

BANK OF TAIWAN AND SUBSIDIARY**Consolidated Financial Statements****With Independent Auditors' Report
For the Years Ended December 31, 2019 and 2018**

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Independent Auditors' Report

To the Board of Directors of Bank of Taiwan:

Opinion

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

In our opinion, based on our audits and the report of other auditors (please refer to Other Matter paragraph), the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Bank and subsidiary as at December 31, 2019 and 2018, and its consolidated financial performance and its consolidated cash flows for the years then ended in accordance with the Regulations Governing the Preparation of Financial Reports by Public Banks and with the International Financial Reporting Standards (“IFRSs”), International Accounting Standards (“IASs”), interpretations as well as related guidance endorsed by the Financial Supervisory Commission of the Republic of China (“FSC”).

Basis for Opinion

We conducted our audits in accordance with the Regulations Governing Auditing and Certification of Financial Statements of Financial Institutions by Certified Public Accountants, Ruling No. 10802731571 issued by the FSC and the auditing standards generally accepted in Republic of China in 2019 and in accordance with the Regulations Governing Auditing and Certification of Financial Statements of Financial Institutions by Certified Public Accountants and the auditing standards generally accepted in the Republic of China in 2018. Our responsibilities under those standards are further described in the Auditors' Responsibilities for the Audit of the Consolidated Financial Statements section of our report. We are independent of Bank of Taiwan in accordance with the Certified Public Accountants Code of Professional Ethics in Republic of China (“the Code”), and we have fulfilled our other ethical responsibilities in accordance with the Code. We believe that the audit evidence we have obtained, inclusive of the report from other auditors, is sufficient and appropriate to provide a basis of our opinion.

Emphasis of Matter

In accordance with the auditing regulations in Taiwan, the financial statements of the Bank and subsidiary are required to be audited by the Ministry of Audit (the “MoA”). The financial statement for the financial year ended December 31, 2018 has been audited and approved by the MoA. The adjustments made by the MoA are reflected in the financial statement. For further information, please see note 16(b). Our opinion is not modified in respect of this matter.

Other Matter

As stated in note 6(j) of the consolidated financial statements, we did not audit the financial statements of Hua Nan Financial Holdings Co., Ltd. and Tai Yi Real Estate Co., Ltd. of investments in associates accounted for using equity method of the Bank and subsidiary amounting to NT\$40,082,243 thousand and NT\$36,994,293 thousand as of December 31, 2019 and 2018, respectively, constituting 0.78% and 0.73% of the related consolidated total assets; nor the related shares of investment profit in associates accounted for using equity method of NT\$3,391,501 thousand and NT\$3,108,235 thousand for the years then ended, respectively, constituting 8.04% and 7.88% of the related consolidated net revenue. Those statements were audited by other auditors whose reports have been furnished to us, and our opinion, insofar as it relates to the amounts includes above, is based solely on the report of the other auditors.

We have also audited the separated financial statements of Bank of Taiwan as of 2019 and 2018, and have issued an unmodified opinion.

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements for the year ended December 31, 2019. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters. We have determined the matters described below to be the key audit matters to be communicated in our report.

1. The assessment of impairment of financial assets

Please refer to Note 4(l) “Impairment of assets” for related accounting policy, Note 5(b) “The evaluation of financial asset impairments” for the uncertainty of accounting assumptions and estimations, and Note 8 “Financial risk management ” for the details of the evaluation of financial asset impairments.

Description of key audit matters

When assessing whether there is any indication that the financial assets other than measured at fair value through profit or loss may be impaired, the Bank and subsidiary rely on management for considering all kinds of observable data and using the expected credit loss model, including probability of default, loss of default, exposure at default and prospective economic factors, to calculate the impairment loss. The calculation process is complicated and involves the exercise of judgment. Eventually, the assumptions used may also affect the estimated amount significantly. Furthermore, the amount of financial assets which required impairment tests is material to the Bank and subsidiary. Therefore, the assessment of impairment of financial assets has been identified as a key audit matter in our audit.

How the matter was addressed in our audit

Our principal audit procedures included (i) inspecting the internal guidelines of impairment assessment of credit and investment business, understanding the Bank's and subsidiary's procedures of the assessment of impairment of financial assets, and testing related internal control procedures; (ii) performing analytical procedures; (iii) assessing the reasonableness of the Bank's and subsidiary's assessment of impairment of financial assets and, if necessary, acquiring assistance from internal specialists; (iv) verifying the accuracy of loan loss provision based on “Regulations Governing the Procedures for Enterprises Engaging in Insurance to Evaluate Assets and Deal with Non performing/Non accrual Loans”; (v) assessing whether the impairment of financial assets is presented and disclosed fairly.

2. The valuation of financial instruments

Please refer to Note 4(f) “Financial instrument” for related accounting policy, Note 5(a) “The fair value valuation of non-active market or non-quoted financial instruments” for major sources of uncertainty for assumptions and estimation, and Note 7 “The fair value and fair value hierarchy of the financial instruments” for the details of valuation of financial instruments.

Description of key audit matters

The Bank and subsidiary hold the value of financial assets and liabilities, which shall calculated by a model are classified as level 2 and level 3 expect for which shall calculated by an observable for active market are classified as level 1. The parameters of inputs which often involve the exercise of judgment in valuation process. The valuation of financial instruments may be misstated due to the use difference of valuation techniques and assumptions. The amount of financial asset and liabilities the Bank and subsidiary hold as of December 31, 2019 were significant. Therefore, the valuation of financial instruments has been identified as a key audit matter in our audit.

How the matter was addressed in our audit

Our main audit procedures included (i) reviewing accounting policy about the fair value of financial instruments measurement and disclosure, and performing an assessment over the investment cycle of its initial recognition, subsequent measurement and disclosures on financial statement (ii) for the financial instruments measured at fair value with active market, sampling test of prices are quoted in an active market (iii) sampling to test whether the fair value of the financial instruments measured at fair value without an active market are appropriate by re-calculating and obtaining the quoted price from counter parties or independent third parties, as well as appointing our valuation specialists to assess the reasonableness of the models and parameters the Bank used when deemed necessary (iv) assessing whether the disclosure of financial instruments in accordance with International Financial Reporting Standards.

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

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with the Budget Law, Account Settlement Law, Uniform Regulations on Accounting Systems for Banks Governed by the Ministry of Finance, Regulations Governing the Preparation of Financial Reports by Public Banks and with the IFRSs, IASs, interpretations as well as related guidance endorsed by the Financial Supervisory Commission of the Republic of China, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Bank’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 members of the Audit Committee) are responsible for overseeing the Bank's and subsidiary's financial reporting process.

Auditors' Responsibilities for the Audit of the Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an 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 the 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 consolidated 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 consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
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 the Bank'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 the Bank'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 consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditors' report. However, future events or conditions may cause the Bank to cease to continue as a going concern.
5. Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
6. Obtain sufficient and appropriate audit evidence regarding the financial information of the entities or business activities within the Bank to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

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

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements 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 Feng-Hui Lee and Lin Wu.

A handwritten signature of the KPMG firm, with the letters 'KPMG' in a stylized, cursive script.

KPMG

Taipei, Taiwan (Republic of China)
March 20, 2020

Notes to Readers

The accompanying consolidated financial statements are intended only to present the consolidated financial position, financial performance and cash flows in accordance with the 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 consolidated financial statements are those generally accepted and applied in the Republic of China.

BANK OF TAIWAN AND SUBSIDIARY
Consolidated Balance Sheets
December 31, 2019 and 2018
(Expressed in Thousands of New Taiwan Dollars)

		<u>December 31, 2019</u>		<u>December 31, 2018</u>				<u>December 31, 2019</u>		<u>December 31, 2018</u>	
Assets		<u>Amount</u>	<u>%</u>	<u>Amount</u>	<u>%</u>	Liabilities and Equity		<u>Amount</u>	<u>%</u>	<u>Amount</u>	<u>%</u>
11000	Cash and Cash Equivalents (note 6(a), (h), 7, 8 and 10)	\$ 144,312,808	3	165,864,960	3						
11500	Placement with Central Bank and Call Loans to Banks (note 6(b), (h), 7, 8, 10 and 11)	560,586,872	11	535,130,849	11	21000	Deposits of Central Bank and other banks (note 6(r), 7 and 10)	\$ 229,253,533	5	221,756,139	4
12000	Financial Assets Measured at Fair Value through Profit or Loss (note 6(c), 7, 8 and 10)	244,193,929	5	236,408,718	5	22000	Financial Liabilities Measured at Fair Value through Profit or Loss (note 6(s), 7, and 10)	60,283,847	1	50,554,317	1
12100	Financial Assets Measured at Fair Value through Other Comprehensive Income (note 6(d), (q), 7, 8 and 11)	1,013,078,126	20	1,117,727,277	22	22300	Hedging Derivative Financial Liabilities, net (note 6(e) and 7)	25,537	-	12,973	-
12200	Debt Investments Measured at Amortized Cost(note 6(i), (q) ,7, 8 and 11)	177,206,775	3	167,824,692	3	22500	Bills and Bonds Sold under Repurchase Agreements (note 6(f) and 7)	21,564,871	-	25,078,047	-
12300	Hedging Derivative Financial Assets, net (note 6(e), 7 and 8)	1,071	-	41,693	-	23000	Payables (note 6(t), 7 and 10)	43,850,744	1	45,790,114	1
13000	Receivables, net (note 6(g), 7, 8 and 10)	58,510,274	1	59,274,333	1	23200	Current Income Tax Liabilities	1,360,931	-	291,444	-
13200	Current Income Tax Assets	993,628	-	1,113,134	-	23500	Deposits and Remittances (note 6(u), 7 and 10)	3,971,785,851	78	4,025,739,102	81
13500	Loans and Discounts, net (note 6(h), 7, 8 and 10)	2,676,141,224	52	2,557,027,294	51	24000	Financial Bonds Payable (note 6(v) and 7)	24,998,820	-	24,998,566	-
15000	Investments under Equity Method, net (note 6(j))	41,109,560	1	38,007,840	1	25500	Other Financial Liabilities (note 6(w) and 7)	962,539	-	678,843	-
15500	Other Financial Assets, net (note 6(g), (k), (q), 7, 8 and 10)	40,158,445	1	46,040,182	1	25600	Provision (note 6(x) and (y))	361,821,599	8	315,020,626	6
18500	Property and Equipment, net (note 6(l) and (q))	138,128,918	3	96,226,027	2	26000	Lease Liabilities (note 6(z))	1,479,132	-	-	-
18600	Right-of-Use Assets, net (note 6(m))	1,603,487	-	-	-	29300	Deferred Tax Liabilities (note 6(ac))	18,235,065	-	18,191,904	-
18700	Investment Property (note 6(n))	15,238,207	-	15,238,207	-	29500	Other Liabilities (note 6(ab) and 10)	<u>10,694,256</u>	<u>-</u>	<u>7,750,426</u>	<u>-</u>
19000	Intangible Assets, net(note 6(o))	873,797	-	764,936	-		Total liabilities	<u>4,746,316,725</u>	<u>93</u>	<u>4,735,862,501</u>	<u>93</u>
19300	Deferred Tax Assets(note 6(ac))	875,458	-	312,291	-		Equity attributable to owners of parent(note 6(ad)):				
19500	Other Assets, net(note 6(p) and 10)	11,556,583	-	8,989,113	-	31101	Capital stock	109,000,000	2	95,000,000	2
						31500	Capital surplus	108,453,043	2	80,453,043	2
							Retained earnings:				
						32001	Legal reserve	44,692,790	1	42,037,924	1
						32003	Special reserve	36,640,733	1	33,103,998	1
						32005	Unappropriated retained earnings	<u>20,140,122</u>	<u>-</u>	<u>17,619,742</u>	<u>-</u>
								<u>101,473,645</u>	<u>2</u>	<u>92,761,664</u>	<u>2</u>
						32500	Other equity	<u>59,325,749</u>	<u>1</u>	<u>41,914,338</u>	<u>1</u>
							Total equity	<u>378,252,437</u>	<u>7</u>	<u>310,129,045</u>	<u>7</u>
Total assets		<u>\$ 5,124,569,162</u>	<u>100</u>	<u>5,045,991,546</u>	<u>100</u>		Total liabilities and equity	<u>\$ 5,124,569,162</u>	<u>100</u>	<u>5,045,991,546</u>	<u>100</u>

See accompanying notes to consolidated financial statements.

BANK OF TAIWAN AND SUBSIDIARY
Consolidated Statements of Comprehensive Income
For the years ended December 31, 2019 and 2018
(Expressed in Thousands of New Taiwan Dollars , Except for Earnings Per Common Share)

		2019		2018		Change
		Amount	%	Amount	%	%
Revenue and income:						
41000	Interest income (note 6(ae) and 10)	\$ 66,034,226	157	63,883,640	162	3
51000	Less:Interest expense (note 6(ae) and 10)	<u>(39,355,028)</u>	<u>(93)</u>	<u>(38,258,281)</u>	<u>(97)</u>	3
	Net interest income (note 6(ae))	26,679,198	64	25,625,359	65	4
Non-interest income, net						
49100	Service fees ,net (note 6(af) and 10)	5,174,087	12	5,299,378	13	(2)
49200	Gain (loss) on financial assets or liabilities measured at fair value through profit or loss (note 6(ag) and 10)	48,786,406	116	(4,510,425)	(11)	1,182
49310	Realized gains from financial assets measured at fair value through other comprehensive income (note 6(ah))	3,580,638	8	2,925,419	7	22
49600	Foreign exchange gain (loss) (note 6(ai) and 10)	(203,841)	-	5,712,951	14	(104)
49700	Provision of impairment loss on assets (note 6(l) and (q))	(1,350)	-	(86,510)	-	98
49750	Share of profit (loss) of associates and joint ventures accounted for using equity method (note 6(j))	3,394,697	8	2,800,149	7	21
49837	Premiums (loss) gain (note 6(aj))	(1,160,160)	(3)	1,620,567	4	(172)
49843	Sales income (note 6(p) and (aj))	500,387	1	366,662	1	36
48054	Subsidized income from government (note 6(aj) and 16(c))	8,774,387	21	8,892,009	23	(1)
49898	Excess preferential interest expenses (note 6(g) and (aj))	(8,781,651)	(21)	(9,584,580)	(24)	8
49871	Provisions for policyholders' reserve premium (note 6(aj))	(45,358,797)	(108)	(1,371,850)	(3)	(3,206)
49899	Excess interest expenses(note 6(aj) and 10)	<u>786,916</u>	<u>2</u>	<u>1,759,358</u>	<u>4</u>	(55)
	Net Revenue	<u>42,170,917</u>	<u>100</u>	<u>39,448,487</u>	<u>100</u>	7
58200	Bad debt expense and reserve for guarantees (note 6(h))	<u>(7,345,228)</u>	<u>(17)</u>	<u>(7,302,488)</u>	<u>(19)</u>	1
Expenses: (note 16(a))						
58500	Employee benefits expenses (note 6(y), (ak) and 10)	(13,144,881)	(31)	(12,579,869)	(32)	4
59000	Depreciation and amortization expenses (note 6(al))	(1,638,135)	(4)	(987,343)	(3)	66
59500	Other general and administrative expenses (note 6(am) and 10)	<u>(6,831,443)</u>	<u>(16)</u>	<u>(7,102,452)</u>	<u>(18)</u>	(4)
	Total Expenses	<u>(21,614,459)</u>	<u>(51)</u>	<u>(20,669,664)</u>	<u>(53)</u>	5
Profit from continuing operations before tax		13,211,230	32	11,476,335	28	15
61003	Less: Income tax expenses (note 6(ac))	<u>2,053,544</u>	<u>5</u>	<u>1,231,129</u>	<u>3</u>	67
	Net profit	<u>11,157,686</u>	<u>27</u>	<u>10,245,206</u>	<u>25</u>	9
65000	Other comprehensive income:					
65200	Components of other comprehensive income that will not be reclassified to profit or loss					
65201	Losses on remeasurements of defined benefit plans	(1,568,890)	(4)	(1,085,289)	(3)	(45)
65205	Change in fair value of financial liability attributable to change in credit risk of liability	(299,554)	(1)	239,502	1	(225)
65204	Unrealized gains from investments in equity instruments measured at fair value through other comprehensive income	16,242,122	39	4,416,925	11	268
65206	Share of other comprehensive income of associates and joint ventures accounted for using equity method, components of other comprehensive income that will not be reclassified to profit or loss	832,580	2	(114,943)	-	824
65220	Income tax related to components of other comprehensive income that will not be reclassified to profit or loss	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	-
	Components of other comprehensive income that will not be reclassified to profit or loss	<u>15,206,258</u>	<u>36</u>	<u>3,456,195</u>	<u>9</u>	822
65300	Components of other comprehensive income (loss) that will be reclassified to profit or loss					
65301	Exchange differences on translation of foreign financial statements	(445,785)	(1)	574,152	1	(178)
65308	Unrealized gains (losses) from investments in debt instruments measured at fair value through other comprehensive income	821,721	2	(569,070)	(1)	244
65306	Share of other comprehensive income of associates and joint ventures accounted for using equity method, components of other comprehensive income that will be reclassified to profit or loss	213,814	1	(176,704)	-	221
65320	Income tax related to components of other comprehensive income that will be reclassified to profit or loss(note 6(ac))	<u>30,302</u>	<u>-</u>	<u>(81,229)</u>	<u>-</u>	137
	Components of other comprehensive income that will be reclassified to profit or loss	<u>559,448</u>	<u>2</u>	<u>(90,393)</u>	<u>-</u>	719
65000	Other comprehensive income	<u>15,765,706</u>	<u>38</u>	<u>3,365,802</u>	<u>9</u>	368
	Total comprehensive income	<u>\$ 26,923,392</u>	<u>65</u>	<u>13,611,008</u>	<u>34</u>	98
	Basic earnings per share(In dollars)(note 6(an))	<u>\$ 1.13</u>		<u>1.08</u>		

See accompanying notes to consolidated financial statements.

BANK OF TAIWAN AND SUBSIDIARY
Consolidated Statements of Changes in Equity
For the years ended December 31, 2019 and 2018
(Expressed in Thousands of New Taiwan Dollars)

	Equity attributable to owners of parent						Other equity interest							
	Share capital	Retained earnings				Exchange differences on translation of foreign financial statements	Unrealized gains (losses) on financial assets measured at fair value through other comprehensive income	Unrealized gains (losses) on available-for-sale financial assets	Gains (losses) on effective portion of cash flow hedges	Change in fair value of financial liability attributable to change in credit risk of liability	Gains (losses) on financial instruments for hedging	Other comprehensive income reclassified by applying overlay approach	Total	Total equity
	Ordinary shares	Capital surplus	Legal reserve	Special reserve	Undistributed earnings									
Balance at January 1, 2018	\$ 95,000,000	80,453,043	39,246,685	29,383,528	15,881,896	84,512,109	(1,316,795)	-	30,435,010	3,991	(44,599)	-	29,077,607	289,042,759
Effects of retrospective application	-	-	-	-	(192,409)	(192,409)	-	38,683,823	(30,435,010)	(3,991)	-	3,991	8,267,687	8,075,278
Equity at beginning of period after adjustments	95,000,000	80,453,043	39,246,685	29,383,528	15,689,487	84,319,700	(1,316,795)	38,683,823	-	-	(44,599)	3,991	37,345,294	297,118,037
Appropriation and distribution of retained earnings:														
Legal reserve appropriated	-	-	2,791,239	-	(2,791,239)	-	-	-	-	-	-	-	-	-
Special reserve appropriated	-	-	-	3,722,511	(3,722,511)	-	-	-	-	-	-	-	-	-
Cash dividends of ordinary share	-	-	-	-	(600,000)	(600,000)	-	-	-	-	-	-	-	(600,000)
Reversal of special reserve	-	-	-	(2,041)	2,041	-	-	-	-	-	-	-	-	-
Net income for the period	-	-	-	-	10,245,206	10,245,206	-	-	-	-	-	-	-	10,245,206
Other comprehensive income	-	-	-	-	(1,146,774)	(1,146,774)	665,984	3,635,389	-	237,114	202	(26,113)	4,512,576	3,365,802
Total comprehensive income	-	-	-	-	9,098,432	9,098,432	665,984	3,635,389	-	237,114	202	(26,113)	4,512,576	13,611,008
Disposal of investments in equity instruments designated at fair value through other comprehensive income	-	-	-	-	(56,468)	(56,468)	-	56,468	-	-	-	-	56,468	-
Balance at December 31, 2018	95,000,000	80,453,043	42,037,924	33,103,998	17,619,742	92,761,664	(650,811)	42,375,680	-	192,515	4,193	(7,239)	41,914,338	310,129,045
Appropriation and distribution of retained earnings:														
Legal reserve appropriated	-	-	2,654,866	-	(2,654,866)	-	-	-	-	-	-	-	-	-
Special reserve appropriated	-	-	-	3,539,881	(3,539,881)	-	-	-	-	-	-	-	-	-
Cash dividends of ordinary share	-	-	-	-	(800,000)	(800,000)	-	-	-	-	-	-	-	(800,000)
Reversal of special reserve	-	-	-	(3,146)	3,146	-	-	-	-	-	-	-	-	-
Net income for the period	-	-	-	-	11,157,686	11,157,686	-	-	-	-	-	-	-	11,157,686
Other comprehensive income	-	-	-	-	(1,639,655)	(1,639,655)	(699,412)	18,370,191	-	(301,751)	(238)	36,571	17,405,361	15,765,706
Total comprehensive income	-	-	-	-	9,518,031	9,518,031	(699,412)	18,370,191	-	(301,751)	(238)	36,571	17,405,361	26,923,392
Capital increase based on land pricing	14,000,000	28,000,000	-	-	-	-	-	-	-	-	-	-	-	42,000,000
Disposal of investments in equity instruments designated at fair value through other comprehensive income	-	-	-	-	(6,050)	(6,050)	-	6,050	-	-	-	-	6,050	-
Balance at December 31, 2019	\$ 109,000,000	108,453,043	44,692,790	36,640,733	20,140,122	101,473,645	(1,350,223)	60,751,921	-	-	(109,236)	3,955	29,332	378,252,437

See accompanying notes to consolidated financial statements.

BANK OF TAIWAN AND SUBSIDIARY
Consolidated Statements of Cash Flows
For the years ended December 31, 2019 and 2018
(Expressed in Thousands of New Taiwan Dollars)

	2019	2018
Cash flows from (used in) operating activities:		
Profit before tax	\$ 13,211,230	11,476,335
Adjustments:		
Adjustments to reconcile profit:		
Depreciation expense	1,373,149	755,550
Amortization expense	313,388	280,830
Expected credit loss	7,345,228	7,302,488
Interest expense	39,355,028	38,258,281
Interest income	(66,034,226)	(63,883,640)
Dividend income	(8,047,396)	(7,710,596)
Net change in other provisions	45,358,089	1,372,219
Gain from price recovery of inventory	-	(59)
Share of profit of associates and joint ventures accounted for using equity method	(3,394,697)	(2,800,149)
Loss on disposal of property and equipment	57,881	61,626
Impairment loss on financial assets	-	4,918
Reversal of impairment loss on financial assets	(981)	-
Impairment loss on non-financial assets	2,331	81,592
Total adjustments to reconcile profit	16,327,794	(26,276,940)
Changes in operating assets and liabilities:		
(Increase) decrease in due from the central bank and call loans to banks	(1,445,740)	27,835,155
(Increase) decrease in financial assets measured at fair value through profit or loss	(9,965,223)	10,499,031
Decrease (increase) in financial assets measured at fair value through other comprehensive income	140,166,397	(52,675,392)
Increase in investments in debt instruments measured at amortised cost	(8,723,585)	(8,585,790)
Decrease (increase) in financial assets for hedging	40,622	(18,934)
Decrease in receivables	2,494,367	4,445,804
Increase in discounts and loans	(126,391,557)	(279,369,555)
Decrease in other financial assets	5,881,738	6,338,650
(Increase) decrease in other assets	(2,913,765)	49,805
Increase in deposits from the central bank and banks	7,497,394	2,734,755
Increase in financial liabilities measured at fair value through profit or loss	9,729,530	15,523,882
Increase (decrease) in financial liabilities for hedging	12,564	(47,507)
Decrease in notes and bonds issued under repurchase agreement	(3,513,176)	(8,828,073)
(Decrease) increase in payables	(2,898,419)	1,776,155
(Decrease) increase in deposits and remittances	(53,953,251)	84,607,054
Increase (decrease) in provisions for employee benefits	1,387,543	(1,075,797)
(Decrease) increase in other liabilities	(176,928)	234,213
Total adjustments	(26,443,695)	(222,833,484)
Cash outflow generated from operations	(13,232,465)	(211,357,149)
Interest received	65,974,873	61,468,447
Dividends received	7,734,668	6,908,958
Interest paid	(38,395,725)	(36,511,135)
Income taxes paid	(1,384,557)	(1,546,467)
Net Cash flows from (used in) operating activities	20,696,794	(181,037,346)
Cash flows from (used in) investing activities:		
Acquisition of property and equipment	(793,968)	(776,946)
Decrease (increase) in refundable deposits	236,713	(871,549)
Acquisition of intangible assets	(422,202)	(336,980)
Net cash flows used in investing activities	(979,457)	(1,985,475)
Cash flows from (used in) financing activities:		
Increase in guarantee deposits received	3,120,758	-
Decrease in guarantee deposits received	-	(989,117)
Payment of lease liabilities	(602,258)	-
Increase in other financial liabilities	283,696	-
Decrease in other financial liabilities	-	(163,979)
Cash dividends paid	(800,000)	(600,000)
Net cash flows from (used in) financing activities	2,002,196	(1,753,096)
Effect of exchange rate changes on cash and cash equivalents	(654,258)	667,091
Net increase (decrease) in cash and cash equivalents	21,065,275	(184,108,826)
Cash and cash equivalents at beginning of period	901,466,215	1,085,575,041
Cash and cash equivalents at end of period	\$ 922,531,490	901,466,215
Composition of cash and cash equivalents:		
Cash and cash equivalents reported in the statement of financial position	\$ 144,312,808	165,864,960
Due from the central bank and call loans to banks qualifying for cash and cash equivalents under the definition of IAS 7	186,167,478	162,126,076
Securities purchased under resell agreements qualifying for cash and cash equivalents under the definition of IAS 7	592,051,204	573,475,179
Cash and cash equivalents at end of period	\$ 922,531,490	901,466,215

See accompanying notes to consolidated financial statements.

BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements
For the years ended December 31, 2019 and 2018
(Expressed in Thousands of New Taiwan Dollars, Unless Otherwise Specified)

(1) Organization and Business Scope

Bank and subsidiary (the Bank) was incorporated on May 20, 1946 and transformed into a corporate entity since July 1, 2003, as approved by the Ministry of Finance on April 24, 2003, and became a public company from September 16, 2004.

On November 18, 2005, the House of Administration (Executive Yuan) authorized the merger of the Bank and the Central Trust of China. The merger plan was approved by the Fair Trade Commission, the Executive Yuan, and the Ministry of Finance. On December 22, 2006, the Financial Supervisory Commission, Executive Yuan, reauthorized the merger and indicated the Central Trust of China was the dissolved party and the Bank was the surviving party. The merger was accomplished on July 1, 2007.

On January 1, 2008, the Ministry of Finance organized Taiwan Financial Holding Co., Ltd. in accordance with the Act of Taiwan Financial Holding Co., Ltd., and the Bank is its subsidiary.

On January 2, 2008, the Bank decreased its capital by \$8 billion and split off its part of business and assets to set up two other subsidiaries of Taiwan Financial Holding Co., Ltd. (Taiwan Financial Holdings): BankTaiwan Securities Co., Ltd. (BankTaiwan Securities) and BankTaiwan Life Insurance Co., Ltd. (BankTaiwan Life Insurance), whose capital was \$3 billion and \$5 billion, respectively.

The Bank is primarily involved in (a) all commercial banking operations allowed under the Banking Law; (b) foreign exchange operations allowed under the Foreign Exchange Regulation Act; (c) operations of offshore banking unit allowed under the Offshore Banking Act; (d) savings and trust operations; (e) overseas branch operations authorized by the respective foreign governments; and (f) other operations as authorized by the central competent authority in charge.

The Bank's Trust department is engaged in the planning, management and operation of trusts under the Banking Law and Trust Law, along with the investment of overseas securities and trust funds.

In accordance to the Bank's policy approved by the Government, the Bank's mission's is to perform all functions in providing stable financial environment, contribute to the economic infrastructure and develop manufacturing industries. The Bank manages public treasury and ensures the smooth settlement of national operations, which later translated into providing normal banking facilities and managing business operations associated with the issuance of banknotes as Central Bank of the Republic of China was later promulgated in July, 1961. The relationship between the Bank and the Central Bank remained closely attached. Among the financial institutions in Taiwan, the Bank has always maintained its importance in the financial industry.

The assets of the Bank have continuously increased through revaluations of its legal and special reserve over the period since the Government provided the capital for the establishment of the Bank. After the currency revolution in June 1949, the Government approved \$5 million as the Bank's capital in May 1950; \$100 million in May 1954; \$300 million in August 1963; \$600 million in September 1967; \$1 billion in May 1973; \$2 billion in September 1977; \$4 billion in September 1980; \$8 billion in November 1982; \$12 billion in May 1990; \$16 billion in April 1992; \$22 billion in December 1994; \$32 billion in August 1998; \$48 billion in September 2002; \$53 billion in July 2007; \$45 billion in January 2008; \$70 billion in November 2010; \$95 billion in October 2014 and \$109 billion in September 2019.

(Continued)

BANK OF TAIWAN AND SUBSIDIARY

Notes to the Consolidated Financial Statements

As the Bank is funded and owned by the government, the execution and compliance with government policies is of importance to the Bank. The economy of Taiwan has developed considerably from the 50s and the Bank has contributed by supporting the planning and implementation of many medium to long term infrastructure. Through the years, the Government has actively increased strategic and critical industrial development. The Bank has similarly increased its support for the fund needed for such infrastructure in compliance with the Government policy.

The Bank has its Head Office in Taipei, and the Bank has established domestic and worldwide branch offices for expansion of various banking services. As of December 31, 2019, in addition to the Department of Planning, Department of Corporate Finance, Department of Credit Management, Department of Loan Management, Department of Wealth Management, Department of Circulation, Department of Public Treasury, Department of Risk Management, Department of Business, Department of International Banking, Department of Trusts, Department of Electronic Banking, Department of Consumer Finance, Department of Treasury, Department of Real Estate Management, Department of Procurement, Department of Domestic Operations, Department of Government Employees Insurance, Department of Precious Metals, Department of Credit Analysis, Department of General Affairs, Secretariat, Department of Human Resources, Department of Ethics, Department of Accounting, Department of Economic Research, Department of Information Management, Department of Cyber Security, Department of Compliance, Board Secretariat, Department of Auditing Board of Directors and Training Institute. There were 163 domestic branches, 1 offshore banking unit, 11 overseas branches, 1 subbranch (in Shanghai Jiading), 8 representative offices (in Mumbai, Yangon and Silicon Valley, Bangkok, Frankfurt, Manila, Ho Chi Minh City and Djakarta) and 1 preparatory offices (in Kuala Lumpur).

The Bank invested \$20 million dollars to set up a subsidiary, BankTaiwan Insurance Brokers, which was approved on January 23, 2013 and officially set up on February 6, 2013.

The parent company of the Bank is Taiwan Financial Holding Co., Ltd.

The consolidated financial statements as of December 31, 2019 include the accounts of the Bank and subsidiary (hereby referred as the Bank and subsidiary).

(2) Financial statements authorization date and authorization process:

The Bank appointed certified public accountant to audit and certify the consolidated financial statements in accordance with Article 49.3 in the Banking Act. The consolidated financial statements were approved by the Audit Committee on March 13, 2020 and were authorized for issue by the Board of Directors on March 20, 2020.

(3) New Standards, Amendments and Interpretations Adopted:

- (a) The impact of the International Financial Reporting Standards (“IFRSs”) endorsed by the Financial Supervisory Commission, R.O.C. (“FSC”) which have already been adopted.

The following new standards, interpretations and amendments have been endorsed by the FSC and are effective for annual periods beginning on or after January 1, 2019.

New, Revised or Amended Standards and Interpretations	Effective date per IASB
IFRS 16 “Leases”	January 1, 2019
IFRIC 23 “Uncertainty over Income Tax Treatments”	January 1, 2019
Amendments to IFRS 9 “Prepayment features with negative compensation”	January 1, 2019

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

New, Revised or Amended Standards and Interpretations	Effective date per IASB
Amendments to IAS 19 “Plan Amendment, Curtailment or Settlement”	January 1, 2019
Amendments to IAS 28 “Long-term interests in associates and joint ventures”	January 1, 2019
Annual Improvements to IFRS Standards 2015–2017 Cycle	January 1, 2019

Except for the following items, the Bank and subsidiary believes that the adoption of the above IFRSs would not have any material impact on its consolidated financial statements. The extent and impact of signification changes are as follows:

IFRS 16 replaces the existing leases guidance, including IAS 17 Leases, IFRIC 4 Determining whether an Arrangement contains a Lease, SIC-15 Operating Leases – Incentives and SIC-27 Evaluating the Substance of Transactions Involving the Legal Form of a Lease.

The Bank and subsidiary applied IFRS 16 using the modified retrospective approach, under which the cumulative effect of initial application is recognized in retained earnings on January 1, 2019. The details of the changes in accounting policies are disclosed below,

(i) Definition of a lease

Previously, the Bank and subsidiary determined at contract inception whether an arrangement is or contains a lease under IFRIC 4. Under IFRS 16, the Bank and subsidiary assesses whether a contract is or contains a lease based on the definition of a lease, as explained in Note 4(i).

On transition to IFRS 16, the Bank and subsidiary elected to apply the practical expedient to grandfather the assessment of which transactions are leases. The Bank and subsidiary applied IFRS 16 only to contracts that were previously identified as leases. Contracts that were not identified as leases under IAS 17 and IFRIC 4 were not reassessed for whether there is a lease. Therefore, the definition of a lease under IFRS 16 was applied only to contracts entered into or changed on or after January 1, 2019.

(ii) As a lessee

As a lessee, the Bank and subsidiary previously classified leases as operating or finance leases based on its assessment of whether the lease transferred significantly all of the risks and rewards incidental to ownership of the underlying asset to the Bank and subsidiary. Under IFRS 16, the Bank and subsidiary recognizes right-of-use assets and lease liabilities for most leases – i.e. these leases are on-balance sheet.

Except real estate and dedicated line, the Bank and subsidiary decided to apply recognition exemptions to short-term leases of all other objects.

At transition, lease liabilities were measured at the present value of the remaining lease payments, discounted at the Bank and subsidiary’s incremental borrowing rate as at January 1, 2019. Right-of-use assets are measured at an amount equal to the lease liability, adjusted by the amount of any prepaid or accrued lease payments – the Bank and subsidiary applied this approach to all other lease.

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

In addition, the Bank and subsidiary used the following practical expedients when applying IFRS 16 to leases.

- 1) Applied a single discount rate to a portfolio of leases with similar characteristics.
- 2) Excluded initial direct costs from measuring the right-of-use asset at the date of initial application.
- 3) Used hindsight when determining the lease term if the contract contains options to extend or terminate the lease.

(iii) As a lessor

The Bank and subsidiary is not required to make any adjustments on transition to IFRS 16 for leases in which it acts as a lessor, except for a sub-lease. The Bank and subsidiary accounted for its leases in accordance with IFRS 16 from the date of initial application.

(iv) Impacts on financial statements

On transition to IFRS 16, the Bank and subsidiary recognized additional \$1,634,839 thousand of lease liabilities, \$128,628 thousand of prepaid rents, and \$1,763,467 thousand of right-of-use assets with no difference in retained earnings. When measuring lease liabilities, the Bank and subsidiary discounted lease payments using its incremental borrowing rate at January 1, 2019. The weighted-average rate applied is 1.165%.

The explanation of differences between operating lease commitments disclosed at the end of the annual reporting period immediately preceding the date of initial application, and lease liabilities recognized in the statement of financial position at the date of initial application disclosed as follows:

	<u>January 1, 2019</u>
Operating lease commitment at December 31, 2018 as disclosed in the Bank and subsidiary's consolidated financial statements	\$ 1,046,479
Recognition exemption for:	
short-term leases	(874)
Leases of low-value assets	(1,560)
Extension and termination options reasonably certain to be exercised	241,978
Variable lease payment based on an index or a rate	<u>412,799</u>
	<u>\$ 1,698,822</u>
Discounted using the incremental borrowing rate at January 1, 2019	\$ 1,634,839
Finance lease liabilities recognized as at December 31, 2018	<u>-</u>
Lease liabilities recognized at January 1, 2019	<u>\$ 1,634,839</u>

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

- (b) The impact of IFRS endorsed by FSC but not yet effective

The following new standards, interpretations and amendments have been endorsed by the FSC and are effective for annual periods beginning on or after January 1, 2020 in accordance with Ruling No. 1080323028 issued by the FSC on July 29, 2019:

New, Revised or Amended Standards and Interpretations	Effective date per IASB
Amendments to IFRS 3 “Definition of a Business”	January 1, 2020
Amendments to IFRS 9, IAS39 and IFRS7 “Interest Rate Benchmark Reform”	January 1, 2020
Amendments to IAS 1 and IAS 8 “Definition of Material”	January 1, 2020

Except for the following items, the Bank and subsidiary believes that the adoption of the above IFRSs would not have any material impact on its consolidated financial statements. The extent and impact of significant changes are as follows:

- (i) Amendments to IFRS 9, IAS39 and IFRS7 “Interest Rate Benchmark Reform”

The amendments provide targeted relief for financial instruments qualifying for hedge accounting in the lead up to IBOR reform. They are mandatory and apply to all hedging relationships directly affected by uncertainties related to IBOR reform. For example, the entities are required to assume that the interest rate benchmark on which hedged cash flows are based is not altered as a result of IBOR reform when assessing whether the future cash flows are highly probable.

- (c) The impact of IFRS issued by IASB but not yet endorsed by the FSC

As of the date, the following IFRSs that have been issued by the International Accounting Standards Board (IASB), but have yet to be endorsed by the FSC:

New, Revised or Amended Standards and Interpretations	Effective date per IASB
Amendments to IFRS 10 and IAS 28 “Sale or Contribution of Assets Between an Investor and Its Associate or Joint Venture”	Effective date 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

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

Those which may be relevant to the Bank and subsidiary are set out below:

Issuance / Release Dates	Standards or Interpretations	Content of amendment
September 11, 2014	Amendments to IFRS 10 and IAS 28 “Sale or Contribution of Assets Between an Investor and Its Associate or Joint Venture”	<p>The amendments address an acknowledged inconsistency between the requirements in IFRS 10 and those in IAS 28 (2011) in dealing with the sale or contribution of assets between an investor and its associate or joint venture.</p> <p>The main consequence of the amendments is that a full gain or loss is recognized when a transaction involves a business (whether it is housed in a subsidiary or not). A partial gain or loss is recognized when a transaction involves assets that do not constitute a business, even if these assets are housed in a subsidiary.</p>
May 18, 2017	IFRS 17 “Insurance Contracts”	<p>The new standard of accounting for insurance contracts contain recognition, measurement, presentation and disclosure of insurance contracts issued, and the main amendments are as follows:</p> <ul style="list-style-type: none"> ● Recognition: the beginning of the coverage period of the group of contracts, the date when the first payment from a policyholder in the group becomes due and when the group becomes onerous shall recognize a group of insurance contracts it issues from the earliest. ● Measurement: on initial recognition, an entity shall measure a group of insurance contracts at the total of the fulfilment cash flows and the contractual service margin. For subsequent measurement, the entity shall estimate the cash flows, discount rates and the adjustment for non-financial risk. ● Presentation and disclosure: the presentation of insurance revenue is based on the provision of service pattern and investment components excluded from insurance revenue.

The Bank and subsidiary is evaluating the impact of its initial adoption of the abovementioned standards or interpretations on its consolidated financial position and consolidated financial performance. The results thereof will be disclosed when the Bank and subsidiary completes its evaluation.

(Continued)

BANK OF TAIWAN AND SUBSIDIARY

Notes to the Consolidated Financial Statements

(4) Significant accounting policies:

(a) Statement of compliance

The Bank and subsidiary are a public company. The Bank and subsidiary set up their accounting policies and prepared financial statements according to the Regulations Governing the Preparation of Financial Reports by Public Banks, the International Financial Reporting Standards, the International Accounting Standards and the IFRS interpretation.

The Bank and subsidiary are government owned enterprises, so its accounting practices mainly follow the Budget Law, Account Settlement Law and Uniform Regulations on Accounting Systems for Banks Governed by the Ministry of Finance (the MoF). The annual financial statements are audited by the Ministry of Audit (the MoA) to ensure that the Bank complies with the budget approved by the Legislative Yuan, the parliament of ROC Taiwan. The financial statements become final only after such an endorsement by the MoA.

The financial statements of 2018 was certified by the MoA, and the opening balances of retained earnings of 2019 are the same as those certified in the closing balances of 2018. Please refer to Note 16(b) for the government audit adjustments.

(b) Basis of consolidation

(i) Principle of preparation of the consolidated financial statements

The consolidated financial statements comprise the Bank and subsidiary. The financial statements of its subsidiary are included in the consolidated financial statements from the date that control commences until the date that control ceases. Losses applicable to the non-controlling interests in a subsidiary are allocated to the non-controlling interests even if doing so causes the non-controlling interests to have a deficit balance.

Intra-group balances and transactions, and any unrealized income and expenses arising from intra-group transactions are eliminated in preparing the consolidated financial statements.

(ii) List of subsidiaries in the consolidated financial statements

Name of Investor	Name of Subsidiary	Principal activities	Shareholdings		Note
			December 31, 2019	December 31, 2018	
Bank of Taiwan	BankTaiwan Insurance Brokers ("BTIB")	Life and Property insurance broker	100.00 %	100.00 %	

(c) Basis of preparation

(i) Basis of measurement

The consolidated financial statements are prepared on a historical cost basis, except for the following items.

- 1) Financial instruments measured at fair value through profit or loss (including derivative financial instruments)
- 2) Financial assets measured at fair value through other comprehensive income;
- 3) Derivative financial instruments designated as hedges which are measured at fair value;

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

- 4) The defined benefit assets are recognized as plan assets, plus unrecognized past service costs and unrecognized actuarial loss, less the unrecognized actuarial gain and the present value of the defined benefit obligation.

(ii) Functional and presentation currency

The functional currency of the Bank's and subsidiary's entities are determined based on the primary economic environment in which the entities operate. The consolidated financial statements are presented in New Taiwan Dollars, the functional currency of the Bank. All financial information represented in New Taiwan Dollars has been rounded to the nearest thousand..

(d) Foreign currency

(i) Foreign currency transactions

Transactions in foreign currencies are translated to the respective functional currencies of the Bank and subsidiary at the exchange rates of the dates of the transactions. Monetary assets and liabilities denominated in foreign currencies at the reporting date are retranslated to the functional currency at the exchange rate at that date. The foreign currency gain or loss on monetary items is the difference between the amortized cost in the functional currency at the beginning of the year adjusted for the effective interest and payments during the year, and the amortized cost in foreign currency translated at the exchange rate at the end of the year.

Non-monetary assets and liabilities denominated in foreign currencies that are measured at fair value are retranslated to the functional currency at the exchange rate at the date that the fair value was determined. Non-monetary items in a foreign currency that are measured based on historical cost are translated using the exchange rate at the date of translation.

Exchange differences are generally recognized in profit or loss, except for the following differences which are recognized in other comprehensive income arising on the retranslation:

- 1) equity instruments measured at fair value through other comprehensive income;
- 2) a financial liability designated as a hedge of the net investment in a foreign operation to the extent that the hedge is effective; or
- 3) qualifying cash flow hedges to the extent the hedge is effective.

(ii) Foreign operations

The assets and liabilities of foreign operations, including goodwill and fair value adjustments arising on acquisition, are translated to the Bank's and subsidiary's functional currency at the exchange rates of the reporting date. The income and expenses of foreign operations, excluding foreign operations in hyperinflationary economies, are translated to the Bank's and subsidiary's functional currency at average rate. Foreign currency differences are recognized in other comprehensive income, and presented in the foreign currency translation reserve (translation reserve) in equity.

