liabilities are settled, based on tax rates (and tax laws) that have been enacted or substantively enacted by the end of the reporting period. The measurement of deferred tax liabilities and assets reflects the tax consequences based on the manner in which the Bank expects, at the end of the reporting period, to recover or settle the carrying amount of its assets and liabilities.

Current and deferred tax for the year

Current and deferred taxes are recognized in profit or loss, except when they relate to items that are recognized in other comprehensive income or directly in equity, in which case, the current and deferred tax are also recognized in other comprehensive income or directly in equity, respectively. Where current tax or deferred taxes arises from the initial accounting for a business combination, the tax effect is included in the accounting for the business combination.

TCFHC and its subsidiaries elected to file consolidated tax returns for periods starting in 2012. However, since the Bank applied the accounting treatment mentioned in the preceding paragraph to income tax, any distribution of cash payments and receipts among the consolidated group members is recorded as current tax assets or current tax liabilities.

Business Combination

Acquisitions of businesses are accounted for using the acquisition method. Acquisition-related costs are generally recognized as expense as incurred.

Goodwill is measured as the excess of the sum of the consideration transferred and the fair value of the acquirer's previously held equity interest in the acquiree (if any) over the net of the acquisition-date amounts of the identifiable assets acquired and the liabilities assumed.

Business combination involving entities under common control is not accounted for by acquisition method but accounted for at the carrying amounts of the entities. Prior period comparative information in the financial statements is restated as if a business combination involving entities under common control had already occurred in that period.

5. CRITICAL ACCOUNTING JUDGMENTS AND KEY SOURCES OF ESTIMATION UNCERTAINTY

In the application of the Bank's accounting policies, which are described in Note 4, the Bank's management is required to make judgments, estimates and assumptions about the carrying amounts of assets and liabilities that are not readily apparent from other sources. The estimates and associated assumptions are based on historical experience and other factors that are considered relevant. Actual results may differ from these estimates.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the year in which the estimate is revised if the revision affects only that year or in the year of the revision and future periods if the revision affects both current year and future periods.

Unless stated in other notes, the following are the critical judgments, assumptions and estimation uncertainty estimations that the Bank's management has made in the process of applying the Bank's accounting policies and that have the most significant effect on the amounts recognized in the financial statements:

Impairment Losses on Loans

Estimated impairment losses on the Bank's loans is based on certain assumptions about the percentage of default and expected losses. The Bank makes assumptions and selects the input values for the impairment assessment based on prior experience, the current market situation and forward-looking information.

The assessment of impairment loss also takes into consideration the classification of credit assets and the possible impairment losses based on the length of time the loans have become overdue and the status of collection of the collateral. The Bank evaluates the amount of impairment losses based on whether the customer's repayments of principal and interest are overdue and the length of time the payments are overdue, the estimate of value of the collateral and the debtor's financial status. If future actual cash flows are lesser than expected, a material impairment loss may arise.

6. CASH AND CASH EQUIVALENTS

	December 31	
	2019	**2018**
Cash on hand	$ 38,835,986	$ 22,724,658
Notes and checks in clearing	6,067,358	21,869,459
Due from banks	13,036,543	9,289,729
	$ 57,939,887	$ 53,883,846

Reconciliations of cash and cash equivalents between the statements of cash flows and the balance sheets as of December 31, 2019 and 2018 are shown in the statements of cash flows.

7. DUE FROM THE CENTRAL BANK AND CALL LOANS TO OTHER BANKS

	December 31	
	2019	2018
Reserves for deposits - account A	$ 22,529,019	$ 62,508,712
Reserves for deposits - account B	74,559,407	71,549,801
Reserves for deposits - community financial institutions	60,777,063	58,185,258
Reserves for deposits - foreign-currency deposits	408,912	393,676
Deposits in the Central Bank	39,200,000	39,200,000
Due from the Central Bank - others	22,485,951	12,494,330
Due from the Central Bank - central government agencies' deposits	5,641,409	4,211,689
Call loans to banks	49,550,761	23,339,810
	$ 275,152,522	$ 271,883,276

The deposit reserves are determined monthly at prescribed rates based on the average balances of various types of deposit accounts held by the Bank. The deposit reserves are subject to withdrawal restrictions, but deposit reserve - account A and foreign-currency deposit reserves may be withdrawn anytime.

Under the guideline issued by the Central Bank of the Republic of China (CBC), the Bank should deposit 60 percent of the deposits of central government agencies in the CBC, and the deposits are subject to withdrawal restrictions.

8. FINANCIAL ASSETS AND LIABILITIES AT FAIR VALUE THROUGH PROFIT OR LOSS

	December 31	
	2019	2018
Financial assets mandatorily classified as at fair value through profit or loss		
Commercial paper	$ 7,193,761	$ 4,238,682
Investments in equity instruments	2,034,296	807,279
Corporate bonds	1,803,150	755,699
Beneficial certificates	220,034	-
Government bonds	147,338	1,801,704
Convertible bonds	-	4,232
Currency swap contracts	967,953	1,644,083
Interest rate swap contracts	495,038	-
Foreign-currency margin contracts	119,049	145,684
Forward contracts	53,994	11,509
Futures exchange margins	32,101	59,339
Currency option contracts - buy	28,094	12,908
Cross-currency swap contracts	10,666	9,597
Financial assets at fair value through profit or loss	$ 13,105,474	$ 9,490,716

(Continued)

	December 31	
	2019	2018
Held-for-trading financial liabilities		
Currency swap contracts	$ 3,914,694	$ 912,942
Currency option contract - sell	28,278	13,050
Forward contracts	13,462	127,435
Interest rate swap contracts	12,265	407,850
Cross-currency swap contracts	-	7,989
	3,968,699	1,469,266
Financial liabilities designated as at fair value through profit or loss		
Bank debentures (Note 25)	12,052,429	11,483,955
Financial liabilities at fair value through profit or loss	$ 16,021,128	$ 12,953,221

(Concluded)

As of December 31, 2019 and 2018, financial assets at fair value through profit or loss amounting to $1,510,692 thousand and $1,538,793 thousand, respectively, had been sold under repurchase agreements.

The Bank enters into derivative transactions mainly to accommodate customers' needs and to manage its exposure to adverse changes in exchange rates and interest rates. The Bank's strategy for hedging against risk is to reduce most of the market price risk or cash flow risk.

As of December 31, 2019 and 2018, the contract (notional) amounts of derivative transactions of the Bank were as follows:

	December 31	
	2019	2018
Currency swap contracts	$ 348,423,428	$ 474,321,932
Interest rate swap contracts	15,836,460	15,605,012
Forward contracts	6,701,883	9,483,058
Currency option contracts - sell	5,016,696	4,299,752
Currency option contracts - buy	5,016,696	4,299,752
Cross-currency swap contracts	605,798	2,150,028
Foreign-currency margin contracts	644,945	826,095

As of December 31, 2019 and 2018 the open position of futures transactions of the Bank were as follows:

		December 31, 2019			
		Open Position		Contract Amounts or Premium Paid	
Items	Products	Buy/Sell	Number of Contracts	(Charged)	Fair Values
Futures contracts	Stock index futures	Sell	10	$ 23,696	$ 23,988

		December 31, 2018			
		Open Position		Contract Amounts or Premium	
Items	Products	Buy/Sell	Number of Contracts	Paid (Charged)	Fair Values
Futures contracts	Stock index futures	Sell	102	$ 198,254	$ 197,050
	Interest rate futures	Sell	170	624,855	635,060

9. FINANCIAL ASSETS AT FAIR VALUE THROUGH OTHER COMPREHENSIVE INCOME

	December 31	
	2019	2018
Investment in equity instruments at FVTOCI		
Listed shares and emerging market shares	$ 11,873,370	$ 6,354,937
Unlisted shares	5,284,827	4,259,767
	17,158,197	10,614,704
Investments in debt instruments at FVTOCI		
Government bonds	165,618,283	113,769,704
Corporate bonds	95,427,644	88,111,540
Bank debentures	50,924,768	44,167,419
	311,970,695	246,048,663
	$ 329,128,892	$ 256,663,367

These investments in equity instruments are not held for trading. Instead, they are held for medium to long-term strategic purposes. Accordingly, the management elected to designate these investments in equity instruments as at FVTOCI as they believe that recognizing short-term fluctuations in these investments' fair value in profit or loss would not be consistent with the Bank's strategy of holding these investments for long-term purposes.

For the purpose of risk diversification and profit strategy, the Bank adjusted the investment position to sell part of the equity instruments in the amounts of $9,682,705 thousand and $4,119,407 thousand for the years ended December 31, 2019 and 2018, respectively. The accumulated unrealized gain or loss of financial assets at FVTOCI under other equity in the amount of gain $2,424 thousand and loss $324,557 thousand have been transferred to retained earnings, respectively.

The dividends revenue was $981,973 thousand and $617,800 thousand for the years ended December 31, 2019 and 2018. Those related to investments derecognized during the year was $354,057 thousand and $147,148 thousand, and those related to investments held at the end of the reporting period was $627,916 thousand and $470,652 thousand.

As of December 31, 2019 and 2018, allowance for possible losses of investment in debt instruments at FVTOCI recognized were $83,771 thousand and $71,742 thousand, respectively, through expected credit loss. Impairment loss recognized in profit or loss were $20,275 thousand and $12,304 thousand for 2019 and 2018.

As of December 31, 2019 and 2018, financial assets at fair value through other comprehensive income amounting to $6,175,295 thousand and $7,681,381 thousand, respectively, had been sold under repurchase agreements.

10. INVESTMENTS IN DEBT INSTRUMENTS AT AMORTIZED COST

	December 31	
	2019	2018
Negotiable certificates of deposit in the Central Bank	$ 386,260,000	$ 400,180,000
Government bonds	105,565,995	97,824,271
Corporate bonds	43,372,329	38,112,575
Bank debentures	18,719,175	18,528,405
Certificates of deposit	278,907	285,836
	554,196,406	554,931,087
Less: Allowance for impairment loss	47,801	48,280
	$ 554,148,605	$ 554,882,807

Impairment loss recognized in profit or loss in 2019 and 2018 were $8 thousand and $2,731 thousand, respectively.

Since the bond issuers announced a buyback in advance of the bonds they issued in August 2019, after assessment, the Bank agreed to sell these bonds, and the gain on the sale of these bonds at fair value recognized under - derecognition of financial assets at amortized cost was $18,489 thousand.

11. SECURITIES PURCHASED UNDER RESELL AGREEMENTS

Securities acquired for $3,521,000 thousand under resell agreements as of December 31, 2018 will subsequently be sold for $3,521,527 thousand.

12. RECEIVABLES, NET

	December 31	
	2019	2018
Accrued interest	$ 9,054,867	$ 8,820,004
Credit cards	4,397,510	3,654,314
Acceptances	3,139,891	3,533,576
Receivables on merchant accounts in the credit card business	1,051,907	832,720
Accounts receivable	569,774	502,186
Credits receivable	456,459	459,866
Accounts receivable factored without recourse	246,992	456,346
Refundable deposits receivable in leasehold agreements	183,993	183,993
Receivable on securities	138,642	147,499
Others	364,151	552,927
	19,604,186	19,143,431
Less: Allowance for possible losses	808,107	714,055
	$ 18,796,079	$ 18,429,376

Credits receivable recognized in the merger with the Farmers Bank of China on May 1, 2006 were recognized at the fair value of credits written off by the Farmers Bank of China in the past. The fair values were evaluated by PricewaterhouseCoopers Financial Advisory Service Co., Ltd.

The changes in the impairment assessment of receivables and allowance for possible losses of credits, credit cards, and accrued interest from debt instruments are summarized below:

Gross Carrying Amount	12-month ECL	Lifetime ECL (Collective Assessment)	Lifetime ECL (Non-purchased or Non-originated Credit-impaired Financial Assets)	Total
Balance at January 1, 2019	$ 15,673,348	$ 44,951	$ 154,180	$ 15,872,479
Transfers to				
Lifetime ECL	(22,296)	22,355	(59)	-
Credit-impaired financial assets	(24,604)	(3,402)	28,006	-
12-month ECL	12,146	(11,369)	(777)	-
New financial assets purchased or originated	47,559,895	142,191	116,095	47,818,181
Write-offs	-	-	(35,438)	(35,438)
Derecognition of financial assets in the current reporting period	(47,604,319)	(145,876)	(76,882)	(47,827,077)
Changes in exchange rates and other changes	280,026	-	(121)	279,905
Balance at December 31, 2019	$ 15,874,196	$ 48,850	$ 185,004	$ 16,108,050

Gross Carrying Amount	12-month ECL	Lifetime ECL (Collective Assessment)	Lifetime ECL (Non-purchased or Non-originated Credit-impaired Financial Assets)	Total
Balance at January 1, 2018	$ 15,853,508	$ 53,206	$ 184,769	$ 16,091,483
Transfers to				
Lifetime ECL	(18,479)	18,643	(164)	-
Credit-impaired financial assets	(9,738)	(7,192)	16,930	-
12-month ECL	13,661	(13,263)	(398)	-
New financial assets purchased or originated	43,445,163	128,368	109,098	43,682,629
Write-offs	-	-	(67,856)	(67,856)
Derecognition of financial assets in the current reporting period	(44,661,498)	(134,812)	(88,233)	(44,884,543)
Changes in exchange rates and other changes	1,050,731	1	34	1,050,766
Balance at December 31, 2018	$ 15,673,348	$ 44,951	$ 154,180	$ 15,872,479

Allowance for Possible Losses	12-month ECL	Lifetime ECL (Collective Assessment)	Lifetime ECL (Non-purchased or Non-originated Credit-impaired Financial Assets)	Impairment Loss under IFRS 9	Impairment Recognized under "Regulations Governing the Procedures for Banking Institutions to Evaluate Assets and Deal with Non-performing/ Non-accrual Loans"	Total
Balance at January 1, 2019	$ 46,043	$ 11,458	$ 36,154	$ 93,655	$ 105,414	$ 199,069
Changes from financial instruments recognized at the beginning of the current reporting period						
Transfers to						
Lifetime ECL	(343)	351	(8)	-	-	-
Credit-impaired financial assets	(643)	(780)	1,423	-	-	-
12-month ECL	3,113	(2,817)	(296)	-	-	-
Derecognition of financial assets in the current reporting period	(48,114)	(52,183)	(36,649)	(136,946)	-	(136,946)
Reversal from financial instruments recognized at the beginning of the current reporting period	3,746	9,645	34,070	47,461	-	47,461
New financial assets purchased or originated	37,703	48,195	84,360	170,258	-	170,258
Impairment recognized under "Regulations Governing the Procedures for Banking Institutions to Evaluate Assets and Deal with Non-performing/ Non-accrual Loans"	-	-	-	-	43,981	43,981
Write-offs	-	-	(35,438)	(35,438)	-	(35,438)
Recovery of written-off receivables	-	-	621	621	-	621
Changes in exchange rates and other changes	6,310	-	(6,949)	(639)	-	(639)
Balance at December 31, 2019	$ 47,815	$ 13,869	$ 77,288	$ 138,972	$ 149,395	$ 288,367

Allowance for Possible Losses	12-month ECL	Lifetime ECL (Collective Assessment)	Lifetime ECL (Non-purchased or Non-originated Credit-impaired Financial Assets)	Impairment Loss under IFRS 9	Impairment Recognized under "Regulations Governing the Procedures for Banking Institutions to Evaluate Assets and Deal with Non-performing/ Non-accrual Loans"	Total
Balance at January 1, 2018	$ 44,809	$ 12,867	$ 61,448	$ 119,124	$ 97,016	$ 216,140
Changes from financial instruments recognized at the beginning of the current reporting period						
Transfers to						
Lifetime ECL	(408)	425	(17)	-	-	-
Credit-impaired financial assets	(251)	(639)	890	-	-	-
12-month ECL	2,484	(2,431)	(53)	-	-	-
Derecognition of financial assets in the current reporting period	(47,168)	(47,458)	(34,535)	(129,161)	-	(129,161)
Reversal from financial instruments recognized at the beginning of the current reporting period	(3,055)	5,141	41,943	44,029	-	44,029
New financial assets purchased or originated	48,900	43,552	38,543	130,995	-	130,995
Impairment recognized under "Regulations Governing the Procedures for Banking Institutions to Evaluate Assets and Deal with Non-performing/ Non-accrual Loans"	-	-	-	-	8,398	8,398
Write-offs	-	-	(67,856)	(67,856)	-	(67,856)
Recovery of written-off receivables	-	-	1,470	1,470	-	1,470
Changes in exchange rates and other changes	732	1	(5,679)	(4,946)	-	(4,946)
Balance at December 31, 2018	$ 46,043	$ 11,458	$ 36,154	$ 93,655	$ 105,414	$ 199,069

Impairment assessment, except for the above receivables, was based on the expected credit loss model at the beginning of the current reporting period by the simplified method. On December 31, 2019 and 2018, the amounts of impairment assessment of receivables were $3,496,136 thousand and $3,270,952 thousand, respectively, and the amounts of allowance for possible losses were $519,740 thousand and $514,986 thousand, respectively.

The changes in allowance for possible losses by using simplified method are summarized below:

	December 31	
	2019	**2018**
Balance, January 1	$ 514,986	$ 539,231
Provision (reversal of provision) for possible losses	4,754	(24,245)
Balance, December 31	$ 519,740	$ 514,986

13. DISCOUNTS AND LOANS, NET

	December 31	
	2019	**2018**
Bills discounted	$ 1,958,364	$ 2,342,530
Overdraft		
Unsecured	76,441	116,491
Secured	33,123	67,220
Import and export negotiations	593,669	480,986
Short-term loans		
Unsecured	303,476,993	269,868,360
Accounts receivable financing	417,844	599,595
Secured	215,171,974	203,826,944
Medium-term loans		
Unsecured	327,250,749	296,436,709
Secured	308,644,566	290,967,400
Long-term loans		
Unsecured	30,990,954	27,650,364
Secured	1,015,513,426	979,349,185
Overdue loans	5,847,989	5,056,933
	2,209,976,092	2,076,762,717
Less: Allowance for possible losses	27,201,165	26,231,193
Less: Adjustment of discount	510,283	459,977
	$ 2,182,264,644	$ 2,050,071,547

The changes in gross carrying amount and allowance for possible losses of discounts and loans are summarized below:

Gross Carrying Amount	12-month ECL	Lifetime ECL (Collective Assessment)	Lifetime ECL (Non-purchased or Non-originated Credit-impaired Financial Assets)	Total
Balance at January 1, 2019	$ 2,041,391,244	$ 2,960,372	$ 32,411,101	$ 2,076,762,717
Transfers to				
Lifetime ECL	(1,585,621)	1,608,715	(23,094)	-
Credit-impaired financial assets	(16,290,101)	(642,969)	16,933,070	-
12-month ECL	2,204,661	(832,746)	(1,371,915)	-
New financial assets purchased or originated	956,805,656	214,362	399,104	957,419,122
Write-offs	-	-	(4,615,713)	(4,615,713)
Derecognition of financial assets in the current reporting period	(802,174,044)	(811,554)	(6,039,315)	(809,024,913)
Changes in exchange rates and other changes	(10,538,274)	28,258	(55,105)	(10,565,121)
Balance at December 31, 2019	$ 2,169,813,521	$ 2,524,438	$ 37,638,133	$ 2,209,976,092

Gross Carrying Amount	12-month ECL	Lifetime ECL (Collective Assessment)	Lifetime ECL (Non-purchased or Non-originated Credit-impaired Financial Assets)	Total
Balance at January 1, 2018	$ 1,982,425,551	$ 6,619,720	$ 30,231,174	$ 2,019,276,445
Transfers to				
Lifetime ECL	(2,056,359)	2,108,509	(52,150)	-
Credit-impaired financial assets	(8,162,762)	(1,407,495)	9,570,257	-
12-month ECL	3,788,022	(3,577,292)	(210,730)	-
New financial assets purchased or originated	873,536,724	294,010	3,954,613	877,785,347
Write-offs	(319,050)	(148,252)	(3,641,155)	(4,108,457)
Derecognition of financial assets in the current reporting period	(812,320,323)	(903,980)	(7,434,652)	(820,658,955)
Changes in exchange rates and other changes	4,499,441	(24,848)	(6,256)	4,468,337
Balance at December 31, 2018	$ 2,041,391,244	$ 2,960,372	$ 32,411,101	$ 2,076,762,717

Allowance for Possible Losses	12-month ECL	Lifetime ECL (Collective Assessment)	Lifetime ECL (Non-purchased or Non-originated Credit-impaired Financial Assets)	Impairment Loss under IFRS 9	Impairment Recognized under "Regulations Governing the Procedures for Banking Institutions to Evaluate Assets and Deal with Non-performing/ Non-accrual Loans"	Total
Balance at January 1, 2019	$ 3,618,496	$ 9,005	$ 4,570,540	$ 8,198,041	$ 18,033,152	$ 26,231,193
Changes from financial instruments recognized at the beginning of the current reporting period						
Transfers to						
Lifetime ECL	(1,122)	3,932	(2,810)	-	-	-
Credit-impaired financial assets	(635,422)	(5,974)	641,396	-	-	-
12-month ECL	99,119	8,618	(107,737)	-	-	-
Derecognition of financial assets in the current reporting period	(2,121,955)	(1,864)	(848,608)	(2,972,427)	-	(2,972,427)
Reversal from financial instruments recognized at the beginning of the current reporting period	378,098	(1,165)	4,316,225	4,693,158	-	4,693,158
New financial assets purchased or originated	2,851,731	803	88,164	2,940,698	-	2,940,698
Impairment recognized under "Regulations Governing the Procedures for Banking Institutions to Evaluate Assets and Deal with Non-performing/ Non-accrual Loans"	-	-	-	-	(845,456)	(845,456)
Write-offs	-	-	(4,615,713)	(4,615,713)	-	(4,615,713)
Recovery of write-off credits	-	-	1,858,469	1,858,469	-	1,858,469
Changes in exchange rates and other changes	19,302	1,797	(109,856)	(88,757)	-	(88,757)
Balance at December 31, 2019	$ 4,208,247	$ 15,152	$ 5,790,070	$ 10,013,469	$ 17,187,696	$ 27,201,165

Allowance for Possible Losses	12-month ECL	Lifetime ECL (Collective Assessment)	Lifetime ECL (Non-purchased or Non-originated Credit-impaired Financial Assets)	Impairment Loss under IFRS 9	Impairment Recognized under "Regulations Governing the Procedures for Banking Institutions to Evaluate Assets and Deal with Non-performing/ Non-accrual Loans"	Total
Balance at January 1, 2018	$ 3,215,722	$ 36,992	$ 5,674,719	$ 8,927,433	$ 16,113,076	$ 25,040,509
Changes from financial instruments recognized at the beginning of the current reporting period						
Transfers to						
Lifetime ECL	(1,322)	6,765	(5,443)	-	-	-
Credit-impaired financial assets	(92,599)	(8,114)	100,713	-	-	-
12-month ECL	41,052	(21,841)	(19,211)	-	-	-
Derecognition of financial assets in the current reporting period	(1,879,925)	(3,003)	(1,606,715)	(3,489,643)	-	(3,489,643)
Reversal from financial instruments recognized at the beginning of the current reporting period	210,203	144,565	2,356,094	2,710,862	-	2,710,862
New financial assets purchased or originated	2,343,119	1,694	738,311	3,083,124	-	3,083,124
Impairment recognized under "Regulations Governing the Procedures for Banking Institutions to Evaluate Assets and Deal with Non-performing/ Non-accrual Loans"	-	-	-	-	1,920,076	1,920,076
Write-offs	(319,050)	(148,252)	(3,641,155)	(4,108,457)	-	(4,108,457)
Recovery of write-off credits	-	-	983,259	983,259	-	983,259
Changes in exchange rates and other changes	101,296	199	(10,032)	91,463	-	91,463
Balance at December 31, 2018	$ 3,618,496	$ 9,005	$ 4,570,540	$ 8,198,041	$ 18,033,152	$ 26,231,193

The bad-debt expenses and provision for losses on commitment and guarantees for 2019 and 2018 were as follows:

	2019	2018
Provision for possible losses on discounts and loans	$ 3,815,973	$ 4,224,419
Provision for possible losses on receivables	129,508	30,016
Provision for possible losses on overdue receivables	41,614	37,584
Provision for possible losses on guarantees	79,661	103,036
Provision (reversal of provision) for possible losses on loan commitment	45,449	(1,330)
Provision for possible losses on others	8,504	10,144
	$ 4,120,709	$ 4,403,869

As of December 31, 2019 and 2018, the Bank was in compliance with the FSC-required provision for credit assets.

