

JPMORGAN CHASE BANK, N.A. - BANGKOK BRANCH

FINANCIAL STATEMENTS

31 DECEMBER 2018



Independent auditor's report

To the Board of Directors of JPMorgan Chase Bank, N.A.

My opinion

In my opinion, the financial statements of JPMorgan Chase Bank, N.A. - Bangkok Branch (the Bank) present fairly, in all material respects, the financial position of Bank as at 31 December 2018, and its financial performance and its cash flows for the year then ended in accordance with Thai Financial Reporting Standards (TFRSs).

What I have audited

The Bank's financial statements comprise:

- the statement of financial position as at 31 December 2018;
- the statement of profit or loss and other comprehensive income for the year then ended;
- the statement of changes in head office's equity and other branches under the same entity for the year then ended;
- the statement of cash flows for the year then ended; and
- the notes to the financial statements, which include a summary of significant accounting policies.

Basis for opinion

I conducted my audit in accordance with Thai Standards on Auditing (TSAs). My responsibilities under those standards are further described in the Auditor's responsibilities for the audit of the financial statements section of my report. I am independent of the Bank in accordance with Thailand Federation of Accounting Professions under the Royal Patronage of his Majesty the King's Code of Ethics for Professional Accountants together with the ethical requirements that are relevant to my audit of the financial statements, and I have fulfilled my other ethical responsibilities in accordance with these requirements. I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my opinion.

Responsibilities of management for the financial statements

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

In preparing the financial statements, management is responsible for assessing the 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.



Auditor's responsibilities for the audit of the financial statements

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

As part of an audit in accordance with TSAs, I exercise professional judgment and maintain professional scepticism throughout the audit. I also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for my opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Bank's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Bank's ability to continue as a going concern. If I conclude that a material uncertainty exists, I am required to draw attention in my auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify my opinion. My conclusions are based on the audit evidence obtained up to the date of my auditor's report. However, future events or conditions may cause the Bank to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

I communicate with management regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that I identify during my audit.

PricewaterhouseCoopers ABAS Ltd.

Sinsiri Thangsombat

Certified Public Accountant (Thailand) No. 7352

Bangkok


19 April 2019

JPMorgan Chase Bank, N.A. - Bangkok Branch

Statement of Financial Position

As at 31 December 2018

	Notes	2018 Baht	2017 Baht
Assets			
Cash		4,327,183	3,210,202
Interbank and money market items, net	6	6,789,899,358	9,772,712,490
Accounts receivable from securities trading		686,684,655	832,088,737
Financial derivatives assets	7	22,242,466,199	19,086,924,697
Investments, net	8	32,956,604,700	31,683,881,136
Loans to customers	9		
and accrued interest receivables			
Loans to customers		2,662,132,743	930,730,690
Accrued interest receivables		862,203	3,007,589
Total loans to customers			
and accrued interest receivables		2,662,994,946	933,738,279
<u>Less</u> Deferred revenue		(2,143,567)	(2,469,550)
<u>Less</u> Allowance for doubtful debts	10	(26,621,332)	(10,704,326)
Loans to customers and accrued interest receivables, net		2,634,230,047	920,564,403
Equipment, net	11	23,922,340	25,558,449
Intangible assets, net	12	-	735,468
Deferred tax assets	17	175,942,436	207,252,187
Other assets, net	13	87,059,395	152,102,475
Total assets		65,601,136,313	62,685,030,244


 (Mr. Jarin Pintusopon)
 Branch Manager

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

JPMorgan Chase Bank, N.A. - Bangkok Branch
Statement of Financial Position (Cont'd)
As at 31 December 2018

	Notes	2018 Baht	2017 Baht
Liabilities and Head Office's equity and balances with other branches under the same entity			
Liabilities			
Deposits	14	13,973,433,473	13,246,879,885
Interbank and money market items	15	1,392,925,111	1,024,952,862
Accounts payable from securities trading		839,969,059	1,077,885,147
Liability payable on demand		40,233,679	52,274,269
Financial liabilities designated at fair value through profit or loss	16	17,654,056,525	21,087,565,208
Financial derivatives liabilities	7	18,554,983,835	15,554,077,249
Provision for employee benefit plan	19	144,592,416	114,543,555
Other liabilities	18	525,829,883	239,149,113
Total liabilities		53,126,023,981	52,397,327,288
Head Office's equity and balances with other branches under the same entity			
Fund remitted into Thailand for maintaining assets under law	22	10,468,403,666	9,494,909,666
Net balance of inter-office accounts with Head Office and other branches under the same entity	22	1,226,207,375	720,646,405
Others component of accounts with head office and other branches under the same entity		24,253,805	27,631,728
Retained earnings		756,247,486	44,515,157
Total Head Office's equity and balances with other branches under the same entity		12,475,112,332	10,287,702,956
Total liabilities and Head Office's equity and balances with other branches under the same entity		65,601,136,313	62,685,030,244

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

JPMorgan Chase Bank, N.A. - Bangkok Branch
Statement of Profit or Loss and Other Comprehensive Income
For the year ended 31 December 2018

		2018	2017
	Notes	Baht	Baht
Interest income	27	775,636,822	808,277,552
Interest expense	28	(207,635,876)	(166,581,707)
Net interest income		568,000,946	641,695,845
Fee and service income	29	36,183,351	31,394,784
Fee and service expenses		(14,516,496)	(14,728,550)
Net fee and service income		21,666,855	16,666,234
Gains on trading and foreign exchange transactions	30	521,606,863	3,199,114,051
Gain (Loss) from financial liabilities designated at fair value through profit or loss	31	416,812,588	(3,155,635,814)
Other operating income	32	291,566,004	181,799,326
Total operating income		1,819,653,256	883,639,642
Other operating expenses			
Employee expenses		341,984,342	325,537,120
Premise and equipment expenses		48,335,128	44,275,410
Taxes and duties		38,331,813	96,556,013
Others	33	550,347,082	531,862,342
Total other operating expenses		978,998,365	998,230,885
Bad debt and doubtful accounts (Reversal)	34	(64,366,918)	16,270,610
Profit (Loss) before income tax		905,021,809	(130,861,853)
Income tax expense	35	(192,750,480)	(62,879,053)
Net profit (loss) for the year		712,271,329	(193,740,906)

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

JPMorgan Chase Bank, N.A. - Bangkok Branch
Statement of Profit or Loss and Other Comprehensive Income (Cont'd)
For the year ended 31 December 2018

		2018 Baht	2017 Baht
Other comprehensive income (expense)			
Items that will not be subsequently reclassified to profit or loss			
Remeasurements of provision for employment benefit plan		-	(9,556,898)
Income tax relating to components of other comprehensive income that will not be subsequently reclassified to profit or loss		-	(4,684,699)
Total items that will not be subsequently reclassified to profit or loss		-	(14,241,597)
Items that will be subsequently reclassified to profit or loss			
Gains (losses) on changes in fair value of available-for-sale securities	8	(7,084,758)	13,855,102
Income tax relating to components of other comprehensive income that will be subsequently reclassified to profit or loss	17	1,416,952	3,278,964
Total items that will be reclassified subsequently to profit or loss		(5,667,806)	17,134,066
Other comprehensive income (expense) for the year, net of tax		(5,667,806)	2,892,469
Total comprehensive income (expense) for the year		706,603,523	(190,848,437)

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

JPMorgan Chase Bank, N.A. - Bangkok Branch

Statement of Changes in Head Office's equity and Other Branches Under the Same Entity

For the year ended 31 December 2018

	Notes	Fund remitted into Thailand for maintaining assets under law	Net balance of inter-office accounts with Head Office and other branches under the same entity	Other components of accounts with Head Office and other branches under the same entity				Total Baht
				Unrealised gain (loss) on changes in fair value of available-for-sale securities	Provision for share-based payment	Retained earnings	Baht	
Balance as at 1 January 2017		9,494,909,666	698,012,051	(6,719,295)	18,820,618	252,497,660		10,457,520,700
Net loss for the year		-	-	-	-	(193,740,906)		(193,740,906)
Increase during the year		-	22,634,354	-	-	-		22,634,354
Unrealised gain on changes in fair value of available-for-sale securities		-	-	13,855,102	-	-		13,855,102
Provision for share-based payment		-	-	-	(1,603,661)	-		(1,603,661)
Remeasurements of provision for employment benefit plan		-	-	-	-	(9,556,898)		(9,556,898)
Income tax relating to other component of other comprehensive income for the year		-	-	3,278,964	-	(4,684,699)		(1,405,735)
Balance as at 31 December 2017		9,494,909,666	720,646,405	10,414,771	17,216,957	44,515,157		10,287,702,956
Balance as at 1 January 2018		9,494,909,666	720,646,405	10,414,771	17,216,957	44,515,157		10,287,702,956
Net profit for the year		-	-	-	-	712,271,329		712,271,329
Fund injection during the year	22	957,130,500	-	-	-	-		957,130,500
Translation adjustment	22	16,363,500	-	-	-	-		16,363,500
Increase during the year		-	505,560,970	-	-	-		505,560,970
Unrealised loss on changes in fair value of available-for-sale securities		-	-	(7,084,758)	-	-		(7,084,758)
Provision for share-based payment	8	-	-	-	2,289,883	-		2,289,883
Income tax relating to other component of other comprehensive income for the year		-	-	1,416,952	-	(539,000)		877,952
Balance as at 31 December 2018		10,468,403,666	1,226,207,375	4,746,965	19,506,840	756,247,486		12,475,112,332

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

JPMorgan Chase Bank, N.A. - Bangkok Branch

Statement of Cash Flows

For the year ended 31 December 2018

	2018	2017
	Baht	Baht
Cash flows from operating activities:		
Net profit (loss) from operating before income tax	905,021,809	(130,861,853)
Adjustments to reconcile net profit from operating before income tax to net cash provided by (used in) operating activities:		
Bad debt and doubtful accounts (Reversal)	(64,366,918)	16,270,610
Depreciation and amortisation	18,973,005	20,890,552
Provision for employee benefit plan	30,303,924	43,963,139
Provision for share based payment expense	9,663,591	5,041,676
Unrealised (gain) loss on changes in fair value of trading securities	67,142,739	(93,239,400)
Loss on write-off of equipment	258,795	6,169
Unrealised gain on changes in fair value of financial derivative instruments	(154,634,916)	(1,091,247,329)
Loss on sale investments in securities	-	5,087,470
Revaluation of fund injection	16,363,500	-
Interest income	(775,636,822)	(808,277,552)
Interest expense	207,635,876	166,581,707
Operating profit (loss) before changes in operating assets and liabilities	260,724,583	(1,865,784,811)
(Increase) decrease in operating assets:		
Interbank and money market items	2,721,420,297	(2,837,000,000)
Investments in trading securities	1,588,585,731	(2,514,541,506)
Loans to customers	(1,732,838,129)	610,211,465
Other assets	47,389,381	(36,700,895)
Increase (decrease) in operating liabilities:		
Deposits	726,553,588	2,916,693,922
Interbank and money market items	367,972,249	(298,207,214)
Liability payable on demand	(12,040,590)	(45,829,885)
Financial liabilities designated at fair value through profit or loss	(3,433,508,683)	3,226,462,327
Provision for employee benefit plan	(255,063)	(271,800)
Provision for share based payment expense	(7,373,708)	(6,645,337)
Other liabilities	268,418,816	(139,615,172)
Net balance of inter-office accounts with Head Office and other branches under the same entity	645,969,012	(215,835,457)
Net cash provided by (used in) operating activities before interest received, interest paid and income tax paid - carried forward	1,441,017,484	(1,207,064,363)

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

JPMorgan Chase Bank, N.A. - Bangkok Branch

Statement of Cash Flows (Cont'd)

For the year ended 31 December 2018

	2018	2017
	Baht	Baht
Net cash provided by (used in) operating activities before interest received, interest paid and income tax paid - brought forward	1,441,017,484	(1,207,064,363)
Interest received	568,063,317	581,384,590
Interest paid	(207,309,976)	(163,206,992)
Income tax paid	(142,626,723)	(131,275,688)
Net cash provided by (used in) operating activities	1,659,144,102	(920,162,453)
Cash flows from investing activities:		
Purchase of investments in securities	(36,528,193,685)	(35,724,102,686)
Proceed from matured investments in AFS securities	33,720,000,000	36,640,000,000
Purchase of equipment	(9,249,923)	(9,909,810)
Purchase of leasehold improvement	-	(2,213,318)
Net cash provided by (used in) investing activities	(2,817,443,608)	903,774,186
Cash flows from financing activities:		
Fund injection	957,130,500	-
Net cash provided by financing activities	957,130,500	-
Net decrease in cash and cash equivalents	(201,169,006)	(16,388,267)
Cash and cash equivalents at the beginning of the year	1,090,216,598	1,106,604,865
Cash and cash equivalents at end of the year	889,047,592	1,090,216,598
Cash and cash equivalents		
Cash on hand	4,327,183	3,210,202
Interbank and money market items	674,355,162	1,017,049,191
Net balance of inter-office accounts with Head Office and other branches under the same entity	210,365,247	69,957,205
	889,047,592	1,090,216,598
Non cash item:		
Increase (decrease) in accounts receivable from securities trading	145,404,082	(464,594,569)
Increase (decrease) in accounts payable from securities trading	(237,916,088)	574,197,486

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

1 General information

JPMorgan Chase Bank, N.A., which is a bank established under the law of the State of New York, United States of America, operates as a full branch in Thailand, namely Bangkok Branch, herein referred to as "the Bank". The address of the Bank's registration in Thailand is as follows:

Bubhajit Building, 20 North Sathorn Road, Silom, Bangrak, Bangkok 10500.