(Continued)

BANK OF TAIWAN AND SUBSIDIARY

Notes to the Consolidated Financial Statements

However, if the foreign operation is a non-wholly owned subsidiary, then the relevant proportion of the translation difference is allocated to non-controlling interests. When a foreign operation is disposed of such that control, significant influence or joint control is lost, the cumulative amount in the translation reserve related to that foreign operation is reclassified to profit or loss as part of the gain or loss on disposal. When the Bank and subsidiary dispose of any part of its interest in a subsidiary that includes a foreign operation while retaining control, the relevant proportion of the cumulative amount is reattributed to non-controlling interest. When the Bank and subsidiary dispose of only part of investment in an associate or joint venture that includes a foreign operation while retaining significant or joint control, the relevant proportion of the cumulative amount is reclassified to profit or loss.

When the settlement of a monetary item receivable from or payable to a foreign operation is neither planned nor likely in the foreseeable future, foreign currency gains and losses arising from such items are considered to form part of a net investment in the foreign operation and are recognized in other comprehensive income, and presented in the translation reserve in equity.

(e) Cash and cash equivalents

For consolidated balance sheets, Cash and cash equivalents include cash on hand, due from banks, demand deposits and highly liquid investments that are readily convertible into known amount of cash and which are subject to insignificant risk of change in value. The aforementioned time deposits which are held for short-term cash commitment rather than investment or other purposes are recognized as cash equivalents.

For consolidated statement of cash flows, cash and cash equivalents refer to cash and cash equivalents presented in consolidated statement of balance sheet, deposit in the central bank, call loans to banks, and investments which are in accordance with the definition of cash and cash equivalents in the International Accounting Standards 7 accepted by the FSC.

(f) Financial instruments

Trade receivables and debt securities issued are initially recognized when they are originated. All other financial assets and financial liabilities are initially recognized when the Bank and subsidiary become a party to the contractual provisions of the instrument. A financial asset (unless it is a trade receivable without a significant financing component) or financial liability is initially measured at fair value plus, for an item not at fair value through profit or loss ("FVTPL"), transaction costs that are directly attributable to its acquisition or issue. A trade receivable without a significant financing component is initially measured at the transaction price.

(i) Financial assets

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

On initial recognition, a financial assets are classified into the following categories: measured at amortized cost, fair value through other comprehensive income ("FVOCI") and fair value through profit or loss ("FVTPL").

(Continued)

BANK OF TAIWAN AND SUBSIDIARY

Notes to the Consolidated Financial Statements

The Bank and subsidiary shall reclassify all affected financial assets only when it changes its business model for managing its financial assets.

- 1) Financial assets measured at amortized cost (including cash and cash equivalent, placement with central bank and call loans to banks, discounts and loans, receivables, other financial assets and guarantee deposits paid)

A financial asset is measured at amortized cost if it meets both of the following conditions and is not designated as at FVTPL:

- it is held within a business model whose objective is to hold assets to collect contractual cash flows; and
- its contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

These assets are subsequently measured at amortized cost, which is the amount at which the financial asset is measured at initial recognition, plus/minus, the cumulative amortization using the effective interest method, adjusted for any loss allowance. Interest income, foreign exchange gains and losses, as well as impairment, are recognized in profit or loss. Any gain or loss on derecognition is recognized in profit or loss.

If the credit risk has not increased significantly since initial recognition, the Bank and subsidiary should measure loss allowance for financial assets as 12-month ECL at reporting date; if the credit risk has increased significantly since initial recognition or the financial assets are credit-impaired, the Bank and subsidiary should measure loss allowance for financial assets at an amount equal to lifetime ECL at each reporting date. The Bank and subsidiary recognize the amount of expected credit losses (or reversal) in profit or loss, as an impairment gain or loss.

Credit maturing less than one year is called short-term loan; credit maturing more than one year but less than seven years is called medium-term loan; credit maturing more than seven years is called long-term loan. Loans against insurance policy is policy loan, and advance payment for insurance premium according to insurance contract is premium loan. Loans with collateral, pledged assets and qualified guarantees to secure credit are secured loans. Non-performing loans refer to those loans for which interests and principal payments has been in arrears for three months or more, and those loans which the principal or interest has not yet been in arrears for more than three months, but with regards to which the creditor has sought payment from primary/subordinate debtors or has disposed of collateral. All non-performing loans shall be transferred to non-accrual loans within six months after the end of the payment period expect for the loans repaid in installments by agreements. Interest shall not be accrued to non-performing loans that are transferred to non-accrual loans account. However, loan collection shall continue as per the terms of the relevant agreement, and accrued interest shall continue to be posted to the interest column of the non-accrual loans account for each borrower, or a notation of such shall be made.

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

The write-off of non-performing loans and non-accrual loans shall be discussed by the related committee, reviewed by the general manager and approved by a resolution passed by the board of directors or the board of managing directors and the audit committee shall be notified of the write-off. The board of directors shall be notified if the write-off case is passed by the board of the managing directors. Collections after writeoff shall be reversed from the allowance for bad debt.

2) Fair value through other comprehensive income (“FVOCI”)

A debt investment is measured at FVOCI if it meets both of the following conditions and is not designated as at FVTPL:

- it is held within a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets; and
- its contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

On initial recognition of an equity investment that is not held for trading, the Bank and subsidiary may irrevocably elect to present subsequent changes in the investment’s fair value in other comprehensive income. This election is made on an instrument-by-instrument basis.

Debt investments at FVOCI are subsequently measured at fair value. Interest income calculated using the effective interest method, foreign exchange gains and losses and impairment are recognized in profit or loss. Other net gains and losses are recognized in other comprehensive income. On derecognition, gains and losses accumulated in other comprehensive income are reclassified to profit or loss.

Equity investments at FVOCI are subsequently measured at fair value. Dividends are recognized as income in profit or loss unless the dividend clearly represents a recovery of part of the cost of the investment. Other net gains and losses are recognized in other comprehensive income and are never reclassified to profit or loss.

Dividend income is recognized in profit or loss on the date on which the Bank and subsidiary’s right to receive payment is established.

3) Fair value through profit or loss (“FVTPL”)

All financial assets not classified as amortized cost or FVOCI described as above are measured at FVTPL, including derivative financial assets and accounts receivable (except for those presented as accounts receivable but measured at FVTPL). On initial recognition, the Bank and subsidiary may irrevocably designate a financial asset, which meets the requirements to be measured at amortized cost or at FVOCI, as at FVTPL if doing so eliminates or significantly reduces an accounting mismatch that would otherwise arise.

These assets are subsequently measured at fair value. Net gains and losses, including any interest or dividend income, are recognized in profit or loss.

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

4) Business model assessment

The Bank and subsidiary make an assessment of the objective of the business model in which a financial asset is held at portfolio level because this best reflects the way the business is managed and information is provided to management. The information considered includes:

- the stated policies and objectives for the portfolio and the operation of those policies in practice. These include whether management's strategy focuses on earning contractual interest income, maintaining a particular interest rate profile, matching the duration of the financial assets to the duration of any related liabilities or expected cash outflows or realizing cash flows through the sale of the assets;
- how the performance of the portfolio is evaluated and reported to the Bank's and subsidiary's management;
- the risks that affect the performance of the business model (and the financial assets held within that business model) and how those risks are managed;
- the frequency, volume and timing of sales of financial assets in prior periods, the reasons for such sales and expectations about future sales activity.

Transfers of financial assets to third parties in transactions that do not qualify for derecognition are not considered sales for this purpose, and are consistent with the Bank's and subsidiary's continuing recognition of the assets.

5) Assessment whether contractual cash flows are solely payments of principal and interest

For the purposes of this assessment, 'principal' is defined as the fair value of the financial assets on initial recognition. 'Interest' is defined as consideration for the time value of money and for the credit risk associated with the principal amount outstanding during a particular period of time and for other basic lending risks and costs, as well as a profit margin.

In assessing whether the contractual cash flows are solely payments of principal and interest, the Bank and subsidiary considers the contractual terms of the instrument. This includes assessing whether the financial asset contains a contractual term that could change the timing or amount of contractual cash flows such that it would not meet this condition. In making this assessment, the Bank and subsidiary consider:

- contingent events that would change the amount or timing of cash flows;
- terms that may adjust the contractual coupon rate, including variable rate features;
- prepayment and extension features; and
- terms that limit the Bank's and subsidiary's claim to cash flows from specified assets (e.g. non-recourse features)

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

6) Derecognition of financial assets

Financial assets are derecognized when the contractual rights to the cash flows from the assets expire, or when the Bank and subsidiary transfer substantially all the risks and rewards of ownership of the financial assets.

The Bank and subsidiary enters into transactions whereby it transfers assets recognized in its statement of balance sheet, but retains either all or substantially all of the risks and rewards of the transferred assets. In these cases, the transferred assets are not derecognized.

(ii) Financial liabilities and equity instruments

1) Classification of debt or equity

Debt and equity instruments issued by the Bank and subsidiary are classified as financial liabilities or equity in accordance with the substance of the contractual arrangements and the definitions of a financial liability and an equity instrument.

2) Equity instrument

An equity instrument is any contract that evidences residual interest in the assets of an entity after deducting all of its liabilities. Equity instruments issued are recognized as the amount of consideration received, less the direct cost of issuing.

3) Compound financial instruments

Compound financial instruments issued by the Bank and subsidiary comprise convertible bonds denominated in NTD that can be converted to ordinary shares at the option of the holder, when the number of shares to be issued is fixed and does not vary with changes in fair value.

The liability component of compound financial instruments is initially recognized at the fair value of a similar liability that does not have an equity conversion option. The equity component is initially recognized at the difference between the fair value of the compound financial instrument as a whole and the fair value of the liability component. Any directly attributable transaction costs are allocated to the liability and equity components in proportion to their initial carrying amounts.

Subsequent to initial recognition, the liability component of a compound financial instrument is measured at amortized cost using the effective interest method. The equity component of a compound financial instrument is not remeasured.

Interest related to the financial liability is recognized in profit or loss. On conversion at maturity, the financial liability is reclassified to equity and no gain or loss is recognized.

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

4) Financial liabilities

Financial liabilities are classified as measured at amortized cost or FVTPL. A financial liability is classified as at FVTPL if it is classified as held-for-trading, it is a derivative or it is designated as such on initial recognition. Financial liabilities at FVTPL are measured at fair value and net gains and losses, including any interest expense, are recognized in profit or loss.

Other financial liabilities are subsequently measured at amortized cost using the effective interest method. Interest expense and foreign exchange gains and losses are recognized in profit or loss. Any gain or loss on derecognition is also recognized in profit or loss.

5) Derecognition of financial liabilities

The Bank and subsidiary derecognizes a financial liability when its contractual obligations are discharged or cancelled, or expire. The Bank and subsidiary also derecognizes a financial liability when its terms are modified and the cash flows of the modified liability are substantially different, in which case a new financial liability based on the modified terms is recognized at fair value.

On derecognition of a financial liability, the difference between the carrying amount of a financial liability extinguished and the consideration paid (including any non-cash assets transferred or liabilities assumed) is recognized in profit or loss.

6) Offsetting of financial assets and liabilities

Financial assets and financial liabilities are offset and the net amount presented in the statement of balance sheet when, and only when, the Bank and subsidiary currently have a legally enforceable right to set off the amounts and it intends either to settle them on a net basis or to realize the asset and settle the liability simultaneously.

7) Financial guarantee contracts

A financial guarantee contract is a contract that requires the issuer to make specified payments to reimburse the holder for a loss it incurs because a specified debtor fails to make payment when due in accordance with the original or modified terms of a debt instrument.

Financial guarantee contract liabilities are measured initially at their fair values and, if not designated as at FVTPL and do not arise from a transfer of an asset, are measured subsequently at the higher of: (a) the amount of the loss allowance determined in accordance with IFRS 9; and (b) the amount recognized initially less, where appropriate, cumulative amortization recognized in accordance with the revenue recognition policies set out below.

(iii) Derivative financial instruments and hedge accounting

The Bank and subsidiary hold derivative financial instruments to hedge its foreign currency and interest rate exposures. Embedded derivatives are separated from the host contract and accounted for separately if the host contract is not a financial asset and certain criteria are met.

(Continued)

BANK OF TAIWAN AND SUBSIDIARY

Notes to the Consolidated Financial Statements

Derivatives are initially measured at fair value. Subsequent to initial recognition, derivatives are measured at fair value, and changes therein are generally recognized in profit or loss.

The Bank and subsidiary choose to continue to apply the hedge accounting requirements of IAS 39.

The Bank and subsidiary designates certain hedging instruments as either fair value hedges, cash flow hedges, or hedges of net investments in foreign operations. Hedges of foreign exchange risk on firm commitments are accounted for as cash flow hedges.

At initial designated hedging relationships, the Bank and subsidiary document the risk management objectives and strategy for undertaking the hedge. The Bank and subsidiary also document the economic relationship between the hedged item and the hedging instrument, including whether the changes in cash flows of the hedged items and hedging instrument are expected to offset each other.

Where hedging gains or losses are recognized in profit or loss, they are recognized in the same line as the hedged item.

If the hedge no longer meets the criteria for hedge accounting or the hedging instrument is sold, expires, is terminated or is exercised, then hedge accounting is discontinued prospectively. The discontinuation is accounted for prospectively. The fair value adjustment to the carrying amount of the hedged item arising from the hedged risk is amortized to profit or loss from that date.

(g) Investments in associates

Associate refers to an entity in which the Bank, TFH and its subsidiary hold 20% of the voting power or less than 20% of the voting power but have significant influence. If the Bank and subsidiary have rights on the finance and operating policy decisions but not control or joint control these decisions, it is presumed that the Bank and subsidiary have significant influence.

The Bank and subsidiary use equity method for investments in associates. Under the equity method, an equity investment is initially recorded at cost. In the subsequent period, the carrying amount of the investments is adjusted by the share of the profit or loss of the associate and the distributions received. Besides, the Bank and subsidiary recognize the changes according to the holding shares.

If the Bank and subsidiary dispose the investment and loss significant influence, the residual investments shall be remeasured at fair value of the disposal date. The difference between the fair value of the residual investment plus the disposal price and the original carrying amount of the investment at that date is recognized in income statement. The related other comprehensive income is reclassified as profit or loss.

The associate issues additional share capital, but the Bank and subsidiary do not participate in the share issue on a pro-rata basis. It will lead to change in holding, but the Bank and subsidiary still have significant influence. As a result, the Bank and subsidiary shall adjust the APIC and investments in equity method accounts according to the changes in net assets of the associate.

Gains and losses resulting from transactions between the Bank and subsidiary and an associate are recognized only to the extent of unrelated Bank and subsidiary's interests in the associate.

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

When the Bank and subsidiary's share of losses exceeds its interest in associates, the carrying amount of the investment, including any long-term interests that form part thereof, is reduced to zero, and the recognition of further losses is discontinued except to the extent that the Bank and subsidiary have an obligation or have made payments on behalf of the investee.

(h) Property and equipment

(i) Recognition and measurement

Items of property and equipment are measured at cost, which includes capitalized borrowing costs, less accumulated depreciation and any accumulated impairment losses.

If significant parts of an item of property and equipment have different useful lives, they are accounted for as separate items (major components) of property and equipment.

Any gain or loss on disposal of an item of property and equipment is recognized in profit or loss.

(ii) Reclassification to investment property

When there is a change in use, the Bank and subsidiary treat the owner-occupied property as investment property; the property shall be reclassified to investment property at carrying amount from then on.

(iii) Subsequent cost

Subsequent expenditure is capitalized only if it is probable that the future economic benefits associated with the expenditure will flow to the Bank and subsidiary.

(iv) Depreciation

Depreciation is calculated on the cost of an asset less its residual value and is recognized in profit or loss on a straightline basis over the estimated useful lives of each component of an item of property and equipment.

Land has an unlimited useful life and therefore is not depreciated.

The estimated useful lives for the current and comparative years of significant items of property and equipment are as follows:

Buildings	8 to 55 years
Machinery and equipment	2 to 20 years
Transportation equipment	2 to 15 years
Miscellaneous equipment	2 to 25 years
Leasehold improvements	5 years

Depreciation methods, useful lives and residual values are reviewed at each reporting date and adjusted if appropriate.

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

(i) Lease

Applicable from January 1, 2019

(i) Identifying a lease

At inception of a contract, the Bank and subsidiary assesses whether a contract is, or contains, a lease. A contract is, or contains, a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration. To assess whether a contract conveys the right to control the use of an identified asset, the Bank and subsidiary assesses whether:

- 1) the contract involves the use of an identified asset – this may be specified explicitly or implicitly, and should be physically distinct or represent substantially all of the capacity of a physically distinct asset. If the supplier has a substantive substitution right, then the asset is not identified; and
- 2) the Bank and subsidiary have the right to obtain substantially all of the economic benefits from use of the asset throughout the period of use; and
- 3) the Bank and subsidiary have the right to direct the use of the asset throughout the period of use only if either:
 - the Bank and subsidiary have the right to direct how and for what purpose the asset is used throughout the period of use; or
 - the relevant decisions about how and for what purpose the asset is used are predetermined and:
 - the Bank and subsidiary have the right to operate the asset throughout the period of use, without the supplier having the right to change those operating instructions; or
 - the Bank and subsidiary designed the asset in a way that predetermines how and for what purpose it will be used throughout the period of use.

At inception or on reassessment of a contract that contains a lease component, the Bank and subsidiary allocate the consideration in the contract to each lease component on the basis of their relative stand-alone prices.

(ii) As a lessee

The Bank and subsidiary recognizes a right-of-use asset and a lease liability at the lease commencement date. The right-of-use asset is initially measured at cost, which comprises the initial amount of the lease liability adjusted for any lease payments made at or before the commencement date, plus any initial direct costs incurred and an estimate of costs to dismantle and remove the underlying asset or to restore the underlying asset or the site on which it is located, less any lease incentives received.

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

The right-of-use asset is subsequently depreciated using the straight-line method from the commencement date to the earlier of the end of the useful life of the right-of-use asset or the end of the lease term. In addition, the right-of-use asset is periodically reduced by impairment losses, if any, and adjusted for certain remeasurements of the lease liability.

The lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date, discounted using the interest rate implicit in the lease or, if that rate cannot be reliably determined, the Bank and subsidiary's incremental borrowing rate. Generally, the Bank and subsidiary uses its incremental borrowing rate as the discount rate.

Lease payments included in the measurement of the lease liability comprise the following:

- fixed payments;
- variable lease payments that depend on an index or a rate, initially measured using the index or rate as at the commencement date;
- amounts expected to be payable under a residual value guarantee; and
- payments for purchase or termination options that are reasonably certain to be exercised.

The lease liability is measured at amortized cost using the effective interest method. It is remeasured when:

- there is a change in future lease payments arising from the change in an index or rate; or
- there is a change in the Bank and subsidiary's estimate of the amount expected to be payable under a residual value guarantee; or
- there is a change in the lease term resulting from a change of its assessment on whether it will exercise an option to purchase the underlying asset, or
- there is a change of its assessment on whether it will exercise a purchase, extension or termination option; or
- there is any lease modifications

When the lease liability is remeasured, other than lease modifications, a corresponding adjustment is made to the carrying amount of the right-of-use asset, or in profit and loss if the carrying amount of the right-of-use asset has been reduced to zero.

When the lease liability is remeasured to reflect the partial or full termination of the lease for lease modifications that decrease the scope of the lease, the Bank and subsidiary accounts for the remeasurement of the lease liability by decreasing the carrying amount of the right-of-use asset to reflect the partial or full termination of the lease, and recognize in profit or loss any gain or loss relating to the partial or full termination of the lease.

The Bank and subsidiary presents right-of-use assets that do not meet the definition of investment and lease liabilities as a separate line item respectively in the statement of financial position.

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

The Bank and subsidiary have elected not to recognize right-of-use assets and lease liabilities for short-term leases. The Bank and subsidiary recognize the lease payments associated with these leases as an expense on a straight-line basis over the lease term.

(iii) As a lessor

When the Bank and subsidiary acts as a lessor, it determines at lease commencement whether each lease is a finance lease or an operating lease. To classify each lease, the Bank and subsidiary makes an overall assessment of whether the lease transfers to the lessee substantially all of the risks and rewards of ownership incidental to ownership of the underlying asset. If this is the case, then the lease is a finance lease; if not, then the lease is an operating lease. As part of this assessment, the Bank and subsidiary considers certain indicators such as whether the lease is for the major part of the economic life of the asset.

If an arrangement contains lease and non-lease components, the Bank and subsidiary choose not to allocate the consideration in the contract.

Applicable before January 1, 2019

(i) Lessor

A finance lease asset is recognized on a net basis as lease receivable. Initial direct costs incurred in negotiating and arranging an operating lease are added to the net investment in the leased asset. The finance income is allocated to each period during the lease term so as to produce a constant periodic rate of interest on the remaining balance of the receivable.

Lease income from an operating lease is recognized in income on a straight-line basis over the lease term. Initial direct costs incurred in negotiating and arranging an operating lease are added to the carrying amount of the leased asset, and recognized as an expense over the lease term on the same basis as the lease income. Incentives granted to the lessee to enter into the operating lease are spread over the lease term on a straight-line basis so that the lease income received is reduced accordingly.

Contingent rents are recognized as income in the period when the lease adjustments are confirmed.

(ii) Lessee

Leases in which the Bank and subsidiary assumes substantially all of the risks and rewards of ownership are classified as finance leases. On initial recognition, the lease asset is measured at an amount equal to the lower of its fair value or the present value of the minimum lease payments. Subsequent to initial recognition, the asset is accounted for in accordance with the accounting policy applicable to the asset.

Minimum lease payments made under finance leases are apportioned between the finance cost and the reduction of the outstanding liability. The finance cost is allocated to each period during the lease term so as to produce a constant periodic rate of interest on the remaining balance of the liability.

Other leases are operating leases and are not recognized in the Company and subsidiaries' s balance sheets.

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BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

Payments made under operating leases (excluding insurance and maintenance expenses) are recognized in profit or loss on a straight-line basis over the term of the lease. Lease incentives received are recognized as an integral part of the total lease expense, over the term of the lease.

Contingent rent is recognized as expense in the period in which it is incurred.

(j) Investment property

Investment property is property held either to earn rental income or for capital appreciation or for both, but not for sale in the ordinary course of business, for use in the production or supply of goods or services, or for administrative purposes. Investment property is measured at cost on initial recognition and subsequently at cost less accumulated depreciation and accumulated impairment losses. Depreciation expense is calculated based on the depreciation method, useful life, and residual value which are the same as those adopted for property, plant and equipment. Cost includes expenditure that is directly attributable to the acquisition of the investment property. The cost of self constructed investment property includes the cost of raw materials and direct labor, any other costs directly attributable to bringing the investment property to a working condition for its intended use, and capitalized borrowing costs.

When the use of an investment property changes such that it is reclassified as property, plant and equipment, its book value at the date of reclassification becomes its cost for subsequent accounting.

(k) Intangible assets

(i) Computer Software

The Bank and subsidiary measure the computer software at cost less accumulated amortization and accumulated loss.

(ii) Subsequent Expenditure

Subsequent expenditure is capitalized only when it increases the future economic benefits embodied in the specific asset to which it relates. All other expenditure, including expenditure on internally generated goodwill and brands, is recognized in profit or loss as incurred.

(iii) Amortization

The depreciable amount is the cost of an asset, or other amount substituted for cost, less its residual value.

Amortization is recognized in profit or loss on a straight-line basis over the estimated useful lives of intangible assets, other than goodwill and intangible assets with all indefinite useful life, from the date that they are available for use. The estimated useful lives for the current and comparative periods are as follows:

Computer software	5 years
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The residual value, amortization period, and amortization method for an intangible asset with a finite useful life shall be reviewed at least annually at each fiscal year-end. Any change shall be accounted for as changes in accounting estimates.

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

Intangible asset is derecognized when disposed or expected that the usage or disposal will not generate economic benefit in the future. The resulted gain or loss is recognized in the income statement.

(l) Impairment of Assets

(i) Impairment of financial assets

The Bank and subsidiary recognize loss allowances for expected credit losses on financial assets measured at amortized cost (including cash and cash equivalents, placement with central bank and call loans to banks, amortized costs, discounts and loans, receivables, loans, margins or security deposits, and other financial assets) and debt investments measured at fair value through other comprehensive income.

At each reporting date, the Bank and subsidiary assess whether the credit risk of a financial asset has increased significantly since initial recognition. If the credit risk has increased significantly since initial recognition or the financial assets are credit impaired, the Bank and subsidiary should measure loss allowance for financial assets at an amount equal to lifetime ECL at each reporting date; if the credit risk has not increased significantly since initial recognition, the Bank and subsidiary measure loss allowance for financial assets as 12 month ECL at reporting date.

Lifetime ECLs are the ECLs that result from all possible default events over the expected life of a financial instrument.

12 month ECLs are the portion of ECLs that result from default events that are possible within the 12 month after the reporting date (or a shorter period if the expected life of the instrument is less than 12 months).

The maximum period considered when estimating ECLs is the maximum contractual period over which the Bank and subsidiary are exposed to credit risk.

ECLs are a probability weighted estimate of credit losses. Credit losses are measured as the present value of all cash shortfalls (i.e the difference between the cash flows due to the Bank and subsidiary in accordance with the contract and the cash flows that the Bank and subsidiary expect to receive). ECLs are discounted at the effective interest rate of the financial asset.

The Bank evaluates the categories and recognizes allowance for doubtful accounts according to the higher of the Regulations of the Procedures for Banking Institutions to Evaluate Assets and Deal with Past-Due/Non-Performing Loans and the Regulation of Evaluating the Impairment Loss of Loans and Receivables.

Loss allowances for financial assets measured at amortized cost are deducted from the gross carrying amount of the assets. For debt securities at FVOCI, the loss allowance is recognized in other comprehensive income instead of reducing the carrying amount of the asset. The Bank and subsidiary recognize the amount of expected credit losses (or reversal) in profit or loss, as an impairment gain or loss.

(Continued)

BANK OF TAIWAN AND SUBSIDIARY

Notes to the Consolidated Financial Statements

The gross carrying amount of a financial asset is written off (either partially or in full) to the extent that there is no realistic prospect of recovery. This is generally the case when the Bank and subsidiary determine that the debtor does not have assets or sources of income that could generate sufficient cash flows to repay the amounts subject to the write off. However, financial assets that are written off could still be subject to enforcement activities in order to comply with the Bank and subsidiary' procedures for recovery of amounts due.

(ii) Impairment loss of non financial assets

At each reporting date, the Bank and subsidiary reviews the carrying amounts of its non-financial assets (other than inventories, contract assets, deferred tax assets and investment properties and biological assets, measured at fair value, less costs) to determine whether there is any indication of impairment. If any such indication exists, then the asset's recoverable amount is estimated. Goodwill is tested annually for impairment.

For impairment testing, assets are grouped together into the smallest group of assets that generates cash inflows from continuing use that are largely independent of the cash inflows of other assets or CGUs. Goodwill arising from a business combination is allocated to CGUs or groups of CGUs that are expected to benefit from the synergies of the combination.

The recoverable amount of an asset or CGU is the greater of its value in use and its fair value less costs to sell. Value in use is based on the estimated future cash flows, discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset or CGU.

An impairment loss is recognized if the carrying amount of an asset or CGU exceeds its recoverable amount.

Impairment losses are recognized in profit or loss. They are allocated first to reduce the carrying amount of any goodwill allocated to the CGU, and then to reduce the carrying amounts of the other assets in the CGU on a pro rata basis.

An impairment loss in respect of goodwill is not reversed. For other assets, an impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortization, if no impairment loss had been recognized.

(m) Provision

(i) The Bank and subsidiary must recognize a provision if, and only if:

- 1) There is a legal or constructive present obligation as a result of a past event, and
- 2) Payment is probable, and
- 3) The amount can be reliably estimated.

(ii) The amount recognized as a provision should be the best estimate of the expenditure required to settle the present obligation at the balance sheet date. In reaching its best estimate, the Bank and subsidiary shall take into account the risks, uncertainties that surround the underlying events and the time value of the currency.

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
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- (iii) The Bank and subsidiary evaluate the provision at every end of the reporting date, and adjust the carrying amount according to the best estimation.

(n) Other reserves

Provision for civil servants', teachers' and labor's insurance: The Bank recognizes the surplus of the insurance as provision and withdraws when there is a deficit according to the "Civil Servant and Teacher Insurance Act" and "Guidelines for Management and Employment of Public Servants and Teachers Insurance Reserve".

(o) Revenue and expense recognition

Revenue is measured based on the consideration to which the Bank and subsidiary expect to be entitled in exchange for transferring goods or services to a customer. The Bank and subsidiary recognize revenue when it satisfies a performance obligation by transferring control of a good or a service to a customer.

- (i) Revenue is the gross inflow of economic benefits during the period arising in the course of the ordinary operating activities of an entity when those inflows result in increases in equity, other than increase relating to contributions from equity participants.
- (ii) The amount of revenue arising on a transaction is usually determined by agreement between the entity and the buyer or user of the asset. It is measured at the fair value of the consideration received or receivable taking into account the amount of any trade discounts and volume rebates allowed by the entity. Revenue shall be recognized when all of the following criteria have been satisfied:
 - 1) the seller has transferred to the buyer the significant risks and rewards of ownership.
 - 2) it is probable that the economic benefits associated with the transaction will flow to the seller
 - 3) the costs incurred or to be incurred in respect of the transaction can be measured reliably,
 - a) the seller retains neither continuing managerial involvement to degree usually associated with ownership nor effective control over the goods sold, and
 - 4) the amount of revenue can be measured reliably.
 - 5) Except for the financial assets and liabilities at fair value through profit and loss, the interest revenue and interest expense caused by the interest-bearing financial assets or liabilities are calculated by effective interest method. For loans and receivables, the Bank and subsidiary shall consider the materiality principle to decide to measure the interest by agreed interest rate or effective interest rate.
- (iii) Service fee income and expense
 - 1) The service fee income arising from offering loan service or other services shall be recognized in the accounting period in which the services are rendered.

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

- 2) The service fee or expense arising from the loan service shall be amortized in the service period or taken into account for calculating the effective interest of loans and receivables in accordance with the materiality principle.
- (iv) Dividend revenue: it shall be recognized if and only if the Bank and subsidiary have right to receive the dividend revenue.
- (v) According to the “Civil Servant and Teacher Insurance Act”, if GESSI experiences a loss, the loss before May 31, 1999 would be covered by the Ministry of Finance; and the loss after that date would be covered by an adjustment of the insurance premium.
- (vi) Revenue and expense that relate to the same transaction or other event are recognized simultaneously; this process is commonly referred to as the matching of revenue and expense.
- (p) Employee benefit
 - (i) Short-term employee benefit

The payroll, annual bonus, paid annual leave, interest expense arising from preferential interest rate and non-monetary benefit are recognized in the accounting year in which the services are rendered by employees.
 - (ii) Employee benefit
 - 1) Employee pension:

The grant of employees’ pension compromise: a) the contributions made by the Bank at the rate from 4% to 8.5% of the employee’s monthly wage (depending on the employee’s ‘salary point’ and service period before the Labor Standards Act was applied) and the contributions made by the employee at the rate of 3% of his or her monthly wage under Article 9 and Article 8, respectively, of the aforementioned regulations. (The Bank ceased to continue the contributions mentioned above after the Labor Standards Act was applied.) The Bank also contributed 3% of the total amount of the wages as reserve. ;b) the contributions calculated based on the employee’s monthly wage and service period (after May 1, 1997) in accordance with Article 41 and the related regulations set forth in the Labor Standards Act. All the contributions are made to the fund managed by the Pension Supervision Committee for future payments.
 - 2) Labor pension:

Labor Pension is a defined contribution pension plan. The grant of labors’ pension is conducted under the Bank’s Work Rules before the Labor Standards Act was applied. Under Article 73 of the Rules, the service period before and after May 1, 1997 is accumulated in accordance with the Rules and the Labor Standard Act, respectively. The contributions calculated at a certain rate under Labor Pension are made to a designated Labor Retirement Reserve Account for future payments. In addition, the Bank is required to allocate 6% of each employee’s monthly wages to the labor pension personal account at the Bureau of the Labor Insurance in accordance with the provisions of the Labor Pension Act effective July 1, 2005.
 - 3) For defined contribution plan, the employer has no further legal or constructive obligation to pay further contributions in accordance with the Labor Pension Act.

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BANK OF TAIWAN AND SUBSIDIARY
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- 4) For the definite benefit plan, the independent actuary of the Bank and subsidiary use the projected unit credit method to calculate the present value of the defined benefit obligation and the current service cost. The present value of the defined benefit obligation is the projected future cash flow discounted by the market yields at the end of the reporting period on the bonds that have maturity dates approximating the terms of the obligation and that are denominated in the same currency in which the benefits are expected to be paid. Remeasurements of the net defined benefit liability (asset) include (a) actuarial gains or losses, (b) return on plan assets, excluding amounts included in net interest on the net defined benefit liability (asset), and (c) any change in the effect of the asset ceiling, excluding amounts included in net interest on the net defined benefit liability (asset). The amounts recognized in other comprehensive income will not be reclassified subsequently to profit or loss. The Bank and subsidiary could transfer the amounts recognized in other comprehensive income to equity. The Bank and subsidiary decided to recognize remeasurements of the defined benefit plan to retained earnings; actuarial gains or losses for practical experience or actuarial assumptions changes recognize to other comprehensive income immediately. Prior period servicing costs should recognize in profit or loss immediately. Defined benefit plan pension for period adopts pension cost rate determined by actuarial assumptions at prior reporting date and is calculated based on fiscal year. The pension also makes the adjustments to reflect significant market volatility, significant curtailment and settlement, or other significant nonrecurring matter after reporting date.
 - 5) The oversea branches of the Bank abide by the foreign government's regulations.
- (iii) Preferential interest deposits
- 1) The Bank and subsidiary provide their employees the preferential interest deposits, including that for current employees and retired employees. The difference between the preferential interest rate and the market rate are the employee benefit.
 - 2) In accordance with the Article 28 of the Regulations Governing the Preparation of Financial Reports by the Public Banks, if the preferential interest rate for retired employees exceeds the market rate, the Bank and subsidiary shall calculate the excess interest using the actuarial method by adopting the IAS 19 when the employees retire. However the actuarial assumptions shall follow the government's related regulations. For the preferential interest deposits paid for current employees, the Bank and subsidiary shall calculate the interest monthly on accrual basis. The different amount of the preferential interest rate and market interest rate is recognized under the preferential interest account in the comprehensive Income statement.
 - 3) As from July 1, 2018, the Bank terminates the preferential interest deposits for retired employees, in accordance with the rule Tai Tsai Ku No.10700624450 issued by the Ministry of Finance.
- (iv) Other employee's retirement benefits
- 1) Include three Chinese festival gifts, survivors benefit, and special benefits to retired employees who were paid pension in early times.

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

- 2) It belongs to the definite benefit plan, and the independent actuary uses the projected unit credit method to calculate the present value of the defined benefit obligation and the current service cost. The present value of the defined benefit obligation is the projected future cash flow discounted by the market yields at the end of the reporting period on the bonds that have maturity dates approximating the terms of the obligation and that are denominated in the same currency in which the benefits are expected to be paid. The actuarial gains and losses are recognized in the other comprehensive income when they occur.

(q) Income tax

Income tax expenses include both current taxes and deferred taxes. Except for expenses related to business combinations or recognized directly in equity or other comprehensive income, all current and deferred taxes shall be recognized in profit or loss.

(i) Current income tax

Current taxes comprise the expected tax payables or receivables on the taxable profits (losses) for the year and any adjustment to the tax payable or receivable in respect of previous years. The amount of current tax payables or receivables are the best estimate of the tax amount expected to be paid or received that reflects uncertainty related to income taxes, if any. It is measured using tax rates enacted or substantively enacted at the reporting date.

(ii) Deferred Tax

When measuring the deferred tax asset and deferred tax liability, the Bank and subsidiary shall use the enacted tax rate for the periods in which deferred tax asset or deferred tax liability are expected to be settled or realized. Due to the temporary difference between the carrying amount of the asset or liability in the consolidated financial report and the tax basis, the deferred income tax is recognized. The main temporary differences are resulted from the valuation of part financial instruments (including derivatives), pension and the reserves of other retirement benefits. If the temporary differences are arising from goodwill or original recognition of other assets and liabilities (excluding the merger) and the transaction does not affect the taxable income and the accounting income, it will not be recognized as deferred tax asset or deferred tax liabilities.

The deferred tax liability shall be recognized for all taxable temporary differences. But the deferred tax asset can only be recognized when there is enough taxable income for deductible temporary differences.

The temporary difference related to the investments in subsidiaries, branches and associates shall be recognized as deferred income liability. If the parent company can control the time to reverse the temporary difference and the temporary difference will probably not be reversed in the foreseeable future, the temporary difference is not recognized.

(r) Earnings per share

Basic earnings per share: The earnings per share is computed by dividing the net income or loss by the weighted average number of common stocks outstanding over the reporting term.

(Continued)

BANK OF TAIWAN AND SUBSIDIARY

Notes to the Consolidated Financial Statements

(s) Operating segments

An operating segment is a component of the Bank and subsidiary that engages in business activities that can generate revenues and expenses (including the revenues and expenses arising from inter-company transactions). The segments' operating results are reviewed regularly by the Bank's and subsidiary's chief operating officer in order to decide the resource allocation and assess the segments' performance. Each segment has separate financial information.

(5) Significant Accounting Judgments, Estimations, Assumptions, and Sources of Estimation Uncertainty:

The preparation of the financial statements, in conformity with the Regulations Governing the Preparation of Financial Reports by Public Banks and the International Financial Reporting Standards ("IFRSs") endorsed by the Financial Supervisory Commission, R.O.C. ("FSC"), requires management to make judgments, estimates and assumptions that affect the application of the accounting policies and the reported amount of assets, liabilities, income and expenses. Actual results may differ from these estimates.

Management continued to monitor the accounting assumptions, estimates and judgments. Management recognized the changes in the accounting estimates during the period and the impact of the changes in the accounting estimates in the next period.

Determination of the book value of the assets and the liabilities as the following that significant impact on amounts recognized in the financial statements are influenced by accounting assumptions and judgments. Actual results may significantly differ from the followings due to the changes in accounting assumptions and judgments.

(a) The fair value valuation of non-active market or non-quoted financial instruments

The fair value of non active market or non quoted financial instruments is determined using valuation techniques. Such fair value is based on observable data of similar financial instruments or valuation model. If there are no observable market parameters, the fair value of financial instruments is evaluated based on appropriate assumptions. If fair value is determined by the valuation model, the model is calibrated to ensure that all output data and the results reflect the actual market price. This valuation model use only observable data as much as possible. But for credit risk (both our own and the contracting parties credit risk), the managements shall estimate the relation and the variation.

(b) The valuation of financial assets impairments

The financial asset impairments of the Bank and subsidiary (including gaurantees and loan commitments off balance sheet), measuring the loss allowance at an amount equal to 12 month expected credit losses or lifetime expected credit losses, are determined by whether the credit risk of the financial instruments have increased significantly since initial recognition. In order to measure expected credit losses, the Bank and subsidiary consider the probability of default ("PD") of financial asset, issuer or counterparty, and include loss given default ("LGD") multiplied by exposure at default ("EAD"). Meanwhile, it also considers the impact of the time value of money to calculate the expected credit losses for 12 month and lifetime, respectively. At every reporting date the historical experience, current market situation and forward looking estimates, etc. are considered by the Bank and subsidiary to determine the adopted assumptions and parameters when calculating impairment.

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
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(c) Income tax

The Bank and subsidiary need to pay income tax for various countries. When estimating the globe income tax, the Bank and subsidiary rely on significant accounting estimations. Determine the final amount need to go through numerous transactions and calculations. The additional recognition of income tax liability which is related to the tax issue is based on deliberate evaluation of the affection by the issue. The difference between the amount of original estimation and the final amount will affect current income tax and deferred tax.

(d) Payments to defined contribution retirement benefit plans

The present value of retirement benefit obligation is based on several actuarial assumptions (including the decisions made by Financial Supervisory Commission, R.O.C.). Any changes on these assumptions will influence the fair value of the retirement benefit obligations. One of the assumptions used to determine net pension cost (income) is the discount rate. The Bank and subsidiaries determined the appropriate discount rate at the end of each year, and used the rate to calculate the present value of future cash flows on estimated payment of retirement benefit obligation. To determine the appropriate discount rate, the Bank should consider the followings: (1) interest rate of high quality corporate bonds or government bonds, (2) the currency used for the corporate bonds or government bonds should be inconsistent with the currency used for retirement benefit payments, (3) and the maturity period should be inconsistent with related pension liability periods.

Significant assumptions used on retirement benefit obligations are based on current market conditions.

(6) Explanation of Significant Accounts:

(a) Cash and Cash Equivalents

	December 31, 2019	December 31, 2018
Cash on hand	\$ 12,143,159	12,838,199
Foreign currency on hand	13,515,714	12,744,005
Notes and checks for clearing	4,456,443	9,914,126
Placement with banks	114,038,219	130,389,598
Cash in transit	178,426	-
Less: Allowance for bad debts — placement with banks	(19,153)	(20,968)
Total	<u><u>\$ 144,312,808</u></u>	<u><u>165,864,960</u></u>

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

The balance of cash and cash equivalents presented in the statements of cash flows were as follows:

	December 31, 2019	December 31, 2018
Cash and cash equivalents in consolidated balance sheets	\$ 144,312,808	165,864,960
Placement with the Central Bank of R.O.C. and other banks that meet the definition of cash and cash equivalents in IAS 7	186,167,478	162,126,076
Securities purchased under agreements to resell that meet the definition of cash and cash equivalents in IAS 7	592,051,204	573,475,179
Total	<u><u>\$ 922,531,490</u></u>	<u><u>901,466,215</u></u>

The Bank and subsidiary assess the loss allowance for cash and cash equivalents by using the expected credit loss model. Due to the low credit risk of cash and cash equivalents, loss allowance is recognized based on 12 month expected credit loss.

(b) Placement with Central Bank and Call Loans to Banks

	December 31, 2019	December 31, 2018
Call loans to banks	\$ 164,756,870	130,191,705
Less: allowance for doubtful accounts—call loans to banks	88,767	55,833
Deposit reserve—account A and account B	97,220,751	108,000,510
Deposit reserve—foreign—currency deposits	696,546	720,060
Deposits in Central Bank—oversea branches	4,513,352	2,779,045
Deposits in Central Bank	<u>293,488,120</u>	<u>293,495,362</u>
Total	<u><u>\$ 560,586,872</u></u>	<u><u>535,130,849</u></u>

According to the Central Bank of the Republic of China Act and the Banking Act, the deposit reserves are determined monthly at prescribed rates based on the average balances of customers' New Taiwan Dollar denominated deposits. The account B deposit reserve is subject to withdrawal restrictions, but reserve for account A and foreign currency denominated deposit may be withdrawn anytime and are non interest earning.

Additionally, as of December 31, 2019 and 2018, 60% of the reserve deposits collected on behalf of a government institution amounting to \$4,288,120 thousand and \$4,295,362 thousand, respectively, were deposited in the Central Bank and their use is restricted according to the regulations.