As of December 31, 2019 and 2018, accrual of interest on the above overdue loans had been stopped. Thus, the unrecognized interest revenue was $133,989 thousand and $119,914 thousand for the years ended December 31, 2019 and 2018, respectively, based on the average loan interest rate for the year.

14. INVESTMENTS ACCOUNTED FOR USING EQUITY METHOD

	December 31	
	2019	2018
Investment in subsidiary	$ 1,983,670	$ 1,989,572
Investment in associate	131,500	127,094
	$ 2,115,170	$ 2,116,666

a. Investment in subsidiary

	December 31			
	2019		2018	
	Amount	Percentage of Ownership	Amount	Percentage of Ownership
United Taiwan Bank S.A	$ 1,983,670	90.02	$ 1,989,572	90.02

b. Investment in associate

	December 31			
	2019		2018	
	Amount	Percentage of Ownership	Amount	Percentage of Ownership
United Real Estate Management Co., Ltd.	$ 131,500	30.00	$ 127,094	30.00

Aggregate information of associate that is not individually material:

	For the Year Ended December 31	
	2019	2018
The Bank's share of:		
Net income	$ 10,475	$ 11,346
Other comprehensive income	-	(3,034)
Total comprehensive income for the year	$ 10,475	$ 8,312

The Bank received $6,069 thousand and $5,564 thousand of dividends from United Real Estate Management Co., Ltd. for the years ended December 31, 2019 and 2018, respectively. The dividends are recognized as a reduction of investments accounted for using equity method.

The investments accounted for using equity method and the share of profit or loss and other comprehensive income of the investments for the years ended December 31, 2019 and 2018 were based on the financial statements audited by the auditors for the same years.

15. OTHER FINANCIAL ASSETS, NET

	December 31	
	2019	2018
Overdue receivables	$ 14,089	$ 53,679
Less: Allowance for possible losses	10,989	28,590
Overdue receivables, net	3,100	25,089
Due from banks	18,660,530	18,395,211
Call loans to securities firms	179,940	307,350
	$ 18,843,570	$ 18,727,650

Due from banks (part of other financial assets, net) held by the Bank were demand deposits and time deposits that could not be withdrawn and time deposits that had maturity periods of more than three months and could not be used before maturity.

16. PROPERTIES AND EQUIPMENT, NET

	December 31	
	2019	2018
Carrying amount		
Land	$ 20,710,622	$ 20,928,940
Buildings	11,278,665	11,659,376
Machinery and equipment	911,869	367,881
Transportation equipment	97,967	74,454
Other equipment	153,992	161,959
Leasehold improvements	121,918	105,744
Leased assets	-	21,298
Prepayments for equipment, land and buildings and construction in progress	246,361	311,301
	$ 33,521,394	$ 33,630,953

	Land	Buildings	Machinery and Equipment	Transportation Equipment	Other Equipment	Leasehold Improvements	Leased Assets	Prepayments for Equipment, Land and Buildings and Construction in Progress	Total
Cost									
Balance at January 1, 2019	$ 20,944,117	$ 19,058,668	$ 4,003,602	$ 605,490	$ 1,154,368	$ 845,194	$ 26,125	$ 311,301	$ 46,948,865
Effect of IFRS 16 retrospective application	-	-	-	-	-	-	(26,125)	-	(26,125)
Balance at January 1, 2019 as restated	20,944,117	19,058,668	4,003,602	605,490	1,154,368	845,194	-	311,301	46,922,740
Additions	430	253,798	414,513	42,650	36,247	49,235		421,352	1,218,225
Disposals	-	(5,284)	(331,508)	(32,151)	(34,123)	(10,082)	-	-	(413,148)
Reclassification	37,554	81,357	333,515	3,951	7,697	13,825	-	(477,899)	-
Transferred to investment properties	(256,239)	(106,677)	-	-	-	-	-	-	(362,916)
Transferred to intangible assets	-	-	-	-	-	-	-	(8,321)	(8,321)
Effects of exchange rate changes	(63)	(135)	(3,463)	(605)	(1,096)	(2,354)	-	(72)	(7,788)
Balance at December 31, 2019	$ 20,725,799	$ 19,281,727	$ 4,416,659	$ 619,335	$ 1,163,093	$ 895,818	$ -	$ 246,361	$ 47,348,792
Balance at January 1, 2018	$ 21,117,980	$ 18,670,874	$ 4,319,112	$ 630,702	$ 1,132,199	$ 808,880	$ 13,352	$ 104,269	$ 46,797,368
Additions	-	440,525	52,067	13,702	53,867	56,871	12,773	336,652	966,457
Disposals	-	-	(428,988)	(39,217)	(80,192)	(22,143)	-	-	(570,540)
Reclassification	-	18,095	58,411	-	47,502	664	-	(124,672)	-
Transferred to investment properties	(173,954)	(71,016)	-	-	-	-	-	-	(244,970)
Transferred to intangible assets	-	-	-	-	-	-	-	(4,976)	(4,976)
Effects of exchange rate changes	91	190	3,000	303	992	922	-	28	5,526
Balance at December 31, 2018	$ 20,944,117	$ 19,058,668	$ 4,003,602	$ 605,490	$ 1,154,368	$ 845,194	$ 26,125	$ 311,301	$ 46,948,865

	Land	Buildings	Machinery and Equipment	Transportation Equipment	Other Equipment	Leasehold Improvements	Leased Assets	Total
Accumulated depreciation and impairment								
Balance at January 1, 2019	$ 15,177	$ 7,399,292	$ 3,635,721	$ 531,036	$ 992,409	$ 739,450	$ 4,827	$ 13,317,912
Effect of IFRS 16 retrospective application	-	-	-	-	-	-	(4,827)	(4,827)
Balance at January 1, 2019 as restated	15,177	7,399,292	3,635,721	531,036	992,409	739,450	-	13,313,085
Disposals	-	(5,284)	(328,835)	(32,151)	(34,110)	(10,082)	-	(410,462)
Depreciation expenses	-	662,447	200,886	22,143	53,557	46,439		985,472
Transferred to investment properties	-	(53,273)	-	-	-	-	-	(53,273)
Effects of exchange rate changes	-	(120)	(2,982)	340	(2,755)	(1,907)	-	(7,424)
Balance at December 31, 2019	$ 15,177	$ 8,003,062	$ 3,504,790	$ 521,368	$ 1,009,101	$ 773,900	$ -	$ 13,827,398
Balance at January 1, 2018	$ 15,177	$ 6,777,566	$ 3,799,787	$ 540,613	$ 1,019,088	$ 716,626	$ 1,748	$ 12,870,605
Disposals	-	-	(427,029)	(39,214)	(80,120)	(22,143)	-	(568,506)
Depreciation expenses	-	653,619	260,351	29,471	52,683	44,286	3,079	1,043,489
Transferred to investment properties	-	(32,042)	-	-	-	-	-	(32,042)
Effects of exchange rate changes	-	149	2,612	166	758	681	-	4,366
Balance at December 31, 2018	$ 15,177	$ 7,399,292	$ 3,635,721	$ 531,036	$ 992,409	$ 739,450	$ 4,827	$ 13,317,912

The Bank revalued its properties five times in 1979, 1998, 2007, 2011 and 2012. As December 31, 2019, the reserve for land revaluation increment tax (part of deferred tax liabilities) was $2,596,230 thousand.

Properties and equipment are depreciated using the straight-line method over their estimated useful lives as follows:

Buildings	
Main buildings	50 years
Equipment installed in buildings	10 to 15 years
Machinery and equipment	3 to 10 years
Transportation equipment	5 to 10 years
Other equipment	4 to 20 years
Leasehold improvements	3 to 5 years
Leased assets	7 to 10 years

In testing assets for impairment, the Bank defined each operating unit or operating segment as a cash-generating unit (CGU). The recoverable amount of a CGU was determined at its value in use for the properties and equipment. The discount rates for the CGUs' value in use were 7.54% and 8.69% as of December 31, 2019 and 2018, respectively.

17. LEASE ARRANGEMENTS

a. Right-of-use assets - 2019

	December 31, 2019
Carrying amounts	
Land	$ 14,838
Buildings	1,599,412
Transportation equipment	52,865
Other equipment	20,267
	$ 1,687,382

	For the Year Ended December 31, 2019
Additions to right-of-use assets	$ 707,870
Depreciation charge for right-of-use assets	
Land	$ 2,625
Buildings	537,784
Transportation equipment	20,891
Other equipment	4,128
	$ 565,428

b. Lease liabilities - 2019

	December 31, 2019
Carrying amounts	$ 1,614,958

Range of discount rate for lease liabilities was as follows:

	December 31, 2019
Land	1.617%-1.627%
Buildings	1.615%-9.800%
Transportation equipment	1.620%-8.880%
Other equipment	2.445%-4.000%

c. Material lease-in activities - 2019

The Bank signed lease agreements on office premises due to operating activities. Rentals are calculated on the basis of leased areas and are receivable monthly, quarterly or semiannually. As of December 31, 2019, refundable deposits on these leases totaled $133,815 thousand.

d. Other lease information

2019

	For the Year Ended December 31, 2019
Expenses relating to short-term leases	$ 67,502
Expenses relating to low-value asset leases	$ -
Expenses relating to variable lease payments not included in the measurement of lease liabilities	$ 3,020
Total cash outflow for leases	$ (650,643)

The Bank leases certain land, buildings, transportation equipment and other equipment which qualify as short-term leases or low-value asset leases. The Bank has elected to apply the recognition exemption and thus, did not recognize right-of-use assets and lease liabilities for these leases.

For the year ended December 31, 2019, expenses relating to short-term leases also include expenses relating to leases for which the lease terms end on or before December 31, 2019 and for which the recognition exemption is applied. The amount of lease commitments for short-term leases for which the recognition exemption is applied was $58,367 thousand as of December 31, 2019.

2018

Lease agreements on office premises are operating leases. Rentals are calculated on the basis of the leased areas and are payable monthly, quarterly or semiannually. As of December 31, 2018, refundable deposits on these leases totaled $132,657 thousand. Minimum future annual rentals are as follows:

	December 31, 2018
Within one year	$ 574,983
One to five years	1,184,871
Over five years	128,407
	$ 1,888,261

The lease payments recognized as expenses are as follows:

	For the Year Ended December 31, 2018
Minimum lease payments	$ 626,677
Contingent rentals	1,040
	$ 627,717

18. INVESTMENT PROPERTIES, NET

	December 31	
	2019	2018
Land	$ 5,998,516	$ 5,742,277
Buildings	1,445,349	1,409,297
	$ 7,443,865	$ 7,151,574

	Land	Buildings	Total
Cost			
Balance at January 1, 2019	$ 5,742,277	$ 2,129,560	$ 7,871,837
Additions	-	30,604	30,604
Transferred from properties and equipment	256,239	106,677	362,916
Balance at December 31, 2019	$ 5,998,516	$ 2,266,841	$ 8,265,357
Balance at January 1, 2018	$ 5,568,323	$ 2,058,614	$ 7,626,937
Additions	-	95	95
Disposals	-	(165)	(165)
Transferred from properties and equipment	173,954	71,016	244,970
Balance at December 31, 2018	$ 5,742,277	$ 2,129,560	$ 7,871,837
Accumulated depreciation and impairment			
Balance at January 1, 2019	$ -	$ 720,263	$ 720,263
Depreciation expenses	-	47,956	47,956
Transferred from properties and equipment	-	53,273	53,273
Balance at December 31, 2019	$ -	$ 821,492	$ 821,492
Balance at January 1, 2018	$ -	$ 642,528	$ 642,528
Depreciation expenses	-	45,737	45,737
Disposal	-	(44)	(44)
Transferred from properties and equipment	-	32,042	32,042
Balance at December 31, 2018	$ -	$ 720,263	$ 720,263

Investment properties (except for land) are depreciated using the straight-line method over their estimated useful lives as follows:

Main buildings	50 years
Equipment installed in buildings	10 to 15 years

As of December 31, 2019 and 2018, the fair value of investment properties was $20,765,208 thousand and $20,840,621 thousand, respectively. The fair value was determined through calculations using the market value method.

The revenues generated from the investment properties are summarized as follows:

	For the Year Ended December 31	
	2019	2018
Rental income from investment properties (part of other noninterest gains, net)	$ 519,729	$ 425,037
Direct operating expenses for investment properties that generate rental income	(103,832)	(106,584)
	$ 415,897	$ 318,453

Lease agreements on investment properties owned by the Bank and rented to others are operating lease. Rentals are calculated on the basis of the leased areas and are receivable monthly, quarterly or semiannually. The lessees have no preemptive rights to buy properties at the end of the lease agreements. As of December 31, 2019 and 2018, guarantee deposits on these leases totaled $102,743 thousand and $98,957 thousand, respectively. Minimum future annual rentals are as follows:

	December 31, 2019
Year 1	$ 435,537
Year 2	357,679
Year 3	306,071
Year 4	182,397
Year 5	152,701
Over five years	33,506
	$ 1,467,891

	December 31, 2018
Within one year	$ 438,978
One to five years	1,170,799
Over five years	183,120
	$ 1,792,897

19. INTANGIBLE ASSETS

	December 31	
	2019	2018
Goodwill	$ 3,170,005	$ 3,170,005
Computer software	465,761	381,964
	$ 3,635,766	$ 3,551,969

	Goodwill	Computer Software	Total
Balance at January 1, 2019	$ 3,170,005	$ 381,964	$ 3,551,969
Separate acquisition	-	234,771	234,771
Amortization expenses	-	(157,505)	(157,505)
Transferred from properties and equipment	-	8,321	8,321
Effect of exchange rate changes	-	(1,790)	(1,790)
Balance at December 31, 2019	$ 3,170,005	$ 465,761	$ 3,635,766
Balance at January 1, 2018	$ 3,170,005	$ 343,487	$ 3,513,492
Separate acquisition	-	194,214	194,214
Amortization expenses	-	(144,637)	(144,637)
Transferred from properties and equipment	-	4,976	4,976
Effect of exchange rate changes	-	(16,076)	(16,076)
Balance at December 31, 2018	$ 3,170,005	$ 381,964	$ 3,551,969

Computer software with limited useful lives is amortized on a straight-line basis over their useful lives of 5 years.

In testing assets for impairment, the Bank defined each operating unit or operating segment as a cash-generating unit (CGU). The recoverable amount of a CGU was determined at its value in use for the goodwill impairment test. The discount rates for the CGUs' value in use were 7.54% and 8.69% as of December 31, 2019 and 2018, respectively.

Goodwill resulting from merger of the Bank with the Farmers Bank of China was allocated to operating units or operating segment (cash-generating units with allocated goodwill). There was no impairment loss on goodwill as of December 31, 2019 and 2018.

20. OTHER ASSETS

	December 31	
	2019	2018
Refundable deposits	$ 382,474	$ 733,253
Prepaid expenses	1,202,888	307,634
Operating deposits	63,000	48,000
Others	13,028	12,428
	$ 1,661,390	$ 1,101,315

As of December 31, 2019, prepaid expenses included that the Bank invested in overseas branch in the amounts of $1,038,095 thousand.

21. DUE TO THE CENTRAL BANK AND OTHER BANKS

	December 31	
	2019	2018
Due to banks	$ 142,116,497	$ 138,794,310
Call loans from banks	85,379,287	69,287,413
Bank overdraft	1,523,969	1,569,412
Deposits from Chunghwa Post Co., Ltd.	589,604	1,474,134
Due to the Central Bank	424,872	354,324
	$ 230,034,229	$ 211,479,593

22. SECURITIES SOLD UNDER REPURCHASE AGREEMENTS

Securities sold for $7,976,909 thousand and $9,602,141 thousand under repurchase agreements as of December 31, 2019 and 2018, respectively, would subsequently be purchased for $7,981,891 thousand and $9,611,528 thousand, respectively.

23. PAYABLES

	December 31	
	2019	2018
Accrued interest	$ 6,281,107	$ 5,367,940
Checks for clearing	6,067,358	21,869,459
Accrued expenses	5,033,883	4,678,304
Collections payable	4,827,278	4,336,474
Collections of notes and checks for various financial institutions in other cities	4,661,873	733,967
Acceptances	3,408,518	3,678,990
Payable on securities	3,288,016	21,038
Payables on notes and checks collected for others	1,493,452	368,090
Tax payable	472,954	467,404
Dividends payable	170,524	170,524
Factored accounts payable	85,645	125,071
Others	2,078,911	2,068,519
	$ 37,869,519	$ 43,885,780

24. DEPOSITS AND REMITTANCES

	December 31	
	2019	2018
Deposits		
Checking	$ 45,158,665	$ 48,922,628
Demand	558,781,089	514,114,046
Savings - demand	892,650,215	839,919,122
Time	616,669,370	556,195,759
Negotiable certificates of deposit	43,230,113	48,351,856
Savings - time	626,095,579	628,015,834
Treasury	115,377,291	92,894,432
Remittances	440,553	194,446
	$ 2,898,402,875	$ 2,728,608,123

25. BANK DEBENTURES

	December 31	
	2019	2018
First subordinated bonds in 2012: Fixed rate of 1.65%; maturity - June 28, 2022	$ 11,650,000	$ 11,650,000
Second subordinated bonds in 2012, Type A: Fixed rate of 1.43%; maturity - December 25, 2019	-	1,000,000
Second subordinated bonds in 2012, Type B: Fixed rate of 1.55%; maturity - December 25, 2022	7,350,000	7,350,000
First subordinated bonds in 2013, Type A: Reuters' fixing rate for 90 day's New Taiwan dollar commercial paper refers to the TAIBOR plus 0.43%; maturity - March 28, 2020	4,000,000	4,000,000
First subordinated bonds in 2013, Type B: Fixed rate of 1.48%; maturity - March 28, 2020	3,500,000	3,500,000
Second subordinated bonds in 2013, Type A: Fixed rate of 1.72%; maturity - December 25, 2020	900,000	900,000
Second subordinated bonds in 2013, Type B: Reuters' fixing rate for 90 day's New Taiwan dollar commercial paper refers to the TAIBOR plus 0.45%; maturity - December 25, 2023	4,600,000	4,600,000
First subordinated bonds in 2014, Type A: Fixed rate of 1.70%; maturity - May 26, 2021	1,500,000	1,500,000
First subordinated bonds in 2014, Type B: Fixed rate of 1.85%; maturity - May 26, 2024	2,700,000	2,700,000
First subordinated bonds in 2014, Type C: Fixing rate for 90 day's New Taiwan dollar commercial paper refers to the Taiwan Bills Index Rate 02 plus 0.43%; maturity - May 26, 2024	5,800,000	5,800,000
First subordinated bonds in 2016, Type A: Fixed rate of 1.09%; maturity - September 26, 2023	950,000	950,000
First subordinated bonds in 2016, Type B: Fixed rate of 1.20%; maturity - September 26, 2026	4,050,000	4,050,000
First subordinated bonds in 2017, Type A: Fixed rate of 1.32%; maturity - September 26, 2024	600,000	600,000

(Continued)

	December 31	
	2019	2018
First subordinated bonds in 2017, Type B: Fixed rate of 1.56%; maturity - September 26, 2027	$ 1,400,000	$ 1,400,000
First non-cumulative perpetual subordinated bonds in 2018: Fixed rate of 2.28%; the Bank may exercise its redemption rights after 5 years and 2 months	5,000,000	5,000,000
First non-cumulative perpetual subordinated bonds in 2019: Fixed rate of 1.90%; the Bank may exercise its redemption rights after 5 years and 1 month	5,000,000	-
Second unsecured bank debentures bonds in 2019: Fixed rate of 0.69%; maturity - November 28, 2022	1,000,000	-
Third non-cumulative perpetual subordinated bonds in 2019: Fixed rate of 1.45%; the Bank may exercise its redemption rights after 5 years and 1 month	5,000,000	-
	$ 65,000,000	$ 55,000,000

(Concluded)

To expand its long-term USD capital, the Bank applied for the issuance of unsecured bank debentures amounting to US$1,000,000 thousand. The application was approved by the Financial Supervisory Commission (FSC) on January 22, 2015. The Bank issue unsecured bank debentures with an aggregate face value of US$400,000 thousand, consisting of type A bonds worth US$300,000 thousand with 0% interest rate and type B bonds worth US$100,000 thousand with 0% interest rate; the Bank may exercise its redemption rights at an agreed price after two years and three years, respectively, from the issue dates. If the Bank do not exercise its redemption rights during issue period, all unsecured bank debentures will be refunded on settlement date, March 30, 2045. To lower exposure to adverse changes in interest rates, the Bank enters into interest rate swap contracts measured at fair value through profit or loss and to eliminate a measurement or recognition inconsistency, the unsecured bank debentures are reclassified as designated as at FVTPL upon initial recognition. They were as follows:

	December 31	
	2019	2018
Unsecured bank debentures bonds issued in 2015, Type A	$ 9,039,290	$ 8,613,482
Unsecured bank debentures bonds issued in 2015, Type B	3,013,139	2,870,473
	$ 12,052,429	$ 11,483,955

The Bank obtained approval from the FSC to issue unsecured bank debentures amounting to US$1,000,000 thousand on November 18, 2019. As of December 31, 2019, the amount of unissued unsecured bank debentures was US$1,000,000 thousand.