The Bank's financial statements have been approved for issue by the Bank's management on 19 April 2019.

2 Basis of preparation

The Bangkok Branch is a segment of JPMorgan Chase Bank, N.A. and is not a separate legal entity. The financial statements of the Thailand operations of JPMorgan Chase Bank have been prepared from the records of the Thailand operations and only reflect transaction recorded locally.

The financial statements have been prepared in accordance with procedures, policies and notifications of the Bank of Thailand regarding the preparation of the financial statements of commercial banks and Thai Financial Reporting Standards issued under the Accounting Act B.E. 2543, being those Thai Financial Reporting Standards issued under the Accounting Profession Act B.E. 2547. The primary financial statements (i.e. statement of financial position, statement of profit or loss and other comprehensive income, statement of changes in Head Office's equity and other branches under the same entity and statement of cash flows) are prepared in the format as required by the Notification of the Bank of Thailand ("BOT"), No. SorNorSor. 21/2558, "The Preparation and Format of the Financial Statements of Commercial Bank and Holding Parent Company of Financial Group" dated on 4 December 2015.

The Bank's financial statements have been prepared under the historical cost convention except some of transactions as disclosed in the accounting policies below.

The preparation of financial statements in conformity with Thai Financial Reporting Standards requires the use of certain critical accounting estimates. It also requires management to exercise its judgement in the process of applying the Bank's accounting policies. The areas involving a higher degree of judgement or complexity, or areas where assumptions and estimates are significant to the financial statements are disclosed in note 4.

An English version of the financial statements has been prepared from the statutory financial statements that are in the Thai language. In the event of a conflict or a difference in interpretation between the two languages, the Thai language statutory financial statements shall prevail.

3 Summary of significant accounting policies

3.1 Revised financial reporting standards and related interpretations

3.1.1 Revised financial reporting standards are effective for annual periods beginning on or after 1 January 2018 which have changes and are relevant to the Bank.

TAS 7 (revised 2017)	Statement of cash Flows
TAS 12 (revised 2017)	Income taxes

TAS 7 (revised 2017), the amendments require additional disclosure of changes in liabilities arising from financing activities. This includes changes arising from cash and non-cash.

TAS 12 (revised 2017), the amendments clarify the accounting for deferred tax where an asset is measured at fair value and that fair value is below the asset's tax base. Specifically, the amendments confirm that:

- A temporary difference exists whenever the carrying amount of an asset is less than its tax base at the end of the reporting period.
- An entity can assume that it will recover an amount higher than the carrying amount of an asset to estimate its future taxable profit.
- Where the tax law restricts the source of taxable profits against which particular types of deferred tax assets can be recovered, the recoverability of the deferred tax assets can only be assessed in combination with other deferred tax assets of the same type.
- Tax deductions resulting from the reversal of deferred tax assets are excluded from the estimated future taxable profits.

The management has already assessed that those accounting standards have no significant impact on the Bank financial statements, except for disclosures.

3.1.2 New and revised financial reporting standards and interpretation which have been issued but not yet effective.

3.1.2.1 The Thailand Federation of Accounting Professions has issued new standard, TFRS 15 Revenue from contracts with customers. This standard will become effective for annual periods beginning on or after 1 January 2019. The Bank has not early adopted this standard.

TFRS 15 Revenue from contracts with customers will replace TAS 18 (revised 2017) Revenue.

The new standard is based on the principle that revenue is recognised when control of a good or service transfers to a customer - so the notion of control replaces the existing notion of risks and rewards.

A new five-step process must be applied before revenue can be recognised:

- 1) identify contracts with customers
- 2) identify the performance obligations in the contract
- 3) determine the transaction price of the contract
- 4) allocate the transaction price to each of the separate performance obligations, and
- 5) recognise the revenue as each performance obligation is satisfied

3 Summary of significant accounting policies (Cont'd)

3.1 Revised financial reporting standards and related interpretations (Cont'd)

3.1.2 New and revised financial reporting standards and interpretation which have been issued but not yet effective. (Cont'd)

3.1.2.1 The Thailand Federation of Accounting Professions has issued new standard, TFRS 15 Revenue from contracts with customers. This standard will become effective for annual periods beginning on or after 1 January 2019. The Bank has not early adopted this standard. (Cont'd)

Key changes to current practice are:

- Any bundled goods or services that are distinct must be separately recognised, and any discounts or rebates on the contract price must generally be allocated to the separate elements.
- Revenue may be recognised earlier than under current standards if the consideration varies for any reasons (such as for incentives, rebates, performance fees, royalties, success of an outcome etc) - minimum amounts must be recognised if they are not at significant risk of reversal.
- The point at which revenue is able to be recognised may shift: some revenue which is currently recognised at a point in time at the end of a contract may have to be recognised over the contract term and vice versa.
- There are new specific rules on licenses, warranties, non-refundable upfront fees and, consignment arrangements.
- As with any new standard, there are also increased disclosures.

Entities will have a choice to apply this standard retrospectively in accordance with TAS 8 Accounting Policies, Changes in Accounting Estimates and Errors, subject to the expedients or retrospectively with the cumulative effect recognised as an adjustment to the opening balance of retained earnings of the annual reporting period that includes the date of initial application with additional disclosures.

The management is currently assessing the impact of initial adoption of this standard.

3.1.2.2 Revised financial reporting standards will become effect for annual periods beginning on or after 1 January 2019 and are relevant to the Bank. The Bank has not yet adopt these standards.

TFRS 2 (revised 2018)

Share-based Payment

TFRS 2, the amendments clarify;

- The measurement basis for cash-settled share-based payments, vesting conditions, other than market conditions, shall not be taken into account when estimating the fair value of the cash-settled share-based payment at the measurement date. Instead, vesting conditions, other than market conditions, shall be taken into account by adjusting the number of awards included in the measurement of the liability arising from the transaction.

3 Summary of significant accounting policies (Cont'd)

3.1 Revised financial reporting standards and related interpretations (Cont'd)

3.1.2 New and revised financial reporting standards and interpretation which have been issued but not yet effective. (Cont'd)

3.1.2.2 Revised financial reporting standards will become effect for annual periods beginning on or after 1 January 2019 and are relevant to the Bank. The Bank has not yet adopt these standards. (Cont'd)

- Where an employer is obliged to withhold an amount for the employee's tax obligation associated with a share-based payment and pay that amount to the tax authority, the whole award will be treated as if it was equity-settled provided it would have been equity-settled without the net settlement feature, and
- The accounting for modifications that change an award from cash-settled to equity-settled.

The management is currently assessing the impact of initial adoption of this standard.

3.1.2.3 The Group of financial instruments reporting standards consist of the following standards. These standards could be early adopted before the effective date only for the period beginning on or after 1 January 2019.

TAS 32	Financial instruments: Presentation
TFRS 7	Financial Instruments: Disclosures
TFRS 9	Financial Instruments

The above new standards and interpretations will supersede the following standards:

TAS 101	Bad and Doubtful Debts
TAS 103	Disclosures in the Financial Statements of Bank and Similar Financial Institutions
TAS 105	Accounting for Investment in Debts and Equity securities
TAS 106	Accounting for Investment Companies
TAS 107	Financial Instruments: Disclosure and Presentation

TAS 32 Financial Instruments: Presentation, provides the requirements for the presentation financial instruments as liabilities or equity and for offsetting financial assets and financial liabilities. It applies to the classification of financial instruments, from the perspective of the issuer, into financial assets, financial liabilities and equity instruments; the classification of related interest, dividends, losses and gains; and the circumstances in which financial assets and financial liabilities should be offset.

TFRS 7 Financial Instruments: Disclosures, provides the requirements for the disclosure that are intended to enable users to evaluate the significance of financial instruments for an entity's financial position and performance, and to understand the nature and extent of risks arising from those financial instruments to which the entity is exposed during the period and at the end of the reporting period, and how the entity manages those risks.

3 Summary of significant accounting policies (Cont'd)

3.1 Revised financial reporting standards and related interpretations (Cont'd)

3.1.2 New and revised financial reporting standards and interpretation which have been issued but not yet effective. (Cont'd)

3.1.2.3 The Group of financial instruments reporting standards consist of the following standards. These standards could be early adopted before the effective date only for the period beginning on or after 1 January 2019. (Cont'd)

TFRS 9 Financial Instruments, establishes principles for the classification, measurement and derecognition of financial assets and financial liabilities, impairment requirement and hedge accounting as follow:

- Classification and measurement:
 - The classification and measurement of debt instrument financial assets has three classification categories, which are amortised cost, fair value through profit or loss and fair value through other comprehensive income. Classification of debt assets will be driven by the entity's business model for managing the financial assets and contractual cash flows characteristics of the financial assets.
 - Equity instrument financial assets shall be measured at fair value through profit or loss. An entity can make an irrevocable election to recognise the fair value change in other comprehensive income without subsequent recycling to profit or loss.
 - Financial liabilities are classified and measured at amortised cost. An entity can choose to measure a liability at fair value through profit or loss when the conditions are met.
 - Derivatives are classified and measured at fair value through profit or loss.
- The impairment requirements relating to the accounting for an entity's expected credit losses on its financial assets measured at amortised cost, investments in debt instruments measured at fair value through other comprehensive income, lease receivables, loan commitments and financial guarantee contracts. It is no longer necessary for a credit event to have occurred before credit losses are recognised. The entity always accounts for expected credit losses which involves a three stage approach. The stage dictates how the entity measures impairment losses and applies the effective interest rate method. Except for trade receivables and contractual assets which apply in TFRS 15 and are no significant financial components and lease receivables, they are permitted to measure by simplified approach for credit impaired consideration.
- The objective of hedge accounting is to represent, in the financial statements, the effect of an entity's risk management activities that use financial instruments to manage exposures arising from particular risks that could affect profit or loss (or other comprehensive income, in the case of investments in equity instruments for which an entity has elected to present changes in fair value in other comprehensive income). This approach aims to convey the context of hedging instruments for which hedge accounting is applied in order to allow insight into their purpose and effect.

The management is currently assessing the impact of initial adoption of these standards.

3 Summary of significant accounting policies (Cont'd)

3.2 Recognition of income

Interest income on loans and receivables is recognised on an accrual basis. The Bank discontinues recognition of accrued interest income for loans overdue more than three months since the due date or there is uncertainty of collectability, and a collection basis is applied. The Bank also reverses interest income on such loans in order to comply with the Bank of Thailand's notification.

Interest on investment in debt securities is recognised as income by using the effective interest rate method.

Other income is recognised as income on an accrual basis.

3.3 Recognition of expenses

The Bank recognises, including interest expense on an accrual basis.

3.4 Cash and cash equivalents

Cash and cash equivalents comprise of cash on hand, interbank and money market items and balance of inter-office accounts with Head Office and other branches under the same entity, other short-term highly liquid investments with maturities less than three months from an acquisition date.

3.5 Investments

The Bank recognises investments on the trade date.

The classification is dependent on the purpose for which the investments were acquired. Management determines the appropriate classification of its investments at the time of the purchase and re-evaluates such designation on a regular basis.

Investments that are acquired principally for the purpose of generating a profit from short-term fluctuations in price are classified as trading investments. Investments in debt securities which are classified as trading securities are carried at fair value. Fair value of traded debt securities is reference to the last quoted bid price and if securities are not traded in the established market, fair value is calculated by reference to the risk-free yield curve adjusted by an appropriate risk premium (if any). Increases or decreases in the carrying amount are recognised in the statement of profit or loss and other comprehensive income when incurred.

Investments intended to be held for an indefinite period of time, which may be sold in response to liquidity needs or changes in interest rates are classified as available-for-sale. Investments in debt securities which are classified as available-for-sale securities are carried at fair value by reference to the last quoted bid price. Fair value of debt securities, not traded in the established market, is calculated using the generally accepted method which is discounted cash flow by reference to the risk-free yield curve adjusted by an appropriate risk premium (if any). Increases or decreases in the carrying amount are credited or charged against unrealised gains or losses on change in fair value of investments in securities under Head Office's equity and balances with other branches under the same entity.