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BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

(c) Financial Assets Measured at Fair Value through Profit or Loss

(i) Financial assets measured at fair value through profit or loss were as follows:

	December 31, 2019	December 31, 2018
Financial assets designated at fair value through profit or loss	\$ 18,906,332	15,556,919
Add: Valuation adjustment	<u>455,136</u>	<u>(91,199)</u>
Subtotal	<u>19,361,468</u>	<u>15,465,720</u>
Financial assets mandatorily measured at fair value through profit or loss	170,511,365	203,210,301
Add: Valuation adjustment	<u>54,321,096</u>	<u>17,732,697</u>
Subtotal	<u>224,832,461</u>	<u>220,942,998</u>
Total	<u><u>\$ 244,193,929</u></u>	<u><u>236,408,718</u></u>

(ii) Details of Financial assets designated at fair value through profit or loss were as follows:

	December 31, 2019	December 31, 2018
Foreign government bonds, corporate bonds, financial bonds and others	\$ 18,906,332	15,556,919
Add: Valuation adjustment	<u>455,136</u>	<u>(91,199)</u>
	<u><u>\$ 19,361,468</u></u>	<u><u>15,465,720</u></u>

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

- (iii) Details of Financial assets mandatorily measured at fair value through profit or loss were as follows:

	December 31, 2019	December 31, 2018
Commercial papers	\$ 29,557,348	38,969,252
Foreign government bonds	89,235	59,999
Corporate bonds	715,023	517,928
Convertible bonds	2,152,504	3,969,775
Negotiable certificates of deposits	-	15,502,549
Stocks and beneficiary certificates	137,937,498	144,121,620
Foreign exchange call options	3,063	1,843
Bonds futures guarante deposits	-	-
Currency futures	5,154	5,611
Commodity futures	51,540	61,724
Add: Valuation adjustment—Non derivative financial instruments	43,681,091	11,397,106
Valuation adjustment—Foreign exchange call options	3,790	537
Valuation adjustment—Cross currency swaps	29,767	-
Valuation adjustment—Swaps	9,204,550	5,866,915
Valuation adjustment—Asset swaps	1,240,176	25,483
Valuation adjustment—Interest rate swaps	51,026	384,341
Valuation adjustment—Forward foreign exchange	113,844	58,387
Valuation adjustment—filxed-rate commerical papers	(3,148)	-
Valuation adjustment—Commodity futures	-	(72)
	\$ 224,832,461	220,942,998

- (iv) Details of unexpired derivative financial instruments (Notional principal amount) were as follows:

	December 31, 2019	December 31, 2018
Foreign exchange call options	\$ 980,913	378,906
Swaps	479,981,365	638,874,880
Interest rate swaps	15,173,142	19,032,894
Forward foreign exchange	12,064,801	7,230,247
Fixed-rate commercial papers	200,000	-
Cross currency swaps	43,366,828	4,702,455
Commodity futures	1,086,400	-
	-	4,207
	\$ 552,853,449	670,223,589

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

- (v) For details of the valuation of the financial assets measured at fair value through profit or loss, please see note 7, “The Fair Value and Fair Value Hierarchy of the Financial Instruments”.
- (vi) Profit and loss on investments, please refer to note 6(ag).
- (vii) As of December 31, 2019, the Bank's and subsidiary's financial assets at fair value through profit or loss neither served as a guarantee or collateral, nor were they pledged.

(d) Financial Assets at Fair Value through Other Comprehensive Income

	December 31, 2019	December 31, 2018
Debt instruments measured at fair value through other comprehensive income:		
Negotiable certificates deposits	\$ 718,770,000	852,920,000
Government bonds	54,402,969	57,276,878
Foreign government bonds, corporate bonds, financial bonds, and NCDs	79,659,961	80,041,386
Financial bonds	17,718,644	8,705,001
Corporate bonds	45,389,607	40,835,988
Financial asset securitization beneficiary certificates	250,716	500,000
Add: Valuation adjustment	<u>1,602,351</u>	<u>731,461</u>
Subtotal	<u>917,794,248</u>	<u>1,041,010,714</u>
Equity instruments measured at fair value through other comprehensive income:		
Stocks	38,479,456	36,064,117
Add: Valuation adjustment	<u>56,804,422</u>	<u>40,652,446</u>
Subtotal	<u>95,283,878</u>	<u>76,716,563</u>
Total	<u>\$ 1,013,078,126</u>	<u>1,117,727,277</u>

(i) Debt investments at fair value through other comprehensive income

The Bank and subsidiary have assessed that the securities shown above are held within a business model whose objective is achieved by both collecting the contractual cash flows and selling securities; therefore, they have been classified as debt investments at fair value through other comprehensive income on January 1, 2018.

(ii) Equity investments at fair value through other comprehensive income

The Bank and subsidiary designated the investments shown above as equity securities as at fair value through other comprehensive income because these equity securities represent those investments that the Bank and subsidiary intend to hold for long term for strategic purposes.

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BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

- 1) During the years ended December 31, 2019 and 2018, the dividends of \$3,184,773 thousand and \$2,928,331 thousand, respectively, related to equity investments at fair value through other comprehensive income held on the years then ended December 31, 2019 and 2018, were recognized; the dividend of \$109,193 thousand and \$5,253 thousand related to the investments derecognized during the years ended December 31, 2019 and 2018, respectively, were recognized.
 - 2) As of December 31, 2019 and 2018, the Bank and subsidiary sold its equity instruments measured at fair value through other comprehensive income as a result of adjustment in investment position and portfolio management. The equity instruments sold had a fair value of \$2,756,836 thousand and \$124,655 thousand the Bank and subsidiary realized a gain of \$90,146 thousand and \$4,873 thousand, which was already included in other comprehensive income. The loss has been transferred to retained earnings.
- (iii) Profit and loss on investments, please refer to 6(ah).
- (iv) As of December 31, 2019, the Bank's and subsidiary's financial assets at fair value through other comprehensive income were used as collateral, please refer to 11.
- (e) Hedging Derivative Financial Instruments

The details of hedging derivatives financial assets were as follows:

	<u>December 31, 2019</u>	<u>December 31, 2018</u>
Fair value hedges:		
Interest rate swap	\$ <u>1,071</u>	<u>41,693</u>

The details of hedging derivatives financial liabilities were as follows:

	<u>December 31, 2019</u>	<u>December 31, 2018</u>
Fair value hedges:		
Interest rate swap	\$ <u>25,537</u>	<u>12,973</u>

In order to decrease the fair value volatility caused by changes of market interest rate, the Bank uses interest rate swaps and asset swaps for some debt investments with fixed interest rate. In doing so, the risk exposure position will be calculated by floating interest rate and the interest rate risk will be hedge.

<u>Hedged Item</u>	<u>Designated Hedging Instruments</u>	<u>Hedging Investments</u>	
		<u>Fair Value</u>	
		<u>December 31, 2019</u>	<u>December 31, 2018</u>
USD financial bonds	Interest rate swap	\$ (22,055)	32,993
USD corporate debts	"	(2,849)	3,954
USD government debts	"	438	(8,227)

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
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The net gain(loss) of hedging instruments for the years ended December 31, 2019 and 2018 amounted to \$(58,149) thousand and \$29,480 thousand, respectively. The net losses of hedged items embedded in hedging instrument for the years ended December 31, 2019 and 2018 amounted to \$53,890 thousand and \$(67,296) thousand, respectively.

(f) Bills and Bonds Purchased / Sold under Resell (Repurchase) Agreements

The details of bonds and bills purchased / sold under resell (repurchase) agreements were as follows:

	December 31, 2019	December 31, 2018
Bills and bonds sold under repurchase agreements:		
Commercial papers	\$ 29,973	29,975
Government bonds	19,744,196	6,607,072
Corporate bonds	-	2,200,333
Financial bonds	1,790,702	15,615,526
Foreign government bonds	-	333,911
Supranational bonds	-	291,230
Total	<u><u>\$ 21,564,871</u></u>	<u><u>25,078,047</u></u>

(g) Receivables, Net

	December 31, 2019	December 31, 2018
Notes receivable	\$ 4,722	4,165
Accounts receivable	1,100,258	1,296,947
Long-term receivables—payment on behalf of the government	16,350,219	16,097,415
Accrued revenues	1,121,473	857,093
Interests receivable	14,613,667	14,554,314
Premiums receivable	139,660	138,389
Acceptance notes receivable	1,188,566	2,908,367
Accounts receivable factoring without recourse	12,132,076	13,232,575
Others—replenishment of national treasury	7,362,748	6,299,347
Others—undelivered spot exchanges	585	44
Other—ATM temporary receipts, payments and interbank differences	2,291,552	1,739,188
Others—FX Swaps	1,709,202	406,437
Others—pending settlement	414	1,306,065
Others—others	<u>625,849</u>	<u>583,545</u>
Subtotal	58,640,991	59,423,891
Less: allowance for doubtful accounts	<u>130,717</u>	<u>149,558</u>
Total	<u><u>\$ 58,510,274</u></u>	<u><u>59,274,333</u></u>

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
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In accordance with Executive Yuan Tai-79-JEN-Cheng-SZU-tsu No. 14525, and regulations of Retired Civil Servants Lump-sum Retirement Payment and Old-age Benefits and Preferential Interest Deposits which excess preferential interest expenses recognized as Excess interest expenses of Non-interest income, net were \$6,375,883 thousand and \$7,265,162 thousand , respectively, due to executing the government premium savings policy.

As of the year ended December 31, 2019 and 2018, the Bank had paid the following premium savings interest expenses on behalf of the government:

	December 31, 2019	December 31, 2018
Long-term receivables	\$ 16,350,219	16,097,415
Short-term advances (booked under other financial assets, net)	37,867,323	43,617,208
Total	<u><u>\$ 54,217,542</u></u>	<u><u>59,714,623</u></u>

(h) Loans and Discounts, Net

	December 31, 2019	December 31, 2018
Discounts and export / import negotiations	\$ 2,044,282	3,576,638
Overdrafts	16,254,366	13,541,985
Secured overdrafts	492,292	1,258,259
Short-term loans	642,288,572	695,119,592
Short-term secured loans	97,906,746	97,778,149
Accounts receivable financing	128,708	241,732
Accounts receivable secured financing	5,138	8,757
Medium-term loans	551,295,477	490,677,869
Medium-term secured loans	256,957,025	235,517,119
Long-term loans	155,857,007	158,795,092
Long-term secured loans	994,900,665	895,678,323
Non-performing loans	<u>3,154,429</u>	<u>4,221,263</u>
Subtotal	2,721,284,707	2,596,414,778
Less: allowance for doubtful accounts	<u>45,143,483</u>	<u>39,387,484</u>
Total	<u><u>\$ 2,676,141,224</u></u>	<u><u>2,557,027,294</u></u>

Details of bad debt expenses and provisions for guarantee liabilities were as follows:

	2019	2018
Bad debts	\$ 7,289,887	7,329,670
Provisions for guarantee liabilities	59,273	(6,854)
Provision for loan commitment liabilities	4,075	5,182
Provision for other liabilities	<u>(8,007)</u>	<u>(25,510)</u>
Total	<u><u>\$ 7,345,228</u></u>	<u><u>7,302,488</u></u>

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
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As of December 31, 2019 and 2018, the amounts of loans and receivables on which the interests stopped to accrue were \$3,158,657 thousand and \$4,226,046 thousand, respectively, which were booked under loans and discounts— non-performing loans and other financial assets-overdue receivables. As of December 31, 2019 and 2018, the non accrued interests were \$210,538 thousand and \$248,693 thousand, respectively.

For the date as above, the Bank did not write off any loan without legal proceedings having been initiated.

(i) Financial Assets Measured at Amortized Cost

	December 31, 2019	December 31, 2018
Negotiable certificates deposits	\$ 1,305,899	1,202,690
Commercial papers	36,894,248	30,205,065
Government bonds	76,136,339	71,584,984
Foreign government bonds, corporate bonds, financial bonds, and NCDs	6,345,059	11,486,097
Financial bonds	15,061,457	16,414,377
Corporate bonds	<u>41,506,880</u>	<u>36,981,015</u>
	177,249,882	167,874,228
Less: accumulated impairment	<u>(43,107)</u>	<u>(49,536)</u>
	<u>\$ 177,206,775</u>	<u>167,824,692</u>

The Bank and subsidiary have assessed that these financial assets are held to maturity to collect contractual cash flows, which consist solely of payments of principal and interest on principal amount outstanding. Therefore, these investments were classified as financial assets measured at amortized cost on January 1, 2018.

(i) During 2019, the Bank and subsidiary haven't disposed financial assets measured at amortized cost.

(ii) As of December 31, 2019, the Bank's and subsidiary's financial assets measured at amortized cost were not used as collateral, please refer to 11.

(j) Investments Accounted for Using Equity Method, net

	December 31, 2019		December 31, 2018	
	Amount	Percentage of Ownership (%)	Amount	Percentage of Ownership (%)
Associates				
Hua Nan Financial Holdings Co., Ltd.	\$ 40,060,767	21.23	36,973,209	21.23
Tang Eng Iron Works Co., Ltd.	1,027,317	21.37	1,013,547	21.37
Tai Yi Real Estate Management Co., Ltd.	21,476	30.00	21,084	30.00
	<u>\$ 41,109,560</u>		<u>38,007,840</u>	

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
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- (i) The Bank use equity method for investments in associates and the other comprehensive income:

	2019	2018
Hua Nan Financial Holdings Co., Ltd.	\$ 1,035,818	(296,925)
Tang Eng Iron Works Co., Ltd.	10,576	5,278
Total	<u><u>\$ 1,046,394</u></u>	<u><u>(291,647)</u></u>

- (ii) The Bank use equity method for investments in associates, and Investment gains and losses recognized in the following table:

	2019	2018
Hua Nan Financial Holdings Co., Ltd.	\$ 3,387,456	3,104,176
Tang Eng Iron Works Co., Ltd.	3,196	(308,086)
Tai Yi Real Estate Co., Ltd.	4,045	4,059
Total	<u><u>\$ 3,394,697</u></u>	<u><u>2,800,149</u></u>

- (iii) Individually significant associate(s)

The Bank acquired up to 21.23% voting rights of outstanding shares of Hua Nan Financial Co., Ltd. on December 27, 2011, from which, its significant the influence has commenced. Hence, the investment has been accounted for using the equity method. Related information was as follows:

Associate(s)	The relationship with the Bank	Principal operating place/registration country	The percentage of shareholding interests and voting rights	
			December 31, 2019	December 31, 2018
Hua Nan Financial Holdings Co., Ltd.	Enterprises permitted to invest Financial Holding Company Act, such as banks and bill finance companies	Taiwan	21.23 %	21.23 %

The fair value of the equity accounting for listed companies (major associates) is as follows:

	December 31, 2019	December 31, 2018
Hua Nan Financial Holdings Co., Ltd.	\$ 56,857,351	42,889,937

- 1) Summarized Financial Information

	December 31, 2019	December 31, 2018
Total Assets	\$ 2,731,828,227	2,684,206,863
Total Liabilities	(2,543,127,222)	(2,510,049,280)
Net Assets	<u><u>\$ 188,701,005</u></u>	<u><u>174,157,583</u></u>
Attributable to the Bank	<u><u>\$ 40,060,767</u></u>	<u><u>36,973,209</u></u>

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
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	2019	2018
Net income	\$ 15,955,716	14,621,435
Other comprehensive income	<u>4,879,056</u>	<u>(1,398,581)</u>
Total comprehensive income	<u>\$ 20,834,772</u>	<u>13,222,854</u>
Attributable to the Bank		
Investment income	\$ 3,387,456	3,104,176
Other comprehensive income	1,035,818	(296,925)

- 2) There are no significant restrictions on the ability of Hua Nan Financial Holding Co., Ltd. to transfer funds to its investors by distributing dividends, or repaying loans or advances.
- 3) The summarized financial information of Hua Nan Financial Holding Co., Ltd. has been adjusted to align its accounting results with those of the Bank accounted for using the equity method.
- 4) Hua Nan Financial Holdings Co., Ltd.'s financial statements were audited by other auditors. The related investment gains were \$3,387,456 thousand and \$3,104,176 thousand for the years ended December 31, 2019 and 2018, respectively.

(iv) All other non-individually-significant associates

- 1) Summarized Financial Information- Attributable to the Bank

	December 31, 2019	December 31, 2018
Investment in non-individually-significant associates in aggregate	<u>\$ 1,048,793</u>	<u>1,034,631</u>
	2019	2018
Investment income	\$ 7,241	(304,027)
Other comprehensive income	10,576	5,278

(v) Collateral

No investment in associates was used as collateral of December 31, 2019.

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

(k) Other Financial Assets, net

	December 31, 2019	December 31, 2018
Short-term advances	\$ 40,091,153	45,937,904
Less: allowance for doubtful accounts — short-term advances	(44,363)	(26,843)
Remittances purchased	2,316	1,485
Less: allowance for doubtful accounts — remittances purchased	(23)	(15)
Overdue receivables	4,228	4,783
Less: allowance for doubtful accounts — overdue receivables	(4,199)	(4,156)
Others	109,349	127,043
Less: allowance for doubtful accounts — others	(6)	(8)
Less: accumulated impairment — others	(10)	(11)
Total	<u>\$ 40,158,445</u>	<u>46,040,182</u>

Concerning for the payment of excess preferential interest on behalf of the government, booked under “short-term advances” for December 31, 2019 and 2018, please refer to note 6(g) for further information.

(l) Property and Equipment, net

Changes in the cost, depreciation, and impairment of the properties and equipments of the Bank and subsidiary for the years ended December 31, 2019 and 2018 were as follows:

	Land and Land improvements	Buildings	Machineries and equipments	Transport equipments	Miscellaneous equipments	Leasehold improvements	Constructions in progress and prepayments for equipments	Total
Cost:								
Balance at January 1, 2019	\$ 86,136,374	14,802,184	5,840,176	1,085,817	959,457	820,099	735,744	110,379,851
Additions	42,000,000	8,610	490,380	80,897	24,870	20,790	168,421	42,793,968
Disposals	(27,747)	(118,764)	(376,306)	(67,971)	(39,563)	(18,839)	-	(649,190)
Reclassification	-	306,493	101,637	11,537	12,772	31,111	(508,806)	(45,256)
Effect of change in exchange rates	-	-	(2,038)	(500)	(561)	(2,844)	-	(5,943)
Balance at December 31, 2019	<u>\$ 128,108,627</u>	<u>14,998,523</u>	<u>6,053,849</u>	<u>1,109,780</u>	<u>956,975</u>	<u>850,317</u>	<u>395,359</u>	<u>152,473,430</u>
Balance at January 1, 2018	\$ 86,156,150	14,665,227	5,631,389	1,046,384	971,798	793,614	720,598	109,985,160
Additions	-	5,168	325,586	92,176	29,542	31,906	292,568	776,946
Disposals	(19,776)	(31,271)	(210,644)	(58,543)	(46,322)	(18,660)	-	(385,216)
Reclassification	-	163,060	93,438	5,528	3,567	10,476	(277,422)	(1,353)
Effect of change in exchange rates	-	-	407	272	872	2,763	-	4,314
Balance at December 31, 2018	<u>\$ 86,136,374</u>	<u>14,802,184</u>	<u>5,840,176</u>	<u>1,085,817</u>	<u>959,457</u>	<u>820,099</u>	<u>735,744</u>	<u>110,379,851</u>

(Continued)

BANK OF TAIWAN AND SUBSIDIARY

Notes to the Consolidated Financial Statements

	Land and Land improvements	Buildings	Machineries and equipments	Transport equipments	Miscellaneous equipments	Leasehold improvements	Constructions in progress and prepayments for equipments	Total
Accumulated depreciation:								
Balance at January 1, 2019	\$ 14,966	7,219,833	4,429,699	840,946	789,984	733,527	-	14,028,955
Depreciation	-	290,294	388,861	44,210	28,669	33,413	-	785,447
Disposal	-	(118,604)	(351,624)	(66,684)	(35,481)	(18,839)	-	(591,232)
Effect of change in exchange rates	-	-	(1,348)	(343)	(527)	(2,524)	-	(4,742)
Balance at December 31, 2019	<u>\$ 14,966</u>	<u>7,391,523</u>	<u>4,465,588</u>	<u>818,129</u>	<u>782,645</u>	<u>745,577</u>	<u>-</u>	<u>14,218,428</u>
Balance at January 1, 2018	\$ 14,966	6,967,876	4,241,140	858,974	802,957	707,014	-	13,592,927
Depreciation	-	279,637	376,242	38,956	28,224	32,491	-	755,550
Disposal	-	(27,680)	(188,036)	(57,069)	(41,936)	(8,869)	-	(323,590)
Effect of change in exchange rates	-	-	353	85	739	2,891	-	4,068
Balance at December 31, 2018	<u>\$ 14,966</u>	<u>7,219,833</u>	<u>4,429,699</u>	<u>840,946</u>	<u>789,984</u>	<u>733,527</u>	<u>-</u>	<u>14,028,955</u>
Accumulated impairment:								
Balance at January 1, 2019	\$ 124,869	-	-	-	-	-	-	124,869
Reversal of impairment loss	1,215	-	-	-	-	-	-	1,215
Balance at December 31, 2019	<u>\$ 126,084</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>126,084</u>
Balance at January 1, 2018	\$ 47,850	-	-	-	-	-	-	47,850
Reversal of impairment loss	77,019	-	-	-	-	-	-	77,019
Balance at December 31, 2018	<u>\$ 124,869</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>124,869</u>
Carrying amounts:								
December 31, 2019	<u>\$ 127,967,577</u>	<u>7,607,000</u>	<u>1,588,261</u>	<u>291,651</u>	<u>174,330</u>	<u>104,740</u>	<u>395,359</u>	<u>138,128,918</u>
January 1, 2018	<u>\$ 86,093,334</u>	<u>7,697,351</u>	<u>1,390,249</u>	<u>187,410</u>	<u>168,841</u>	<u>86,600</u>	<u>720,598</u>	<u>96,344,383</u>
December 31, 2018	<u>\$ 85,996,539</u>	<u>7,582,351</u>	<u>1,410,477</u>	<u>244,871</u>	<u>169,473</u>	<u>86,572</u>	<u>735,744</u>	<u>96,226,027</u>

The Bank and subsidiary conducted revaluations of land and buildings for many times over the past years, and the latest time was in December, 2011. As of December 31, 2019 and 2018, the total revaluation increments for land were \$81,563,186 thousand and \$81,590,877 thousand, respectively. The total revaluation increments for Buildings were \$34,307 thousand, both.

Based on the assessment in December, 2019, the carrying amount of the lands which have indicators of impairment was determined to be \$171,067 thousand higher than its recoverable amount of \$169,852 thousand, wherein an impairment loss of \$1,215 thousand was recognized. In 2018, the carrying amount of the lands which have an indicator of impairment was determined to be \$247,713 thousand lower than its recoverable amount of \$170,694 thousand. Therefore, the amount of \$77,019 thousand, which was initially recognized as impairment, has been reversed.

The recoverable amount was determined by using the fair value, less, cost of disposal or recent government assessed land value. The fair value is based on the market price of comparable properties within the same location. The cost of disposal is the land value increment tax payable. The inputs of levels of fair value hierarchy in determining the fair value is classified to Level 3.

As of December 31, 2019 and 2018, the Bank's and subsidiary's properties and equipments neither served as guarantees or collaterals, nor they were pledged.

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

(m) Right-of-use assets

The Bank and subsidiary lease many assets including land and buildings, vehicles, machinery and IT equipment. Information about leases for which the Bank and subsidiary as a lessee is presented below:

	<u>Land</u>	<u>Buildings</u>	<u>Machineries and equipment</u>	<u>Transportation equipment</u>	<u>Miscellaneous equipment</u>	<u>Total</u>
Cost:						
Balance at January 1, 2019	\$ -	-	-	-	-	-
Effects of retrospective application	11,283	1,690,061	22,219	39,852	52	1,763,467
Balance at January 1, 2019	11,283	1,690,061	22,219	39,852	52	1,763,467
Additions	9,477	342,975	9,122	60,437	-	422,011
Lease modification	189	3,478	(39)	703	-	4,331
Lease expired	(460)	(32,740)	(73)	(3,842)	(52)	(37,167)
Balance at December 31, 2019	<u>\$ 20,489</u>	<u>2,003,774</u>	<u>31,229</u>	<u>97,150</u>	<u>-</u>	<u>2,152,642</u>
Accumulated depreciation and impairment losses:						
Balance at January 1, 2019	\$ -	-	-	-	-	-
Depreciation	4,941	539,950	6,420	36,339	52	587,702
Lease expired	(451)	(32,740)	(73)	(3,842)	(52)	(37,158)
Lease modification	-	(86)	-	-	-	(86)
Effect of changes in exchange rates	4	(1,300)	(7)	-	-	(1,303)
Balance at December 31, 2019	<u>\$ 4,494</u>	<u>505,824</u>	<u>6,340</u>	<u>32,497</u>	<u>-</u>	<u>549,155</u>
Carrying value:						
December 31, 2019	<u>\$ 15,995</u>	<u>1,497,950</u>	<u>24,889</u>	<u>64,653</u>	<u>-</u>	<u>1,603,487</u>

(n) Investment property

- (i) Changes in the investment properties of the Bank and subsidiary for the year ended 2019 were as follows:

	<u>Land</u>
Cost:	
Balance at December 31, 2019 (same as beginning balance)	<u>\$ 15,238,207</u>
Balance at December 31, 2018 (same as beginning balance)	<u>\$ 15,238,207</u>
Carrying amounts:	
December 31, 2019	<u>\$ 15,238,207</u>
January 1, 2018	<u>\$ 15,238,207</u>
December 31, 2018	<u>\$ 15,238,207</u>

The fair value of investment properties (as measured or disclosed in the financial statements) was based on a valuation by a qualified independent appraiser who has recent valuation experience in the location and category of the investment property being valued. The inputs of levels of fair value hierarchy in determining the fair value is classified to Level 3.

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

- (ii) The fair value of investment property of the Bank and subsidiary were as follows:

	December 31, 2019	December 31, 2018
The fair value of investment property	\$ <u>15,219,056</u>	<u>15,092,366</u>

The following table shows the valuation technique used in measuring the fair value of investment property, as well as the significant unobservable inputs used.

Valuation technique	Significant unobservable inputs	Inter-relationship between key unobservable inputs and fair value measurement
The management evaluate and measure the effect of using techniques of comparison approach or Land development analysis approach. After evaluating, the bank make judgment about the assessment that is using to align the market participants.	<ul style="list-style-type: none"> · The rate of return · Overall capital interest rate 	<p>The estimated fair value would increase (decrease) if:</p> <ul style="list-style-type: none"> · the rate of return were lower (higher); or · the overall capital interest rate were lower (higher).

The investment property measured at cost, and the fair value is recoverable amount of impairment testing. The fair value of investment property is used the comparison approach and land development analysis approach, and excuting assessment reference recent market price, the valuation technique is consistency from investment property of acquisition. After evaluating, the Bank did not recognized impairment loss.

- (iii) As of December 31, 2019 the Bank did not provide any investment accounted for using equity method as collaterals for its loans.

(o) Intangible Assets

Changes in costs, amortization, and impairment loss of the intangible assets of the Bank and subsidiary for the year ended 2019 and 2018 were as follows:

	Computer software
Costs:	
Balance at January 1, 2019	\$ 3,834,808
Additions	<u>422,202</u>
Balance at December 31, 2019	\$ <u>4,257,010</u>
Balance at January 1, 2018	\$ 3,497,828
Additions	<u>336,980</u>
Balance at December 31, 2018	\$ <u>3,834,808</u>

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

	Computer software
Amortization:	
Balance at January 1, 2019	\$ 3,069,872
Amortization for the year	<u>313,341</u>
Balance at December 31, 2019	<u>\$ 3,383,213</u>
Balance at January 1, 2018	\$ 2,789,096
Amortization for the year	<u>280,776</u>
Balance at December 31, 2018	<u>\$ 3,069,872</u>
Carrying amounts:	
December 31, 2019	<u>\$ 873,797</u>
January 1, 2018	<u>\$ 708,732</u>
December 31, 2018	<u>\$ 764,936</u>

(p) Other Assets

	December 31, 2019	December 31, 2018
Foreclosed collaterals and residuals taken over, net	\$ 1,079,309	1,080,460
Advance payments	7,711,657	4,790,148
Operating guarantee deposits and settlement funds	10,000	10,000
Refundable deposits	1,464,889	1,701,602
Temporary Payments and Suspense Accounts	573,883	704,744
Inventories	716,557	701,832
Others	<u>288</u>	<u>327</u>
Total	<u>\$ 11,556,583</u>	<u>8,989,113</u>

(i) Foreclosed collaterals and residuals taken over, net

	December 31, 2019	December 31, 2018
Foreclosed collaterals and residuals taken over	<u>\$ 1,079,309</u>	<u>1,080,460</u>

(ii) Advance payments

	December 31, 2019	December 31, 2018
Prepaid expenses	\$ 260,863	416,919
Prepaid interests	9,968	12,745
Business tax carry forward	810	686
Other prepayment — Interbank Fund Transfer Special Accounts	7,380,247	4,300,622
Other prepayments	<u>59,769</u>	<u>59,176</u>
Total	<u>\$ 7,711,657</u>	<u>4,790,148</u>

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

(iii) Inventories

	December 31, 2019	December 31, 2018
Inventories	\$ 716,557	701,832

The effects on the cost of goods sold derived from the inventory write-off or reversal for the year ended 2019 and 2018 were as follows:

	2019	2018
Reversal of write-down (Write-down of inventories)	\$ -	59

(q) Impairment

For the year ended 2019 and 2018, the movements of the accumulated impairment were as follows:

	2019	2018
Beginning balance	\$ 261,916	62,850
Adjustment for retrospective application due to IFRS 9	-	112,651
Impairment loss recognized for the current period	1,350	86,510
Effect of change in exchange rates and other movements	724	(95)
Ending balance	\$ 263,990	261,916

Details of accumulated impairment were as follows:

	December 31, 2019	December 31, 2018
Financial assets at fair value through other comprehensive income	\$ 89,278	82,945
Financial assets measured at amortized cost	43,107	49,536
Other financial assets	10	11
Property and equipment	126,084	124,869
Other assets	5,511	4,555
Ending balance	\$ 263,990	261,916

(r) Deposits of Central Bank and other banks

	December 31, 2019	December 31, 2018
Deposits from Central Bank	\$ 11,296,302	11,798,337
Deposits from banks — others	50,127,068	48,026,208
Postal deposits transferred	77,090	77,090
Bank overdrafts	2,062,798	1,559,942
Call loans from bank	165,690,275	160,294,562
Total	\$ 229,253,533	221,756,139

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

(s) Financial Liabilities Measured at Fair Value through Profit or Loss

(i) Details of financial liabilities measured at fair value through profit or loss were as follows:

	December 31, 2019	December 31, 2018
Financial liabilities held for trading	\$ 4,148	2,893
Add: valuation adjustment	<u>14,080,348</u>	<u>4,696,114</u>
Subtotal	<u>14,084,496</u>	<u>4,699,007</u>
Financial liabilities designated as fair value through profit or loss	44,985,000	46,102,500
Add: valuation adjustment	<u>1,214,351</u>	<u>(247,190)</u>
Subtotal	<u>46,199,351</u>	<u>45,855,310</u>
Total	<u><u>\$ 60,283,847</u></u>	<u><u>50,554,317</u></u>

(ii) For valuation of financial liabilities measured at fair value through profit or loss, please refer to note 7 "Fair Value And Fair Value Hierarchy of the Financial Instruments".

(iii) Financial liabilities held for trading

	December 31, 2019	December 31, 2018
Foreign exchange options premium	\$ 4,148	2,893
Add: valuation adjustment		
Foreign exchange options premium	2,702	(508)
Swaps	13,008,631	3,907,380
Interest rate swaps	429,439	295,412
Forward foreign exchanges	94,477	118,922
Asset swaps	515,732	374,908
Cross currency swaps	<u>29,367</u>	<u>-</u>
Total	<u><u>\$ 14,084,496</u></u>	<u><u>4,699,007</u></u>

(iv) The details of the financial liabilities designated as fair value through profit or loss were as follows:

	December 31, 2019	December 31, 2018
Financial bonds	\$ 44,985,000	46,102,500
Add: valuation adjustment	<u>1,214,351</u>	<u>(247,190)</u>
Total	<u><u>\$ 46,199,351</u></u>	<u><u>45,855,310</u></u>

The Bank has been approved by the FSC on August 23, 2016, and November 21, 2017 to issue USD \$1.5 billion of 2017-1 Senior Unsecured Financial Bonds, denominated in U.S. dollar. The financial bonds amounted to USD \$1.5 billion had been issued in 2019.

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

The details of the financial bonds were as follow:

Name of bond	Conditions				Type	Bond	
	Beginning date	Maturity date	Coupon rate	Face value		Amount	
						December 31, 2019	December 31, 2018
2017-1 Senior unsecured financial bonds-A	2017/04/07	2147/04/07	0 %	USD \$500 million	Senior unsecured financial bond	\$ 14,995,000	15,367,500
2017-1 Senior unsecured financial bonds-B	2017/04/07	2147/04/07	0 %	USD \$380 million	Senior unsecured financial bond	11,396,200	11,679,300
2018-1 Senior unsecured financial bonds-A	2018/02/26	2148/02/26	0 %	USD \$150 million	Senior unsecured financial bond	4,498,500	4,610,250
2018-1 Senior unsecured financial bonds-B	2018/02/26	2148/02/26	0 %	USD \$470 million	Senior unsecured financial bond	14,095,300	14,445,450
Valuation adjustment						1,214,351	(247,190)
						\$ 46,199,351	45,855,310

For the bonds issued in 2017, the call option may be exercised 2 years for bond A, and 3 years for bond B, after the issuing date. If the call options are not exercised prior to the bonds maturity date, the Bank will pay the principal and interests accrued in full upon maturity. For the bonds issued in 2018, the call option may be exercised 2 years for bond A, and 5 years for bond B, after the issuing date. If the call options are not exercised prior to the bonds maturity date, the Bank will pay the principal and interests accrued in full upon maturity.

(v) Unmatured derivative financial instruments (stated at notional amount)

	December 31, 2019	December 31, 2018
Foreign exchange options premium	\$ 1,001,177	371,765
Swaps	731,913,091	559,887,222
Interest rate swaps	21,898,329	15,310,983
Forward foreign exchanges	10,609,694	11,423,307
Asset swaps	6,784,488	46,498,490
Cross currency swaps	1,086,400	-
Total	<u>\$ 773,293,179</u>	<u>633,491,767</u>

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

(t) Payables

	December 31, 2019	December 31, 2018
Accounts payables	\$ 5,561,791	10,571,420
Receipts under custody	1,562,797	1,003,553
Accrued expenses	2,818,928	2,660,956
Other tax payables	484,268	464,593
Interests payables	15,386,026	14,426,723
Banker's acceptances payables	1,194,544	2,918,255
Payables to representative organizations	829,639	586,198
Construction payables	946	3,004
Accounts payables — non-recourse factoring	375,438	565,938
Other payables — undelivered spot exchange	3	834
Other payables — collection bills	2,337,855	977,184
Other payables — payments awaiting transfer	9,003,123	7,806,182
Other payables — ATM temporary receipts, payments and inter branch differences	2,590,082	2,220,329
Other payables — foreign exchange awaiting transfer	740,078	721,384
Other payables — amounts awaiting settlement	314,769	108,336
Other payables — overdue accounts	199,043	191,135
Other payables — checking accounts	119,600	103,026
Other payables — collection	19,571	11,986
Other payables — others	312,243	449,078
Total	<u><u>\$ 43,850,744</u></u>	<u><u>45,790,114</u></u>

(u) Deposits and Remittances

	December 31, 2019	December 31, 2018
Cheques deposits	\$ 39,428,865	35,354,006
Government deposits	310,980,305	283,267,747
Demand deposits	402,224,212	373,958,430
Time deposits	683,596,685	746,883,592
Remittances	554,595	736,124
Savings account deposits:		
Demand savings deposits	939,345,417	983,561,781
Staff accounts	15,284,296	24,562,808
Club saving deposits	608,632	690,497
Non-drawing time savings deposits	417,758,369	402,536,104
Interest withdrawal on principal deposited	795,291,873	808,083,173
Staff time deposits	9,174,191	-
Preferential Interest deposits	357,538,411	366,104,840
Total	<u><u>\$ 3,971,785,851</u></u>	<u><u>4,025,739,102</u></u>

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

(v) Financial Bonds Payable

Name of bond	Condition			Bond		
	Beginning date	Maturity date	Interest rate	Type	Amount	
					December 31, 2019	December 31, 2018
2013-1 TWD subordinated unsecured financial bonds	2013/12/2	2023/12/2	The Bank's listed annual fixed interest rate of time deposits, plus, 0.15%.	Subordinated unsecured financial bond	\$ 16,000,000	16,000,000
2014-1 TWD subordinated unsecured financial bonds-A	2014/06/25	2024/06/25	TAIBOR 3M plus 0.30%	Subordinated unsecured financial bond	5,500,000	5,500,000
2014-1 TWD subordinated unsecured financial bonds-B	2014/06/27	2024/06/27	1.70%	Subordinated unsecured financial bond	2,000,000	2,000,000
2014-1 TWD subordinated unsecured financial bonds-C	2014/06/27	2024/06/27	The Bank's listed annual fixed interest rate of time deposits, plus, 0.15% unamortized discount amount	Subordinated unsecured financial bond	1,500,000	1,500,000
					(1,180)	(1,434)
Total					\$ 24,998,820	24,998,566

(w) Other Financial Liabilities

	December 31, 2019	December 31, 2018
Appropriated loan funds	\$ 16,474	26,825
Principal from structured products	946,065	652,018
	<u>\$ 962,539</u>	<u>678,843</u>

(x) Provision

	December 31, 2019	December 31, 2018
Employee benefit obligations	\$ 18,732,288	17,344,746
Guarantee reserve	953,505	894,392
Reserve for government employees insurance	341,738,589	296,379,792
Loan commitments reserve	19,224	15,612
Others	377,993	386,084
Total	<u>\$ 361,821,599</u>	<u>315,020,626</u>

(y) Provisions – Employee benefits

	December 31, 2019	December 31, 2018
Recognized in Consolidated Balance Sheet:		
Defined benefit plan	\$ 12,545,041	11,119,607
Employees preferential interest	6,181,930	6,220,165
Three Chinese festival bonus	5,317	4,974
Total	<u>\$ 18,732,288</u>	<u>17,344,746</u>

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

(i) BOT

1) Defined contribution plans

The Bank and subsidiary have established the defined contributions plans in accordance with the provision of the Labor Pension Act since July 1, 2005. The Bank and subsidiary allocate 6% of each employee's monthly wages to his or her individual account of labor pension from which he or she is entitled to claim the principal and accrued dividends in fixed installments or in lump sum in the future. The pension costs recognized under the defined contribution plans were \$2,870 thousand and \$2,465 thousand for the years ended December 31, 2019 and 2018, respectively.

2) Defined benefit plans

The Bank and subsidiary have established the defined contributions plans in accordance with the provision of the Labor Standards Act, including the service periods of all the regular employees before the Labor Pension Act was adopted on July 1, 2005 and the service periods of regular employees electing to continue to apply the Labor Standards Act after July 1, 2005.

The payment of pension to an employee who is qualified for retirement is based on his or her years of service and 6-month average wages before retirement. Two bases are given for each full year of service until the service period is longer than 15 years. Those having served over 15 years are given one base for each full year of service, and the total number of bases shall be no more than 45.

The Bank and subsidiary allocate 8% of all the qualified employees' gross wages to the labor pension account in the name of Labor Pension Supervision Committee in the Bank's Trust Department. The portfolio of this account is built up carefully with diversified investments and strengthened risk management and will adjust timely to stabilize income when the market changes. The portfolio is also regularly supervised and reviewed by the Ministry of Labor. Please refer to the website of the Ministry of Labor for information on the portfolio, such as fair value or percentages of assets.

The Bank and subsidiary have established the criteria for the payment to retired employees pursuant to the interpretations made by the Executive Yuan (Tai-Ren-Jen-Cheng-Szu-Tsu No. 6378, Tai-Ren-Jen-Cheng-Ji -Tsu No. 211191, Chu-Ji-Tsu No. 210226 and Chu-Ji-Tsu No. 211434), Examination Yuan (Kao-Tai-Mi-Yi No 3271 'Regulations for Taking Care of the Family of Deceased Civil Servant' and Kao-Tai-Tzu-Er-Er-Tsu No.10400039491 ' Regulations for Taking care of the Retired Civil Servant Claiming Lump-Sum Pensions before December 31, 1979') and the Ministry of Finance (Tai-Tsai-Ren No. 0890850993).

Every Spring Festival, Dragon Boat Festival, and Mid-Autumn Festival, the Bank and subsidiary are obligated to grant two thousand to each of those who are at the age of 60 or older, those who are at the age of 55 but have already served the Bank for 25 years, and those who are retired due to incapacity. In accordance with Executive Yuan Yuan-Shou-Ren-Ji-Kuei-Tsu No. 1050053161 on September 8, 2016 to amend the regulations about holiday benefits of "The Matter of Taking Care of the Retired Civil", that doesn't issue the holiday benefits as of January 1, 2017.

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BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

The Bank and subsidiary are obliged to grant \$18 thousand to those who retired before December 31, 1979 and claim pensions at one time every Spring Festival, Dragon Boat Festival and Mid-Autumn Festival. The amount will be raised to \$31 thousand if there are dependents.

The balances of pension account were \$1,284,129 thousand and \$1,225,373 thousand as of December 31, 2019 and 2018, respectively. Bank and subsidiary expect to contribute \$923,133 thousand to the account within one year after the balance date.

Weighted average duration of the defined contribution plans were as follows:

Defined Benefit Plans	11.70 year
Employee care bonuses during the three Chinese festivals	11.70 year

- a) The reconciliation of recognized liabilities for the defined benefit obligations, present value of the defined benefit obligations, fair value of the plan assets, and the limit of assets adjustment are as follows:

	December 31, 2019	December 31, 2018
Present value of the defined benefit obligations	\$ 20,731,922	18,988,352
Less: fair value of the plan assets	(8,189,461)	(7,866,695)
Recognized liabilities for the defined benefit obligations	<u><u>\$ 12,542,461</u></u>	<u><u>11,121,657</u></u>

- b) The movements in present value of the defined benefit obligations

	2019	2018
Defined benefit obligation at January 1	\$ 18,988,352	17,745,198
Current service costs	771,916	696,074
Interest expense	208,872	195,197
Remeasurements of the defined benefit plans of other Comprehensive Income		
— Changes in actuarial gains and losses in financial assumptions	790,963	905,873
— Experience adjustments	836,215	217,645
Past service cost	565	-
Benefit payments	(864,961)	(771,635)
Defined benefit obligation at December 31	<u><u>\$ 20,731,922</u></u>	<u><u>18,988,352</u></u>

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BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

c) The movements of fair value of defined benefit plan assets

	2019	2018
Fair value of plan assets at January 1	\$ 7,866,695	7,494,413
Interest revenue	86,534	82,438
remeasurements of defined benefit plans of other comprehensive income		
— Return on plan assets	61,259	41,152
Contribution made by the Bank	957,093	923,853
Benefit payments	(782,120)	(675,161)
Fair value of plan assets at December 31	<u><u>\$ 8,189,461</u></u>	<u><u>7,866,695</u></u>

d) Expense recognized in profit or loss

	2019	2018
Current service cost	\$ 771,916	696,074
Net interest of defined benefit obligations	122,338	112,759
Total	<u><u>\$ 894,254</u></u>	<u><u>808,833</u></u>

e) Re-measurement of net defined benefit liability (asset) recognized in other comprehensive income

The Bank's and subsidiary's re-measurement of the net defined benefit liability (asset) recognized in other comprehensive income for the years ended December 31, 2019 and 2018, was as follows:

	2019	2018
Accumulated amount at January 1	\$ (4,596,149)	(3,513,783)
Recognized during the period	(1,565,918)	(1,082,366)
Accumulated amount at December 31	<u><u>\$ (6,162,067)</u></u>	<u><u>(4,596,149)</u></u>

f) Portfolio analysis of plan asset

	2019	2018
Bonds instruments	\$ 2,800,867	2,473,339
Others	5,388,594	5,393,356
Total	<u><u>\$ 8,189,461</u></u>	<u><u>7,866,695</u></u>

The overall expected rate of return on assets is based on the historical trend of returns and the estimation of return on the portfolio as a whole. The Bank also refers to the return of the funds supervised by the Labor Pension Supervision Committee and then uses judgments and estimations to determine the rate which should not be lower than the two-year time deposits rate set by the local banks.