26. OTHER FINANCIAL LIABILITIES

	December 31	
	2019	2018
Structured products - host contracts	$ 2,529,298	$ 1,905,310
Guarantee deposits received	1,578,229	1,216,195
Appropriation for loans	29,972	23,608
Lease payable	-	21,861
	$ 4,137,499	$ 3,166,974

27. PROVISIONS

	December 31	
	2019	2018
Provision for employee benefits		
Net defined benefit liabilities	$ 2,961,625	$ 2,822,786
Present value of retired employees' preferential interest deposits obligation	3,971,611	4,041,988
	6,933,236	6,864,774
Provision for losses on guarantees	1,071,127	991,699
Provision for losses on loan commitment	182,585	139,297
Provision for losses on others	34,837	26,721
	$ 8,221,785	$ 8,022,491

The changes in the provision for losses on guarantees, provision for losses on loan commitment and provision for losses on others are summarized below:

	12-month ECL	Lifetime ECL (Collective Assessment)	Lifetime ECL (Non-purchased or Non-originated Credit-impaired Financial Assets)	Impairment Loss under IFRS 9	Impairment Recognized under "Regulations Governing the Procedures for Banking Institutions to Evaluate Assets and Deal with Non-performing/ Non-accrual Loans"	Total
Balance at January 1, 2019	$ 561,386	$ 387	$ 18,827	$ 580,600	$ 577,117	$ 1,157,717
Changes from financial instruments recognized at the beginning of the current reporting period						
Transfers to						
Lifetime ECL	(360)	360	-	-	-	-
Credit-impaired financial assets	(1)	(27)	28	-	-	-
Derecognition of financial assets in the current reporting period	(151,047)	(361)	(8,127)	(159,535)	-	(159,535)
Reversal from financial instruments recognized at the beginning of the current reporting period	(21,036)	(27)	3,555	(17,508)	-	(17,508)
New financial assets purchased or originated	322,776	-	61,305	384,081	-	384,081
Impairment recognized under "Regulations Governing the Procedures for Banking Institutions to Evaluate Assets and Deal with Non-performing/ Non-accrual Loans"	-	-	-	-	(73,424)	(73,424)
Changes in exchange rates and other changes	(2,782)	-	-	(2,782)	-	(2,782)
Balance at December 31, 2019	$ 708,936	$ 332	$ 75,588	$ 784,856	$ 503,693	$ 1,288,549

	12-month ECL	Lifetime ECL (Collective Assessment)	Lifetime ECL (Non-purchased or Non-originated Credit-impaired Financial Assets)	Impairment Loss under IFRS 9	Impairment Recognized under "Regulations Governing the Procedures for Banking Institutions to Evaluate Assets and Deal with Non-performing/ Non-accrual Loans"	Total
Balance at January 1, 2018	$ 505,318	$ 3,065	$ 30,229	$ 538,612	$ 504,945	$ 1,043,557
Changes from financial instruments recognized at the beginning of the current reporting period						
Transfers to						
Lifetime ECL	(25)	25	-	-	-	-
Credit-impaired financial assets	(89)	-	89	-	-	-
Derecognition of financial assets in the current reporting period	(174,552)	(2,605)	(18,886)	(196,043)	-	(196,043)
Reversal from financial instruments recognized at the beginning of the current reporting period	(12,678)	(91)	7,380	(5,389)	-	(5,389)
New financial assets purchased or originated	241,095	-	15	241,110	-	241,110
Impairment recognized under "Regulations Governing the Procedures for Banking Institutions to Evaluate Assets and Deal with Non-performing/ Non-accrual Loans"	-	-	-	-	72,172	72,172
Changes in exchange rates and other changes	2,317	(7)	-	2,310	-	2,310
Balance at December 31, 2018	$ 561,386	$ 387	$ 18,827	$ 580,600	$ 577,117	$ 1,157,717

28. EMPLOYEE BENEFITS PLAN

a. Defined contribution plan

The pension plan under the Labor Pension Act (the Act) is a defined contribution plan. Based on the Act, the Bank's monthly contributions to individual pension accounts of employees covered by the defined contribution plan is at 6% of monthly salaries and wages. The funds are deposited in individual labor pension accounts at the Bureau of Labor Insurance.

The Bank recognized expense of $168,907 thousand and $145,263 thousand in the statement of comprehensive income in 2019 and 2018, respectively in accordance with the defined contribution plan.

b. Defined benefit plan

The defined benefit plan adopted by the Bank in accordance with the Labor Standards Law is operated by the government. Pension benefits are calculated on the basis of the length of service and average monthly salaries of the six months before retirement. The Bank contributes amounts equal to 15% of total monthly salaries and wages to a pension fund administered by the pension fund monitoring committee. The pension fund is managed by the Bureau of Labor Funds, Ministry of Labor (the Bureau); the Bank has no right to influence the investment policy and strategy. Pension contributions are deposited in the Bank of Taiwan in the committee's name. Before the end of each year, the Bank assesses the balance in the pension fund. If the amount of the balance in the pension fund is inadequate to pay retirement benefits for employees who conform to retirement requirements in the next year, the Bank is required to fund the difference in one appropriation that should be made before the end of March of the next year.

The amounts included in the balance sheets in respect of the Bank's defined benefit plans were as follows:

	December 31	
	2019	2018
Present value of defined benefit obligation	$ 13,994,883	$ 13,172,516
Fair value of plan assets	(11,033,258)	(10,349,730)
Net defined benefit liabilities	$ 2,961,625	$ 2,822,786

Movements in net defined benefit liabilities were as follows:

	Present Value of the Defined Benefit Obligation	Fair Value of the Plan Assets	Net Defined Benefit Liability
Balance at January 1, 2018	$ 12,724,492	$ (9,997,044)	$ 2,727,448
Service cost			
Current service cost	790,584	-	790,584
Net interest expense (revenue)	134,549	(109,006)	25,543
Recognized in profit or loss	925,133	(109,006)	816,127
Remeasurement			
Return on plan assets (excluding amounts included in net interest)	-	(294,498)	(294,498)
Actuarial loss - changes in financial assumptions	130,709	-	130,709
Actuarial loss - experience adjustments	441,038	-	441,038
Recognized in other comprehensive income	571,747	(294,498)	277,249
Contributions from the employer	-	(998,038)	(998,038)
Benefits paid	(1,048,856)	1,048,856	-
Balance at December 31, 2018	13,172,516	(10,349,730)	2,822,786
Service cost			
Current service cost	771,123	-	771,123
Net interest expense (revenue)	128,225	(104,997)	23,228
Recognized in profit or loss	899,348	(104,997)	794,351
Remeasurement			
Return on plan assets (excluding amounts included in net interest)	-	(366,881)	(366,881)
Actuarial loss - changes in financial assumptions	398,056	-	398,056
Actuarial loss - experience adjustments	300,094	-	300,094
Recognized in other comprehensive income	698,150	(366,881)	331,269
Contributions from the employer	-	(986,781)	(986,781)
Benefits paid	(775,131)	775,131	-
Balance at December 31, 2019	$ 13,994,883	$ (11,033,258)	$ 2,961,625

Through the defined benefit plans under the Labor Standards Law, the Bank is exposed to the following risks:

1) Investment risk: The plan assets are invested in domestic and foreign equity and debt securities, bank deposits, etc. The investment is conducted at the discretion of the Bureau or under the mandated management. However, in accordance with relevant regulations, the return generated by plan assets should not be below the interest rate for a 2-year time deposit with local banks.

2) Interest risk: A decrease in the government bond interest rate will increase the present value of the defined benefit obligation; however, this will be partially offset by an increase in the return on the plan's debt investments.

3) Salary risk: The present value of the defined benefit obligation is calculated by reference to the future salaries of plan participants. As such, an increase in the salary of the plan participants will increase the present value of the defined benefit obligation.

The actuarial valuations of the present value of the defined benefit obligation were carried out by qualified actuaries. The significant assumptions used for the purposes of the actuarial valuations were as follows:

	December 31	
	2019	**2018**
Discount rate(s)	0.70%	1.00%
Expected rate(s) of salary increase	2.00%	2.00%
Expected rate(s) of return on plan asset	0.70%	1.00%

Assuming a possible reasonable change in each of the significant actuarial assumptions and all other assumptions remaining constant, the present value of the defined benefit obligation would have increased (decreased) as follows:

	December 31	
	2019	**2018**
Discount rate(s)		
0.25% increase	$ (332,909)	$ (321,389)
0.25% decrease	$ 345,264	$ 333,660
Expected rate(s) of salary increase		
0.25% increase	$ 324,852	$ 315,369
0.25% decrease	$ (315,133)	$ (305,587)

The sensitivity analysis presented above shows the effect on the present value of the defined benefit obligations of a change in single assumption while all other assumptions remain unchanged. The sensitivity analysis presented above might not be representative of the actual change in the present value of the defined benefit obligation as it was unlikely that the change in assumptions would occur independently of each other because some of the assumptions might be correlated.

	December 31	
	2019	**2018**
The expected contributions to the plan for the next year	$ 1,050,000	$ 1,000,000
The average duration of the defined benefit obligation	9.75 years	10.01 years

c. Employees' preferential deposit plan

The Bank's payment obligations on fixed-amount preferential interest deposits for retired employees and current employees after retirement are in compliance with the Bank's internal rules. Under the Guidelines Governing the Preparation of Financial Reports by Public Banks, the Bank should determine the excess interest from the preferential interest deposits of employees by applying an actuarial valuation method when the employees retire.

The amounts included in the balance sheet arising from the Bank's obligation in the employees' preferential interest deposits plan were as follows:

	December 31	
	2019	2018
Present value of retired employees' preferential interest deposits obligation (part of provisions)	$ 3,971,611	$ 4,041,988

The changes in present value of retired employees' preferential interest deposits obligation were as follows:

	For the Year Ended December 31	
	2019	2018
Present value of retired employees' preferential interest deposits obligation, January 1	$ 4,041,988	$ 4,008,321
Interest expense	153,204	155,711
Actuarial losses	622,169	715,807
Benefits paid	(845,750)	(837,851)
Present value of retired employees' preferential interest deposits obligation, December 31	$ 3,971,611	$ 4,041,988

Amounts recognized in profit or loss in employee preferential deposit plans for retired employees in the statement of comprehensive income were as follows:

	For the Year Ended December 31	
	2019	2018
Interest expense	$ 153,204	$ 155,711
Actuarial losses	622,169	715,807
Excessive interest of retired employees' preferential interest deposits	$ 775,373	$ 871,518

Under Order No. 10110000850 issued by the Financial Supervisory Commission, effective March 15, 2012, the actuarial assumptions for calculating the expense for the retired employees' preferential interest deposit benefit are as follows:

	December 31	
	2019	2018
Discount rate	4.00%	4.00%
Return on deposit	2.00%	2.00%
Account balance decrease rate per year	1.00%	1.00%
Rate of probability of change in the preferential deposit system	50.00%	50.00%

Assuming a possible reasonable change in each of the significant actuarial assumptions and all other assumptions remaining constant, the present value of the retired employees' preferential interest deposit benefit obligation would have increased (decreased) as follows:

	December 31	
	2019	2018
Discount rate(s)		
1% increase	$ (273,978)	$ (284,051)
1% decrease	$ 314,312	$ 326,681
Return on deposit		
1% increase	$ (962,047)	$ (926,392)
1% decrease	$ 962,047	$ 926,392
Account balance decrease rate per year		
1% increase	$ (289,598)	$ (300,225)
1% decrease	$ 327,836	$ 340,755
Rate of probability of change in the preferential deposit system		
20% increase	$ (1,588,645)	$ (1,616,795)
20% decrease	$ 1,588,645	$ 1,616,795

The sensitivity analysis presented above shows the effect on the present value of the retired employees' preferential interest deposit benefit obligation of a change in a single assumption while all other assumptions remain unchanged. The sensitivity analysis presented above might not be representative of the actual change in the present value of the retired employees' preferential interest deposit benefit obligation because it was unlikely that the change in assumptions would occur independently of each other because some of the assumptions might be correlated.

29. NET INTEREST

	For the Year Ended December 31	
	2019	2018
Interest revenue		
From discounts and loans	$ 45,424,297	$ 42,763,522
From investments	9,885,629	9,063,501
From due from banks and call loans to other banks	2,579,741	2,906,886
Others	739,204	602,732
	58,628,871	55,336,641
Interest expense		
From deposits	(20,352,691)	(18,034,086)
From funds borrowed from the Central Bank and other banks	(2,502,515)	(1,947,049)
From subordinated bank debentures	(876,474)	(800,742)
From due to the Central Bank and other banks	(612,383)	(646,742)
Others	(126,734)	(82,718)
	(24,470,797)	(21,511,337)
	$ 34,158,074	$ 33,825,304

30. SERVICE FEE INCOME, NET

	For the Year Ended December 31	
	2019	2018
Service fee income		
From insurance service	$ 2,282,469	$ 1,953,841
From trust business	1,472,805	1,502,644
From loans	830,898	853,081
From guarantee	781,477	706,084
From credit cards	598,357	566,676
From trust affiliated business	319,308	283,208
From remittance	309,681	321,706
From cross-bank transactions	289,952	274,227
From import/export service	111,598	115,319
From agency commission	101,001	97,505
Others	439,813	405,465
	7,537,359	7,079,756
Service charge		
From cross-bank transactions	(338,809)	(331,523)
From credit cards	(274,083)	(219,723)
From credit cards acquiring	(126,499)	(118,814)
From custody	(92,194)	(77,802)
Others	(159,071)	(145,410)
	(990,656)	(893,272)
	$ 6,546,703	$ 6,186,484

31. GAINS (LOSSES) ON FINANCIAL ASSETS AND LIABILITIES AT FAIR VALUE THROUGH PROFIT OR LOSS

	For the Year Ended December 31, 2019				
	Interest Revenue (Expense)	Gain (Loss) on Disposal	Loss on Valuation	Dividend Income	Total
Financial assets mandatorily classified as at fair value through profit or loss	$ 151,999	$ 13,539,545	$ (4,654)	$ 43,402	$ 13,730,292
Held-for-trading financial liabilities	-	(8,655,715)	(2,495,961)	-	(11,151,676)
Financial liabilities designated as at fair value through profit or loss	(602,324)	-	(851,778)	-	(1,454,102)
	$ (450,325)	$ 4,883,830	$ (3,352,393)	$ 43,402	$ 1,124,514

	For the Year Ended December 31, 2018				
	Interest Revenue (Expense)	Gain (Loss) on Disposal	Gain (Loss) on Valuation	Dividend Income	Total
Financial assets mandatorily classified as at fair value through profit or loss	$ 51,340	$ 15,725,005	$ (702,452)	$ 15,814	$ 15,089,707
Held-for-trading financial liabilities	-	(12,893,839)	1,293,747	-	(11,600,092)
Financial liabilities designated as at fair value through profit or loss	(566,552)	-	613,084	-	46,532
	$ (515,212)	$ 2,831,166	$ 1,204,379	$ 15,814	$ 3,536,147

32. EMPLOYEE BENEFITS, DEPRECIATION AND AMORTIZATION EXPENSES

a. Employee benefits expenses

	For the Year Ended December 31	
	2019	2018
Salaries	$ 8,084,186	$ 7,890,379
Incentives	3,021,789	2,688,401
Excessive interest from preferential interest deposits	1,196,972	1,286,602
Post-employment benefits, termination benefits and compensation	982,851	1,171,188
Overtime	414,617	421,350
Others	1,842,426	1,703,686
	$ 15,542,841	$ 15,161,606

Under the Articles, the Bank will distribute employees' compensation at percentages from 1% to 8% of its annual profit (pretax income which exclude compensation of employees). However, the actual appropriation of the bonus should be made only from the annual net income less any accumulated deficit. For the years ended December 31, 2019 and 2018, the compensation of employees was $1,056,109 thousand and $924,404 thousand, respectively, based on the Company Act and the amended Articles.

Material differences between such estimated amounts and the amounts resolved by the board of directors on or before the annual financial statements are authorized for issue are adjusted in the year the compensation were recognized. If there is a change in the resolved amounts after the annual financial statements are authorized for issue, the differences are recorded as a change in accounting estimate.

The appropriations of employees' compensation for 2019 and 2018 resolved by the board of directors on March 23, 2020 and March 25, 2019, respectively, were as follows:

	For the Year Ended December 31	
	2019	2018
Employees' compensation - cash	$ 1,056,109	$ 924,404

There was no difference between the amounts of the employees' compensation resolved by the board of directors and the amount recognized in the financial statements.

Information on the employees' compensation resolved by the Bank's board of directors is available at the Market Observation Post System website of the Taiwan Stock Exchange (https://emops.twse.com.tw).

b. Depreciation and amortization expenses

	For the Year Ended December 31	
	2019	2018
Depreciation expenses	$ 1,598,856	$ 1,089,226
Amortization expenses	157,526	144,660
	$ 1,756,382	$ 1,233,886

33. INCOME TAX

a. Income tax recognized in profit or loss

Main components of income tax expense were as follows:

	For the Year Ended December 31	
	2019	2018
Current tax		
Current year	$ 3,648,984	$ 2,233,537
Prior year's adjustments	306	(63,724)
	3,649,290	2,169,813
Deferred tax		
Current year	(741,703)	151,612
Prior year's adjustments	-	(116,834)
Effect of change in tax rate	-	(13,976)
Income tax expense recognized in profit or loss	$ 2,907,587	$ 2,190,615

A reconciliation of accounting profit and current income tax expenses was as follows:

	For the Year Ended December 31	
	2019	2018
Income before income tax	$ 18,903,243	$ 16,952,981
Income tax expense at the statutory rate (20%)	$ 3,780,649	$ 3,390,596
Nondeductible expenses in determining taxable income	2,318	2,565
Tax-exempt income	(1,119,628)	(1,011,057)
Unrecognized deductible temporary differences	568	(52,298)
Effect of different tax rate of overseas branches operating in other jurisdictions	243,374	55,343
Effect of change in tax rate	-	(116,834)
Adjustments for prior year's tax	306	(77,700)
Income tax expense recognized in profit or loss	$ 2,907,587	$ 2,190,615

The Income Tax Act in the ROC was amended in 2018 and the corporate income tax rate was adjusted from 17% to 20% effective in 2018. In addition, the rate of the corporate surtax applicable to 2018 unappropriated earnings has been reduced from 10% to 5%.

b. Income tax expense (benefit) recognized in other comprehensive income

	For the Year Ended December 31	
	2019	2018
Deferred tax		
Recognized in other comprehensive income - items that may be reclassified subsequently to profit or loss		
Exchange differences on the translation of financial statements of foreign operations	$ (213,784)	$ 219,881
Unrealized valuation gain (loss) on financial assets at fair value through other comprehensive income	64,261	(9,012)
Share of other comprehensive income of subsidiary accounted for using the equity method	(17,876)	(3,092)
Effect of change in tax rate	-	(38,386)
Total income tax recognized in other comprehensive income	$ (167,399)	$ 169,391

c. Current tax assets and liabilities

	December 31	
	2019	2018
Current tax assets		
Tax receivable - consolidated tax return	$ 1,080,183	$ 1,297,856
Tax refund receivable	33,339	34,700
Others	69,265	176,570
	$ 1,182,787	$ 1,509,126
Current tax liabilities		
Tax payable - consolidated tax return	$ 1,639,593	$ 547,923
Tax payable	472,103	436,764
Others	19,863	135,917
	$ 2,131,559	$ 1,120,604

d. Deferred tax assets and liabilities

Movements in deferred tax assets and liabilities were as follows:

For the year ended December 31, 2019

	Opening Balance	Recognized in Profit or Loss	Recognized in Other Compre-hensive Income	Closing Balance
Deferred tax assets				
Temporary differences				
Financial instruments at fair value through profit or loss	$ -	$ 505,205	$ -	$ 505,205
Financial assets at fair value through other comprehensive income	11,256	-	(11,256)	-
Properties and equipment	9,826	(644)	-	9,182
Payable for annual leave	98,711	1,991	-	100,702
Employee's preferential interest deposits obligation	808,398	(14,076)	-	794,322
Other liabilities	5,883	(100)	-	5,783
Exchanges difference on foreign operations	39,151	-	231,660	270,811
Unrealized interests expense	415,068	120,464	-	535,532
	$ 1,388,293	$ 612,840	$ 220,404	$ 2,221,537
Deferred tax liabilities				
Temporary differences				
Financial instruments at fair value through profit or loss	$ 188,317	$ (188,317)	$ -	$ -
Financial assets at fair value through other comprehensive income	-	-	53,005	53,005
Investments accounted for using equity method	36,603	16,695	-	53,298
Intangible assets	428,614	-	-	428,614
Defined benefit obligation	36,348	38,486	-	74,834
The reserve for land revaluation increment tax	2,596,230	-	-	2,596,230
Others	6,742	4,273	-	11,015
	$ 3,292,854	$ (128,863)	$ 53,005	$ 3,216,996

For the year ended December 31, 2018

	Opening Balance	Recognized in Profit or Loss	Recognized in Other Compre-hensive Income	Others	Closing Balance
Deferred tax assets					
Temporary differences					
Financial instruments at fair value through profit or loss	$ 40,905	$ (40,905)	$ -	$ -	$ -
Available-for-sale financial assets	2,249	-	-	(2,249)	-
Financial assets at fair value through other comprehensive income	-	-	9,007	2,249	11,256
Properties and equipment	8,899	927	-	-	9,826
Payable for annual leave	69,527	29,184	-	-	98,711
Defined benefit obligation	29	(29)	-	-	-
Employee's preferential interest deposits obligation	681,415	126,983	-	-	808,398
Other liabilities	4,955	928	-	-	5,883
Exchanges difference on foreign operations	217,549	-	(178,398)	-	39,151
Unrealized interests expense	256,494	158,574	-	-	415,068
	$ 1,282,022	$ 275,662	$ (169,391)	$ -	$ 1,388,293
Deferred tax liabilities					
Temporary differences					
Financial instruments at fair value through profit or loss	$ -	$ 188,317	$ -	$ -	$ 188,317
Investments accounted for using equity method	21,651	14,952	-	-	36,603
Intangible assets	364,322	64,292	-	-	428,614
Defined benefit obligation	-	36,348	-	-	36,348
The reserve for land revaluation increment tax	2,596,230	-	-	-	2,596,230
Others	14,187	(7,445)	-	-	6,742
	$ 2,996,390	$ 296,464	$ -	$ -	$ 3,292,854

e. Unused deductible temporary differences for which no deferred tax assets have been recognized in the balance sheets

	December 31	
	2019	2018
Deductible temporary differences	$ 1,831,868	$ 1,430,397

f. The income tax returns of the Bank through 2014 had been examined by the tax authorities.

34. EARNINGS PER SHARE

The numerators and denominators used in calculating earnings per share were as follows:

	Net Income (Numerator)	Shares (Denominator in Thousands)	Earnings Per Share (NT$)
For the year ended December 31, 2019			
Basic earnings per share	$ 15,995,656	9,676,530	$ 1.65
For the year ended December 31, 2018			
Basic earnings per share	$ 14,762,366	9,676,530	$ 1.53

The weighted-average number of shares outstanding for EPS calculation has been retroactively adjusted to reflect the effects of the stock dividends distributed in the year following earning appropriation.