Investments are initially recognised at cost, which is equal to the fair value of consideration paid plus transaction cost.

3 Summary of significant accounting policies (Cont'd)

3.5 Investments (Cont'd)

The Bank tests for decrease in value of investments when there is a factor indicating that such investment might decrease in value. If the carrying value of the investment is greater than its recoverable amount, loss from the decrease in value is charged to the statement of profit or loss and other comprehensive income when incurred.

The Bank uses the First-in, First-out method in determining the cost of the disposed securities. Gain or loss on disposal of all types of investments is taken to the statements of comprehensive income in the period which the transactions take place.

3.6 Loans to customers and allowance for doubtful accounts

The Bank recognises loans to customers on trade date

Loans to customers are generally stated at the principal amounts outstanding. The allowance is increased by provisions charged to expense and decreased by write-offs, net of recoveries after receiving cash. The allowance is based on the Bank management's review and assessment of the status of an individual debtor as well as the Bank of Thailand's guidelines. Such assessment takes into consideration various factors including the risks involved, the value of collateral and the status of an individual debtor including the relationship of allowance for doubtful debts against the loan balances through the economic situation which may have an impact on the customers' ability to pay.

3.7 Equipment and depreciation

Equipment is stated at historical cost less accumulated depreciation and allowance for decrease in value (if any).

Depreciation is calculated on a straight-line basis to write off the cost of each asset over its estimated useful life as follows:

Computer equipment	3 years
Office equipment	5 years
Furniture and fixtures & fitting	10 years
Motor vehicles	5 years

The assets' residual values and useful lives are reviewed, and adjusted if appropriate, at the end of each reporting period.

Where the carrying amount of an asset is greater than its estimated recoverable amount, it is written down immediately to its recoverable amount. Estimated recoverable amount is the higher of the anticipated discounted future cash flows from the continuing use of the asset or the amount obtainable from the sale of the asset less any costs of disposal.

Gains and losses on disposals are determined by comparing proceeds with carrying amount and are included in operating profits.

Repairs and maintenance are charged to the statements of profit or loss and other comprehensive income during the accounting period in which they are incurred. The cost of major renovations is included in the carrying amount of the asset when it is probable that future economic benefits in excess of the originally assessed standard of performance of the existing asset will flow to the Bank. Major renovations are depreciated over the remaining useful life of the related asset.

3 Summary of significant accounting policies (Cont'd)

3.8 Intangible assets

Acquired intangible assets are capitalised and amortised using the straight-line basis over their useful lives, generally over 4 years. Intangible assets are not revalued, but are presented at cost less accumulated amortisation. The carrying amount of each intangible asset is reviewed annually and adjusted for impairment where it is considered necessary.

The estimated useful life is reviewed and revised as necessary in every financial position date.

3.9 Leasehold right

The cost of leasehold right on building for the period of 30 years, which is presented as other assets, is amortised as an operating expense on a straight-line method over the life of the agreement.

3.10 Impairment of assets

Assets that have an indefinite useful life, for example goodwill, are not subject to amortisation and are tested annually for impairment. Assets that are subject to amortisation are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognised for the amount by which the carrying amount of the assets exceeds its recoverable amount. The recoverable amount is the higher of an asset's fair value less costs to sell and value in use. For the purposes of assessing impairment, assets are grouped at the lowest level for which there are separately identifiable cash flows. Non-financial assets other than goodwill that suffered an impairment are reviewed for possible reversal of the impairment at each reporting date.

3.11 Leases

Leases - where the Bank is the lessee

Leases in which a significant portion of the risks and rewards of ownership are retained by the lessor are classified as operating leases. Payments made under operating leases (net of any incentives received from the lessor) are charged to profit or loss on a straight-line basis over the period of the lease.

When an operating lease is terminated before the lease period has expired, any payment required to be made to the lessor by way of penalty is recognised as an expense in the period in which such termination takes place.

3.12 Related parties

Enterprises or individuals that, directly or indirectly through one or more intermediaries, control, or are under controlled by, or are under common control with, the Bank, including holding entities, subsidiaries and fellow subsidiaries are related parties of the Bank. Associates and individuals owning, directly or indirectly, an interest in the voting power of the Bank that gives them significant influence over the Bank, key management personnel, including directors and officers of the Bank and close members of the family of these individuals and entities associated with these individuals also constitute related parties.

In considering each possible related party relationship, attention is directed to the substance of the relationship, and not merely the legal form.

3 Summary of significant accounting policies (Cont'd)

3.13 Foreign currency translation

a) Functional and presentation currency

Items included in the financial statements of the Bank are measured using the currency of the primary economic environment in which the entity operates ('the functional currency'). The financial statements are presented in Thai Baht, which is the Bank's functional presentation currency.

b) Transactions and balances

Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transactions or valuation where items are re-measured using the reference rates of exchange of the Bank of Thailand ruling at the date. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at year-end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognised in the profit or loss.

3.14 Financial derivatives

The Bank recognises financial derivative instruments on the trade date.

Derivative financial instruments including foreign exchange forward contracts, forward rate agreements, currency option agreements, interest rate option agreements, interest and currency swap agreements, credit derivative agreements and commodity derivative agreements are recognised at fair values. Fair values are either the market price in the market or obtained from widely used methods such as discounted cash flow models. Changes in fair value are reflected in the statements of profit or loss and other comprehensive income.

3.15 Provision for share based payment

Restricted stock units

The Bank operates a number of equity-settled share based compensation plan, under which the Bank receives services from employees as consideration of shares of the ultimate parent company. The ultimate parent company is the guarantor for share based compensation plan and the Bank does not have any obligation for the granted shares. The fair value of the granted shares is recognised as an expense in the statements of comprehensive income against its Head office's equity and balances with other branches under the same entity during the grant date and the vesting date. The Head office's equity and balances with other branches under the same entity is reversed when the Bank pays back to the ultimate parent company.

3 Summary of significant accounting policies (Cont'd)

3.16 Employee benefits

The Bank's employment benefits consists of post-employment benefits both defined contribution plan and defined benefit plan.

Defined Contribution Plan or Provident Fund

The Bank operates a provident fund, being a defined contribution plan, the assets for which are held in a separate trustee-administered fund. Such fund is managed by an external fund manager in accordance with the provident fund Act. B.E. 2530. The provident fund is funded by payments from employees and contributions by the Bank. The Bank has no legal or constructive obligations to pay further contributions if the fund does not hold sufficient assets to pay all employees the benefits relating to employee service in the current and prior periods.

The Bank recognises contributions to the provident fund as expense in the statement of profit or loss and other comprehensive income in the period which the transactions take place.

Defined Benefit Plan

A defined benefit plan is a plan that is not a defined contribution plan. Typically, the defined benefit plan defines an amount of benefit that an employee will receive on retirement or retrenchment without cause, usually dependent on one or more factors such as age, years of service and compensation.

The liability recognised in the statement of financial position in respect of defined benefit plans is the present value of the defined benefit obligation at the end of the reporting period, together with adjustments for unrecognised past-service costs. The defined benefit obligation is calculated by independent actuaries using the projected unit credit method. The present value of the defined benefit obligation is determined by discounting the estimated future cash outflows using weighted average discount rate of government bonds that are denominated in the currency in which the benefits will be paid, and that have terms to maturity approximating to the terms of the related pension liability.

Remeasurements of defined benefit plans arising from experience adjustments and changes in actuarial assumptions are recognised in other comprehensive income in the period in which they arise.

Past-service costs are recognised immediately in the statement of profit or loss and other comprehensive income.

Under Labour Laws applicable in Thailand and the Bank's employment policy, all employees completing 120 days of service are entitled to severance pay on termination or retrenchment without cause or upon retirement age of 60. The severance pay will be at the rate according to number of years of service as stipulated in the Labor Law which is currently at a maximum rate of 400 days of final salary.

Long service awards

The Bank provides long service awards to employees. The entitlement to these benefits is usually conditional on the employee remaining in service up to retirement age and the completion of a minimum service period. The expected costs of these benefits are accrued over the period of employment using the same accounting methodology as is used for defined benefit retirement plans.

Remeasurements of defined benefit plans arising from experience adjustments and changes in actuarial assumptions are recognised in other comprehensive income in the period in which they arise.

These obligations are valued in every 3 years by independent qualified actuaries.

3 Summary of significant accounting policies (Cont'd)

3.17 Provisions

In addition to provisions for post-employment benefits and long service awards, provisions are recognised when the Bank has a present legal or constructive obligation as a result of past events. It is probable that an outflow of resources will be required to settle the obligations, and a reliable estimate of the amount can be made. Where the Bank expects provisions to be reimbursed, the reimbursement is recognised as a separate asset but only when the reimbursement is virtually certain.

3.18 Offsetting

Financial assets and financial liabilities are presented in the statement of financial position by the net amount when there is a legally enforceable right to set off the recognised amounts and the Bank has an intention to settle on a net basis, or realise the financial asset and settle the financial liability simultaneously.

3.19 Current and deferred income taxes

The tax expense for the period comprises of the current and deferred income taxes. Income tax is recognised in profit or loss, except to the extent that it relates to items recognised in other comprehensive income or directly in head office's equity and balances with other branches under the same entity. In this case the income tax is also recognised in other comprehensive income or directly in head office's equity and balances with other branches under the same entity, respectively.

The current income tax charge is calculated on the basis of the tax laws enacted or substantively enacted at the end of reporting period in the countries where the Bank's operates and generates taxable income. Management periodically evaluates positions taken in tax returns with respect to situations in which applicable tax regulation is subject to interpretation. It establishes provisions where appropriate on the basis of amounts expected to be paid to the tax authorities.

Deferred income tax is recognised, using the liability method, on temporary differences arising from differences between the tax base of assets and liabilities and their carrying amounts in the financial statements.

Deferred income tax is determined using tax rates that have been enacted or substantially enacted by the end of the reporting period and are expected to apply when the related deferred income tax asset is recognised or the deferred income tax liability is settled.

Deferred income tax assets are recognised only to the extent that it is probable that future taxable profit will be available against which the temporary differences can be utilised.

Deferred income tax assets and liabilities are offset when there is a legally enforceable right to offset current tax assets against current tax liabilities and when the deferred income tax assets and liabilities relate to income taxes levied by the same taxation authority on either the same taxable entity or different taxable entities where there is an intention to settle the balances on a net basis.

3 Summary of significant accounting policies (Cont'd)

3.20 Financial liabilities designated at fair value through profit or loss

The Bank designated certain borrowings upon initial recognition of financial liabilities at fair value through statements of profit or loss and other comprehensive income (fair value option); this designation cannot be changed subsequently. The fair value option is applied, as the borrowing consists of borrowing host contract and embedded derivatives that must otherwise be separated if it is not designated as fair value through profit or loss.

Financial liabilities for which the fair value option is applied are recognised in the statement of financial position as "Financial liabilities designated at fair value through profit or loss". Fair value changes relating to financial liabilities designated at fair value through profit or loss are recognised in "Gains (losses) from financial liabilities designated at fair value through profit or loss" in profit or loss.

4 Critical accounting estimates, assumptions and judgements

Estimates, assumptions and judgements are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances. The resulting accounting estimates will, by definition, seldom equal the related actual results.

a) Decrease in value of loans

The Bank maintains an allowance for doubtful accounts to reflect decrease in value of loans relating to estimated losses resulting from the inability of customers to make required payments. Management believed that estimation are reasonable.

b) Decrease in value of investments

The Bank reviews decrease in value of investments whenever events or changes in circumstances indicate that the carrying amount may not be recovered, in determining the losses on decrease in value. Management believed that estimation are reasonable.

c) Fair value of financial derivative instruments

In determining the fair value of financial derivative instruments, the management has made judgement in valuing derivative instruments by using widely accepted valuation techniques and guidelines. Management believed that estimation are reasonable.

d) Post-employment benefits

In accordance with Thai Labour Law, the Bank has commitment on post-retirement benefits to employees on reaching retirement age. The present value of employee benefit liabilities recognised in the statement of financial position is determined on the present value of estimated future cash outflows for staff. The assumptions used in determining the net annual cost for employee benefits include the salary and years of services of respective employees which are payable in the future year and discount rate (government bond). Any changes in these assumptions will impact the net annual cost recorded for employee benefits. At each period ends, the Bank revises the appropriate discount rate, which represents the rate that should be used to determine the present value of future cash flows to settle the nearly reached retired employee benefits at the end of period when there are material impacts.