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BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

g) Actuarial assumptions

	December 31, 2019	December 31, 2018
Discount rate	0.75 %	1.10 %
Assets expected rate of return	0.75 %	1.10 %
Future of salary increases	2.00 %	2.00 %

The estimated future mortality rate used in calculating of the defined benefit plan of The Bank and subsidiary are based on the fifth round of the Taiwan Life Experience Life Table.

h) Sensitivity analysis

The followings would be the impacts on the present value of defined benefit obligations as of December 31, 2019 and 2018 if the actuarial assumptions had changed:

Impacts on the present value of the defined benefit obligation			
	Actuarial assumption changes(%)	Actuarial assumption increase	Actuarial assumption decrease
December 31, 2019			
Discount rate			
Defined benefit plans	0.25%	\$ (20,096,990)	21,323,896
Employee care bonus during the three Chinese festivals	0.25%	(5,264)	5,373
Salary increase rate	0.50%	(19,735,333)	21,800,791
December 31, 2018			
Discount rate			
Defined benefit plans	0.25%	(18,418,362)	19,528,475
Employee care bonus during the three Chinese festivals	0.25%	(4,922)	5,026
Salary increase rate	0.50%	(19,964,163)	18,077,506

The aforementioned sensitivity analysis is used to analyze what the impact could be when one variable changes while all other variables remain constant. In practice, however, this hypothesis may not exist as changes in variables could be correlative. Projected unit benefit method is also utilized in calculating the changes in present value of the defined benefit obligations when the Bank conducts the sensitivity analysis.

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BANK OF TAIWAN AND SUBSIDIARY
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Methods and variables used in preparing the sensitivity analysis are consistent with those of the previous period.

3) Employee preferential interest plan

According to the ruling Tai Tsai Ku No.09601013320 that issued by the Ministry of Finance on December 11, 2007, the Bank is obligated to pay the preferential interests generated from a fixed amount of deposit to each retired and in-service employee.

As from July 1, 2018, the Bank terminate the preferential interest deposits for retired employees in accordance with the rule Tai Tsai Ku No.10700624450 issued by the Ministry of Finance.

- a) The reconciliation of recognized liabilities for employee preferential interest plan, fair value of the plan, and limit of assets adjustment are as follows:

	December 31, 2019	December 31, 2018
Fair value of the Employees preferential interest plan	\$ 6,181,930	6,220,165
Limit of assets adjustment	-	-
Recognized liabilities for the defined benefit obligations	<u><u>\$ 6,181,930</u></u>	<u><u>6,220,165</u></u>

- b) The movements of present value of employees preferential interest plan

	2019	2018
Present value of employees preferential interest plan at January 1	\$ 6,220,165	8,169,758
Interest expense	248,807	293,042
Prior service cost and settlement of losses	1,650,337	1,448,429
Benefit paid by the plan	<u>(1,937,379)</u>	<u>(3,691,064)</u>
Present value of employees preferential interest plan at December 31	<u><u>\$ 6,181,930</u></u>	<u><u>6,220,165</u></u>

- c) Expense recognized in profit or loss

	2019	2018
Net interest of employees preferential deposit	\$ 248,807	293,042
Prior service costs and settlement of losses	<u>1,650,337</u>	<u>1,448,429</u>
Total (booked under employee benefits expense, note 6(ah))	<u><u>\$ 1,899,144</u></u>	<u><u>1,741,471</u></u>

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

d) Actuarial assumptions

	<u>2019</u>	<u>2018</u>
Discount rates of the employee preferential interest	4.00 %	4.00 %
Return on deposit	2.00 %	2.00 %
Pension preferential ratios deposit for withdrawal	1.00 %	1.00 %
The probability of changes in the policy of employee preferential interest plan	50.00 %	50.00 %
Rate of same type deposit offered to general customers	1.165 %	1.165 %

e) Sensitivity analysis

The followings would be the impacts on the present value of defined benefit obligations as of December 31, 2019 and 2018 if the actuarial assumptions had changed:

Impacts on the present value of the defined benefit obligation			
	<u>Actuarial assumption changes(%)</u>	<u>Actuarial assumption increase</u>	<u>Actuarial assumption decrease</u>
December 31, 2019			
Discount rate	0.25%	\$ (6,074,285)	6,293,283
December 31, 2018			
Discount rate	0.25%	(6,111,549)	6,332,547

The aforementioned sensitivity analysis is used to analyze what the impact could be when one variable changes, while all other variables remained constant. In practice, however, this hypothesis may not exist as changes in variables could be correlative. Projected unit benefit method is also utilized in calculating the changes in present value of the defined benefit obligations when the Bank conducts the sensitivity analysis.

The methods and variable used in preparing the sensitivity analysis are consistent with those of the previous period.

f) Future cash flow of Employees preferential interest plan

The Bank and subsidiary monitor and review the contributions to employee preferential interest plan annually to ensure the ability of payments. Within one year after the financial statement date, the Bank and subsidiary expect to contribute \$1,841,314 thousand to the plan.

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BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

(ii) The subsidiary, BTIB

1) Defined benefit plans (including pension plans and excess annuity)

BTIB the reconcilian of present value of the defined benefit obligations and fair value of the plan assets are as follows:

	December 31, 2019	December 31, 2018
Present value of the defined benefit obligations	\$ 58,452	50,448
Fair value of the plan assets	(50,555)	(47,524)
Net liabilities (assets) of the defined benefit obligations	<u><u>\$ 7,897</u></u>	<u><u>2,924</u></u>

The retirement, indemnity and severance of BTIB certified staff are complied with the "Guideline of Indemnity and Severance of Financial and Insurance Enterprise Employees". Pension payments to staffs that the year of service before designated to apply to "Labor Standards Act" (as of May 1, 1997) are complied with the Article 41-1 and are separately appropriated wages of 4%~8.5% into mandatory pension contribution (defined contribution), according to the different monthly salary grade regulated by the Article 9. However, it is stopped contributing to mandatory pension contribution and the contributed part shall be retained after applying to "Labor Standards Act"; pension payments to labors that the year of service after applying to "Labor Standards Act" is calculated by the related regulations of "Labor Standards Act". When employees retire, they will be paid using their pension fund and mandatory pension contribution.

a) Composition of plan assets

The labor pension reserve consigned to "Labor Retirement Fund Supervisory Committee" by BTIB amounted to \$50,555 thousand at the end of the reporting period.

b) The movements in present value of the defined benefit obligations

BTIB movements in present value of the defined benefit obligations for the years ended December 31, 2019 and 2018 , was as follows:

	2019	2018
Defined benefit obligation at January 1	\$ 50,448	43,219
Current service costs and interest	5,032	4,651
Remeasurements of the defined benefit plans in other comprehensive income		
— Actuarial gains and losses in demographic changes in assumptions	2,972	3,485
Benefits paid by the plan	-	(907)
Defined benefit obligation at December 31	<u><u>\$ 58,452</u></u>	<u><u>50,448</u></u>

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

c) The movements of fair value of defined benefit plan assets

BTIB movements of fair value of defined benefit plan assets for the years ended December 31, 2019 and 2018, was as follows:

	2019	2018
Fair value of plan assets at January 1	\$ 47,525	45,495
Remeasurements of defined benefit plans in other comprehensive income		
— Return on plan assets(not including current interest)	-	(113)
Contribution made by the Bank	2,392	2,309
Interest revenue	638	740
Benefit payments	-	(907)
Fair value of plan assets at December 31	<u>\$ 50,555</u>	<u>47,524</u>

d) Expense recognized in profit or loss

BTIB expense recognized in profit or loss at December 31, 2019 and 2018 , was as follows:

	2019	2018
Current service cost	\$ 4,371	3,964
Net interest of the defined benefit obligations(assets)	23	(53)
	<u>\$ 4,394</u>	<u>3,911</u>

e) Re-measurement of net defined benefit liability (asset) recognized in other comprehensive income

BTIB re-measurement of net defined benefit liability (asset) recognized in other comprehensive income for the years ended December 31, 2019 and 2018, was as follows:

	2019	2018
Accumulated amount at January 1	\$ 2,924	-
Recognized during the period	2,971	2,924
Accumulated amount at December 31	<u>\$ 5,895</u>	<u>2,924</u>

f) Actuarial assumptions

The major actuarial assumptions used by BTIB at the end of reporting period were as follows:

	December 31, 2019	December 31, 2018
Discount rate	1.08 %	1.31 %
Future of salary increases	3.00 %	3.00 %

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

The expected payment made by BTIB to the defined benefit plans within one year after the reporting date is \$2,392 thousand °

Weighted average duration of the defined contribution plan is 15.81 year.

g) Sensitivity analysis

When calculating the present value of the defined benefit obligations, the subsidiary BTIB, uses judgments and estimations to determine the actuarial assumptions, including discount rates and future salary changes, as of the balance sheet date. Any changes in the actuarial assumptions may significantly impact the amounts of the defined benefit obligations.

The followings could impact the present value of the defined benefit obligations as of December 31, 2019 and 2018 if the actuarial assumptions change as follows:

	Impacts on the defined benefit obligation	
	<u>Increase 0.5%</u>	<u>Decrease 0.5%</u>
December 31, 2019		
Discount rate	54,900	62,413
Future of salary increases	61,447	55,691
December 31, 2018		
Discount rate	47,456	53,662
Future of salary increases	52,874	48,103

The sensitivity analysis is used to analyze the impact when one assumption changes and other assumptions are unchanged. In practice, however, changes of assumptions might be correlative. The method used to conduct the sensitivity analysis is the same as that BTIB used to calculate the amount of net accrued pension liabilities on its balance sheet.

There were no changes in the method and assumptions used in the preparation of sensitivity analysis for 2018 and 2019.

2) Employee preferential interest plan

The subsidiary, BTIB, is also obligated to pay the preferential interests generated from a fixed amount of deposit to each retired and in-service employee in accordance with Tai-Cha-Ku-Tzu No.10103675500 and agreement between the Bank and subsidiary.

The subsidiary, BTIB, has the obligation to pay the preferential interest deposits to current employees. If the preferential interest rate for retired employees exceeds the market rate, BTIB shall apply the accounting treatments required by IAS 19 to estimate the excess interest as the employees retired.

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BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

3) Defined contribution plans

BTIB contributed 6% of each employee's monthly salary to a personal labor pension account at the Bureau of Labor Insurance in accordance with the provisions of the Labor Pension Act. BTIB contributed a fixed amount to the Bureau of Labor Insurance without additional legal or constructive obligation.

(z) Lease liabilities

Bank and subsidiary's lease liabilities were as follow:

	December 31, 2019
Current	<u>\$ 1,479,132</u>

For the maturity analysis, please refer to note 8(d).

The amounts recognized in profit or loss were as follows:

	2019
Interest on lease liabilities	<u>\$ 19,459</u>
Variable lease payments not included in the measurement of lease liabilities	<u>\$ 2,333</u>
Expenses relating to short-term leases	<u>\$ 2,993</u>
Expenses relating to leases of low-value assets, excluding short-term leases of low-value assets	<u>\$ 1,231</u>

The amounts recognized in the statement of cash flows for Bank and subsidiary was as follows:

	2019
Total cash outflow for leases	<u>\$ 608,815</u>

(i) Real estate leases

As of December 31, 2019, the Bank and subsidiary leased buildings for its office space. The leases of office space typically run for a period of 5 years. Some leases include an option to renew the lease for an additional period of the same duration after the end of the contract-term.

Some leases provide for additional rent payments that are based on changes in local price indices.

(ii) Other leases

The Bank and subsidiary leased miscellaneous equipment and parking space with contract terms of one years. These leases are short-term and leases of low-value items. The Bank and subsidiary have elected not to recognize right-of-use assets and lease liabilities for these leases.

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BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

(aa) Operating lease

(i) Leases as lessee

Please refer to note 8(d) sets out information about the operating leases of significant real estate of the Bank and subsidiary as of December 31, 2018.

(ii) Leases as lessor

The Bank and subsidiary leased out its investment property and some machinery. The Bank and subsidiary have classified these leases as operating leases, because it does not transfer substantially all of the risks and rewards incidental to the ownership of the assets.

A maturity analysis of lease payments, showing the undiscounted lease payments to be received after the reporting date are as follows:

	December 31, 2019
Less than one year	\$ 151,451
One to two years	115,015
Two to three years	54,715
Three to four years	10,183
Four to five years	<u>1,682</u>
Total undiscounted lease payments	<u>\$ 333,046</u>

The future minimum lease payments under non-cancellable leases are as follows:

	December 31, 2018
Less than one year	\$ 144,332
Between one and five years	<u>256,379</u>
	<u>\$ 400,711</u>

(ab) Other Liabilities

	December 31, 2019	December 31, 2018
Advance collections	\$ 2,246,494	2,509,422
Guarantee deposits received	7,051,156	3,930,398
Temporary receipt and suspense accounts	123,548	37,532
Other liabilities to be settled	8,239	8,239
Compensation arising from land revaluation	1,264,803	1,264,803
Deferred revenue	<u>16</u>	<u>32</u>
Total	<u>\$ 10,694,256</u>	<u>7,750,426</u>

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BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

(ac) Income Tax Expenses

(i) Income Tax expenses (benefits)

The income tax expenses for December 31, 2019 and 2018 were as follow:

	<u>2019</u>	<u>2018</u>
Current income tax expense	\$ 2,602,570	1,242,520
Deferred tax expense (benefit)	<u>(549,026)</u>	<u>(11,391)</u>
Income tax expenses	<u><u>\$ 2,053,544</u></u>	<u><u>1,231,129</u></u>

Income tax (expenses) benefits recognized directly in other comprehensive income for 2019 and 2018 were as follows:

	<u>2019</u>	<u>2018</u>
Gains (losses) on debt instruments measured at fair value through other comprehensive income	<u><u>\$ 30,302</u></u>	<u><u>(81,229)</u></u>

The amount of expense (income) tax recognized in other comprehensive income for in 2019 and 2018 were as follows:

	<u>2019</u>	<u>2018</u>
Profit before tax	<u><u>\$ 13,211,230</u></u>	<u><u>11,476,335</u></u>
Income tax using the company's domestic tax rate(20%)	2,642,246	2,295,267
Income tax expenses of overseas branches	561,565	493,404
Net movements of deferred tax assets	(549,026)	(11,391)
Tax-exempt effects and others	<u>(601,241)</u>	<u>(1,546,151)</u>
Total	<u><u>\$ 2,053,544</u></u>	<u><u>1,231,129</u></u>

1) Unrecognized Deferred Tax Assets

Deferred tax assets have not been recognized in respect of the following items:

	<u>December 31, 2019</u>	<u>December 31, 2018</u>
Deductible Temporary Differences	<u><u>\$ 6,268,724</u></u>	<u><u>5,819,532</u></u>

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BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

2) Recognised Deferred Tax Assets and Liabilities

Changes in the amount of deferred tax assets and liabilities for December 31, 2019 and 2018 are as follows:

Deferred Tax Assets:

	Fair Value Gains	Others	Total
Balance at January 1, 2019	\$ 281,703	30,588	312,291
Recognized in profit or loss	16,166	527,271	543,437
Recognized in other comprehensive income	<u>19,954</u>	<u>(224)</u>	<u>19,730</u>
Balance at December 31, 2019	<u>\$ 317,823</u>	<u>557,635</u>	<u>875,458</u>
Balance at January 1, 2018	\$ 166,887	3,954	170,841
Recognized in profit or loss	2,554	5,623	8,177
Recognized in other comprehensive income	<u>112,262</u>	<u>21,011</u>	<u>133,273</u>
Balance at December 31, 2018	<u>\$ 281,703</u>	<u>30,588</u>	<u>312,291</u>

Deferred Tax Liabilities:

	Land Value Increment Tax	Fair Value Gains	Others	Total
Balance at January 1, 2019	\$ 18,077,672	113,354	878	18,191,904
Recognized in profit or loss	(5,589)	-	-	(5,589)
Recognized in other comprehensive income	<u>-</u>	<u>50,256</u>	<u>(1,506)</u>	<u>48,750</u>
Balance at December 31, 2019	<u>\$ 18,072,083</u>	<u>163,610</u>	<u>(628)</u>	<u>18,235,065</u>
Balance at January 1, 2018	\$ 18,080,886	62,188	-	18,143,074
Recognized in profit or loss	(3,214)	-	-	(3,214)
Recognized in other comprehensive income	<u>-</u>	<u>51,166</u>	<u>878</u>	<u>52,044</u>
Balance at December 31, 2018	<u>\$ 18,077,672</u>	<u>113,354</u>	<u>878</u>	<u>18,191,904</u>

- (ii) The Bank's and subsidiary's income tax returns have been audited by the MoA up until 2018 and examined by the National Tax Administration up until 2016.

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BANK OF TAIWAN AND SUBSIDIARY
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(ad) Equity

(i) Capital stock

A resolution was passed during the meetings of the Company's board of directors, acting on behalf of the board of shareholders, on April 12, 2019 for the issuance of ordinary shares paid in land under private placement, with selling price of \$30 per share and September 25, 2019 as the date of capital increase. The total amount of the capital injection was \$42 billion. The issuance was approved by the FSC (Ruling No. 10801305311) and the Ministry of Economic Affairs (Ruling No. 10801140660) on July 17 and October 31, 2019, respectively. The relevant statutory registration procedures have been completed.

The aforementioned private placement of ordinary shares and the transfer of any subsequently obtained bonus shares will be subject to the Article 43-8 under the Securities and Exchange Act. The Bank can only apply for these shares to be traded on the Taiwan Stock Exchange after a three-year period has elapsed from the delivery date of the private placement securities, and after applying for a public offering with the FSC.

As of December 31, 2019 and 2018, the Bank's authorized and issued shares of common stocks were 10,900,000 thousand (9,500,000 thousand was under public offering and 1,400,000 thousand was under private placement) and 9,500,000 thousand, respectively. The par value of the issued common stocks is \$10.

(ii) Capital surplus

According to the ROC Company Act, the Company can declare dividend with capital surplus. The share capital capitalized in any one year may not exceed a certain percentage for the Company's increasing share capital under the Regulations Governing the Offering and Issuance of Securities by Securities Issuers. The Company may only increase its capital reserve out of the share capital from cash premium on capital stock once a year. The additional capital reserve from the share capital may not be increased during the same fiscal year as the additional share capital from cash premium on capital stock.

In accordance with the regulations regarding government-run businesses and the Bank's articles of incorporation, however, the policy for the resources that can be used to distribute cash dividend only includes current year earnings, accumulated earnings, legal reserve allowed to be used to distribute cash dividend, under the instruction of the Ministry of Finance. Capital surplus is not included.

(iii) Legal reserve

According to the ROC Company Act, when the Company does not have any deficit, and only the portion of legal reserve which exceeds 25 percent of the paid-in capital can be distributed.

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(iv) Other equity

	Exchange differences on translation of foreign operations	Unrealized gains (losses) on financial assets measured at fair value through other comprehensive income	Change in fair value of financial liability attributable to change in credit risk of liability	Gains (losses) on financial instruments for hedging	Other Comprehensive income reclassified by applying overlay approach	Total
Balance at January 1, 2019	\$ (650,811)	42,375,680	192,515	4,193	(7,239)	41,914,338
Exchange differences on translation of foreign operations	(699,412)	-	-	-	-	(699,412)
Unrealized gains (losses) on financial assets measured at fair value through other comprehensive income	-	18,370,191	-	-	-	18,370,191
Disposal of investments in equity instruments measured at fair value through other comprehensive income	-	6,050	-	-	-	6,050
Gains (losses) of associates and joint ventures accounted for using equity method on financial Instruments for hedging	-	-	-	(238)	-	(238)
Change in fair value of financial liability attributable to change in credit risk of liability	-	-	(301,751)	-	-	(301,751)
Other Comprehensive income reclassified by applying overlay approach	-	-	-	-	36,571	36,571
Balance at December 31, 2019	<u><u>\$ (1,350,223)</u></u>	<u><u>60,751,921</u></u>	<u><u>(109,236)</u></u>	<u><u>3,955</u></u>	<u><u>29,332</u></u>	<u><u>59,325,749</u></u>

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	Exchange differences on translation of foreign operations	Unrealized gains (losses) on financial assets measured at fair value through other comprehensive income	Unrealized gains (losses) on available for sale financial assets	Gains (losses) on effective portion of cash flow hedges	Change in fair value of financial liability attributable to change in credit risk of liability	Gains (losses) on financial Instruments for hedging	Other Comprehensive income reclassified by applying overlay approach	Total
Balance at January 1, 2018	\$ (1,316,795)	-	30,435,010	3,991	(44,599)	-	-	29,077,607
Effects of retrospective application	-	38,683,823	(30,435,010)	(3,991)	-	3,991	18,874	8,267,687
Equity at beginning of period after adjustments	(1,316,795)	38,683,823	-	-	(44,599)	3,991	18,874	37,345,294
Exchange differences on translation of foreign operations	665,984	-	-	-	-	-	-	665,984
Unrealized gains (losses) on financial assets measured at fair value through other comprehensive income	-	3,635,389	-	-	-	-	-	3,635,389
Disposal of investments in equity instruments measured at fair value through other comprehensive income	-	56,468	-	-	-	-	-	56,468
Gains (losses) of associates and joint ventures accounted for using equity method on financial Instruments for hedging	-	-	-	-	-	202	-	202
Change in fair value of financial liability attributable to change in credit risk of liability	-	-	-	-	237,114	-	-	237,114
Other Comprehensive income reclassified by applying overlay approach	-	-	-	-	-	-	(26,113)	(26,113)
Balance at December 31, 2018	<u>\$ (650,811)</u>	<u>42,375,680</u>	<u>-</u>	<u>-</u>	<u>192,515</u>	<u>4,193</u>	<u>(7,239)</u>	<u>41,914,338</u>

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BANK OF TAIWAN AND SUBSIDIARY
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(v) Appropriation of earnings

The articles of incorporation of the Bank stipulate that net income should be distributed in the following order:

- 1) to settle all outstanding tax payable; bFSC.
As
- 2) to offset prior years losses;
- 3) to appropriate 30% as legal reserve;
- 4) special reserve

To appropriate 20~40% as special reserve; In accordance with the Order No. 1010012865 issued by the FSC on April 6, 2012, for any unrealized revaluation gains and cumulative translation adjustments (gains) recorded in the shareholders equity which the Bank elect to transfer to retained earnings by application of the exemption under IFRSs No. 1, the Bank shall set aside an equal amount of special reserve. When the Bank subsequently use, dispose of, or reclassify the relevant assets, it may reverse to distributable earnings a proportional amount of the special reserve originally set aside.

In accordance with the guidelines of the above Ruling, a portion of current-period earnings and undistributed prior-period earnings shall be reclassified as special earnings reserve during earnings distribution. The amount to be reclassified should be equal to the difference between the total net current-period reduction of special earnings reserve resulting from the first-time adoption of IFRSs and the carrying amount of other shareholder's equity as stated above. Similarly, a portion of undistributed prior-period earnings shall be reclassified as special earnings reserve (which does not qualify for earnings distribution) to account for cumulative changes to other shareholder's equity pertaining to prior due to the first-time adoption of IFRSs. Amounts of subsequent reversals pertaining to the net reduction of other shareholder's equity shall qualify for additional distributions.

- 5) To appropriate dividends.

The remaining balance would be appropriated, combining accumulated retained earnings, in accordance with related laws and regulations.

According to the Banking Law, before the legal reserve balance amounts to the authorized capital, cash dividend distributions cannot exceed 15% of the authorized capital.

- 6) The meeting of Board of Directors held on February 23, 2018 resolved to follow the budget approved by the government and distributed the amount of \$600 million to TFH as dividend for the year 2017.
- 7) The meeting of Board of Directors held on February 22, 2019 resolved to follow the budget approved by the government and distributed the amount of \$800 million to TFH as dividend for the year 2018.

Please refer to Consolidated Statement of Change in Equity about the change of equity.

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(ae) Net interest income

	<u>2019</u>	<u>2018</u>
Interest income:		
Loans and discounts	\$ 43,561,302	40,270,142
Placement with Central Bank and call loans to banks	9,331,949	10,093,672
Securities investment	12,200,314	12,390,502
Credit cards	25,118	25,191
Others	<u>915,543</u>	<u>1,104,133</u>
	<u>66,034,226</u>	<u>63,883,640</u>
Interest expense:		
Deposits from customers	33,398,484	33,862,058
Deposits of Central Banks and other banks	5,433,135	3,758,265
Bonds sold under repurchased agreements	109,746	278,451
Financial bonds	304,830	304,470
Structured deposits	30,952	22,686
Others	<u>77,881</u>	<u>32,351</u>
	<u>39,355,028</u>	<u>38,258,281</u>
Total	<u><u>\$ 26,679,198</u></u>	<u><u>25,625,359</u></u>

(af) Service fees, net

	<u>2019</u>	<u>2018</u>
Service fees revenue:		
Trust services	\$ 869,191	912,556
Custody services	136,752	135,509
Foreign exchange business	263,940	290,027
Credit business	519,021	579,748
Credit card services	150,827	132,651
Deposit, remittance and other services	<u>3,926,866</u>	<u>3,908,205</u>
Subtotal	<u>5,866,597</u>	<u>5,958,696</u>
Service fees expense:		
Trust services	81,675	91,322
Custody services	19,718	13,418
Credit card services	148,305	123,154
Deposit, remittance and other services	<u>442,812</u>	<u>431,424</u>
Subtotal	<u>692,510</u>	<u>659,318</u>
Total	<u><u>\$ 5,174,087</u></u>	<u><u>5,299,378</u></u>

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(ag) Gain (loss) on financial assets or liabilities measured at fair value through profit or loss

	<u>2019</u>	<u>2018</u>
Gain on financial assets or liabilities measured at fair value through profit or loss:		
Dividend income	\$ 4,862,624	4,782,264
Net interest loss	(1,205,202)	(923,860)
Net gain on disposal	<u>14,865,580</u>	<u>10,026,826</u>
Subtotal	18,523,002	13,885,230
Gain on financial assets or liabilities measured at fair value through profit or loss — evaluation:		
Net (loss) gain on valuation	<u>30,263,404</u>	<u>(18,395,655)</u>
Total	<u><u>\$ 48,786,406</u></u>	<u><u>(4,510,425)</u></u>

(ah) Realized gains (losses) on financial assets measured at fair value through other comprehensive income

	<u>2019</u>	<u>2018</u>
Dividend income	\$ 3,184,773	2,928,331
Gain (loss) on disposal	<u>395,865</u>	<u>(2,912)</u>
Total	<u><u>\$ 3,580,638</u></u>	<u><u>2,925,419</u></u>

(ai) Foreign exchange gain or loss

	<u>2019</u>	<u>2018</u>
Foreign exchange gains	\$ 8,431,197	11,767,888
Foreign exchange losses	<u>(8,635,038)</u>	<u>(6,054,937)</u>
Foreign exchange gains or losses	<u><u>\$ (203,841)</u></u>	<u><u>5,712,951</u></u>

(aj) Other non-interest income (expense)

	<u>2019</u>	<u>2018</u>
Premiums income	\$ 23,511,625	24,863,334
Sales revenue	139,418,849	127,169,376
Subsidized income from government	8,774,387	8,892,009
Benefits and claims	(24,671,785)	(23,242,767)
Cost of goods sold	(138,918,462)	(126,802,714)
Provisions for policy holders' reserve premium	(45,358,797)	(1,371,850)
Excess preferential interest expenses	(8,781,651)	(9,584,580)
Others	<u>786,916</u>	<u>1,759,358</u>
Total	<u><u>\$ (45,238,918)</u></u>	<u><u>1,682,166</u></u>

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(ak) Employee benefits expenses

	2019	2018
Salaries	\$ 11,419,798	10,959,527
Labor and health insurances	527,904	520,763
Pensions	925,957	838,371
Remuneration of directors	2,553	2,344
Others	268,669	258,864
Total	<u><u>\$ 13,144,881</u></u>	<u><u>12,579,869</u></u>

(al) Depreciation and amortization expenses

	2019	2018
Depreciation expenses	\$ 1,324,747	706,513
Amortization expenses	313,388	280,830
Total	<u><u>\$ 1,638,135</u></u>	<u><u>987,343</u></u>

(am) Other general and administrative expenses

	2019	2018
Taxes	\$ 3,173,028	3,091,823
Rental expenses	6,557	831,866
Insurance expenses	989,540	969,002
Postage and phone / fax expenses	219,611	242,342
Utilities	187,604	193,187
Supplies expenses	172,257	168,937
Repair and maintenance expenses	407,422	415,096
Marketing expenses	331,649	317,709
Professional service fees	770,677	420,225
Cashes transferring expenses	220,581	123,782
Others	352,517	328,483
Total	<u><u>\$ 6,831,443</u></u>	<u><u>7,102,452</u></u>

(an) Earnings per Share

The basic earnings per share of the Bank and subsidiary were calculated as follows:

Unit: thousand dollars / thousand shares

	2019		2018	
	Before-Tax	After-Tax	Before-Tax	After-Tax
Consolidated net income	\$ 13,211,230	11,157,686	11,476,335	10,245,206
Weighted average outstanding shares	9,875,890	9,875,890	9,500,000	9,500,000
Basic earnings per share (In dollars)	\$ 1.34	1.13	1.21	1.08

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(7) The Fair Value Information of Financial Instruments:

(a) Fair value information

(i) Overview

Fair value is the price that would be received to sell an asset or pay to transfer a liability in an orderly transaction between market participants at the measurement date.

Financial instruments are recognized initially at fair values. In many case, they usually refer to transaction prices. Subsequent to initial recognition, they are also measured at fair value except for those that are measured at amortized cost. The best evidence of fair value is the quoted price in an active market. If financial instruments do not have a quoted market price in an active market, the Bank uses the valuation techniques or refers to the quoted prices set by Bloomberg, Reuters or the Counterparties to determine the fair value.

(ii) The Three-level Definition

1) Level 1

Inputs are quoted prices of same financial instruments in an active market. An active market indicates the market that is in conformity with all the following conditions: (i) the products in the market are identical; (ii) it is easy to find a willing party; (iii) the price information is attainable for the public. The equity investments, beneficiary certificates, certain Taiwan government bonds, and derivatives with quoted prices in an active market are classified as level 1.

2) Level 2

Inputs are those that are observable for asset or liability, either directly (i.e. prices) or indirectly (i.e. derived from prices), other than quoted prices included within Level 1. The non-popular government bonds, corporate bonds, financial bonds, convertible bonds, most of the derivatives, and financial bonds issued by the Bank and subsidiary are classified as level 2.

3) Level 3

Inputs are not based on observable market data (unobservable inputs parameters), i.e., historical volatility which cannot represent an expected value of all the market participators but is used as a model for the calculation of options. Certain derivatives and equity investments without a non-active market belong to level 3.

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BANK OF TAIWAN AND SUBSIDIARY
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(b) Measure at fair value measurement

(i) Fair value hierarchy

The fair value of financial instruments is measured on a recurring basis. The fair value hierarchy of financial instruments as of December 31, 2019 and 2018 are as follows:

Financial instruments measured at fair value	December 31, 2019			
	Total	Level 1	Level 2	Level 3
<u>Non-derivative financial instruments</u>				
Assets:				
Financial assets measured at fair value through profit or loss	233,494,167	211,102,426	22,196,291	195,450
Financial assets designated as fair value through profit or loss	19,361,468	-	19,361,468	-
Investment in bonds	19,361,468	-	19,361,468	-
Financial assets mandatorily as fair value through profit or loss	214,132,699	211,102,426	2,834,823	195,450
Investments in stocks	91,208,229	91,012,779	-	195,450
Investment in bonds	3,525,504	690,681	2,834,823	-
Others	119,398,966	119,398,966	-	-
Financial assets at fair value through other comprehensive income	1,013,078,126	798,960,636	191,017,604	23,099,886
Investments in bonds	917,794,248	726,776,644	191,017,604	-
Investment in stocks	95,283,878	72,183,992	-	23,099,886
Liabilities:				
Financial liabilities designated at fair value through profit or loss	\$ 46,199,351	-	46,199,351	-
<u>Derivative financial instruments</u>				
Assets:				
Financial assets measured at fair value through profit or loss	10,699,762	56,694	10,643,068	-
Hedging derivatives financial assets	1,071	-	1,071	-
Liabilities:				
Financial liabilities measured at fair value through profit or loss	14,084,496	-	14,084,496	-
Hedging derivatives financial liabilities	25,537	-	25,537	-

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Financial instruments measured at fair value	December 31, 2018			
	Total	Level 1	Level 2	Level 3
Non-derivative financial instruments				
Assets:				
Financial assets measured at fair value through profit or loss	230,003,949	155,634,700	74,158,049	211,200
Financial assets designated as fair value through profit or loss	15,465,720	-	15,465,720	-
Investment in bonds	15,465,720	-	15,465,720	-
Financial assets mandatorily as fair value through profit or loss	214,538,229	155,634,700	58,692,329	211,200
Investments in stocks	85,526,659	85,315,459	-	211,200
Investment in bonds	59,151,693	459,364	58,692,329	-
Others	69,859,877	69,859,877	-	-
Financial assets at fair value through other comprehensive income	1,117,727,277	920,170,473	180,921,194	16,635,610
Investments in bonds	1,041,010,714	860,089,520	180,921,194	-
Investment in stocks	76,716,563	60,080,953	-	16,635,610
Liabilities:				
Financial liabilities designated at fair value through profit or loss	\$ 45,855,310	-	45,855,310	-
Derivative financial instruments				
Assets:				
Financial assets measured at fair value through profit or loss	6,404,769	67,262	6,337,507	-
Hedging derivatives financial assets	41,693	-	41,693	-
Liabilities:				
Financial liabilities measured at fair value through profit or loss	4,699,007	-	4,699,007	-
Hedging derivatives financial liabilities	12,973	-	12,973	-

(ii) Financial instruments measured at fair value

Fair value of an assets or liability is the amount at which the asset could be bought or sold in a current transaction between both willing parties who have full understanding, or transferred to an equivalent party.

Financial instruments are recognized initially at fair values. In many case, they usually refers to transaction price. Subsequent to initial recognition, they are also measured at fair value except for those that are measured at amortized cost. The best evidence of fair value is the quoted price in an active market. If a financial instrument do not have a quoted market price in an active market, the Bank uses the valuation techniques or refers to the quoted prices set by Bloomberg, Reuters or the Counterparties to determine the fair value.

The fair value of financial instruments is based on the quoted prices in an open market. These include trading prices of equity instruments listed on a major stock exchange or of the government bonds in an over the counter (“OTC”) market.

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When a quoted price of a financial instrument is timely available in a stock exchange or an OTC market or from brokers, underwriter, industry associations, pricing service organizations and the authorities and the price is often used in a arm's length transaction, the financial instrument is considered to have a quoted price in an active market. If the above criteria are not met, the market is considered inactive. In general, a large or significantly increasing bid-ask spread and very low transaction volume indicate that the market where the financial instrument is trade is not active.

Other than those traded in an active market, the fair value of all other financial instruments is determined by using a valuation model or referring to the quoted price of the counterparty. The Bank refers to the present values, the discounted cash flow or the values calculated under other valuation methods of financial instruments with similar terms and characteristics, including the one calculated by a model which uses the available market data at the financial statement day as inputs. (i.e. the applicable yield curve of bonds traded in the Taipei exchange and average prices of commercial papers quoted on Reuters)

When measuring a financial instrument which no specific techniques can be applied to but do not create challenge in valuation, such as bonds traded in an inactive market, interest rate swap, FX swaps and options, the Bank and subsidiary adopt the valuation methods which are widely used and accepted by other market participants. The parameters used are usually the observable market data or information.

For complex financial instruments, the Bank not only refers to the valuation methods which are widely used and accepted by other banks but also develops its own valuation models to determine the fair value. These valuation models are usually applied to the valuation of derivatives, debt instruments with embedded derivatives, or securitization products. The parameters used in such models are usually not observable in a market, and therefore, the Bank has to make proper estimates based on assumptions and judgments.

(iii) Fair value adjustment

1) Limitations of valuation models and uncertainty input

Outputs of valuation models are approximate values and valuation techniques may not be able to reflect critical factors of all the financial and non-financial instruments. As such, additional parameters shall be incorporated into the fair value measurement, such as modeling risk and liquidity risk, when necessary. The management of the Bank believes that the adjustments made to the fair value of financial and non-financial instruments are appropriate and necessary since they are performed in accordance with the Bank's policies governing the fair value of valuation models and related internal controls. All the information and parameters are based on current market conditions and thoroughly reviewed by the Bank.

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2) Credit risk valuation adjustment

Credit risk valuation adjustment consists of credit valuation adjustments and debit valuation adjustments to the derivatives traded in an OTC market instead of a stock exchange market. The definitions are as follows:

- a) Credit value adjustments (CVA): adjust the valuation on transactions that occurs outside the exchange market, which refers to OTC derivative contracts, to reflect the possibility of the counter parties' delayed payment and default into fair value.
- b) Debit value adjustments (DVA): adjust the valuation on transactions that occurs outside the exchange market, which refers to OTC derivative contracts, to reflect the possibility of the Company and its subsidiaries' delayed payment and default into fair value.

The key inputs of the measurement of credit risk and the quality of the Bank's counterparties are the probability of default (PD), loss given default (LGD) and exposure at default (EAD).

CVAs are calculated by considering the counterparty's probability of default (PD) under the condition that the Bank is not in default, Loss give default (LGD) and Exposure at default (EAD). On the contrary, DVAs are calculated by considering the Bank's PD under the condition that the counterparty is not in default, LGD and EAD.

The Bank refers to the counterparty's default rate graded by Moody's, experiences of John Gregory (scholar), and foreign financial institutions, to determine the PD at 60%. The Bank may also use other alternative PD assumptions if data availability is limited. Moreover, the Bank also takes the credit risk valuation adjustments into consideration when calculating fair value by referring to the Mark-to-Market values of derivatives traded in the OTC markets to reflect the counterparty's credit risk and the Bank's creditworthiness.

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- (iv) Reconciliation for fair value measurements in Level 3 of the fair value hierarchy were as follows:

Reconciliation for fair value measurements categorized in level 3 as of December 31, 2019 and 2018 were as follows:

	Fair value through profit or loss	Fair value through other comprehensive income	
	Non derivative mandatorily measured at fair value through profit or loss (Unquoted equity instruments)	Unquoted equity instruments	Total
Opening balance, January 1, 2019	\$ 211,200	16,635,610	16,846,810
Total gains and losses recognized:			
In profit or loss	(15,750)	-	(15,750)
In other comprehensive income	-	5,631,721	5,631,721
Purchased	-	832,555	832,555
Ending Balance, December 31, 2019	<u>\$ 195,450</u>	<u>23,099,886</u>	<u>23,295,336</u>
Opening balance, January 1, 2018	202,500	15,981,226	16,183,726
Total gains and losses recognized:			
In profit or loss	8,700	-	8,700
In other comprehensive income	-	810,291	810,291
Purchased	-	35,643	35,643
Derecognized or repaid	-	(191,550)	(191,550)
Ending Balance, December 31, 2018	<u>211,200</u>	<u>16,635,610</u>	<u>16,846,810</u>

- (v) The process of fair value measurements in Level 3

Referring to IFRS 13, the Trading Department should inform the Risk Management Department regarding the related valuation methods before any financial instruments categorized in Level 3 are bought or sold. The valuation result of such financial instruments is quarterly reported to Asset and Liability Management Committee.

- (vi) Fair value measurements in Level 3 – sensitivity analysis of reasonably possible alternative assumptions

The Bank considers the valuation techniques used by the Bank for fair value measurements in Level 3 reasonable. However, any changes in one or more of the parameters or assumptions may lead to a different result.

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The favorable and unfavorable effects represent the changes in fair value, and the fair value are based on a variety of unobservable inputs calculated using a valuation technique. There are no such effects as of December 31, 2019 and 2018. The analysis only reflects the effects of changes in a single input, and it does not include the inter-relationships with another input.

- (vii) The sensitivity analysis for the financial assets measured at fair value classified to the Level 3.

The Bank's and subsidiary's financial instruments that use Level 3 inputs to measure fair value include “ financial assets measured at fair value through profit or loss – equity investments” and “fair value through other comprehensive income – equity investments”.

Quantified information of significant unobservable inputs was as follows:

Item	Valuation technique	Significant unobservable inputs	Inter-relationship between significant unobservable inputs and fair value measurement
Financial assets measured at fair value through profit or loss and Financial assets at fair value through other comprehensive income – Contingent consideration	Comparable company method (Market approach)	<ul style="list-style-type: none"> · P/E ratio · P/B ratio · EV/Operating revenue · EV/EBITDA · EV/Total assets · Liquidity discount rate 	<ul style="list-style-type: none"> · The estimated fair value would increase (decrease) if: · the P/E ratio, P/B ratio, EV/Operating revenue, EV/EBITDA and EV/Total assets were higher (lower); · the liquidity discount rate were lower (higher).

- (c) Hierarchy information of financial instruments not measured at fair value

- (i) Fair Value Information

In addition to the following items, the Bank's financial instruments that are not measured at fair value include cash and cash equivalents, due from the central bank and call loans to banks, securities purchased under resell agreements, receivables, other financial assets, discounts and loans, deposit from and due to the central bank and banks, securities sold under repurchase agreements, commercial papers issued, payables, deposits, other borrowings and other financial liabilities. Since their book value is a reasonable approximation to fair value, there is no fair value disclosure.

Item	Book value	Fair value
December 31, 2019		
Financial Assets		
Financial Assets measured at amortized cost	177,206,775	179,067,171

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Item	Book value	Fair value
December 31, 2018		
Financial Assets		
Financial Assets measured at amortized cost	167,824,692	168,444,682

(ii) Fair value hierarchy

December 31, 2019				
		Quoted prices in active markets for identical asset (Level1)	Significant other observable inputs (Level2)	Significant unobservable inputs (Level3)
Assets and liabilities item	Total			
Financial Assets:				
Financial Assets measured at amortized cost	\$ 179,067,171	95,636,179	83,430,992	-

December 31, 2018				
		Quoted prices in active markets for identical asset (Level1)	Significant other observable inputs (Level2)	Significant unobservable inputs (Level3)
Assets and liabilities item	Total			
Financial Assets:				
Financial Assets measured at amortized cost	\$ 168,444,682	85,189,779	83,254,903	-

(iii) The methods and assumptions to estimate the financial instruments not measured at fair value are as follows.

- 1) Financial instruments that have short term to maturity or of which the agreed prices are close to carrying amounts are recognized using their carrying amounts at reporting date. These financial instruments include cash and cash equivalents, placement with Central Bank and call loans to banks, bills and bonds purchased under resell agreements, receivables, limited assets, deposits of Central Bank and other banks, loans to the Central Bank and other banks, bills and bonds sold under repurchase agreements, payables and guarantee deposits received.
- 2) The discounts and loans (including non-performing loans): The Bank use the floating interest rate to be the interest rate of loans. The floating interest rate can also reflect the market interest rate. So it is reasonable to use the carrying amount and the recoverability to estimate the fair value. The mid-term and long-term loans using with fixed interest rate should use the discounted present value of expected future cash flow to estimate their fair value. However, if the loans with fixed interest rate are minor, it is reasonable to use the carrying amount and their recoverability to estimate their fair value.

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3) Financial assets measured at amortized cost

If the quoted prices in active markets are available, the market price is established as the fair value. However, if quoted prices in active markets are not available, the estimated valuation or prices used by competitors are adopted:

- a) If there is quoted price generated by transactions, the recent transaction price and quoted price data is used as the basis for fair value measurement.
 - b) If no quoted prices are available, the discounted cash flows are used to estimate fair values.
- 4) Deposits and Remittances: The Bank and subsidiary consider the characteristic of bank industries to decide the fair value. The deposits with market interest rate are those almost with due within one year and their carrying amounts are reasonable basis for estimating the fair value. The long-term deposits with fixed interest rate are measured using the discounted present value of expected future cash flow. Because the term to maturity is less than three years, it is reasonable to use the carrying amount to estimate the fair value.
- 5) Financial Bonds Payable: It refers to the convertible corporate bonds and financial bonds issued by the Bank and subsidiary. Their coupon rates are almost equal to the market interest rate, so it is reasonable to using the discounted present values of the expected future cash flow to estimate their fair values. The present values are almost equal to the carrying amounts.