	2018	
	Before Adjusted Retrospectively	After Adjusted Retrospectively
Basic earnings per share (NT$)	$ 1.63	$ 1.53

35. EQUITY

a. Capital stock

Common stocks

	December 31	
	2019	2018
Number of shares authorized (in thousands)	10,000,000	10,000,000
Authorized capital	$ 100,000,000	$ 100,000,000
Number of shares issued and fully paid (in thousands)	9,676,530	9,031,030
Common stocks issued	$ 96,765,300	$ 90,310,300

Fully paid common stocks, which have a par value of $10, carry one vote per share and carry a right to dividends.

On May 28, 2018, the Bank's board of directors resolved to increase its capital by issuing 222,900 thousand shares which included the 2017 earnings amounting to $2,229,000 thousand. The issuance was approved by the FSC and MOEA.

On May 24, 2019, the Bank's board of directors resolved to increase its capital by issuing 645,500 thousand shares which included the 2018 earnings amounting to $6,455,000 thousand. The issuance was approved by the FSC and MOEA.

b. Capital surplus

Under related regulations, capital surplus may be used to offset a deficit. Capital surplus arising from the issuance of shares in excess of par value (including additional paid-in capital from the issuance of common shares and capital surplus from mergers and treasury stock transactions) and donations may be distributed as cash dividends or transferred to common stock on the basis of the percentage of shares held by the stockholders. Any capital surplus transferred to common stock should be within a certain percentage prescribed by law.

Under related regulations, the capital surplus from equity investments under the equity method cannot be distributed for any purpose.

c. Special reserve

Under the FSC guidelines, the Bank reclassified to the special reserve $165,255 thousand, the sum of trading loss reserve and reserve for loss on branch of purchase commitments, which were in place until December 31, 2010. The reclassified special reserve is unavailable to be used unless: (1) offset a deficit or (2) when the special reserve reaches 50% of the Bank's paid-in capital, 50% of the excess may be used to issue new capital or (3) the FSC has approved that excess may be reversed to unappropriated earnings when special reserve has exceeded the Bank's paid-in capital.

As of December 31, 2019, the special reserve from equity investments under the equity method was $14,944 thousand.

For the first-time adoption of IFRSs, the Bank should appropriate to a special reserve an amount that was the same as those of unrealized revaluation increment and cumulative translation differences (gains) transferred to retained earnings as a result of the Bank's use of exemptions under IFRS 1. However, on the date of transitions to IFRSs, if the increase in retained earnings that resulted from all IFRSs adjustments is not enough for this appropriation, only the increase in retained earnings that resulted from all IFRSs adjustments will be appropriated to special reserve. The special reserve appropriated as above may be reversed in proportion to the usage, disposal or reclassification of the related assets and thereafter distributed. The special reserve appropriated for the first-time adoption of IFRSs may be used to offset deficits in subsequent years. No appropriation of earnings shall be made until any shortage of the aforementioned special reserve is appropriated in subsequent years if the Bank has earnings and the original need to appropriate a special reserve is not eliminated.

The increase in retained earnings that resulted from all IFRSs adjustments was not enough for this appropriation; therefore, the Bank appropriated to the special reserve an amount of $1,132,019 thousand on January 1, 2013, the increase in retained earnings that resulted from all IFRSs adjustments on transitions to IFRSs.

Information regarding the above special reserve appropriated or reversed on elimination of the original need to appropriate a special reserve was as follows:

	For the Year Ended December 31	
	2019	**2018**
Balance on January 1	$ 1,037,384	$ 1,037,384
Reversed on elimination of the original need to appropriate a special reserve:		
Disposal of properties and equipment	-	-
Balance on December 31	$ 1,037,384	$ 1,037,384

Under Order No. 10510001510 issued by FSC, the appropriation of special reserve should be 0.5% to 1% of net income (net of income tax) when the Bank appropriates the earnings of 2016 to 2018. Since 2017, the Bank is allowed to make special reserve at the amount of the cost of employee transfer and arrangement in connection with the development of financial technology. Information regarding the special reserve appropriated or reversed due to elimination of the original need to appropriate a special reserve was as follows:

	For the Year Ended December 31	
	2019	2018
Balance on January 1	$ 64,496	$ 62,618
Appropriation	73,812	64,496
Reversal:		
Cost of employee transfer and arrangement	(64,496)	(62,618)
Balance on December 31	$ 73,812	$ 64,496

d. Appropriation of earnings

From the annual net income less any deficit, an amount equal to 30% thereof should be appropriated as legal reserve and a certain amount, depending on regulations and operating needs, as special reserve. The remaining net income and unappropriated earnings of prior years may be distributed as dividends to shareholders or retained according to the distribution plan to be proposed by the board of directors and submitted to the shareholders' meeting for approval. Unless otherwise restricted by related regulations, the cash dividends must be 10% or above of the total dividends and bonus distributed. If the cash dividend per share is less than NT$0.1, the cash dividend will not be distributed unless the distribution is resolved in the stockholders' meetings.

If the legal reserve reaches the amount of paid-in capital or the Bank is sound in both its finance and business operations and have set aside a legal reserve in compliance with the Company Law, the legal reserve is not subject to the limitation of 30% set under the Banking Law and related regulations.

Under related regulations, a special reserve is appropriated from the balance of the retained earnings at an amount from the net income and unappropriated earnings that is equal to the debit balance of accounts in the stockholders' equity section. The special reserve should be appropriated from the prior years' unappropriated earnings to the extent of the debit balance accumulated from prior years, and such special reserve should not be appropriated. If there is difference between appropriation of special reserve and net amount of deduction in other stockholder's equity, the Bank should appropriate on additional amount of special reserve in the first-time adoption of IFRSs. Afterwards, if there is any reversal in of the deduction in other stockholder's equity, the Bank is allowed to appropriating retained earnings from the reversal amount.

Under the Company Law, legal reserve should be appropriated until the reserve equals the Bank's paid-in capital. This reserve should only be used to offset a deficit. When the reserve exceeds 25% of the Bank's paid-in capital, the excess may be used to issue new shares or distribute cash dividends.

The appropriations from the earnings of 2018 and 2017 were approved in the stockholders' meetings on May 24, 2019 and May 28, 2018, respectively. The appropriations and dividends per share were as follows:

	Appropriation of Earnings		Dividends Per Share (NT$)	
	2018	2017	2018	2017
Legal reserve	$ 4,428,710	$ 3,869,758		
Special reserve	73,812	64,496		
Cash dividends	2,953,000	6,450,000	$ 0.326984	$ 0.732278
Stock dividends	6,455,000	2,229,000	0.714758	0.253062

Information on the appropriation of earnings or deficit offsetting can be accessed through the Market Observation Post System website of the Taiwan Stock Exchange (https://mops.twse.com.tw).

36. RELATED-PARTY TRANSACTIONS

Taiwan Cooperative Financial Holding Co., Ltd. is the ultimate parent of the Bank, and the Ministry of Finance is the major government stockholder. Based on IAS 24 "Related Party Disclosures" the Company's transactions with government-related parties are exempt from disclosure requirements. In addition to those mentioned in other notes, the related-party transactions are summarized as follows:

a. Related parties

Related Party	Relationship with the Bank
Taiwan Cooperative Financial Holding Company, Ltd. (TCFHC)	Parent company
United Taiwan Bank S.A	Subsidiary
Co-operative Assets Management Co., Ltd.	Sister company
Taiwan Cooperative Bills Finance Co., Ltd. (TCBF)	Sister company
Taiwan Cooperative Securities Co., Ltd. (TCS)	Sister company
BNP Paribas Cardif TCB Life Insurance Co., Ltd. (BPCTLI)	Sister company
Taiwan Cooperative Securities Investment Trust Co., Ltd	Sister company
Taiwan Cooperative Venture Capital Co., Ltd. (TCVC)	Sister company
United Real Estate Management Co., Ltd.	Associated enterprise
TCB Global Emerging Markets Equity Fund	Fund managed by Taiwan Cooperative Securities Investment Trust Co., Ltd.
TCB Fund of Emerging Markets Bond Fund	Fund managed by Taiwan Cooperative Securities Investment Trust Co., Ltd.
TCB Global High Yield Bond Fund	Fund managed by Taiwan Cooperative Securities Investment Trust Co., Ltd.
TCB S&P U.S. Variable Rate Preferred Stock Index Fund	Fund managed by Taiwan Cooperative Securities Investment Trust Co., Ltd.
TCB 6 Year Emerging Market Bond Fund	Fund managed by Taiwan Cooperative Securities Investment Trust Co., Ltd.
TCB Mobility and Innovation Fund	Fund managed by Taiwan Cooperative Securities Investment Trust Co., Ltd.
TCB 6 Year ESG Emerging Market Bond Fund	Fund managed by Taiwan Cooperative Securities Investment Trust Co., Ltd.
Tamshui First Credit Bank	The director of Tamshui First Credit Bank is also the Company's director.
Others	Main management of the parent company and other related parties

b. Significant transactions between the Bank and related parties:

1) Due from banks (part of cash and cash equivalents)

	December 31	
	2019	**2018**
Subsidiary	$ 539,932	$ 573,442

2) Call loans to banks

	Highest Balance	**Ending Balance**	**Interest Revenue**	**Interest Rate (%)**
For the year ended December 31, 2019				
Subsidiary	$ 9,734,133	$ 8,025,216	$ 45,444	0.001-3.180
Sister companies	5,000,000	3,310,000	19,114	0.400-0.700
Others	4,231,000	-	27,061	0.400-2.850
	$ 18,965,133	$ 11,335,216	$ 91,619	
For the year ended December 31, 2018				
Subsidiary	$ 10,400,488	$ 7,412,225	$ 67,388	0.001-3.180
Sister companies	4,500,000	-	9,830	0.350-0.550
Others	4,542,750	-	30,046	0.350-4.150
	$ 19,443,238	$ 7,412,225	$ 107,264	

3) Call loans to securities firms (part of other financial assets, net)

	Highest Balance	**Ending Balance**	**Interest Revenue**	**Interest Rate (%)**
For the year ended December 31, 2019				
Sister company TCS	$ 316,200	$ 179,940	$ 7,987	1.710-3.200
For the year ended December 31, 2018				
Sister company TCS	$ 311,010	$ 307,350	$ 7,212	1.750-3.200

4) Due to banks

	For the Year Ended December 31			
	2019		2018	
	Ending Balance	Interest Expense	Ending Balance	Interest Expense
Subsidiary	$ 1,286	$ -	$ 1,325	$ -
Main management	232,743	1,638	285,207	1,479
Others				
Tamshui First Credit Bank	24,066,019	240,837	21,426,256	235,290
Others	40,198	23	17,413	9
	$ 24,340,246	$ 242,498	$ 21,730,201	$ 236,778

5) Call loans from banks

	Highest Balance	Ending Balance	Interest Expense	Interest Rate (%)
For the year ended December 31, 2019				
Others	$ 1,000,000	$ -	$ 105	0.270-0.280
For the year ended December 31, 2018				
Others	$ 1,844,100	$ -	$ 216	0.180-1.830

6) Loans

	Highest Balance	Ending Balance	Interest Revenue	Interest Rate (%)
For the year ended December 31, 2019				
Sister company	$ 89,500	$ -	$ 12	2.265
Main management	311,585	247,205	3,249	1.245-1.790
Others	540,831	137,770	3,189	1.137-2.465
	$ 941,916	$ 384,975	$ 6,450	
For the year ended December 31, 2018				
Sister company	$ 512,000	$ -	$ 34	2.265
Main management	303,302	241,364	2,594	1.245-1.790
Others	141,496	129,400	1,104	1.137-2.465
	$ 956,798	$ 370,764	$ 3,732	

Under the Banking Law, except for customer loans and government loans, credits extended by the Bank to any related party should be 100% secured, and the terms of credits extended to related parties should be similar to those for third parties.

7) Securities purchased under resell agreements

	Ending Balance	Interest Revenue	Interest Rate (%)
For the year ended December 31, 2019			
Sister companies			
TCBF	$ -	$ 3,182	0.440-0.695
For the year ended December 31, 2018			
Sister companies			
TCBF	$ 3,320,000	$ 336	0.425-0.480

8) Deposits

	Ending Balance	Interest Expense	Interest Rate (%)
For the year ended December 31, 2019			
Parent company	$ 47,637	$ 81	0-0.800
Sister companies	8,242,148	12,805	0-1.065
Associates	137,084	274	0-0.640
Main management	806,983	11,131	0-13.000
Others	12,483,506	67,814	0-13.000
	$ 21,717,358	$ 92,105	
For the year ended December 31, 2018			
Parent company	$ 25,293	$ 58	0-0.800
Sister companies	4,727,583	8,790	0-1.065
Associates	64,677	365	0-0.775
Main management	718,088	3,695	0-13.000
Others	12,607,764	109,421	0-13.000
	$ 18,143,405	$ 122,329	

	December 31	
	2019	2018
9) Accrued income (part of receivables)		
Sister companies		
BPCTLI	$ 203,989	$ 153,207
Others	2,430	1,430
	$ 206,419	$ 154,637

	December 31	
	2019	2018
10) Accrued interest (part of receivables)		
Subsidiary	$ 3,624	$ 6,219
Sister companies	522	1,041
	$ 4,146	$ 7,260
11) Receivable on securities (part of receivables)		
Sister company		
TCS	$ 138,642	$ 147,499
12) Tax receivable - consolidated tax return (part of current tax assets)		
Parent company	$ 1,080,183	$ 1,297,856
13) Accrued interest (part of payables)		
Sister companies	$ 43	$ 15
14) Accrued expense (part of payables)		
Sister companies	$ 1,332	$ 193
15) Payable on securities (part of payables)		
Sister company		
TCS	$ 57,919	$ 16,943
16) Tax payable - consolidated tax return (part of current tax liabilities)		
Parent company	$ 1,639,593	$ 547,923
17) Guarantee deposits received (part of other financial liabilities)		
Parent company	$ 6,012	$ 6,012
Sister companies	19,701	23,743
	$ 25,713	$ 29,755

	For the Year Ended December 31	
	2019	2018
18) Service fee income (part of service fee income, net)		
Sister companies		
BPCTLI	$ 1,234,439	$ 1,019,949
Others	27,196	26,146
Associates	-	106
Main management	158	352
Others	15,937	208
	$ 1,277,730	$ 1,046,761
19) Service charge (part of service fee income, net)		
Sister companies	$ 3,266	$ 5,306
Main management	83	56
Others	4	4
	$ 3,353	$ 5,366
20) Investigation fee (part of general and administration)		
Sister companies	$ 1,714	$ 1,200
21) Other income (part of other noninterest gain, net)		
Parent company	$ 1,539	$ 1,540
Sister companies	40	680
Others	3,553	3,809
	$ 5,132	$ 6,029
22) Donation (part of other noninterest gain, net)		
Main management	$ 2,000	$ 2,000
Others	900	900
	$ 2,900	$ 2,900

Terms of other transactions with related parties were similar to those for third parties, except for the more favorable interest rate for managers' savings within a prescribed limit. The Bank has operating lease contracts with related parties, which cover certain office spaces within the Bank's building. The monthly rentals were based on rentals for buildings near the Bank.

23) Lease agreements - the Bank is lessor

The Bank lease out investment properties to its parent company and sister companies under operating leases with lease terms of 2 to 10 years. Rentals which are determined base on the prices of nearby properties are calculated on the basis of the leased areas and are payable monthly.

a) Future lease payment receivables was as follows:

	December 31	
	2019	2018
Parent company	$ 62,992	$ 87,040
Sister companies		
TCS	173,981	204,807
BPCTLI	26,536	40,715
Others	48,630	71,300
	$ 312,139	$ 403,862

b) Lease income (part of other non-interest gains, net):

	For the Year Ended December 31	
	2019	2018
Parent company	$ 24,048	$ 24,048
Sister companies		
TCS	44,724	30,355
Others	37,221	32,306
	$ 105,993	$ 86,709

24) Purchases and sales of securities

	For the Year Ended December 31, 2019			
Related Party	Purchases	Sales	Sales Under Repurchase Agreements	Purchases Under Resell Agreements
Sister companies	$ -	$ -	$ -	$ 14,581,540

	For the Year Ended December 31, 2018			
Related Party	Purchases	Sales	Sales Under Repurchase Agreements	Purchases Under Resell Agreements
Sister companies	$ 150,009	$ 199,617	$ -	$ 3,519,521
Others	150,050	100,287	-	-
	$ 300,059	$ 299,904	$ -	$ 3,519,521

25) Derivatives

Related Party	Type of Derivatives	Contract Period	Nominal Amounts	Valuation Loss	Amounts on the Balance Sheet Account	Amounts
			For the Year Ended December 31, 2019			
Sister company - BPCTLI	Currency swap	2019.08.19-2020.09.30	US$118,951	$ (117,207)	Financial liabilities at fair value through profit or loss	$ (117,207)
	Currency swap	2019.10.30-2020.02.27	EUR 4,844	(1,328)	Financial liabilities at fair value through profit or loss	(1,328)
Other - TCB Fund of Emerging Markets Bond Fund	Currency swap	2019.12.30-2020.03.30	US$ 6,700	(1,415)	Financial liabilities at fair value through profit or loss	(1,415)
Other - TCB Global High Yield Bond Fund	Currency swap	2019.12.11-2020.02.12	US$ 14,900	(7,355)	Financial liabilities at fair value through profit or loss	(7,355)
Other - TCB S&P U.S. Variable Rate Preferred Stock Index Fund	Currency swap	2019.12.26-2020.01.21	US$ 6,000	(1,292)	Financial liabilities at fair value through profit or loss	(1,292)
Other - TCB 6 Year Emerging Market Bond Fund	Currency swap	2019.10.18-2020.04.20	US$ 19,750	(2,446)	Financial liabilities at fair value through profit or loss	(2,446)
Other - TCB Mobility and Innovation Fund	Currency swap	2019.12.12-2020.02.12	US$ 7,300	(1,922)	Financial liabilities at fair value through profit or loss	(1,922)
Other - TCB 6 Year ESG Emerging Market Bond Fund	Currency swap	2019.12.23-2020.02.24	US$ 55,200	(5,353)	Financial liabilities at fair value through profit or loss	(5,353)

Related Party	Type of Derivatives	Contract Period	Nominal Amounts	Valuation Gain (Loss)	Amounts on the Balance Sheet Account	Amounts
			For the Year Ended December 31, 2018			
Sister company - BPCTLI	Currency swap	2018.09.28-2019.03.04	US$ 5,351	$ 1,954	Financial assets at fair value through profit or loss	$ 1,954
	Currency swap	2018.12.17-2019.03.29	US$180,162	(13,802)	Financial liabilities at fair value through profit or loss	(13,802)
Other - TCB Global Emerging Markets Equity Fund	Currency swap	2018.12.03-2019.01.14	US$ 8,300	(127)	Financial liabilities at fair value through profit or loss	(127)
Other - TCB Global High Yield Bond Fund	Currency swap	2018.12.06-2019.01.14	US$ 7,250	(1,010)	Financial liabilities at fair value through profit or loss	(1,010)
Other -TCB S&P U.S. Variable Rate Preferred Stock Index Fund	Currency swap	2018.12.13-2019.01.17	US$ 7,000	(644)	Financial liabilities at fair value through profit or loss	(644)
Other -TCB 6 Year Emerging Market Bond Fund	Currency swap	2018.12.05-2019.01.07	US$ 20,000	1,048	Financial assets at fair value through profit or loss	1,048
	Currency swap	2018.12.13-2019.03.18	US$ 850	(72)	Financial liabilities at fair value through profit or loss	(72)

The realized profit on the currency swaps transactions with related parties were as follows:

	For the Year Ended December 31	
	2019	2018
Financial assets and liabilities at fair value through profit or loss		
Sister company		
BPCTLI	$ 127,431	$ 48,330
Others	-	1,470
Others	29,435	66,272
	$ 156,866	$ 116,072

26) Loans

December 31, 2019

Type	Account Volume or Name	Highest Balance in the Year Ended December 31, 2018 (Note 1)	Ending Balance	Loan Classification		Collaterals	Differences in Terms of Transaction Compared with Those for Unrelated Parties
				Normal Loans	Nonperforming Loans		
Consumer loans	79	$ 181,852	$ 131,546	$ 131,546	$ -	Note 2	None
Self-used housing mortgage loans	50	282,224	232,419	232,419	-	Land and buildings	None
Other loans	Others	388,340	21,010	21,010	-	Note 3	None
	Taiwan Cooperative Securities Co., Ltd.	89,500	-	-	-	Bonds	None

December 31, 2018

Type	Account Volume or Name	Highest Balance in the Year Ended December 31, 2019 (Note 1)	Ending Balance	Loan Classification		Collaterals	Differences in Terms of Transaction Compared with Those for Unrelated Parties
				Normal Loans	Nonperforming Loans		
Consumer loans	67	$ 166,643	$ 138,550	$ 138,550	$ -	Note 2	None
Self-used housing mortgage loans	47	278,155	232,214	232,214	-	Land and buildings	None
Other	Taiwan Cooperative Securities Co., Ltd.	512,000	-	-	-	Bonds	None

Note 1: The highest balance is the largest sum in the year of all daily accounts for each type.

Note 2: In addition to the line of consumer loans, real estate guarantees are provided.