4 Critical accounting estimates, assumptions and judgements (Cont'd)

e) Fair value of financial liabilities designated at fair value through profit or loss

Management uses various methodologies and assumptions in the determination of fair value. Valuations are based on discounted cash flow analyses that consider the embedded derivative and the terms and payment structure of the note.

Moreover, the Bank considers using models such as the Black-Scholes option pricing model, simulation models, or a combination of models that use observable or unobservable valuation inputs, depending on the embedded derivative. The specific inputs used vary according to the nature of the embedded derivative features, as described in the discussion above regarding derivative valuation. The Bank may make valuation adjustment of financial derivatives by fair value adjustments.

5 Capital risk management

The Bank's objective when managing capital is to safeguard the Bank's ability to continue as a going concern in order to provide returns for Head Office and other branches under the same entity.

The Bank maintains a capital adequacy ratio in accordance with the Act on undertaking of Banking Business B.E. 2551. Capital funds are disclosed in note 22.

6 Interbank and money market items, net (assets)

	2018		
	Demand Baht	Time Baht	Total Baht
Domestic items			
The Bank of Thailand	320,836,463	4,400,000,000	4,720,836,463
Commercial banks	191,074,224	1,715,579,703	1,906,653,927
Total	511,910,687	6,115,579,703	6,627,490,390
<u>Add</u> Accrued interest receivable	-	614,493	614,493
<u>Less</u> Allowance for doubtful accounts	-	(650,000)	(650,000)
Total domestic items, net	511,910,687	6,115,544,196	6,627,454,883
Foreign items			
Euro	126,335,836	-	126,335,836
Swiss Franc	5,602,363	-	5,602,363
Australian Dollar	11,376,744	-	11,376,744
Singapore Dollar	5,737,288	-	5,737,288
Others	13,392,244	-	13,392,244
Total foreign items, net	162,444,475	-	162,444,475
Total interbank and money market items, net	674,355,162	6,115,544,196	6,789,899,358

6 Interbank and money market items, net (assets) (Cont'd)

	2017		
	Demand Baht	Time Baht	Total Baht
Domestic items			
The Bank of Thailand	384,025,410	600,000,000	984,025,410
Commercial banks	435,687,147	8,237,000,000	8,672,687,147
Total	819,712,557	8,837,000,000	9,656,712,557
<u>Add</u> Accrued interest receivable	-	1,033,299	1,033,299
<u>Less</u> Allowance for doubtful accounts	-	(82,370,000)	(82,370,000)
Total domestic items, net	819,712,557	8,755,663,299	9,575,375,856
Foreign items			
Euro	141,543,987	-	141,543,987
Swiss Franc	35,309,261	-	35,309,261
Australian Dollar	4,942,064	-	4,942,064
Singapore Dollar	725,446	-	725,446
Others	14,815,876	-	14,815,876
Total foreign items, net	197,336,634	-	197,336,634
Total interbank and money market items, net	1,017,049,191	8,755,663,299	9,772,712,490

7 Financial derivatives

Trading derivatives

Fair value and notional amount classified by types of risks as at 31 December 2018 and 2017 comprise of the followings:

Types of risks	2018		
	Fair value		Notional amount Baht
	Assets Baht	Liabilities Baht	
Foreign exchange rate	11,861,487,310	8,977,289,853	748,981,716,362
Interest rate	9,891,929,879	8,216,920,457	1,456,300,778,369
Credit risk	394,412,484	578,407,464	47,425,382,700
Index	94,636,526	18,706,511	3,306,936,108
Others	-	763,659,550	-
Total trading derivatives	22,242,466,199	18,554,983,835	2,256,014,813,539

7 Financial derivatives (Cont'd)

Trading derivatives (Cont'd)

Fair value and notional amount classified by types of risks as at 31 December 2018 and 2017 comprise of the followings: (Cont'd)

Types of risks	2017		
	Fair value		Notional amount Baht
	Assets Baht	Liabilities Baht	
Foreign exchange rate	10,506,407,859	8,276,163,088	590,013,735,877
Interest rate	8,046,614,525	6,146,325,345	1,174,651,479,876
Credit risk	390,753,175	133,881,378	35,638,521,450
Index	143,149,138	-	1,246,242,016
Others	-	997,707,438	-
Total trading derivatives	19,086,924,697	15,554,077,249	1,801,549,979,219

Proportion of derivative contract balances as at 31 December 2018 and 2017 classified by counterparties comprise of the followings:

	2018 Percentage	2017 Percentage
Financial institutions	63	65
Affiliated companies	31	30
Third parties	6	5
Total trading derivatives	100	100

8 Investments, net

8.1 Classification of investments

	2018 Fair value Baht	2017 Fair value Baht
Trading securities		
Domestic government	11,627,263,220	13,346,521,386
Foreign government	-	28,982,310
Total	11,627,263,220	13,375,503,696
Available-for-sale securities		
Domestic government	21,329,341,480	18,308,377,440
Total	21,329,341,480	18,308,377,440
Total investment, net	32,956,604,700	31,683,881,136

8 Investments, net (Cont'd)

8.2 Recognition of transaction in profit or loss, or other comprehensive income for available-for-sales investments

Recognition of transaction in profit or loss or other comprehensive income for available for sales investments for the years ended 31 December 2018 and 2017 are as follow;

	2018 Baht	2017 Baht
Changes in value of available-for-sale investments	(7,084,758)	13,855,102
Realised gain (loss) from sale of available for sale investments transferred to profit or loss	-	-
	<u>(7,084,758)</u>	<u>13,855,102</u>

9 Loans to customers and accrued interest receivables, net

9.1 Classified by types of loans:

	2018 Baht	2017 Baht
Overdrafts	57,968	-
Loans	2,662,074,775	930,730,690
Total loans to customers	2,662,132,743	930,730,690
<u>Less</u> Deferred revenue	(2,143,567)	(2,469,550)
Total loans to customers net from deferred revenue	2,659,989,176	928,261,140
<u>Add</u> Accrued interest receivables	862,203	3,007,589
Total loans to customers net from deferred revenue, adding accrued interest receivables	2,660,851,379	931,268,729
<u>Less</u> Allowance for doubtful accounts	(26,621,332)	(10,704,326)
Total loans to customers and interest receivables, net	<u>2,634,230,047</u>	<u>920,564,403</u>

9.2 Classified by currencies and domiciles of customers:

	2018		
	Domestic Baht	Foreign Baht	Total Baht
Thai Baht	2,659,989,176	-	2,659,989,176
Total loans to customers net from deferred revenue	<u>2,659,989,176</u>	<u>-</u>	<u>2,659,989,176</u>
	2017		
	Domestic Baht	Foreign Baht	Total Baht
Thai Baht	928,261,140	-	928,261,140
Total loans to customers net from deferred revenue	<u>928,261,140</u>	<u>-</u>	<u>928,261,140</u>

9 Loans to customers and accrued interest receivables, net (Cont'd)

9.3 Classified by types of business and classification:

	2018					Total Baht
	Normal Baht	Special mentioned Baht	Substandard Baht	Doubtful Baht	Doubtful of loss Baht	
Manufacturing and commerce	2,283,016,424	-	-	-	-	2,283,016,424
Utilities and services	376,972,752	-	-	-	-	376,972,752
Others	-	-	-	-	-	-
Total loans to customers net from deferred revenue	2,659,989,176	-	-	-	-	2,659,989,176

	2017					Total Baht
	Normal Baht	Special mentioned Baht	Substandard Baht	Doubtful Baht	Doubtful of loss Baht	
Manufacturing and commerce	626,612,151	-	-	-	-	626,612,151
Utilities and services	300,212,913	-	-	-	-	300,212,913
Others	-	-	-	-	1,436,076	1,436,076
Total loans to customers net from deferred revenue	926,825,064	-	-	-	1,436,076	928,261,140

9.4 Classified by classification:

The Bank has loans to customers net from deferred revenue and accrued interest receivables and the allowance for doubtful accounts which can be classified in accordance with the Bank of Thailand (BOT) guidelines as follows:

Classification	2018			
	Loans net from deferred revenue and accrued interest receivables Baht	Net amount used as a basis for setting allowance for doubtful accounts Baht	Allowance for doubtful accounts	
			Minimum % required according to BOT guidelines	Total allowance Baht
Normal	2,660,851,379	2,662,132,743	1	26,621,332
Doubtful of loss	-	-	100	-
Total	2,660,851,379	2,662,132,743		26,621,332

Classification	2017			
	Loans net from deferred revenue and accrued interest receivables Baht	Net amount used as a basis for setting allowance for doubtful accounts Baht	Allowance for doubtful accounts	
			Minimum % required according to BOT guidelines	Total allowance Baht
Normal	929,832,653	926,825,064	1	9,268,250
Doubtful of loss	1,436,076	1,436,076	100	1,436,076
Total	931,268,729	928,261,140		10,704,326

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10 Allowance for doubtful accounts

	2018					Total Baht
	Normal Baht	Special mentioned Baht	Substandard Baht	Doubtful Baht	Doubtful of loss Baht	
Balance at the beginning of the year	9,268,250	-	-	-	1,436,076	10,704,326
Allowance for doubtful accounts (Note 34)	17,353,082	-	-	-	-	17,353,082
Write-off bad debt	-	-	-	-	(1,436,076)	(1,436,076)
Balance at the end of the year	26,621,332	-	-	-	-	26,621,332

	2017					Total Baht
	Normal Baht	Special mentioned Baht	Substandard Baht	Doubtful Baht	Doubtful of loss Baht	
Balance at the beginning of the year	15,367,640	-	-	-	7,297,371	22,665,011
Allowance for doubtful accounts (Reversal) (Note 34)	(6,099,390)	-	-	-	-	(6,099,390)
Write-off bad debt	-	-	-	-	(5,861,295)	(5,861,295)
Balance at the end of the year	9,268,250	-	-	-	1,436,076	10,704,326

11 Equipment, net

	Computer equipment Baht	Office equipment Baht	Furniture and fixture Baht	Motor vehicles Baht	Fixed assets in progress Baht	Total Baht
As at 1 January 2017						
Cost	76,598,178	41,085,200	28,018,084	-	-	145,701,462
Less Accumulated depreciation	(69,305,856)	(30,784,078)	(19,210,778)	-	-	(119,300,712)
Net book value	7,292,322	10,301,122	8,807,306	-	-	26,400,750
For the year ended 31 December 2017						
Opening net book value	7,292,322	10,301,122	8,807,306	-	-	26,400,750
Additions	9,064,178	249,037	225,848	-	370,747	9,909,810
Write off, net	(5,290)	(879)	-	-	-	(6,169)
Depreciation charge	(5,128,789)	(4,226,620)	(1,390,533)	-	-	(10,745,942)
Closing net book value	11,222,421	6,322,660	7,642,621	-	370,747	25,558,449
As at 1 January 2018						
Cost	84,287,142	41,242,180	28,243,932	-	370,747	154,144,001
Less Accumulated depreciation	(73,064,721)	(34,919,520)	(20,601,311)	-	-	(128,585,552)
Net book value	11,222,421	6,322,660	7,642,621	-	370,747	25,558,449
For the year ended 31 December 2018						
Opening net book value	11,222,421	6,322,660	7,642,621	-	370,747	25,558,449
Additions	4,328,646	4,914,687	6,590	-	-	9,249,923
Transfer in (out)	-	370,747	-	-	(370,747)	-
Write off, net	(258,632)	(163)	-	-	-	(258,795)
Depreciation charge	(6,364,618)	(2,931,156)	(1,331,463)	-	-	(10,627,237)
Closing net book value	8,927,817	8,676,775	6,317,748	-	-	23,922,340
As at 31 December 2018						
Cost	66,799,551	46,474,651	28,250,522	-	-	141,524,724
Less Accumulated depreciation	(57,871,734)	(37,797,876)	(21,932,774)	-	-	(117,602,384)
Net book value	8,927,817	8,676,775	6,317,748	-	-	23,922,340

12 Intangible assets, net

	Computer software Baht	Total Baht
As at 1 January 2017		
Cost	9,232,810	9,232,810
<u>Less</u> Accumulated amortisation	(6,950,451)	(6,950,451)
Net book value	<u>2,282,359</u>	<u>2,282,359</u>
For the year ended 31 December 2017		
Opening net book value	2,282,359	2,282,359
Amortisation charge	(1,546,891)	(1,546,891)
Closing net book value	<u>735,468</u>	<u>735,468</u>
As at 31 December 2017		
Cost	9,232,810	9,232,810
<u>Less</u> Accumulated amortisation	(8,497,342)	(8,497,342)
Net book value	<u>735,468</u>	<u>735,468</u>
For the year ended 31 December 2018		
Opening net book value	735,468	735,468
Amortisation charge	(735,468)	(735,468)
Closing net book value	<u>-</u>	<u>-</u>
As at 31 December 2018		
Cost	9,232,810	9,232,810
<u>Less</u> Accumulated amortisation	(9,232,810)	(9,232,810)
Net book value	<u>-</u>	<u>-</u>