(8) Financial Risk Management:

(a) Overview

The Bank's activities has expose to various risks from financial instruments, which included credit risk, market risk, operational risk, interest rate risk, liquidity risk, national risk, legal risk and so forth. The principle of risk management is as follow:

- (i) Monitor the BIS Capital Adequacy Ratio in response to operation scale, credit risk, market risk, operational risk and the operating trades in the future.
- (ii) Establish a systematic risk measure and control mechanism to measure, monitor and control every risk.
- (iii) Manage every business risk considering the risk capacity, capital reserve, nature of debts and performance.
- (iv) Establish a valuation method for the quality and classification of assets, control the intensity of exposure and significant exposure, check periodically and recognize allowance for loss.
- (v) Establish information system protection mechanism and emergency plan for bank operation, transactions, and information. Build an independent and effective risk management mechanism and strengthen the risk management of business through appropriate policies, procedures, and systems.

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(b) Risk management structure

The risk management structure of the Bank and subsidiary are composed of the Board of Directors, risk management committee, risk management department and every operational unit.

- (i) The Board of Director is the final decision maker for risk management and is responsible for the result of risk. The Board of Director should decide the entire risk management policies in view of operational strategies and business environment to monitor the risk management mechanism which understand the risk status and maintain the appropriate Capital Adequacy Ratio in response to all risk.
- (ii) Risk management committee under the Board of Directors is responsible for executing risk management policies and coordinating interdepartmental management of risk.
- (iii) Risk management department is responsible to monitor, trace the execution status of risk management policies and submit reports to the board of directors or risk management committee. If a significant risk exposure is discovered, the risk management department has to make appropriate procedures and report it to the board of directors.
- (iv) Every department should identify, evaluate, and control the risks of new products or business, set related risk management regulations as a guideline, and monitor the risk management to ensure the risk control of entire company.
- (v) All operational units shall comply with the regulations for risk management.

(c) Credit Risk

(i) Causes and definition of credit risk

Credit risk is the risk of financial loss to the Bank if a borrower, issuer or a counterparty to a financial instrument fails to meet its contractual obligations principally due to their credit deterioration or other factors (i.e. disputes between a borrower and its counterparty), including:

- 1) Credit risk from a borrower/issuer refers to the risk that the Bank and subsidiary may suffer from financial losses when the borrower/issuer is not able to meet its contractual obligations due to default, bankruptcy or liquidation.
- 2) Credit risk form counterparties refers to the risk that the Bank and subsidiary may suffer from financial losses when the counterparty is not able to settle the contracts or execute its repayments.
- 3) Credit risk form underlying assets refers to the risk that the Bank and subsidiary may suffer from financial losses when the credit quality of the underlying assets linked by the financial instruments turns vulnerable, which leads to an increase of risk premium, a downgrade of credit rating or a breach of contract.

Credit risk is derived both from on and off balance sheet items. On balance sheet items include loans, placement with banks, call loans to banks, acceptance bills, debt instruments, derivatives, etc. Off balance sheet items include guarantees, acceptances, letter of credits, loan commitments, etc.

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BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

(ii) Identification and measurement of credit risk

To ensure the credit risk is in a tolerable range, the Bank and subsidiary set the credit risk management policies which identify that the credit risk of all the transactions and business related to the assets, liabilities and off-balance sheet items. Before executing present or new business, the Bank and subsidiary shall identify the credit risk, understand the degree of risk exposure through appropriate evaluation and assess the possibilities of default.

If there are no specific requirements from the local authorities, the overseas branches of BOT shall assess asset quality and loss provision in accordance with the Operational Manual of Evaluating the Impairment of Loans and Receivables. The information about how Bank and subsidiary classifies assets, manages post-loan and grant internal rating is as follows:

1) Credit business(including loan commitments and financial deposit)

a) Credit assets categories and post-loan management

The Bank has established the “Operational Manual of Evaluating the Impairment of Loans and Receivables” and has classified the credit assets into five categories. Except for normal credit assets that are classified at the first category, the other abnormal credit-rating assets are classified as the second category- requiring attention, the third category- collectable, the fourth category- hard to collect, and the fifth category- impossible to collect by assessing the collaterals and overdue days. In order to reinforce the post-loan management, the Bank and subsidiary set the “Credit Review and Follow up Evaluations Provision”, the “Review of the Credit Conducted by Managers Provision”, as well as the “Warning Mechanism Provision”, and evaluate and monitor the quality of credit assets regularly. Also, to enhance the management of abnormal credit and to attain the goals of warning and interim monitoring, the Bank and subsidiary review their credit cases by sampling cases based on their ratings and check significant credit cases periodically.

b) Internal credit rating

When conducting credit review, the Bank will obtain necessary collateral to mitigate risk arising from financial loss due to the environment, economic changes, risk factors of business development strategies and policies. The Bank improve market competitiveness of products, strive for customer identification, broaden business, and balance credit risk and profits target simultaneously. The following are the credit process of corporate finance and consumer finance.

i) Corporate Finance

The Bank has established a credit policy under which each new customer is analyzed individually for creditworthiness before the interest rate is offered. The Bank review includes external rating, when available, and in some cases, the information that is publicly available. The clients are classified into two types based on their scorecards, the large-scale enterprise and the medium-scale enterprise. Then they measure their scale, financial and business status, business management and industry characteristic. There are 13 credit ratings, all in all.

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BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

ii) Consumer Finance

The Bank and subsidiary use the credit application scorecard and behavior scorecard, both of them have seven grades for the purpose of credit risk evaluation and differential pricing. Unsecured consumer loans are graded based on seven scoring items and are classified into the seventh rating. The Bank and subsidiary would reject those below the lowest scores; others would be reviewed in accordance with related provisions.

2) Due from Banks and Call Loans to Banks

The Bank will assess the counterparty's creditworthiness, and refer to external ratings provided by domestic and international credit rating agencies, to set up different credit risk limits before any transactions are carried out.

3) Investment in debt instruments and financial instrument derivatives

The Bank identifies and manages credit risk of debt instruments by reviewing the external ratings, creditworthiness of bonds, and geographic region of its counterparties. Most of the Bank's derivative contracts with its counterparties are financial institutions with good credit ratings. For those financial institutions whose ratings are not available, the Bank reviews the transactions individually. All the counterparties, including non-financial institutions, are managed based on their lines of credit (including loans at call).

(iii) Measurement of credit risk

1) Categories for credit risk quality

The Bank and subsidiary internally categorize the credit risk into four levels, which are low risk, moderate risk, high risk and impaired risk. The definition of each level is as follows:

- a) Low risk: The issuers or the counterparties are rated as robust or above to fulfill their obligation of the contracts. Even under various negative news or disadvantageous economic conditions, the companies are capable of dealing with the situations.
- b) Moderate risk: The possibility that the issuers or counterparties fulfill their obligation is remote. Operating performance and disadvantageous economic conditions will lower their ability and willingness to fulfill their obligation.
- c) High risk: The possibility that the issuers or counterparties fulfill their obligation is remote and mainly relies on the business environment. Negative news or disadvantageous economic conditions will lower their ability and willingness to fulfill their obligation.
- d) Impaired risk: the counterparties or the target did not perform its obligation according to the contracts, and potential estimated loss to the Bank and subsidiary has reached the standard of impairment.

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BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

2) Determination on the credit risk that has increased significantly since initial recognition

The Bank and subsidiary determine whether the credit risk of financial instruments applying the impairment requirements in IFRS 9 increased significantly since the initial recognition on each reporting date. For this assessment, the Bank and subsidiary consider the reasonable and supportable information (including forward looking information) which shows that the credit risk has increased significantly since initial recognition.

a) Credit business (including loan commitments and financial deposit)

The Bank's and subsidiary's credit business scoring model and risk degree are as follows:

Risk degree	Corporate Finance IRB scoring model	Consumer Finance IRB application/ behavioral scoring model (including credit cards, excluding student loans)	Student Loans behavioral scoring model
Low	1	1	1
	2	2	2
	3	3	
	4		
Moderate	5	4	3
	6	5	4
	7	6	5
	8		6
	9		
	10		
High	11	7	7
	12		8
	13		9
			10

i) Loans and Discounts and credit related receivables

The Bank and subsidiary determine the credit risk of loans and discounts or financing receivables has increased significantly since initial recognition when the financial instrument applying the impairment requirements in IFRS 9 meets the following conditions at each reporting date:

- The borrower's internal or external rating has significantly dropped;
- The borrower's contract payment has been overdue for more than a month but still within 3 months (there are additional 45 days for a borrower who does not have a credit account in the Bank) ;
- The borrower's internal credit level is assessed as " Poor " under post-loan review or alert.

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BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

ii) Credit Cards

The Bank and subsidiary determine the credit risk of credit card loans has increased significantly since initial recognition when the credit card loans applying the following conditions: The borrower has not used revolving credit facility, but whose internal rating has dropped more than 3 levels, the borrower has used revolving credit facility without overdue, the loans has overdue but within 3 months, or non-conforming assets, excluding assets previously determined as credit risk has increased significantly or credit impairment.

b) Debt investments and placement with central bank and call loans to banks

The Bank and subsidiary follow the table below to determine whether that the credit risk of debt investments or placement with central bank and call loans to banks have increased significantly since initial recognition at each reporting date:

STAGE 1 (credit risk has not significantly increased)	STAGE 2 (credit risk has significantly increased)	STAGE 3 (credit has been impaired)
1. The credit rating of a counterparty is higher than Moody's A3, S&P's A- , Fitch's A- or Taiwan Ratings' twA- at the reporting date. (Note)	Not assessed as Stage 1, but the credit of counterparty is not actually impaired.	Not assessed as Stage 1, but the credit of counterparty has been impaired.
2. The credit rating of a counterparty falling between Moody's A3 and Baa3 or equivalent drops within 4 levels during the period of the transaction date and each reporting date.		
3. The credit rating of a counterparty lower than Moody's Baa3 or equivalent drops 1 level during the period of the transaction date and each reporting date.		

Note: If the credit risk of the credit assets is low, the Bank and subsidiary may consider that the credit risk of debt investments and placement with central bank and call loans to banks has not significantly increased since initial recognition.

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BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

3) Definitions for default and credit impairment of financial assets

The Bank and subsidiary use the same definitions for default and credit impairment of financial assets. If one or more of the following conditions are met, the Branch determine that the financial assets have been defaulted and credit impaired:

a) Credit business (including loan commitments and financial deposit)

i) Loans and discounts and credit related receivables

1. Quantitative indicators

- The borrower's principals or interests have been overdue than 3 months.
- The borrower's internal rating is assessed as the lowest.

2. Qualitative indicators

If there is evidence that the borrower will be unable to pay the contract, or show that the borrower has significant financial difficulties, such as:

- The borrower has requested to postpone the repayment of principles and interests;
- The borrower's internal credit level is assessed as "Terrible" under post loan review or alert;
- The borrower's internal credit level is assessed as "Dangerous" under post loan review or alert;
- The borrower is reported by the Bank due to significant and unfavorable events;
- The borrower is under debt negotiation.

ii) Credit card business

The loan which borrower's payment has been overdue more than 3 months, or is reclassified as non-accrual loans, or was credit-impaired before, or which borrower is dead.

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BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

- b) Debt investments and placement with central bank and call loans to banks
 - i) If there is evidence showing that the borrower will be unable to repay the principal or interests, or that the borrower has significant financial difficulties, such as:
 - The issuer has breached the contract, such as a default or delinquency in interest or principal payments;
 - The issuer reorganizes its debt, such as a slash on the interest rate or principals, an exchange of debts, subordination of debt repayment or a postpone in maturity date;
 - The issuer has filed a bankruptcy; or
 - The issuer's rating is optional default or default.
 - ii) A combination of individual and independent events may lead to an impairment on financial assets.

If the aforementioned definition of breach of contract and credit impairment applies to all financial assets held by the Bank and subsidiary no longer meets the definition of default and credit impairment for a period of time, it is deemed to return to the state of compliance and is no longer considered defaulted and credit impaired.

The aforementioned definition of breach of contract and credit impairment, and is consistent with the definition used for the purpose of internal credit risk management for financial assets, and is also applied to the relevant impairment assessment model.

4) Write off policy

If there is no realistic prospect of recovery for the financial assets (either partially or in full), the Bank and subsidiary will write off part or full of the financial assets. The indications of financial assets which have no realistic prospect of recovery include:

- a) The loan cannot be recovered in full or in part because the issuers or debtors have dissolved, gone into hiding, reached a settlement, declared bankruptcy, or for other reasons.
- b) The collateral and property of the primary/subordinate debtors or issuers have been appraised at a very low value or become insufficient to repay the loan after the subtraction of senior mortgages; or the execution cost approaches or possibly exceeds the amount that the Bank and subsidiary might collect from the debtors where there is no financial benefit in execution.
- c) The primary/subordinate debtor or an issuer's collateral has failed to sell at successive auctions where the price of such collateral has been successively lowered, and there is no financial benefit to be derived from the Bank's and subsidiary's taking possession of such collateral.

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BANK OF TAIWAN AND SUBSIDIARY
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- d) More than two years have elapsed since the maturity date of the non performing loans or non accrual loans, and the efforts of collection have failed.

5) Amendments of contractual cash flows of financial assets

The contractual cash flows of loans and discounts may be amended due to the borrower's financial difficulties or in order to increase the recovery rate. An amendment may involve an extension of contract period, a change in the timing of repayments or in the interest rate, which may lead to a de-recognition of current financial assets and a re-recognition of the financial assets at fair value, in accordance with the Bank's and subsidiary's policy (Please see note 4(e)).

If the amendments do not lead to a de-recognition, the Bank and subsidiary will determine the credit of financial assets have been impaired and will assess expected credit loss accordingly since debt negotiation or extension is one of the conditions that define whether financial assets are credit-impaired or not.

The Bank and subsidiary assess the possibility of default of the amend financial assets by considering the condition of repayments after the amendment and several related behavior indexes, and re-evaluate whether the amendment has improved or restore the client's ability to make the required loan payments. According to the the Bank's and subsidiary's policy, a borrower cannot be reverted to Stage 1 until the borrower can continuously repay the new contractual amounts for a certain period and shows good payment behaviors.

The Bank and subsidiary will periodically review changes of credit risk after amendments in accordance with related policy.

6) Expected credit loss measurement

a) Adopted methods and assumptions

For the Bank and subsidiary, if the financial assets are of low credit risk or no significant increase in credit risk, the 12 month expected credit losses will be recognized. If the financial assets are significantly increased in credit risk or the credits have been impaired, the expected credit losses for a lifetime will be recognized.

In order to measure expected credit losses, the Bank and subsidiary adopt Probability of default ("PD"), and include Loss given default ("LGD") and Exposure at default ("EAD"), and consider the impact of the time value of money, to calculate the expected credit losses for 12 months and for a lifetime, respectively.

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BANK OF TAIWAN AND SUBSIDIARY

Notes to the Consolidated Financial Statements

Default probability is how likely the issuer or the counterparty breaches the contract, and the loss given default is the rate of loss due to default by the issuer or the counterparty. The default probability and loss given default used by the Bank and subsidiary, related impairment assessments are based on international credit rating agencies (S&P and Moody's), regularly publish information on default rate and loss given default, or internal historical information and calculate based on current observable data and forward looking general economic information (such as gross domestic production) after adjusting historical data.

The Exposure at default is measured by amortized cost of financial asset.

The estimation techniques or material assumptions made by the Bank and subsidiary to assess expected credit losses have no significant changes during the year.

b) Forward looking information considerations

The Bank and subsidiary take forward looking information into account when judging whether the credit risk of a debt instrument has increased significantly since its initial recognition, and when the expected credit loss is measured.

i) Credit business (including loan commitments and financial deposit)

The Bank and subsidiary identify credit risks and factors of expected credit loss (i.e. GDP, economic growth rate, price index, interest rate, and unemployment rate) based on historical data. Simultaneously, the Bank and subsidiary connect these factors or monitoring indicators with each loan product in order to adjust PD in the coming year and make expected credit loss reflect forward looking information.

ii) Debt investments and placement with central bank and call loans to banks

The Bank and subsidiary evaluate the expected credit loss based on the external rating outlook or observation at the reporting date. If any of an issuer's credit rating granted by Moody's, S&P, Fitch, or Taiwan Rating is "Negative" or "-", the issuer will be determined as negative outlook or negative observation.

1. When the issuer's credit rating outlook is "Negative" or credit rating observation is "-", the Bank and subsidiary use the average of the long-term PD and one level reduced PD.
2. Otherwise, the PD will remain unchanged.

(iv) Management of maximum exposure to credit risk and excessive risk concentration

- 1) In accordance with the Banking Law, there is a credit limitation management for the Bank's and subsidiary's person in charge, employees, and any interested party. In respect to credit intensity, the Bank and subsidiary provide credit and investment quota rules for the same enterprise, and industry. The Bank and subsidiary also limit and manage the credit amount for enterprises, groups and every industry.

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BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

- 2) The Bank's and subsidiary's Treasury Department, OBU, and foreign branches provide different credit amount according to external credit evaluation and rankings when having a transaction in the currency market or capital market, foreign exchange, new financial instruments transactions and negotiable security transactions.
 - 3) To spread the country risks, the Bank and subsidiary allocate different credit amount, based on the ranking of the countries in "Euromoney", to the Financing Department, OBU, and foreign branches. The covered businesses are loan assets and transaction assets (i.e. due and call loans, investment securities, derivatives, and foreign exchanges).
- (v) Policies of credit risk deduction

1) Collateral

The Bank has established policy and procedures to mitigate credit risk. Among them, one of the most common ways, is to demand for collateral. In terms of collateral management and valuation, the Bank established policies governing the scope of collateral and related procedures to secure debts. Moreover, the Bank also requires the provisions that secure debts and collateral should be contained within a credit agreement to reduce credit risk by clearly defining the amounts the Bank can cut and the grace periods the bank can offer or even requesting for a prepayment.

Non-credit businesses are not required to collect collateral, depending on the nature of the financial instruments. Only asset-backed securities and other similar financial instruments are required to pledge an asset pool of financial instruments as collateral.

Considering both credit control and business expansion, the Bank and subsidiary shall request collaterals or guarantees to decrease the credit risk. The permitted collaterals and guarantees included mortgages on real estate or properties (i.e., land, building, machinery, car, ship, aircraft, etc.), pledges of securities or other rights (i.e., certificates of deposit; various bonds, or stocks), guarantees provided by the government agencies, banks, or credit guarantee institutions authorized by the government, and any other guarantees or collaterals approved by the Bank and subsidiary.

2) Master netting agreement

The Bank's transactions are usually settled individually without bundling or netting with any other transactions. However, the Bank also enters into netting agreements or chooses to settle net and terminates the deal if the counterparty is in default.

3) Other credits enhancement

The Bank's credit contract contains the term that the Bank is entitled to offset the obligation by claiming the deposits of the borrower who are in default to mitigate credit risk.

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(vi) The maximum credit exposure to the credit risk of financial assets (without considering the allowance for bad debt, collaterals and guarantees)

1) As of December 31, 2019 and 2018, the amounts of maximum credit risk exposure to the credit risk displayed by credit rating are as follows:

Discounts and loans					
December 31, 2019					
	12 month ECLs	Lifetime ECLs — not impaired	Lifetime ECLs — impaired	Credit impairments of originated or purchased new financial assets — impaired	Total
Credit rating					
Low	\$ 930,791,741	17,869	155,942	-	930,965,552
Medium	960,430,171	54,963,853	2,371,916	-	1,017,765,940
High	26,639,778	29,449,744	5,749,253	-	61,838,775
Others	693,302,928	592,129	16,819,383	-	710,714,440
Gross carrying amount	2,611,164,618	85,023,595	25,096,494	-	2,721,284,707
Allowance for bad debts	(21,113,435)	(1,606,276)	(7,150,936)	-	(29,870,647)
Impairment recognized in accordance with "Regulations Governing the Procedures for Institutions to Evaluate Assets and Deal with Nonperforming / Nonaccrual Loans					(15,272,836)
Total	<u>\$ 2,590,051,183</u>	<u>83,417,319</u>	<u>17,945,558</u>	<u>-</u>	<u>2,676,141,224</u>
Discounts and loans					
December 31, 2018					
	12 month ECLs	Lifetime ECLs — not impaired	Lifetime ECLs — impaired	Credit impairments of originated or purchased new financial assets — impaired	Total
Credit rating					
Low	\$ 852,843,775	13,694	172,377	-	853,029,846
Medium	908,380,450	32,983,797	2,178,188	-	943,542,435
High	34,148,546	23,860,376	2,377,382	-	60,386,304
Others	720,769,597	566,568	18,120,028	-	739,456,193
Gross carrying amount	2,516,142,368	57,424,435	22,847,975	-	2,596,414,778
Allowance for bad debts	(20,114,026)	(1,805,624)	(4,887,531)	-	(26,807,181)
Impairment recognized in accordance with "Regulations Governing the Procedures for Institutions to Evaluate Assets and Deal with Nonperforming / Nonaccrual Loans					(12,580,303)
Total	<u>\$ 2,496,028,342</u>	<u>55,618,811</u>	<u>17,960,444</u>	<u>-</u>	<u>2,557,027,294</u>

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Debt instruments measured at fair value through other comprehensive income					
December 31, 2019					
	12 month ECLs	Lifetime ECLs — not impaired	Lifetime ECLs — impaired	Credit impairments of originated or purchased new financial assets — impaired	Total
Credit rating					
Aaa~Baa3	\$ 913,067,917	-	-	-	913,067,917
Ba1~Ba3	2,821,595	302,385	-	-	3,123,980
Gross carrying amount	915,889,512	302,385	-	-	916,191,897
Allowance for impairment	(80,477)	(8,801)	-	-	(89,278)
Valuation adjustment	-	-	-	-	1,602,351
Total	<u>\$ 915,809,035</u>	<u>293,584</u>	<u>-</u>	<u>-</u>	<u>917,704,970</u>
Debt instruments measured at fair value through other comprehensive income					
December 31, 2018					
	12 month ECLs	Lifetime ECLs — not impaired	Lifetime ECLs — impaired	Credit impairments of originated or purchased new financial assets — impaired	Total
Credit rating					
Aaa~Baa3	\$ 1,036,587,799	-	-	-	1,036,587,799
Ba1~Ba3	2,599,246	1,092,208	-	-	3,691,454
Gross carrying amount	1,039,187,045	1,092,208	-	-	1,040,279,253
Allowance for impairment	(76,773)	(6,172)	-	-	(82,945)
Valuation adjustment	731,461	-	-	-	731,461
Total	<u>\$ 1,039,841,733</u>	<u>1,086,036</u>	<u>-</u>	<u>-</u>	<u>1,040,927,769</u>
Debt instruments measured at amortized cost					
December 31, 2019					
	12 month ECLs	Lifetime ECLs — not impaired	Lifetime ECLs — impaired	Credit impairments of originated or purchased new financial assets — impaired	Total
Credit rating					
Aaa~Baa3	\$ 159,586,690	-	-	-	159,586,690
Ba1~Ba3	17,663,192	-	-	-	17,663,192
Gross carrying amount	177,249,882	-	-	-	177,249,882
Accumulated impairment	(43,107)	-	-	-	(43,107)
Total	<u>\$ 177,206,775</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>177,206,775</u>
Debt instruments measured at amortized cost					
December 31, 2018					
	12 month ECLs	Lifetime ECLs — not impaired	Lifetime ECLs — impaired	Credit impairments of originated or purchased new financial assets — impaired	Total
Credit rating					
Aaa~Baa3	\$ 156,881,045	-	-	-	156,881,045
Ba1~Ba3	10,993,183	-	-	-	10,993,183
Gross carrying amount	167,874,228	-	-	-	167,874,228
Accumulated impairment	(49,536)	-	-	-	(49,536)
Total	<u>\$ 167,824,692</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>167,824,692</u>

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Letter of Credit Receivables and Guarantee for Trade Receivables December 31, 2019					
	12 month ECLs	Lifetime ECLs — not impaired	Lifetime ECLs — impaired	Credit impairments of originated or purchased new financial assets — impaired	Total
Credit rating					
Low	\$ 56,314,438	2,345	-	-	56,316,783
Medium	59,114,017	2,592,907	650,649	-	62,357,573
High	91,214	136,774	5,800	-	233,788
Others	6,178,217	350,944	29,352	-	6,558,513
Gross carrying amount	121,697,886	3,082,970	685,801	-	125,466,657
Allowance for bad debts (Guarantee reserve and other reserve)	(358,951)	(11,252)	(99,529)	-	(469,732)
Impairment recognized in accordance with "Regulations Governing the Procedures for Institutions to Evaluate Assets and Deal with Nonperforming / Nonaccrual Loans					(861,766)
Total	<u>\$ 121,338,935</u>	<u>3,071,718</u>	<u>586,272</u>	<u>-</u>	<u>124,135,159</u>

Letter of Credit Receivables and Guarantee for Trade Receivables December 31, 2018					
	12 month ECLs	Lifetime ECLs — not impaired	Lifetime ECLs — impaired	Credit impairments of originated or purchased new financial assets — impaired	Total
Credit rating					
Low	\$ 60,379,626	217,144	709	-	60,597,479
Medium	45,743,181	1,243,038	296,427	-	47,282,646
High	188,282	567,393	130,011	-	885,686
Others	4,982,111	-	29,599	-	5,011,710
Gross carrying amount	111,293,200	2,027,575	456,746	-	113,777,521
Allowance for bad debts (Guarantee reserve and other reserve)	(375,494)	(33,540)	(153,403)	-	(562,437)
Impairment recognized in accordance with "Regulations Governing the Procedures for Institutions to Evaluate Assets and Deal with Nonperforming / Nonaccrual Loans					(718,039)
Total	<u>\$ 110,917,706</u>	<u>1,994,035</u>	<u>303,343</u>	<u>-</u>	<u>112,497,045</u>

Loan Commitments December 31, 2019					
	12 month ECLs	Lifetime ECLs — not impaired	Lifetime ECLs — impaired	Credit impairments of originated or purchased new financial assets — impaired	Total
Credit rating					
Low	\$ 2,574,360	-	-	-	2,574,360
Others	420,467,884	227,556	482	-	420,695,922
Gross carrying amount	423,042,244	227,556	482	-	423,270,282
Allowance for bad debts (Loan commitments reserve)	(17,118)	(1,817)	(289)	-	(19,224)
Total	<u>\$ 423,025,126</u>	<u>225,739</u>	<u>193</u>	<u>-</u>	<u>423,251,058</u>

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Notes to the Consolidated Financial Statements

Loan Commitments					
December 31, 2018					
	12 month ECLs	Lifetime ECLs — not impaired	Lifetime ECLs — impaired	Credit impairments of originated or purchased new financial assets — impaired	Total
Credit rating					
Low	\$ 2,205,098	98,762	63	-	2,303,923
Medium	-	140,328	371	-	140,699
High	53,145	-	-	-	53,145
Others	412,585,699	-	-	-	412,585,699
Gross carrying amount	414,843,942	239,090	434	-	415,083,466
Allowance for bad debts (Loan commitments reserve)	(13,309)	(2,067)	(236)	-	(15,612)
Total	\$ 414,830,633	237,023	198	-	415,067,854
Accounts Receivable(including other financial assets)					
December 31, 2019					
	12 month ECLs	Lifetime ECLs — not impaired	Lifetime ECLs — impaired	Credit impairments of originated or purchased new financial assets — impaired	Total
Credit rating					
Aaa~Baa3	\$ 7,946,716	-	-	-	7,946,716
Ba1~Caa1	117,303	4,857	91	-	122,251
Others	82,457,816	395,308	170,063	-	83,023,187
Gross carrying amount (Note 1)	90,521,835	400,165	170,154	-	91,092,154
Allowance for bad debts (Note 2)	(33,806)	(9,177)	(79,941)	-	(122,924)
Impairment recognized in accordance with "Regulations Governing the Procedures for Institutions to Evaluate Assets and Deal with Nonperforming / Nonaccrual Loans"					(56,358)
Total	\$ 90,488,029	390,988	90,213	-	90,912,872

Note 1: The gross carrying amount of the table was not included the Bank's restrictive deposit \$19,380 thousand and Department of Government Employees' Insurance's accounts receivable \$7,736,495 thousand evaluated by simplification method.

Note 2: The allowance for bad debts of the table were not included the Bank's accumulated impairment recognized in restrictive deposit \$10 thousand and Department of Government Employees' Insurance's allowance for impairment \$13 thousand evaluated by simplification method.

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BANK OF TAIWAN AND SUBSIDIARY

Notes to the Consolidated Financial Statements

Accounts Receivable(including other financial assets)					
December 31, 2018					
	12 month ECLs	Lifetime ECLs — not impaired	Lifetime ECLs — impaired	Credit impairments of originated or purchased new financial assets — impaired	Total
Credit rating					
Aaa~Baa3	\$ 8,827,396	-	-	-	8,827,396
Ba1~Caa1	94,231	15,890	-	-	110,121
Others	88,321,178	823,467	109,727	-	89,254,372
Gross carrying amount (Note 1)	97,242,805	839,357	109,727	-	98,191,889
Allowance for bad debts (Note 2)	(69,619)	(12,152)	(49,008)	-	(130,779)
Impairment recognized in accordance with "Regulations Governing the Procedures for Institutions to Evaluate Assets and Deal with Nonperforming / Nonaccrual Loans					(48,779)
Total	<u>\$ 97,173,186</u>	<u>827,205</u>	<u>60,719</u>	<u>-</u>	<u>98,012,331</u>

Note 1: The gross carrying amount of the table was not included the Bank's restrictive deposit \$19,469 thousand and Department of Government Employees' Insurance's accounts receivable \$7,283,748 thousand evaluated by simplification method.

Note 2: The allowance for bad debts of the table were not included the Bank's accumulated impairment recognized in restrictive deposit \$11 thousand and Department of Government Employees' Insurance's allowance for impairment \$1,022 thousand evaluated by simplification method.

- 2) The assets in the balance sheet and off-balance sheet items held as collateral, master netting arrangement and other credit enhancements related information on the financial impact the maximum amount of the violence risk in credit risk shows in the following table :

Unit: In million of TWD

December 31, 2019	Collateral	General agreement of net amount settlement	Enhancement of other credits	Total
<u>In balance sheet:</u>				
Receivables				
Others	\$ 1,195	171	3,945	5,311
Loans and discounts	1,450,838	-	1,270,447	2,721,285
Financial assets measured at fair value through profit or loss				
Others	3,328	-	-	3,328
<u>Off-balance sheet</u>				
Irrevocable loan commitments	262	-	423,008	423,270
Standby letters of credit	1,754	-	37,826	39,580
Financial guarantees	7,640	-	78,247	85,887
Total	<u>\$ 1,465,017</u>	<u>171</u>	<u>1,813,473</u>	<u>3,278,661</u>

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

December 31, 2018	Collateral	General agreement of net amount settlement	Enhancement of other credits	Total
<u>In balance sheet:</u>				
Receivables				
Others	\$ 1,284	379	2,765	4,428
Loans and discounts	1,342,677	-	1,253,738	2,596,415
Financial assets measured at fair value through profit or loss				
Others	112	-	-	112
<u>Off-balance sheet</u>				
Irrevocable loan commitments	-	-	415,083	415,083
Standby letters of credit	1,650	-	25,026	26,676
Financial guarantees	7,581	-	79,520	87,101
Total	\$ 1,353,304	379	1,776,132	3,129,815

The Management believes that the reason why the Bank can continuously manage and minimize the exposure of credit risk to off-balance sheet items is because a stricter review process is adopted, and cases are reviewed regularly in subsequent periods.

- 3) The Bank closely observes the value of collateral for financial instruments, and considers the allowance for impairment of credit-impaired financial assets. Information about credit-impaired financial assets and the value of collateral which may decrease potential loss is shown below:

December 31, 2019				
	Gross carrying amount	Allowance for impairment	Exposure amount (Amortized cost)	Fair value of collateral
Impaired financial assets:				
Receivables				
Credit card business	\$ 5,999	4,787	1,212	-
Others	164,155	75,154	89,001	9,699
Loans and discounts	25,096,494	7,150,936	17,945,558	9,214,772
Total amount of impaired financial assets	\$ 25,266,648	7,230,877	18,035,771	9,224,471
December 31, 2018				
	Gross carrying amount	Allowance for impairment	Exposure amount (Amortized cost)	Fair value of collateral
Impaired financial assets:				
Receivables				
Credit card business	\$ 5,238	4,122	1,116	-
Others	104,489	44,886	59,603	-
Loans and discounts	22,847,975	4,887,531	17,960,444	9,291,496
Total amount of impaired financial assets	\$ 22,957,702	4,936,539	18,021,163	9,291,496

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

4) Financial assets not applicable for rules of impairment:

	December 31, 2019	December 31, 2018
Financial assets measured at fair value through profit or loss		
Debt instruments	\$ 142,285,938	144,477,290
Derivative	10,699,762	6,404,769

(vii) Concentration of credit risk

When the transaction of financial instruments is concentrated in a single industry or region, the ability to oblige the contract would be impacted by similar factors, thereby, causing concentration of credit risk.

The credit risk of the Bank is derived from credit, placement with banks, call loans to banks, security investments and so on. Disclosures of concentration of credit risk by industries, regions and collaterals were as follows:

1) Industry

Unit: In million of TWD; %

Industry type	December 31, 2019		December 31, 2018	
	Book Value (Note 1)	%	Book Value (Note 2)	%
Finance and insurance	\$ 1,274,240	30.83 %	1,396,688	33.84 %
Individuals	957,805	23.17 %	869,958	21.08 %
Manufacturing	389,801	9.43 %	391,096	9.48 %
Government Agencies	699,735	16.93 %	710,576	17.22 %
Shipping, warehousing and communications	167,643	4.06 %	151,845	3.68 %
Electricity and gas supply	124,155	3.00 %	107,084	2.59 %
Others	519,823	12.58 %	499,570	12.11 %
Total	\$ 4,133,202	100.00 %	4,126,817	100.00 %

Note 1: December 31, 2019

- (1) The carrying amounts include loans (\$2,721,285 million), call loans to banks, overdraft of banks and placement with banks (\$220,647 million), security investments (\$1,191,270 million) and so on. Loans refer to discounts, overdrafts, government overdrafts, secured overdrafts, short-term loans, short-term secured loans, medium-term loans, medium-term secured loans, long-term loans, long-term secured loans, import bill advance and nonperforming loans (\$3,154 million). Security investments include bonds and stocks. Bonds are measured at fair value. However, the bonds classified as held-to-maturity financial assets or bond investments in non-active market are carried at cost. Equity investments are measure at fair value but those classified as cost of long-term equity investments under the equity method and financial assets carried at cost are measured at cost.
- (2) This table excludes the Department of Government Employees Insurance and the subsidiary, BankTaiwan Insurance Brokers.

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BANK OF TAIWAN AND SUBSIDIARY

Notes to the Consolidated Financial Statements

Note 2: December 31, 2018

- (1) The carrying amounts include loans (\$2,596,415 million), call loans to banks, overdraft of banks and placement with banks (\$210,945 million), security investments (\$1,319,457 million) and so on. Loans refer to discounts, overdrafts, government overdrafts, secured overdrafts, short-term loans, short-term secured loans, medium-term loans, medium-term secured loans, long-term loans, long-term secured loans, import bill advance and nonperforming loans (\$4,221 million). Security investments include bonds and stocks. Bonds are measured at fair value. However, the bonds classified as held-to-maturity financial assets or bond investments in non-active market are carried at cost. Equity investments are measure at fair value but those classified as cost of long-term equity investments under the equity method and financial assets carried at cost are measured at cost.
- (2) This table excludes the Department of Government Employees Insurance and the subsidiary, BankTaiwan Insurance Brokers.

2) Region

Unit: In million of TWD; %

Areas type	December 31, 2019		December 31, 2018	
	Book		Book	
	Value(Note 1)	%	Value(Note 2)	%
Domestic	\$ 3,648,596	88.28 %	3,681,225	89.20 %
Foreign	484,606	11.72 %	445,592	10.80 %
Total	\$ 4,133,202	100.00 %	4,126,817	100.00 %

Note 1: December 31, 2019

- (1) The carrying amounts include loans (\$2,721,285 million), call loans to banks, overdraft of banks and placement with banks (\$220,647 million), security investments (\$1,191,270 million) and so on. Loans refer to discounts, overdrafts, government overdrafts, secured overdrafts, short-term loans, short-term secured loans, medium-term loans, medium-term secured loans, long-term loans, long-term secured loans, import bill advance and nonperforming loans (\$3,154 million). Security investments include bonds and stocks. Bonds are measured at fair value. However, the bonds classified as held-to-maturity financial assets or bond investments in non-active market are carried at cost. Equity investments are measure at fair value but those classified as cost of long-term equity investments under the equity method and financial assets carried at cost are measured at cost.
- (2) This table excludes the Department of Government Employees Insurance and the subsidiary, BankTaiwan Insurance Brokers.

Note 2: December 31, 2018

- (1) The carrying amounts include loans (\$2,596,415 million), call loans to banks, overdraft of banks and placement with banks (\$210,945 million), security investments (\$1,319,457 million) and so on. Loans refer to discounts, overdrafts, government overdrafts, secured overdrafts, short-term loans, short-term secured loans, medium-term loans, medium-term secured loans, long-term loans, long-term secured loans, import bill advance and nonperforming loans (\$4,221 million). Security investments include bonds and stocks. Bonds are measured at fair value. However, the bonds classified as held-to-maturity financial assets or bond investments in non-active market are carried at cost. Equity investments are measure at fair value but those classified as cost of long-term equity investments under the equity method and financial assets carried at cost are measured at cost.
- (2) This table excludes the Department of Government Employees Insurance and the subsidiary, BankTaiwan Insurance Brokers.

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BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

3) Collateral

Unit: In million of TWD; %

Type of collateral	December 31, 2019		December 31, 2018	
	Book Value (Note 1)	%	Book Value (Note 1)	%
Non-secured	\$ 1,270,447	46.69 %	1,253,738	48.29 %
Secured	1,450,838	53.31 %	1,342,677	51.71 %
Guarantee	140,240	5.15 %	141,408	5.44 %
Securities	74,881	2.75 %	80,505	3.10 %
Real estate	1,156,442	42.50 %	1,045,746	40.28 %
Chattel	79,163	2.91 %	74,905	2.88 %
Valuables	112	- %	113	0.01 %
Total	\$ 2,721,285	100.00 %	2,596,415	100.00 %

Note 1: The carrying amounts only contain loans which refer to discounts, overdrafts, government overdrafts, secured overdrafts, short-term loans, short-term secured loans, medium-term loans, medium-term secured loans, long-term loans, long-term secured loans, import bill advance and non-performing loans (\$3,154 million at December 31, 2019; \$4,221 million at December 31, 2018).

Note 2: This table excludes the Department of Government Employees Insurance and the subsidiary, BankTaiwan Insurance Brokers.