Note 3: A portion of loans was guaranteed by certificates of deposit or demand deposits.

c. Salaries, bonuses and remunerations to main management

	For the Year Ended December 31	
	2019	2018
Salaries and other short-term employment benefits	$ 158,676	$ 135,542
Post-employment benefits	14,606	13,375
Interest arising from the employees' preferential rate in excess of normal rates	4,071	4,208
	$ 177,353	$ 153,125

37. PLEDGED ASSETS

a. In addition to those mentioned in other notes, the face values of the pledged bonds and certificates of deposit are summarized as follows:

	December 31	
	2019	2018
Collaterals for call loans of foreign currency	$ 40,000,000	$ 40,000,000
Collaterals for day-term overdraft	30,000,000	30,000,000
Collaterals for overdraft of domestic U.S. dollar settlement	11,000,000	11,000,000
Collaterals for overdraft of domestic RMB settlement	2,362,250	1,430,080
Guarantee deposits for provisional collateral seizure for loan defaults and others	1,204,500	995,900
Collaterals for overdraft of domestic JPY settlement	500,000	500,000
Overseas branches' capital adequate reserve	389,819	376,667
Guarantee deposits for the trust business compensation reserve	260,000	240,000
Collaterals for overseas branch U.S. dollar settlement	61,650	130,931
Guarantee deposits for bills finance business	50,000	50,000
Guarantee deposits for securities operation	50,000	50,000
Overseas branches' guarantee deposits for operation	5,998	6,147
	$ 85,884,217	$ 84,779,725

To comply with the Central Bank of the Republic of China's (CBC) Interbank Funds Transfer and Settlement System for real-time gross settlement (RTGS), the Bank provided certificates of deposit as collateral for day-term overdraft (part of due from the Central Bank and call loans to other banks). The pledged amount may be adjusted anytime, and the unused overdraft amount at the end of a day can also be treated as the Bank's liquidity reserve.

b. To expand their capital sourcing and enhance their liquidity position, the Bank's Seattle Branch, Los Angeles Branch, and New York Branch obtained access privileges at the Discount Window Account of the Federal Reserve Bank. For this access, the three branches pledged the following assets:

(In Thousands of U.S. Dollars)

Date	Loan	Collateral Value
December 31, 2019	$ 281,333	$ 232,718
December 31, 2018	$ 234,446	$ 165,192

38. SIGNIFICANT CONTINGENT LIABILITIES AND UNRECOGNIZED COMMITMENTS

In addition to those mentioned in other notes, the significant commitments were as follows:

a. As of December 31, 2019, the Bank's outstanding major construction and procurement contracts amounted to $210,971 thousand, of which $141,818 thousand was still unpaid.

b. According to the joint venture contract signed with BNP Paribas Assurance (BNPPA), the Bank signed the tri-party agreement with BNP Paribas Cardif TCB Life Insurance Co., Ltd. (BPCTLI) and Cooperative Insurance Brokers Co., Ltd. (CIB) on April 13, 2010, which identified BPCTLI as the sole supplier of life insurance products for the Bank and CIB, also applying the Bank's marketing channels to sell life insurance products. Since the Bank merged with the CIB on June 24, 2016, the Bank signed a two-party agreement with BPCTLI on March 30, 2018 to replace the original tri-party agreement, the rights and obligations of the CIB were assumed by the Bank.

39. FINANCIAL INSTRUMENTS

a. Fair values of financial instruments that are not measured at fair value

	December 31			
	2019		2018	
	Carrying Amount	Estimated Fair Value	Carrying Amount	Estimated Fair Value
Financial assets				
Investments in debt instruments at amortized cost	$ 554,148,605	$ 559,246,311	$ 554,882,807	$ 557,601,657
Financial liabilities				
Bank debentures	65,000,000	66,544,129	55,000,000	56,204,741

Fair value hierarchy as at December 31, 2019

	Total	Level 1	Level 2	Level 3
Financial assets				
Investments in debt instruments at amortized cost	$ 559,246,311	$ 7,994,440	$ 551,251,871	$ -
Financial liabilities				
Bank debentures	66,544,129	-	66,544,129	-

Fair value hierarchy as at December 31, 2018

	Total	Level 1	Level 2	Level 3
Financial assets				
Investments in debt instruments at amortized cost	$ 557,601,657	$ 8,074,457	$ 549,527,200	$ -
Financial liabilities				
Bank debentures	56,204,741	-	56,204,741	-

In addition to those listed above, the management level consider other financial instruments which are not measured at fair value closed to their fair value.

b. The valuation techniques and assumptions the Bank uses for determining fair values are as follows:

The fair values of financial instruments traded on active markets are based on quoted market prices. However, in many instances where there are no quoted market prices for the Bank's various financial instruments, fair values are based on estimates using other financial data and appropriate valuation methodologies. The financial data obtained by the Bank for making estimations and assumptions for financial instrument valuation is consistent with those used by other market participants to price financial instruments. Fair values of forward contracts, currency swap contracts, foreign-currency margin contracts, cross-currency swap contracts and interest rate swap contracts are calculated using the discounted cash flow method, unless the fair values are provided by counterparties. Fair values of option contracts are based on estimates using the Black Scholes pricing model.

The Bank estimates the fair value of each forward contract on the basis of the swap points quoted by Reuters on each settlement date. Fair values of interest rate swap contracts and cross-currency swap contracts are calculated using the Bloomberg information system, unless the fair values are provided by counterparties. The calculation of the fair value of each option contract is based on the mid-price (the average of bid and ask prices) quoted by Reuters and applied consistently.

For debt instruments with no active market, if there are theoretical prices from the Taipei Exchange (an over-the-counter securities exchange) on the balance sheet date, they are used as the basis for evaluating the fair value of debt instruments with no active market. Otherwise, the latest trade prices and quoted prices by major markets are used. The fair values of bank debentures are recorded as follows: (a) debentures with no maturity dates - at book values; (b) debentures with floating interest rates - at theoretical prices quoted by the Taipei Exchange; and (c) debentures with fixed interest rates - at estimates reached using the discounted cash flow method. The discount rates used were between 0.5537% and 1.0441%, between 0.6707% and 1.3055% as of December 31, 2019 and 2018, respectively, and were comparable with interest rates for loans with similar terms and characteristics.

Evaluation technique and input of fair value measurement at Level 3

The Bank adopts the market approach for domestic unlisted equity investment, and selects similar industries with the target company. The main business model is similar. The products and scales are close to the comparable listed companies. The fair value estimation is based on the information of the listed company, or the price-book ratio (P/B) of the industry to which the target is evaluated is estimated as the multiplier of the fair value estimate. The significant unobservable input used is discount for lack of marketability. A decrease in discount for lack of marketability used in isolation would result in increases in fair value.

The ranges for the discount for lack of marketability used in the assessment of fair value based on the market approach on December 31, 2019 and 2018 are as follows:

	December 31	
	2019	**2018**
Discount for lack of marketability	10%-30%	10%-30%

With other input values remaining and a change in discount for lack of marketability input value to reflect reasonable assumptions, the amount of fair value of investment in equity instruments will increase (decrease) as follows:

	December 31	
	2019	**2018**
Discount for lack of marketability		
Increase 10%	$ (754,975)	$ (590,841)
Decrease 10%	$ 754,975	$ 590,841

c. The hierarchies of the financial instruments measured at fair value on a recurring basis as of December 31, 2019 and 2018 were as follows:

1) Fair value hierarchy

Financial Instrument Measured at Fair Value	**December 31, 2019**			
	Total	**Level 1**	**Level 2**	**Level 3**
Non-derivative financial instruments				
Assets				
Financial assets at FVTPL				
Held-for-trading financial assets				
Equity instruments	$ 2,034,296	$ 1,791,347	$ -	$ 242,949
Debt instruments	1,950,488	-	1,950,488	-
Others	7,413,795	220,034	7,193,761	-
Financial assets at fair value through other comprehensive income				
Equity instruments	17,158,197	11,873,370	-	5,284,827
Debt instruments	311,970,695	22,969,137	289,001,558	-
Liabilities				
Financial liabilities at FVTPL	(12,052,429)	-	(12,052,429)	-
Derivative financial instruments				
Assets				
Financial assets at FVTPL	1,706,895	32,101	1,674,794	-
Liabilities				
Financial liabilities at FVTPL	(3,968,699)	-	(3,968,699)	-

Financial Instrument Measured at Fair Value	**December 31, 2018**			
	Total	**Level 1**	**Level 2**	**Level 3**
Non-derivative financial instruments				
Assets				
Financial assets at FVTPL				
Held-for-trading financial assets				
Equity instruments	$ 807,279	$ 564,754	$ -	$ 242,525
Debt instruments	2,561,635	1,805,936	755,699	-
Others	4,238,682	-	4,238,682	-
Financial assets at fair value through other comprehensive income				
Equity instruments	10,614,704	6,354,937	-	4,259,767
Debt instruments	246,048,663	5,523,893	240,524,770	-

(Continued)

Financial Instrument Measured at Fair Value	December 31, 2018			
	Total	Level 1	Level 2	Level 3
Liabilities				
Financial liabilities at FVTPL	$ (11,483,955)	$ -	$ (11,483,955)	$ -
Derivative financial instruments				
Assets				
Financial assets at FVTPL	1,883,120	59,339	1,823,781	-
Liabilities				
Financial liabilities at FVTPL	(1,469,266)	-	(1,469,266)	-

(Concluded)

2) Reconciliation for financial assets based on the fair value measurement of Level 3

Financial Assets	Financial assets at FVTPL	Investment in Equity Instruments at FVTOCI	Total
Balance at January 1, 2019	$ 242,525	$ 4,259,767	$ 4,502,292
Recognized in profit or loss (included in gains on financial assets and liabilities at FVTPL)	424	-	424
Recognized in OCI (included in unrealized valuation gain or loss on investment in equity instruments at FVTOCI)	-	1,025,060	1,025,060
Balance at December 31, 2019	$ 242,949	$ 5,284,827	$ 5,527,776
Balance at January 1, 2018	$ -	$ 5,457,888	$ 5,457,888
Recognized in profit or loss (included in gains on financial assets and liabilities at FVTPL)	(7,475)	-	(7,475)
Recognized in OCI (included in unrealized valuation gain or loss on investment in equity instruments at FVTOCI)	-	(784,675)	(784,675)
Purchases	250,000	36,554	286,554
Disposal	-	(450,000)	(450,000)
Balance at December 31, 2018	$ 242,525	$ 4,259,767	$ 4,502,292

The change in unrealized gains or loss for the year ended December 31, 2019 and 2018 included in profit or loss for assets held at December 31, 2019 and 2018 was $424 thousand gains and $7,475 thousand losses, respectively.

d. Information on financial liabilities designated as at fair value through profit or loss is as follows:

	December 31	
	2019	**2018**
Difference between carrying amount and contractual amount at maturity		
Fair value	$ 12,052,429	$ 11,483,955
Amount payable at maturity	11,996,000	12,294,000
	$ 56,429	$ (810,045)

	Change in Fair Values Resulting from Credit Risk Variations
Accumulated amount of change	
As of December 31, 2019	$ 970
As of December 31, 2018	$ 15,666

The change in fair value attributable to change in credit risk was calculated as the difference between the total change in fair value of bank debentures and the change in fair value due to change in market risk factors alone. The change in fair value due to market risk factors was calculated using benchmark interest yield curves as at the end of the reporting period holding. The fair value of bank debentures was estimated by discounting future cash flows using quoted benchmark interest yield curves as at the end of the reporting period and by obtaining lender quotes for borrowing of similar maturity to estimate credit risk margin.

e. Information on financial risk management

1) Risk management

The objective of risk management is to develop a sound risk management mechanism, and on the basis of the risk tolerance level and the expected return level, pursue the maximum value of stockholders' investments. The main risks faced by the Bank include the business credit risk in- and off- balance-sheet, market risks (including interest, exchange, equity security, and commodity risks) and liquidity risk.

The Bank has risk management policies and risk monitoring procedures, which have been reviewed and approved by the Board and are used to effectively identify, measure, monitor and control credit, market, and operating and liquidity risks.

The Board, the highest decision-making unit for the risk management, takes charge of approving the risk management policy and system and building the risk management culture. It also takes ultimate responsibility for overall risk management.

Under the risk management decision approved by the Board, the risk management committee takes charge of and reviews all the Bank's risk management implementation, capital adequacy assessment, and risk exposure management. It also communicates and the inter-departmental risk management issues and coordinates issue handling and continually monitor the execution of risk management procedures.

The risk management department is responsible for planning and designing the risk management system, deliberating capital allocation, setting up the instruments for risk measurement and capital provision, and monitoring risk control. This department also regularly prepares reports for submission to senior management, the risk management committee and the Board.

Under the business management regulation and risk policy, the business supervising unit manages and oversees each business unit toward proper risk management and carries out risk review and control. In addition, the Audit Department evaluates each audit units' risks to determine the audit focus, scope, measurement, procedures and frequency, and establishes the relevance between the assessment result and the audit frequency, which enhance the effectiveness of audit and assist the Bank to improve internal control and business development.

2) Credit risk

a) Credit risk management policy

Credit risk refers to a borrower, a financial instrument issuer or a transaction counterparty undergoing financial difficulty or other adverse situations (such as a dispute between the borrower and its business partner), which could result in loss due to breach of contract. Credit risk can come from on- and off-balance-sheet items. On-balance sheet items are mainly lending, due from bank and call loans to other banks, security investment and derivatives. Off-balance sheet items are mainly guarantees, acceptance, letters of credit and loan commitments.

The risk management policy, which is founded on the basic principles of safety, liquidity, profitability, welfare and growth, is implemented by the credit risk management division toward the cultivation of a risk management culture. All on- and off- balance sheet transactions are should be detailed analyzed in detail to identify existing and potential credit risk. Based on TCB's business characteristics and the principle of risk diversification, risk status is analyzed and evaluated, centralized limits are set, and a risk monitoring and alert mechanism has been developed and operated. For a more effective credit risk evaluation, an internal rating system has been created to enhance the ability to quantify risk.

The Bank's main business items that are measured and managed for credit risks are as follows:

i. Loans business (including loan commitment and guarantees)

Credit assets are classified into five categories. In addition to normal credit assets that are classified as sound assets, the unsound assets are classified, on the basis of the valuation of collaterals and the length of time the payments become overdue, as special mention, substandard, with collectability high doubtful and uncollectable. The Bank also set up policies for the management of doubtful credits and the collection of overdue debts to deal with collection problems.

The Bank apply to its credit business the so-called "5Ps of credit analysis" as the basis for lending approval and evaluation of its counterparties. These 5Ps are: People (know customers' background and their credit status well); purpose (what will the fund be used for); payment (the borrower's ability to repay an obligation when it falls due); protection (The Bank's recourse on repayment defaults); and perspective (how the credit is seen in light of rewards and risks). After a loan is granted, the transaction is reviewed and monitored to ensure The Bank's creditor's rights.

To quantify credit risk, The Bank apply statistical methods using with customers' qualitative data and lending history to develop a rating module for corporate finance and consumer finance. This module is used to create an internal credit rating system for risk evaluation, in which 9 is the base grade of the credit quality of corporate customers, and 9 or 10 on the business segment consumer customers.

The 5P credit analysis and the module rating specifically apply to corporate customers. Micro credits and residential mortgages are assessed by using the credit rating model, and consumer loans are assessed individually for default risks.

ii. Due from and call loans to other banks

The Bank evaluates the credit status of counterparties before closing deals. The Bank grant different limits to the counterparties on the basis of their respective credit ratings as suggested by domestic and foreign credit rating agencies.

iii. Investments in debt instruments and derivatives

The Bank identifies and manages credit risks from debt instruments through the use of external credit ratings of the debt instruments along with the evaluation of credit qualities of bonds, regional conditions and counterparty risks.

The Bank conducts derivative transactions with other banks and sets the credit limits (including lending limits) at their credit rating and the ranking given by the Banker magazine. The credits extended to general customers are monitored in accordance with the related contract terms and conditions and the credit limits for derivatives established through normal credit granting processes.

b) Measurement of expected credit losses

i. The determination of significantly increased credit risk after initial recognition

In order to determine whether the credit risk has increased significantly after initial recognition, The Bank assessed changes in default risks of financial assets over the duration at the balance sheet date. To evaluate changes in default risks, the Bank considered reasonable and verifiable information (including forward-looking information). The major considerations include:

<u>Loans business</u>

i) Quantitative benchmark

Overdue loans: Loans and other credits (including accrued interest) are overdue for at least 30 days less than 90 days.

ii) Qualitative benchmark

- Borrower or its representative suffered from dishonored check due to insufficient funds.
- Borrower or its representative suffered from credit card suspension.
- Owners of credit card has been denied by Taiwan Clearing House (THC).
- Objective evidence shows that the borrower’s ability to fulfill obligation has been affected.

Bonds and bills business

i) Quantitative benchmark

Credit rating of bond issuers are not classified as investment grade and downgraded by over two grades, or classified as CCC.

Credit risks are deemed low, if the credit rating of the issuer was classified as investment grade at the issue date and did not increase significantly after initial recognition.

ii) Qualitative benchmark

Credit rating of bond issuers are not classified as investment grade and downgraded by no more than two grades, but credit risk increase significantly.

ii. Definition of default and credit loss on financial assets

The Bank defines financial asset default in the same manner as financial asset impairment. If one or more of the following conditions occur, the Bank can conclude that the financial asset has defaulted and the credit is impaired:

Loans business

i) Loans and other credits (including accrued interest) are overdue for at least 90 days.

ii) Borrower filed for bankruptcy or reorganization.

iii) Borrower defaulted on other financial instruments.

iv) The lender of the borrower, for economic or contractual reasons relating to the borrower's financial difficulties, has granted the borrower concession that the lender would not otherwise consider.

v) Borrower has been denied by TCH.

Bonds and bills business

i) Interest or principal of Bonds without payment are overdue for at least 90 days.

ii) Borrower has indication of impairment such as overdue receivables, doubtful debts, financial crisis, contract condition change due to financial crisis and bankruptcy or reorganization.

The above definition of default is applicable to financial assets that are held by the Bank, and is in line with the definition of internal-management intention. Therefore, it is applied to related impairment evaluation models.

If the conditions that define default and credit loss of financial assets have been corrected and the financial assets have returned to the original state of compliance, the financial assets are no longer recognized as impaired.

iii. Reversal policy

When the Bank are unable to recover financial assets to expectations, they are entirely or partly written off against the allowance amount. Indicators of uncollectible financial assets are as follows:

i) The debtor's inability to recover all or part of the debts due to dissolution, escape, settlement, bankruptcy or other reasons.

ii) After collaterals assumed and assets of principal and subordinate debtors have been priced low or after deductions for first-order mortgage have been made, the remaining value of the assets is not enough to pay any obligation; also, if execution cost nears or exceeds the debtor's liability, no gain will be realized.

iii) The Bank is not responsible for the collaterals assumed and assets of principal and subordinate debtors experiencing low priced auctions with no bidders.

iv) Overdue loans or collections were made after two years from the settlement date.

v) Overdue credit card loans and overdue receivables were aged over nine months after the settlement date.

Financial assets that have been written off by the Bank may continue activities in progress, while complying with procedures according to relevant policies.

iv. Measurement of expected credit losses

Loans business

In order to assess the expected credit loss, the Bank will categorize credit assets according to credit risk and industry assessments of borrower, as well as credit risk of the types of collateral.

A loss allowance for the 12-month expected credit losses is required for a financial asset if its credit risk has not increased significantly since initial recognition. A loss allowance for full lifetime expected losses is required for a financial asset if its credit risk has increased significantly since initial recognition.

The Bank measures expected credit loss by calculating the product of loss given default and exposure at default, while taking into account the probability of default of a 12-month period and duration, as well as the effect of changes in currency values.

Probability of default refers to a possibility that a borrower would default to the contract (please refer to the introduction to "The definition of default and credit loss on financial assets"). Loss given default refers to the ratio of default loss caused by borrower. Probability of default and loss given default for loan business of TCB and its subsidiary are calculated by the adjustment of historical default rate, which is based on historical internal information (e.g. credit loss experience), current observable information and prospective macroeconomics statistics (e.g. monitoring indicator from National Development Association and unemployment rate from Directorate General of Budget, Accounting and Statistics, Executive Yuan).

The Bank estimates the exposure at default according to the aggregate book value. In addition, the estimations of expected credit loss for the 12-month loan period and duration of loan commitment made by the Bank are based on the credit conversion factor (CCF), using the portion of the loan commitment that is expected to be used within 12 months of reporting date and expected duration to calculate expected credit loss and determine the exposure at default.

There is no significant change in the estimation method and assumptions used to calculate expected credit loss as of December 31, 2019.

Bonds and bills business

A loss allowance for the 12-month expected credit losses is required for a financial asset if its credit risk has not increased significantly since initial recognition. A loss allowance for full lifetime expected losses is required for a financial asset if its credit risk has increased significantly since initial recognition.

The Bank measures expected credit loss by calculating the product of loss given default and exposure at default, while taking into account the probability of default of a 12-month period and duration, as well as the effect of changes in currency values.

There is no significant change in the estimation method and assumptions used to calculate expected credit loss as of December 31, 2019.

v. Forward-looking information considerations

Loans business

The Bank has taken into account previous forward-looking information when assessing asset default probability. The Bank analyze past archives to identify relevant economic factors affecting personal and company asset default probabilities.

According to the Bank's previous forward-looking information, estimations are calculated at the end of the year per year on average. The influence of relevant economic factors and expected credit loss identified by the Bank on December 31, 2018 and 2017 is as follows:

	Probability of Default
Relevant economic factors	Monitoring indicator/unemployment rate

Bonds and bills business

The assessment of the increase/decrease in the credit risk is based on the Bank's amortization costs and other comprehensive income measured by fair value, referring to changes in external credit ratings according to the international credit ratings service (Moody's) as a quantitative indicator. Also, the expected credit loss uses external credit ratings and Moody's periodic calculations of default probability and loss given default as references. As international credit ratings services have taken into account forward-looking information in assessing credit ratings, it is also appropriate for the Bank to consider forward-looking information when assessing relevant expected credit loss.

c) Credit risk avoidance or mitigation policy

i. Strengthen collaterals and other credits

The Bank has a series of measures for credit granting to reduce credit risks. One of the measures is to require collaterals from the borrowers. To secure a debt, the Bank manages and assess the collaterals following the procedures that determine the scope of collateralization and valuation of collaterals and the process of disposition. In credit contracts, the Bank stipulates the security mechanism for debts; the conditions and terms for collaterals; and the terms and conditions of offsetting to state clearly that the Bank reserves the right to reduce the granted quota, to shorten the repayment period, to demand immediate settlement or to offset the debts of the borrowers with their deposits in the Bank in order to reduce the credit risks.

There was no major change in the collateral policy of the Bank on the balance sheet date, and there was no significant change in the overall collateral quality.

The Bank closely monitors the value of collaterals of financial instruments and consider impairment on credit-impaired financial assets. Credit-impaired financial assets and collateral to mitigate potential loss were as follows:

December 31, 2019

	Gross Carrying Amount	Allowance for Possible Losses	Total Exposure Amount (Amortized Cost)	Fair Value of Collateral
Impaired financial assets				
Discount and loans	$ 24,847,797	$ 2,557,302	$ 22,290,495	$ 65,307,192

December 31, 2018

	Gross Carrying Amount	Allowance for Possible Losses	Total Exposure Amount (Amortized Cost)	Fair Value of Collateral
Impaired financial assets				
Discount and loans	$ 19,588,630	$ 1,827,359	$ 17,761,271	$ 56,820,950

The total amount of financial assets that have been written off but have recourse action by the Bank in December 31, 2019 and 2018 were $7,608,546 thousand and $6,892,567 thousand, respectively.

ii. Credit limit and the control of concentration of credit risk

To avoid the concentration of credit risks, the Bank sets up centralized credit limits for business segments, countries, collaterals, groups, and construction financing. Monthly, or more frequently, as needed, the Bank reviews credit limits, monitor the actual risk-exposure condition and whether the usage rate of limits meets relevant regulations and reports the review results to superior management, risk management committee and the Board periodically. If there is a possibility of breach of the credit limits, the related department or division will apply appropriate procedures to ensure that the credit limits are followed.