13 Other assets, net

	2018 Baht	2017 Baht
Leasehold right and leasehold improvement, net	32,877,556	40,487,856
Accrued interest receivables	46,848,168	56,891,567
Prepaid expenses	4,487,516	3,583,752
Account receivables from option sold premium	205	44,828,573
Other receivables	2,845,950	6,310,727
Total other assets, net	<u>87,059,395</u>	<u>152,102,475</u>
The amortisation cost of leasehold right and depreciation of leasehold improvement for the year	<u>7,610,300</u>	<u>8,597,719</u>

14 Deposits

14.1 Classified by types of deposits:

	2018 Baht	2017 Baht
On demand	10,316,820,763	9,425,516,072
Savings	3,506,612,710	3,671,363,813
Fixed	150,000,000	150,000,000
Total deposits	13,973,433,473	13,246,879,885

14.2 Classified by currencies and domiciles of depositors:

	2018		
	Domestic Baht	Foreign Baht	Total Baht
Thai Baht	11,183,287,820	191,387,730	11,374,675,550
US Dollar	2,524,950,378	-	2,524,950,378
Euro	73,807,545	-	73,807,545
Total deposits	13,782,045,743	191,387,730	13,973,433,473

	2017		
	Domestic Baht	Foreign Baht	Total Baht
Thai Baht	9,859,336,905	233,335,259	10,092,672,164
US Dollar	3,125,867,930	-	3,125,867,930
Euro	28,339,791	-	28,339,791
Total deposits	13,013,544,626	233,335,259	13,246,879,885

15 Interbank and money market items (liabilities)

	2018		
	Demand Baht	Time Baht	Total Baht
Domestic items			
Other financial institutions	90,852,302	1,300,000,000	1,390,852,302
Total domestic items	90,852,302	1,300,000,000	1,390,852,302
Foreign items			
Thai Baht	2,072,809	-	2,072,809
Total foreign items	2,072,809	-	2,072,809
Total interbank and money market items	92,925,111	1,300,000,000	1,392,925,111

15 Interbank and money market items (liabilities) (Cont'd)

	2017		
	Demand Baht	Time Baht	Total Baht
Domestic items			
Other financial institutions	22,646,384	1,000,000,000	1,022,646,384
Total domestic items	22,646,384	1,000,000,000	1,022,646,384
Foreign items			
Thai Baht	2,306,478	-	2,306,478
Total foreign items	2,306,478	-	2,306,478
Total interbank and money market items	24,952,862	1,000,000,000	1,024,952,862

16 Financial liabilities designated at fair value through profit or loss

	2018 Baht	2017 Baht
Bill of exchange	17,654,056,525	21,087,565,208
Total financial liabilities designated at fair value through profit or loss	17,654,056,525	21,087,565,208

Proportion of transactions being classified by type of counterparties

	2018 Percentage	2017 Percentage
Third parties	100	100
Total proportion of transactions being classified by type of counterparties	100	100

Changes in fair value due to credit risks

	2018 Baht	2017 Baht
Balance of unrealised gain at beginning of the year	-	6,282,196
Decrease during the year	-	(6,170,073)
Translation adjustment	-	(112,123)
Balance unrealised gain at end of the year	-	-

17 Deferred income tax

The analysis of deferred tax assets and liabilities is as follows:

	2018 Baht	2017 Baht
Deferred tax assets:		
Deferred tax asset to be recovered within 12 months	11,539,476	13,277,113
Deferred tax asset to be recovered after more than 12 months	187,957,500	226,170,725
	<u>199,496,976</u>	<u>239,447,838</u>
Deferred tax liabilities:		
Deferred tax liabilities to be settled within 12 months	(23,554,540)	(32,195,651)
Deferred tax liability to be settled after more than 12 months	-	-
	<u>(23,554,540)</u>	<u>(32,195,651)</u>
Deferred tax assets (liabilities) (net)	<u>175,942,436</u>	<u>207,252,187</u>

The gross movement and the deferred income tax account is as follows:

	2018 Baht	2017 Baht
As at 1 January	207,252,187	183,634,948
Credited to profit or loss	(32,726,703)	24,340,357
Tax (debited) credited in other comprehensive income	1,416,952	(723,118)
As at 31 December	<u>175,942,436</u>	<u>207,252,187</u>

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17 Deferred income tax (Cont'd)

The movement in deferred tax assets and liabilities during the year is as follows:

	Derivative liabilities from option sold premium Baht	Provision for employee benefits Baht	Provision for restricted stock units Baht	Losses on changes in fair value of available-for- sale securities Baht	Provision for derivatives Baht	Losses from change in fair value of financial liabilities under fair value option Baht	Others Baht	Total Baht
Deferred tax assets								
As at 1 January 2018	13,277,112	22,908,711	3,443,391	-	197,597,941	-	2,220,683	239,447,838
Charged (credited) to profit and loss	(1,737,636)	6,009,772	457,977	-	(44,866,031)	-	185,056	(39,950,862)
Recognised in other comprehensive income	-	-	-	-	-	-	-	-
As at 31 December 2018	11,539,476	28,918,483	3,901,368	-	152,731,910	-	2,405,739	199,496,976
Deferred tax assets								
As at 1 January 2017	416,955	12,122,540	3,764,123	167,328	178,755,022	355,616	2,035,626	197,617,210
Charged (credited) to profit and loss	12,860,157	8,738,268	(320,732)	-	18,842,919	(355,616)	185,057	39,950,053
Recognised in other comprehensive income	-	2,047,903	-	(167,328)	-	-	-	1,880,575
As at 31 December 2017	13,277,112	22,908,711	3,443,391	-	197,597,941	-	2,220,683	239,447,838

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17 Deferred income tax (Cont'd)

Deferred tax liabilities					
As at 1 January 2018					
Charged (credited) to profit and loss					
Recognised in other comprehensive income					
As at 31 December 2018					
Deferred tax liabilities					
As at 1 January 2017					
Charged (credited) to profit and loss					
Recognised in other comprehensive income					
As at 31 December 2017					

	Gain on changes in fair value of trading securities Baht	Gain on changes in fair value of available-for- sale securities Baht	option Baht	Derivative assets for premium Baht	Gain from change in fair value of financial liabilities under fair value option Baht	Total Baht
	11,511,857	2,603,693		18,080,101	-	32,195,651
	(3,140,292)	-		(4,083,867)	-	(7,224,159)
	-	(1,416,952)		-	-	(1,416,952)
	8,371,565	1,186,741		13,996,234	-	23,554,540
	6,401,396	-		7,580,866	-	13,982,262
	5,110,461	-		10,499,235	-	15,609,696
	-	2,603,693		-	-	2,603,693
	11,511,857	2,603,693		18,080,101	-	32,195,651

18 Other liabilities

	2018 Baht	2017 Baht
Accrued interest payable	780,618	148,766
Accrued bonuses	62,131,370	51,143,478
Accrued FIDF charges	50,465,541	50,771,493
Cash received in advance from forward contracts	204,617,530	8,871,508
Income tax payable	68,402,573	16,087,526
Withholding tax payable	4,045,254	38,424,247
Others	135,386,997	73,702,095
Total other liabilities	525,829,883	239,149,113

19 Provision for employment benefits plan

Provision for post-employment benefits is for employees with more than 120 days of service and who resign in accordance with the rules and conditions stipulated under the labour laws applicable in Thailand and for long service awards.

As at 31 December 2018 and 2017, the post-employment benefits provided unfunded obligation as follows:

	2018 Baht	2017 Baht
Present value of obligations	141,007,535	111,567,612
Provision for long service award	3,584,881	2,975,943
Total provision for employee benefits plan	144,592,416	114,543,555

Movements of provision for post-employment benefits are as follows:

	2018 Baht	2017 Baht
As at 1 January	111,567,612	57,682,597
Current service costs	26,505,679	17,908,893
Interest costs	2,934,244	2,207,804
Past service costs	-	23,019,000
Remeasurements:		
Actuarial (gains) losses		
- Demographic assumptions	-	3,215,821
- Financial assumptions	-	8,643,277
- Experience	-	(1,109,780)
<u>Less</u> Benefits paid during the year	-	-
As at 31 December	141,007,535	111,567,612

19 Provision for post-employment benefits (Cont'd)

Expenses for post-employment benefits were recognised in the statement of profit or loss and other comprehensive income as follows:

	2018 Baht	2017 Baht
Current service costs	26,505,679	17,908,893
Interest costs	2,934,244	2,207,804
Past service costs	-	23,019,000
Remeasurements	-	10,749,318
Total	29,439,923	53,885,015

Significant assumptions used in the actuarial calculation are summarised as follows:

	2018	2017
Discount rate	2.63%	2.63%
Salary increase rate	11%	11%
Pre-retirement mortality rate	100% of Thai Mortality Ordinary Table 2017	100% of Thai Mortality Ordinary Table 2017
Disability rate	5% of Thai Mortality Ordinary Table 2017	5% of Thai Mortality Ordinary Table 2017
Pre-retirement withdrawal rate	From 5 years historical data	From 5 years historical data
Retirement age	60 years old	60 years old
Turnover rate	8%	8%

Sensitivity analysis on key assumptions changes are as follows:

	Increase (Decrease) 2018 Baht	2017 Baht
Discount rate		
Increase 1%	(15,354,070)	(12,789,630)
Decrease 1%	17,907,290	14,977,440
Salary rate		
Increase 1%	18,316,368	14,104,253
Decrease 1%	(16,008,422)	(12,369,050)
Turnover rate		
Increase 5%	(64,162,743)	(53,107,064)
Decrease 5%	40,765,127	36,617,141

The above sensitivity analyses are based on a change in an assumption while holding all other assumptions constant. In practice, this is unlikely to occur, and changes in some of the assumptions may be correlated. When calculating the sensitivity of the defined benefit obligation to significant actuarial assumptions the same method (present value of the defined benefit obligation calculated with the projected unit credit method at the end of the reporting period) has been applied as when calculating the provision for post-employment benefits recognised within the statement of financial position.

The methods and types of assumptions used in preparing the sensitivity analysis did not change compared to the previous year.

19 Provision for post-employment benefits (Cont'd)

Maturity profile of post-employment benefits is as follows:

	2018	2017
Maturity duration of the post-employment benefits (Years)	19.76	21.12
Maturity analysis of benefits to be paid		
Less than 1 year (Baht)	-	-
Between 1 - 2 years (Baht)	-	-
Between 2 - 5 years (Baht)	20,328,234	6,722,016
Over 5 years (Baht)	1,947,190,478	1,960,796,696

20 Provident fund

The Bank established a contributory registered provident fund in accordance with the Provident Fund Act B.E. 2530, which contributions are made by both the employees and the Bank. For the year ended 31 December 2018, the Bank contributed Baht 14.5 million (31 December 2017: Baht 11.8 million).

21 Provision for share based payment

The restricted stock units of the ultimate parent company, JPMorgan Chase & Co., will be awarded at no cost to employees who are eligible according to the group entity's regulations, upon their grant. The awards are measured at their grant dates based on their fair value. This amount is recognised as an expense evenly over the vesting periods and the head office's equity and balances with other branches under the same entity is treated as a capital contribution. The exercise price of the granted shares is lower of the market price of the shares on the date of grant or the vesting date. The restricted stock units are generally granted annually and can be vested for 50% of granted amount after two years and for another 50% of granted amount after three years. The restricted stock units are converted into shares of JPMorgan Chase & Co. at the vesting date. The employees are able to continue their vesting upon voluntary employment termination, which would be based on the age and year of service requirements. Before vesting, the restricted stock units entitle the recipient to receive cash payments equivalent to dividend paid on the underlying common stocks during the period the restricted stock units are outstanding. However, all of these awards are subject to forfeiture until the vesting date and they contain clawback provisions that may result in cancellation prior to vesting under certain specified circumstances.

21 Provision for share based payment (Cont'd)

The movements in the number of outstanding shares and their related weighted average share prices at the grant dates are as follows:

	Average price Baht per share	Average price USD per share	Number of awards
As at 1 January 2018	2,166.12	66.28	9,157
Granted during the year	3,642.49	112.25	1,814
Exercised during the year	(3,633.20)	111.96	(3,886)
Transferred during the year	2,693.28	83.00	4
As at 31 December 2018	4,868.69	83.00	7,089
As at 1 January 2017	2,055.61	57.37	9,846
Granted during the year	2,753.37	84.25	3,066
Exercised during the year	(2,856.52)	87.41	(3,755)
Transferred during the year	-	-	-
As at 31 December 2017	2,166.12	66.28	9,157

For the year ended 31 December 2018, the total share based payment expense recognised during the year amounting to Baht 9.7 million (31 December 2017: Baht 6.8 million).