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BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

(viii) Changes in loss allowance

1) Changes in loss allowance of discounts and loans

- a) As of December 31, 2019 and 2018, the reconciliations of the beginning and ending balances for loss allowance of discounts and loans were as follows:

	2019						
	12 month ECLs	Lifetime ECLs (collectively assessed)	Lifetime ECLs (not purchased or originated credit impaired financial assets)	Lifetime ECLs (purchased or originated credit impaired financial assets)	The loss allowances measured in accordance with IFRS 9	Impairment difference recognized in accordance with "Regulations Governing the Procedures for Institutions to Evaluate Assets and Deal with Nonperforming/Nona ccrual Loans	Total
Beginning balance	\$ 20,114,026	1,805,624	4,887,531	-	26,807,181	12,580,303	39,387,484
Changes due to financial instruments recognized as at beginning:							
— Transfer to lifetime expected credit losses	(161,720)	250,587	(88,867)	-	-	-	-
— Transfer to lifetime ECL not credit impaired	(2,264,248)	(158,573)	2,422,821	-	-	-	-
— Transfer to 12month expected credit losses	437,825	(334,322)	(103,503)	-	-	-	-
— Financial assets that have been derecognized during the period	(3,986,558)	(66,070)	1,406,052	-	(2,646,576)	-	(2,646,576)
Originated or purchased new financial assets	3,250,613	91,334	499,441	-	3,841,388	-	3,841,388
Impairment difference recognized in accordance with "Regulations Governing the Procedures for Institutions to Evaluate Assets and Deal with Nonperforming / Nonaccrual Loans	-	-	-	-	-	2,692,533	2,692,533
Bad debts written off	-	-	(3,315,238)	-	(3,315,238)	-	(3,315,238)
The recovery of bad debts written off	-	-	1,797,595	-	1,797,595	-	1,797,595
Foreign exchange and other movements	3,723,497	17,696	(354,896)	-	3,386,297	-	3,386,297
Ending balance	<u>\$ 21,113,435</u>	<u>1,606,276</u>	<u>7,150,936</u>	<u>-</u>	<u>29,870,647</u>	<u>15,272,836</u>	<u>45,143,483</u>

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

2018							
	12 month ECLs	Lifetime ECLs (collectively assessed)	Lifetime ECLs (not purchased or originated credit impaired financial assets)	Lifetime ECLs (purchased or originated credit impaired financial assets)	The loss allowances measured in accordance with IFRS 9	Impairment difference recognized in accordance with "Regulations Governing the Procedures for Institutions to Evaluate Assets and Deal with Nonperforming/Nona ccrual Loans	Total
Beginning balance	\$ 17,285,609	3,337,527	3,728,448	-	24,351,584	8,664,330	33,015,914
Changes due to financial instruments recognized as at beginning:							
— Transfer to lifetime expected credit losses	(160,911)	344,957	(184,046)	-	-		-
— Transfer to lifetime ECL not credit impaired	(21,777)	(74,769)	96,546	-	-		-
— Transfer to 12month expected credit losses	2,529,490	(2,452,291)	(77,199)	-	-		-
— Financial assets that have been derecognized during the period	(207,323)	(2,498)	(3,693,297)	-	(3,903,118)		(3,903,118)
Originated or purchased new financial assets	3,115,270	459,339	2,109,276	-	5,683,885		5,683,885
Impairment difference recognized in accordance with "Regulations Governing the Procedures for Institutions to Evaluate Assets and Deal with Nonperforming / Nonaccrual Loans	-	-	-	-	-	3,915,973	3,915,973
Bad debts written off	(454,830)	-	(1,661,290)	-	(2,116,120)		(2,116,120)
The recovery of bad debts written off	-	-	994,434	-	994,434		994,434
Foreign exchange and other movements	(1,971,502)	193,359	3,574,659	-	1,796,516		1,796,516
Ending balance	<u>\$ 20,114,026</u>	<u>1,805,624</u>	<u>4,887,531</u>	<u>-</u>	<u>26,807,181</u>	<u>12,580,303</u>	<u>39,387,484</u>

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BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

b) As of December 31, 2019 and 2018, the carrying amounts of discounts and loans were as follows:

	2019				
	12 month ECLs	Lifetime ECLs (collectively assessed)	Lifetime ECLs (not purchased or originated credit impaired financial assets)	Lifetime ECLs (purchased or originated credit impaired financial assets)	Total
Beginning balance	\$ 2,516,142,368	57,424,435	22,847,975	-	2,596,414,778
— Transfer to lifetime expected credit losses	(65,836,891)	66,464,854	(627,963)	-	-
— Transfer to lifetime ECL not credit impaired	(5,657,657)	(1,667,838)	7,325,495	-	-
— Transfer to 12month expected credit losses	15,091,157	(14,458,971)	(632,186)	-	-
— Financial assets that have been derecognized during the period	(1,174,441,382)	(28,878,840)	(6,669,174)	-	(1,209,989,396)
Originated or purchased new discounts and loans	1,333,185,519	6,113,559	1,010,192	-	1,340,309,270
Bad debts written off	-	-	(3,315,238)	-	(3,315,238)
Changes form the amendments not leading to de recognition	-	-	(3,823)	-	(3,823)
Other movements	(7,318,496)	26,396	5,161,216	-	(2,130,884)
Ending balance	<u><u>\$ 2,611,164,618</u></u>	<u><u>85,023,595</u></u>	<u><u>25,096,494</u></u>	<u><u>-</u></u>	<u><u>2,721,284,707</u></u>

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

	2018				
	12 month ECLs	Lifetime ECLs (collectively assessed)	Lifetime ECLs (not purchased or originated credit impaired financial assets)	Lifetime ECLs (purchased or originated credit impaired financial assets)	Total
Beginning balance	\$ 2,109,996,917	190,591,002	17,493,186	-	2,318,081,105
— Transfer to lifetime expected credit losses	(34,597,724)	35,375,630	(777,906)	-	-
— Transfer to lifetime ECL not credit impaired	(2,753,701)	(2,585,704)	5,339,405	-	-
— Transfer to 12month expected credit losses	144,420,034	(143,849,225)	(570,809)	-	-
— Financial assets that have been derecognized during the period	(884,034,036)	(31,130,544)	(8,093,468)	-	(923,258,048)
Originated or purchased new discounts and loans	1,190,921,679	9,421,456	4,935,710	-	1,205,278,845
Bad debts written off	(21,385)	-	(2,094,735)	-	(2,116,120)
Changes form the amendments not leading to de recognition	-	-	109	-	109
Other movements	(7,789,416)	(398,180)	6,616,483	-	(1,571,113)
Ending balance	<u><u>\$ 2,516,142,368</u></u>	<u><u>57,424,435</u></u>	<u><u>22,847,975</u></u>	<u><u>-</u></u>	<u><u>2,596,414,778</u></u>

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

2) Changes in loss allowance of debt instruments measured at fair value through other comprehensive income

- a) As of December 31, 2019 and 2018, the reconciliations of the beginning and ending balances for loss allowance of debt instruments measured at fair value through other comprehensive income were as follows:

	2019					
	12 month ECLs	Lifetime ECLs	Lifetime ECLs (not purchased or originated credit impaired financial assets)	Lifetime ECLs (purchased or originated credit impaired financial assets)	The loss allowances measured in accordance with IFRS 9	Total
Beginning balance	\$ 76,773	6,172	-	-	82,945	82,945
Changes due to financial instruments recognized as at beginning:						
— Transfer to lifetime expected credit losses	(602)	602	-	-	-	-
— Financial assets that have been derecognized during the period	(19,716)	(6,172)	-	-	(25,888)	(25,888)
Originated or purchased new financial assets	26,905	-	-	-	26,905	26,905
Foreign exchange and other movements	(2,883)	8,199	-	-	5,316	5,316
Ending balance	<u>\$ 80,477</u>	<u>8,801</u>	<u>-</u>	<u>-</u>	<u>89,278</u>	<u>89,278</u>

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

	2018					
	12 month ECLs	Lifetime ECLs	Lifetime ECLs (not purchased or originated credit impaired financial assets)	Lifetime ECLs (purchased or originated credit impaired financial assets)	The loss allowances measured in accordance with IFRS 9	Total
Beginning balance	\$ 78,918	-	-	-	78,918	78,918
Changes due to financial instruments recognized as at beginning:						
— Transfer to lifetime expected credit losses	(5,858)	5,858	-	-	-	-
— Financial assets that have been derecognized during the period	(15,785)	-	-	-	(15,785)	(15,785)
Originated or purchased new financial assets	20,599	-	-	-	20,599	20,599
Foreign exchange and other movements	(1,101)	314	-	-	(787)	(787)
Ending balance	<u>\$ 76,773</u>	<u>6,172</u>	<u>-</u>	<u>-</u>	<u>82,945</u>	<u>82,945</u>

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

- b) As of December 31, 2019 and 2018, the carrying amounts of debt instruments measured at fair value through other comprehensive income were as follows:

	2019				
	12 month ECLs	Lifetime ECLs	Lifetime ECLs (not purchased or originated credit impaired financial assets)	Lifetime ECLs (purchased or originated credit impaired financial assets)	Total
Beginning balance	\$ 1,039,187,045	1,092,208	-	-	1,040,279,253
— Transfer to lifetime expected credit losses	(307,664)	307,664	-	-	-
— Financial assets that have been derecognized during the period	(873,875,408)	(1,092,208)	-	-	(874,967,616)
Originated or purchased new financial assets	752,464,617	-	-	-	752,464,617
Other movements	(1,579,078)	(5,279)	-	-	(1,584,357)
Ending balance	<u>\$ 915,889,512</u>	<u>302,385</u>	<u>-</u>	<u>-</u>	<u>916,191,897</u>
	2018				
	12 month ECLs	Lifetime ECLs	Lifetime ECLs (not purchased or originated credit impaired financial assets)	Lifetime ECLs (purchased or originated credit impaired financial assets)	Total
Beginning balance	\$ 1,086,229,259	-	-	-	1,086,229,259
— Transfer to lifetime expected credit losses	(1,036,692)	1,036,692	-	-	-
— Financial assets that have been derecognized during the period	(920,991,519)	-	-	-	(920,991,519)
Originated or purchased new financial assets	875,749,012	-	-	-	875,749,012
Other movements	(763,015)	55,516	-	-	(707,499)
Ending balance	<u>\$ 1,039,187,045</u>	<u>1,092,208</u>	<u>-</u>	<u>-</u>	<u>1,040,279,253</u>

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

3) Changes in loss allowance of debt instruments measured at amortized cost

- a) As of December 31, 2019 and 2018, the reconciliations of the beginning and ending balances for loss allowance of debt instruments measured at amortized cost were as follows:

	2019					Total
	12 month ECLs	Lifetime ECLs	Lifetime ECLs (not purchased or originated credit impaired financial assets)	Lifetime ECLs (purchased or originated credit impaired financial assets)	The loss allowances measured in accordance with IFRS 9	
Beginning balance	\$ 49,536	-	-	-	49,536	49,536
— Financial assets that have been derecognized during the period	(23,299)	-	-	-	(23,299)	(23,299)
Originated or purchased new financial assets	20,203	-	-	-	20,203	20,203
Foreign exchange and other movements	(3,333)	-	-	-	(3,333)	(3,333)
Ending balance	<u>\$ 43,107</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>43,107</u>	<u>43,107</u>

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

2018						
	12 month ECLs	Lifetime ECLs	Lifetime ECLs (not purchased or originated credit impaired financial assets)	Lifetime ECLs (purchased or originated credit impaired financial assets)	The loss allowances measured in accordance with IFRS 9	Total
Beginning balance	\$ 48,723	-	-	-	48,723	48,723
— Financial assets that have been derecognized during the period	(13,706)	-	-	-	(13,706)	(13,706)
Originated or purchased new financial assets	17,247	-	-	-	17,247	17,247
Foreign exchange and other movements	(2,728)	-	-	-	(2,728)	(2,728)
Ending balance	<u>\$ 49,536</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>49,536</u>	<u>49,536</u>

- b) As of December 31, 2019 and 2018, the carrying amounts of debt instruments measured at amortized cost were as follows:

2019					
	12 month ECLs	Lifetime ECLs	Lifetime ECLs (not purchased or originated credit impaired financial assets)	Lifetime ECLs (purchased or originated credit impaired financial assets)	Total
Beginning balance	\$ 167,874,228	-	-	-	167,874,228
— Financial assets that have been derecognized during the period	(57,820,925)	-	-	-	(57,820,925)
Originated or purchased new financial assets	67,967,048	-	-	-	67,967,048
Other movements	(770,469)	-	-	-	(770,469)
Ending balance	<u>\$ 177,249,882</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>177,249,882</u>

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

	2018				
	12 month ECLs	Lifetime ECLs	Lifetime ECLs (not purchased or originated credit impaired financial assets)	Lifetime ECLs (purchased or originated credit impaired financial assets)	Total
Beginning balance	\$ 147,836,435	-	-	-	147,836,435
— Financial assets that have been derecognized during the period	(31,546,259)	-	-	-	(31,546,259)
Originated or purchased new financial assets	51,409,494	-	-	-	51,409,494
Other movements	174,558	-	-	-	174,558
Ending balance	<u>\$ 167,874,228</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>167,874,228</u>

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

4) Changes in guarantee reserve and other reserve

- a) As of December 31, 2019 and 2018, the reconciliations of the beginning and ending balances for loss allowance of letter of credit receivables and guarantee for trade receivables (guarantee reserve and other reserve) were as follows:

	2019						
	12 month ECLs	Lifetime ECLs	Lifetime ECLs (not purchased or originated credit impaired financial assets)	Lifetime ECLs (purchased or originated credit impaired financial assets)	The loss allowances measured in accordance with IFRS 9	Impairment difference recognized in accordance with "Regulations Governing the Procedures for Institutions to Evaluate Assets and Deal with Nonperforming/Nona ccrual Loans	Total
Beginning balance	\$ 375,494	33,540	153,403	-	562,437	718,039	1,280,476
Changes due to financial instruments recognized as at beginning:							
— Transfer to lifetime expected credit losses	(73)	73	-	-	-		-
— Transfer to 12month expected credit losses	15,457	(15,408)	(49)	-	-		-
— Financial assets that have been derecognized during the period	(213,801)	(7,863)	(133,860)	-	(355,524)		(355,524)
Originated or purchased new financial assets	188,100	2,869	11,551	-	202,520		202,520
Impairment difference recognized in accordance with "Regulations Governing the Procedures for Institutions to Evaluate Assets and Deal with Nonperforming /Nonaccrual Loans	-	-	-	-	-	143,727	143,727
Foreign exchange and other movements	(6,226)	(1,959)	68,484	-	60,299		60,299
Ending balance	<u>\$ 358,951</u>	<u>11,252</u>	<u>99,529</u>	<u>-</u>	<u>469,732</u>	<u>861,766</u>	<u>1,331,498</u>

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

	2018						Total
	12 month ECLs	Lifetime ECLs	Lifetime ECLs (not purchased or originated credit impaired financial assets)	Lifetime ECLs (purchased or originated credit impaired financial assets)	The loss allowances measured in accordance with IFRS 9	Impairment difference recognized in accordance with "Regulations Governing the Procedures for Institutions to Evaluate Assets and Deal with Nonperforming/Nona ccrual Loans	
Beginning balance	\$ 706,762	73,177	196,387	-	976,326	336,157	1,312,483
Changes due to financial instruments recognized as at beginning:							
— Transfer to lifetime expected credit losses	(7,332)	7,332	-	-	-	-	-
— Transfer to lifetime ECL not credit impaired	(4,823)	-	4,823	-	-	-	-
— Transfer to 12month expected credit losses	62,325	(62,325)	-	-	-	-	-
— Financial assets that have been derecognized during the period	(421,918)	(12,380)	(52,985)	-	(487,283)	-	(487,283)
Originated or purchased new financial assets	142,536	6,574	5,162	-	154,272	-	154,272
Impairment difference recognized in accordance with "Regulations Governing the Procedures for Institutions to Evaluate Assets and Deal with Nonperforming /Nonaccrual Loans	-	-	-	-	-	381,882	381,882
Foreign exchange and other movements	(102,056)	21,162	16	-	(80,878)	-	(80,878)
Ending balance	<u>\$ 375,494</u>	<u>33,540</u>	<u>153,403</u>	<u>-</u>	<u>562,437</u>	<u>718,039</u>	<u>1,280,476</u>

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

- b) As of December 31, 2019 and 2018, the carrying amounts of letter of credit receivables and guarantee for trade receivables were as follows:

	2019				
	12 month ECLs	Lifetime ECLs	Lifetime ECLs (not purchased or originated credit impaired financial assets)	Lifetime ECLs (purchased or originated credit impaired financial assets)	Total
Beginning balance	\$ 111,293,200	2,027,575	456,746	-	113,777,521
— Transfer to lifetime expected credit losses	(2,523,186)	2,523,186	-	-	-
— Transfer to lifetime ECL not credit impaired	(105,318)	-	105,318	-	-
— Transfer to 12month expected credit losses	761,697	(754,183)	(7,514)	-	-
— Financial assets that have been derecognized during the period	(58,724,990)	(570,954)	(371,794)	-	(59,667,738)
Originated or purchased new discounts and loans	71,005,404	210,990	503,045	-	71,719,439
Other movements	(8,921)	(353,644)	-	-	(362,565)
Ending balance	<u><u>\$ 121,697,886</u></u>	<u><u>3,082,970</u></u>	<u><u>685,801</u></u>	<u><u>-</u></u>	<u><u>125,466,657</u></u>

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

	2018				
	12 month ECLs	Lifetime ECLs	Lifetime ECLs (not purchased or originated credit impaired financial assets)	Lifetime ECLs (purchased or originated credit impaired financial assets)	Total
Beginning balance	\$ 102,108,066	8,095,456	254,064	-	110,457,586
— Transfer to lifetime expected credit losses	(1,156,684)	1,156,684	-	-	-
— Transfer to lifetime ECL not credit impaired	(100,104)	(51,433)	151,537	-	-
— Transfer to 12month expected credit losses	6,520,097	(6,520,097)	-	-	-
— Financial assets that have been derecognized during the period	(50,324,989)	(1,862,162)	(191,086)	-	(52,378,237)
Originated or purchased new discounts and loans	55,053,614	360,711	242,231	-	55,656,556
Other movements	(806,800)	848,416	-	-	41,616
Ending balance	<u><u>\$ 111,293,200</u></u>	<u><u>2,027,575</u></u>	<u><u>456,746</u></u>	<u><u>-</u></u>	<u><u>113,777,521</u></u>

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

5) Changes in loan commitments reserve

- a) As of December 31, 2019 and 2018, the reconciliations of the beginning and ending balances for loss allowance of loan commitments (loan commitments reserve) were as follows:

	2019					
	12 month ECLs	Lifetime ECLs	Lifetime ECLs (not purchased or originated credit impaired financial assets)	Lifetime ECLs (purchased or originated credit impaired financial assets)	The loss allowances measured in accordance with IFRS 9	Total
Beginning balance	\$ 13,309	2,067	236	-	15,612	15,612
Changes due to financial instruments recognized as at beginning:						
— Transfer to lifetime expected credit losses	(145)	145	-	-	-	-
— Transfer to lifetime ECL not credit impaired	-	(10)	10	-	-	-
— Transfer to 12month expected credit losses	2,525	(2,525)	-	-	-	-
— Financial assets that have been derecognized during the period	(1,385)	(1,333)	(734)	-	(3,452)	(3,452)
Originated or purchased new financial assets	14,546	1,251	379	-	16,176	16,176
Foreign exchange and other movements	(11,732)	2,222	398	-	(9,112)	(9,112)
Ending balance	<u>\$ 17,118</u>	<u>1,817</u>	<u>289</u>	<u>-</u>	<u>19,224</u>	<u>19,224</u>

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

	2018					
	12 month ECLs	Lifetime ECLs	Lifetime ECLs (not purchased or originated credit impaired financial assets)	Lifetime ECLs (purchased or originated credit impaired financial assets)	The loss allowances measured in accordance with IFRS 9	Total
Beginning balance	\$ 8,106	2,284	31	-	10,421	10,421
Changes due to financial instruments recognized as at beginning:						
— Transfer to lifetime expected credit losses	(223)	223	-	-	-	-
— Transfer to lifetime ECL not credit impaired	-	(20)	20	-	-	-
— Transfer to 12month expected credit losses	2,910	(2,910)	-	-	-	-
— Financial assets that have been derecognized during the period	(2,902)	(1,736)	(505)	-	(5,143)	(5,143)
Originated or purchased new financial assets	924	1,592	183	-	2,699	2,699
Foreign exchange and other movements	4,494	2,634	507	-	7,635	7,635
Ending balance	<u>\$ 13,309</u>	<u>2,067</u>	<u>236</u>	<u>-</u>	<u>15,612</u>	<u>15,612</u>

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

b) As of December 31, 2019 and 2018, the carrying amounts of loan commitments were as follows:

	2019				
	12 month ECLs	Lifetime ECLs	Lifetime ECLs (not purchased or originated credit impaired financial assets)	Lifetime ECLs (purchased or originated credit impaired financial assets)	Total
Beginning balance	\$ 414,843,942	239,090	434	-	415,083,466
— Transfer to lifetime ECL not credit impaired	-	(1,530)	1,530	-	-
— Financial assets that have been derecognized during the period	(411,783,942)	(638,463)	(2,430)	-	(412,424,835)
Originated or purchased new discounts and loans	419,982,244	628,459	948	-	420,611,651
Ending balance	<u><u>\$ 423,042,244</u></u>	<u><u>227,556</u></u>	<u><u>482</u></u>	<u><u>-</u></u>	<u><u>423,270,282</u></u>
	2018				
	12 month ECLs	Lifetime ECLs	Lifetime ECLs (not purchased or originated credit impaired financial assets)	Lifetime ECLs (purchased or originated credit impaired financial assets)	Total
Beginning balance	\$ 431,118,289	270,461	81	-	431,388,831
— Transfer to lifetime ECL not credit impaired	-	(2,105)	2,105	-	-
— Financial assets that have been derecognized during the period	(29,551,908)	(746,137)	(2,338)	-	(30,300,383)
Originated or purchased new discounts and loans	13,273,627	716,871	586	-	13,991,084
Other movements	3,934	-	-	-	3,934
Ending balance	<u><u>\$ 414,843,942</u></u>	<u><u>239,090</u></u>	<u><u>434</u></u>	<u><u>-</u></u>	<u><u>415,083,466</u></u>

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

6) Changes in loss allowance of receivables(including other financial assets)

- a) As of December 31, 2019 and 2018, the reconciliations of the beginning and ending balances for loss allowance of receivables were as follows:

	2019						
	12 month ECLs	Lifetime ECLs (collectively assessed)	Lifetime ECLs (not purchased or originated credit impaired financial assets)	Lifetime ECLs (purchased or originated credit impaired financial assets)	The loss allowances measured in accordance with IFRS 9	Impairment difference recognized in accordance with "Regulations Governing the Procedures for Institutions to Evaluate Assets and Deal with Nonperforming/Nona ccrual Loans	Total
Beginning balance (Note 1)	\$ 69,619	12,152	49,008	-	130,779	48,779	179,558
Changes due to financial instruments recognized as at beginning:							
— Transfer to lifetime expected credit losses	(915)	1,204	(289)	-	-	-	-
— Transfer to lifetime ECL not credit impaired	(232)	(439)	671	-	-	-	-
— Transfer to 12month expected credit losses	1,483	(1,135)	(348)	-	-	-	-
— Financial assets that have been derecognized during the period	(48,230)	(7,284)	(23,025)	-	(78,539)	-	(78,539)
Originated or purchased new financial assets	14,893	4,669	50,010	-	69,572	-	69,572
Impairment difference recognized in accordance with "Regulations Governing the Procedures for Institutions to Evaluate Assets and Deal with Nonperforming / Nonaccrual Loans	-	-	-	-	-	7,579	7,579
Bad debts written off	(16)	(1,155)	(11,218)	-	(12,389)	-	(12,389)
The recovery of bad debts written off	-	-	12,836	-	12,836	-	12,836
Foreign exchange and other movements	(2,796)	1,165	2,296	-	665	-	665
Ending balance (Note 2)	<u>\$ 33,806</u>	<u>9,177</u>	<u>79,941</u>	<u>-</u>	<u>122,924</u>	<u>56,358</u>	<u>179,282</u>

Note 1: Not included the Bank's accumulated impairment recognized in restrictive deposit \$11 thousand and Department of Government Employees' Insurance's allowance for impairment \$1,022 thousand evaluated by simplification method.

Note 2: Not included the Bank's accumulated impairment recognized in restrictive deposit \$10 thousand and Department of Government Employees' Insurance's allowance for impairment \$13 thousand evaluated by simplification method.

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

	2018						
	12 month ECLs	Lifetime ECLs (collectively assessed)	Lifetime ECLs (not purchased or originated credit impaired financial assets)	Lifetime ECLs (purchased or originated credit impaired financial assets)	The loss allowances measured in accordance with IFRS 9	Impairment difference recognized in accordance with "Regulations Governing the Procedures for Institutions to Evaluate Assets and Deal with Nonperforming/Nona ccrual Loans	Total
Beginning balance (Note 1)	\$ 50,863	12,145	95,308	-	158,316	84,043	242,359
Changes due to financial instruments recognized as at beginning:							
— Transfer to lifetime expected credit losses	(1,273)	1,648	(375)	-	-	-	-
— Transfer to lifetime ECL not credit impaired	(20)	(630)	650	-	-	-	-
— Transfer to 12month expected credit losses	5,037	(4,728)	(309)	-	-	-	-
— Financial assets that have been derecognized during the period	(43,063)	(5,514)	(75,005)	-	(123,582)	-	(123,582)
Originated or purchased new financial assets	57,300	8,168	23,507	-	88,975	-	88,975
Impairment difference recognized in accordance with "Regulations Governing the Procedures for Institutions to Evaluate Assets and Deal with Nonperforming / Nonaccrual Loans	-	-	-	-	-	(35,264)	(35,264)
Bad debts written off	(800)	(924)	(9,767)	-	(11,491)	-	(11,491)
The recovery of bad debts written off	70	-	10,471	-	10,541	-	10,541
Foreign exchange and other movements	1,505	1,987	4,528	-	8,020	-	8,020
Ending balance (Note 2)	<u>\$ 69,619</u>	<u>12,152</u>	<u>49,008</u>	<u>-</u>	<u>130,779</u>	<u>48,779</u>	<u>179,558</u>

Note 1: Not included the Bank's accumulated impairment recognized in restrictive deposit \$10 thousand and Department of Government Employees' Insurance's allowance for impairment \$1,022 thousand evaluated by simplification method.

Note 2: Not included the Bank's accumulated impairment recognized in restrictive deposit \$11 thousand and Department of Government Employees' Insurance's allowance for impairment \$1,022 thousand evaluated by simplification method.

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

b) As of December 31, 2019 and 2018, the carrying amounts of receivables were as follows:

	2019				
	12 month ECLs	Lifetime ECLs (collectively assessed)	Lifetime ECLs (not purchased or originated credit impaired financial assets)	Lifetime ECLs (purchased or originated credit impaired financial assets)	Total
Beginning balance (Note 1)	\$ 97,242,805	839,357	109,727	-	98,191,889
— Transfer to lifetime expected credit losses	(275,135)	277,042	(1,907)	-	-
— Transfer to lifetime ECL not credit impaired	(6,068)	(17,484)	23,552	-	-
— Transfer to 12month expected credit losses	205,241	(203,067)	(2,174)	-	-
— Financial assets that have been derecognized during the period	(18,229,010)	(685,049)	(63,363)	-	(18,977,422)
Originated or purchased new discounts and loans	15,236,816	194,197	77,892	-	15,508,905
Bad debts written off	(16)	(1,155)	(11,218)	-	(12,389)
Other movements	(3,652,798)	(3,676)	37,645	-	(3,618,829)
Ending balance (Note 2)	\$ 90,521,835	400,165	170,154	-	91,092,154

Note 1: Not included the Bank's gross carrying amount of restricted deposit \$19,469 thousand and Department of Government Employees' Insurance's accounts receivables \$7,283,748 thousand evaluated by simplification method.

Note 2: Not included the Bank's gross carrying amount of restricted deposit \$19,380 thousand and Department of Government Employees' Insurance's accounts receivables \$7,736,495 thousand evaluated by simplification method.

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

	2018				
	12 month ECLs	Lifetime ECLs (collectively assessed)	Lifetime ECLs (not purchased or originated credit impaired financial assets)	Lifetime ECLs (purchased or originated credit impaired financial assets)	Total
Beginning balance (Note 1)	\$ 98,555,440	819,759	274,468	-	99,649,667
— Transfer to lifetime expected credit losses	(333,056)	335,528	(2,472)	-	-
— Transfer to lifetime ECL not credit impaired	(3,277)	(20,951)	24,228	-	-
— Transfer to 12month expected credit losses	250,596	(248,650)	(1,946)	-	-
— Financial assets that have been derecognized during the period	(33,675,724)	(600,581)	(137,734)	-	(34,414,039)
Originated or purchased new discounts and loans	32,451,447	538,775	49,599	-	33,039,821
Bad debts written off	(800)	(924)	(9,767)	-	(11,491)
Other movements	(1,821)	16,401	(86,649)	-	(72,069)
Ending balance (Note 2)	\$ 97,242,805	839,357	109,727	-	98,191,889

Note 1: Not included the Bank's gross carrying amount of restricted deposit \$18,478 thousand and Department of Government Employees' Insurance's accounts receivables \$12,203,403 thousand evaluated by simplification method.

Note 2: Not included the Bank's gross carrying amount of restricted deposit \$19,469 thousand and Department of Government Employees' Insurance's accounts receivables \$7,283,748 thousand evaluated by simplification method.

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

- c) BOT's department of government employees' insurance adopts simplification method to estimate expected credit losses of receivables (including accrued income, premiums receivable, and other receivable), namely, measures expected credit losses for a life time. For the purpose of measurement, these notes receivables and account receivables are classified based on credit risk characteristics reflected the borrower's ability to meet its contractual obligations. Analysis of receivables held by BOT's department of government employees' insurance at December 31, 2018 is shown below:

December 31, 2019			
	Gross amounts of account receivables	Weighted average expected loss rate	Allowance for expected credit loss for a life time
Non-overdue	\$ 7,730,746	0%	-
Overdue less than 30 days	4,430	0%	-
Overdue 31~60 days	622	0%	-
Overdue 61~90days	-	0%	-
Overdue more than 91 days	697	65.85%	13
	\$ 7,736,495		13

December 31, 2018			
	Gross amounts of account receivables	Weighted average expected loss rate	Allowance for expected credit loss for a life time
Non-overdue	\$ 7,282,726	0%	-
Overdue more than 91 days	1,022	100%	1,022
	\$ 7,283,748		1,022

The movements of allowance for impairment of account receivables held by BOT's department of government employees' insurance:

2018	
Beginning balance	\$ 1,022
Adjustment for retrospective application due to IFRS 9	-
Ending balance	\$ 1,022

2019	
Beginning balance	\$ 1,022
Impairment loss	13
Uncollectable amounts written-off	(1,022)
Ending balance	\$ 13

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

(ix) Disclosures required by the Regulations Governing the Preparation of Financial Reports by Public Banks

1) Asset Quality of overdue loans and receivables

December 31, 2019							
Type / Item		Amount of overdue loans (Note 1)	Total amount of loans	Ratio (%) (Note 2)	Allowance for doubtful debt	Coverage ratio(%) (Note 3)	
Enterprise	Secured		1,577,012	574,952,892	0.27 %	11,346,887	719.52 %
	Non secured		434,118	1,237,329,936	0.04 %	22,380,197	5,155.33 %
Consumer finance	House mortgage (Note 4)		1,721,662	668,277,103	0.26 %	7,797,529	452.91 %
	Cash card		-	-	- %	-	- %
	Micro credit (Note 5)		25,627	4,364,249	0.59 %	115,839	452.02 %
	Others	Secured	1,030,119	207,608,452	0.50 %	3,013,007	292.49 %
		(Note 6)	Non secured	157,037	28,752,075	0.55 %	490,024
	Total		4,945,575	2,721,284,707	0.18 %	45,143,483	912.81 %
		Overdue receivables	Account receivable	Ratio (%)	Allowance for bad debt	Cover ratio	
Credit card business		2,075	889,817	0.23 %	10,639	512.72 %	
Non-recourse factoring (Note 7)		-	12,132,076	- %	60,346	- %	

December 31, 2018							
Type / Item		Amount of overdue loans (Note 1)	Total amount of loans	Ratio (%) (Note 2)	Allowance for doubtful debt	Coverage ratio(%) (Note 3)	
Enterprise	Secured		1,613,717	555,425,190	0.29 %	11,850,338	734.35 %
	Non secured		411,776	1,219,569,860	0.03 %	21,460,074	5,211.59 %
Consumer	House mortgage (Note 4)		2,020,486	579,538,061	0.35 %	3,305,763	163.61 %
	Cash card		-	-	- %	-	- %
	Micro credit (Note 5)		24,018	4,610,709	0.52 %	211,695	881.40 %
	Others	Secured	1,222,024	207,712,918	0.59 %	2,082,759	170.44 %
		(Note 6)	Non secured	215,050	29,558,040	0.73 %	476,855
	Total		5,507,071	2,596,414,778	0.21 %	39,387,484	715.22 %
		Overdue receivables	Account receivable	Ratio (%)	Allowance for doubtful debt	Cover ratio	
Credit card business		2,498	816,123	0.31 %	9,849	394.28 %	
Non-recourse factoring (Note 7)		-	13,232,575	- %	67,352	- %	

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 credit card receivables: Nonperforming credit card receivables÷Outstanding credit card receivables balance.

Note 3: Coverage ratio of loans: Allowance for possible losses for loans÷Nonperforming loans. Coverage ratio of credit card receivables: Allowance for possible losses for credit card receivables÷Nonperforming credit card 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 consumer banking loans refer to secured or unsecured loans that exclude housing mortgages, cash cards, credit cards and small-scale credit loans.

Note 7: As required by the Banking Bureau in its letter dated July 19, 2005 (Ref. No. 0945000494), non-recourse factoring are reported as nonperforming receivables within three months after the factors or insurance companies refuse to indemnify banks for any liabilities on these accounts.

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

2) Non-performing Loans and Overdue Receivables Exempted from Reporting

Unit: In thousand of TWD

	December 31, 2019		January 1, 2018	
	Excluded NPL	Excluded overdue receivables	Excluded NPL	Excluded overdue receivables
As a result of debt consultation and loans agreement	218	-	306	-
As a result of debt solvency and restart plan	15,346	18,676	21,289	19,984
Total	15,564	18,676	21,595	19,984

3) Concentration of Credit Risk

Unit: In million of TWD; %

December 31, 2019			
Rank	Group Name	Credit Extensions Balance	% of Net Asset Value
1	A company—Transport via Railways	54,250	14.34 %
2	B group—Air Transport	44,755	11.83 %
3	C group—Ocean Transportation	31,868	8.43 %
4	D group—Retail Sale in Nonspecialized Stores	19,270	5.09 %
5	E group—Manufacture of Made-up Textile Articles	19,089	5.05 %
6	F group—Smelting and Refining of Iron and steel	17,919	4.74 %
7	G group—Cable Television	16,511	4.37 %
8	H group—Real Estate Development Activities	13,948	3.69 %
9	I group—Air Transport	13,915	3.68 %
10	J group—Real Estate Development Activities	13,380	3.54 %

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

December 31, 2018			
Rank	Group Name	Credit Extensions Balance	% of Net Asset Value
1	A company—Transport via Railways	54,026	17.42 %
2	B group—Air Transport	42,855	13.82 %
3	C group—Retail Sale in Nonspecialized Stores	21,901	7.06 %
4	D group—Smelting and Refining of Iron and steel	21,532	6.94 %
5	E group—Aluminum material Rolls over Extends and Crowding	21,265	6.86 %
6	F group—Cable Television	16,381	5.28 %
7	G group—Real Estate Development Activities	16,090	5.19 %
8	H group—Air Transport	15,062	4.86 %
9	I group—Real Estate Development Activities	12,777	4.12 %
10	J group—Ocean Transportation	12,583	4.06 %

- 4) Average balance and current average interest rates of interest-bearing assets and liabilities

		Unit: In million of TWD; %			
		December 31, 2019		December 31, 2018	
		Average	Average interest rate (%)	Average	Average interest rate (%)
Interest earnings assets					
Call loans and placement with banks	\$	219,739,225	2.65	273,478,077	2.37
Placement with Central Bank		418,045,686	0.70	439,388,837	0.69
Financial assets		1,070,713,737	1.01	1,282,180,900	0.91
Negotiation, discounts and total loans		2,733,570,115	1.60	2,389,866,529	1.69
Interest bearing liabilities					
Deposit of Central Bank		14,603,311	-	15,077,628	-
Deposits and call loans from banks		278,077,443	1.76	221,694,751	1.46
Demand deposits		393,322,729	0.24	398,352,371	0.22
Demand savings		1,002,993,486	0.47	947,078,863	0.48
Time savings		1,578,862,716	1.48	1,630,869,080	1.52
Time deposits		682,266,007	1.92	721,675,689	1.83
Government deposits		299,605,555	0.18	280,344,637	0.18
Structured products		1,109,138	2.79	908,476	2.50
Financial bonds		25,000,000	1.22	25,000,000	1.22

Note:1. Each average balance is calculated by respectively summing up the daily average balances and then dividing the number of days in the year starting from January to the financial statement date.

2. The balances are derived from the Department of banking, credit cards, trusts and securities.

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

(d) Liquidity Risk

(i) Causes and definition of liquidity risk

The definition for liquidity risk is the Bank encounter difficulty in meeting the obligations with its financial liabilities and causes the losses, for example, a saving account cancels its saving ahead of time, the ways or conditions to call loans to banks drop, creditors' credit become worsen and cause an exceptional condition, financial instruments cannot be financed and etc. The situation mentioned above may reduce the cash flow for lending, trading, and investing activities. In some extreme situation, the poor liquidity position may decrease the level of balance sheet, sale assets, or the possibility of not fulfilling the contractual loan balance. Liquidity risk is containing in the inherent risk of bank operation, and could be affected by a separate industry or whole market's incident, which are included but not only as: credit event, consolidation or merger and acquisition, system shock, and natural disaster.

(ii) Management policies of liquidity risk

- 1) To optimize the structure of assets and liabilities, the Bank set up an Assets and Liabilities Management Committee of which the chairperson is the general manager and the vice chairpersons are the vice general managers to decide the direction of assets and liabilities management, to manage the liquidity portion and interest rate risk, and to review the structure of deposits and loans and so on.
- 2) To enforce the management of liquidity and interest rate risk and maintain suitable liquidity for higher effectiveness of capital and good operations, the Bank set up policies for liquidity and interest rate risk. The assets and Liabilities Management Committee conducts necessary monitoring procedures. The Risk Management Department prepares risk-monitoring reports periodically and reports to the Risk Management Committee and then the Board of Directors.
- 3) Management of liquidity risk
 - a) Maintain liquidity reserve ratio: According to "Liquidity Guidelines for Financial Institutions" published by the Central Bank, the Bank and subsidiary have to maintain the liquidity reserve ratio of deposit balances greater than 15%.
 - b) Short term gap analysis: Calculate 1~10 day and 11~30 day gaps which should be greater than zero.
 - c) Liquidity coverage ratio: calculate their liquidity coverage ratio and report it to the authorities on a monthly basis. In accordance with the "Standards Implementing the Liquidity Coverage Ratio of Banks" announced by FSC and Central Bank, the ratio shall be higher than 100%.
 - d) Net stable funding ratio: Calculate their net stable funding ratio and report it to the authorities on a monthly basis. In accordance with the "Standards Implementing the Net Stable Funding Ratio of Banks" announced by FSC and Central Bank, the ratio shall be higher than 100%.

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

- e) Foreign currency gap management: Make sure the ratio of accumulated capital liquidity gap to each currency assets of the major foreign currencies of the Bank and subsidiary measured for every month and every term under one year between $\pm 50\%$ and $\pm 40\%$.
 - f) Fund management: Utilize the Assets and Liabilities Management Information System to analyze the gaps of assets and liabilities and the change of the structure. Allocate appropriate fund and adjust the fund structure according to financial status. For TWD fund management, the bank maintains appropriate cash and cashable securities on hand, draw up notice about TWD fund management and request every unit to notify on significant cash transactions, analyze the gaps for maturity amount of purchased bills, bonds and call loans to control the fund trend and decrease the liquidity risk. For foreign currencies, manage the financial gap of actual amount received on due date and payment in a year by using the maturity method.
 - g) Establish “Bank of Taiwan operational crisis management plan” to prevent and response quickly to the crisis.
- (iii) Maturity date analysis of non derivative financial assets and liabilities

These tables represent the cash outflow analysis of non derivative financial liabilities of the Bank’s major currencies according to the unexpired term of the contracts. The disclosed amounts are presented on the basis of contract cash flows, so some disclosed items are not correspond to the accounts in the financial statements. These tables don’t include BankTaiwan Insurance Brokers.

Maturity analysis of assets and liabilities (United State Dollars)

Unit: In thousand USD

December 31, 2019	1~30days	31~90days	91~180days	181day1year	Over one year	Total
Cash and placement with banks	424,667	33,000	44,550	60,550	2,588	565,355
Call loans to banks and overdrafts	1,750,000	1,173,300	520,000	825,000	-	4,268,300
Investment securities	13,816	32,681	88,451	159,661	2,183,064	2,477,673
Loans (including overdue loans)	421,617	479,641	328,785	399,399	3,958,715	5,588,157
Interest receivables and income receivables	16,926	18,672	10,580	5,026	55,496	106,700
Other expired items	8,187,451	10,561,402	7,337,513	3,333,077	1,767,376	31,186,819
Total major matured capital inflow	10,814,477	12,298,696	8,329,879	4,782,713	7,967,239	44,193,004

December 31, 2019	1~30days	31~90days	91~180days	181day1year	Over one year	Total
Deposits from banks, bank overdrafts, and call loans from bank	2,562,967	986,800	100,000	15,000	-	3,664,767
Demand deposits	871,366	971,635	1,457,453	-	876,909	4,177,363
Time deposits	3,010,347	2,645,530	2,179,185	3,100,459	375	10,935,896
Borrowings	-	-	-	-	1,500,000	1,500,000
Interest payables	30,661	32,485	21,679	10,830	120,029	215,684
Loan Commitments	221,593	67,786	168,377	549,202	704,179	1,711,137
Equities	-	-	-	-	(59,815)	(59,815)
Other expired items	2,822,298	6,258,951	4,495,587	2,333,639	7,119,681	23,030,156
Total major matured capital outflow	9,519,232	10,963,187	8,422,281	6,009,130	10,261,358	45,175,188

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

Maturity analysis of assets and liabilities (New Taiwan Dollars)

Unit: In thousand TWD

December 31, 2019	1~30days	31~90days	91~180days	181day1year	Over one year	Total
Cash and placement with banks	51,529,676	207,522,262	74,186,089	71,269,782	40,859,907	445,367,716
Call loans to banks and overdrafts	6,625,000	-	-	-	10,000	6,635,000
Investment securities	684,379,289	52,426,185	77,987,626	198,061,066	222,845,695	1,235,699,861
Loans (including overdue loans)	195,050,349	248,789,474	252,710,482	394,875,046	1,402,441,506	2,493,866,857
Interest receivables and income receivables	3,872,391	2,658,215	2,033,934	1,357,912	42,826	9,965,278
Other expired items	71,206,001	152,939,076	98,546,043	96,563,366	284,683,815	703,938,301
Total major matured capital inflow	1,012,662,706	664,335,212	505,464,174	762,127,172	1,950,883,749	4,895,473,013

December 31, 2019	1~30days	31~90days	91~180days	181day1year	Over one year	Total
Deposits from banks, bank overdrafts, and call loans from bank	59,343,738	6,126,358	8,092,401	13,532,890	7,262,774	94,358,161
Demand deposits	56,056,764	41,078,634	38,557,562	52,349,306	1,294,940,898	1,482,983,164
Time deposits	385,266,473	252,470,787	285,386,675	737,654,628	163,632,039	1,824,410,602
Bills and bonds sold under repurchase agreements	1,784,484	17,289,302	697,820	2,563	-	19,774,169
Borrowings	25	3,587	4,048	4,777	25,004,036	25,016,473
Interest payables	5,027,425	698,414	1,254,603	795,019	395,420	8,170,881
Loan Commitments	93,619,947	187,056,686	280,676,633	561,353,266	709,386,373	1,832,092,905
Equities	-	-	-	-	376,479,551	376,479,551
Other expired items	178,401,682	291,454,294	166,532,442	79,521,988	140,840,739	856,751,145
Total major matured capital outflow	779,500,538	796,178,062	781,202,184	1,445,214,437	2,717,941,830	6,520,037,051

Maturity analysis of assets and liabilities (United State Dollars)

Unit: In thousand USD

December 31, 2018	1~30days	31~90days	91~180days	181day1year	Over one year	Total
Cash and placement with banks	733,223	92,000	39,550	46,550	943	912,266
Call loans to banks and overdrafts	905,000	948,000	275,000	355,000	-	2,483,000
Investment securities	50,400	68,435	89,085	119,508	1,660,622	1,988,050
Loans (including overdue loans)	651,046	495,734	325,227	253,169	4,215,327	5,940,503
Interest receivables and income receivables	20,128	20,428	8,339	4,158	55,588	108,641
Other expired items	9,077,528	7,312,653	7,487,994	3,816,275	3,786,310	31,480,760
Total major matured capital inflow	11,437,325	8,937,250	8,225,195	4,594,660	9,718,790	42,913,220

December 31, 2018	1~30days	31~90days	91~180days	181day1year	Over one year	Total
Deposits from banks, bank overdrafts, and call loans from bank	2,350,755	728,700	138,000	-	30,000	3,247,455
Demand deposits	872,953	881,191	1,321,787	-	816,700	3,892,631
Time deposits	2,738,632	3,990,237	2,095,007	3,494,759	-	12,318,635
Bills and bonds sold under repurchase agreements	600,000	-	-	-	-	600,000
Borrowings	-	-	-	-	1,500,000	1,500,000
Interest payables	33,935	33,705	18,250	11,817	62,377	160,084
Loan Commitments	372,680	75,852	339,246	408,081	756,112	1,951,971
Equities	-	-	-	-	(29,239)	(29,239)
Other expired items	5,842,470	5,501,033	3,799,972	543,788	4,530,252	20,217,515
Total major matured capital outflow	12,811,425	11,210,718	7,712,262	4,458,445	7,666,202	43,859,052

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BANK OF TAIWAN AND SUBSIDIARY

Notes to the Consolidated Financial Statements

Maturity analysis of assets and liabilities (New Taiwan Dollars)

Unit: In thousand USD

December 31, 2018	1~30days	31~90days	91~180days	181day1year	Over one year	Total
Cash and placement with banks	62,641,140	207,866,979	75,915,116	68,287,753	46,728,229	461,439,217
Call loans to banks and overdrafts	28,565,000	-	-	-	10,000	28,575,000
Investment securities	698,753,368	52,746,345	94,758,612	264,243,329	232,833,911	1,343,335,565
Loans (including overdue loans)	177,994,043	235,838,634	290,925,948	385,556,753	1,264,332,745	2,354,648,123
Interest receivables and income receivables	3,045,670	2,589,786	1,835,638	1,315,878	106,356	8,893,328
Other expired items	199,992,760	131,705,103	99,654,174	13,685,935	219,639,092	664,677,064
Total major matured capital inflow	1,170,991,981	630,746,847	563,089,488	733,089,648	1,763,650,333	4,861,568,297

December 31, 2018	1~30days	31~90days	91~180days	181day1year	Over one year	Total
Deposits from banks, bank overdrafts, and call loans from bank	68,374,187	6,384,285	7,105,680	12,329,177	6,717,822	100,911,151
Demand deposits	62,280,862	38,851,395	33,068,172	5,041,784	1,343,635,449	1,482,877,662
Time deposits	158,954,887	257,910,512	296,021,871	732,412,354	379,501,013	1,824,800,637
Bills and bonds sold under repurchase agreements	2,442,473	3,553,108	634,463	7,003	-	6,637,047
Borrowings	25	4,847	5,470	6,529	25,009,954	25,026,825
Interest payables	5,306,528	658,627	852,310	1,326,182	312,572	8,456,219
Loan Commitments	77,334,309	154,832,462	232,166,771	464,497,385	709,607,821	1,638,438,748
Equities	-	-	-	-	308,486,503	308,486,503
Other expired items	271,073,338	211,900,608	198,808,152	119,913,803	114,337,772	916,033,673
Total major matured capital outflow	645,766,609	674,095,844	768,662,889	1,335,534,217	2,887,608,906	6,311,668,465

(iv) Maturity analysis of derivatives

Unit: In thousand of TWD

December 31, 2019 Derivative financial instruments	1.Overdue less than 1 month	2.Overdue 1 to 3 months	3.Overdue 3 to 6 months	4.Overdue 6 months to 1 year	5.Overdue 1 to 5 years	6.Overdue more than 5 years	Total
Financial assets and liabilities measured at fair value through profit or loss, Derivative instruments (Foreign exchange)							
Foreign exchange outflow	9,840,477	9,448,269	2,071,580	766,000	201,192	-	22,327,518
Foreign exchange inflow	10,023,135	9,498,981	2,139,416	790,015	201,192	-	22,652,739
Financial assets and liabilities measured at fair value through profit or loss, Derivative instruments (Interest)							
Foreign exchange outflow	210,855,823	449,604,048	271,949,337	124,996,618	3,611,166	-	1,061,016,992
Foreign exchange inflow	201,111,370	454,297,984	278,779,509	134,182,065	3,247,741	-	1,071,618,669
Hedging derivative financial instruments (Interest)							
Foreign exchange outflow	5,540	124,629	48,370	110,265	623,987	-	912,791
Foreign exchange inflow	8,313	99,369	65,775	89,530	464,554	-	727,541
Hedging derivative financial instruments (Foreign exchange)							
Foreign exchange outflow	471,695	-	-	-	-	-	471,695
Foreign exchange inflow	461,259	-	-	-	-	-	461,259

Unit: In thousand of TWD

December 31, 2018 Derivative financial instruments	1.Overdue less than 1 month	2.Overdue 1 to 3 months	3.Overdue 3 to 6 months	4.Overdue 6 months to 1 year	5.Overdue 1 to 5 years	6.Overdue more than 5 years	Total
Financial assets and liabilities measured at fair value through profit or loss, Derivative instruments (Foreign exchange)							
Foreign exchange outflow	10,223,061	9,560,999	2,409,367	1,489,024	163,842	1,607	23,847,900
Foreign exchange inflow	10,197,799	9,643,345	1,810,879	1,489,024	163,842	1,607	23,306,496
Financial assets and liabilities measured at fair value through profit or loss, Derivative instruments (Interest)							
Foreign exchange outflow	400,981,674	345,120,973	280,552,565	116,063,674	1,355,589	13,543	1,144,088,018
Foreign exchange inflow	390,596,031	331,184,919	273,717,175	98,828,449	1,390,496	4,392	1,095,721,462
Hedging derivative financial instruments (Interest)							
Foreign exchange outflow	13,010	44,751	49,645	-	-	-	107,406
Foreign exchange inflow	14,671	33,483	49,459	-	-	-	97,613
Financial assets and liabilities measured at fair value through profit or loss, Derivative instruments (Commodity)							
Foreign exchange outflow	-	-	-	-	-	-	-
Foreign exchange inflow	-	(72)	-	-	-	-	(72)

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BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

(v) Maturity analysis of off-balance sheet items

If the off-balance credit items of the Bank and subsidiary are classified as “Under One Year”, “One to Five Years” and “Above Five Years”, the maturity analysis of both off-balance items and lease agreements and capital expenditures are disclosed together.