Concentration of credit risk exists when counterparties to financial transactions are individuals or groups engaged in similar activities or activities in the same region, which would cause their ability to meet contractual obligations to be similarly affected by changes in economic or other conditions. The profile by group or industry, regions and collaterals of obligations that were 10% or more of total outstanding loans is as follows:

	December 31			
Credit Risk Profile by	**2019**		**2018**	
Group or Industry	**Amount**	**%**	**Amount**	**%**
Natural person	$ 873,758,898	40	$ 843,564,027	41
Manufacturing	395,568,638	18	387,603,437	19

iii. Master netting arrangement

The Bank settles most of its transactions at gross amounts. For further reduction of credit risks, settlement netting is used for some counterparties or in some circumstances where the transactions are terminated because of a counterparty's default.

d) Maximum exposures to credit risks

The maximum exposures to credit risks of assets on the consolidated balance sheets without consideration of guarantees or other credit enforcement instruments approximate the assets' carrying amounts.

The maximum exposures of financial instrument to credit risks which was not applicable to impairment is as follow:

	December 31	
	2019	**2018**
Financial assets at fair value through profit or loss - debt instrument	$ 1,950,488	$ 2,561,635

The maximum exposures of off-balance sheet items to credit risks without consideration of guarantees or other credit enforcement instrument are stated as follows:

	December 31, 2019				
	12-month ECL	Lifetime ECL	Lifetime ECL (Credit-impaired Financial Assets)	Difference of Impairment Loss under "Regulations Governing the Procedures for Banking Institutions to Evaluate Assets and Deal with Non-performing/ Non-accrual Loans"	Total
Maximum exposures to credit risk	$ 237,493,576	$ 47,264	$ 313,950	$ -	$ 237,854,790
Allowance for possible losses	(708,936)	(332)	(75,588)	-	(784,856)
Difference of impairment loss under "Regulations Governing the Procedure for Banking Institutions to Evaluate Assets and Deal with Non-performing/ Non-accrual Loans"	-	-	-	(503,693)	(503,693)
	$ 236,784,640	$ 46,932	$ 238,362	$ (503,693)	$ 236,566,241

	December 31, 2018				
	12-month ECL	Lifetime ECL	Lifetime ECL (Credit-impaired Financial Assets)	Difference of Impairment Loss under "Regulations Governing the Procedures for Banking Institutions to Evaluate Assets and Deal with Non-performing/ Non-accrual Loans"	Total
Maximum exposures to credit risk	$ 221,590,438	$ 202,073	$ 131,786	$ -	$ 221,924,297
Allowance for possible losses	(561,386)	(387)	(18,827)	-	(580,600)
Difference of impairment loss under "Regulations Governing the Procedure for Banking Institutions to Evaluate Assets and Deal with Non-performing/ Non-accrual Loans"	-	-	-	(577,117)	(577,117)
	$ 221,029,052	$ 201,686	$ 112,959	$ (577,117)	$ 220,766,580

The Bank's management believes its ability to minimize credit risk exposures on off-balance sheet items is mainly due to its rigorous evaluation of credit extended and the periodic reviews of these credits.

Some financial assets held by the Bank, such as cash and cash equivalents, due from the Central Bank and call loans to other banks, call loans to security firms, financial assets at fair value through profit or loss, securities purchased under resell agreements and refundable deposits, are exposed to low credit risks because the counterparties have high credit ratings.

In addition to the above assets, credit quality analysis of other financial assets are as follows:

a) Credit quality analysis of discounts, loans and receivables

	December 31, 2019				
	Stage 1 12-month ECL	Stage 2 Lifetime ECL	Stage 3 Lifetime ECL	Impairment Recognized under "Regulations Governing the Procedures for Banking Institutions to Evaluate Assets and Deal with Non-performing/ Non-accrual Loans"	Total
Discounts, loans	$ 2,169,813,521	$ 2,524,438	$ 37,638,133	$ -	$ 2,209,976,092
Allowance for possible losses	(4,208,247)	(15,152)	(5,790,070)	-	(10,013,469)
Impairment recognized under "Regulations Governing the Procedures for Banking Institutions to Evaluate Assets and Deal with Non-performing/Non-accrual Loans"	-	-	-	(17,187,696)	(17,187,696)
	$ 2,165,605,274	$ 2,509,286	$ 31,848,063	$ (17,187,696)	$ 2,182,774,927

	December 31, 2018				
	Stage 1 12-month ECL	Stage 2 Lifetime ECL	Stage 3 Lifetime ECL	Impairment Recognized under "Regulations Governing the Procedures for Banking Institutions to Evaluate Assets and Deal with Non-performing/ Non-accrual Loans"	Total
Discounts, loans	$ 2,041,391,244	$ 2,960,372	$ 32,411,101	$ -	$ 2,076,762,717
Allowance for possible losses	(3,618,496)	(9,005)	(4,570,540)	-	(8,198,041)
Impairment recognized under "Regulations Governing the Procedures for Banking Institutions to Evaluate Assets and Deal with Non-performing/Non-accrual Loans"	-	-	-	(18,033,152)	(18,033,152)
	$ 2,037,772,748	$ 2,951,367	$ 27,840,561	$ (18,033,152)	$ 2,050,531,524

	December 31, 2019					
	Stage 1 12-month ECL	Stage 2 Lifetime ECL	Stage 3 Lifetime ECL	Credit Impairment by Using Simplified Method	Impairment Recognized under "Regulations Governing the Procedures for Banking Institutions to Evaluate Assets and Deal with Non-performing/ Non-accrual Loans"	Total
Receivables	$ 15,874,196	$ 48,850	$ 185,004	$ 3,496,136	$ -	$ 19,604,186
Allowance for possible losses	(47,815)	(13,869)	(77,288)	(519,740)	-	(658,712)
Impairment recognized under "Regulations Governing the Procedures for Banking Institutions to Evaluate Assets and Deal with Non-performing/Non-accrual Loans"	-	-	-	-	(149,395)	(149,395)
	$ 15,826,381	$ 34,981	$ 107,716	$ 2,976,396	$ (149,395)	$ 18,796,079

	December 31, 2018					
	Stage 1 12-month ECL	Stage 2 Lifetime ECL	Stage 3 Lifetime ECL	Credit Impairment by Using Simplified Method	Impairment Recognized under "Regulations Governing the Procedures for Banking Institutions to Evaluate Assets and Deal with Non-performing/ Non-accrual Loans"	Total
Receivables	$ 15,673,348	$ 44,951	$ 154,180	$ 3,270,952	$ -	$ 19,143,431
Allowance for possible losses	(46,043)	(11,458)	(36,154)	(514,986)	-	(608,641)
Impairment recognized under "Regulations Governing the Procedures for Banking Institutions to Evaluate Assets and Deal with Non-performing/Non-accrual Loans"	-	-	-	-	(105,414)	(105,414)
	$ 15,627,305	$ 33,493	$ 118,026	$ 2,755,966	$ (105,414)	$ 18,429,376

b) Credit quality analysis of securities

	December 31, 2019			
	Stage 1 12-month ECL	**Stage 2 Lifetime ECL**	**Stage 3 Lifetime ECL**	**Total**
Investments in debt instruments at FVTOCI				
Gross carrying amount	$ 307,551,361	$ -	$ -	$ 307,551,361
Allowance for possible losses	(83,771)	-	-	(83,771)
Amortized cost	307,467,590	-	-	307,467,590
Fair value adjustments	4,503,105	-	-	4,503,105
	$ 311,970,695	$ -	$ -	$ 311,970,695
Investments in debt instruments at amortized cost	$ 554,196,406	$ -	$ -	$ 554,196,406
Allowance for possible losses	(47,801)	-	-	(47,801)
	$ 554,148,605	$ -	$ -	$ 554,148,605

	December 31, 2018			
	Stage 1 12-month ECL	**Stage 2 Lifetime ECL**	**Stage 3 Lifetime ECL**	**Total**
Investments in debt instruments at FVTOCI				
Gross carrying amount	$ 244,566,373	$ -	$ -	$ 244,566,373
Allowance for possible losses	(71,742)	-	-	(71,742)
Amortized cost	244,494,631	-	-	244,494,631
Fair value adjustments	1,554,032	-	-	1,554,032
	$ 246,048,663	$ -	$ -	$ 246,048,663
Investments in debt instruments at amortized cost	$ 554,931,087	$ -	$ -	$ 554,931,087
Allowance for possible losses	(48,280)	-	-	(48,280)
	$ 554,882,807	$ -	$ -	$ 554,882,807

c) The changes in allowance for possible losses of investments in debt instruments at FVTOCI are summarized below:

	12-month ECL	**Lifetime ECL (Collective Assessment)**	**Lifetime ECL (Non-purchased or Non-originated Credit-impaired Financial Assets)**	**Total**
Balance at January 1, 2019	$ 71,742	$ -	$ -	$ 71,742
New financial assets purchased	30,399	-	-	30,399
Derecognition of financial assets in the current reporting period	(12,485)	-	-	(12,485)
Change in model or risk parameters	(7,841)	-	-	(7,841)
Changes in exchange rates and other changes	1,956	-	-	1,956
Balance at December 31, 2019	$ 83,771	$ -	$ -	$ 83,771

	12-month ECL	Lifetime ECL (Collective Assessment)	Lifetime ECL (Non-purchased or Non-originated Credit-impaired Financial Assets)	Total
Balance at January 1, 2018	$ 78,071	$ -	$ -	$ 78,071
New financial assets purchased	22,545	-	-	22,545
Derecognition of financial assets in the current reporting period	(17,651)	-	-	(17,651)
Change in model or risk parameters	(11,892)	-	-	(11,892)
Changes in exchange rates and other changes	669	-	-	669
Balance at December 31, 2018	$ 71,742	$ -	$ -	$ 71,742

d) The changes in allowance for possible losses of investments in debt instruments at amortized cost are summarized below:

	12-month ECL	Lifetime ECL (Collective Assessment)	Lifetime ECL (Non-purchased or Non-originated Credit-impaired Financial Assets)	Total
Balance at January 1, 2019	$ 48,280	$ -	$ -	$ 48,280
New financial assets purchased	10,503	-	-	10,503
Derecognition of financial assets in the current reporting period	(2,252)	-	-	(2,252)
Change in model or risk parameters	(8,571)	-	-	(8,571)
Changes in exchange rates and other changes	(159)	-	-	(159)
Balance at December 31, 2019	$ 47,801	$ -	$ -	$ 47,801

	12-month ECL	Lifetime ECL (Collective Assessment)	Lifetime ECL (Non-purchased or Non-originated Credit-impaired Financial Assets)	Total
Balance at January 1, 2018	$ 41,366	$ -	$ -	$ 41,366
New financial assets purchased	13,184	-	-	13,184
Derecognition of financial assets in the current reporting period	(1,331)	-	-	(1,331)
Change in model or risk parameters	(3,472)	-	-	(3,472)
Changes in exchange rates and other changes	(1,467)	-	-	(1,467)
Balance at December 31, 2018	$ 48,280	$ -	$ -	$ 48,280

3) Market risks

Market risk refers to the risk of losses in positions arising from adverse movements of market prices. It refers to interest rates, exchange rates, equity security prices, commodity prices, etc.

The main market risks that the Bank faces are equity security, interest rates, and exchange rate risks. The market risk position of equity security mainly includes domestic listed and OTC stocks, domestic stock index options and stock market index futures; the position of interest rate mainly includes short-term bills, bonds and interest rate derivative instruments; and the instruments exposed to exchange rate risk mainly include spot contracts and forward contracts and derivatives denominated in foreign currency.

Under the market risk management policies approved by the board of directors, the new Basel Capital Accord and regulations implemented by relevant authorities and in consideration of the Bank's own market risk management system and its overall risk management goals and product features, the Bank has set all types of investment authorization limits and stop-loss rules, regularly reviews the customers' credit status and compiles management information reports to control all types of market risks effectively.

The Bank's market risk management procedures include risk identification, evaluation, and measurement as well as risk monitoring, and reporting. Every units' risk management personnel analyze data on market risk position and evaluate measurement methods, including the statistical basic measurement method, sensitivity analysis, and situational analysis. Monitoring content includes trading processes, collective and individual, of all transaction units and all financial instruments, such as change of position, change of profit and loss, trading pattern, and if trading objects are transacted within the authorized scope and limits.

The Banks's business units and risk management unit have established market risk factors for identifying risk exposure positions and use these factors to measure market risks. The market risk factors refer to the components of financial instruments' position, such as profit and loss and sensitivity to risk, which might be affected by interest rates, exchange rates and equity security market prices.

The Bank's risk management unit reports to management periodically the execution status of measures on market risk management, investment positions, and profit and loss control so that management can fully understand the status of market risk management. The Bank also has cleared reporting procedures and rules for all types of transaction limits and the stop-loss order. If any transaction amount reaches the limit, the stop-loss order is executed immediately; if the stop-loss order is not executed, the transaction unit is required to explain the reasons for non-execution and prepare a response plan for management's approval.

The Bank applies market risk sensitivity as a risk control instrument. Market risk sensitivity position refers to the change in the value of a position due to a change in a certain market risk factor. Market risk factors include interest rates, exchange rates, and equity security prices. The Bank's position sensitivity exposure trading book contains all types of positions exposed to market risk and the range of change to which sensitivity analysis applied under various pressure scenarios for all types of risk factors.

Assuming all other factors are held constant, the effects of risks within defined change scenarios are shown below:

Main Risk	Change Scenario	December 31, 2019	December 31, 2018
Interest rate risk	Interest rate curve increased 100 basis points	$ (115,606)	$ (72,019)
	Interest rate curve fell 100 basis points	124,047	78,211
Exchange rate risk	US$/NT$, EUR/NT$ increased 3%	(206,532)	(319,033)
	US$/NT$, EUR/NT$ fell 3%	206,532	319,033
	Others (RMB, AUD etc.)/NT$ increased 5%	90,152	16,140
	Others (RMB, AUD etc.)/NT$ fell 5%	(90,152)	(16,140)
Equity security price risk	Equity security price increased by 15%	414,782	66,851
	Equity security price fell by 15%	(414,782)	(66,751)

Average amount and average interest rate of interest-earning assets and interest-bearing liabilities are as follows:

Average balance is calculated by the daily average balances of interest-earning assets and interest-bearing liabilities.

	December 31			
	2019		2018	
	Average Balance	Average Rate (%)	Average Balance	Average Rate (%)
Interest-earning assets				
Due from banks and other financial assets - due from banks	$ 33,228,721	2.52	$ 37,825,166	2.60
Due from the Central Bank	172,633,074	0.36	167,184,471	0.36
Call loans to banks and other financial assets - call loans to security firms	60,101,441	1.88	65,671,062	2.02
Financial assets mandatorily classified as at fair value through profit or loss	23,410,758	0.65	7,260,659	0.71
Financial assets at fair value through other comprehensive income	271,636,940	1.87	235,733,976	1.97
Investments in debt instruments at amortized cost	555,646,351	0.87	520,374,185	0.85
Securities purchased under resell agreements	882,602	0.59	86,695	0.47
Discounts and loans	2,141,341,765	2.12	2,073,393,711	2.06
Interest-bearing liabilities				
Due to the Central Bank and other banks	239,979,719	1.30	237,763,051	1.09
Financial liabilities designated as at fair value through profit or loss	12,343,611	4.88	12,068,071	4.69
Securities sold under repurchase agreements	8,050,509	0.39	10,130,301	0.27
Demand deposits	530,238,278	0.19	509,712,425	0.16
Savings - demand deposits	883,277,268	0.27	832,136,846	0.28
Time deposits	596,532,364	1.57	536,322,601	1.39
Time savings deposits	627,533,489	1.05	636,379,825	1.05
Treasury deposits	101,408,583	0.64	91,156,594	0.64
Negotiable certificates of deposits	48,437,496	0.72	36,917,476	0.62
Structured products	2,141,601	1.77	1,745,888	2.25
Bank debentures	57,676,712	1.52	57,090,685	1.40
Lease liabilities	1,543,281	2.78	-	-

The exchange rate risk is as follows:

December 31, 2019

(In Thousands)

	Foreign Currencies	Exchange Rate	Carrying Amount
Financial assets			
USD	$ 12,811,785	29.9900	$ 384,225,433
RMB	14,753,075	4.2950	63,364,456
AUD	1,612,742	21.0150	33,891,780
EUR	331,588	33.6400	11,154,617
HKD	2,492,068	3.8510	9,596,956
JPY	27,449,454	0.2761	7,578,794
ZAR	3,041,509	2.1200	6,448,000
GBP	86,134	39.3800	3,391,939
KHR	443,050,700	0.0074	3,268,385
NZD	21,938	20.2000	443,153
CAD	19,021	22.9800	437,105
CHF	5,531	30.9750	171,335
SEK	9,713	3.2200	31,275
SGD	1,069	22.2600	23,805
THB	13,441	1.0081	13,550
PHP	3,008	0.5916	1,780
Investment accounted for using equity method			
EUR	58,968	33.6400	1,983,670
Financial liabilities			
USD	14,181,340	29.9900	425,298,400
RMB	12,729,607	4.2950	54,673,664
AUD	1,362,872	21.0150	28,640,753
JPY	44,759,017	0.2761	12,357,965
EUR	259,874	33.6400	8,742,159
ZAR	4,051,609	2.1200	8,589,410
HKD	1,832,481	3.8510	7,056,885
NZD	124,919	20.2000	2,523,363
KHR	327,120,295	0.0074	2,413,166
GBP	59,138	39.3800	2,328,838
CAD	55,744	22.9800	1,280,990
SGD	16,594	22.2600	369,393
CHF	5,138	30.9750	159,159
SEK	37,830	3.2200	121,813
THB	9,916	1.0081	9,997
PHP	7,805	0.5916	4,618
MYR	-	7.3280	2

December 31, 2018

(In Thousands)

	Foreign Currencies	Exchange Rate	Carrying Amount
Financial assets			
USD	$ 10,871,696	30.7350	$ 334,141,582
RMB	13,363,480	4.4690	59,721,393
AUD	1,185,705	21.6550	25,676,436
EUR	280,392	35.1800	9,864,198
JPY	31,781,201	0.2774	8,816,105
HKD	1,899,701	3.9230	7,452,528
ZAR	1,782,296	2.1200	3,778,468
GBP	66,870	38.9000	2,601,239
KHR	199,256,927	0.0076	1,514,353
NZD	26,147	20.6300	539,418
SEK	45,460	3.4200	155,474
CAD	2,249	22.5800	50,791
SGD	1,801	22.4400	40,406
CHF	1,254	31.1650	39,070
THB	5,987	0.9525	5,702
PHP	2,846	0.5849	1,665
Investment accounted for using equity method			
EUR	56,554	35.1800	1,989,572
Financial liabilities			
USD	11,117,876	30.7350	341,707,917
RMB	14,057,062	4.4690	62,821,011
AUD	981,068	21.6550	21,245,032
JPY	50,111,918	0.2774	13,901,046
ZAR	3,549,060	2.1200	7,524,006
EUR	199,596	35.1800	7,021,777
HKD	1,209,520	3.9230	4,744,948
NZD	122,131	20.6300	2,519,567
GBP	44,302	38.9000	1,723,331
CAD	63,674	22.5800	1,437,760
CHF	14,478	31.1650	451,213
SEK	92,327	3.4200	315,759
SGD	8,508	22.4400	190,918
THB	11,604	0.9525	11,052
KHR	714,996	0.0076	5,434
PHP	1,993	0.5849	1,166
MYR	-	7.3930	2

4) Liquidity risk

Liquidity risk is inherent in all bank operations and might be affected by specific or general industry and environmental events. These events include credit-related events, mergers or acquisitions, systemic changes and natural disasters. The Bank defines liquidity risk as the inability to realize assets or to obtain financing for meeting obligations when they fall due, resulting in loss.

The liquidity risk management strategy is based on the overall risk management objectives and involves liquidity risk, identification, measurement, monitoring and control to maintain the Bank's appropriate liquidity and ensure adequate funding for meeting liability obligations or for capital growth.

The liquidity risk management procedures involve identification, measurement, monitoring and report of risk. Each business unit should identify the existing liquidity risk in business activities and financial products.

For adequate liquidity for all types of deposits, the Bank follows the relevant regulations issued by the Central Bank to estimate the liquidity reserves and calculates and controls daily the liquidity reserve ratios.

For the Bank's operating liquidity, the fund disbursement unit performs daily cash flow management and monitoring of the payments schedule on the basis of detailed reports by different departments and relevant rules.

The risk management department regularly generates risk reports, which include the liquidity reserve ratios and the maturity analysis of instruments and transactions denominated in major foreign currencies, and submits them to the Asset and Liability Management Committee and the Board as reference for decision making.

The Bank stipulates liquidity risk limits, which are regularly monitored and reviewed by the risk management department. If a liquidity risk limit is exceeded or other exception situations occur, the business supervising unit immediately develops appropriate contingency measures and submits them to the Asset and Liability Management Committee for approval and implementation.

The Bank's contingency measures for business emergency or sudden liquidity crisis are aimed at quick crisis resolution and resumption of normal operations.

The Bank's liquidity reserve ratios were 28.00% and 27.17% in December 2019 and 2018, respectively.

The Bank disclosed the analysis of cash outflows on non-derivative financial liabilities by their residual maturities as of the balance sheet dates. The amounts of cash outflows are based on contractual cash flows, so some amounts may not correspond to those shown in the balance sheets.

December 31, 2019	0-30 Days	31-90 Days	91-180 Days	181 Days-1 Year	Over 1 Year	Total
Due to the Central Bank and other banks	$ 157,478,898	$ 68,038,024	$ 4,517,307	$ -	$ -	$ 230,034,229
Financial liabilities at fair value through profit or loss	-	-	-	-	11,996,000	11,996,000
Securities sold under repurchase agreements	3,093,552	3,495,094	1,241,171	147,092	-	7,976,909
Payables	24,606,405	2,325,459	6,146,306	1,669,256	2,649,139	37,396,565
Deposits and remittances	284,965,432	437,817,622	399,969,304	628,049,389	1,147,601,128	2,898,402,875
Bank debentures	-	7,500,000	-	900,000	56,600,000	65,000,000
Lease liabilities	63,727	161,313	130,751	240,530	1,266,028	1,862,349
Other items of cash outflow on maturity	3,291,351	335	414	817,139	28,260	4,137,499

December 31, 2018	0-30 Days	31-90 Days	91-180 Days	181 Days-1 Year	Over 1 Year	Total
Due to the Central Bank and other banks	$ 150,977,448	$ 51,880,753	$ 8,621,392	$ -	$ -	$ 211,479,593
Financial liabilities at fair value through profit or loss	-	-	-	-	12,294,000	12,294,000
Securities sold under repurchase agreements	5,173,426	2,719,554	1,584,396	124,765	-	9,602,141
Payables	31,403,675	2,473,878	5,394,582	2,437,105	1,709,136	43,418,376
Deposits and remittances	258,457,868	420,886,917	371,953,267	602,213,191	1,075,096,880	2,728,608,123
Bank debentures	-	-	-	1,000,000	54,000,000	55,000,000
Other items of cash outflow on maturity	2,264,251	19,562	1,670	861,149	20,342	3,166,974

In the above table, the maturity analysis of deposits and remittances by residual-maturity period was based on the Bank's historical experience. Assuming that all demand deposits as of December 31, 2019 and 2018 must be repaid soon, the capital expenditure will be increased by $1,501,221,386 thousand and $1,409,026,262 thousand, respectively, within 30 days these balance sheet dates.