22 Capital funds

	2018 Baht	2017 Baht
Assets maintained in accordance with Section 32	11,468,426,747	9,661,140,570
Total funds for maintaining assets in accordance with Section 32 and net balance of inter-office accounts		
Funds for maintaining assets in accordance with Section 32	10,468,403,666	9,494,909,666
Net inter-office balance which branch is debtor of the head office, others branches and subsidiary	1,226,207,375	720,646,405
Total	11,694,611,041	10,215,556,071
Total fund are remitted into Thailand for maintaining assets under section 32	10,468,403,666	9,494,909,666
Total deductions that the Bank of Thailand requires to deduct from capital	-	(735,467)
Capital funds	10,468,403,666	9,494,174,199
Total capital funds to risk weighted assets ratio (%)	16.56	14.27

22 Capital funds (Cont'd)

On 7 June 2018, the Bank received fund injection from JPMorgan Chase Bank, National Association totalling US Dollars 30,000,000 or equals to Baht 957,130,500 from the exchange rate as at 7 June 2018. This funding is for the purpose of supporting the Bank's operations and stabilizing the level of capital adequacy as required under Bank of Thailand regulations, but the Bank did not register this fund as assets maintained in accordance with Section 32.

The Bank will disclose capital maintenance information as at 31 December 2018 in accordance with the notification of the Bank of Thailand Re: Public Disclosure of Capital Maintenance Information for Commercial Banks on its website at www.th.jpmorgan.com within April 2019.

Moreover, the Bank has disclosed information related to Liquidity Coverage Ratio as at 31 December 2018 under the Notification of Bank of Thailand, no. Sor Nor Sor 2/2561, as the above location and date of disclosure.

23 Assets pledged as collateral

The Bank has investments in government securities which are pledged as collaterals for structured bills of exchange. The book values of such securities as at 31 December 2018 amounted to Baht 5,259,057,764 (31 December 2017: Baht 7,536,828,230).

24 Commitments

As at 31 December 2018 and 2017, the Bank has the following commitments (excluding derivatives in Note 7) which were incurred in the normal course of business as follows:

	2018		
	Thai Baht Baht	Foreign currencies Baht	Total Baht
Unused overdraft credit line	680,000,000	-	680,000,000
Unused credit facilities	-	1,882,088,400	1,882,088,400
Total commitments	680,000,000	1,882,088,400	2,562,088,400
	2017		
	Thai Baht Baht	Foreign currencies Baht	Total Baht
Unused overdraft credit line	620,000,000	-	620,000,000
Unused credit facilities	-	2,058,896,700	2,058,896,700
Total commitments	620,000,000	2,058,896,700	2,678,896,700

The management anticipates no material losses as a result of these transactions.

25 Related party transactions

The significant related party transactions are transacted with the Group companies of JPMorgan Chase.

The ultimate parent company is JPMorgan Chase & Co., a company incorporated in the United States of America. JPMorgan Chase Bank, N.A. is a wholly-owned subsidiary of JPMorgan Chase & Co.

Relationships of related parties

Head Office

- JPMorgan Chase & Co.
- JPMorgan Chase Bank, N.A.

Other Branches

- J.P. Morgan Chase Bank Berhad
- JPMorgan Chase Bank, N.A. - London Branch
- JPMorgan Chase Bank, N.A. - Sydney Branch
- JPMorgan Chase Bank, N.A. - Tokyo Branch
- JPMorgan Chase Bank, N.A. - Hong Kong Branch
- JPMorgan Chase Bank, N.A. - Singapore Branch
- JPMorgan Chase Bank, N.A. - Jakarta Branch
- JPMorgan Chase Bank, N.A. - Manila Branch
- JPMorgan Chase Bank, N.A. - Mumbai Branch

Fellow subsidiaries

- J.P. Morgan (S.E.A.) Limited
- J.P. Morgan A.G.
- J.P. Morgan International Finance Limited
- J.P. Morgan Securities (Asia Pacific) Limited
- J.P. Morgan Securities (Thailand) Limited
- J.P. Morgan Ventures Energy Corporation
- J.P. Morgan Securities Plc - Paris Branch
- J.P. Morgan Australia Ltd.
- J.P. Morgan Overseas Capital Corporation
- J.P. Morgan Securities Plc. - Frankfurt Branch
- J.P. Morgan Securities Asia Private Limited
- J.P. Morgan Securities LLC
- J.P. Morgan Securities Plc
- JPMorgan Securities Japan Co., Ltd.
- J.P. Morgan Treasury Technology Corporation
- J.P. Morgan Europe Limited
- J.P. Morgan Securities Plc - Zurich Branch

25 Related party transactions (Cont'd)

The significant related party transactions, outstanding balances as of 31 December 2018 and 2017 and income and expenses for the years then ended 31 December 2018 and 2017 consisted of the followings:

	2018	2017
	Million Baht	Million Baht
Statements of financial position		
Interbank and money market items, net (assets)		
J.P. Morgan, A.G.	126	142
Interbank and money market items (liabilities)		
J.P. Morgan Securities (Thailand) Ltd.	1,391	1,023
Provision for share based payment		
J.P. Morgan Chase & Co	20	17
Net balance of inter-office accounts with Head Office and other branches under the same entity		
JPMorgan Chase Bank, N.A.	(1,257)	(746)
Other Branches	31	25
Off statement of financial position with Head office, Other branches and Fellow subsidiaries		
Commitments	689,049	540,596
Statements of profit or loss and other comprehensive income with Head office, Other branches and Fellow subsidiaries		
Interest expense	37	26
Fees and service incomes	17	15
Other operating income	292	182
Employee expenses	10	7
Fees and services expenses and other expenses	482	468

Transactions between the Bank and related parties had been priced at and contain similar conditions with the Bank's general customers and conformed to normal course of banking business practice.

26 Important position and performance classified by type of domestic or foreign transactions

26.1 Position classified by type of transaction

	2018			2017		
	Domestic Million Baht	Foreign Million Baht	Total Million Baht	Domestic Million Baht	Foreign Million Baht	Total Million Baht
Total assets	65,601	-	65,601	62,685	-	62,685
Interbank and money market items, net (assets)	6,790	-	6,790	9,773	-	9,773
Accounts receivable from securities trading	687	-	687	832	-	832
Investments, net	32,957	-	32,957	31,684	-	31,684
Loans to customers and accrued interest receivables, net	2,634	-	2,634	921	-	921
Deposits	13,973	-	13,973	13,247	-	13,247
Interbank and money market items (liabilities)	1,393	-	1,393	1,025	-	1,025
Accounts payable from securities trading	840	-	840	1,078	-	1,078
Financial liabilities designated at fair value through profit or loss	17,654	-	17,654	21,088	-	21,088

26.2 Performance classified by types of transaction

	2018			2017		
	Domestic Million Baht	Foreign Million Baht	Total Million Baht	Domestic Million Baht	Foreign Million Baht	Total Million Baht
Interest income	776	-	776	808	-	808
Interest expense	(208)	-	(208)	(167)	-	(167)
Net interest income	568	-	568	641	-	641
Net fee and service income	22	-	22	17	-	17
Other operating incomes	1,230	-	1,230	225	-	225
Other operating expenses	(915)	-	(915)	(1,015)	-	(1,015)
Profit (loss) before income tax	905	-	905	(131)	-	(131)

27 Interest income

	2018 Baht	2017 Baht
Interbank and money market items, net (assets)	115,613,851	75,405,997
Investments and trading transactions	350,083,552	421,423,582
Investments in debt securities, available-for-sales	264,771,208	270,905,868
Loans to customers	45,168,211	40,542,105
Total interest income	775,636,822	808,277,552

28 Interest expense

	2018 Baht	2017 Baht
Deposits	64,057,984	42,179,130
Interbank and money market items (liabilities)	37,754,729	27,026,683
Contribution fee to the Deposit Protection Agency and Financial Institution Development Fund	105,044,336	96,595,222
Others	778,827	780,672
Total interest expense	<u>207,635,876</u>	<u>166,581,707</u>

29 Fee and service income

	2018 Baht	2017 Baht
Money transfer and collection services	14,735,423	11,930,675
Fee relating to letter of credit	827	25,110
Service fees from related companies (Note 25)	16,628,682	14,628,720
Others	4,818,419	4,810,279
Total fee and service income	<u>36,183,351</u>	<u>31,394,784</u>

30 Gains on trading and foreign exchange transactions

	2018 Baht	2017 Baht
Gains on foreign currencies and foreign exchange rate derivatives	567,639,935	511,192,396
Gains on interest rate derivatives	9,395,721	1,273,961,909
Gains (losses) on debt securities	(145,459,879)	96,672,294
Others	90,031,086	1,317,287,452
Total gains on trading and foreign exchange transactions	<u>521,606,863</u>	<u>3,199,114,051</u>

31 Gains (losses) from financial liabilities designated at fair value through profit or loss

	2018 Baht	2017 Baht
Changes in fair value of:		
Bill of exchange	1,583,754,500	(2,877,703,595)
Settlement during the year	4,660,156	-
Losses on redemption and interest expense paid	(1,171,602,068)	(277,932,219)
Total gains (losses) from financial liabilities designated at fair value through profit or loss	<u>416,812,588</u>	<u>(3,155,635,814)</u>

Changes in fair value include changes in fair value due to credit risks are as follows:

	2018 Baht	2017 Baht
Charges in fair value due to change in credit risks	-	(6,170,073)

32 Other operating income

	2018 Baht	2017 Baht
Revenue sharing from related parties (Note 25)	291,566,004	181,776,312
Others	-	23,014
Total other operating income	<u>291,566,004</u>	<u>181,799,326</u>

33 Other expenses

	2018 Baht	2017 Baht
Service fees to related companies (Note 25)	481,597,476	467,776,159
Brokerage commissions	14,355,930	10,981,543
Others	54,393,676	53,104,640
Total other expenses	<u>550,347,082</u>	<u>531,862,342</u>

34 Bad debt and doubtful accounts (Reversal)

	2018 Baht	2017 Baht
Interbank and money market items, net	(81,720,000)	22,370,000
Loans (Note 10)	17,353,082	(6,099,390)
Total bad debt and doubtful accounts	<u>(64,366,918)</u>	<u>16,270,610</u>

35 Income tax expense

	2018 Baht	2017 Baht
Current income tax:		
Current income tax on profits for the year	160,023,777	87,219,410
Total current income tax	<u>160,023,777</u>	<u>87,219,410</u>
Deferred income tax:		
Origination and reversal of temporary differences	32,726,703	(24,340,357)
Total deferred income taxes	<u>32,726,703</u>	<u>(24,340,357)</u>
Total income tax expense	<u>192,750,480</u>	<u>62,879,053</u>

The income tax on profits before tax of the Bank differs from the theoretical amount that would arise using the basic income tax rate of the home country of the Bank as follows:

	2018 Baht	2017 Baht
Profit (loss) before tax	905,021,809	(130,861,853)
Tax calculated at a tax rate of 20%	181,004,362	(26,172,371)
Tax effect of:		
Expenses not deductible for tax purpose	11,746,118	89,051,424
Income tax charge	<u>192,750,480</u>	<u>62,879,053</u>

The weighted average applicable income tax rate was 21% (31 December 2017: 48%).

36 Financial risk management

Strategy in using financial instruments

The Bank has developed and implemented comprehensive policies and procedures to identify, mitigate, and monitor risk across the entity, which are based on JPMorgan Chase policies. These practices rely on constant communication, judgment, and knowledge of products and markets by the people closest to them, combined with regular oversight by a central risk management group and senior management.

(a) Credit risk

Credit risk is the risk of losses resulting from failure by the Bank's counterparties and customers to meet their obligations. The carrying amount of cash, interbank and money market, investments in debts, loans to and accrued interest receivables, accounts receivable from securities trading and commitments represent the maximum exposure of the Bank to credit risk. With respect to derivative financial instruments, the maximum credit exposure of the Bank is represented by the positive fair values, mainly pertaining to derivative transactions with financial institutions, including intercompany balances.

"Know Your Customer" is the key element to credit risk management.

JPMorgan Chase has developed policies and practices that are designed to ensure that credit risks are accurately assessed, properly approved, continuously monitored and actively managed at both the transaction and portfolio levels. The policy framework establishes credit approval authorities, concentration limits, risk-rating methodologies, portfolio-review parameters and problem-loan management.

The Bank's capital will be committed following thorough research and analysis, utilising all expertise appropriately available in the utilising which may contribute to the bank risk assessment. Certain transactions will require special approval due to their risk attributes or level of sensitivity.

Officers with Credit Approval Authority are expected to understand the credit policies, guidelines and procedures applicable to their responsibilities.