Unit: In thousand of TWD

December 31, 2019	0-30 days	31-90 days	91-180 days	181 days-1 year	Over 1 year	Total
Irrevocable loan commitment	31,000,000	-	1,080,000	259,830,884	131,141,360	423,052,244
Irrevocable credit card commitment	5,153	1,155	4,495	25,744	191,492	228,039
Unused letter of credit	5,551,609	2,148,355	4,441,537	23,195,895	4,241,795	39,579,191
Guarantee receivables	51,895,541	3,199,187	8,629,817	7,130,792	15,032,129	85,887,466
Total	88,452,303	5,348,697	14,155,849	290,183,315	150,606,776	548,746,940

Unit: In thousand of TWD

December 31, 2018	0-30 days	31-90 days	91-180 days	181 days-1 year	Over 1 year	Total
Irrevocable loan commitment	-	211,375,700	1,280,000	202,000,000	188,242	414,843,942
Irrevocable credit card commitment	-	-	-	-	239,524	239,524
Unused letter of credit	8,665,257	1,940,266	4,163,251	7,861,398	4,046,012	26,676,184
Guarantee receivables	56,869,848	2,312,070	4,151,114	11,885,401	11,882,902	87,101,335
Total	65,535,105	215,628,036	9,594,365	221,746,799	16,356,680	528,860,985

(vi) Maturity analysis of lease agreements and capital expenditures

Maturity analysis of real estate lease agreements and capital expenditures were as follows:

December 31, 2019	Less than 1 year	1-5 years	Over 5 years	Total
Lease agreements				
Lease liabilities	(455,304)	(980,241)	(43,587)	(1,479,132)
Lease income	151,451	181,595	-	333,046
Total	(303,853)	(798,646)	(43,587)	(1,146,086)

December 31, 2018	Less than 1 year	1-5 years	Over 5 years	Total
Lease agreements				
Operating lease payments (Lessee)	(330,878)	(557,578)	(1,805)	(890,261)
Operating lease income (Lessor)	144,332	256,379	-	400,711
Total	(186,546)	(301,199)	(1,805)	(489,550)

(vii) Disclosures required by the “Regulations Governing the Preparation of Financial Reports by Public Banks”

1) Maturity analysis of assets and liabilities (New Taiwan Dollars) (excluding BankTaiwan Insurance Brokers)

December 31, 2019

Unit: In thousand of TWD

	Total	Amount for each remaining period to maturity					
		Less than 10 days	11-30 days	31-90 days	91-180 days	181-365 days	Over 1 year
Major matured capital inflow	\$ 4,895,473,013	556,635,559	456,027,147	664,335,212	505,464,174	762,127,172	1,950,883,749
Major matured capital outflow	6,520,037,051	477,798,626	301,701,912	796,178,062	781,202,184	1,445,214,437	2,717,941,830
Capital gap	(1,624,564,038)	78,836,933	154,325,235	(131,842,850)	(275,738,010)	(683,087,265)	(767,058,081)

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BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

December 31, 2018

Unit: In thousand of TWD

	Total	Amount for each remaining period to maturity					
		Less than 10 days	11~30 days	31~90 days	91~180 days	181~365 days	Over 1 year
Major matured capital inflow	\$ 4,861,568,297	613,718,976	557,273,005	630,746,847	563,089,488	733,089,648	1,763,650,333
Major matured capital outflow	6,311,668,465	261,875,331	383,891,278	674,095,844	768,662,889	1,335,534,217	2,887,608,906
Capital gap	(1,450,100,168)	351,843,645	173,381,727	(43,348,997)	(205,573,401)	(602,444,569)	(1,123,958,573)

- 2) Maturity analysis of assets and liabilities (United State Dollars) (excluding BankTaiwan Insurance Brokers)

December 31, 2019

Unit: In thousand of USD

	Total	Amount for each remaining period to maturity				
		Less than 30 days	31~90 days	91~180 days	181~365 days	Over 1 year
Major matured capital inflow	\$ 44,193,004	10,814,477	12,298,696	8,329,879	4,782,713	7,967,239
Major matured capital outflow	45,175,188	9,519,232	10,963,187	8,422,281	6,009,130	10,261,358
Capital gap	(982,184)	1,295,245	1,335,509	(92,402)	(1,226,417)	(2,294,119)

December 31, 2018

Unit: In thousand of USD

	Total	Amount for each remaining period to maturity				
		Less than 30 days	31~90 days	91~180 days	181~365 days	Over 1 year
Major matured capital inflow	\$ 42,913,220	11,437,325	8,937,250	8,225,195	4,594,660	9,718,790
Major matured capital outflow	43,859,052	12,811,425	11,210,718	7,712,262	4,458,445	7,666,202
Capital gap	(945,832)	(1,374,100)	(2,273,468)	512,933	136,215	2,052,588

(e) Market risk

(i) Causes and definition of market risk

Market risk means the changes in market price that lead to the fair value and future cash flow volatility risk of the held financial instruments, even if it is not included in the financial statements. The risk factors usually refer to interest rate, exchange rate, equity investment and price. When the factors change, the Bank's net operating income and the value of investment portfolio will have volatility risk.

The main market risks of the Bank is interest rate risk, exchange rate risk and equity investment risk. The main position of interest rate risk includes transactions with conditions, bonds, securities investments, interest rate swaps and so on. The main position of exchange risks includes forward exchange, foreign exchange swaps, FX options and so on. The main position of equity investment risk includes stocks, funds, stock market index futures and so on.

(ii) Management policies of market risk

The Bank sets up market risk management regulations and policies according to the risk management strategies approved by the Board of Directors, the Basel Accord and government regulations. The Bank decide the quota of investments and stop-loss point for financial instruments by types and characteristics in order to identify, assess, measure and monitor various risks of investment.

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BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

(iii) Procedures of market risk management

1) Identification

The identification procedures are as follows. First, use the business analysis or product analysis to identify the market risk factors of financial instruments. Second, measure the market risk of all financial instruments according to the risk factors changes of the important exposure. Finally, identify the market risk factors of every constitution of structured products and use the factors as the measurement basis. The above risk factors include interest rate, exchange rate and price of equity security.

2) Measurement

The Bank's market risk exposure can be classified into trading book and banking book. The financial instruments classified in trading book are measured at market value every day; those classified in banking book are measured at market value at least once a month. Following IFRS 13, the Bank ensures that Level-1 inputs (i.e. quoted prices in an active market, such as prices from TWSE, electronic screen or independent brokerage firms) and Level-2 inputs (those which can be directly or indirectly observed in the market) are available. When the aforementioned inputs are not available, the related instruments shall be classified to Level 3. The sources from which the Bank obtains inputs largely remain the same as prior periods and the Bank will check if a financial instrument can be reasonably measured before entering into a transaction.

3) Monitor and Report

The Bank conducts various risks monitoring procedures for ordinary trading activities, prepares risk monitoring reports and reports it to the Risk Management Committee and the Board of Directors. The monitoring procedures includes the controls over market risk position, profit and loss, exposure, quota of investments, degree of concentration, sensitivity analysis and stress testing. The Bank also has communication mechanism. Each operating unit should provide transaction information to supervisors periodically to ensure the accuracy and effectiveness. While trading amounts are over the preset limit or in an abnormal condition, the related operating units should alert it in time.

(iv) Management policies of trading book risk

The trading book refers to the financial instruments held for trading or hedging. The positions held for trading mean the positions that are held to earn profit from the buy-sell spread. The positions not belonging to trading book are regarded as banking book.

1) Policy and Procedure

The Bank formulates "Bank of Taiwan Trading Book Management Provision" as important guideline for all trading units.

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
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2) Valuation Policy

The Bank's market risk exposure can be classified into trading book and banking book. Following IFRS 13, the Bank ensures that Level-1 inputs (i.e. quoted prices in an active market, such as prices from TWSE, electronic screen or independent brokerage firms) and Level-2 inputs (which can be directly or indirectly observed in the market) are available. When the aforementioned inputs are not available, the related instruments shall be classified to Level 3. The sources from which the Bank obtains inputs largely remain the same as prior periods and the Bank will check if a financial instrument can be reasonably measured before entering into a transaction.

3) Measurement Method

- a) Monitoring the trading book of risk exposure including stocks, funds, bonds, spot exchanges, forward exchanges, rate swap, option, future contracts, etc. Checking the ratio of risk exposure with total investment everyday and reporting monthly.
- b) The Bank conducts stress test every quarter under unfavorable economic scenarios which are set up risk factors: equity securities, interest rate, foreign exchange and commodities, setting the scene to calculate possible impacts by inputting different on profit or loss of each risk factor.
- c) Check the market price every month.
- d) Prepare the risk monitor report to chief director and put it on the Bank's website as reference.

(v) Interest rate risk management for trading book

1) Definition of interest rate risk

The interest rate risk means the changes of interest rate that lead to the fair value changes or loss. The main products include securities related to interest rate and derivatives.

2) Procedures of interest rate risk management

The Bank and subsidiary set quota and stop-loss points for short-term securities, bonds and derivatives related to interest rate. Each trading units measure the market price for the position of trading book every day and submit monthly reports to risk management department and quarterly reports to the risk management committee and the Board of Directors.

3) Measurement method

The Bank and subsidiary also use the PV01 to monitor the influence of interest risk.

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(vi) Interest rate risk management for banking book

The main management purpose is to strengthen the interest rate risk management, increase the effectiveness of capital usage and improve the business.

1) Strategy

The interest rate risk management increases the Bank flexibility in order to measure, manage and hedge the interest rate risk. The Bank formulate “Liquidity and Interest Rate Management Strategies” to reinforce the management and maintain proper liquidity and adjust the interest rate sensitivity gap for the steady long-term profitability and business growth.

2) Management procedure

In order to adapt the economic financial environment changes and to fulfill the capital requirement, the Bank conducts different pricing management strategies, such as adopting variable or fixed interest rate, and use financial futures, foreign exchange swaps, interest rate swaps to manage the interest rate sensitivity gap. To adjust the interest rate sensitivity gap properly, the risk management department monitors the ratio of interest rate sensitivity assets to interest rate sensitivity liabilities, the ratio of TWD capital gap to equity and the interest rate sensitivity gap of foreign exchange, and report monthly to the risk management committee and board of directors.

3) Measurement method

The Bank uses the “Assets and Liabilities Management Information System” to identify interest rate sensitivity assets and liabilities and analyses the maturity gap and changes of maturity structure as the basis of interest rate risk management and pricing strategies. They also make proper financial transfer and adjust the capital structure to lower the liquidity risk and increase the profit.

(vii) Exchange rate risk management

1) Definition of exchange rate risk

The exchange rate risk refers to the profit or loss resulted from two different currencies transferred at different times. The Bank's exchange rate risk is derived from exchange, forward exchange, FX swaps, cross currency swaps, and foreign exchange options. Because the Bank squares customer's position every day, the exchange rate does not have any significant risk.

2) Management procedures and measurement method of exchange rate risk

To control the exchange rate risk, the Bank sets different quotas and stop-loss point for employees with different levels and have annual total loss quota to control the loss in a tolerable range.

The Bank conducts stress testing. The simulated situations are $\pm 3\%$ changes of exchange rate for every currency. The relevant statements are disclosed at sensitivity analysis.

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
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(viii) Equity security risk management

1) Definition of equity security risk

The market risk of holding equity securities includes the respective risk arising from the market price changes of respective equity security and general market risk resulting from the whole market price changes.

2) The intention of equity security price risk management

The intention is to avoid loss and worse financial status due to violent fluctuations of equity security price and increase the effectiveness of capital usage and improve the business.

3) Procedure of equity security price risk management

The Bank sets different investment quotas by industries, enterprises and groups. They use the β value to measure the influence of systematic risk monthly and monitor the risk value of equity securities and unrealized profit/loss ratio every day. The stop-loss point mechanism is approved by the security investment committee and executed by the risk management department.

4) Measurement method

The control of the equity security price risk is based on the unrealized gain (loss) ratio, β value and the aforementioned investment limitations.

The Bank conducts stress testing every season. The simulated situations are $\pm 15\%$ changes of equity security price. The relevant statements are disclosed at sensitivity analysis.

(ix) Market risk valuation technique

1) Interest rate risk sensitivity

The Bank assume that other factors did not change and the yield curve of the whole world moves upward by 100 bps at December 31, 2019 and 2018. Under this assumption, the income after tax will decrease \$56 million and \$53 million, respectively, and the other comprehensive income will decrease \$6,164 million and \$6,369 million, respectively. If the yield curve moves downward by 100 bps, the income after tax will increase \$55 million and \$57 million, respectively, and the other comprehensive income will increase \$6,583 million and \$6,659 million, respectively.

2) Exchange rate risk sensitivity

The Bank assumes that other factors did not change and the foreign currency to New Taiwan Dollars exchange rate appreciates by 3% at December 31, 2019 and 2018. Under this assumption, the income after tax will increase \$796 million and \$1,410 million, respectively.

If the exchange rate depreciates by 3%, the income after tax will decrease \$796 million and \$1,410 million, respectively.

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BANK OF TAIWAN AND SUBSIDIARY
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3) Equity security price risk sensitivity

The Bank assumes that other factors did not change and the market prices of the equity securities increase by 15% at December 31, 2019 and 2018. Under this assumption, the income after tax will increase \$6,524 million and \$6,482 million, respectively, and the other comprehensive income will increase \$14,293 million and \$11,507 million, respectively.

If the market prices decrease by 15 %, the income after tax will decrease \$6,524 million and \$6,482 million, respectively, and the other comprehensive income will decrease \$14,293 million and \$11,507 million, respectively.

4) Sensitivity analysis is as follows:

Unit: In million of TWD

December 31, 2019			
Main risk	Range of changes	Amount Influence	
		Equity	Gain or loss
Interest rate risk	Interest rate curve rise 100BPS	(6,164)	56
Interest rate risk	Interest rate curve fall 100BPS	6,583	(55)
Exchange rate risk	Other foreign currency/ TWD rise 3%		796
Exchange rate risk	Other foreign currency / TWD fall 3%		(796)
Price of equity stock risk	Price of equity stock rise 15 %	14,293	6,524
Price of equity stock risk	Price of equity stock fall 15 %	(14,293)	(6,524)

Unit: In million of TWD

December 31, 2018			
Main risk	Range of changes	Amount Influence	
		Equity	Gain or loss
Interest rate risk	Interest rate curve rise 100BPS	(6,369)	53
Interest rate risk	Interest rate curve fall 100BPS	6,659	(57)
Exchange rate risk	Other foreign currency/ TWD rise 3%		1,410
Exchange rate risk	Other foreign currency / TWD fall 3%		(1,410)
Price of equity stock risk	Price of equity stock rise 15 %	11,507	6,482
Price of equity stock risk	Price of equity stock fall 15 %	(11,507)	(6,482)

(Continued)

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(x) Information of currency risk concentrate

Net position of major foreign currencies

Unit: In thousand of stated currencies

December 31, 2019		
Amount in original currency		Amount in New Taiwan Dollars
USD	637,450	19,117,126
CNY	1,201,376	5,159,910
JPY	3,019,312	833,632
GBP	18,372	723,489
KRW	21,477,933	556,278

Unit: In thousand of stated currencies

December 31, 2018		
Amount in original currency		Amount in New Taiwan Dollars
USD	939,761	28,883,554
CNY	1,209,269	5,404,223
JPY	2,985,129	828,075
GBP	18,272	710,781
AUD	28,452	616,128

Note 1: The major foreign currencies were the top 5 currencies by position expressed in New Taiwan Dollars after exchange rate conversion.

Note 2: The net position represented the absolute value of each currency.

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
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All held foreign financial assets and liabilities are classified by currencies and represented using the carrying amounts. The following tables display the information at December 31, 2019 and 2018, respectively.

Unit: In thousand of TWD

December 31, 2019			
Assets	USD to TWD	Other currencies to TWD	Total TWD
Cash and cash equivalents	\$ 40,602,495	49,070,591	89,673,086
Placement with Central Bank and call loans to banks	95,523,436	67,808,331	163,331,767
Financial assets measured at fair value through profit or loss	81,265,493	23,293,167	104,558,660
Financial assets measured at fair value through other comprehensive income	25,979,446	68,738,961	94,718,407
Debt investments measured at amortized cost	23,927,802	17,031,776	40,959,578
Hedging derivative financial assets	-	1,071	1,071
Receivables, net	11,226,412	1,734,035	12,960,447
Current income tax assets	77,765	63,288	141,053
Loans and Discounts, net	124,070,454	100,190,607	224,261,061
Other financial assets, net	92,562	20,195	112,757
Property and equipment, net	85,094	58,388	143,482
Intangible assets, net	12,485	3,804	16,289
Deferred income tax assets, net	126,667	66,699	193,366
Other assets, net	38,944,892	(37,262,879)	1,682,013
Total assets	<u><u>\$ 441,935,003</u></u>	<u><u>290,818,034</u></u>	<u><u>732,753,037</u></u>

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BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

December 31, 2019

Liabilities	USD to TWD	Other currencies to TWD	Total TWD
Deposits of Central Bank and other banks	\$ 64,126,309	70,769,063	134,895,372
Financial liabilities measured at fair value through profit or loss	45,722,494	152,587	45,875,081
Hedging derivatives financial liabilities	-	25,537	25,537
Bills and bonds sold under repurchase agreement	-	1,790,702	1,790,702
Payables	7,431,896	1,789,738	9,221,634
Current income tax liabilities	10,001	123,997	133,998
Deposits and remittances	423,630,859	241,217,178	664,848,037
Other financial liabilities	380,155	565,910	946,065
Provisions	4,854	17,982	22,836
Deferred income tax liabilities	-	19,312	19,312
Other liabilities	133,362,499	41,542,081	174,904,580
Total liabilities	\$ 674,669,067	358,014,087	1,032,683,154

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Unit: In thousand of TWD

December 31, 2018			
Assets	USD to TWD	Other currencies to TWD	Total TWD
Cash and cash equivalents	\$ 43,760,141	62,182,412	105,942,553
Placement with Central Bank and call loans to banks	49,080,583	56,035,227	105,115,810
Financial assets measured at fair value through profit or loss	66,053,621	18,865,443	84,919,064
Financial assets measured at fair value through other comprehensive income	15,097,620	74,984,013	90,081,633
Debt investments measured at amortized cost	20,099,228	21,975,671	42,074,899
Hedging derivative financial assets	-	41,693	41,693
Receivables, net	10,629,303	4,778,805	15,408,108
Current income tax assets	170,067	175,802	345,869
Loans and Discounts, net	141,013,561	97,830,017	238,843,578
Other financial assets, net	108,944	19,758	128,702
Property and equipment, net	63,559	52,505	116,064
Intangible assets, net	14,435	5,124	19,559
Deferred income tax assets, net	127,740	62,149	189,889
Other assets, net	41,697,422	(39,551,956)	2,145,466
Total assets	<u>\$ 387,916,224</u>	<u>297,456,663</u>	<u>685,372,887</u>

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Notes to the Consolidated Financial Statements

December 31, 2018

Liabilities	USD to TWD	Other currencies to TWD	Total TWD
Deposits of Central Bank and other banks	\$ 68,635,480	52,209,508	120,844,988
Financial liabilities measured at fair value through profit or loss	46,316,712	63,924	46,380,636
Hedging derivatives financial liabilities	-	12,973	12,973
Bills and bonds sold under repurchase agreement	18,441,000	-	18,441,000
Payables	7,612,984	2,264,724	9,877,708
Current income tax liabilities	42,749	6,888	49,637
Deposits and remittances	469,398,377	249,114,004	718,512,381
Other financial liabilities	385,459	266,559	652,018
Provisions	11,301	5,305	16,606
Deferred income tax liabilities	-	21,541	21,541
Other liabilities	112,470,812	33,217,502	145,688,314
Total liabilities	\$ 723,314,874	337,182,928	1,060,497,802

(xi) Disclosures required by the Regulations Governing the Preparation of Financial Reports by Public banks

1) Interest rate sensitivity assets and liabilities analysis (New Taiwan Dollars)

Unit: In thousand of TWD

Unit: in thousand of TWD

December 31, 2019					
Item	1~90 days	91~180 days	181 days to one year	Over one year	Total
Interest rate sensitive assets	\$ 1,682,531,290	1,712,946,163	156,966,532	309,160,967	3,861,604,952
Interest rate sensitive liabilities	457,257,294	2,933,664,471	246,325,207	87,470,984	3,724,717,956
Interest rate sensitive gap	1,225,273,996	(1,220,718,308)	(89,358,675)	221,689,983	136,886,996
Net worth					375,466,219
Ratio of interest rate sensitive assets to liabilities (%)					103.68
Ratio of interest rate sensitive gap to net worth (%)					36.46

Unit: In thousand of TWD

Unit: in thousand of TWD

December 31, 2018						
Item	1~90 days	91~180 days	181 days to one year	Over one year	Total	
Interest rate sensitive assets	\$ 1,673,382,215	1,638,302,711	266,935,209	307,311,037	3,885,931,172	
Interest rate sensitive liabilities	422,546,294	2,955,016,635	331,223,291	77,972,260	3,786,758,480	
+Interest rate sensitive gap	1,250,835,921	(1,316,713,924)	(64,288,082)	229,338,777	99,172,692	
Net worth						308,486,502
Ratio of interest rate sensitive assets to liabilities (%)						102.62
Ratio of interest rate sensitive gap to net worth (%)						32.15

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Note 1: The above amount included only new Taiwan dollar amounts held by the Bank, and excluded contingent assets and contingent liabilities.

Note 2: Interest rate sensitivity assets and liabilities are interest-earning assets and interest-bearing liabilities with revenues and costs affected by interest rate changes.

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

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

2) Assets and liabilities interest rate sensitivity analysis (United State Dollars)

Unit: In thousand of USD

December 31, 2019					
Item	1~90 days	91~180 days	181 days to one year	Over one year	Total
Interest rate sensitive assets	\$ 29,245,574	6,754,671	4,912,995	994,744	41,907,984
Interest rate sensitive liabilities	19,341,698	10,012,659	5,449,048	1,541,441	36,344,846
Interest rate sensitive gap	9,903,876	(3,257,988)	(536,053)	(546,697)	5,563,138
Net worth					(59,401)
Ratio of interest rate sensitive assets to liabilities (%)					115.31
Ratio of interest rate sensitive gap to net worth (%)					(9,365.39)

Unit: In thousand of USD

December 31, 2018					
Item	1~90 days	91~180 days	181 days to one year	Over one year	Total
Interest rate sensitive assets	\$ 25,735,649	7,127,788	5,381,028	756,158	39,000,623
Interest rate sensitive liabilities	23,004,234	8,930,311	4,038,545	1,539,087	37,512,177
Interest rate sensitive gap	2,731,415	(1,802,523)	1,342,483	(782,929)	1,488,446
Net worth					(30,512)
Ratio of interest rate sensitive assets to liabilities (%)					103.97
Ratio of interest rate sensitive gap to net worth (%)					(4,878.23)

Note 1: The above amount included only U.S. dollar amounts held by the Bank, and excluded contingent assets and contingent liabilities.

Note 2: Interest rate sensitivity assets and liabilities are interest-earning assets and interest-bearing liabilities with revenues and costs affected by interest rate changes.

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

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

(f) Interest rate risk management for banking book

The main management purpose is to strengthen the interest rate risk management, increase the effectiveness of capital usage and improve the business.

(i) Strategy

The interest rate risk management increases the Bank flexibility in order to measure, manage and hedge the interest rate risk. The Bank formulate “Liquidity and Interest Rate Management Strategies” to reinforce the management and maintain proper liquidity and adjust the interest rate sensitivity gap for the steady long-term profitability and business growth.

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(ii) Management procedure

In order to adapt the economic financial environment changes and to fulfill the capital requirement, the Bank conducts different pricing management strategies, such as adopting variable or fixed interest rate, and use financial futures, foreign exchange swaps, interest rate swaps to manage the interest rate sensitivity gap. To adjust the interest rate sensitivity gap properly, the risk management department monitors the ratio of interest rate sensitivity assets to interest rate sensitivity liabilities, the ratio of TWD capital gap to equity and the interest rate sensitivity gap of foreign exchange, and report monthly to the risk management committee and board of directors.

(iii) Measurement method

The Bank uses the “Assets and Liabilities Management Information System” to identify interest rate sensitivity assets and liabilities and analyses the maturity gap and changes of maturity structure as the basis of interest rate risk management and pricing strategies. They also make proper financial transfer and adjust the capital structure to lower the liquidity risk and increase the profit.

(g) Other risks

(i) Operational risk and legal risk

The Bank has identified, measured and monitored operational risk and legal risk and also disclosed qualitative and quantitative information in accordance with the “Information of the Capital Adequacy and the Risk Managements” and the FSC’s requirements.

According the “The Explanations and Formats of Calculation of Bank’s Self- Owned Capital and Risk-Weighted Assets,” operation risks is the risk of a change in value caused by the fact that actual losses, incurred for inadequate or failed internal processes, people and systems, or from external events (including legal risk), differ from the expected losses. As legal risk is part of the operational risk, where it involves legal risk to be reported together with the operation risk to the appropriate management level.

(ii) Compliance risks

To conduct the planning, management and execution of the Bank's legal compliance, the Department of Compliance has set up the Regulations and Guidelines of Legal Compliance, which clearly states the responsibility of the competent unit (Department of Compliance), the task force (each unit of the head office, Secretary Department of the Board of directors, Department of Internal Auditing of the Board of Directors), training unit (Training Institute), and the self-assessment unit (each operational unit, excluding Department of Internal Auditing Board of Directors). The Department of Compliance also holds the responsibility of planning, managing and executing the overall legal compliance of the Bank. For instance, the task force should look into potential risks of legal compliance and obtain the opinion and approval of the Department of Compliance before new services and products are introduced to the market or applications are submitted to the authorities for the approval of sales.

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BANK OF TAIWAN AND SUBSIDIARY

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In response to continuous changes in external regulations, the Department of Compliance prepared the Legislation and Amendment of External Financial Regulations Checklist to let each operation unit recheck their internal guidelines and make necessary adjustments in time. The Department of Compliance passes the information to its employees about the changes in financial regulations related to the Bank's operations to lower the risk of legal compliance. If any operational loss events involving legal compliance occur and cause loss, they will be reported as part of operation risk to the appropriate management level.

The Bank's Declaration of Operation Risk Appetite stresses that the Bank should attach importance not only to the direct financial loss cause by operational loss events, but also the indirect loss which might damage its quality of service and reputation. In view of an internal fraud that may cause enormous loss and seriously jeopardize reputation, the Bank actively establishes the enterprise culture with risk awareness. In addition to enhancing its employees' concept of risk (e.g. collecting and compiling the information as a report about the concept of risk), and to firmly executing internal controls, the Bank also prevents internal fraud by emphasizing the importance of compliance with regulations and laws. Any events that may damage BOT's reputation will be reported as part of operation risk to the appropriate management level.

In the future, the Bank shall meet the requirements proposed by the authorities. Moreover, the Bank will keep collecting domestic and international information and refer them to other banks' practical operations to enhance the quantitative measurement and qualitative management on operation risk, legal risk, compliance risk and reputation risk.

(iii) Money laundering and terrorist financing risks

The Bank has established and amended the related policies and procedures in accordance with the "Money Laundering Control Act" and related regulations announced by the FSC, as well as the "Template of Directions Governing Anti-Money Laundering and Countering the Financing of Terrorism of Banks" and the 53 suspicious transaction patterns amended or issued by the bankers association of the R.O.C. The Bank took the following actions to combat money laundering and terrorism financing (AML/CFT):

1) Setting up responsible unit and appoint AML/CFT Responsible Officer

The board of directors of the Bank appointed the Chief Compliance Officer to serve as AML/CFT Responsible Officer, and set up "AML Center" under The Department of Compliance in January 16, 2017. A Supervisor and a Vice Supervisor are set up in the center, and the Deputy Chief Compliance Officer is appointed to serve as the Supervisor. So far, there are 17 members in the center.

2) Setting up AML/CFT Committee

The Bank sets up "Legal Compliance, Anti-Money Laundering and Combating Terrorism Financing Committee (AML/CFT Committee)" according to the "Regulations for Legal Compliance, Anti-Money Laundering and Combating Terrorism Financing Committee, Bank of Taiwan". The President is the Chairperson, and the Chief Compliance Officer is the Vice President of the committee. The managers of the 18 other departments also serve as the committee members. The AML/CFT Committee is responsible for examining and supervising AML/CFT related affairs.

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3) Optimizing AML/CFT managerial mechanisms

- a) In order to strengthen the Bank's AML/CFT managerial mechanisms, the Bank has already engaged independent third parties to exam the effectiveness of its AML/CFT managerial mechanism since 2017. The Bank would then engage another external consultants to assist the Bank for improvement if necessary. The external consultants should also participate and provide suggestions in the establishment of the Bank's AML/CFT information systems.
- b) The consulting engagement is divided into three stages, including "Anti-Money Laundering and Combating Terrorism Financing System Difference analysis", "Anti-Money Laundering and Combating Terrorism Financing Managerial System Improvement and Optimization", and "Managerial System Operation". By analyzing the differences between the Bank's current AML/CFT operation and the regulatory requirements all over the world, the consulting engagement focuses on mitigating the differences, optimizing the mechanisms, and re-examining the effectiveness of the optimized managerial mechanisms to ensure the perfectness of the systems.

4) Setting up and optimizing AML/CFT information systems

According to the Regulations Governing Anti-Money Laundering Art. 9.1., financial institutions should gradually integrate customer information and transaction data into information systems, for the purpose of enhancing its capability of account and transaction monitoring. The Bank will strengthen its policies and procedures regarding ongoing monitoring over accounts and transactions by applying risk-based approach and the assistance of information systems. In order to verify the effectiveness of the systems, consultants were hired to conduct independent tests, provide recommendations for setting transaction monitoring thresholds, and continuously optimize the system.

5) Establishing AML/CFT area in its internal information network

In order for its employees to have an immediate access to AML/CFT related information, the Bank sets up an AML/CFT website within its internal network. This measure simplifies the procedures of collecting related information, and is beneficial to the Bank by providing compliance guidance to its employees in their daily operations.

6) Training responsible officers and supervisors

- a) In order to respond to the announcement of the amendments to AML/CFT related regulations and to enhance the employees' understanding of related regulations, the Bank engaged external expert to hold orientation training for the Bank's responsible officers and supervisors. The Bank also held seminars and invited professional lecturer to discuss the amendments to AML/CFT related regulations and patterns for the Board of Directors, General President, and responsible officers or supervisors.

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- b) To propagate “Money Laundering Control Act” and related regulations, the Bank recorded AML/CFT online courses, and required all employees to finish the online courses. The Bank also drew up “Understanding AML Q&A”, and held online exam about the Q&A. The Bank required all its employees to read the Q&A thoroughly and finish the online exam so as to improve their knowledge on AML related regulations.
- 7) Reporting the properties (including its related interests and their locations) designated by the Counter-Terrorism Financing Act and suspicious transactions to Investigation Bureau, the Ministry of Justice.
- 8) Updating personal information of customers

In order to meet the related AML regulations and improve the customer database, BOT provided customers with various ways to update their personal information.

- (h) Transfer of financial assets—transferred financial assets without overall derecognition

The transferred financial assets of the Bank and subsidiary that are not qualified for de-recognition in the daily operation are mainly debt securities under repurchase agreements or equity securities under lending agreements. The right to receive cash flow is transferred and reflects the associated liabilities to repurchase transferred financial assets at a fixed price in the future period, the Bank and subsidiary cannot use, sell or pledge these transferred financial assets during the valid transaction period. However, since the Bank and subsidiary still bear the interest rate risks and credit risks, transferred financial assets are not completely derecognized. Analysis of financial assets without overall derecognition and the associated liabilities are as follows:

Type of financial assets	December 31, 2019				
	Carrying amount of the transferred financial assets	Carrying amount of the Financial liability	Fair value of transferred financial assets	Fair value of financial liabilities	Fair value net position
Financial asset measured at fair value through profit or loss					
Under repurchase agreements \$	29,964	29,973	29,964	29,973	(9)
Financial asset measured at fair value through other comprehensive income					
Under repurchase agreements	19,308,726	19,744,196	19,308,726	19,744,196	(435,470)

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December 31, 2018					
<u>Type of financial assets</u>	<u>Carrying amount of the transferred financial assets</u>	<u>Carrying amount of the Financial liability</u>	<u>Fair value of transferred financial assets</u>	<u>Fair value of financial liabilities</u>	<u>Fair value net position</u>
Financial asset measured at fair value through profit or loss					
Under repurchase agreements	\$ 5,577,177	5,272,516	5,577,177	5,272,516	304,661
Financial asset measured at fair value through other comprehensive income					
Under repurchase agreements	21,193,500	19,805,531	21,193,500	19,805,531	1,387,969

(i) Offsetting of financial assets and financial liabilities

The Bank and subsidiary hold financial instruments which meet Section 42 of the IAS 32 endorsed by FSC. Therefore, the financial instrument will be offset on the balance sheet.

Although the Bank and subsidiary do not engage in transactions that meet the offsetting condition in IFRSs, they have signed the net settlement contracts of similar agreements with counterparties, such as global master repurchase agreement, global securities lending agreement and similar repurchase agreement or reverse-repurchase agreement. If both parties choose to net settle, the abovementioned executable net settlement contracts or similar agreements will be allowed to be settled in net amount after offsetting the financial assets and financial liabilities. Otherwise, the transaction will be settled in gross amount. However, if one party defaults, the other party could opt for net settling.

The offsetting information of financial assets and financial liabilities is shown below:

December 31, 2019						
Financial assets under offsetting or general agreement of net amount settlement or similar norms						
	Total recognized financial assets	Total recognized liabilities offsetting on the balance sheet	Net amount of financial assets on the balance sheets	Relevant amount not offset on the balance sheet (d)		Net amount
<u>Financial assets</u>	<u>(a)</u>	<u>(b)</u>	<u>(c)=(a)-(b)</u>	<u>Financial instrument (note)</u>	<u>Cash received as collaterals</u>	<u>(e)=(c)-(d)</u>
Derivative financial assets	\$ 10,589,277	-	10,589,277	994,022	2,462,130	7,133,125

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BANK OF TAIWAN AND SUBSIDIARY
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December 31, 2019

Financial liabilities under offsetting or general agreement of net amount settlement or similar norms						
Financial liabilities	Total recognized financial liabilities (a)	Total recognized financial assets offsetting on the balance sheet (b)	Net amount of financial liabilities on the balance sheets (c)=(a)-(b)	Relevant amount not offset on the balance sheet (d)		Net amount (e)=(c)-(d)
				Financial instrument (note)	Pledged cash Collaterals	
Derivative financial liabilities	\$ 14,003,851	-	14,003,851	983,646	425,334	12,594,871

Note: Master netting arrangements and non-cash financial collaterals are included.

December 31, 2018

Financial assets under offsetting or general agreement of net amount settlement or similar norms						
Financial assets	Total recognized financial assets (a)	Total recognized financial liabilities offsetting on the balance sheet (b)	Net amount of financial assets on the balance sheets (c)=(a)-(b)	Relevant amount not offset on the balance sheet (d)		Net amount (e)=(c)-(d)
				Financial instrument (note)	Cash received as collaterals	
Derivative financial assets	\$ 6,298,504	-	6,298,504	1,735,071	38,214	4,525,219

December 31, 2018

Financial liabilities under offsetting or general agreement of net amount settlement or similar norms						
Financial liabilities	Total recognized financial liabilities (a)	Total recognized financial assets offsetting on the balance sheet (b)	Net amount of financial liabilities on the balance sheets (c)=(a)-(b)	Relevant amount not offset on the balance sheet (d)		Net amount (e)=(c)-(d)
				Financial instrument (note)	Pledged cash Collaterals	
Derivative financial liabilities	\$ 4,646,438	-	4,646,438	1,735,071	387,813	2,523,554

Note: Master netting arrangements and non-cash financial collaterals are included.

(9) Capital Management:

(a) The Target and Procedure of capital management

The Target of capital management is to achieve the authority's requirements for the BIS Capital Adequacy Ratio and to improve the efficiency of capital usage through capital management procedures.

The Bank consider the short-term and long-term capital demand, operating plans and the lowest requirement to the BIS ratio to draft the capital plan. The Bank conducts the stress testing, the simulation analysis periodically, consider the external conditions and other factors, such as potential risks, environment changes of the financial market and other events that will affect the risk tolerable ability to ensure the Bank can maintain sufficient capital while unfavorable events and significant changes to the market occur.

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BANK OF TAIWAN AND SUBSIDIARY
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(b) The definition and regulations of capital

The Competent authority of the Bank is the Financial Supervisory Commission (the FSC). The Bank and subsidiary follow the “Regulations Governing the Capital Adequacy and Capital Category of Banks” issued by the FSC.

The term “Ratio of Regulatory Capital to Risk-weighted Assets” shall mean Common Equity Ratio, Tier 1 Capital Ratio, and Total Capital Adequacy Ratio. Except computing the Bank's own ratios, it also calculates the ratios using the consolidated financial information according to the IFRS 10. All mentioned ratios should be in conformity with article 5 of the regulations.

(c) Regulatory Capital

The term "Regulatory Capital" shall mean the net Tier 1 Capital and the net Tier 2 Capital according to the Regulations Governing the Capital Adequacy and Capital Category of Banks.”

- (i) The term "Net Tier 1 Capital" shall mean the aggregate amount of net Common Equity Tier 1 and net additional Tier 1 Capital.
 - 1) The common equity Tier 1 capital consists of the common equity that reduces intangible assets, the deferred tax assets due to losses from the previous year, the insufficiency of operation reserves and loan loss provisions, the revaluation surplus of real estate, unamortized losses on sales of non-performing loans, and the statutory adjustment items calculated in accordance with other rules for calculation methods. The common equity tier 1 capital shall mean the sum of the common stock and additional paid-in capital in excess of par- common stock, the capital collected in advance, the capital reserves, the statutory surplus reserves, the special reserves, the accumulated profit or loss, the non-controlling interests and the other items of interest.
 - 2) The range of additional Tier 1 capital shall mean the total amount of the following items reduces the total amount of the deductible items in accordance with the rules for calculation methods.
 - a) Non-cumulative perpetual preferred stock and its capital stock premium.
 - b) Non-cumulative perpetual subordinated debts.
 - c) The non-cumulative perpetual preferred stock and its capital stock premium, and the non-cumulative perpetual subordinated debts which are issued by banks' subsidiaries, and are not directly or indirectly held by banks.
- (ii) The range of Tier 2 capital shall mean the total amount of the following items reduces the total amount of the deductible items in accordance with the rules for calculation methods.
 - 1) Cumulative perpetual preferred stock and its capital stock premium.
 - 2) Cumulative perpetual subordinated debts.
 - 3) Convertible subordinated debts
 - 4) Long-term subordinated debts
 - 5) Non-perpetual preferred stock and its capital stock premium

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
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- 6) When the real estate was adopted by the International Financial Reporting Standards for the first time and used the fair value or the re-estimated value as the deemed cost. The difference in amount between the deemed cost and the book value was recognized in retained earnings, the 45% of unrealized gain on Financial asset measured at fair value through other comprehensive income, as well as operational reserves and loan-loss provisions.
- 7) The cumulative perpetual preferred stock and its capital stock premium, cumulative perpetual subordinated debts, convertible subordinated debts, long-term subordinated debts, and the non-perpetual preferred stock and its capital stock premiums which are issued by banks' subsidiaries, and are not directly or indirectly held by banks.

When a bank reports its capital adequacy ratio according to the regulations, the competent authority shall examine its capital category in accordance with the provisions of these regulations on the calculation of capital adequacy ratio.

When a bank's capital is graded as inadequate capital, significantly inadequate capital or seriously inadequate capital by the competent authority's examination, the competent authority shall take prompt corrective actions in pursuant to Sections 1 to 3, Paragraph 1, Article 44-2 of the Act.

The government regulations are formulated in accordance with the Basel Accord. The followings are the content of the Basel Accord and the implementation of the Bank and subsidiary.

(i) The First Pillar

The first pillar contains the capital requirements for credit risks, market risks and operation risks.

- 1) Credit risks refer to the default risk resulted from the counterparties. The credit risk is derived from the assets, liabilities or off-balance sheet items. There are two measurement methods, the Standardized Approach and the Internal Ratings-Based Approach (the IRB). The Bank and subsidiary use the Standardized Approach.
- 2) Market risks refer to the loss due to the changes of the market price, such as the changes of the market interest rate, the exchange rate, the stock price and the product price. There are two measurement methods, the Standardized Approach and the Internal Model Approach. The Bank and subsidiary use the Standardized Approach.
- 3) Operation risks refer that the Bank has loss caused by the internal operations, the employee's faults, the system errors or external events. The operation risks include legal risks but exclude strategy risks and reputation risks. The measurement methods are the Basic Indicator Approach, the Standardized Approach, the Alternative Standardized Approach and the Advanced Measurement Approach. The Bank and subsidiary use the Standardized Approach.

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
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(ii) The Second Pillar

The second pillar is used to ensure that each bank has sufficient internal assessment procedures and each bank can understand the capital adequacy through complete risk measurements. At the same time, it also uses proper supervisory operations to ensure the regulatory capital accord with the whole risk characteristics. The Bank and subsidiary report the capital adequacy measurements and the risk management situations to the competent authority with related information.

(iii) The Third Pillar

The third pillar is related to the market discipline. It requires banks to disclose more information about the risks, the capital and the risk managements according the new Basel Accord in order to increase their information transparency. As a result, the Bank and subsidiary have offered the “Information of the Capital Adequacy and the Risk Managements” in our website to disclose the qualitative data and the quantitative data.