The Bank assesses the maturity dates of contracts to understand the basic elements of all derivative financial instruments shown in the balance sheets. The amounts used in the maturity analyses of derivative financial liabilities are based on contractual cash flows, so some of these amounts may not correspond to the amounts shown in the balance sheets. The maturity analysis of derivative financial liabilities is as follows:

a) Derivative financial liabilities to be settled at net amounts

December 31, 2019	0-30 Days	31-90 Days	91-180 Days	181 Days-1 Year	Over 1 Year	Total
Derivative financial liabilities at fair value through profit or loss						
Currency	$ 652	$ 257	$ 1,372	$ 126	$ -	$ 2,407
Interest	(918)	(286)	(693)	(2,063)	(8,385)	(12,345)

December 31, 2018	0-30 Days	31-90 Days	91-180 Days	181 Days-1 Year	Over 1 Year	Total
Derivative financial liabilities at fair value through profit or loss						
Interest	$ (317)	$ (209)	$ (1,062)	$ (2,324)	$ (2,759)	$ (6,671)

b) Derivative financial liabilities to be settled at gross amounts

December 31, 2019	0-30 Days	31-90 Days	91-180 Days	181 Days-1 Year	Over 1 Year	Total
Derivative financial liabilities at fair value through profit or loss						
Currency derivatives						
Cash outflow	$ 56,546,734	$ 85,479,384	$ 48,034,112	$ 20,257,084	$ 2,766	$ 210,320,080
Cash inflow	57,580,384	87,179,724	48,798,928	20,610,274	2,766	214,172,076
Total cash outflow	56,546,734	85,479,384	48,034,112	20,257,084	2,766	210,320,080
Total cash inflow	57,580,384	87,179,724	48,798,928	20,610,274	2,766	214,172,076
Net cash flow	1,033,650	1,700,340	764,816	353,190	-	3,851,996

December 31, 2018	0-30 Days	31-90 Days	91-180 Days	181 Days-1 Year	Over 1 Year	Total
Derivative financial liabilities at fair value through profit or loss						
Currency derivatives						
Cash outflow	$ 73,424,124	$ 57,472,834	$ 48,578,031	$ 13,840,882	$ 907,428	$ 194,223,299
Cash inflow	73,721,292	57,705,688	48,779,153	13,901,740	960,294	195,068,167
Interest derivatives						
Cash outflow	-	-	726,620	244,294	20,988,364	21,959,278
Cash inflow	-	-	749,467	438,134	27,631,514	28,819,115
Total cash outflow	73,424,124	57,472,834	49,304,651	14,085,176	21,895,792	216,182,577
Total cash inflow	73,721,292	57,705,688	49,528,620	14,339,874	28,591,808	223,887,282
Net cash flow	297,168	232,854	223,969	254,698	6,696,016	7,704,705

The Bank conducted maturity analysis of off-balance sheet items based on the residual maturities as of the balance sheet dates. For the financial guarantee contracts issued, the maximum amounts of the guarantees are included in the earliest periods that the guarantee obligation might have been required to be fulfilled. The amounts used in the maturity analysis of off-balance sheet items are based on contractual cash flows, so some of these amounts may not correspond to those shown in the balance sheets.

December 31, 2019	0-30 Days	31-90 Days	91-180 Days	181 Days-1 Year	Over 1 Year	Total
Irrevocable loan commitments issued	$ 1,301,497	$ 2,813,539	$ 4,859,722	$ 11,768,715	$ 45,500,087	$ 66,243,560
Irrevocable credit card commitments	575,983	119,930	633,351	793,970	49,817,155	51,940,389
Letters of credit issued yet unused	3,831,647	11,174,034	2,361,938	1,834,072	236,358	19,438,049
Other guarantees	3,594,030	7,152,648	5,338,986	11,824,810	72,322,318	100,232,792

December 31, 2018	0-30 Days	31-90 Days	91-180 Days	181 Days-1 Year	Over 1 Year	Total
Irrevocable loan commitments issued	$ 1,561,477	$ 3,408,721	$ 7,688,341	$ 12,998,339	$ 41,563,349	$ 67,220,227
Irrevocable credit card commitments	592,453	78,113	878,661	2,455,939	44,517,768	48,522,934
Letters of credit issued yet unused	4,534,271	11,233,039	2,345,089	495,742	946,302	19,554,443
Other guarantees	6,245,643	3,563,123	5,816,588	6,304,614	64,696,725	86,626,693

f. Transfers of financial assets

Under the Bank operations, most of derecognized financial assets are securities sold under repurchase agreements, and the contractual cash flows have been transferred to others. The Bank has the responsibility to repurchase transferred financial assets at fixed prices, and cannot use, sell and pledge transferred financial assets. However, the Bank is still in the risk exposure of interest rate and credit, so the transferred financial assets cannot be removed entirely. The information on derecognized financial assets and liabilities is as follows:

December 31, 2019					
Financial Assets	Carrying Amount of Transferred Financial Assets	Carrying Amount of Related Financial Liabilities	Fair Value of Transferred Financial Assets	Fair Value of Related Financial Liabilities	Net Position of Fair Value
Financial assets at FVTPL - securities sold under repurchase agreements	$ 1,510,692	$ 1,510,824	$ 1,510,692	$ 1,510,824	$ (132)
Financial assets at FVTOCI - securities sold under repurchase agreements	6,175,295	6,466,085	6,175,295	6,466,085	(290,790)

December 31, 2018					
Financial Assets	**Carrying Amount of Transferred Financial Assets**	**Carrying Amount of Related Financial Liabilities**	**Fair Value of Transferred Financial Assets**	**Fair Value of Related Financial Liabilities**	**Net Position of Fair Value**
Financial assets at FVTPL - securities sold under repurchase agreements	$ 1,538,793	$ 1,538,773	$ 1,538,793	$ 1,538,773	$ 20
Financial assets at FVTOCI - securities sold under repurchase agreements	7,681,381	8,063,368	7,681,381	8,063,368	(381,987)

g. Offsetting financial assets and financial liabilities

The Bank is eligible to present in the balance sheet on a net basis certain derivative assets and derivative liabilities pertaining to transactions with counterparties under enforceable master netting arrangements or similar agreements and there is an intention either to make settlements on a net basis or to realize the asset and settle the liability simultaneously. A master netting agreement provides for a single net settlement of all financial instruments covered by the agreement if the counterparty defaults on any contract. Parties may also settle transactions at gross amounts if a single settlement results in cash flows being equivalent to a single net amount.

The tables below present the quantitative information on financial assets and financial liabilities that have been offset in the balance sheets or that are covered by enforceable master netting arrangements or similar agreements.

December 31, 2019

Financial Liabilities	**Gross Amounts of Recognized Financial Liabilities**	**Gross Amounts of Recognized Financial Assets Offset in the Balance Sheet**	**Net Amounts of Financial Liabilities Presented in the Balance Sheet**	**Related Amounts Not Offset in the Balance Sheet**		**Net Amount**
				Financial Instruments	**Cash Collateral Pledged**	
Repurchase agreements	$ 7,976,909	$ -	$ 7,976,909	$ (7,685,987)	$ -	$ 290,922

December 31, 2018

Financial Assets	**Gross Amounts of Recognized Financial Assets**	**Gross Amounts of Recognized Financial Liabilities Offset in the Balance Sheet**	**Net Amounts of Financial Assets Presented in the Balance Sheet**	**Related Amounts Not Offset in the Balance Sheet**		**Net Amount**
				Financial Instruments	**Cash Collateral Received**	
Resell agreements	$ 3,521,000	$ -	$ 3,521,000	$ (3,521,000)	$ -	$ -

Financial Liabilities	**Gross Amounts of Recognized Financial Liabilities**	**Gross Amounts of Recognized Financial Assets Offset in the Balance Sheet**	**Net Amounts of Financial Liabilities Presented in the Balance Sheet**	**Related Amounts Not Offset in the Balance Sheet**		**Net Amount**
				Financial Instruments	**Cash Collateral Pledged**	
Repurchase agreements	$ 9,602,141	$ -	$ 9,602,141	$ (9,220,174)	$ -	$ 381,967

40. CAPITAL MANAGEMENT

In according to the authority's regulation for principles of capital adequacy management, the Bank lists all the risks into the capital adequacy evaluation scope. In accordance with the operation plans and budget targets, which approved by the board of directors, also considering the Bank's development strategy, capital adequacy, liabilities ratios, and dividend policy, the Bank proposes capital adequacy evaluation plan, which include stress testing, estimation for each season's capital adequacy ratio, etc. to ensure the capital adequacy ratio can be reached and capital structure is sound.

To monitor capital adequacy, the risk management department regularly reports capital adequacy ratios every month and also quarterly reviews the execution status of and actual operation data variation on the Bank's capital adequacy evaluation plan. When the actual capital adequacy ratio might go lower than target, the Bank immediately reviews the causes, prepares a report and proposes a response strategy to maintain the appropriate capital adequacy levels.

The Banking Law and related regulations require that the Bank maintain the minimum requirement for unconsolidated and consolidated capital adequacy ratios (CAR), including the common equity Tier 1 ratio, Tier 1 capital ratio, and total capital adequacy ratio.

Information on the Bank's CAR is as follows:

(In Thousands of New Taiwan Dollars, %)

Items \ Year			December 31, 2019	
			Standalone	**Consolidated**
Eligible capital	Common equity		207,137,752	207,708,378
	Other Tier 1 capital		12,649,848	13,145,766
	Tier 2 capital		47,606,520	48,633,541
	Eligible capital		267,394,120	269,487,685
Risk-weighted assets	Credit risk	Standardized approach	1,867,445,189	1,870,260,070
		Internal ratings based approach	-	-
		Securitization	4,596,941	4,596,941
	Operational risk	Basic indicator approach	-	-
		Standardized approach/alternative standardized approach	76,432,794	76,647,358
		Advanced measurement approach	-	-
	Market risk	Standardized approach	20,982,800	20,997,238
		Internal model approach	-	-
	Risk-weighted assets		1,969,457,724	1,972,501,607
Capital adequacy ratio			13.58	13.66
Ratio of the common equity to risk-weighted assets			10.52	10.53
Ratio of Tier 1 capital to risk-weighted assets			11.16	11.20
Ratio of leverage			5.95	5.97

Items			Year	December 31, 2018	
				Standalone	Consolidated
Eligible capital	Common equity			194,470,387	195,037,708
	Other Tier 1 capital			3,140,831	3,638,224
	Tier 2 capital			52,362,415	53,392,127
	Eligible capital			249,973,633	252,068,059
Risk-weighted assets	Credit risk	Standardized approach		1,744,538,363	1,747,332,385
		Internal ratings based approach		-	-
		Securitization		5,234,468	5,234,468
	Operational risk	Basic indicator approach		-	-
		Standardized approach/alternative standardized approach		72,451,460	72,588,477
		Advanced measurement approach		-	-
	Market risk	Standardized approach		17,827,638	17,834,038
		Internal model approach		-	-
	Risk-weighted assets			1,840,051,929	1,842,989,368
Capital adequacy ratio				13.59	13.68
Ratio of the common equity to risk-weighted assets				10.57	10.58
Ratio of Tier 1 capital to risk-weighted assets				10.74	10.78
Ratio of leverage				5.71	5.73

Note 1: Eligible capital and risk-weighted assets are calculated under the "Regulations Governing the Capital Adequacy Ratio of Banks" and the "Explanation of Methods for Calculating the Eligible Capital and Risk-Weighted Assets of Banks."

Note 2: Formulas used were as follows:

1) Eligible capital = The common equity + Other Tier 1 capital + Tier 2 capital.

2) Risk-weighted assets = Risk-weighted asset for credit risk + Capital requirements for operational risk and market risk x 12.5.

3) Capital adequacy ratio = Eligible capital ÷ Risk-weighted assets.

4) Ratio of the common equity to risk-weighted assets = The common equity ÷ Risk-weighted assets.

5) Ratio of Tier 1 capital to risk-weighted assets = (The common equity + Other Tier 1 capital) ÷ Risk-weighted assets.

6) Ratio of leverage = Tier 1 capital ÷ Exposure measurement.

41. ASSET QUALITY, CONCENTRATION OF CREDIT EXTENSIONS, INTEREST RATE SENSITIVITY, PROFITABILITY AND MATURITY ANALYSIS OF ASSETS AND LIABILITIES

a. Asset quality: Table 1 (attached).

b. Concentration of credit extensions

(In Thousands of New Taiwan Dollars, %)

Rank (Note 1)	December 31, 2019			December 31, 2018		
	Industry of Group Enterprise (Note 2)	Total Amount of Credit Endorsement or Other Transactions (Note 3)	Percentage of Bank's Equity	Industry of Group Enterprise (Note 2)	Total Amount of Credit Endorsement or Other Transactions (Note 3)	Percentage of Bank's Equity
1	Group A Railway transportation	$ 40,485,293	17.83	Group A Railway transportation	$ 40,485,293	19.30
2	Group B Real estate development	15,490,169	6.82	Group C Harbor services	16,327,744	7.78
3	Group C Harbor services	14,706,544	6.48	Group I Petroleum and coal products manufacturing	14,983,456	7.14
4	Group D Computers and computing peripheral equipment manufacturing	12,971,615	5.71	Group D Computers and computing peripheral equipment manufacturing	12,069,134	5.75
5	Group E Iron and steel smelting	10,462,949	4.61	Group G Cotton and textile	11,403,628	5.44
6	Group F Shipping agency	10,211,396	4.50	Group B Real estate development	11,107,510	5.30
7	Group G Cotton and textile	10,114,951	4.46	Group F Shipping agency	9,956,059	4.75
8	Group H Real estate development	10,067,584	4.43	Group K Computers manufacturing	9,538,253	4.55
9	Group I Petroleum and coal products manufacturing	9,663,511	4.26	Group E Iron and steel smelting	8,891,512	4.24
10	Group J Financial leasing	7,848,501	3.46	Group H Real estate development	8,208,265	3.91

Note 1: The list shows rankings by total amount of credit, endorsement or other transactions but excludes government-owned or state-run enterprises. If the borrower is a member of a group enterprise, the total amount of credit, endorsement or other transactions of the entire group enterprise must be listed and disclosed by code and line of industry. The industry of the group enterprise should be presented as the industry of the member firm with the highest risk exposure. The lines of industry should be described in accordance with the Standard Industrial Classification System of the Republic of China published by the Directorate-General of Budget, Accounting and Statistics under the Executive Yuan.

Note 2: Group enterprise refers to a group of corporate entities as defined by Article 6 of "Supplementary Provisions to the Taiwan Stock Exchange Corporation Rules for Review of Securities Listings."

Note 3: Total amount of credit, endorsement or other transactions is the sum of various loans (including import and export negotiations, discounts, overdrafts, unsecured and secured short-term loans, margin loans receivable, unsecured and secured medium-term loans, unsecured and secured long-term loans and overdue loans), exchange bills negotiated, accounts receivable factored without recourse, acceptances and guarantees.

c. Interest rate sensitivity information

Interest Rate Sensitivity
December 31, 2019

(In Thousands of New Taiwan Dollars, %)

Items	1 to 90 Days	91 to 180 Days	181 Days to One Year	Over One Year	Total
Interest rate-sensitive assets	$ 2,319,216,214	$ 120,148,166	$ 18,594,035	$ 347,294,457	$ 2,805,252,872
Interest rate-sensitive liabilities	963,313,881	1,410,859,166	107,342,702	57,129,715	2,538,645,464
Interest rate sensitivity gap	1,355,902,333	(1,290,711,000)	(88,748,667)	290,164,742	266,607,408
Net worth					202,794,508
Ratio of interest rate-sensitive assets to liabilities					110.50
Ratio of interest rate sensitivity gap to net worth					131.47

Interest Rate Sensitivity
December 31, 2018

(In Thousands of New Taiwan Dollars, %)

Items	1 to 90 Days	91 to 180 Days	181 Days to One Year	Over One Year	Total
Interest rate-sensitive assets	$ 2,234,040,644	$ 99,477,577	$ 17,281,989	$ 282,450,708	$ 2,633,250,918
Interest rate-sensitive liabilities	927,589,418	1,338,861,650	108,225,728	49,652,666	2,424,329,462
Interest rate sensitivity gap	1,306,451,226	(1,239,384,073)	(90,943,739)	232,798,042	208,921,456
Net worth					188,701,358
Ratio of interest rate-sensitive assets to liabilities					108.62
Ratio of interest rate sensitivity gap to net worth					110.72

Note 1: The above amounts included only New Taiwan dollar amounts held by the head office and branches of the Bank (i.e., excluding foreign currency).

Note 2: Interest rate-sensitive assets and liabilities refer to interest-earning assets and interest-bearing liabilities with revenues or costs that are affected by interest rate changes.

Note 3: Interest rate sensitivity gap = Interest rate-sensitive assets - Interest rate-sensitive liabilities.

Note 4: Ratio of interest rate-sensitive assets to liabilities = Interest rate-sensitive assets/Interest rate-sensitive liabilities (in New Taiwan dollars).

Interest Rate Sensitivity
December 31, 2019

(In Thousands of U.S. Dollars, %)

Items	1 to 90 Days	91 to 180 Days	181 Days to One Year	Over One Year	Total
Interest rate-sensitive assets	$ 14,052,462	$ 741,777	$ 171,555	$ 1,704,354	$ 16,670,148
Interest rate-sensitive liabilities	15,943,251	1,963,448	1,062,056	-	18,968,755
Interest rate sensitivity gap	(1,890,789)	(1,221,671)	(890,501)	1,704,354	(2,298,607)
Net worth					808,112
Ratio of interest rate-sensitive assets to liabilities					87.88
Ratio of interest rate sensitivity gap to net worth					(284.44)

Interest Rate Sensitivity
December 31, 2018

(In Thousands of U.S. Dollars, %)

Items	1 to 90 Days	91 to 180 Days	181 Days to One Year	Over One Year	Total
Interest rate-sensitive assets	$ 12,740,523	$ 455,543	$ 189,696	$ 1,530,735	$ 14,916,497
Interest rate-sensitive liabilities	14,198,638	1,019,242	766,580	-	15,984,460
Interest rate sensitivity gap	(1,458,115)	(563,699)	(576,884)	1,530,735	(1,067,963)
Net worth					684,330
Ratio of interest rate-sensitive assets to liabilities					93.32
Ratio of interest rate sensitivity gap to net worth					(156.06)

Note 1: The above amounts included only U.S. dollar amounts held by the head office, domestic branches, OBU and overseas branches of the Bank and excluded contingent assets and contingent liabilities.

Note 2: Interest rate-sensitive assets and liabilities refer to interest-earning assets and interest-bearing liabilities with revenues or costs that are affected by interest rate changes.

Note 3: Interest rate sensitivity gap = Interest rate-sensitive assets - Interest rate-sensitive liabilities.

Note 4: Ratio of interest rate-sensitive assets to liabilities = Interest rate-sensitive assets/Interest rate-sensitive liabilities (in U.S. dollars).

d. Profitability

Unit: %

Items		December 31, 2019	December 31, 2018
Return on total assets	Before income tax	0.56	0.52
	After income tax	0.47	0.46
Return on equity	Before income tax	8.66	8.27
	After income tax	7.32	7.20
Net income ratio		34.36	33.30

Note 1: Return on total assets = Income before (after) income tax/Average total assets

Note 2: Return on equity = Income before (after) income tax/Average equity

Note 3: Net income ratio = Income after income tax/Total net revenues

e. Maturity analysis of assets and liabilities

Maturity Analysis of Assets and Liabilities
December 31, 2019

(In Thousands of New Taiwan Dollars)

	Total	Remaining Period to Maturity					
		0 to 10 Days	11 to 30 Days	31 to 90 Days	91 to 180 Days	181 Days to One Year	Over One Year
Main capital inflow on maturity	$ 3,158,863,899	$ 423,278,474	$ 301,756,205	$ 149,315,327	$ 276,810,446	$ 308,243,608	$ 1,699,459,839
Main capital outflow on maturity	3,696,343,478	203,697,242	174,803,056	517,144,926	418,392,403	674,087,757	1,708,218,094
Gap	(537,479,579)	219,581,232	126,953,149	(367,829,599)	(141,581,957)	(365,844,149)	(8,758,255)

Maturity Analysis of Assets and Liabilities
December 31, 2018

(In Thousands of New Taiwan Dollars)

	Total	Remaining Period to Maturity					
		0 to 10 Days	11 to 30 Days	31 to 90 Days	91 to 180 Days	181 Days to One Year	Over One Year
Main capital inflow on maturity	$ 3,082,215,120	$ 436,034,109	$ 367,537,346	$ 173,545,077	$ 262,960,766	$ 285,566,636	$ 1,556,571,186
Main capital outflow on maturity	3,556,701,553	234,259,197	172,973,297	470,507,744	417,718,511	653,383,898	1,607,858,906
Gap	(474,486,433)	201,774,912	194,564,049	(296,962,667)	(154,757,745)	(367,817,262)	(51,287,720)

Note: The above amounts included only New Taiwan dollar amounts held by the Bank.

Maturity Analysis of Assets and Liabilities
December 31, 2019

(In Thousands of U.S. Dollars)

	Total	Remaining Period to Maturity				
		0 to 30 Days	31 to 90 Days	91 to 180 Days	181 Days to One Year	Over One Year
Main capital inflow on maturity	$ 24,923,601	$ 8,223,719	$ 4,671,016	$ 2,488,935	$ 1,507,227	$ 8,032,704
Main capital outflow on maturity	29,293,208	12,960,116	5,168,261	3,618,565	4,010,662	3,535,604
Gap	(4,369,607)	(4,736,397)	(497,245)	(1,129,630)	(2,503,435)	4,497,100

Maturity Analysis of Assets and Liabilities
December 31, 2018

(In Thousands of U.S. Dollars)

	Total	Remaining Period to Maturity				
		0 to 30 Days	31 to 90 Days	91 to 180 Days	181 Days to One Year	Over One Year
Main capital inflow on maturity	$ 24,362,709	$ 7,741,135	$ 5,073,454	$ 2,570,755	$ 1,700,446	$ 7,276,919
Main capital outflow on maturity	28,430,760	11,966,865	7,133,317	2,734,534	3,387,928	3,208,116
Gap	(4,068,051)	(4,225,730)	(2,059,863)	(163,779)	(1,687,482)	4,068,803

Note: The above amounts included only U.S. dollar amounts held by the Bank.