The new business initiative process requires a thorough understanding of the credit risk (and all other forms of risk) inherent in all proposed activities or undertakings. New initiatives will only be introduced after appropriate new control systems are implemented, in accordance with the Bank's New Business Initiative Process.

Exposure to credit risk is managed through regular analysis of the ability of borrowers and potential borrowers to meet interest and principal repayment obligations and by changing these lending limits where appropriate. Exposure to credit risk is also managed in part by obtaining collateral if applicable.

36 Financial risk management (Cont'd)

(a) Credit risk (Cont'd)

1) Derivatives

The Bank maintains strict control limits on net open derivative positions (i.e., the difference between purchase and sale contracts), by both amount and term. At any one time, the amount subject to credit risk is limited to the current fair value of instruments that are favourable to the Bank (i.e., assets which their fair value is positive), which in relation to derivatives is only a small fraction of the contract, or notional values used to express the volume of instruments outstanding. This credit risk exposure is managed as part of the overall lending limits with customers, together with potential exposures from market movements. Collateral or other security is not usually obtained for credit risk exposures on these instruments, except where the Bank requires margin deposits from counterparties.

2) Master netting arrangements

The Bank further restricts its exposure to credit losses by entering into master netting arrangements with counterparties with which it undertakes a significant volume of transactions. Master netting arrangements do not generally result in an offset of statement of financial position assets and liabilities, as transactions are usually settled on a gross basis. However, the credit risk associated with favourable contracts is reduced by a master netting arrangement to the extent that if an event of default occurs, all amounts with the counterparty are terminated and settled on a net basis. The Bank's overall exposure to credit risk on derivative instruments subject to master netting arrangements can change substantially within a short period, as it is affected by each transaction subject to the arrangement.

3) Credit-related commitments

The primary purpose of these instruments is to ensure that funds are available to a customer as required. Guarantees and standby letters of credit, which represent irrevocable assurances that the Bank will make payments in the event that a customer cannot meet its obligations to third parties, carry the same credit risk as loans. Documentary and commercial letters of credit which are written undertakings by the Bank on behalf of a customer authorising a third party to draw the drafts on the Bank up to a stipulated amount under specific terms and conditions are collateralised by the underlying shipments of goods to which they relate and therefore carry less risk than a direct borrowing.

Commitments to extend credit represent unused portions of authorisations to extend credit in the form of loans, guarantees or letters of credit. With respect to credit risk on commitments to extend credit, the Bank is potentially exposed to loss in an amount equal to the total unused commitments. However, the potential loss may be less than the total unused commitments, as most commitments to extend credit are contingent upon customers maintaining specific credit standards. The Bank monitors the term to maturity of credit commitments because longer-term commitments generally have a greater degree of credit risk than shorter-term commitments.

36 Financial risk management (Cont'd)

(b) Interest rate risk

Interest rate risk is the risk that future movements in market interest rates will affect the results of the Bank's operations. Sensitivity to interest rates arises from mismatches in the interest rate characteristics of the assets and their corresponding funding liability. One of the major causes of these mismatches is timing differences in the repricing of the assets and liabilities. These mismatches are actively managed by the Branch and its Head Office as part of the overall risk management process which is conducted within internal guidelines and in conjunction with market risk.

As at 31 December 2018 and 2017, financial assets and liabilities classified by type of interest rate were as follows:

Descriptions	2018			Total Million Baht
	Floating interest rate Million Baht	Fixed interest rate Million Baht	Non-interest bearing Million Baht	
Financial assets				
Cash	-	-	4	4
Interbank and money market items, net	811	5,467	512	6,790
Accounts receivable from securities trading	-	-	687	687
Investments, net	-	32,957	-	32,957
Loan to customers and accrued interest receivables from deferred revenue	1,621	1,040	-	2,661
Other financial assets	-	-	50	50
Total financial assets	2,432	39,464	1,253	43,149
Financial liabilities				
Deposits	-	13,480	493	13,973
Interbank and money market items	91	1,300	2	1,393
Accounts payable from securities trading	-	-	840	840
Demand liabilities	-	-	40	40
Other financial liabilities	-	-	445	445
Total financial liabilities	91	14,780	1,820	16,691
Descriptions	2017			Total Million Baht
	Floating interest rate Million Baht	Fixed interest rate Million Baht	Non-interest bearing Million Baht	
Financial assets				
Cash	-	-	3	3
Interbank and money market items, net	197	8,837	821	9,855
Accounts receivable from securities trading	-	-	832	832
Investments, net	-	31,684	-	31,684
Loan to customers and accrued interest receivables from deferred revenue	139	791	1	931
Other financial assets	-	-	110	110
Total financial assets	336	41,312	1,767	43,415
Financial liabilities				
Deposits	-	12,431	816	13,247
Interbank and money market items	23	1,000	2	1,025
Accounts payable from securities trading	-	-	1,078	1,078
Demand liabilities	-	-	52	52
Other financial liabilities	-	-	167	167
Total financial liabilities	23	13,431	2,115	15,569

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36 Financial risk management (Cont'd)

(b) Interest rate risk (Cont'd)

As at 31 December 2018 and 2017, financial assets and liabilities classified by type of interest rate were as follows: (Cont'd)

2018								
Transactions	Repricing or maturity date					Non-Performing loans Million Baht	Non-interest bearing Million Baht	Total Million Baht
	At call Million Baht	0 - 3 months Million Baht	3 - 12 months Million Baht	1 - 5 years Million Baht	Over 5 years Million Baht			
Financial assets								
Cash	-	-	-	-	-	-	4	4
Interbank and money market items, net	162	5,467	-	649	-	-	512	6,790
Accounts receivable from securities trading	-	-	-	-	-	-	687	687
Investments, net	-	12,739	13,341	4,735	2,142	-	-	32,957
Loans to customers and accrued interest receivables net from deferred revenue	2,031	488	143	-	-	-	-	2,661
Other financial assets	-	-	-	-	-	-	50	50
Total financial assets	2,193	18,694	13,484	5,384	2,142	-	1,253	43,149
Financial liabilities								
Deposits	13,330	150	-	-	-	-	493	13,973
Interbank and money market items	91	1,300	-	-	-	-	2	1,393
Accounts payable from securities trading	-	-	-	-	-	-	840	840
Demand liabilities	-	-	-	-	-	-	40	40
Other financial liabilities	-	-	-	-	-	-	445	445
Total financial liabilities	13,421	1,450	-	-	-	-	1,820	16,691
2017								
Transactions	Repricing or maturity date					Non-Performing loans Million Baht	Non-interest bearing Million Baht	Total Million Baht
	At call Million Baht	0 - 3 months Million Baht	3 - 12 months Million Baht	1 - 5 years Million Baht	Over 5 years Million Baht			
Financial assets								
Cash	-	-	-	-	-	-	3	3
Interbank and money market items, net	197	8,837	-	-	-	-	821	9,855
Accounts receivable from securities trading	-	-	-	-	-	-	832	832
Investments, net	-	11,928	10,486	6,873	2,397	-	-	31,684
Loans to customers and accrued interest receivables net from deferred revenue	139	412	292	87	-	1	-	931
Other financial assets	-	-	-	-	-	-	110	110
Total financial assets	336	21,177	10,778	6,960	2,397	1	1,766	43,415
Financial liabilities								
Deposits	12,281	-	150	-	-	-	816	13,247
Interbank and money market items	23	1,000	-	-	-	-	2	1,025
Accounts payable from securities trading	-	-	-	-	-	-	1,078	1,078
Demand liabilities	-	-	-	-	-	-	52	52
Other financial liabilities	-	-	-	-	-	-	167	167
Total financial liabilities	12,304	1,000	150	-	-	-	2,113	15,569

36 Financial risk management (Cont'd)

(b) Interest rate risk (Cont'd)

The outstanding balances of loans which have floating interest rates or fixed interest rates include loans on which interest recognition is discontinued (presented before deducting allowance for doubtful account losses).

The average balances of the financial assets and liabilities of the Bank generating revenues and expenses, calculated based on the average balances outstanding during the period, and the average interest rate the years ended 31 December 2018 and 2017, can be summarised as follows:

	2018			2017		
	Average balances Million Baht	Interest and dividend Million Baht	Average rate (%)	Average balances Million Baht	Interest and dividend Million Baht	Average rate (%)
<u>Performing financial assets</u>						
Interbank and money market items, net	8,776	116	1.32	5,913	75	1.27
Investments, net	31,837	615	1.93	32,837	692	2.11
Loans to customers and accrued interest receivables	1,810	45	2.50	1,152	41	3.52
Total	42,423	776		39,902	808	
<u>Performing financial liabilities</u>						
Deposits	13,270	64	0.48	11,111	42	0.38
Interbank and money market items	1,073	38	3.52	1,080	27	2.50
Total	14,343	102		12,191	69	

36 Financial risk management (Cont'd)

(c) Currency risk

Currency risk is the risk to earnings and value of financial instruments caused by the fluctuations in foreign exchange rates. It is managed in conjunction with market risk.

The Bank manages currency risk within the limit which is approved by the Thailand Risk Committee. In addition, the Bank limits the net foreign currency position of each currency at 15% of the total fund of the Bank, and limits the net foreign currency in aggregate of every currency at 20% of total funds of the Bank. The ratio is complied with the regulation of the Bank of Thailand.

The following table presents a currency analysis for monetary assets and liabilities on statement of financial position as at 31 December 2018 and 2017 as follow:

	2018				Total Million Baht
	Baht Million Baht	US Dollar Million Baht	Japanese Yen Million Baht	Others Million Baht	
Cash	4	-	-	-	4
Interbank and money market items, net	5,979	649	-	162	6,790
Accounts receivable from securities trading	687	-	-	-	687
Financial derivative assets	10,903	10,396	549	394	22,242
Investments, net	32,957	-	-	-	32,957
Loans to customers and accrued interest receivables net from deferred revenue	2,661	-	-	-	2,661
Other financial assets	45	5	-	-	50
Total assets	53,236	11,050	549	556	65,391
Deposits	11,375	2,525	-	73	13,973
Interbank and money market items	1,393	-	-	-	1,393
Accounts payable from securities trading	840	-	-	-	840
Demand liabilities	40	-	-	-	40
Financial liabilities designated at fair value through profit or loss	17,654	-	-	-	17,654
Financial derivative liabilities	4,775	8,995	3,024	1,761	18,555
Other financial liabilities	159	254	-	32	445
Total liabilities	36,236	11,774	3,024	1,866	52,900
Net foreign currency position in the statement of financial position	17,000	(724)	(2,475)	(1,310)	12,491

36 Financial risk management (Cont'd)

(c) Currency risk (Cont'd)

The following table presents a currency analysis for monetary assets and liabilities on statement of financial position as at 31 December 2018 and 2017 as follow: (Cont'd)

	2017				
	Baht Million Baht	US Dollar Million Baht	Japanese Yen Million Baht	Others Million Baht	Total Million Baht
Cash	3	-	-	-	3
Interbank and money market items, net	9,658	-	-	197	9,855
Accounts receivable from securities trading	832	-	-	-	832
Financial derivative assets	12,651	5,158	296	982	19,087
Investments, net	31,655	-	29	-	31,684
Loans to customers and accrued interest receivables net from deferred revenue	931	-	-	-	931
Other financial assets	60	50	-	-	110
Total assets	55,790	5,208	325	1,179	62,502
Deposits	10,093	3,126	-	28	13,247
Interbank and money market items	1,025	-	-	-	1,025
Accounts payable from securities trading	1,078	-	-	-	1,078
Demand liabilities	52	-	-	-	52
Financial liabilities designated at fair value through profit or loss	21,088	-	-	-	21,088
Financial derivative liabilities	5,184	7,473	2,623	274	15,554
Other financial liabilities	100	67	-	-	167
Total liabilities	38,620	10,666	2,623	302	52,211
Net foreign currency position in the statement of financial position	17,170	(5,458)	(2,298)	877	10,291

(d) Liquidity risk

Liquidity risk is the risk that a firm, although solvent, either does not have available sufficient financial resources to enable it to meet its obligations as they fall due, or can secure such resources only at excessive cost. The Bank's liquidity management framework is intended to maximise liquidity access and minimise funding costs. Management uses a variety of measures to mitigate liquidity and related risks, taking into consideration market conditions, funding needs and the profile of the location's liability base.

Treasury is responsible for day to day oversight and management of the liquidity of the Bank, and for ensuring compliance with regulations and the liquidity risk management policy. It is responsible for monitoring, managing and reporting the liquidity risk profile for the Bank. It formulates the location's liquidity strategies, including contingency planning; monitors cash flow requirements to determine potential funding gaps; maintains ongoing interaction with lines of business to track funding and business trends; and through all of the above seeks to avoid funding stress through early detection of liquidity issues.