(d) Capital adequacy ratio

Analyze Items			Year	December 31, 2019	December 31, 2018	
Eligible capital	Common stock capital			260,398,368	209,451,511	
	Other tier 1 capital			-	-	
	Tier 2 capital			37,174,652	41,031,241	
	Eligible capital			297,573,020	250,482,752	
Risk assets weighted assets	Credit risk	Standardized approach		1,955,604,546	1,818,497,922	
		Internal rating based approach		-	-	
		Securitization		-	-	
	Operational risk	Basic indicator approach		-	-	
		Standardized approach/Alternative standardized approach		63,628,550	64,333,363	
		Advance measurement approach		-	-	
	Market risk	Standardized approach		82,580,325	112,738,688	
		Internal models approach		-	-	
	Total risk weighted assets				2,101,813,421	1,995,569,973
	Capital adequacy ratio				14.16 %	12.55 %
Common stock based capital ratio				12.39 %	10.50 %	
Tier 1 risk based capital ratio				12.39 %	10.50 %	
Leverage ratio				5.08 %	4.12 %	

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
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Note 1: The calculation of eligible capital, risk-weighted assets, and the total amount of risk exposure shall follow the Regulations Governing the Capital Adequacy and Capital Category of Banks, and Calculation of Equity Capital and Risk Assets.

Note 2: The annual report shall disclose the current and preceding period of BIS ratio. The semi-annual report (beside the current and preceding period) shall disclose the information one year before.

Note 3: The table shall disclose the calculation formula as follows:

1. Equity Capital = shareholders' equity + other tier 1 capital + tier 2 capital
2. Risk-weighted assets = credit risk-weighted assets + (capital requirement for operational risk + capital requirement for market risk) × 12.5
3. Capital adequacy ratio = equity capital / internal models approach
4. Common stock - based capital ratio = shareholders' equity / total risk weighted assets
5. Tier 1 risk based capital ratio = (shareholders' equity + Other tier 1 capital)/ weighted risk
6. Leverage ratio = tier 1 capital / total risk exposure

Note 4: The table may choose not to disclose in Q1 and Q3 financial report.

- (e) Stress test: In addition to the FSC's requirement regarding the stress test to be conducted by the Bank, the Bank also establishes its own stress test policy based on global environment and economic situations. The testing includes the average common equity ratio, the first class capital ratio, the capital adequacy ratio, and the leverage ratio, calculated by the Bank under different assumptions of scenarios, which had been approved by the Bank's Board of Directors and risk management committee.

(10) Related-party Transactions:

- (a) Name of related party and relationship

Name	Relationship
Taiwan Financial Holding Co., Ltd.	Parent company of the Bank and subsidiary
BankTaiwan Life Insurance Co., Ltd.	Wholly-owned subsidiary
BankTaiwan Securities Co., Ltd.	Wholly-owned subsidiary
Hua Nan Financial Holdings Co., Ltd.	Investee company of the Bank under the equity method
Tang Eng Iron Works Co., Ltd.	Investee company of the Bank under the equity method
Tai Yi Real Estate Management Co., Ltd.	Investee company of the Bank under the equity method
Taiwan business bank Co., Ltd.	Related- Party
Land Bank of Taiwan	Related- Party
Deutsche Bank Taipei Branch	Directors, supervisors, managers and their relatives up to the second degree, affiliates and so on (no longer a related party since September 2nd., 2019)
The Export-Import Bank of the Republic of China	Related- Party
Cathy United Bank	Related- Party

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BANK OF TAIWAN AND SUBSIDIARY
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Name	Relationship
Chang Hwa Bank	Related- Party
Others	Directors, supervisors, managers and their relatives up to the second degree, affiliates and so on

(b) Key Management Personnel Compensation

The related information about the salaries and bonus for the key management personnel for the years ended December 31, 2019 and 2018 were as follows:

	2019	2018
Short-term employee benefits	\$ <u>16,237</u>	<u>16,524</u>

(c) Other related-party transactions

(i) Call loans to bank

	December 31, 2019			
	Highest balance	Ending balance	Interest rate range (%)	Interest income
Hua Nan Financial Holdings Co., Ltd.	\$ 18,372,412	<u>2,023,490</u>	0.17~3.25	<u>59,275</u>

	December 31, 2018			
	Highest balance	Ending balance	Interest rate range (%)	Interest income
Hua Nan Financial Holdings Co., Ltd.	\$ 19,663,275	<u>1,299,175</u>	0.18~5.08	<u>46,434</u>

(ii) Receivables

	December 31, 2019		December 31, 2018	
Name	Amount	Percentage of account balance	Amount	Percentage of account balance
Taiwan Financial Holding Co., Ltd.	\$ 6,213	0.01	5,760	0.01
BankTaiwan Life Insurance Co., Ltd.	36,809	0.06	46,420	0.08
BankTaiwan Securities Co., Ltd.	-	-	-	-
Total	<u>\$ 43,022</u>	<u>0.07</u>	<u>52,180</u>	<u>0.09</u>

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BANK OF TAIWAN AND SUBSIDIARY
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(iii) Other assets

Name	December 31, 2019		December 31, 2018	
	Amount	Percentage of account balance	Amount	Percentage of account balance
BankTaiwan Life Insurance Co., Ltd.	\$ 5,887	0.05	5,891	0.07
BankTaiwan Securities Co., Ltd.	14	-	14	-
Total	<u>\$ 5,901</u>	<u>0.05</u>	<u>5,905</u>	<u>0.07</u>

(iv) Deposits of banks

Name	December 31, 2019		December 31, 2018	
	Amount	Percentage of account balance	Amount	Percentage of account balance
Hun Nan Financial Holdings Co., Ltd.	<u>\$ 291,259</u>	<u>0.58</u>	<u>228,890</u>	<u>0.48</u>

(v) Call loans from banks (recognized as deposit of central bank and other bank)

	December 31, 2019			
	Highest balance	Ending balance	Interest rate range (%)	Interest expense
Hua Nan Financial Holdings Co., Ltd.	\$ 20,909,960	<u>-</u>	0.17~3.10	<u>22,093</u>

	December 31, 2018			
	Highest balance	Ending balance	Interest rate range (%)	Interest expense
Hua Nan Financial Holdings Co., Ltd.	\$ 10,670,305	<u>245,880</u>	0.09~4.40	<u>8,693</u>

(vi) Deposits

Name	December 31, 2019		December 31, 2018	
	Amount	Percentage of account balance	Amount	Percentage of account balance
Taiwan Financial Holding Co., Ltd.	\$ 198,724	0.01	291,908	0.01
BankTaiwan Life Insurance Co., Ltd.	\$ 6,335,035	0.16	2,485,748	0.06
BankTaiwan Securities Co., Ltd.	252,990	0.01	263,988	0.01
Hua Nan Financial Holdings Co., Ltd.	366,176	0.01	371,497	0.01
Tang Eng Iron Works Co., Ltd.	674	-	-	-
Total	<u>\$ 7,153,599</u>	<u>0.19</u>	<u>3,413,141</u>	<u>0.09</u>

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BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

(vii) Payables

Name	December 31, 2019		December 31, 2018	
	Amount	Percentage of account balance	Amount	Percentage of account balance
Taiwan Financial Holding Co., Ltd.	\$ 5	-	7	-
BankTaiwan Life Insurance Co., Ltd.	\$ 5,888	0.01	541	-
BankTaiwan Securities Co., Ltd.	51	-	61	-
Total	<u>\$ 5,944</u>	<u>0.01</u>	<u>609</u>	<u>-</u>

(viii) Other liabilities

Name	December 31, 2019		December 31, 2018	
	Amount	Percentage of account balance	Amount	Percentage of account balance
Taiwan Financial Holding Co., Ltd.	\$ 2,762	0.03	2,762	0.04
BankTaiwan Securities Co., Ltd.	1,794	0.02	1,794	0.02
Total	<u>\$ 4,556</u>	<u>0.05</u>	<u>4,556</u>	<u>0.06</u>

(ix) Interest income

Name	2019		2018	
	Amount	Percentage of account balance	Amount	Percentage of account balance
Taiwan Financial Holding Co., Ltd.	\$ 207,025	0.31	170,324	0.27
BankTaiwan Securities Co., Ltd.	573	-	657	-
Total	<u>\$ 207,598</u>	<u>0.31</u>	<u>170,981</u>	<u>0.27</u>

(x) Interest expense

Name	2019		2018	
	Amount	Percentage of account balance	Amount	Percentage of account balance
Taiwan Financial Holding Co., Ltd.	\$ 391	-	512	-
BankTaiwan Life Insurance Co., Ltd.	32,614	0.08	48,705	0.13
BankTaiwan Securities Co., Ltd.	764	-	734	-
Total	<u>\$ 33,769</u>	<u>0.08</u>	<u>49,951</u>	<u>0.13</u>

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BANK OF TAIWAN AND SUBSIDIARY
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(xi) Service fee income

Name	2019		2018	
	Amount	Percentage of account balance	Amount	Percentage of account balance
BankTaiwan Life Insurance Co., Ltd.	\$ 618,722	10.55	609,563	10.23
BankTaiwan Securities Co., Ltd.	3,366	0.06	3,643	0.06
Total	<u>\$ 622,088</u>	<u>10.61</u>	<u>613,206</u>	<u>10.29</u>

(xii) Service fee expense

Name	2019		2018	
	Amount	Percentage of account balance	Amount	Percentage of account balance
BankTaiwan Securities Co., Ltd.	\$ 5,879	0.85	10,660	1.62

(xiii) Gain (loss) on financial assets or liabilities measured at fair value through profit or loss

Name	2019		2018	
	Amount	Percentage of account balance	Amount	Percentage of account balance
BankTaiwan Life Insurance Co., Ltd.	\$ 1,134,250	2.32	697,995	(15.48)
BankTaiwan Securities Co., Ltd.	(3,400)	(0.01)	(6,614)	0.15
Total	<u>\$ 1,130,850</u>	<u>2.31</u>	<u>691,381</u>	<u>(15.33)</u>

(xiv) Other non-interest income (expense)

Name	2019		2018	
	Amount	Percentage of account balance	Amount	Percentage of account balance
Taiwan Financial Holding Co., Ltd.	\$ 26,623	(0.06)	28,177	1.68
BankTaiwan Life Insurance Co., Ltd.	38,329	(0.08)	43,634	2.59
BankTaiwan Securities Co., Ltd.	30,582	(0.07)	30,915	1.84
Total	<u>\$ 95,534</u>	<u>(0.21)</u>	<u>102,726</u>	<u>6.11</u>

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BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

(xv) Other general and administrative expense

Name	2019		2018	
	Amount	Percentage of account balance	Amount	Percentage of account balance
Taiwan Financial Holding Co., Ltd.	\$ 621	0.01	645	0.01
BankTaiwan Life Insurance Co., Ltd.	-	-	35,618	0.50
BankTaiwan Securities Co., Ltd.	-	-	86	-
Total	<u>\$ 621</u>	<u>0.01</u>	<u>36,349</u>	<u>0.51</u>

(xvi) Loans

December 31, 2019							
Category	House holder amount or name of related party	Highest balance in current period	Ending balance	Status of performance		Type of collateral	Differences in transaction terms between related and non related parties
				Performing loans	Non-performing loans		
Consumer loans	24 households	12,193	9,172	9,172	-	None	None
House mortgages	211 households	883,375	720,660	720,660	-	Land and buildings	None
Call loans to banks	Land Bank of Taiwan	8,000,000	4,498,500	4,498,500	-	None	None
Call loans to banks	Hua Nan Financial Holdings Co., Ltd.	15,000,000	-	-	-	None	None
Call loans to banks	Taiwan Business Bank Co., Ltd.	1,220,200	599,800	599,800	-	None	None
Call loans to banks	Cathy United Bank	11,500,000	-	-	-	None	None
Call loans to banks	The Export-Import Bank of the Republic of China	3,754,000	-	-	-	None	None
Call loans to banks	Chang Hwa Bank	8,000,000	-	-	-	None	None
Short-term loans	Taiwan financial Holding Co., Ltd.	25,200,000	25,200,000	25,200,000	-	None	None
Short-term secured loans	BankTaiwan Securities Co., Ltd.	500,000	-	-	-	Government (or financial institutions) guarantee	None
Secured overdrafts loans	Tang Eng Iron Works Co., Ltd.	88,431	41,119	41,119	-	Land and factory	None
Short-term secured loans	Tang Eng Iron Works Co., Ltd.	100,000	100,000	100,000	-	Land and factory	None
Short-term secured loans	Tang Eng Iron Works Co., Ltd.	1,500,000	900,000	900,000	-	Land and factory	None
Medium-term secured loans	Tang Eng Iron Works Co., Ltd.	1,800,000	1,200,000	1,200,000	-	Land and factory	None

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December 31, 2018							
Category	House holder amount or name of related party	Highest balance in current period	Ending balance	Status of performance		Type of collateral	Differences in transaction terms between related and non related parties
				Performing loans	Non-performing loans		
Consumer loans	30 households	15,070	9,374	9,374	-	None	None
House mortgages	191 households	721,580	622,246	622,246	-	Land and buildings	None
Call loans to banks	Land Bank of Taiwan	19,500,000	-	-	-	None	None
Call loans to banks	Hua Nan Financial Holdings Co., Ltd.	15,000,000	-	-	-	None	None
Call loans to banks	Taiwan Business Bank Co., Ltd.	2,000,000	-	-	-	None	None
Call loans to banks	Cathy United Bank	11,000,000	-	-	-	None	None
Call loans to banks	The Export-Import Bank of the Republic of China	2,300,000	1,050,000	1,050,000	-	None	None
Call loans to banks	Deutsche Bank Taipei Branch	3,500,000	-	-	-	None	None
Short-term loans	Taiwan financial Holding Co., Ltd.	25,800,000	25,800,000	25,800,000	-	None	None
Short-term loans	BankTaiwan Securities Co., Ltd.	500,000	-	-	-	Government (or financial institutions) guarantee	None
Secured overdrafts loans	Tang Eng Iron Works Co., Ltd.	67,405	67,405	67,405	-	Land and factory	None
Short-term secured loans	Tang Eng Iron Works Co., Ltd.	100,000	100,000	100,000	-	Land and factory	None
Short-term secured loans	Tang Eng Iron Works Co., Ltd.	1,882,984	1,200,000	1,200,000	-	Land and factory	None
Medium-term secured loans	Tang Eng Iron Works Co., Ltd.	1,800,000	1,800,000	1,800,000	-	Land and factory	None

Note 1: The consumer loans to staff and mortgage loans to staff can be lumped together for disclosure. The disclosure of other loans is sorted by interested parties.

Note 2: Collateral is classified by real estate, short term notes, government bonds, secured or non secured bonds, TSEC and GTSM stocks, non TSEC and non GTSM stocks, and others.

(xvii) Derivative financial instruments

December 31, 2019						
Name of related party	Subject	Agreement period	Notional amounts	Current valuation adjustment	Balance sheet	
					Account name	Amount
BankTaiwan Life Insurance Co., Ltd.	Swap agreement	2010.08.20~2020.12.11	43,656,372	138,905	Valuation adjustment of financial liabilities measured at fair value through profit or loss - swap	(722,419)

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Notes to the Consolidated Financial Statements

December 31, 2018						
Name of related party	Subject	Agreement period	Notional amounts	Current valuation adjustment	Balance sheet	
					Account name	Amount
BankTaiwan Life Insurance Co., Ltd.	Swap agreement	2010.08.20~2019.03.20	23,100,280	54,467	Valuation adjustment of financial assets measured at fair value through profit or loss - swap	21,138
					Valuation adjustment of financial liabilities measured at fair value through profit or loss - swap	(29,327)

(xviii) The expenses of shared assets allocated to Taiwan Financial Holding Co., Ltd, BankTaiwan Life Insurance Co., Ltd, BankTaiwan Securities Co., Ltd, by the Bank was as follows:

Name	2019		2018	
	Amount	Percentage of account balance	Amount	Percentage of account balance
Taiwan Financial Holding Co., Ltd.	\$ 10,051	(0.02)	11,762	0.70
BankTaiwan Life Insurance Co., Ltd.	38,329	(0.08)	43,634	2.59
BankTaiwan Securities Co., Ltd.	19,766	(0.04)	20,098	1.19
Total	<u>\$ 68,146</u>	<u>(0.14)</u>	<u>75,494</u>	<u>4.48</u>

(xix) Lease

Between January 2015 and June 2018, the Bank rented several buildings from its related enterprise, BTLI, to be used as its branch office. A five-year lease contract was signed, in which the rental fee was determined based on nearby office rental rates. The total value of the contract was \$178,218 thousand. Rental expenses for the year ended December 31, 2018 amounted to \$35,618 thousand, which was classified under general expenses. There was no outstanding balance as of December 31, 2018. The Bank applied IFRS 16, with a date of initial application on January 1, 2019. This lease transaction recognized an additional amount of \$67,295 thousand of both right-of-use assets and lease liabilities. For the year ended December 31, 2019, the Bank recognized the amount of \$842 thousand and \$36,686 thousand as interest expense and depreciation expense, respectively. As of December 31, 2019, the balance of lease liabilities amounted to \$97,983 thousand.

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In January 2017, the Bank rented a building from its related enterprise, BTLI, to be used as its branch office. A five-year lease contract was signed, in which the rental fee was determined based on nearby office rental rates. The total value of the contract was \$432 thousand. Rental expenses for the year ended December 31, 2018 amounted to \$86 thousand, which was classified under general expenses. There was no outstanding balance as of December 31, 2018. The Bank applied IFRS 16, with a date of initial application on January 1, 2019. This lease transaction recognized an additional amount of \$255 thousand of both right-of-use assets and lease liabilities. For the year ended December 31, 2019, the Bank recognized the amount of \$2 thousand and \$85 thousand as interest expense and depreciation expense, respectively. As of December 31, 2019, the balance of lease liabilities amounted to \$171 thousand.

(xx) The price and payment conditions for related-party transactions mentioned above have no significant differences from the conditions for the transactions between the Bank and subsidiary, and non-related parties. The expense of database is allocated between the Bank and subsidiaries based on the usage of each company in the group.

(11) Pledged Assets:

Pledged assets	Purpose of pledge	December 31, 2019	December 31, 2018
Deposits in Central Bank-time deposits	Payment and settlement systems of Central Bank	\$ 20,000,000	20,000,000
Financial assets measured at fair value through other comprehensive income—bonds	Guarantee deposit for provisional seizure against defaulted loans and others	527,300	471,100
Financial assets measured at fair value through other comprehensive income—bonds	Operating deposit for securities investment trust and consulting	150,000	150,000
Financial assets measured at amortized cost—bonds	Guarantee deposits for trust business compensation reserve	450,000	450,000
Financial assets measured at fair value through other comprehensive income – negotiable certificate	Payment and settlement systems of Central Bank	27,400,000	27,400,000
		<u><u>\$ 48,527,300</u></u>	<u><u>48,471,100</u></u>

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

(12) Commitments and Contingencies:

(a) Commitments and contingencies

	December 31, 2019	December 31, 2018
Consignment collection	\$ 47,409,273	49,477,512
Contract guarantee on behalf of counter parties	1,221,551	1,241,441
Traveler's checks held on consignment	659,643	884,739
Marketable securities held as custodian	2,524,269,729	2,215,098,957
Letters of credit	39,579,192	26,676,184
Goods held in custody	32,879,791	42,603,991
Issuance of New Taiwan Dollars	2,449,257,937	2,199,308,024
Trustee of behalf of Lenders	527,631,902	608,892,514
Registered government bonds for sale	715,195,300	798,484,400
Registered short term bills for sale	210,582,786	254,133,758
Consigned sales of goods	872,556	885,736
Trust liabilities	653,305,882	601,845,330
Guarantees	85,887,465	87,101,336
	\$ 7,288,753,007	6,886,633,922

(b) Balance sheet, income statement and details of assets under trust

Trust assets	December 31, 2019		December 31, 2018	
	Amount	%	Amount	%
Deposits				
Deposits in BOT	\$ 36,138,913	6	29,268,129	5
Deposits in other banks	2,381	-	310,038	-
Short term investment				
Investment in funds	165,849,799	25	164,389,046	27
Investment in bonds	281,239,879	43	260,782,413	43
Common stock investment–marketable securities	48,761,636	7	51,622,134	9
Receivables				
Interest receivable	1,865,932	-	1,376,314	-
Cash dividend receivable	669	-	1,267	-
Receivables from trading securities	198,510	-	292,965	-
Receivables from forward contracts	3,133,135	1	5,553,635	1
Real estate				
Land	20,361,587	3	22,894,616	4
Buildings	160,332	-	121,199	-
Construction in progress	4,502,672	1	3,691,800	1
Marketable securities under custody	91,090,437	14	61,541,774	10
Total of trust assets	\$ 653,305,882	100	601,845,330	100

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

Trust liabilities	December 31, 2019		December 31, 2018	
	Amount	%	Amount	%
Payables				
Payables from trading securities	\$ 147,101	-	87,901	-
Payables from forward contracts	3,184,450	1	5,462,050	1
Payables from management fee	4,541	-	2,909	-
Payables from supervision fee	438	-	413	-
Other payables	716	-	1,575	-
Tax payable	583	-	722	-
Securities held in custody payable	91,090,437	14	61,541,774	10
Trust capital				
Money trust	407,904,771	62	388,748,062	64
Marketable securities trust	135,482	-	155,028	-
Real estate investment trust	27,146,753	4	28,387,883	5
Other reserve and accumulated income				
Accumulated loss	118,938,177	18	89,196,791	15
Foreign currency translation	(13,592,880)	(2)	(7,715,868)	(1)
Deferred unrealized income	(292,012)	-	13,805,837	2
Current income	18,637,325	3	22,170,253	4
Total of trust liabilities	<u>\$ 653,305,882</u>	<u>100</u>	<u>601,845,330</u>	<u>100</u>

Note: Including fund and bond investments of the offshore branch amounting to \$275,887 thousand and \$291,683 thousand as of December 31, 2019 and 2018, respectively.

Details of trust	December 31, 2019	December 31, 2018
Deposits		
Deposits in the Bank	\$ 36,138,913	29,268,129
Deposits in other banks	2,381	310,038
Short term investment		
Investment in funds	165,849,799	164,389,046
Investment in bonds	281,239,879	260,782,413
Common stock investment– marketable securities	48,761,636	51,622,134
Real estate		
Land	20,361,587	22,894,616
Buildings	160,332	121,199
Construction in progress	4,502,672	3,691,800
Marketable securities under custody	91,090,437	61,541,774
Total	<u>\$ 648,107,636</u>	<u>594,621,149</u>

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

Income statement for assets under trust	2019	2018
Trust revenue		
Capital interest revenue	\$ 12,048,903	11,987,923
Cash dividend revenue	2,230,135	2,297,993
Donation revenue	206,183	328,336
Realized capital gain shares	90,558	308,916
Realized capital gain fund	1,872,047	2,265,566
Unrealized capital gain fund	4,061	-
Realized exchange gain – bond	2,380,482	1,980,364
Realized gain on property exchange	139,013	316,380
Income from beneficiary certificates	4,127,919	4,021,211
Realized foreign exchange gains	189,100	42,586
Other revenue	477	63
Total trust revenue	<u>23,288,878</u>	<u>23,549,338</u>
Trust expense		
Capital management fee	363,590	449,652
Tax expense	(3,671)	10,653
Supervisory fee	517	476
Storage fee	15,542	13,710
Commission fee	97	89
Donation cost	833,961	880,657
Unrealized capital loss shares	3,397,745	-
Other expense	43,772	23,848
Total trust expense	<u>4,651,553</u>	<u>1,379,085</u>
Net income	<u><u>\$ 18,637,325</u></u>	<u><u>22,170,253</u></u>

(13) Profitability:

Item		December 31, 2019		December 31, 2018	
		Before adjusting	After adjusting	Before adjusting	After adjusting
Return on total assets (Note 6)	Before income tax	0.26	0.42	0.23	0.40
	After income tax	0.22	0.37	0.21	0.38
Return on net worth (Note 7)	Before income tax	3.84	5.69	3.83	6.26
	After income tax	3.24	5.09	3.42	5.84
Profit margin		26.46		25.97	

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

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

Note 3: Profit margin=Income after income tax/Total operating revenues.

Note 4: Income before (after) income tax is the income for the whole year of 2019 and 2018.

Note 5: The above profitability ratios are at annual rates.

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

Note 6: Return on total assets — after adjusting means assets excluding the short-term advances and long-term receivables resulted from government policies, and the assets of government employees insurance department; it also refers to income before (after) tax, plus, excess preferential interest expense. (If return on total assets- after adjusting at December 31, 2019 means assets excluding the assets of government employees insurance department and the income before and after tax, plus, excess preferential interest expense and interest revenue from the advance resulted from government policies, the adjusted return on total assets before (after) tax are 0.43% and 0.38%.)

Note 7: Return on net worth after adjusting means income before (after) tax, plus, excess preferential interest expense. (If the return on net worth- after adjusting at December 31, 2019 means income before (after) tax, plus, excess preferential interest expense and interest revenue from the advance resulted from government policies, the adjusted returns on net worth before and after tax are 5.90% and 5.30%.)

(14) Losses Due to Major Disasters:None

(15) Subsequent events:None

(16) Other:

- (a) The employee benefit expenses, depreciation, depletion and amortization, categorized by function, were as follows:

By nature	2019			2018		
	Operating costs	Operating expenses	Total	Operating costs	Operating expenses	Total
Employee benefits expenses						
Salaries	61,699	11,419,798	11,481,497	62,839	10,959,527	11,022,366
Labor and health insurances	110,399	527,904	638,303	104,620	520,763	625,383
Pensions	3,105	925,957	929,062	2,984	838,371	841,355
Director and supervisor compensation payment	-	2,553	2,553	-	2,344	2,344
Others	2,405,768	268,669	2,674,437	2,319,418	258,864	2,578,282
Depreciation	48,402	1,324,747	1,373,149	49,037	706,513	755,550
Amortization expenses	-	313,388	313,388	-	280,830	280,830

The number of employees for the years ended December 31, 2019 and 2018 were 8,316 and 8,237, respectively.

(b) Financial Statements Audited adjustment

The accounting records as at and for the year ended December 31, 2018, have been audited and examined by the MoA, and the resulting adjustments are summarized as follows:

Government audit adjustments for fiscal year ended December 31, 2018:

Balance Sheet	As Previously Reported December 31, 2018	Adjustments — Increase (Decrease)	As Audited by the MoA, December 31, 2018
Assets			
Current income tax assets	\$ 1,236,103	(122,969)	1,113,134
Stockholders' equity			
Unappropriated retained earnings	17,742,711	(122,969)	17,619,742

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

Income statement	As Previously Reported 2018	Adjustments — Increase (Decrease)	As Audited by the MoA, 2018
Income tax expense	\$ 1,108,160	122,969	1,231,129
Net income	10,368,175	(122,969)	10,245,206

Revised entries by the MoA in 2018 were as follows:

Item	Adjustment accounts	Amount revised by the MoA	Explanation of revision by the MoA
1.	Income tax expense	\$ 135,435	The accountant of Hong Kong branch adjusted taxable income.
	Current income tax assets	135,435	
2.	Current income tax assets	\$ 12,466	MoA adjusted taxable income by amendment.
	Income tax assets	12,466	

(c) Supplementary information for government employees' insurance department

(i) Balance sheets

	Government employees' insurance department	
	December 31, 2019	December 31, 2018
Cash and cash equivalents	\$ 58,135,335	49,625,324
Financial assets measured at fair value through profit or loss	179,707,321	151,082,813
Debt investments measured at amortized cost	94,907,557	84,604,931
Receivables, net	8,519,617	8,052,203
Property and equipment, net	4,647	4,673
Intangible assets, net	11,635	4,657
Other assets, net	551,592	3,039,547
Total assets	<u><u>\$ 341,837,704</u></u>	<u><u>296,414,148</u></u>

	Government employees ' insurance department	
	December 31, 2019	December 31, 2018
Payables	96,653	34,334
Provisions	341,738,589	296,379,792
Other liabilities	2,462	22
Total liabilities	<u><u>\$ 341,837,704</u></u>	<u><u>296,414,148</u></u>

(Continued)

BANK OF TAIWAN AND SUBSIDIARY
Notes to the Consolidated Financial Statements

(ii) Income statement

	Government employees' insurance department	
	2019	2018
Net interest income	\$ 2,644,359	2,088,822
Service fee expenses	(16,498)	(1,942)
Gain (loss) on financial assets and liabilities at fair value through profit or loss	38,867,938	(12,832,454)
Foreign exchange gain (loss)	(3,521,667)	1,827,970
Impairment loss of assets	4,504	(5,024)
Premium income	23,511,625	24,863,334
Government subsidy	8,774,387	8,892,009
Insurance payments	(24,671,785)	(23,242,767)
Provision for insurance premium reserve	(45,358,797)	(1,371,850)
Miscellaneous expense	(88,718)	(89,704)
Miscellaneous revenue	12,465	15,591
Net revenue	157,813	143,985
Bad debt expenses and reserve for guarantees	2,240	3,639
Employee benefits	130,413	122,437
Depreciation and amortization expenses	4,378	3,318
Other general and administrative expenses	20,782	14,591
	155,573	140,346
Net income	\$ -	-

Note: According to Government Employees and School Staff Insurance Act, if GESSI experiences a loss, the loss before May 30, 1999, would be covered by the Ministry of Finance; and the loss after that date would be covered by an adjustment of the insurance premium. Besides, according to the same Act, the expenses to carry on government employees and school staff insurance are subsidized by the budget designated by the Ministry of Civil Service.

- (d) Ruling No. 10400177950 issued on August 19, 2015, by the FSC, the Bank, has obtained approval from the competent authority to engage in the business of electronic payment institutions. The Bank opened the business in 2016 and according to Article 4 of the Regulations Governing the Organization and Administration of Sinking Fund Established by Electronic Payment Institutions, in first year the Bank should appropriate the amount of \$500 thousand for its dedicated sinking fund account, in which the Bank had already appropriated the full amount into its account in May 2017. The Bank's fee income generated from electronic payment business for year for the years ended December 31, 2019 and 2018 were \$60 thousand and \$147 thousand, respectively. There were no interest revenue and other revenue in December 31, 2019 and 2018.

(Continued)

BANK OF TAIWAN AND SUBSIDIARY

Notes to the Consolidated Financial Statements

(17) Notes to Disclosure Items:

(a) Information on Significant Transactions:

Following the principle of financial report for public bank, the disclosure of information on significant transaction of the Bank and subsidiary were as follow:

- (i) Individual securities acquired or disposed of with accumulated amount exceeding the lower of NT\$300 million or 10% of the capital stock:None
- (ii) Acquisition of individual real estate with amount exceeding the lower of NT\$300 million or 10% of the capital stock:

(In Thousands of New Taiwan Dollars)

Name of company	Name of property	Transaction date	Transaction amount	Status of payment	Counter-party	Relationship with the Company	If the counter-party is a related party, disclose the previous transfer information				References for determining price	Purpose of acquisition and current condition	Others
							Owner	Relationship with the Company	Date of transfer	Amount			
Bank of Taiwan	Land Serial No.111,Sanyu Section, Shilin Dist., Taipei City, Taiwan...etc., a total of 56 land	2019.09.25	42,000,000	Paid with land.	Taiwan Financial Holding Co., Ltd.	Related party	R.O.C. (Manager: National Property Administration, MOF)	Shareholders of parent company	2019.09.06	42,000,000	Valuation report	Will follow the government's policy	None

- (iii) Disposal of individual real estate with amount exceeding the lower of NT\$300 million or 10% of the capital stock:None
- (iv) Service charge discounts on transactions with related parties in an aggregate amount of NT\$5 million or more:None
- (v) Receivables from related parties with amounts exceeding the lower of NT\$300 million or 10% of the capital stock:None
- (vi) Information on NPL disposal transaction:
 - 1) Summary table of NPL disposal:None
 - 2) Disposal of a single batch of NPL up to NT\$1 billion and information on each transaction:None
- (vii) Types of securitization instruments approved to be issued pursuant to financial assets securitization rules or real estate securitization rules and other relevant information:None
- (viii) Business relationships and significant intercompany transactions:

(In Thousands of New Taiwan Dollars)

Number	Name of Company	Name of the counter-party	Existing relationship with the counter-party	State of transaction			
				Account name	Amount	Terms of trading	Percentage of the total consolidated revenues or total assets
0	Bank of Taiwan	BankTaiwan Insurance Brokers	1	Deposits	410,261	Same as regular transaction	0.01 %
1	BankTaiwan Insurance Brokers	Bank of Taiwan	2	Placement with banks	410,261	"	0.01 %
0	Bank of Taiwan	BankTaiwan Insurance Brokers	1	Cheques deposits	50,000	"	- %
1	BankTaiwan Insurance Brokers	Bank of Taiwan	2	Placement with banks	50,000	"	- %
0	Bank of Taiwan	BankTaiwan Insurance Brokers	1	Other receivables	45,627	"	- %
1	BankTaiwan Insurance Brokers	Bank of Taiwan	2	Other payables	45,627	"	- %
0	Bank of Taiwan	BankTaiwan Insurance Brokers	1	Service fees revenue	1,211,865	"	2.87 %
1	BankTaiwan Insurance Brokers	Bank of Taiwan	2	Service fees expenses	1,211,865	"	2.87 %
0	Bank of Taiwan	BankTaiwan Insurance Brokers	1	Miscellaneous revenues	480	"	- %
1	BankTaiwan Insurance Brokers	Bank of Taiwan	2	Administrative expense	480	"	- %
0	Bank of Taiwan	BankTaiwan Insurance Brokers	1	Refundable deposits	808	"	- %
1	BankTaiwan Insurance Brokers	Bank of Taiwan	2	Guarantee deposits paid	808	"	- %
0	Bank of Taiwan	BankTaiwan Insurance Brokers	1	Miscellaneous revenue	13,674	"	0.03 %

(Continued)

BANK OF TAIWAN AND SUBSIDIARY

Notes to the Consolidated Financial Statements

Number	Name of Company	Name of the counter-party	Existing relationship with the counter-party	State of transaction			
				Account name	Amount	Terms of trading	Percentage of the total consolidated revenues or total assets
1	BankTaiwan Insurance Brokers	Bank of Taiwan	2	Operating expenses	13,674	Same as regular transaction	0.03 %
0	Bank of Taiwan	BankTaiwan Insurance Brokers	1	Other operating income	4,840	"	0.01 %
0	Bank of Taiwan	BankTaiwan Insurance Brokers	1	Interest payables	10	"	- %
1	BankTaiwan Insurance Brokers	Bank of Taiwan	2	Interest receivables	10	"	- %
0	Bank of Taiwan	BankTaiwan Insurance Brokers	1	Interest expenses	410	"	- %
1	BankTaiwan Insurance Brokers	Bank of Taiwan	2	Interest incomes	410	"	- %
1	BankTaiwan Insurance Brokers	Bank of Taiwan	2	Right-of-use assets	14,332	"	0.03 %
1	BankTaiwan Insurance Brokers	Bank of Taiwan	2	Lease liabilities	14,415	"	0.03 %
1	BankTaiwan Insurance Brokers	Bank of Taiwan	2	Interest expense	192	"	- %
1	BankTaiwan Insurance Brokers	Bank of Taiwan	2	Depreciation expense	4,730	"	0.01 %

Note 1: Number is based on the following rules:

- 1) The parent company is 0.
- 2) Subsidiaries are numbered by company from 1.

Note 2: The relation with trader is numbered as follow:

- 1) The parent company to its subsidiary is 1.
- 2) The subsidiary to its parent company is 2.

Note 3: The transactions mention above have already write-off when building the financial report.

(ix) Other significant transactions that may have substantial influence upon the decisions made by financial report users:None

(b) Information on Investees:

The followings are the information on investees during 2019:

(In Thousands of New Taiwan Dollars)

Name of the investee	Investee Location	Major Operation	% of shares	Original investment amount	Gain(Loss) recognized during the period	Held by the bank and related party at year-end				Notes
						Shares		Subtotal		
								Shares	% of Shares	
Hua Nan Financial Holdings Co., Ltd.	Taipei	Financial Holding	21.23 %	40,060,767	3,387,456	3,025,175	-	3,025,175	25.07 %	
Tang Eng Iron Works Co., Ltd.	Kaohsiung	Iron Industry	21.37 %	1,027,317	3,196	74,802	-	74,802	21.37 %	
Tai Yi Real Estate Management Co., Ltd.	Taipei	Real Estate Service	30.00 %	21,476	4,045	1,500	-	1,500	30.00 %	
BankTaiwan Insurance Brokers Co., Ltd.	Taipei	Insurance Brokers	100.00%	437,401	167,267	2,000	-	2,000	100.00%	note 3

Note 1: The shares held or to be held by The Bank or its directors, supervisors, president, vice president and investees held by the affiliates as defined in the Company Act shall be included.

Note 2: 1) The shares to be held shall mean the shares acquired upon conversion, as hypothesized, of equity securities purchased or contracted for derivative products concluded (not yet converted to equity) in accordance with the trading terms and conditions and The Bank's intent to link with the reinvested enterprise's equity for the purpose of reinvestment provided in Article 74 of the Act.

2) The "equity securities" referred to in the preceding paragraph shall mean the valuable securities referred to in Paragraph 1 of Article 11 of the Securities and Exchange Law Enforcement Rules, e.g. convertible corporate bond and warrant.

3) The "derivative products" referred to in the preceding paragraph shall comply with the definition of derivative products referred to in Statement of Financial Accounting Standards No. 34, e.g. stock option.

Note 3: This transaction had been written off when preparation the consolidated financial statements.

(Continued)

BANK OF TAIWAN AND SUBSIDIARY

Notes to the Consolidated Financial Statements

(c) Information on Investment in Mainland China:

(i) Information on investees' names, locations, etc. in China:

(In Thousands of New Taiwan Dollars)

Investee Company	Main Business	Total Amount of Paid-in Capital	Investment types (Note1)	Accumulated outflow of Investment from Taiwan as of January 1, 2015	Investment flows		Accumulated outflow of investment from Taiwan as of December 31, 2015	Net income from investee	% of shares	Equity in the Earnings (gains) (Note2)	Carrying value as of December 31, 2018	Accumulated inward remittance of earnings as of December 31, 2018
					Outflow	Regain						
Bank of Taiwan, Shanghai Branch	Banking business	4,295,000 CNY1,000,000	(3)	4,295,000 CNY1,000,000	-	-	4,295,000 CNY1,000,000	142,368	100.00%	142,368	5,780,772	-
Bank of Taiwan, Guangzhou Branch	Banking business	4,295,000 CNY1,000,000	(3)	4,295,000 CNY1,000,000	-	-	4,295,000 CNY1,000,000	112,694	100.00%	112,694	4,890,325	-
Bank of Taiwan Fuzhou Branch	Banking business	4,295,000 CNY1,000,000	(3)	4,295,000 CNY1,000,000	-	-	4,295,000 CNY1,000,000	74,973	100.00%	74,973	4,703,100	-

Note 1: Three types of investments are as follows:

- 1) Direct investment in Mainland China.
- 2) Investment in Mainland China through a company set up in a third region.
- 3) Via overseas branches.

Note 2: The net income from investees is not audited by an independent auditor, yet.

(ii) Limitation on investment in Mainland China:

Unit: In thousands of TWD

Current period of accumulate investment amount remitting from Taiwan	The rationed investing amount approved by Investment Commission, MOEA	The regulation announced by Investment Commission, MOEA rationed investing amount
12,885,000	12,885,000	226,951,462

- (d) Subsidiaries lending to other parties, guarantees and endorsements for other parties, securities held as of December 31, 2019, securities for which purchase or sale amount for the period exceed \$300 million or 10% of the Bank's paid-in capital, and trading in derivative financial instruments: None.

(18) Segment Information:

- (a) Bank department: include transacting deposit, loan, and foreign exchange; dispatching, managing, performing TWD and foreign currency; investing in securities, and analyzing, managing interest for loan and deposit, and etc.
- (b) Government employees' insurance department: include managing government employees' insurance business; auditing insurance, cash settlement, and issue business; analyzing, managing, and taking statistics of government employees' insurance business, and etc.
- (c) Department of Procurement: include managing government institutions, public schools, and public enterprises' centralized purchasing business; being agency of government institutions, public schools, and public enterprises for inter-entity supply contract, and etc.
- (d) Department of Precious Metals: include managing gold, silver, precious metals and analyzing customs duty; gold, silver and precious metals intermediary trading, planning, marketing, training, settlement, risk management, assuring and etc.

(Continued)

BANK OF TAIWAN AND SUBSIDIARY

Notes to the Consolidated Financial Statements

- (e) BankTaiwan Insurance Broker: operation businesses include insuring personal, property insurance, related services, and the business approved by the authority which related to insurance broker.

2019							
	Bank department	Department of Government Employees Insurance	Department of Procurement	Department of Precious Metals	BankTaiwan Insurance Brokers	Reconciliation and elimination	Total
Interest income	\$ 63,375,552	2,644,359	15	14,300	410	(410)	66,034,226
Less: interest expense	39,355,438	-	-	-	192	(602)	39,355,028
Interest income, net	24,020,114	2,644,359	15	14,300	218	192	26,679,198
Non-interest income, net	24,945,928	35,334,277	412,001	(128,074)	333,772	(167,267)	60,730,637
Other non-interest income	(7,787,798)	(37,820,823)	(22,511)	412,231	(1,024)	(18,993)	(45,238,918)
Net revenue	41,178,244	157,813	389,505	298,457	332,966	(186,068)	42,170,917
Bad debt expenses and reserve for guarantees	(7,342,988)	(2,240)	-	-	-	-	(7,345,228)
Operating expenses	(21,150,580)	(155,573)	(110,831)	(90,771)	(125,589)	18,885	(21,614,459)
Continuing operating income before income tax	<u>\$ 12,684,676</u>	<u>-</u>	<u>278,674</u>	<u>207,686</u>	<u>207,377</u>	<u>(167,183)</u>	<u>13,211,230</u>
Continuing operating income after income tax	<u>\$ 10,671,325</u>	<u>-</u>	<u>278,674</u>	<u>207,686</u>	<u>167,184</u>	<u>(167,183)</u>	<u>11,157,686</u>
Total assets	<u>\$ 4,780,964,131</u>	<u>341,837,704</u>	<u>2,520,539</u>	<u>1,934,694</u>	<u>546,167</u>	<u>(3,234,073)</u>	<u>5,124,569,162</u>
Total Liabilities	<u>\$ 4,403,198,054</u>	<u>341,837,704</u>	<u>2,241,865</u>	<u>1,727,008</u>	<u>108,849</u>	<u>(2,796,755)</u>	<u>4,746,316,725</u>
2018							
	Bank department	Department of Government Employees Insurance	Department of Procurement	Department of Precious Metals	BankTaiwan Insurance Brokers	Reconciliation and elimination	Total
Interest income	\$ 61,793,949	2,088,822	12	857	376	(376)	63,883,640
Less: interest expense	38,258,657	-	-	-	-	(376)	38,258,281
Interest income, net	23,535,292	2,088,822	12	857	376	-	25,625,359
Non-interest income, net	22,533,984	(11,011,450)	330,832	111,989	370,589	(194,982)	12,140,962
Other non-interest income	(7,619,153)	9,066,613	(14,052)	269,731	(1,305)	(19,668)	1,682,166
Net revenue	38,450,123	143,985	316,792	382,577	369,660	(214,650)	39,448,487
Bad debt expenses and reserve for guarantees	(7,298,861)	(3,639)	-	12	-	-	(7,302,488)
Operating expenses	(20,220,693)	(140,346)	(109,528)	(92,833)	(125,935)	19,671	(20,669,664)
Continuing operating income before income tax	<u>\$ 10,930,569</u>	<u>-</u>	<u>207,264</u>	<u>289,756</u>	<u>243,725</u>	<u>(194,979)</u>	<u>11,476,335</u>
Continuing operating income after income tax	<u>\$ 9,748,185</u>	<u>-</u>	<u>207,264</u>	<u>289,756</u>	<u>194,980</u>	<u>(194,979)</u>	<u>10,245,206</u>
Total assets	<u>\$ 4,751,235,673</u>	<u>296,414,148</u>	<u>2,002,026</u>	<u>1,479,559</u>	<u>537,039</u>	<u>(5,676,899)</u>	<u>5,045,991,546</u>
Total Liabilities	<u>\$ 4,441,603,648</u>	<u>296,414,148</u>	<u>1,794,762</u>	<u>1,189,803</u>	<u>110,289</u>	<u>(5,250,149)</u>	<u>4,735,862,501</u>