42. TAIWAN COOPERATIVE BANK, LTD.'S TRUST BUSINESS UNDER THE TRUST LAW

a. Trust-related items are those shown in the following balance sheets, statements of income and trust property list

These items were managed by the Bank's Trust Department. However, these items were not included in the financial statements.

Balance Sheets of Trust Accounts
December 31, 2019 and 2018

Trust Assets	2019	2018	Trust Liabilities	2019	2018
Cash in banks	$ 7,021,670	$ 5,038,852	Payables		
Short-term investments			Accrued expense	$ 643	$ 2,661
Mutual funds	169,141,039	168,601,296	Others	9	2,294
Stocks	1,325,432	1,045,199	Mutual funds payable	-	200
Bonds	5,066,402	3,976,219		652	5,155
Structured products	107,364	165,591	Accounts payable on		
	175,640,237	173,788,305	securities under custody	171,703,651	115,683,741
Securities lending	104,114	278,417	Trust capital		
Receivables	4,709	5,669	Cash	180,266,162	176,013,465
Real estate			Real estate	83,731,346	73,184,329
Land	64,162,781	56,391,821	Superficies	56,660	-
Buildings	1,600	8,523	Leasehold	60,940	60,940
Construction in process	18,596,003	15,137,667	Securities	1,288,418	1,324,259
	82,760,384	71,538,011	Others	84,242	119,350
Intangible assets				265,487,768	250,702,343
Leasehold	60,940	60,940	Reserves and retained		
Superficies	56,660	-	earnings		
	117,600	60,940	Net income	173,816	11,725
Securities under custody	171,703,651	115,683,741	Appropriation	(298,330)	(248,802)
			Retained earnings	284,808	239,773
				160,294	2,696
Total	$ 437,352,365	$ 366,393,935	Total	$ 437,352,365	$ 366,393,935

Trust Property List
December 31, 2019 and 2018

Investment Items	2019	2018
Cash in banks	$ 7,021,670	$ 5,038,852
Short-term investments		
Mutual funds	169,141,039	168,601,296
Stocks	1,325,432	1,045,199
Bonds	5,066,402	3,976,219
Structured products	107,364	165,591
Securities lending	104,114	278,417
Receivables		
Accrued interest	1,851	3,857
Mutual funds	2,276	-
Cash dividends	83	-
Securities sold	-	200
Others	499	1,612
Real estate		
Land	64,162,781	56,391,821
Buildings	1,600	8,523
Construction in process	18,596,003	15,137,667
Intangible assets		
Leasehold	60,940	60,940
Superficies	56,660	-
Securities under custody	171,703,651	115,683,741
Total	$ 437,352,365	$ 366,393,935

Statements of Income on Trust Accounts
For the Years Ended December 31, 2019 and 2018

	2019	2018
Revenues		
Interest revenue	$ 7,045	$ 5,287
Lending stock	3,929	5,316
Cash dividends	59,144	61,018
Realized gain on investment - stocks	1,461	7,462
Unrealized gain on investment - stocks	216,022	145,510
Unrealized gain on investment - lending stock	22,257	-
Realized gain on investment - mutual funds	4,634	51
Unrealized gain on investment - mutual funds	15,436	-
Beneficial certificates appropriation	2,922	-
Others	10	326
Total revenues	332,860	224,970

(Continued)

	2019	2018
Expenses		
Management fees	$ 4,990	$ 3,923
Taxes	25	17
Service charge	279	269
Postage	25	26
Unrealized loss on investment - stocks	138,411	207,674
Unrealized loss on investment - lending stock	10,149	-
Realized loss on investment - mutual funds	118	308
Unrealized loss on investment - mutual funds	4,905	-
Others	142	1,028
Total expenses	159,044	213,245
Income before income tax	173,816	11,725
Income tax expense	-	-
Net income	$ 173,816	$ 11,725

(Concluded)

b. Nature of trust business operations under the Trust Law: Note 1.

43. ALLOCATION OF REVENUE, COST AND EXPENSE THAT RESULTED FROM THE SHARING OF RESOURCES BETWEEN TAIWAN COOPERATIVE FINANCIAL HOLDING COMPANY, LTD. AND SUBSIDIARIES

Under cooperation arrangements, the Bank and Taiwan Cooperative Securities (TCS) promoted securities brokerage business together; thus, related revenues received by the Bank were calculated as follows: (a) revenue based on 20% of the net revenue derived from security transactions for three years (for five years before January 1, 2018). (b) related revenues from utilizing some operating sites and equipment by the TCS; and (c) receiving cross-selling service fees of $2,000 thousand annually.

To promote the credit card business and corporate banking business together, the Bank and TCS signed cooperation arrangements, marketing expenses paid by the Bank were based on the arrangements.

As of December 31, 2019 and 2018, the accrued receivables were $3,455 thousand and $3,168 thousand (part of receivables), respectively. The revenues from cross-selling transactions were $12,451 thousand and $11,428 thousand (part of other noninterest gains, net) in 2019 and 2018, respectively.

To promote the insurance business together, the Bank and BNP Paribas Cardif TCB Life Insurance Co., Ltd. signed cooperation arrangements. The service fees earned by the Bank were based on the agreed percentage of the premiums from the insurance companies' products sold by the Bank.

As of December 31, 2019 and 2018, the accrued receivables were $2,358 thousand and $2,541 thousand, respectively (part of receivables). The revenues from cross-selling transactions were $31,771 thousand and $38,106 thousand (part of service fee income, net) in 2019 and 2018, respectively.

44. CASH FLOW INFORMATION

a. Non-cash financing activities

Undistributed cash dividends approved by the stockholders in the stockholders' meetings were both $170,524 thousand as of December 31, 2019 and 2018.

b. Changes in liabilities arising from financing activities

For the year ended December 31, 2019

	Opening Balance	Cash Inflows (Outflows)	Non-cash Changes: New Leases	Non-cash Changes: Fair Value Adjustments (Including Changes in the Fair Value Attributable to Changes in the Credit Risk)	Non-cash Changes: Others	Closing Balance
Financial liabilities designated as at fair value through profit or loss - bank debentures	$ 11,483,955	$ -	$ -	$ 14,696	$ 553,778	$ 12,052,429
Bank debentures	55,000,000	10,000,000	-	-	-	65,000,000
Guarantee deposits received	1,216,195	362,034	-	-	-	1,578,229
Lease liabilities	1,484,323	(569,384)	695,101	-	4,918	1,614,958
	$ 69,184,473	$ 9,792,650	$ 695,101	$ 14,696	$ 558,696	$ 80,245,616

For the year ended December 31, 2018

	Opening Balance	Cash Inflows (Outflows)	Non-cash Changes: Fair Value Adjustments (Including Changes in the Fair Value Attributable to Changes in the Credit Risk)	Non-cash Changes: Others	Closing Balance
Financial liabilities designated as at fair value through profit or loss - bank debentures	$ 11,688,291	$ -	$ (13,252)	$ (191,084)	$ 11,483,955
Bank debentures	64,610,000	(9,610,000)	-	-	55,000,000
Guarantee deposits received	1,557,688	(341,493)	-	-	1,216,195
	$ 77,855,979	$ (9,951,493)	$ (13,252)	$ (191,084)	$ 67,700,150

45. ADDITIONAL DISCLOSURES

a. Related information of significant transactions and b. investees:

1) Financing provided: The Bank - not applicable; investee company - not applicable.

2) Endorsement/guarantee provided: The Bank - not applicable; investee company - not applicable.

3) Marketable securities held: The Bank - not applicable; investee company - not applicable.

4) Marketable securities acquired or disposed of at costs or prices of at least NT$300 million or 10% of the paid-in capital (the Bank disclosed its investments acquired or disposed of): None.

5) Acquisition of individual real estate at costs of at least NT$300 million or 10% of the paid-in capital: None.

6) Disposal of individual real estates at costs of at least NT$300 million or 10% of the paid-in capital: None.

7) Allowance of service fees to related parties amounting to at least NT$5 million: None.

8) Receivables from related parties amounting to at least NT$300 million or 10% of the paid-in capital: Table 2 (attached).

9) Sale of nonperforming loans: Table 3 (attached).

10) Financial asset securitization: None.

11) Other significant transactions which may affect the decisions of users of financial reports: None.

12) Percentage share in investees and related information: Table 4 (attached).

13) Derivative transactions: The Bank - Notes 8, 36 and 39 to the financial statements; investee company: None.

c. Investment in Mainland China:

Based on "Regulations Governing Approvals of Banks to Engage in Financial Activities between the Taiwan Area and the Mainland Area," the Bank set up the Suzhou Branch, Tianjin Branch, Fuzhou Branch and Changsha Branch in Mainland China. This investment had been approved by the Financial Supervisory Commission. The 4 branches' information - major operating items, capital stock, the way of investment, investment inflows and outflows, the holding percentage, the investment income or loss, the book value at year-end, the remitted investment profits and the limit on the amount of investment in Mainland China - can be seen in Table 5 (attached).

TAIWAN COOPERATIVE BANK, LTD.

ASSET QUALITY - NONPERFORMING LOANS AND RECEIVABLES
DECEMBER 31, 2019 AND 2018
(In Thousands of New Taiwan Dollars, %)

Period			December 31, 2019					December 31, 2018				
Items			Nonperforming Loans (Note 1)	Loans	Ratio of Nonperforming Loans (Note 2)	Allowance for Credit Losses	Coverage Ratio (Note 3)	Nonperforming Loans (Note 1)	Loans	Ratio of Nonperforming Loans (Note 2)	Allowance for Credit Losses	Coverage Ratio (Note 3)
Corporate banking	Secured		$ 3,048,070	$ 722,831,247	0.42	$ 8,588,521	281.77	$ 2,722,745	$ 683,915,923	0.40	$ 8,618,399	316.53
	Unsecured		498,900	640,600,556	0.08	7,142,283	1,431.61	626,102	573,650,166	0.11	6,032,215	963.46
Consumer banking	Housing mortgage (Note 4)		1,098,488	535,702,909	0.21	8,140,185	741.04	1,380,856	522,178,512	0.26	7,927,892	574.13
	Cash card		-	-	-	-	-	-	-	-	-	-
	Small-scale credit loans (Note 5)		9,104	12,151,396	0.07	130,664	1,435.24	16,848	12,430,337	0.14	163,431	970.03
	Other (Note 6)	Secured	783,052	288,756,524	0.27	3,056,605	390.35	1,076,250	275,504,816	0.39	3,333,725	309.75
		Unsecured	15,611	9,933,460	0.16	142,907	915.43	27,428	9,082,963	0.30	155,531	567.05
Loan			5,453,225	2,209,976,092	0.25	27,201,165	498.81	5,850,229	2,076,762,717	0.28	26,231,193	448.38
			Nonperforming Receivables (Note 1)	Receivables	Ratio of Nonperforming Receivables (Note 2)	Allowance for Credit Losses	Coverage Ratio (Note 3)	Nonperforming Receivables (Note 1)	Receivables	Ratio of Nonperforming Receivables (Note 2)	Allowance for Credit Losses	Coverage Ratio (Note 3)
Credit cards			8,132	4,406,057	0.18	59,661	733.66	6,983	3,662,097	0.19	59,173	847.39
Accounts receivable factored without recourse (Note 7)			-	246,992	-	9,175	-	-	456,346	-	10,988	-
Amounts of executed contracts on negotiated debts not reported as nonperforming loans (Note 8)			555					946				
Amounts of executed contracts on negotiated debts not reported as nonperforming receivables (Note 8)			5,137					7,008				
Amounts of executed debt-restructuring projects not reported as nonperforming loans (Note 9)			8,450					12,478				
Amounts of executed debt-restructuring projects not reported as nonperforming receivables (Note 9)			45,263					46,043				

Note 1: Nonperforming loans are reported to the authorities and disclosed to the public, as required by the "Regulations Governing the Procedures for Banking Institutions to Evaluate Assets and Deal with Nonperforming/Non-accrued Loans." Nonperforming credit card receivables are reported to the authorities and disclosed to the public, as required by the Banking Bureau's letter dated July 6, 2005 (Ref. No. 0944000378).

Note 2: Ratio of nonperforming loans: Nonperforming loans ÷ Outstanding loan balance.
Ratio of nonperforming receivables: Nonperforming receivables ÷ Outstanding receivable balance.

Note 3: Coverage ratio of loans: Allowance for credit losses for loans ÷ Nonperforming loans.
Coverage ratio of receivables: Allowance for credit losses for receivables ÷ Nonperforming receivables.

Note 4: The mortgage loan is for house purchase or renovation and is fully secured by housing that is purchased (owned) by the borrower, the spouse or the minor children of the borrowers.

Note 5: Based on the Banking Bureau's letter dated December 19, 2005 (Ref. No. 09440010950), small-scale credit loans are unsecured, involve small amounts and exclude credit cards and cash cards.

Note 6: Other consumers banking loans refer to secured or unsecured loans that exclude housing mortgage, cash and credit card, and small-scale credit loans.

(Continued)

Note 7: As required by the Banking Bureau in its letter dated July 19, 2005 (Ref. No. 0945000494), accounts receivable factored without recourse are reported as nonperforming receivables within three months after the factors or insurance companies refuse to indemnify banks for any liabilities on these accounts.

Note 8: Amounts of executed contracts on negotiated debts that are not reported as nonperforming loans or receivables are disclosed to the public in accordance with the Banking Bureau's letter dated April 25, 2006 (Ref. No. 09510001270).

Note 9: Amounts of executed debt-restructuring projects not reported as nonperforming loans or receivables are disclosed to the public in accordance with the Banking Bureau's letter dated September 15, 2008 (Ref. No. 09700318940) and letter dated September 20, 2016 (Ref. No. 10500134790).

(Concluded)

TAIWAN COOPERATIVE BANK, LTD.

RECEIVABLES FROM RELATED PARTIES AMOUNTING TO AT LEAST NT$300 MILLION OR 10% OF THE PAID-IN CAPITAL
DECEMBER 31, 2019
(In Thousands of New Taiwan Dollars)

Company Name	Related Party	Relationship	Ending Balance	Turnover Rate	Overdue		Amounts Received in Subsequent Period	Allowance for Impairment Loss
					Amount	Actions Taken		
Taiwan Cooperative Bank, Ltd.	Taiwan Cooperative Financial Holding Company, Ltd.	Parent company	$ 1,080,183 (Note)	-	$ -	-	$ -	$ -

Note: Receivable - consolidated tax return.

TABLE 3

TAIWAN COOPERATIVE BANK, LTD.

SALE OF NONPERFORMING LOANS
FOR THE YEAR ENDED DECEMBER 31, 2019
(In Thousands of New Taiwan Dollars)

1. Sale of nonperforming loans

Trade Date	Counterparty	Form of Nonperforming Loan	Book Value (Note)	Selling Price	Gain (Loss)	Terms	Relationship Between the Counterparty and the Company
2019.6.12	Eudaimonia Limited	Midterm unsecured loan for enterprise (International syndicated loans)	$ - (Note 1)	$ 22,720 (US$ 733)	$ 22,720 (US$ 733)	None	None
2019.11.7	The HongKong and Shanghai Banking Corporation Limited (HSBC)	Midterm unsecured loan for enterprise (International syndicated loans)	- (Note 2)	47,322 (US$ 1,528)	47,322 (US$ 1,528)	None	None
2019.12.5	The HongKong and Shanghai Banking Corporation Limited (HSBC)	Midterm unsecured loan for enterprise (International syndicated loans)	- (Note 3)	132,048 (US$ 4,272)	132,048 (US$ 4,272)	None	None

Note 1: Book value equals the amount of the original loan of US$7,445 thousand minus the allowance for bad debts of US$7,445 thousand.

Note 2: Book value equals the amount of the original loan of US$10,268 thousand minus the allowance for bad debts of US$10,268 thousand.

Note 3: Book value equals the amount of the original loan of US$20,461 thousand minus the allowance for bad debts of US$20,461 thousand.

2. The sale of a batch of nonperforming loans totaling over NT$1 billion (excluding those sold to related parties): None.

TAIWAN COOPERATIVE BANK, LTD.

PERCENTAGE SHARE IN INVESTEES AND RELATED INFORMATION
FOR THE YEAR ENDED DECEMBER 31, 2019
(In Thousands of New Taiwan Dollars)

Investee Company (Note 1)	Location	Main Businesses and Products	Percentage of Ownership	Carrying Value	Investment Gain (Loss)	Percentage Share of the Bank and Its Affiliates in Investees (Note 1)				Note
						Shares	Pro Forma Shares (Note 2)	Total		
								Shares	Percentage of Ownership	
Finance-related business										
United Taiwan Bank S.A.	Belgium	Banking	90.02	$ 1,983,670	$ 83,478	2,639,659	-	2,639,659	90.02	
Taiwan Asset Management Co., Ltd.	Taipei City	Acquisition of delinquent loans	17.03	1,927,800	117,000	180,000,000	-	180,000,000	17.03	
Financial Information Service Co., Ltd.	Taipei City	Information service	2.98	558,894	42,022	15,563,745	-	15,563,745	2.98	
Taiwan Financial Asset Service Co., Ltd.	Taipei City	Property auction	5.88	80,700	700	10,000,000	-	10,000,000	5.88	
Taiwan Depository & Clearing Co., Ltd.	Taipei City	Custody of securities and short-term bills	0.84	326,412	10,851	3,807,614	-	3,807,614	1.00	
Taiwan Futures Exchange Co., Ltd.	Taipei City	Futures clearing	1.75	628,911	21,340	6,418,777	-	6,418,777	1.81	
Financial eSolution Co., Ltd.	Taipei City	Office machine wholesaling	9.92	29,539	155	2,181,617	-	2,181,617	9.92	
Taipei Forex Inc.	Taipei City	Foreign exchange brokering	7.06	44,464	8,400	1,400,000	-	1,400,000	7.06	
Sunny Asset Management Co., Ltd.	Taipei City	Acquisition of delinquent loans	0.72	433	56	43,088	-	43,088	0.72	
Taiwan Mobile Payment Company	Taipei City	IT software service	4.00	19,056	-	2,400,000	-	2,400,000	4.00	
Taiwania Capital Buffalo II Bioventures, LP	Taipei City	Venture capital	8.47 (Note 3)	242,949	(7,051)	(Note 3)	-	(Note 3)	8.47 (Note 3)	
Non-finance related business										
United Real Estate Management Co., Ltd.	Taipei City	Real estate appraisal	30.00	131,500	10,475	10,115,630	-	10,115,630	30.00	
Taiwan Power Company	Taipei City	Power development and supply	0.24	753,683	-	78,754,764	-	78,754,764	0.24	
Taiwan Sugar Company	Tainan City	Sugar manufacturing	0.08	315,584	7,621	4,233,752	-	4,233,752	0.08	
Lien-An Service Co., Ltd.	Taipei City	Leasing	5.00	2,378	125	125,000	-	125,000	5.00	
Taipei Rapid Transit Co., Ltd.	Taipei City	Public transportation	0.0014	131	6	14,286	-	14,286	0.0014	
China Daily News	Tainan City	Newspaper publishing	0.04	47	-	16,768	-	16,768	0.04	
Taipei Financial Center Corp.	Taipei City	Residence and buildings lease construction and development	1.63	575,520	30,430	24,000,000	-	24,000,000	1.63	
Taiwan Urban Regeneration & Financial Services Co., Ltd.	Taipei City		5.00	21,275	-	7,500,000	-	7,500,000	15.00	
Taiwan High Speed Rail Corporation	Taipei City	High speed railroad transportation business	0.95	2,046,720	59,696	53,300,000	-	53,300,000	0.95	

Note 1: Shares or pro forma shares held by the Bank, directors, supervisors, president, vice president and affiliates in accordance with the Company Law have been included.

Note 2: a. Pro forma shares are shares that are assumed to be obtained through buying equity-based securities or entering into equity-linked derivative contracts for purposes defined in Article 74 of the Banking Law.
b. Equity-based securities, such as convertible bonds and warrants, are covered by Article 11 of the "Securities and Exchange Law Enforcement Rules."
c. Derivative contracts, such as those on stock options, are those conforming to the definition of derivatives in Statement of International Financial Reporting Standards No. 9 - "Financial Instruments."

Note 3: The ending percentage share of the Bank of Taiwania Capital Buffalo II Bioventures, LP (the Bank's of fund contributed to the total amount of fund of the partnership) is stated as disclosed.

TAIWAN COOPERATIVE BANK, LTD.

INVESTMENTS IN MAINLAND CHINA
FOR THE YEAR ENDED DECEMBER 31, 2019
(In Thousands of New Taiwan Dollars, Unless Stated Otherwise)

Investee Company Name	Main Businesses and Products	Total Amount of Paid-in Capital	Investment Type	Accumulated Outflow of Investment from Taiwan as of January 1, 2019	Investment Flows		Accumulated Outflow of Investment from Taiwan as of December 31, 2019	Investee Net Income (Loss)	% Ownership of Direct or Indirect Investment	Investment Gain (Loss)	Carrying Value as of December 31, 2019	Accumulated Inward Remittance of Investment Earnings as of December 31, 2019
					Outflow	Inflow						
Suzhou Branch	Deposits, loans, import and export, exchange and foreign exchange business	$ 4,547,235 (US$ 154,395) (Note 1)	Direct	$ 4,547,235 (US$ 154,395) (Note 1)	$ -	$ -	$ 4,547,235 (US$ 154,395) (Note 1)	$ 282,463	100	$ 282,463	$ 5,801,679	$ -
Tianjin Branch	Deposits, loans, import and export, exchange and foreign exchange business	2,947,314 (US$ 97,387) (Note 1)	Direct	2,947,314 (US$ 97,387) (Note 1)	-	-	2,947,314 (US$ 97,387) (Note 1)	(157,473)	100	(157,473)	2,838,954	-
Fuzhou Branch	Deposits, loans, import and export, exchange and foreign exchange business	2,950,882 (US$ 97,549) (Note 1)	Direct	2,950,882 (US$ 97,549) (Note 1)	-	-	2,950,882 (US$ 97,549) (Note 1)	129,170	100	129,170	3,180,260	-
Changsha Branch	Deposits, loans, import and export, exchange and foreign exchange business	2,630,485 (US$ 87,232) (Note 1)	Direct	2,630,485 (US$ 87,232) (Note 1)	-	-	2,630,485 (US$ 87,232) (Note 1)	(288,189)	100	(288,189)	2,371,521	-

Accumulated Investment in Mainland China as of December 31, 2019	Investment Amount Approved by the Investment Commission, MOEA	Maximum Investment Allowable
$ 13,075,916 (US$ 436,563) (Note 1)	$ 13,075,916 (US$ 436,563) (Note 1)	$ 136,349,759 (Note 2)

Note 1: Translation into New Taiwan dollars at the exchange rates on the date of each outflow of investment.

Note 2: Based on the Investment Commission's "Regulation on the Examination of Investment or Technical Cooperation in Mainland China," investments are limited to the largest of 60% of the Bank's net asset value or 60% of the Bank's consolidated net asset value.