36 Financial risk management (Cont'd)

(d) Liquidity risk (Cont'd)

The liquidity management framework has well-defined roles and responsibilities. Daily liquidity risk management tools are used by local Treasury traders to monitor the liquidity profile of the Bank. Funding limits and guidelines have been established, which in conjunction with the monthly liquidity stress tests provide assurance that sufficient funding is available even during periods of market stress.

The following table presents a maturity analysis for monetary assets and liabilities on statement of financial position as at 31 December 2018 and 2017.

	2018						
	At call Million Baht	Within 3 months Million Baht	3 to 12 months Million Baht	1 to 5 years Million Baht	Over 5 years Million Baht	No maturity Million Baht	Total Million Baht
Cash	4	-	-	-	-	-	4
Interbank and money market items, net	675	5,466	-	649	-	-	6,790
Accounts receivable from securities trading	-	687	-	-	-	-	687
Financial derivative assets	-	3,738	2,668	6,063	9,773	-	22,242
Investments, net	-	12,739	13,341	4,735	2,142	-	32,957
Loans to customers and accrued interest receivables net from deferred revenue	2,031	488	142	-	-	-	2,661
Other financial assets	-	38	12	-	-	-	50
Total assets	2,710	23,156	16,163	11,447	11,915	-	65,391
Deposits	13,823	150	-	-	-	-	13,973
Interbank and money market items	93	1,300	-	-	-	-	1,393
Accounts payable from securities trading	-	840	-	-	-	-	840
Demand liabilities	40	-	-	-	-	-	40
Financial liabilities designated at fair value through profit or loss	-	-	-	5,743	11,911	-	17,654
Financial derivative liabilities	-	4,262	2,599	5,302	6,392	-	18,555
Other financial liabilities	-	445	-	-	-	-	445
Total liabilities	13,956	6,997	2,599	11,045	18,303	-	52,900
Liquidity, net	(11,246)	16,159	13,564	402	(6,388)	-	12,491

36 Financial risk management (Cont'd)

(d) Liquidity risk (Cont'd)

The following table presents a maturity analysis for monetary assets and liabilities on statement of financial position as at 31 December 2018 and 2017. (Cont'd)

	2017						Total Million Baht
	At call Million Baht	Within 3 months Million Baht	3 to 12 months Million Baht	1 to 5 years Million Baht	Over 5 years Million Baht	No maturity Million Baht	
Cash	3	-	-	-	-	-	3
Interbank and money market items, net	1,017	8,838	-	-	-	-	9,855
Accounts receivable from securities trading	-	832	-	-	-	-	832
Financial derivative assets	-	1,962	1,732	5,888	9,505	-	19,087
Investments, net	-	11,928	10,486	6,873	2,397	-	31,684
Loans to customers and accrued interest receivables net from deferred revenue	139	412	292	87	-	1	931
Other financial assets	-	100	10	-	-	-	110
Total assets	1,159	24,072	12,520	12,848	11,902	1	62,502
Deposits	13,097	150	-	-	-	-	13,247
Interbank and money market items	25	1,000	-	-	-	-	1,025
Accounts payable from securities trading	-	1,078	-	-	-	-	1,078
Demand liabilities	52	-	-	-	-	-	52
Financial liabilities designated at fair value through profit or loss	-	-	-	5,870	15,218	-	21,088
Financial derivative liabilities	-	3,197	2,550	5,076	4,731	-	15,554
Other financial liabilities	-	167	-	-	-	-	167
Total liabilities	13,174	5,592	2,550	10,946	19,949	-	52,211
Liquidity, net	(12,015)	18,480	9,970	1,902	(8,047)	1	10,291

The table above classified monetary assets and liabilities of the Bank into relevant maturity groupings based on the remaining period at statement of financial position date to the contractual maturity date. It is unusual for banks to have completely matched maturities since business transactions are often of uncertain terms and of different types. In addition, the Bank obtains a large proportion of domestic funding from customer deposits, interbank and money market item and financial liabilities under fair value option, and foreign funding from Head Office and other branches abroad. The Bank has demonstrated that a substantial level of such funding provides a stable source of long term funding for the Bank.

37 Management benefits

	2018 Baht	2017 Baht
Short-term employee benefits	102,031,915	106,849,415
Post-employment benefits	11,067,044	8,918,789
Share based payment	5,787,906	5,858,937

38 Long-term lease commitment

The Bank has signed a 30 years lease agreement for the office space. The termination date of the lease agreement is 31 July 2023. The lump-sum rental fee was paid when the contract was signed. The amortisation of the prepaid amount to rental expense is approximately Baht 405,180 per month. The Bank has the right to transfer the leasehold right or to sub-lease the office space, either all or partial, to the third parties without a prior written consent from the lessor. When the lease agreement is terminated under any circumstances, the Bank is obligated to remove all assets and to restore the office to proper conditions at its own expense within 60 days.

As at 31 December 2018 and 2017, the Bank has payment obligations for capital commitment of operating leases for offices as follows:

	2018 Baht	2017 Baht
Due within 1 year	11,055,728	4,473,382
Due more than 1 years but no later than 5 years	24,967,249	5,687,839
Due more than 5 years	-	35,000
Total	<u>36,022,977</u>	<u>10,196,211</u>

39 Fair value

39.1 Fair value measurement

The fair value of the financial instruments are defined into the following three different levels by valuation method as follows:

1. Quoted prices (unadjusted) in active markets for identical assets or liabilities (Level 1).
2. Inputs other than quoted prices included within level 1 that are observable for the asset or liability, either directly (that is, as prices) or indirectly (that is, derived from prices) (Level 2).
3. Inputs for the asset or liability that are not based on observable market data (that is, unobservable inputs) (Level 3).

39 Fair value (Cont'd)

39.1 Fair value measurement (Cont'd)

The financial assets and liabilities that are measured at fair value as at 31 December 2018 and 2017 as follows:

	Book value Million Baht	2018 Fair value			Total Million Baht
		Level 1 Million Baht	Level 2 Million Baht	Level 3 Million Baht	
Assets					
Financial derivatives assets	22,242	-	22,242	-	22,242
Investment, net	32,957	-	32,957	-	32,957
Total assets	55,199	-	55,199	-	55,199
Liabilities					
Financial liabilities designated at fair value through profit or loss	17,654	-	-	17,654	17,654
Financial derivatives liabilities	18,555	-	18,555	-	18,555
Total liabilities	36,209	-	18,555	17,654	36,209
2017					
	Book value Million Baht	Fair value			Total Million Baht
		Level 1 Million Baht	Level 2 Million Baht	Level 3 Million Baht	
Assets					
Financial derivatives assets	19,087	-	19,087	-	19,087
Investment, net	31,684	-	31,684	-	31,684
Total assets	50,771	-	50,771	-	50,771
Liabilities					
Financial liabilities designated at fair value through profit or loss	21,088	-	-	21,088	21,088
Financial derivatives liabilities	15,554	-	15,554	-	15,554
Total liabilities	36,642	-	15,554	21,088	36,642

There were no transfers between Levels 1 and 2 during the year.

39 Fair value (Cont'd)

39.2 Valuation techniques used to derive level 2 and 3 fair values

Derivatives

Derivatives that are valued using models such as the Black-Scholes option pricing model, simulation models or a combination of models, that use observables or unobservable valuation inputs.

Input include:

- Contractual terms including the period to maturity
- Readily observable parameters including interest rates and volatility
- Credit quality of the counterparty and of the Bank
- Market funding levels
- Correlation levels

In addition, the following specific inputs are used for the following derivatives that are valued based on models with significant unobservable inputs:

Structured credit derivatives, specific inputs include:

- CDS spreads and recovery rates
- Credit correlation between the underlying debt instruments
- Actual transactions, where available, are used to regularly recalibrate unobservable parameters

Derivatives related to interest rate and exchange rate which are complexed, specific inputs include:

- Interest rate correlation
- Volatility of interest rate spread
- Exchange rate correlation
- Correlation between interest rate and exchange rate
- Parameters explaining the reference interest rate

Commodity derivatives, specific inputs include:

- Commodity volatility
- Forward commodity price

Additionally, adjustments are made to reflect counterparty credit quality (credit valuation adjustments or "CVA") and funding valuation adjustment ("FVA") to incorporate the impact of funding.

Debt investments are fair valued using a discounted cash flow approach, which discounts the contractual cash flows using discount rates derived from observable market prices of other quoted debt instruments of the counterparties.

Investments

Fair value of trading and available-for-sale debt securities are calculated using the last quoted bid price or using the discounted cash flow by reference to the risk-free yield curve adjusted by an appropriate risk premium.

39 Fair value (Cont'd)

39.3 Fair value measurements using significant unobservable inputs (Level 3)

	Financial liabilities designated at fair value	
	2018 Million Baht	2017 Million Baht
As at 1 January	21,088	17,861
Total unrealised (gains) losses recognised in profit and loss	(1,584)	2,877
New issuance	417	450
Settlement and redemption	(2,267)	(100)
As at 31 December	17,654	21,088

The ranges of unobservable inputs for interest rate correlation are (30%) - 50% (31 December 2017: (30%) - 50%) and Credit quanto are (40%) - (10%) (31 December 2017: (40%) - (10%)).

There were no other changes in valuation techniques during the year.

39.4 Bank's valuation processes

Risk-taking functions are responsible for providing fair value estimates for assets and liabilities carried on the statement of financial position at fair value. The Bank's valuation control function is responsible for verifying these estimates and determining any fair value adjustments that may be required to ensure that the Bank's positions are recorded at fair value.

The Model Risk function is independent of the model owners and reviews and approves a wide range of models, including risk management, valuation and certain regulatory capital models used by the Bank. The Model Risk function performs an annual firmwide model risk assessment where developments in the product or market are considered in determining whether valuation models which have already been reviewed need to be reviewed and approved again.

39.5 Fair value of financial assets and liabilities measured at amortised cost

The financial assets and liabilities that are not measured at fair value as at 31 December 2018 and 2017 are as follows;

	Book value Million Baht	2018 Fair value			Total Million Baht
		Level 1 Million Baht	Level 2 Million Baht	Level 3 Million Baht	
Assets					
Cash	4	4	-	-	4
Interbank and money market items, net	6,790	674	6,116	-	6,790
Accounts receivable from securities trading	687	687	-	-	687
Loans to customers and accrued interest receivables, net	2,661	-	2,661	-	2,661
Total assets	10,142	1,365	8,777	-	10,142
Liabilities					
Deposits	13,973	-	13,973	-	13,973
Interbank and money market items	1,393	93	1,300	-	1,393
Accounts payable from securities trading	840	840	-	-	840
Liability payable on demand	40	40	-	-	40
Total liabilities	16,246	973	15,273	-	16,246

39 Fair value (Cont'd)

39.5 Fair value of financial assets and liabilities measured at amortised cost (Cont'd)

The financial assets and liabilities that are not measured at fair value as at 31 December 2018 and 2017 are as follows; (Cont'd)

	2017				
	Book value Million Baht	Fair value			Total Million Baht
		Level 1 Million Baht	Level 2 Million Baht	Level 3 Million Baht	
Assets					
Cash	3	3	-	-	3
Interbank and money market items, net	9,773	1,017	8,756	-	9,773
Accounts receivable from securities trading	832	832	-	-	832
Loans to customers and accrued interest receivables, net	921	-	921	-	921
Total assets	11,529	1,852	9,677	-	11,529
Liabilities					
Deposits	13,247	-	13,247	-	13,247
Interbank and money market items	1,025	25	1,000	-	1,025
Accounts payable from securities trading	1,078	1,078	-	-	1,078
Liability payable on demand	52	52	-	-	52
Total liabilities	15,402	1,155	14,247	-	15,402

Other financial instruments not carried at fair value are typically short-term in nature and reprice to current market rate frequently. Accordingly, their carrying amount is a reasonable approximation of fair value. This includes cash, saving deposits and current deposits presented as both interbank and money market assets and liabilities items, account receivable from securities trading, saving deposits and current deposits, account payable from securities trading and liabilities payable on demand.

Fair value of the following assets and liabilities are estimated for the purpose of disclosure as described below:

Loans to customers and accrued interest receivable, net

The fair value is the outstanding balance of loans and accrued interest less allowance for doubtful accounts. The majority of loans are fixed rate. The management has assessed the existing effective rate of the outstanding loans is a reasonable approximation of market effective rate.

Interbank and money market items

The interbank and money market items (assets) are loans to financial institutions which are short-term or at call. Accordingly, their carrying amount is a reasonable approximation of fair value.

The interbank and money market items (liabilities) are borrowing and fixed deposits which are short-term. Accordingly, their carrying amount is a reasonable approximation of fair value.

Deposits

The deposits are on demand, savings and fixed deposits which are short-term. Accordingly, their carrying amount is a reasonable approximation of fair value.